Title

Community-Campus Partnerships in Australian Medical Education: extending placements beyond the ward and waiting room.

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Thesis Summary

This thesis examined placement programs for medical students that place them in non-clinical community organizations such as welfare agencies or schools. It discovered that these programs seem to be particularly effective in developing community aware medical students with a more enhanced understanding of health than is generally possible in the traditional medical curriculum. This comes directly from the experiential nature of their placements working with health support organisations deeply rooted in community and with staff who bring a range of health support skills experience and understanding not normally found in hospitals and clinics.

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9th October 2015

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1 Acknowledgments

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2 Summary of Aim & Questions

2.1 Aim

The specific aim of the thesis is to explore how, in medical education, placement programs can be built around authentic community engagement. This represents a significant extension of traditional Flexnerian style hospital and clinical clerkships into generally non-clinical community organisations supporting community health. This can result in enabling better development of community aware doctors through two distinctive outcomes:

- Improved capacity for medical faculties to develop community focused skills and understanding for their medical students as future doctors;
- Authentic engagement between university and community organisations, resulting in benefits to all key stakeholders.

2.2 Key Research Question

In medical education, are non-clinical placement programs that are built around university/community partnerships transformative for students, faculties and community partners?

This research question addresses two aspects of community-based non-clinical placement programs:

- Their definition and the nature of their engagement with community; and
- Their transformative power for each of the stakeholder groups including the university, its students, the community organisations and their clients.

2.3 Subsidiary Research Questions

The key research question can be addressed through three subsidiary research questions:

1 What are the defining features of non-clinical community based placement programs and how do they relate to the general category of community based medical education CBME?

2 To what extent can such programs transform the attitudes and understanding of students, assisting their development as community aware doctors?

3 To what extent can community organisations gain through their partnerships with the university?

4 To what extent can the university faculty gain through its partnership with community organisations?

3 Introduction

3.1 Background to the study

Student placements are integral to medical education. They take a variety of flavours within any course and across courses. As is to be expected almost all placements have, however, one thing in common: they are clinical in nature and take place in hospital wards or in medical clinics, including in some areas such as Victoria, Australia, Community Health Services when these have General Practitioners (GP's) on staff. The hospitals will usually be tertiary but may cover quaternary, secondary, primary or ambulatory care in urban or rural settings. The clinics may be highly specialised or offer general primary care within a local community right down to a lone GP in a remote rural setting. While many medical schools now offer community based medical education placement programs in clinical settings, often focused on rural GP's or paediatricians, few extended placements are non-clinical in nature. This study refers to a few of these but focuses on one in particular that formed part of the Monash University Bachelor of Medicine, Bachelor of Surgery (MBBS) degree, particularly as has been taught at undergraduate degree level at Monash's Australian (Clayton), and Malaysian (Sunway) campuses, and, with some variations, as a graduate entry course at its Gippsland (Churchill) campus.

From 2003 Monash University incorporated such a program as a core component of its Clayton campus MBBS and included it in the Sunway campus MBBS, when it was set up in 2008. The Community Based Practice (CBP) Program was founded as a non-clinical, community-based placement medical education program. It was predicated on the value of partnering with community organisations for educating students in the social determinants of health, community non-clinical health support infrastructure, and in community-centred health promotion. A key element was interprofessional partnerships established within health-oriented community organisations. This program contrasts with community based medical education (CBME) programs placing students in clinical settings focused on ambulatory, primary or secondary medical care. Its emphasis on an experiential paradigm of learning, has roots going back to John Dewey (1), while its focus on working with local communities as partners connects back to Paulo Freire (2). This approach also balances the traditional "medical model" focusing on patients' physical and mental pathologies with a "biopsychosocial model" that considers social and cultural determinants of health, as seen for instance in Elam's work in Kentucky (3).

The Monash program, as a core curriculum, non-clinical, community based medical education placement program, has been one of only a few such programs in operation in the Anglophone world. In the United Kingdom there are a small number of similar programs such as those at Durham University and Keele University. In Australia, there is a similar program at the University of Western Sydney. Balanced against the tiny number of such programs there seems to be growing interest in such an approach. This can be seen for example in Australia with relatively recent and somewhat related programs such as the University of Western Australia's Year One observational program and Wollongong University's later year students' work with community groups.

In the U.S., there are a small number of related programs within the service learning movement. These latter, however, tend not to be core curriculum but to be elective or capstone programs primarily focused on the students' contribution to the community – the "service" they provide.

The small number of such programs is matched by the paucity of published literature and research on the effectiveness of such an experiential approach taking medical students out of the traditional clinical placement experience; the extent of the partnerships being potentially developed between medical schools and community organisations; or the range of actual outcomes for the parties involved.

3.2 Researcher's professional and personal interest

The researcher has been involved with the Monash CBP program since its beginning in 2003. This involvement was initially as field educator (student supervisor) within the program at one of its school placements, and included some time on the program's reference committee as a community member. In 2007, the researcher became the program's coordinator and continued in this position up to the end of

2011, at which time this study was taken up full time. This latter move was in response to a career long interest in the nexus between community and education: its challenges and potentialities. Earlier the researcher had completed a Master of Education by major thesis looking at some of the implications for Victorian school education of Paulo Freire's community-based education work.

3.3 Rationale for the research

This thesis aims to explore the distinctive features of community-based, non-clinical placement programs in medical education. These have been part of the profession's response to the challenges posed by the World Health Organisation's 'Declaration of Alma Ata'(4) and the British General Medical Council's 'Tomorrow's Doctors, Recommendations on Undergraduate Medical Education' (5). The model investigated seems to promise a transformative shift in students' attitudes and understanding concerning community and health. Additionally, such a model could potentially enhance the engagement between the university and the community it serves, leading to increased capacity for community organisations and a higher potential authentic engagement with community by the university. This has not, however, been well established by the research. The mix of quantitative and qualitative research proposed in this thesis is designed to address the problem of determining the extent of transformative outcomes resulting from non-clinical placement programs for medical students that are built around community agency partnerships and aiming for the development of community aware doctors. It will also explore the degree of authentic mutuality in the partnerships between faculty and community organisations formed through such programs.

3.4 Aim and research questions

3.4.1 Aim

The specific aim of the thesis is to explore how, in medical education, placement programs built around authentic community engagement represent a significant extension of traditional Flexnerian style hospital and clinical clerkships by including generally non-clinical community partner organisations supporting community health; and how this can enable better development of community aware doctors through two distinctive outcomes:

- Improved capacity for medical faculties to develop community focused skills and understanding for their medical students as future doctors;
- Authentic engagement between university and community organisations, resulting in benefits to all key stakeholders.

3.4.2 Key research question

In medical education, are non-clinical placement programs that are built around university/community partnerships transformative for students, faculties and community partners?

This research question addresses two aspects of community-based non-clinical placement programs:

- Their definition and the nature of their engagement with community; and
- Their transformative power for each of the stakeholder groups including the university, its students, the community organisations and their clients.

3.4.3 Subsidiary Research Questions

The key research question can be addressed through four subsidiary research questions:

1. What are the defining features of non-clinical community based placement programs and how do they relate to the general category of community based medical education CBME?
2. To what extent can such programs transform the attitudes and understanding of students assisting their development as community aware doctors?
3. To what extent can community organisations gain through their partnerships with the university?
4. To what extent can the university faculty gain through its partnership with community organisations?

3.5 Significance of the study

The approach to medical education placements discussed in this study seems to fit well with certain trends over recent decades in thinking about the importance for doctors of community awareness and of a more holistic view of health and patients. As discussed below this can be seen in key declarations from the World Health Organisation (WHO) and in influential publications such as the British General Medical Council's Tomorrow's Doctors (5). However, there remain very few such programs in practice around the world and especially in Anglophone medical education. With such small numbers in existence these programs can easily be seen as marginal and their continued existence tenuous. Furthermore there is very little research reported in the literature about their effectiveness overall or about what features work best within them and therefore what might be their optimal design. Any medical faculty considering the introduction of such a program must do so on a basis of faith and justify it primarily on the basis of principle rather than on any established body of evidence or specific theory. It is therefore important that such an evidential and theory base be built. The significance of this study will thus be as a contribution to the establishment of such an evidential base, as well as to a refinement of the theoretical underpinnings of such programs.

3.6 Benefits of the study

This study seeks to bring together an overview of the existing literature; the experience and views of a range of students, faculty and community partner organisation staff who have been part of such programs; and data relating to the effects of such an approach on student attitudes and understandings. In doing so a start can be made on a more evidence-based evaluation of the effectiveness of such programs across dimensions of greater or lesser importance to medical education.

Parallel to this, judgments can begin to be made on the interface between medical faculties and local community, especially the non-clinical community health support organisations and structures as well as the degree and forms of mutual engagement that could characterise this interface.

This can provide a basis for better design of them and appropriate placement of them in the structure of a medical course.

3.7 Limitations of the study

The clearest limitation to this study is its focus on one particular program. While there is some data on other programs across Australia and the world, this is limited to interview responses with faculty staff responsible for such programs. Information, therefore, on student and community organisations' views about other programs is second hand and is viewed through the lens of faculty staff observations. While the data on the Monash CBP program does include primary data from faculty staff, community organisation staff and students, it remains limited to that one program. Quantitative data, in the form of Likert scale based survey items, is restricted to students exiting the program and to students in later years of the MBBS course reflecting on their CBP experience. The qualitative data from students is extensive, with the bulk of it coming from comment responses to open-ended survey questions followed up by a number of intensive interviews. However the qualitative data from the staff of community organisations is restricted to intensive interviews of a small, though representative, sample of eight organisations out of a possible 90 or more.

4 General Background & Literature Review

4.1 Introduction

Since the 1990s there have been a number of experiments in medical education including community-based placements, service learning and a renewed interest in health promotion – this latter including related concepts such as public health, health promotion and community health education. A common thread underpinning much of this experimentation has been a perceived need for more sensitivity to community among doctors and medical institutions. Interwoven with this has been an increasing interest in community/campus partnerships or related forms of community engagement on the part of universities including medical faculties. This section of the thesis explores the background to these issues in medical education. Section 4.5 below will give a much more detailed systematic review of the literature specific to community based medical education.

The dominant paradigm for medical education, particularly across the Anglophone world has been that based on Abraham Flexner's report in 1910, Medical Education in the United States and Canada: A Report to the Carnegie Foundation for the Advancement of Teaching (6). Associated with this has been a medical model of health focused on hospitals and clinics, highly focused on scientific research, reflecting Flexner's emphasis on hospital and laboratory. This was supported from the start through the curriculum development work of Osler (7) in formalising the core biophysical curriculum. This model has been dynamic and powerful in confronting challenging problems of health and illness and has been increasingly built around a very successful paradigm of quantitative evidence-based research as epitomized in the principles behind the famous Cochrane Collaboration (8). In the second half of the twentieth century, however, these models, while remaining dominant, have come under increasing pressure for revision. One of the earliest and most extreme examples of this was Ivan Illich's much publicised work, Medical Nemesis (9). In this 1975 book, Illich expanded and popularised the notion of iatrogenic disease, claiming that the success of laboratory based medicine led directly to the industrialisation of medicine noting "increasing and irreparable damage accompanies present industrial expansion in all sectors. In medicine this damage appears as iatrogenesis. Iatrogenesis is clinical when pain, sickness and death result from medical care; it is social when health policies reinforce an industrial organisation that generates ill-health; it is cultural and symbolic when medically sponsored behaviour and delusions restrict the vital autonomy of people by undermining their competence in growing up, caring for each other, and aging, or when medical intervention cripples personal responses to pain, disability, impairment, anguish, and death" (p104). His suggested alternative depends upon a strong sense of health and well being as deriving from a community-based approach, "The level of public health corresponds to the degree to which the means and responsibility for coping with illness are distributed among the total population. This ability to cope can be enhanced but never replaced by medical intervention or the hygienic circumstances of the environment" (p106). While the extreme nature of Illich's polemic probably goes too far it is clearly a symptom of some disillusionment with an industrialised laboratory and hospital based domination of health that arguably resulted from the very success of Flexnerian medicine.

At about the same time, and rather more significantly, came the first of a series of key reports and declarations, the World Health Organisation's Declaration of Alma-Ata (4). In this declaration a number of points were made that have been referred to and built upon extensively over the last three decades. The first was a definition of health that explicitly moved away from the traditional medical model focused on disease and disability, defining health as "a state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity" (4). It went on to stress a model of health delivery that goes far beyond the physician/patient relationship to look rather at community wide collaboration and interprofessionalism, with a particular focus on primary health care having a public health and health promotion dimension. This model required working with communities whose members have a key proactive role, "the right and duty to participate individually and collectively in the planning and implementation of their health care" and "…develops through appropriate education the ability of communities to participate" (4). The dominant position of doctors was countered with an alternative view of primary health care relying "at local and referral levels, on health workers, including physicians, nurses, midwives, auxiliaries and community workers as applicable, as well as traditional practitioners as

needed, suitably trained socially and technically to work as a health team and to respond to the expressed health needs of the community" (4).

One of the key areas arising from this Declaration, health promotion, was further developed in the Ottawa Charter of 1986 (10), explicitly referring to the Declaration and building on it, a process continued in the conferences that followed from it, particularly Jakarta in 1997 (11) and Bangkok in 2005 (12). Ottawa recognised what have now come to be called the social determinants of health, specifying "social justice, and equity" as one of its eight prerequisites of health and went on to extend Alma-Ata's definition of health by noting that "Political, economic, social, cultural, environmental, behavioural and biological factors can all favour health or be harmful to it. Health promotion aims at making these conditions favourable through advocacy for health" (10). It further developed the importance of a community role, "At the heart of this process is the empowerment of communities" and sensitivity to it "Health services need to embrace an expanded mandate which is sensitive and respects cultural needs" even to the point of accepting "the community as the essential voice in matters of its health, living conditions and well-being" (10). The Alma-Ata theme of collaboration, at least in the area of health promotion, was also reaffirmed, "The responsibility for health promotion in health services is shared among individuals, community groups, health professionals, health service institutions and governments" (10). Eleven years later the Jakarta Declaration (13) gave particular emphasis to need for partnership in health, "participation is essential to sustain efforts. People have to be at the centre of health promotion action and decision-making processes for them to be effective", specifying that this participation requires much further building, "Cooperation is essential; this requires the creation of new partnerships for health, on an equal footing, between the different sectors at all levels of governance in societies" and even implicitly challenging the traditional primacy of the medical profession and institutions in controlling the health agenda, "Health promotion is carried out by and with people, not on or to people. It improves both the ability of individuals to take action, and the capacity of groups, organisations or communities to influence the determinants of health" (13). Eight years on, the Bangkok Charter (14), alongside a focus on the macro-issues surrounding globalization, continued to press for the idea of partnership citing one of the required actions being, "partner and build alliances with public, private, nongovernmental and international organisations and civil society to create sustainable actions" but by now, nearly three decades after Alma-Ata it could support such a call with claims of successful local community-based models, "Grass-roots community projects, civil society groups and women's organisations have demonstrated their effectiveness in health promotion, and provide models of practice for others to follow" (14).

This international push for the medical establishment to be more sensitive to community and the related issues of social justice and equity, to be more cooperative with them and to build partnerships for health that included other health support workers as well as grass-roots organizations, was meanwhile being paralleled by a U.S. based push in the same direction. Both were based around a definition of health that went far beyond the diagnosis and treatment of pathologies and disabilities. One particular manifestation of this has been the service learning movement. Amanda Vogel's key doctoral dissertation (15) on the subject notes that, while the movement had its roots in Dewey's (1) ideas, it was revived, particular in medical education in the idealism of the 1970s and 1980s student movements, with the ideas of Paulo Freire (2) sharpening its socio-political aspects. She notes the work of Wayne Meisel in 1984 and his foundation of the Campus Outreach Opportunity League (COOL), which was followed in the next year by the influential Campus Compact which "aimed to foster civic and political engagement among students through structured campus-based opportunities" p.12 (15). In medical education the Health Professions Schools in Service to the Nation (HPSISN), formed across 1995 -1998, supported a burgeoning of service learning projects in medical schools as reported by Vogel and Seifer (16). While these projects have most frequently been elective rather than core curriculum and are usually student initiated, they have often, as discussed further below, been dynamic and conceptually sophisticated in developing more explicit links between medical education and local community.

Governments and the governing bodies of the medical establishment itself have also been responsive to these calls for a more community-sensitivity practice of medicine and education of future doctors. A typical example of this has been the influential report from the General Medical Council of the United Kingdom, Tomorrow's Doctors (5) especially in its recommendations on Public Health (Recommendation

33) and the Individual in Society (Recommendations 34-37). Counterparts to this exist in most other developed countries such as the Australian Medical Council's standards document for accrediting medical courses in Australia and New Zealand Assessment & Accreditation of Medical Schools: Standards and Procedures with its specific standard on Population Health requiring that any course "provides a comprehensive coverage of population, social and community health" and specifying that this includes working beyond the immediate health sector and being sensitive to community "development of appropriate skills and attitudes for medical practice in a culturally diverse society" (p16) (17).

There is a tension implicit in this history. On the one hand is a tendency to a science and technology based paradigm for the practice of medicine centred on the biophysical as implied by Flexner's focus on the "laboratory" and the clinical nature of Osler's textbooks. While, on the other, is a tendency to emphasise the role of social and cultural context in health and ill health centring on the social/economic/cultural determinants of health. Sometimes this can be expressed as a contrast between finding a "cure" for specific ailments and "healing" the whole person, as expressed by Hutchinson's 2011 book Whole Person Care (18). Of course the contrast is never this simple, nor are the two paradigms mutually exclusive; indeed Osler himself noted that medicine is a "calling in which your heart will be exercised equally with your head" (7), suggesting that effective doctors will use both paradigms to both cure and heal their patients.

Such a tension should not be unexpected. In many ways it echoes Durkheim's fundamental insights into societal development, especially the development of shared values. As the rigidity of a traditional society gives way to a more individuated society, there is room for powerful intellectual change and development but at the cost of the support of the shared values and beliefs that he called the conscience collective (19). In each field of endeavour and across the society as a whole these must be reforged through the work of what he called the corporation, effectively the governance of each profession, if the society, or individuals within it are not to fall into the despair of anomie. The role of the professions is central both to the society's growth and to its coherence but will remain under constant tension between the thrust of individualism and the bounds of the conscience collective. Talcott Parsons took Durkheim's notion of the conscience collective and developed it into the notions of the institution, institutional patterns and the roles allowed for individuals within such patterns, such as, famously, the "sick role" for medical patients as outlined in his essays "Propaganda and Social Control" (20) and "illness and the role of the physician" (21). Similarly he further developed Durkheim's notion of the role of the professions, as in his essay "The professions and social structure" (20) – "The importance of the professions to the social structure may be summed up as follows: the professional type is the institutional framework in which many of our most important social functions are carried on, notably the pursuit of science and liberal learning and its practical application in medicine, technology, law and teaching. This depends on an institutional structure the maintenance of which is not an automatic consequence of belief in the importance of the functions as such, but involves a complex balance of diverse social forces." (p 51). This complexity of social forces underlies some of the tensions in medicine, in how it should be practised and in how its practitioners should be taught.

4.2 Community based medical education – general overview

These pressures have led to an interest in developing community-based medical education approaches. This can be loosely defined as any programs within medical degree courses that incorporate some requirement for students to work within or for the community, most often local community organisation but also including general practice clinics, and rural and regional hospitals. It is to be noted, however, that this definition will be elaborated later in this study as it arises from the systematic literature review. A useful snapshot of these was the exhaustive BEME systematic review by Dornan and his team (22) covering the period from 1992 – 2001 listing 68 different citations of such programs in the early years of medical courses. As pointed out above, these have tended to focus on general practices or other primary care facilities and on ambulatory care. Notable examples of such work include programs in the U.K. such as at the University of Glasgow (23), The U.S., such as Del Rio Project at East Tennessee State University (24), Indonesia at Diponegoro University (25), South Africa at the University of Transkei (26), and Australia at Flinders University (27). These and others all share a focus on placements with primary care providers but with wide-ranging differences in approach and emphasis. The thesis will clarify and systematise the

definitions and developing practices that characterise these programs, using and building on the work of Dornan et al in order to set a context for the somewhat different approach taken to CBME in the Monash CBP program, and others like it.

The purposes behind these programs have a number of features in common but also some significant differences. The common purposes tend to arise out of the perceived failings of the traditional Flexnerian approach to medical education in its focus on a hospital-based approach to placements. They tend consequently to focus on patient-centeredness, sensitivity to the social context of patient health and interprofessional approaches to medicine, with some reference also to professional clinical skills such as communication and empathy for patients. Howe (28) clearly articulates these typically cited purposes especially as they apply in CBME in developed countries, while Goswami et al (29), Iwama De Mattos et al (30) and Kristina et al. (25) do the same thing in the context of CBME in developing countries. Some notable differences in the purposes given for some programs include meeting the health needs of an impoverished community as reported by Nazareth & Mfenyana (26), developing participatory community-based research as discussed by Goodrow & Meyers (24), exploring concepts unusual in traditional medical education such as with Davison's team in Glasgow introducing students to "community diagnosis" (23), or providing students with experience of continuity of care virtually impossible in a modern hospital as developed at Flinders University (27).

Such approaches overlie a longer standing concern about the need to locate doctors into local communities, either because there is a shortage of primary care physicians or because there are areas of underservice, especially in rural and regional practice. Government has involved itself in this issue in different ways across different countries. The Australian requirement that all medical students have at least four weeks rural placement experience underlies, for example the fine, and much published, work done at Flinders University by Worley's team as mentioned above as well as other Australian universities such as University of Sydney (31) just to give one recent example. In U.S., Rivo et al's 1995 survey (32), documented seven years of state government legislation attempting to address this issue.

It is perhaps worth noting that Flexner (6), himself, was aware of some of the implicit virtues of the older apprenticeship system, based as it was in the local community and being built around a very person-centred approach to medicine, in contrast to the sometimes dubious medical schools that were multiplying and were the subject of his report: "The schools had not noticed at all when the vital features of the apprenticeship system dropped out" (page 9), for now "The student registered in the office of a physician whom he never saw again. He no longer read his master's books, submitted to his quizzing, or rode with him the countryside in the enjoyment of valuable bedside opportunities" (page 8). While the medical schools he was criticising here were very different to the schools that he was advocating to be built around the hospital and the laboratory, nonetheless they still risked severing that close connection to community doctoring that the apprenticeship system fostered.

A range of studies report improved understanding of the social context of patients' health - Howe (33); Sprafka (34) and O'Sullivan et al. (35). Others report improvement in students' ability to integrate theoretical learning with the actuality of community practice - Al Nasir & Grant (36), Lempp et al. (37) and Kristina et al. (25). Improvement in professional skills such as communication and empathy were reported in studies such as those by Snadden & Mowat (38), Howe & Ives (39) and Seifer (40). A third common outcome area is the promotion of team work and an appreciation of the importance of an interprofessional approach to health; examples of studies reporting positive outcomes in this area include Goswami et al (29), Dornan et al. (22) and Coleman et al (41).

This widely varying range of purposes further complicates and even confuses understandings of what constitutes CBME and what purposes it should serve. Such confusion and complication tends to put it at a disadvantage in commanding a respected place in medical education compared to the generally well-understood and traditionally accepted tertiary hospital-based placements. In section 4.5 below this issue will be addressed through a systematic critical review of the literature as part of the process of developing a useful typology of CBME programs.

4.3 Campus/Community Engagement

Hand in hand with this interest in community based medical education has been the related idea of partnerships between faculty and community arising from a sense that universities, and medical faculties in particular, need to be more engaged with communities, especially if they are going to respond to the pressure to be more effective in teaching and contributing to public health and health promotion.

There has long been general pressure on universities to engage with the community at both a local and more general level. Monash University has recognised this in its key policy document, Monash Directions 2025 (42), resolving that "Monash will be fully engaged with its communities including local schools, governments, industry, professions and the general public." (page 10). The CBP program can be seen as part of this commitment. This resolve is consistent with Australian universities at a national level, as officially reported by the Australian Universities Quality Agency (AUQA) "A redefinition of the relationship with communities from the concept of 'community service' to 'community engagement' is occurring within Australian universities. In general, community engagement is seen as being less uni-directional, and representing a more interactive and collaborative relationship between the institution and each of its communities." (page 22) (43). Similar affirmations can be found across the Anglophone world with examples from the U.K., with the KITE centre (44), South Africa, from the South Africa Council of Higher Education (45), Canada, with Clover & McGregor's work (46) and from Harvard University in the U.S. (47). Perhaps one of the strongest influences on this movement, especially with its systematising of criteria for U.S. universities to be classified as "institutions of community engagement" has been the Carnegie Foundation (48, 49).

In the area of medical education this commitment has tended to take two distinct but overlapping paths. Programs such as Monash's CBP and similar programs at the University of Western Sydney, Durham University and Keele University place their primary emphasis on sensitising medical students to the reality of health in the community, focusing on issues such as social determinants of health and barriers to health access. The Monash program is typical with its focus on learning outcomes such as the following examples from the Monash CBP Guide 2013:

- "Evaluate perspectives on social equity & justice and their influence on health;
- Evaluate the roles of different health professionals in community settings;
- Recognise the personal skills and responsibilities required to provide effective community services to varied client populations and the role of experience in developing these skills;
- Interpret the impact of social and economic context on the health of individuals and communities;
- Evaluate the impact of the social determinants of health on the health status of individuals and communities" (50) (page 9).

This has begun to intersect with a response centred on students reaching out to targeted communities in the service-learning tradition, associated with the influential work of Jacoby (51), and Seifer and Cashman (52). This approach characterizes a number of programs in the U.S. and in the developing world. The emphasis in this approach is on the provision of service – going out and doing good in a usually underserved community. The theory is that learning will follow and develop from this experience as expressed by Carol Elam, "Service learning, a pedagogy that fosters and reinforces this service ethic and helps students develop a sense of civic responsibility and social justice has emerged in response to the need to strengthen the relationship between academic medicine and community health."(3) Though often not specifically called service learning, a number of programs in third world settings have a similar focus on providing service to a community, working with community organisations. A good example of this approach is that operating in Indonesia at the Diponegro University (25).This emphasis on the provision of service, however, sharpens the issue of partnership authenticity. After all the provision of a student placement experience by a community organisation may be one-sided but is a well-understood transaction. However, once it also involves the students or faculty providing some level of health service the power equation becomes important.

Common to both approaches is a determination to engage with local communities and community organisations to give students a better understanding of and grounding in community health issues and

practices. However despite a focus on working with community, Hunt's 2011 systematic review of the literature in this area (53) suggested that, at least in the U.S. experience, there has been "little emphasis on the reciprocal nature of partnerships between communities and medical schools" (page 246) (53), and that "Despite broad interest in orienting medical school curricula to better meet the needs of underserved communities, there remains much room to more fully develop mutual partnerships between academic faculty and community members' (page 249).

4.4 Community based medical education: towards a history and typology

In this section and in section 4.5 following, the role of community-based placements in medical education is placed in its historical context. In particular the role of Flexner's key 1910 report for the Carnegie Foundation (6) is looked at, along with its subsequent developments and contestations that have so influenced medical education up to the present. This discussion will lead up to a focus on the types of placement likely to best prepare doctors to engage with their patients as part of a community and also to understand and contribute to the related area of the promotion of health in the community as a whole or in key parts of it. This will provide a background to the contention that there is a key role in medical education for placements that are grounded in a genuine partnership with community organisations that themselves have a role in health support, even though this may not be a formally medical role.

The model of medical education that has dominated the last century can be traced directly to the coming together of the American and European approaches. This has been most heavily influenced by the work of Abraham Flexner whose famous report established a new model for American medical education bringing it closer to the traditional European practices that had been systematised some 50 years earlier in England in connection with the 1858 Public Health Act and Medical Act (54). His model as it developed in America in its turn then confirmed a deeper pattern for western medicine.

Flexner took a tradition that had been anarchic and sometimes chaotic, where many students enrolled in private medical schools set up by enterprising doctors, who themselves were not necessarily well qualified, and learned their trade according to the limited range of medical practice and knowledge available to that doctor with little systematic basis in scientific principles; others apprenticed themselves to a local practitioner with even less breadth and system to the knowledge obtained; and finally with only a few attending a university or gaining experience in a hospital. Even these were often attending university medical schools set up by state legislatures with more ambition than resources or understanding. Such a system, if it were to be dignified by such a term, produced practitioners of widely varying quality, and, also a matter of some concern, too many of them. Flexner believed that the best doctors were those grounded in the European approach, "for the students who crossed the Atlantic gave a good account of themselves. Returning to their native land, they sought opportunities to share with their less fortunate or less adventurous fellows the rich experience gained as they 'walked the hospitals' of the old world in the footsteps of Cullen, Munro, and the Hunters." (page3) (6). He saw this tradition as coming from 18th century Edinburgh and London then being further refined over the next century first in Paris and then in Germany (page 9)

In response to this, Flexner developed a dominant tradition building on the few excellent existing medical schools based in universities, such John Hopkins, and building it around partnerships with hospitals to teach each new generation of doctors, "the establishment in 1898 of the John Hopkins Medical School on the basis of a bachelor's degree, from which, with quite unprecedented academic virtue, no single exception has ever been made. This was the first medical school in America of genuine university type, with something approaching adequate endowment, well equipped laboratories conducted by modern teachers, devoting themselves unreservedly to medical investigation and instruction, and with its own hospital, in which the training of physicians and the healing of the sick harmoniously combine to the infinite advantage of both." (page 12). This was a partnership with dramatic consequences; such hospitals had the capacity to provide a much wider range of medical illnesses, injuries and other experiences as well as a much wider range of medical practitioners to provide supervision and support for the student doctor's learning. This is a tradition that has served medicine, and the community it ministers to, very well indeed. By building on a partnership between university faculties and practising hospitals not only has

medical education been able to have a foundation in almost the full range of maladies the human body and mind are subject to but the hospitals themselves have had access to the ideas and creative laboratory research that universities have in turn as their foundation. Thus has evolved the medical model where tertiary teaching hospitals and quaternary research hospitals have progressively expanded and refined the boundaries of medical knowledge and practice simultaneously opening these to each new generation of doctors. This has been a partnership between community and faculty that has been both fertile and profitable for all those involved; but not without some costs.

This focus on hospitals, which by their nature take the patients and their medical ailments out of the context they came from, has tended to focus the education of each new generation of doctors around solving the pathologies rather than ministering to the patients. There has been a consequent irony in the etymology of the word patient based as it is on the Latin word for suffering: it has been too often perhaps the case that the patient's suffering in such hospitals has been as much from the indignity of being the subjects of impromptu ward round lectures focusing on some part of their body and totally ignoring them as a person as it has been from the malady that brought them there in the first place. What becomes important in this model is not the person and all the complexity of background that brought them there but instead the body part or body system that in the process becomes almost detached from them into a public space of learned dissertation, and sometimes contemptuous witticisms, from which they are excluded. Indeed Flexner himself was to a degree aware of this danger and warned that there was a risk that "At best, the student becomes in this way familiar with conditions singly and in their combination and interconnection. He gets cross-sections of disease – a most important experience, but, once more, not the same thing as the continuous observation of the developing disease process and the influence thereon from day to day of whatever therapeutic procedure is adopted" (pages 97-8). Flexner advocated that "Each student gets by assignment a succession of cases, for a full report upon each of which he is responsible; he must take the history, conduct the physical examination, do the microscopical and other clinical laboratory work, propound a diagnosis, suggest the treatment. For this purpose he has easy access to the hospital words. His "beds" are under his continuous observation from the day his "patient" is admitted to the day of discharge (or death)." (pages 96-7). This still focuses on the illness rather than the person but the "admission to discharge" responsibility would inevitably bring about some sense of the person; this approach (often over the last century more honoured in the breach than in practice) underpins to some extent modern models such as Harvard's Cambridge Integrated Clerkship (CIC) with its focus on students following through and taking responsibility for patients, in many cases even beyond discharge (55). Such programs are often referred to as longitudinal placements, though the fashionable use of this term has at times led to it being used for programs that have little sense of longitude as noted in Thistlethwaites' team's recent survey of such programs (56).

Generally though the Flexner model led to hospital and clinical placements where doctors and students peer, pontificate and prod, and are led by the logic of the situation into a relationship with the patient that has both the authority and the remoteness often associated with a traditional severe father figure. This remoteness is reinforced by many of the messy bits - the vomit, the diarrhoea and the discomfort - being left to the nurses to look after. It is perhaps the case that the fact that nurses' education was reformed some 40 years before Flexner by the redoubtable Florence Nightingale (54) underpinned the success of Flexner's reforms by providing an environment where the dishevelment of humanity in physical distress could be put in the background while the immediate medical causes of that distress were focused upon. The fact that for much of the Flexnerian century the doctors and medical students have been predominantly male[i] and the nurses predominantly female gives further force to this analogy of a hospital patient being a somewhat ignorant child to be looked after by the mother and father with an assumed lack of any real understanding or responsible role other than that of following directions and taking his or her medicine.

A further problem facing this model is that there are a number of aspects of human health that do not necessarily fit well into a hospital model. Three very different examples illustrate this. The long battle between midwifery, where an experienced woman assists other women in the very natural but often dangerous human process of giving birth usually in the home, and obstetrics, with its originally male

dominated medicalisation of that process especially in the face of the many aspects that can go wrong with it and which usually takes place in a hospital. This is a battle that in modern Western societies has largely been won by hospital-based medicine. In a quite different way hospital-based medicine has almost always had a very limited impact on long-term chronic maladies that tend to be dealt with out in the community in primary care general practice, secondary care specialist clinics or by organisations barely recognised as being medical such as elderly care homes, disabled day support centres or ambulatory care nurses. The third example lies in the area of health education and health promotion that lie fully in the community with often only very limited input from actual doctors.

A significant moment was the 1978 Declaration of Alma Ata, by the World Health Organisation (WHO) of the United Nations. Its definition of health as being "a state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity, is a fundamental human right" (4) had implications for medical education which led to new pressures on the Flexnerian model. These tended to focus on the need to prepare doctors for a role in the promotion of public health and on their capacity to respond to the patient as a whole with empathy and an understanding of their socioeconomic and cultural context.

4.5 Systematic Critical Review of CBME Literature

The model developed in response to Flexner has attempted to respond to the challenges implicit in these shortcomings of an entirely hospital-based practical medical education by experimenting with new kinds of placement often involving new kinds of partnership focusing on community based placements away from hospitals. In particular, several divergent approaches have dominated the last twenty-five years. These can be derived and systematised by an analysis of the literature published about them. A systematic review was carried out of the literature using the search terms:

> medical + student*; community-based / "community based"; "medical education"; placement / clerkship / preceptorship; service learning / "service learning".

These terms were used to search in the following online databases:

> Ovid MEDLINE; Scopus; PubMed & Google Scholar.

The findings were then reviewed by reading the abstracts to determine their relevance. Articles were rejected on the following grounds:

- If the program did not involve medical students;
- If the article did not focus on the students' experience or educational outcomes.

In general the articles were descriptions or evaluations of specific programs or groups of related programs; surveys of programs; calls for bringing in or expanding the use of particular kinds of programs; or attempts to define a class or classes of programs. From the 845 references generated (including duplicates) 392 relevant references were found, to which were added further 33 from other sources such as searches of bibliographies and journal hand searches. These were then put in an Excel spread sheet and coded into the following categories reflecting key parameters or emergent patterns:

- Year published,
- Geographic setting,
- Undergraduate/graduate entry medical students or post-MBBS/MD medical students,
- Compulsory/Elective/Volunteer/Student-initiated programs,
- Observation/Clinical/Service-learning/Non-clinical placements,
- Project or Health Promotion included,
- Targets Underserved or Marginalised populations / Wider Health Awareness from students / Rural Medicine,
- Findings were Positive/Neutral/Negative.

The full table of publications can be found in Appendix 1.

Analysis of these references suggests that CBME has a typology characterised by five broad, and occasionally overlapping forms:

- Community clinical placements located in community practices and clinics to supplement the placements available in tertiary hospitals and clinics. These are mostly in the areas of primary care/family medicine or paediatrics and often have the avowed aim of increasing recruitment figures for primary care.
- Rural and remote clinical placements are very similar to the first category but have the specific aim of placing students in, and introducing them to, practice in rural and isolated areas with placements located within community practices and clinics, or regional or local non-tertiary hospitals. These programs often have the additional purpose of familiarising students with rural medicine in the hope of better recruitment figures.
- Marginalised & underserved communities clinical placements located in marginalised or underserved communities with the aim of assisting those communities and sometimes with the additional aim of longer-term recruitment of doctors for those communities. These are often, but not always, located in developing countries or in underdeveloped areas of otherwise fully developed countries. These programs are similar to the previous two categories but with the specific aims of providing service to such communities and of raising student awareness of the problems associated with such communities;
- Service-learning placements - these are mostly but not always clinical and overlap to some extent with the previous category but have the additional feature of involving a sense of partnership with communities or with organisations within communities characterised by the aim of an equal relationship between faculty and community built around a two-way exchange of service. These partnerships often but not always feature public health or health promotion projects and are most often voluntary or elective; and
- Non-clinical community placements – these have some overlap with the Service Learning category but are specifically characterised by the primary placement of students in non-clinical community organisations. Excluded from this category are placements that are primarily with a clinical setting, or are campus-based, but which involve some non-clinical community component, such as home visits or survey studies of community health or other features. They are generally compulsory programs with the aim of building students' sensitivity to, and understanding of, wider community health issues and problems, and including practical introduction to concepts such as the social determinants of health and the impact of life circumstances of potential patients.

The distinctive features of each form of CBME that emerged from the survey are summarised as follows in Figure 1:

Clinical Community Placements	Clinical Rural & Remote Placements	Clinical Marginal / Underserved Placements	Service Learning Placements	Non-clinical Placements
• Generally part of normal clinical rotations • Supplement hospital placements • Aim at giving students experience in community medicine, especially in general practice • Sometimes have additional aim of recruitment of doctors into general practice • May include home visits to patients • May include community observation	• Generally part of normal clinical rotations • Supplement hospital placements • Aim at giving student experience of rural or remote clinical/hospital practice • Often have additional aim of fostering recruitment of doctors to rural & remote areas • May include home visits to patients • May include community observation • May include public health or health promotion projects	• May be part of clinical rotations • May be part of a voluntary outreach program • Often focus on a marginalised group or an emergency situation • Often part of provision of service to underserved areas of developing countries or within a developed country • May include public health or health promotion projects • Often have the aim of promoting student understanding of, and sensitivity to, social determinants of health	• May be either clinical or non-clinical in focus • Usually, but not always, elective or voluntary • Conducted as part of a notionally equal partnership with a specific community or community organisation • Usually built around a public health or health promotion project negotiated with, or prompted by, the target community • Often will include a community based research project (CBRP)	• Built around a primary placement with a non-clinical community organisation • Usually have the aim of promoting student understanding of, and sensitivity to, social determinants of health, and community issues impacting on health • Often have the aim of building student understanding of non-clinical health support mechanisms or networks within the wider community • May have a service learning component of students contributing to the host community

Figure 1: Features of distinctive CBME categories

It can be useful to chart the development of CBME and its various forms across the last 25 years. The following analysis looks at publication patterns for the different types of CBME and their geographic distribution. It is this background analysis that gives one context for developing a deeper understanding for where the non-clinical CBME placement programs focused on in this study fit in and how they are distinctive. The publication frequency over the past twenty-five years of articles on each of these five forms of CBME is charted in the following 100% stacked area graph, Figure 2, noting that Service Learning programs overlap with other types:

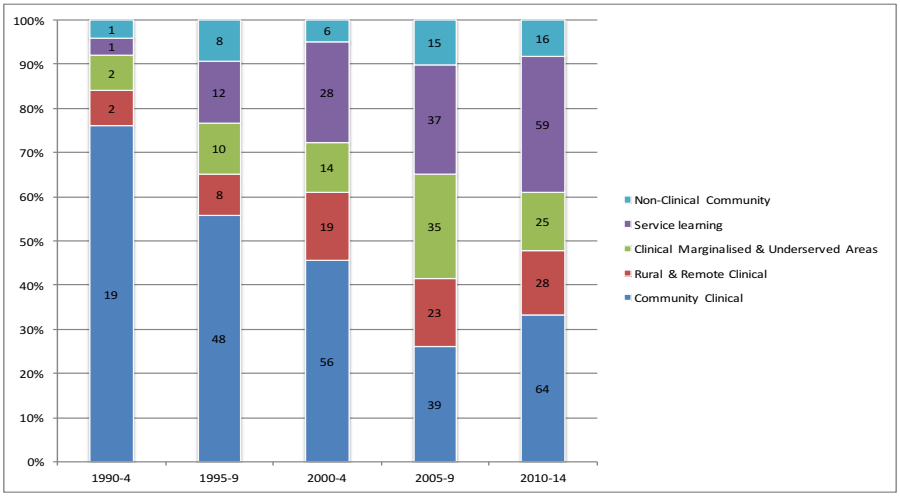

Figure 2: Publication frequency by CBME category (N:425)

The more interesting features of this include:

- The paucity of non-clinical community placement programs before 1995 and their then fairly constant publishing share of about 6% of all articles dealing with CBME;
- The initial dominance of clinical community placement programs from the start of the 1990s, as the medical schools became interested in experimenting with having some of their clinical teaching outsourced to community practices, especially in general practice / family medicine;
- The consistency in the number of articles about rural and remote clinical placements;
- The growing interest from the start of this century in having students' medical education connect with marginalised and underserved populations, as reflected in clinical placement programs

focusing in this area and in the growth of programs self-identifying as being part of the service learning movement, including many programs that fall into one of the three clinical placement categories.

For the purposes of this study two points can be made:

- There has been relatively little published about non-clinical placements in CBME;
- With their focus on issues to do with social determinants of health and connecting with community support agencies, non-clinical CBME programs fit neatly into the growing interest in an understanding of the marginalised and underserved being included in the education of medical students.

It is interesting to look at how the overall pattern of CBME programs has played out in Australia as suggested by the published articles found. The Figures 3 and 4 show the Australian data and then data from across the world, with a particular focus on the major Anglophone countries:

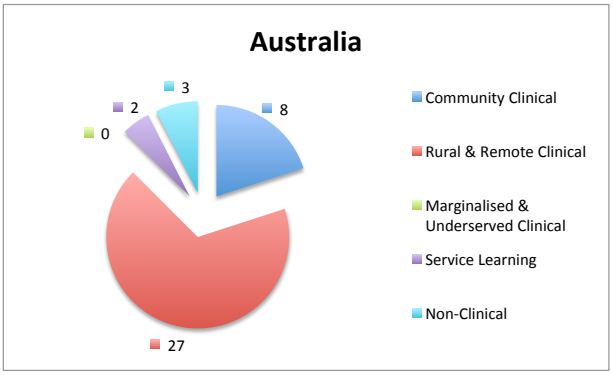

Figure 3: Publication pattern for Australian CBME (N:40)

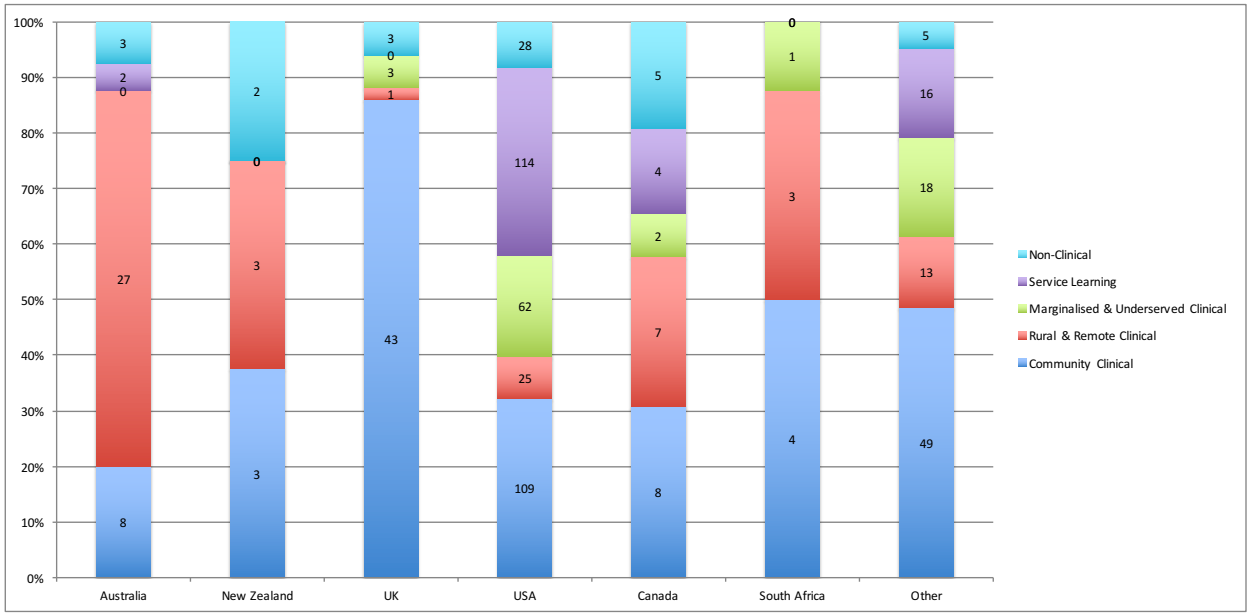

Figure 4: Publication pattern of world CBME by major Anglophone countries & Other (N:425)

The most striking feature of the history of published material on CBME programs in Australia is the dominance of programs related to rural and remote clinical placements and the lack of any programs focused on clinical placements targeting marginalised and underserved groups. An important caveat to that is that the non-clinical programs do in fact target marginalized and underserved groups, while clinical programs targeting indigenous groups have been classified as primarily rural and remote placements; there is clearly some overlap between these areas.

4.5.1 Clinical CBME Programs

The first three of these forms of CBME, Community clinical placements, Rural and remote clinical placements, and underserved community clinical placements generally involve the inclusion of clinical placement rotations in primary and ambulatory care, or in rural medicine. This has been influenced by government perceptions of shortages of primary care physicians, especially in areas perceived as being underserved. For the U.S. this government concern was documented in 1995 by Rivo's team (32). In Australia it led to the Australian Medical Council's (AMC) accreditation requirement for medical schools that they include, as Standard 8.3.2, rural clinical experiences within all medical courses (57). A further motivation, especially earlier in the development of these programs was a sense that there was a lack of primary care / general practice / family medicine placements available and further that, of their very nature, such placements would be best in community placements rather than in teaching hospitals.

4.5.2 Community Clinical CBME Placement Programs

The case for community clinical placements was put very early in the published literature by Hamad, on behalf of the World Health Organisation, (58) claiming that the aim of such placements "is to produce community-oriented doctors who are able and willing to serve their communities and deal effectively with health problems at primary, secondary and tertiary level" (page 17). He further comments on the failure of North American, Russian and British schools to meet this challenge and notes that "the picture is no better in other developed and developing countries" (page 18).

Over the next two decades this produced a body of literature and experimentation around the idea of community based medical education (CBME). The exhaustive BEME systematic review by Dornan et al. covering the period from 1992 – 2001 lists 68 different citations of such programs in the early years of medical courses(22). As pointed out above, these have tended to focus on general practice clinics or other primary care facilities and on ambulatory care. Cooper, from the University of Sydney in Australia, reported in 1992 (59) on the success of their experience with such a placement that "… takes them out into the community and it teaches them about personalized medical care as it is practiced by the medical practitioner." (page 323) with their evaluation revealing "a very high level of student satisfaction" (page 327) and noting that "one important advantage of this is that the teaching emphasis moves away from the passive transfer of information towards learning through involvement which is enjoyable, highly motivating and effective." (page 328). By 2002, Howe, from the University of East Anglia in the UK, was able to draw on enough experience with such placement programs to be able to publish a "Twelve Tips" guidelines article in Medical Teacher, (60), noting such issues as "culture shock… Whether students enter community settings early in their course or after a number of years in training, they may find the combination of undifferentiated clinical problems, the less hierarchical environment and emotional nature of the patient's world-view a considerable personal challenge." (page 10). She also affirms its importance, "Community-based medical education is not the solution to all the ills of a clinical culture that does not integrate and manifest the same values as many primary care staff. Nevertheless it is an essential component of the modern medical course, and by and large community staff have been successful in delivering effective learning." (page 12). By 2013, the discussions of the benefits of such programs were becoming deeply nuanced, with articles such as that by Wenrich's team from the University of Washington in the U.S. (61), being able to look at variations on the theme - early placement experiences - and compare them across community and hospital settings, building on Yardley's (62, 63) and Dornan's (22) challenging work in this area, and concluding that "Our data suggest that offering multiple types of early patient experiences may provide students with a broader set of concrete outcomes than a single type of early patient experience" (page 7).

Clinical community based medical education placement programs, as a general approach, have become firmly embedded into general medical school curricula. This applies across the world with programs as widely spread and varied as that described by Mathur et al. in India (64); Van Weel and Crebolder in The Netherlands (65); the Jimma community program in Ethiopia (66); Iwama de Mattos's Sao Paolo program in Brazil (30); Jinadu's team's work in Nigeria (67); work from the Diponegro University program in Indonesia

(25); the Ben Gurion University program in Israel (68); the Jichi Medical University's program in Japan (69); and the program at Duke-NUS Graduate Medical School in Singapore (70).

The variations across these programs include, alongside the primary care and general practice, focus areas such as public health in the Ethiopian Jimma program (66) and the longitudinal approach of the Duke-NUS Graduate Medical School (70). But community clinical CBME programs can extend beyond general practice and family medicine. There are programs providing clinical community experience in paediatrics, such as that described by Satran et al (71); geriatrics, as described by Martinez et al (72); women's health, as described by Nicholson et al (73); and even surgery, as described by Bradley III et al (74), with the latter taking place in community hospitals; a theme that often characterises rural-based CBME programs.

The Figure 5 summarises the pattern of this style of CBME placement programs across the world as suggested by the numbers of found publications, demonstrating the dominance of the U.S.A. and the U.K. but also the geographically wide spread across the world with significant numbers from non-Anglophone countries.

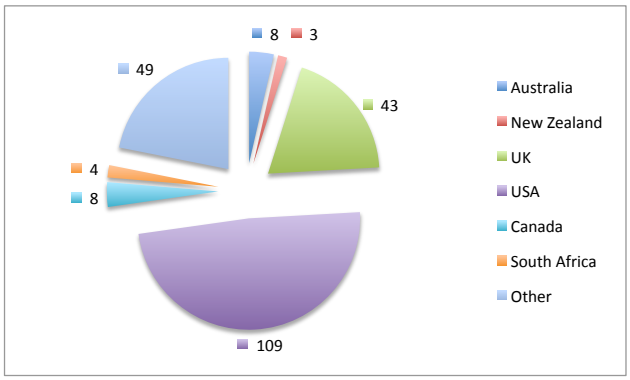

Figure 5: Publication pattern on Community Clinical CBME by major Anglophone countries & Other (N:224)

4.5.3 Clinical CBME Programs Targeting Rural & Remote Areas

In those clinical CBME programs focused on rural medicine, Figure 4 above shows the leading role Australian programs have taken across the world. Considerable credit for this must be given to the pioneering work at Flinders University that has continued to explore the field from 1999 as described by Worley et al (75) to more recent years, described by Couper et al (76). Placements can include rural hospitals and specialist clinics and therefore tend much more often to go beyond general practice and family care.

The importance of rural and remote CBME in Australia dates to the decision in 1997 by the Commonwealth Department of Health and Aged Care's Medical Training Review Panel (77) to require Australian medical schools to have all medical undergraduates experience rural placements. While all medical schools quickly complied with this requirement, leadership, at least in terms of publication, lay with Flinders University and its program typically included a range of experiences from rural community hospitals to clinics. From the earliest days this was a feature of the program, as explained by Mugford at al, "Intern work is divided between hospital and community based work activities." (page S28) (78). Australian medical schools have extended such programs to include remote areas, placing students with indigenous communities at local health centres. The experience and sophistication gained has led to important work on how to educate students, and university faculties, to work such as that by Duffy et al in Northern Queensland with remote communities (79). The strength of Australian involvement in this area can be seen in depth of experience able to be drawn upon in developing guidelines articles such as Page and Birden's "Twelve tips on rural medical placements: What has worked to make them successful", part of the Medical Teacher journal's series of advice articles for medical educators (80).

While Australia has shown considerable leadership in this area, there has been a steady stream of examples of such programs from around the world, particularly the U.S. (81), Canada (82), New Zealand

(83), India (29), Uganda (84) and Vietnam (85) to pick out a few. It is in Australia, however, that this is the dominant form of CBME as shown in Figure 6.

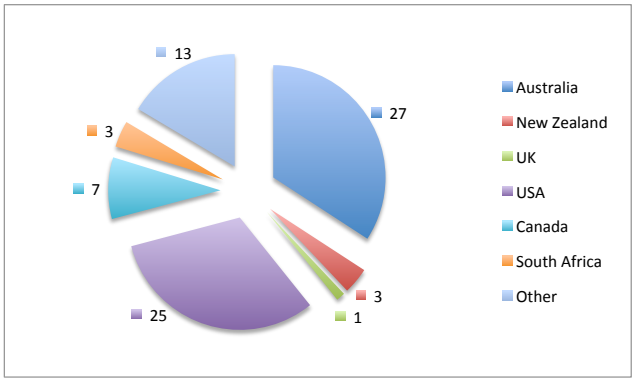

Figure 6 Publication Pattern on Rural & Remote CBME by Major Anglophone Countries & Other

4.5.4 Clinical CBME Programs Targeting the Marginalised and Underserved

The role of medical schools in preparing students who can contribute to the health of the whole society they serve presents a challenge that is often at its sharpest around issues such as understanding the social determinants of health and providing for the marginalised and underserved sections of the society. This has been a theme within medical education since at least the 1970s, when it was given voice in the Alma Ata Declaration (4). In the first half of this century there was a surge in the proportion of publications about clinical CBME programs specifically targeting this area, as can be seen in Figure 2 above. This coincided with movements such as that for Social Accountability in Medical Education (SAME), with its approach summed up by Boelen, in his influential call for such an approach:

> "What major initiatives should a medical school take to be recognized as "socially accountable"? In my view, there are at least three. First, the school must provide ample and appropriate learning opportunities for medical students to grasp the complexity of socio-economic determinants in health. It must explicitly adopt a preferential model of practice that integrates the biomedical aspects of diseases into a holistic approach to health and well-being, and it must offer role models to reinforce this approach. Second, the school must share responsibility for ensuring equitable and quality health services delivery to an entire population within a well-defined geographical area. In this context, public health and health service research should be declared priority investments to experiment and develop best health practices for involving future graduates. Third, the school must recognize social accountability as a mark of academic excellence, promoting relevant evaluation and accreditation standards and mechanisms." (86)

There is overlap between these programs and some of those targeting rural and remote areas, as the recent systematic review by Crampton's team found (87), where its search for programs focusing on the underserved turned up mostly rural focused programs. However there is a distinctive set of programs that very explicitly target marginalised or underserved groups who are so because of socioeconomic or cultural reasons rather than because of geography. This is the category discussed here. It is notable that most of the next two categories, service learning CBME and non-clinical CBME, also explicitly target this area. In contrast to the latter, the focus in this group is on clinical placement programs, which makes them different. The overlap with service learning based CBME is more nuanced and will be discussed in the next section, but programs self-identifying as including service learning notably make up 72% (62 out of 86) of those in this area. This dominance by service learning, a U.S.-based phenomenon, is also reflected in the geographical spread of the publications as noted in Figure 7.

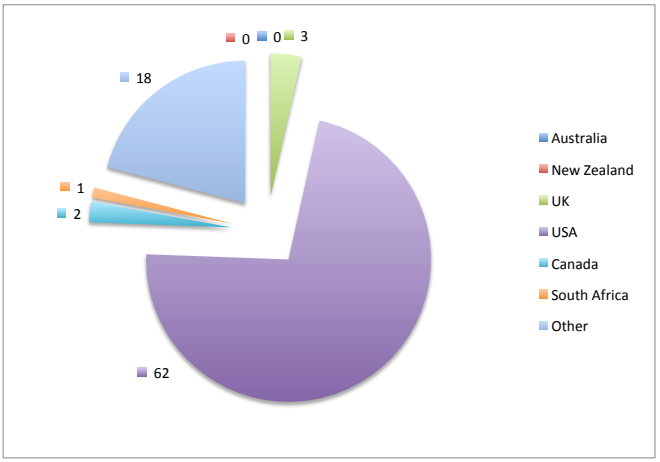

Figure 7: Publication pattern on Clinical Marginalised and Underserved CBME by major Anglophone countries & Other (N:86)

Apart from the dominance of the U.S. in this area, it is noteworthy for the lack of any Australian programs fitting this category. An examination of the publications suggests that all of the programs that might fit here are either non-clinical or target indigenous groups who are underserved primarily because of their remote and rural locations.

Socioeconomically marginalised groups, mostly urban, are often targeted by the US programs as evidenced by three studies and one editorial across a period of ten years focusing on clinical placement programs working with the homeless such as those by Fournier (88), Clark et al (89), Lee et al (90) and Batra et al (91). Other North American programs take up a more community advocacy or participatory research approach at the international or local levels as with those described by Dharamsi et al (92) and Dehaven et al (93).

Worldwide there has been a range of programs described in publications where the focus is on marginalized or underserved groups as such rather than as a product of rurality or remoteness. These include examples ranging across Africa, with Nigeria, Hamilton et al (94), Uganda, Mubuuke et al (95) and (96), and South Africa, Nazareth et al (26). While in Asia examples of such programs are reported on from Indonesia, Kristina et al (97), Singapore, Wee et al (98), and Pakistan, Aslam et al (99). A particularly interesting article by Howard et al. looks at how the learning can work both ways between India and the U.S. (100).

These last three sections all deal with clinical placement programs that are mostly built around the concept of taking learning that would more traditionally have taken place in a teaching hospital and putting it out into the community in clinics, small hospitals or general practices. Their community focus is important but, with only a few exceptions, constrained by the need to give primacy to generally traditional clinical skills. This is completely understandable in the context of a medical degree but there are also programs with a somewhat different dynamic and which look at skills that are also important but to some extent move away from the more strictly traditional biophysical paradigm of medicine.

4.5.5 Service Learning CBME Programs

One such approach has been labelled “service learning”, primarily a U.S. movement, where students, often voluntarily, spend time working to improve the resources of disadvantaged or marginalised communities particularly, but not always, in direct support of their health. This concept was developed in the mid-nineties in the U.S. but can be traced back to the 1960s with a number of “Free Clinics” often spontaneously set up and staffed voluntarily by young medical graduates or later year undergraduates. Even further back it can be traced to the ideas of experiential education developed by John Dewey (1) in the 1930’s. Service learning is a movement in education that extends much further than the health professions and extends into secondary education as well as at university level. Many of the key works on it, such as Furco, (101), Jacoby, (51), and Billig and Eyler, (102), discuss its application to health

professions education either as only one among many examples or not at all. Nonetheless it has had quite an influence on medical education and is by definition firmly grounded in a community focus.

Amanda Vogel's key doctoral dissertation (15) on the subject notes that, while the movement had its roots in Dewey's ideas, it was revived, particularly in medical education in the idealism of the 1970s and 1980s student movements. She notes the work of Wayne Meisel in 1984 and his foundation of the Campus Outreach Opportunity League (COOL), which was followed in the next year by the influential Campus Compact which "aimed to foster civic and political engagement among students through structured campus-based opportunities" (page 12) (15). In the eighties and the nineties the Service Learning movement became quite organised through such initiatives as the Campus Compact, 1985, the Corporation for National and Community Services (CNCS), 1993, and the Health Professions Schools in Service to the Nation (HPSISN), 1995 as noted by Seifer (103), one of the key champions of this type of CBME. Typically these programs are voluntary but carry credits towards medical course completion. Generally they may provide clinical services but can often be more generally experiential or focused on community health promotion initiatives in non-clinical settings. These placements are explicitly focused on working with communities and aim to involve reciprocal partnerships with community groups. Indeed one of the key defining features of service learning is that of authentic partnership between faculty/students and the communities they work in. As early as 1998, Seifer distinguishes between traditionally clinical community based learning and service learning, "Even where traditional clinical education takes place in community-based settings, the curriculum is often designed by university-based faculty. In service-learning, community partners are integrally involved in the design, implementation, and evaluation of the curriculum" (104).

As can be seen below in Figure 8, service learning is predominantly an American phenomenon but has spread its influence around the world, though with a notable lack of publications emerging from the U.K. and New Zealand.

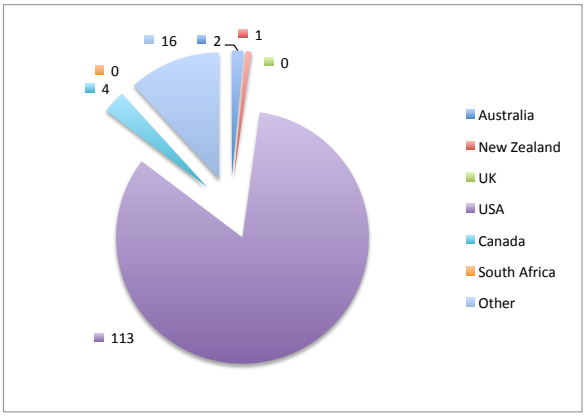

Figure 8: Publication pattern on Service Learning CBME by major Anglophone countries & Other (N:145)

In the systematic review of the literature, programs were classified as service learning if they self-identified as such and this classification overlapped the other four categories such that three quarters of service learning programs were also clinical CBME programs (104 out of 136), with the remaining ones being non-clinical. While a service learning program need not necessarily focus on marginalised or underserved communities, two thirds of them (90 out of 136) very explicitly did so.

This focus on addressing social disadvantage can be found from the earliest of the articles found in this period, such as that by Fisher et al (105) from 1995, and has been a constant theme across the twenty-five years with studies such as those by Burrows et al (106), Elam et al (3), Liang En et al (107),and Jones et al (108). This theme has been given eloquent and passionate expression in an editorial for the Substance Abuse journal by Brown and Marcus, (109), "But how often do we help our trainees truly understand the depth of suffering, the human tragedy, and the seemingly larger-than-life forces in our communities that, mingled with genetic factors, virtually doom many of our patients – and their family members, their

friends, and strangers in occasional proximity – to agony and torment, if not an early death? One way that many of us inject more humanity into our teaching is through exposure to addictions treatment and individuals in recovery… they must observe alcohol and drug problems through the eyes of our patients and their families, and from their homes, workplaces, schools, neighborhoods, courts and prison cells." (page 4). The authors then go on to support service learning as a key strategy (page 4).

An interesting trend suggested both by the patterns of publication across time (see Figure 2) and inspection of the table of Community Clinical CBME articles (see Appendix 1) is that an increasing number of Community Clinical CBME programs are building in a service learning element or are at least self-identifying as having a service learning element, two recent examples being Gough, (110), and Karasik, (111)

The other key focus, indeed a definitional one, for service learning is the concept of partnership between faculty and community. This is the core of Seifer's work as suggested above and is, somewhat critically, at the heart of the systematic review by Hunt's team, (53). More recently it has been expressed pithily in another systematic review by McMenamin's team in Ireland, (112), "Service learning is a complex educational approach involving communities, students and institutions with the aspiration that partnerships are equally beneficial and reciprocal" (p1).

The published literature in Australia rarely uses the term, "service learning", as CBME programs that do touch on the area come from a different tradition. The Monash program that is the subject of the bulk of this study shares many common features with a number of service learning programs but never identifies itself as such and comes from a tradition more grounded in the U.K. experience. The two Australian articles classified here as service learning are similarly not self-identifying as such but share many common features. One, Mak and Mifflin (113), comes from Notre Dame University and very much a Catholic tradition of community service that predates service learning as such. While the other from James Cook University, Duffy et al (79), focuses on how to develop authentic faculty/community partnerships – the heartland of service learning – without ever acknowledging the service learning movement or using the term.

4.5.6 Non-Clinical CBME Programs

The core of this study, of course, is non-clinical CBME placement programs, and the survey identified just 48 articles focusing on these, including one, by the author (114), derived from the early work of this thesis and describing the Monash program that this study is built around. Their world-wide publication pattern can be seen in Figure 9.

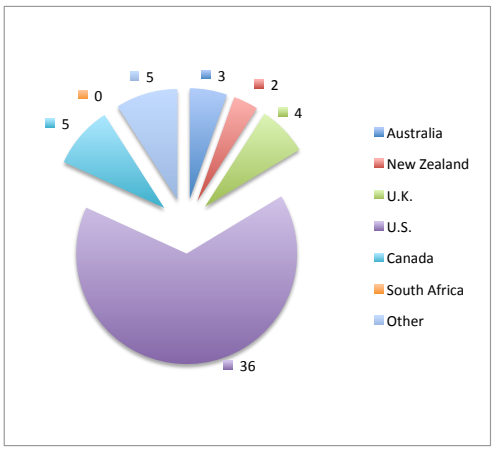

Figure 9: Publication pattern on Non-clinical CBME by major Anglophone countries & Other (N:46)

While the actual list of found references can be seen below in Figure 10.

This is a style of CBME that is again dominated by the U.S., and then being fairly evenly distributed between the other major Anglophone countries, with the exception of South Africa. The U.S. references

are almost entirely also identified as being service learning programs with only one exception, the Oregon Health & Science University program described by Iles-Shih et al (115).

The earliest references come from North America, with one described by Holly Fisher in New York (105), being very much in the early service learning tradition and being more about volunteer community service with only tentative linking to the medical curriculum. Three of the others, Hennen et al (116), Wasylenki with two different teams (117, 118), all describe a ground breaking Canadian program from the University of Toronto, the Health, Illness and the Community (HIC) program, which set a pattern having much in common with U.K. programs, such as that at the University of Leicester, Lennox et al (119) as well as the Monash one focused on in this study. This program in an evolved form reappears again later in the literature as well, Johnson et al (120). The following table (Figure 10) lists the publications reporting on this:

Key: PC - Primary Care/General Practice/Family Medicine; P - Paediatric; MCH - Maternal & Child Health; GM - Geriatric Medicine; IM - Internal Medicine; PH - Public Health/Epidemiology/Health Promotion; SYNTHESIS - Women's Health; HC - Home Care; O - Osteopathic; R - Radiography; RH - Rheumatology; S - Surgery; PS - Psychiatry; SYNTHESIS - Home-based; Int - International; Pal - Palliative Care; NS - Not Specified

Exclusions: Articles where abstract indicated no actual placement into a community setting OR where focus was on preceptors/staff/setting not on students' learning OR where focus was on aspect where community component was irrelevant Ovid MedLine - Black; Scopus & not Ovid - Green; PubMed & not Scopus or Ovid - Red; Google & not PubMed, Scopus or Ovid; Hand Search & not Ovid, PubMED, Scopus or Google

Title	Authors & References	Year Published	Geog. Setting	Under-grad. or Grad. entry medical students	Post-MBBS / MD medical students	Compulsory (C) or Elective (E) or Volunteer (V) &/or Student Initiated (S)	Clinical placement	Service learning placement	Non-clinical placement	Includes project or health promotion	Targets Underserved or *Marginalised (M)/ Wider health awareness (HA) / Rural medicine (RM)*	Findings *Pos; Neg; Neutral Inconclusive*
Community service as an integral component of undergraduate medical education: Facilitating student involvement.	Fisher (126)	1995	U.S.	Yes		V	Yes - NS	Yes	Yes		M	Pos
The social contract challenge in medical education.	Wasylenki et al (138)	1997	Canada	Yes - Yrs1&2		C			Yes	Yes	HA	Pos
Creating community agency placements for undergraduate medical education: a program description	Wasylenki et al (139)	1997	Canada	Yes - Yrs1&2		C			Yes	Yes	HA	Pos
Demonstrating social accountability in medical education.	Hennen (137)	1997	Canada	Yes		C	Yes - NS		Yes			Incon

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Development and evaluation of a community based, multiagency course for medical students: Descriptive survey.	Lennox & Petersen (140)	1998	U.K.	Yes - Yr3		C	Yes - PC		Yes		M & HA	Pos
Teams in a community setting: the AUHS experience.	Balestreire et al (1998)	1998	U.S.	Yes		C	Yes - PH	Yes	Yes	Yes	HA	Pos
Increasing community-based learning in a medical curriculum through electives: A preliminary report.	Lempp et al (33)	1999	U.K.	Yes - Yrs2&3		E			Yes	Yes	HA	Pos
Required Service Learning for Medical Students: Program Description and Student Response	Burrows et al (127)	1999	U.S.	Yes - Yrs 1&2		C & V		Yes	Yes	Yes	M & HA	Pos

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A senior elective: promoting health in underserved communities	Wolff et al (142)	2001	U.S.	Yes - Yr4		E		Yes	Yes	Yes	M & HA	Pos
The earlier, the better: the effect of early community contact on the attitudes of medical students to older people.	Wilkinson et al (143)	2002	New Zealand	Yes - Yr2		C		Yes	Yes		HA	Pos
How we implemented a service-learning elective.	Elam et al (144)	2002	U.S.	Yes - Yrs1&2		E		Yes	Yes	Yes	M & HA	Pos
Teaching children about health, part II: the effect of an academic-community partnership on medical students' communication skills	Olm-Shipman et al (145)	2003	U.S.	Yes - Yrs1&2		C		Yes	Yes	Yes	HA	Pos

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Service learning in the medical curriculum: developing and evaluating an elective experience	Elam et al (3)	2003	U.S.	Yes - Yrs1&2		E		Yes	Yes	Yes	M & HA	Pos
Defining generic objectives for community-based education in undergraduate medical programmes.	Kristina et al (21)	2004	Indonesia	Yes		C & E	Yes - PH		Yes	Yes	M	Pos
Teaching professionalism within a community context: perspectives from a national demonstration project	O'Toole et al (2005) (146)	2005	U.S.	Yes- Yrs1-4		V	Yes - NS	Yes	Yes	Yes	M & HA	Pos
Successful coupling of community attachment of health science students with relief work for drought victims	Wondmikun et al (147)	2005	Ethiopia	Yes			Yes - PC	Yes	Yes	Yes	M & HA	Pos

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Teaching medical students research while reaching the underserved	De Haven & Chen (148)	2005	U.S.	Yes - Yrs1&2		E	Yes - PH	Yes	Yes	Yes	M	Pos
Community-service Learning: An Annotated Bibliography	Hayes & King (149)	2006	Canada	Yes		V	Yes - NS	Yes	Yes	Yes	M & HA	
A first-year community-based service learning elective: design, implementation and reflection	Averill et al (150)	2007	U.S.	Yes - Yr1		E		Yes	Yes	Yes	M & HA	Pos
Teaching medical students about children with disabilities in a rural setting in a school.	Jones & Donald (151)	2007	Australia	Yes - Yr4		E	Yes - P		Yes		RM	Pos
Smoking Sleuths: a pilot tobacco prevention elective for medical school students.	Powers et al (152)	2008	U.S.	Yes - Yrs1&4		E		Yes	Yes	Yes	HA	Pos

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Service learning in rural communities. Medical students teach children about the brain.	Fitzakerley & Westra (153)	2008	U.S.	Yes - Yr2		C		Yes	Yes	Yes	RM	Pos
Community-oriented curriculum design for medical humanities	Tsai (154)	2008	Taiwan	Yes		V		Yes	Yes		HA	Pos
Integrating collaborative population health projects into a medical student curriculum at Stanford	Chamberlain et al (155)	2008	U.S.	Yes - Yr1		C		Yes	Yes	Yes	HA	Pos
Service-Learning: An Integral Part of Undergraduate Public Health.	Cashman & Seifer (48)	2008	U.S.	Yes		C & E	Yes - NS	Yes	Yes	Yes	HA	Pos

Key: PC - Primary Care/General Practice/Family Medicine; P - Paediatric; MCH - Maternal & Child Health; GM - Geriatric Medicine; IM - Internal Medicine; PH - Public Health/Epidemiology/Health Promotion; SYNTHESIS - Women's Health; HC - Home Care; O - Osteopathic; R - Radiography; RH - Rheumatology; S - Surgery; PS - Psychiatry; SYNTHESIS - Home-based; Int - International; Pal - Palliative Care; NS - Not Specified

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Sustaining Service-Learning and maximizing its benefits: the perspectives of community and academic partners	Vogel & Seifer (157)	2009	U.S.	Yes		C & E		Yes	Yes	Yes	M & HA	Pos
Using service learning to teach community health: the Morehouse School of Medicine Community health Course.	Buckner et al (158)	2010	U.S.	Yes - Yr1		C		Yes	Yes	Yes	M & HA	Pos
Community-based practice program in a rural medical school: Benefits and challenges	Mudarikwa et al, (159)	2010	Australia	Yes - Yr2		C			Yes	Yes	M, RM & HA	Pos
Linking service learning with community-based participatory research: an interprofessional course for health professional students	Marcus et al (160)	2011	U.S.	Yes - Yr4		E		Yes	Yes	Yes	M & HA	Pos

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Understanding the goals of service learning and community-based medical education: A systematic review.	Hunt et al (49)	2011	U.S.	Yes		C & E	Yes - NS	Yes	Yes	Yes	M & HA	Neutral
Developing leadership and advocacy skills in medical students through service learning.	Long et al (161)	2011	U.S.	Yes - Yrs1-4		E		Yes	Yes	Yes	M & HA	Pos
Infrastructure for teaching and learning in the community: Johns Hopkins University Student Outreach Resource Center (SOURCE).	Levin & Rutkow (162)	2011	U.S.	Yes		V		Yes	Yes	Yes		Pos

Key: PC - Primary Care/General Practice/Family Medicine; P - Paediatric; MCH - Maternal & Child Health; GM - Geriatric Medicine; IM - Internal Medicine; PH - Public Health/Epidemiology/Health Promotion; SYNTHESIS - Women's Health; HC - Home Care; O - Osteopathic; R - Radiography; RH - Rheumatology; S - Surgery; PS - Psychiatry; SYNTHESIS - Home-based; Int - International; Pal - Palliative Care; NS - Not Specified

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Junior Doctors of Health ©: an interprofessional service-learning project addressing childhood obesity and encouraging health care career choices.	Buff et al (163)	2011	U.S.	Yes		E		Yes	Yes	Yes	M	Pos
Health and illness in context: a pragmatic interdisciplinary approach to teaching and learning applied public health within an urban safety net system.	Iles-Shih et al (136)	2011	U.S.	Yes		S & V			Yes		M & HA	Pos
Integration of Community Health Teaching in the Undergraduate Medicine Curriculum at the University of Toronto.	Johnson et al (141)	2011	Canada	Yes - Yrs1-4			Yes - PC		Yes	Yes	HA	Pos

Key: PC - Primary Care/General Practice/Family Medicine; P - Paediatric; MCH - Maternal & Child Health; GM - Geriatric Medicine; IM - Internal Medicine; PH - Public Health/Epidemiology/Health Promotion; SYNTHESIS - Women's Health; HC - Home Care; O - Osteopathic; R - Radiography; RH - Rheumatology; S - Surgery; PS - Psychiatry; SYNTHESIS - Home-based; Int - International; Pal - Palliative Care; NS - Not Specified

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King's Undergraduate Medical Education in the Community Evaluation Report 2011: Executive Summary	Stephenson et al (164)	2011	U.K.	Yes - Yrs2-6		C & E	Yes - PC & PH		Yes	Yes	HA	Pos
Student-centred medical education for the future physicians in the community: An experience from Serbia	Matejic et al (165)	2012	Serbia	Yes - Yrs1-2		E	Yes - PC		Yes		HA	Pos
Perspective: the potential of student organisation for developing leadership: one school's experience.	Veronesi & Gunderman (166)	2012	U.S.	Yes		S & V		Yes	Yes	Yes	HA	Pos
Using mini-grants and service-learning projects to prepare students to serve underserved populations.	McNeal & Buckner (167)	2012	U.S.	Yes - Yrs1-4		C		Yes	Yes	Yes	M & HA	Pos

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Beyond the Ward & Waiting Room: A community-based non-clinical placement program for Australian medical students	Goodall (135)	2012	Australia	Yes		C			Yes	Yes	M & HA	Pos
Students' experience of prison health education during medical school.	Filek et al. (168)	2013	Canada					Yes	Yes	Yes	M	Pos
Community experience of a pacific immersion programme for medical students in New Zealand	Mauiliu et al (169)	2013	New Zealand	Yes - Yr4		E			Yes		M & HA	Pos
Teaching health advocacy to medical students: a comparison study.	Belkowitz et al (170)	2013	U.S.	Yes - Yrs1&2		C		Yes	Yes	Yes	M & HA	Pos

Figure 10: Non-clinical CBME Literature Review 1990-2014

Key: PC - Primary Care/General Practice/Family Medicine; P - Paediatric; MCH - Maternal & Child Health; GM - Geriatric Medicine; IM - Internal Medicine; PH - Public Health/Epidemiology/Health Promotion; SYNTHESIS - Women's Health; HC - Home Care; O - Osteopathic; R - Radiography; RH - Rheumatology; S - Surgery; PS - Psychiatry; SYNTHESIS - Home-based; Int - International; Pal - Palliative Care; NS - Not Specified

Exclusions: Articles where abstract indicated no actual placement into a community setting OR where focus was on preceptors/staff/setting not on students' learning OR where focus was on aspect where community component was irrelevant Ovid MedLine - Black; Scopus & not Ovid - Green; PubMed & not Scopus or Ovid - Red; Google & not PubMed, Scopus or Ovid; Hand Search & not Ovid, PubMED, Scopus or Google

Title	Authors & References	Year Published	Geog. Setting	Under-grad. or Grad. entry medical students	Post-MBBS / MD medical students	Compulsory (C) or Elective (E) or Volunteer (V) &/or Student Initiated (S)	Clinical placement	Service learning placement	Non-clinical placement	Includes project or health promotion	Targets Underserved or *Marginalised (M)/ Wider health awareness (HA) / Rural medicine (RM)*	Findings *Pos; Neg; Neutral Inconclusive*
Training socially responsive health care graduates: Is service learning an effective educational approach?	McMenamin et al (133)	2014	Ireland	Yes		C & E	Yes - NS	Yes	Yes	Yes	M & HA	Neutral

A number of themes emerged among the articles found in this category. Less than half (19 = 39.6%) reported on programs that had both a clinical placement component as well as a significant non-clinical placement component. This included survey or general theory publications that looked at CBME as a concept and gathered together data or observations on several different programs, such as the work over several years of Cashman, Seifer and Vogel (15, 16, 52, 121), the annotated bibliography prepared by Hayes (122) and the systematic reviews of Hunt et al (53) and McMenamin et al (112). Specific programs in this category included those described by DeHaven & Chen from the University of Texas with a service learning focused summer program (123); the University of Leicester program described by Lennox and Petersen (119); the University of Toronto's "Determinants of Community Health" course described by Johnson et al. (120); and from Australia, the University of Newcastle's community paediatrics placement gaining clinical experience in a school setting as described by Jones and Donald (124).

Balancing these programs that combine clinical with non-clinical placement experience, well over half the references (29 = 60.4%) dealt with placements that were more or less entirely non-clinical. These included placements focusing on schools such as the "Smoking Sleuths" program described by Powers et al. (125), Fitzakerley and Westra's program from the University of Minnesota (126), or the University of South Carolina's interprofessional "Junior Doctors of Health" program (127). Other programs looked at working with community agencies focusing on understanding the health effects of disadvantage, chronic conditions, or other forms of marginalisation. These included the early work in New York described by Fisher (105), Wolff's work at the Medical College of Wisconsin (128), the University of Kentucky service learning program developed by Carol Elam's team (129); while, away from the U.S., there was the work in Taiwan described by Tsai (130), and the interesting University of Dunedin program in New Zealand working directly with indigenous and Pacific Islander families (131).

Another clear feature of this category is the number of non-clinical placement programs that also self-identify as being built around a service learning approach (33 = 68.8%). These, as noted above, include both programs that have a clinical as well as non-clinical placement component (123) and those that are built around essentially non-clinical placements only (129).

Over four fifths of the articles also highlight a requirement for the students to develop a community focused health project or to do health promotion work (39 = 81.3%). This includes virtually all the service learning based programs as would be expected, but also includes most of the other programs since most tend to be built around the idea of some sort of partnership with schools or community agencies, and is reflected in the work mentioned above from the University of Toronto (120) and the King's College, London, community focused electives discussed by Lempp et al (37).

Another theme to be expected in this category is the proportion explicitly focused on working with marginalised or underserved groups (32 = 66.7%), with many of these already being noted above.

Finally there emerges an interesting tension between non-clinical placement CBME programs that have at least a component that forms a compulsory or required part of the curriculum (25 = 52.1%) and the rest that are entirely elective or even voluntary. If status as a compulsory part of the medical curriculum can be considered as suggestive of how important a medical school considers a non-clinical placement CBME approach to be, then the fact that only 25 out of 425 articles about CBME found in this survey refer to such programs as being compulsory suggests that such an approach flies well under the radar of traditional medical schools.

This particular study focuses on the variant of this approach that has been developed in Australia with Monash University's Community Partnerships Program (CPP), 2003, and its successor the Community Based Practice (CBP) program, 2007 (132-135). These two programs are essentially the one program and share many features with traditional service learning but come out of a different, mainly U.K. based tradition. They do not have volunteer or elective component and are a fully integrated and compulsory part of the MBBS curriculum. Like service learning programs they do focus on community partnership and the requirement of authenticity implicit in this can bring about its own opportunities, challenges, problems and limitations, some of which will be the focus of this study.

4.6 A Continuum of Medical Education Placements: Desktop Analysis of Australian Medical School Placements.

As an additional means of providing a context for looking at the non-clinical placement community partnership based programs that are the focus of this study, it is useful to systematise the different sorts of placements used in medical education in order to better understand their relationship to each other.

The table that appears as Appendix 4 develops a classification of the different medical education placement programs into a continuum. It focuses on type of placement and their location. The classification is not particularly neat; in particular the columns include potential wide overlap but each is intended to highlight where the particular program's distinctive focus lies, especially as outlined in its self-descriptions. For example a program might be generally based on a medical area, such as mental health, but makes a point of describing itself as following individual patients and their families through over a significant period of time; this would then be classified as primarily a longitudinal (patient based) program. The table is populated with the placements operating in Australian medical schools as reported in Appendix IV of the Report by the Medical Deans of Australia & New Zealand to the Medical Training Review Panel Clinical Training Sub-Committee, National Clinic Training Review (136) and from further descriptions on the various medical school websites with the year of the course that the placement occurs in also being noted. This data was a snapshot of the Australian medical curriculum in 2010, a year chosen to be in line with the years being focused on in this study. This is of course a dynamic picture and there have been some changes in the years following.

The data has been summarised in the following Figures 11 and 12 to give a clearer sense of the pattern of placement programs in Australian medical education:

	Pre-clinical Years - Observation	Rotational - Medical area based	Longitudinal - Patient based	Community - Local context or rural based
Hospital Based - Tertiary & quaternary	29	48	4	9
Clinic Based - Secondary & some tertiary	20	45	4	13
Hospital/Clinic Out-patient or other Out-Patient - Medical ambulatory	25	40	4	14
General Practice based - Primary	20	21	3	16
Non-clinical - Other ambulatory & health promotion	3	0	0	2

Note that the figures are calculated by adding the numbers of universities offering programs in each category and the number of years in which each university offers such programs to give a sense of the proportion of the curriculum offerings each program category receives across Australian medical schools. But note that this does not include any calculation of the amount of actual time that is allocated to programs, just the number of course years in which they occur. These figures are for the 19 Australian Medical Schools accredited in 2010.

Figure 11: Summary of Australian Medical School Placement Programs by University & Years Offered

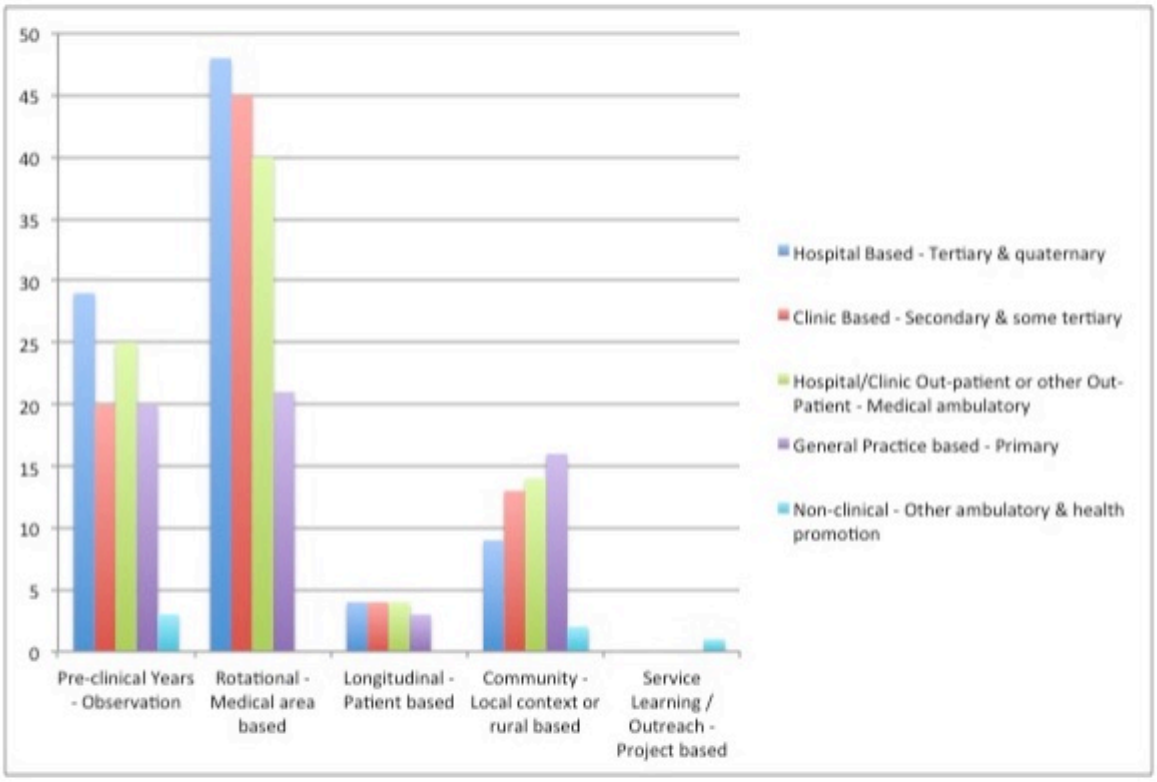

Figure 12: Graphic Summary of Australian Medical School Placement Programs

The purpose of these classifications is to develop an organised exploration of how the traditional Flexnerian approach, essentially covered by the upper three rows in the three leftmost columns in Figure 10 above, has developed and adapted to changing attitudes and experience, especially over the last twenty years. A contention is that programs that fit in the two rightmost cells in the bottom row are part of this continuum but also represent a shift that brings a potential openness to community across a wider range of health support models than has been traditionally available to the education of student doctors. This then potentiates a shift in the medical model to include sensitivity to community and engagement with it as part of the responsibility of a doctor and a medical faculty as suggested for example in the work of the 2008 Final Report from the WHO Commission on Social Determinants of Health (CSDH) Closing the Gap in a Generation (137), or that of Chokshi in the U.S.A. (138) on using a social determinants framework to underpin the teaching of medical students about socially based health disparities reflects on the need to address the dominance of the biophysical paradigm.

It is noteworthy that when the above table is populated with Australian medical placement programs the picture emerging is predictably one of a very firm base in the traditional Flexner model. However the model has been extended across virtually all courses to include a strong general practice / primary care component and this goes hand in hand with a wider focus on community placements, especially in rural areas. There is some experimentation with longitudinally patient-based placements, perhaps picking up on Harvard's Cambridge Integrated Clerkship (CIC) (139). In contrast there is little or no evidence of use of the service-learning model, with the only program coming close to this model being the Monash University Year 2 CBP program. Effectively this program becomes a pioneering program in moving the development of community based primary care placements, such as those powerfully developed at Flinders University (27), to the next step of giving students experiential training within the non-clinical areas of community health support beyond hospitals, clinics and GP waiting rooms.

In terms of non-clinical community-based placement programs, the only ones evident in Australian medical schools at the time this research was conducted were:

- A Year One observational two day program at the University of Western Australia;

- A Year Two community placement program with non-clinical community partner organisation running for 14 full days across the year at Monash University (the CBP program focused upon in this study); and
- A Year Three community placement program with non-clinical community partner organisation running in association with a full GP rotation at the University of Western Sydney.

A key insight arising from this snapshot of placement programs in the medical curriculum in Australian medical schools is just how dominant the traditional biophysical paradigm is in medical education. Hospital wards and medical clinics are the focus, even of the vast majority of community-based placements. Not even half a dozen programs across the 19 medical schools have a clear focus on the non-clinical areas of community health support or health promotion, and half of those are no more than brief observational sojourns of a day or two. It is possible that some of the General Practice primary care placements may take a more holistic and community aware approach but this is by no means guaranteed as many GP's know little about the informal community health support networks in their area and are often more closely focused on responding to the symptoms presented by the individual patient before them than on any holistic understanding of their socio-cultural-economic context and how that may be a determinant of their health, nor on what community support services they may be able to enlist for ongoing health support.

4.7 Placing the Monash MBBS course and its CBP program within the continuum

While data relating to three other university's non-clinical CBME placement programs is included as part of this study, the bulk of the research is focused on the CBP program within the Monash Central School's MBBS program located at the Clayton campus. Using the information published on its official website (140), the Monash MBBS course can be summarized as follows:

The Monash Undergraduate Medical course is a five-year program of study with direct entry from school. Monash Undergraduate Medicine may be undertaken at Monash University Clayton campus or Monash University Malaysia. The first two years are campus based and the final three years are hospital and community based. The course presents a continually expanding level of medical experience, starting in the first semester of the course. In the early years, the basic medical sciences are taught in the context of their relevance to patient care. Later in the course, clinical teaching builds upon and reinforces this strong scientific foundation. An emphasis on clinical communication skills and early clinical contact visits to medical practices, community care facilities and hospitals, is a feature of the Monash course.

	Year 1	Year 2	Year 3B	Year 4C	Year 5D
Curriculum Areas	Foundations in Basic Sciences	Foundations in Basic Sciences	Foundations in Clinical Medicine	Integration and Teams	Preparing for Practice
	Anatomy	Social Sciences	Medicine	General Practice	Medicine
	Physiology	Population Sciences	Surgery	Children's Health	Surgery
	Biochemistry	Clinical Skills	Pathology	Women's Health	Emergency Medicine
	Pharmacology	Community Engagement	Population Health	Medicine of the Mind	Aged Care
	Social Sciences				Specialty
	Population Sciences				Elective Patient Safety
Location	Campus Based	Hospital / Community Based			

Figure 13: Structure of the Monash School of Medicine Undergraduate Entry Course

There are four curriculum themes within the Monash MBBS course. These four themes are configured vertically across the four years of the course. They are also horizontally integrated with the year, bound together by the core focus on the doctor/patient interaction.

I. Personal and Professional Development focuses on the personal and professional attributes and qualities needed by students in the medical curriculum and as future medical practitioners. This theme covers elements of professionalism, communication skills, ethics and legal issues, clinical effectiveness, and health and behavioural self-management.

II. Society, Population, Health and Illness focuses on population health, epidemiology and the social, environmental and behavioural contexts of illness and the practice of medicine, including an emphasis on rural and remote Australia. Other elements are built around health promotion, epidemiology, public health, community diversity, population and global health, and a range of other social issues. The history and philosophy of the scientific approach to medicine is included, as are approaches to knowledge and information, and an understanding of evidence-based clinical practice.

III. Scientific Basis of Clinical Practice - the knowledge and concepts of the basic medical sciences and clinical sciences as they underpin medicine. The basic medical sciences of anatomy, biochemistry, genetics, microbiology, histology, pathology, immunology, pharmacology, physiology and psychology are taught in an integrated manner and from a relevant clinical perspective. In Years 3B, 4C and 5D, learning occurs in a more overt clinical context, building on existing knowledge and encompassing pathology, diagnostic and therapeutic skills, with a particular focus on common and important conditions and presentations.

IV. Clinical Skills encompasses the whole range of clinical skills from the earliest to the later parts of the course. Practice in clinical skills is emphasised early and often, and includes procedural and clinical skills. The approach in clinical skills teaching and learning will be to develop defined clinical competencies. This will begin with clinical aspects of communication skills and move through history taking and physical examination to the more advanced clinical and procedural skills.

The focus of each year level

In Years 1 and 2 basic professional, biomedical, social and behavioural concepts are introduced. Basic sciences physiology, biochemistry, anatomy and pharmacology are taught and there is a particular emphasis on clinical issues as illustrated through the cases presented in the problem-based learning sessions. Clinical and communication skills are developed and students undertake early clinical placements in hospitals. Students will also commence the Community- based Practice program and participate in learning activities in Indigenous health.

In Year 3B students are placed within Monash University teaching hospitals. The emphasis moves towards multi-system disease representations that will form the core of the learning in integrated medicine and surgery.

In Year 4C clinical teaching builds upon and reinforces this strong foundation through the core clinical rotations of women's and children's health, general practice and medicine of the mind (psychiatry).

In Year 5D students undertake clinical placements (or rotations). These rotations in medicine, surgery, aged care, emergency and specialty areas take place in both community and hospital settings. One of the rotations is an elective placement, where students will choose to complete their degree by gaining wider experience in chosen disciplines and specific areas of interest.

The course is designed to be highly integrated across the four listed themes. Themes I & II are those most related to CBME, with the CBP program taking place in Year 2, listed on Figure 13 as "Community Engagement". This program focuses on these two themes but has elements that are intended to relate in some degree to all four themes. In theory this applies to virtually all parts of the course, so that horizontally in each year and vertically across the whole course all four themes are addressed, even if one or more may be done so quite peripherally in some programs. Similarly PBL and OSCE tasks are designed to include elements from all themes.

Placement programs that can be described as CBME include rural clinical placements covering most areas, many urban clinical community placements based around General Practice, Children's Health, Women's Health, Aged Care and Medicine of the Mind, as well as the non-clinical placements in the CBP program.

4.8 Brief description of Monash MBBS Community Based Practice (CBP) program

The CBP program takes place in the second year of the MBBS course and is a compulsory core program focusing on Themes I and II but with some elements of Themes III and IV as part of the curriculum policy of having as much of the course as possible integrating all four themes. Theme IV in particular is importantly present in the program through the emphasis on development of communication skills both with clients and with other professionals. Theme III is less specifically present but the playing out of pathologies and disabilities in clients' daily lives is considered a contribution to the students' understanding of what the basic science of medicine means in real life.

Students are placed in teams of at least two in non-clinical community settings where there is a focus on supporting health. These placements take place across both semesters and consist of 14 full days, mostly Tuesdays. They are supported by weekly tutorials, which are primarily focused on the Health Promotion elements of the course but also monitor the students' placement experience. The supervisors at the placements, known within the course as Field Educators, are required to brief and debrief students every placement day and to develop with the students a Learning Plan that includes a goal nominated by the students concerning what they hope to learn, a goal nominated by the Field Educator about what the agency hopes the students will learn, and a contributory goal negotiated by the agency and students about a health promotion research project that they could usefully complete for the agency as a contribution back to the agency and its clients. This project then goes through a full ethics approval process supported by the students' tutors and is reported on at the end through a conference poster presentation. Field Educators are given training before the program begins each year to ensure they understand their role.

The course is further supported by a series of lectures including an orientation lecture before it starts and a debriefing lecture at the course's end. After the orientation lecture, and with support from a website featuring descriptions of all placements, students nominate on line six placements they would be willing to go to. They are then allocated by computer, which generally successfully allocates approximately 80% of the students to one of their selections. The remaining students are then allocated manually by the coordination team resulting generally in a 100% success rate. Students who failed to put in any selections are then negotiated with to find an acceptable placement. Once placed, students are required to organise an interview with the placement agency. Part of the purpose of this interview is to allow the agency to determine the students' suitability and they may veto a student. This was a very rare event but did occur occasionally; these students then had new placements negotiated.

Assessment is based on the students' ethics application, their poster presentation, a written team report of their experience, a written personal reflection, and a Field Educator's report.

One feature of the program is that the Field Educators, because their professional work and training is built around supporting generally vulnerable clients, have shown themselves to be adept at picking up problems that students may have that the faculty was unaware of. Such students are then met with by the coordination team and, where appropriate, referred to the university's counselling services for support. The supportiveness around the students within the program, particularly through the daily debriefings by Field Educators, has been such that there have no instances apparent of students being traumatised by their work in this program, though there have been frequent instances of Field Educators very carefully working through experiences and situations in many of the placements that may have been confronting for students.

4.9 Theories and paradigms of learning central to this study

There exist a number of theories of learning which singly or severally characterise the learning aimed at in community placement programs. Three, using Kaufmann and Mann's summary (141):

- Transformative learning,
- Reflection and reflective practice, and
- Experiential learning

are particularly relevant. Of these "reflection and reflective practice" and "experiential learning" form the ground notes that can be seen as underpinning important aspects of transformative learning, which is the keynote of this thesis.

Schon (142), in developing a learning theory built around reflective practice writes of an "epistemology of practice" to contrast with the epistemology of the classroom or lecture theatre. He explores the way the

two are connected by reflection in and on the action of practice. This concept is part of the foundation for the each of the other relevant theories – all are based on learning in practice and all depend on reflection to deepen that learning and move it forward. The work of Paulo Freire (2) adds a political dimension to this, where the reflection/practice interaction, or praxis, between the medical student, developing his or her expertise, and the community groups and individuals they are placed among becomes charged with a potential for new cultural and political understanding and insight.

Experiential learning holds a similar foundational value; indeed its direct inheritance from John Dewey (1) makes it one of the most fundamental theories in modern education. Over the last thirty years David Kolb (143, 144) has been one of its most influential theorists. His sense, through his four learning environments – affectively, symbolically, perceptually and behaviourally oriented – of the importance of the totality of the experience, both subjective and objective, recognises the appropriateness of a mixed methodology approach to capture both objective quantitative data and qualitative data. Again the other learning theories focused on here have the importance of practical experience and its reflection back into theoretical understanding as part of their foundation.

Kaufman and Mann summarise Mezirow's work on transformative learning theory as defining "learning as the social process of constructing and internalising a new or revised interpretation of the meaning of one's experience as a guide to action... Transformative learning changes the learner's paradigm so radically that, though it may retain the old perspective, it is actually a new creation." (page 19) (141). Mezirow (145) himself examines this theory in the context of a range of learning paradigms and thinkers going back to Socrates but places it firmly within critical theory citing figures such as Freire and Habermas. He sees the theory as "based upon an emancipatory paradigm, and constitutes a dialectical synthesis of objectivist and interpretive paradigms" (p158). This is particularly the case with his twelve principles that include such ideas as "Learning is understood as the process of using prior interpretation to construe a new or a revised interpretation of the meaning of one's experience in order to guide future action" (page 162); "Learning occurs by elaborating existing meaning schemes, or transforming meaning perspectives. Transformations may be epochal or incremental"; and "A transformative learning experience requires that the learner makes an informed and reflective *decision* to act." (pages 162-3). Experience, reflection and a critical openness to the situation or community that one is working within are all important to transformational learning theory, but the key is the transformation itself. This transformation of one's understanding forming the basis for ethically inspired action is one of the most common ground notes to the stated objectives of community based placements, especially those that are non-clinical.

5 Methodology

5.1 Introduction

Medical education is a contested area as the traditional Flexnerian model and its focus on placements within hospitals or major clinics has been criticized as tending to a narrow focus on the disease rather than the patient. One of the responses to this criticism has been, among other strategies, to develop different placement experiences such as those that focus on primary and/or ambulatory care placements, community-based placements, both clinical and non-clinical, or placements that follow individual patients longitudinally. This study has focused quite specifically on non-clinical community-based partnerships between the faculty and grass roots community organisation. Students are placed with organisations doing work that is not clinical in nature but is supportive of community health. The principle this is based on is that the educational experience will be transformative of key attitudes and values. Furthermore, that its focus on active partnership with community organisations will give an experiential base to key skills related to promotion of community health and ability to interact sensitively with key community groups and individuals. This will involve interactions using a more biopsychosocial mode, which will then complement the biomedical mode characterizing the traditional medical curriculum. This focus on transformational learning for the students is complemented by also looking at the possible gains from such transformational learning for the faculty and the partner organisations arising from this form of partnership.

This calls for a mixed methods approach to allow different types and sources of data to triangulate with each other. This chapter details how the research questions were formulated; what framework underpins the study and the researcher's hypothesis and its feasibility; and how the researcher's objectivity and possible biases are detailed and allowed for. It then outlines the mixed methodology approach used in response to enable an effective and well-founded investigation and will explain the methodologies in the research design, the sampling approaches, data collection procedures, ethics issues and data analysis.

5.2 Aims of the research

The specific aim of the thesis, therefore, is to explore how, in medical education, placement programs built around authentic community engagement represent a significant extension of traditional Flexnerian style hospital and clinical clerkships to include generally non-clinical community organisations supporting community health; and how this can enable better development of community aware doctors through two distinctive outcomes:

- Improved capacity for medical faculties to develop community focused skills and understanding for their medical students as future doctors;
- Authentic engagement between university and community organisations, resulting in benefits to all key stakeholders.

Programs of the type being researched are relatively rare, especially when embedded in an MBBS course as a compulsory component attracting significant assessment value. At the same time there is much interest being shown in experimenting with programs that contrast and complement traditional clinical placement programs by focusing on community and the patient in their life context – a biopsychosocial approach originating in psychiatry but extending to general medicine. It is the aim of this research to define the distinctive features of such programs across their educational approach, curriculum objectives and implementation strategies, exploring both their educational impact for students and the implications of the partnership between faculty and grass roots community organisations that they represent.

5.3 The research question and hypothesis

This aim forms the foundation for the researcher's key question:

> In medical education, are non-clinical placement programs that are built around university/community partnerships transformative for students, faculties and community partners?

This research question addresses two aspects of community-based non-clinical placement programs:

- Their definition and the nature of their engagement with community; and
- Their transformative power for each of the stakeholder groups including the university, its students, and the community organisations and their clients.

Once the nature and range of use of this approach to medical education has been established, its effectiveness can be established through the following subsidiary questions:

1. What are the defining features of non-clinical community based placement programs and how do they relate to the general category of community based medical education CBME?
2. To what extent can such programs transform the attitudes and understanding of students, assisting their development as community aware doctors?
3. To what extent can community organisations gain through their partnerships with the university?
4. To what extent can the university faculty gain through its partnership with community organisations?

The first subsidiary question addresses the nature of the type of program under study and its context both in medical education in general and in community based medical education in particular. It is the distinctiveness of this type of program's approach, especially in its basis in non-clinical health support experience for students, and understanding how that distinctiveness impacts that is the point of this study.

The second subsidiary question addresses the direct impact of the program in transforming the students' attitudes and understanding especially in relation to the role of a doctor in the community and of the role of non-medical community organisations in supporting health.

The third subsidiary question addresses the partnership component of the program from the community organisation's perspective. It is the success of this that underpins the depth of transformation that can be expected from the students in their experience of the program; that is, if the students are genuinely making an authentic contribution to the aspects of community health that are relevant to the organisation and its clients, then their own experience will be given a depth that is likely to make it more effectively transformative for them. Similarly the ability of the program to respond to and support community organisation's aims and the development of its staff members through their experience of working with the students and through other forms of support provided by the faculty further supports the sense of the success of the partnership from their perspective.

The fourth subsidiary question addresses the authenticity of the partnership for the university if the program is successful in giving the faculty a genuine role in contributing to community health and in developing its sensitivity to community health issues. This ensures the program has the capacity to be transformative for the faculty and its students. In this way it complements the traditional partnership provided through hospital and clinical placements.

5.4 Research design and its key methodologies

5.4.1 Mixed methods approach

The complexity of these questions requires a methodological design that includes a mix of approaches to best address the different challenges involved and to gain a sense of the totality of the perspectives that can provide transformation of attitudes and understanding and a means for action. This mixed methodology approach draws on the work over the last twenty years, particularly in America, which has broken down the traditional quantitative / qualitative methods polarity where it was deemed that they should never be mixed as their validation measures seemed too contradictory. The key contributors such as Greene, Caracelli, Graham, Tashakkori and Teddlie, (146), (147), (148) as well as Mayring, Huber, Gurtler, Kiegelmann, Leech, Dellinger, Brannagan and Tanaka (149) (150) have demonstrated the power and effectiveness of using a mix of quantitative and qualitative methods, enabling a deepening of understanding, a triangulation of results and a richer validation process. Of quite specific relevance to this thesis has been the work in this area by Onwuegbuzie's team (151); their concept of crossover analysis is particularly relevant and has much in common with the idea of transformative reorganisation of understanding as different ways of viewing it are alternated to gain the maximal depth of meaning

available. The thesis will focus on using a cross-sectional design using complementary sets of quantitative and qualitative methodologies including desktop analysis, quantitative analysis of survey questions and qualitative analysis of open-ended questions and interview responses particularly through the use of grounded theory principles. This approach will make use of the strength of the mixed methods approach, to validate consistency of results through triangulation across different approaches; to gain deeper understanding through the complementarity of different perspectives, using Tavakol and Sandars' excellent AMEE Guide No 90 (152, 153) as a reference to the application of mixed methods to medical education programs.

A key element of the mixed methods approach is of course its inclusion of qualitative research. This inevitably raises the issue of the researcher's role and stance. As Dwyer and Buckle (154) point out "The process of qualitative research is very different to that of quantitative research. As qualitative researchers we are not separate from the study, with limited contact with our participants. Instead, we are firmly in all aspects of the research process and essential to it. The stories of participants are very real to us; individual voices are not lost in a pool of numbers" (p 61). The nature of the researcher's relationship with their subjects is inevitably one of engagement; whether in Adler & Adler's terms one is a "participant-as-observer" or an "observer-as-participant" (155), the researcher inevitably becomes involved as an insider yet, through the very act of "observing" the researcher also inevitably becomes to some degree detached and is an outsider. Thus the qualitative researcher, as Dwyer and Buckle out it, lives in the "space between". This clearly applies with the very personal interaction of extended interviews, but also applies when working with the very personal words of the subjects in extended written responses, even when these are looked at as part of anonymous surveys. The advantage of this is the depth of nuanced complexity a sensitive qualitative researcher can elicit or derive from the subjects' discourse. The potential disadvantage is that the researcher might lose their critical distance from the data gained. To some extent the researchers' ability to keep the research uncompromised by their engagement must be taken on trust; however sufficient layers of triangulation, especially with, in a mixed methods approach, can give this trust a firmer foundation as can a strong level of transparency to the methodologies used.

In this study the researcher occupies a complex space with both strong insider and outsider elements. Having coordinated the program that is at the centre of the study for five years, the researcher has some degree of insider status with the faculty staff members interviewed. Having been a partner supervisor for five years before becoming its coordinator, the researcher also has a similar degree of insider status with the partner organisation staff members interviewed. On the other hand not being medically trained and having had a lengthy career completely outside of medical education, the researcher is also to some degree an outsider. It is arguable that this puts the researcher in an excellent position to maintain an appropriate level of detachment while also being capable of a high level of educated sensitivity to the research subjects.

5.4.2 Grounded theory approach

A key feature of this approach will be to use aspects of Glaser and Strauss's grounded theory (156) to keep as responsively open a mind as possible in discovering and synthesising the emergent themes and theory from the data. The approach will also be influenced by the principles of realist evaluation as developed by Pawson (157, 158).

Grounded theory is a particularly useful approach to take when attempting to analyse qualitative data relating to a field that has had little published on it and which covers territory with little extant research. This is certainly the case with non-clinical community based medical education programs being examined in this study. The basic principle as Glaser & Strauss explain in their book The Discovery of Grounded Theory (156) is that "grounded theory is derived from data and then illustrated by characteristic examples of data" (page 16). In this study the data in question comprises the comments from students in response to open questions in the surveys administered, and the responses from students, community partner organisation staff and faculty staff from extended interviews. This phenomenological approach is the key to understanding what such data might have to say that is significant, rather than what fits some pre-existing theory about what is held to be significant a priori. In this case even a well established theory about what makes a competent doctor, such as the CanMEDS roles competencies, must not be assumed to

be fully relevant to a program that focuses on a view of medicine that includes non-clinical and even traditionally non-medical experiences. In fact this study does make use of the CanMEDS theory but only after the completion of a grounded theory analysis, doing this to explore where there is, or is not, an intersection between the two.

This approach of generating the theory from the data is particularly suited to a mixed methods study where both quantitative and qualitative data are available and where as rich as possible an understanding of a particular program type is aimed for, "In many instances, both forms of data are necessary – not quantitative data used to test qualitative, but both used as supplements, as mutual verification and, most important for us, as different forms of data on the same subject, which when compared, will each generate theory" (page 28) (159). The distinction is made that generating theory, and the access to new levels of understanding that that enables, is the most important thing, more important than simply verifying existing theory or testing hypotheses that are set a priori.

The theory to be generated in this study is, to use Glaser & Strauss's term, a substantive theory, that is one "developed for a substantive, or empirical, area of sociological inquiry, such as patient care, race relations, professional education, delinquency or research organisation" (page 43). In this case it is the place of non-clinical community based placements in medical education, with the theory generated exploring the intersection between medical education, community health support by non-clinical, even non-medical, organisations and their staff, and the appropriate skills, knowledge, attitudes and understanding to medical students.

The key concept in a grounded theory methodology is that its outcomes and its stages of progress, whether these be new theories, insights, hypotheses or understanding, must be grounded in the data. Consequential to this are three key principles:

- The need for the data to be as rich and diverse as possible not only in its range but also in its interrelationship, leading to the concepts of comparative analysis of data and theoretical sampling,
- The need to go into the study as open to its possibilities as one can, leading to principles such as not being too restricted by existing theories or by tight verification based protocols, while nonetheless remaining highly systematic and as rigorous as possible up to the point where such rigour would begin to impoverish the data, and
- The need to ensure that the maximum is got out of the data, leading to the concept of saturation.

In this study, grounded theory strategies are used for guidance rather than always rigidly followed; for example the idea that "an effective strategy is, at first, literally to ignore the literature of theory and fact on the area under study, in order to assure that the emergence of categories will not be contaminated by concepts more suited to different areas" (page 48) was to some extent unrealistic since one of the datasets used for the study in order to define the substantive area under study was a systematic critical review of the literature. On the other hand, the specific area being looked at has so little extant literature on it that any "contamination" was unlikely. Nonetheless much of the approach has been followed fairly systematically and has been powerful in developing what Glaser and Strauss would call new theory.

The need for diversity of data was taken on board by the development and use of a series of eleven different, though admittedly related, datasets:

- Quantitative Likert scale data from surveys administered to students across four cohorts at the end of the program under study;
- Quantitative Likert scale data from surveys administered to students across four cohorts in the years following their completion of the program under study, including, for one cohort, students who had in fact completed the degree course that the program was part of;
- Qualitative data in the form of comments, ranging from short to lengthy, responding to relatively open questions included in the surveys administered to students across four cohorts at the end of the program under study;
- Qualitative data in the form of comments, ranging from short to lengthy, responding to relatively open questions included in the surveys administered to students across four cohorts in the years

following their completion of the program under study, including, for one cohort, students who had in fact completed the degree course that the program was part of;

- Qualitative data in the form of responses to at length interviews of students in the years following completion of the program and even, in one case, after completion of the degree course that the program was part of;
- Qualitative data in the form of responses to at length interviews of supervising staff from partner community organisation who had provided placements for student in the program;
- Qualitative data in the form of responses to at length interviews of faculty staff who had been responsible for coordinating or overseeing the program, or similar programs;
- Re-coding of the above qualitative data in terms of an external set of themes derived from the CanMEDS physician roles competencies;
- Desktop analysis of the projects undertaken by students for and in conjunction with the community partner organisation they were placed with;
- A systematic critical review of the literature relating to the area under study and the larger area of community based medical education that it is a quite distinctive subset of; and
- Desktop analysis of the placement programs offered by Australian medical schools.

A process of comparative analysis, particularly in the form of the constant comparative method, was then carried out across these datasets, effectively triangulating the findings to develop a rich and robust theory. The constant comparative method starts by "coding each incident in his data into as many categories of analysis as possible, as categories emerge or as data emerge that fit into an existing category… To this procedure we add the basic, defining rule for the constant comparative method: while coding an incident for a category, compare it with the previous incidents in the same and different groups coded in the same category" (p 116). This principle was the guiding approach for the study's analysis, particularly the qualitative analysis but also, to some extent, the quantitative and desktop analysis.

This included a certain amount of "theoretical sampling" where samples were developed or extended in response to the developing theory in order to enrich the data in ways that would enrich the scope and sensitivity of the theory. Examples include the extension of the sample of partner community organisation to include two from the Malaysian version of the program, and the extension of the faculty staff sample to include staff involved in the Malaysian version of the program and three further programs across two countries that appeared to be substantively similar to the program focused on. Indeed it is arguable that the whole sampling program substantially took a theoretical sampling approach, "controlled by the emerging theory" (page 56) and answering the question "what groups or subgroups does one turn to next in data collection? And for what theoretical purpose?" (page 58): the initial sample of students who had just completed the program leading to wanting to sample the same cohorts in the years after program completion with questions tailored to focus on emergent insights; leading then to wanting to interview students in order to drill down on the findings, from the earlier samples, especially those that appeared anomalous. A similar trajectory guided subsequent work with partner organisation staff and faculty staff.

A key focus in the methodology was on theoretical saturation. "Saturation means that no additional data are being found whereby the sociologist can develop properties of the category. As he sees similar instances over and over again, the researcher becomes empirically confident that a category is saturated" (page 72). An example in this study is the way an initial category, such as "Understanding the Connections" was originally grounded in the initial quantitative data, but became more and more teased out as further themes, or properties, from the qualitative data were found to fit with it until a point where fewer and fewer new properties were emerging, even from diverse datasets. This process of finding new themes fitting into larger categories becomes more powerful and was itself an example of the emerging theory becoming delimited through "a reduction in the original list of categories for coding. As the theory grows, becomes reduced, and increasingly works better for ordering a mass of qualitative data, the analyst becomes committed to it. His commitment now allows him to cut down on the original list of categories for collecting and coding data, according to the present boundaries of his theory" (page 122). Similarly thematic saturation guided the work on each dataset such that the qualitative data continued to be explored and coded until no new codings of any significant relevance could be found.

The substantive theory emerging from this process is aimed at a deeper understanding of the area of community based medical education built around non-clinical placements through, for example, developing insight into its nature, areas of insight, likely effectiveness as a contributor to medical education, and its ability to connect medical practice with community health support. In Glaser and Strauss's words "a grounded theory that is faithful to the everyday realities of a substantive area is one that has been carefully induced from diverse data, as we have described the process. Only in this way will the theory be closely related to the daily realities (what is actually going on) of the substantive area, and so be highly applicable to dealing with them" (page 249). It is these aspects of grounded theory that the study focuses on using, without much concern for the later schisms between Glaser and Strauss and the doctrinal disagreements among their followers.

5.4.3 Realist evaluation approach

Programs that are experiential and transformative, while being embedded in courses that take a more traditional instrumental approach, are usually very difficult to evaluate in terms of how much they can be considered as contributing to the desired outcomes compared to the rest of the course. In terms of Kirkpatrick's levels (160) published evaluations of programs in this or related areas, such as that by Cherry et al. (161), have rarely been able to establish programs achieving anything beyond Level 2a (modification of attitudes and perceptions) or 2b (acquisition of knowledge and skills) (161). It has been suggested that Kirkpatrick's somewhat reductionist approach to evaluation is really more relevant to very specific, technical skill-based interventions and rather less useful with more complex programs, like those under study here, where the skills and attitudes involved are more about relationships, which may require a more qualitative approach as suggested by Yardley and Dornan (162).

What Pawson has called realist evaluation (157, 158) seems to offer an approach that is more responsive to this complexity and is built around, among other things, on a multi-method approach including qualitative as well as quantitative methods. Consequently the study has been influenced by elements of Pawson's work on realist evaluation, especially as outlined in his partnership with Tilley, and in his recent work, The Science of Evaluation: A Realist Manifesto, (157), building on earlier works such as the 2005 article "Realist Review – a new method of systematic review designed for complex policy interventions" with Greenhalgh, Harvey and Walsh (158). The core of this approach to evaluation is "what is it about a programme that works for whom, in what circumstances, in what respects, over which duration" (page 32) (157). This approach tends to be fundamentally pragmatic, but coheres around certain principles such as the configuration of a program's context, mechanism and outcomes (CMOc) "The idea is to render the programme theory into its constituent and interconnected elements. In plainer, if more elongated prose, a CMOc is a hypothesis that the programme works (O) because of the action of some underlying mechanisms (M), which only come into operation in particular contexts (C). If the right processes operate in the right conditions then the programme will prevail" (page 40). Pawson does however qualify this classic account of the Realist approach, "A realist investigation… should interrogate the proposition that the specific treatment modalities (M) are effective for specific clients in specific situations (C) so producing specific contributions to wellbeing (O). One item leads to another and, so to speak, defines the others" (page 44). In this study this principle guides the quest of exploring what aspects of these non-clinical CBME programs work for which stakeholders and in what circumstances. Importantly it will be remembered that concepts such as contexts, mechanisms and outcomes are useful not as "pre-determined ingredients" but rather that "they take their meaning from their function in explanation" (page 45). This pragmatism is further supported by "realism's penchant for sitting in the middle, between process and outcome evaluation, between qualitative and quantitative research and so on. It should be stressed, however, that one obtains the best of both worlds by operating in both worlds." (page 45). Such principles are among Pawson's answers to the problem of all research and evaluation into programs, "A basic assumption of realist evaluation is that programmes are complex interventions introduced into complex social systems" (page 50). One traditional approach has been to limit and bound the complexity through such techniques as randomized control trials or through other means of controlling particular factors; such is the path taken by powerfully influential figures such as Kirkpatrick (160). Pawson's approach is to accept and even embrace the complexity, discovering in exploring it insights that, while often partial, are fully grounded in the data with as little impoverishment of that data as possible. In an important sense this circles us back to Glaser and Strauss's grounded theory. Pawson's insight is that this refusal to limit and bound the

complexity may in fact limit the certainty of what is discovered but will maximize its usefulness in the real world, with further studies into further programs gradually building the certainty as far as that is possible.

5.4.4 Stage 1: Systematic Critical Literature Review and Desktop Analysis

An item list of distinctive features to gain a grasp of just what is essential to such programs has been developed in the previous chapter through the combination of a systematic critical review of the literature, which was also be used to develop a typology of CBME programs in order to contextualise and define the programs under study here (see section 4.5 above). This was then be related to a desktop analysis of existing placement programs within Australian medical schools (see section 4.6 above):

- The systematic review covered existing literature relevant to the programs and issues under study using standard search procedures; and
- The desktop analysis of placement programs in Australian medical education was exhaustively based on the Australian Medical Council's website of accredited medical schools (163), the overview of medical placements program as reported by the Medical Deans Australia and New Zealand (136) and confirmed by reference to each medical school's own website listing of its curriculum.

5.4.5 Stage 2: Analysis of pre-existing data – End of Program Student Perspectives

The analysis of existing quantitative and qualitative evaluation data longitudinally across four years (2008-2011) from one type program (Monash University's Community Based Practice program at its Clayton, Melbourne campus in Australia) which is derived from an existing evaluation instrument focusing on student perceptions devised by Dr Tangerine Holt (132). This will determine key dimensions or perspectives that capture what has been valuable or not about the student experience. This data will also be used to re-verify the surveys and to derive a set of validated scales, grounded in the data. These scales will then be used to develop a new shorter version to use as a follow-up survey for later year students to test the persistence of their learning. This follow-up survey will also comprise a combination of Likert scale items and open response question items.

5.4.6 Stage 3: Follow up Surveys – Later Year Student Perspectives

The follow-up survey developed from Stage 2 above will be administered to students in later years of their course and in their first year after the course's completion as a voluntary, anonymous and secure on-line survey using the Qualtrics system, with students being invited by email to participate. The purpose of this stage is to determine the persistence of any transformational learning gained from the program experience and to discover any new themes in their perception of the impact of the program for them.

5.4.7 Stage 4: In-depth Interviews – Student Perspectives

Eight in-depth interviews with a purposive sample of past students of Monash's Community Based Practice The purpose is to investigate the durability of any transformative change and students' perspective on it after a greater level of experience of medicine. It will also be used to triangulate with data collected in Stages 2 and to discover new themes in their perceptions of the experience.

5.4.8 Stage 5: In-depth Interviews – Partner Perspectives

Eight in-depth interviews with a purposive sample of Monash's Community Based Practice program partner community organisation staff. The purpose is to identify any new features of authenticity and transformative experience that relate community-based placements and engagement with universities and triangulate with data collected in Stages 1 to 4.

5.4.9 Stage 6: In-depth Interviews – Faculty Perspectives

Eight in-depth interviews with a purposive sample of Monash's Community Based Practice program Faculty members, and with key university staff in other programs with a related approach at other universities, will take place. Staff interviewed will include professors and lecturers as well as the Deputy Dean with overall responsibility for Medicine, including the MBBS program, across all campuses within the Monash

Faculty of Medicine, Nursing and Health Sciences as well as the Professor responsible for oversight of the Medicine courses, including the MBBS, at Monash's Malaysian campus. Interviews will also include staff directly coordinating the different non-clinical CBME placement programs across five sites, including Monash's Clayton and Kuala Lumpur programs, as well as those from three other universities in Australia and the United Kingdom. The purpose is to identify any new features of authenticity and transformative experience that relate community-based placements and engagement with universities and triangulate with data collected in Stages 1 to 4. This triangulation will include perceptions from different faculty levels and from different universities and national contexts to determine what levels of generalisation the findings might have.

5.4.10 Stage 7: Re-analysis of qualitative data gained from survey comments and interviews against the relevant CanMEDS physician role competencies.

The purpose of this is to explore the intersection of the perceived learning gained by the students against a set of respected external criteria, as a further form of triangulation.

5.4.11 Stage 8: Analysis of Health Promotion research projects

The Health Promotion research topics carried out by students for and with the partner community organisation will be summarized and analysed. The purpose will be to determine the scope and potential effectiveness for all stakeholders of one aspect of students' contributions back to the community partner organisation that they were placed with.

5.5 Sampling

Each of the above stages will employ a specific sampling strategy as follows and influenced by theoretical sampling principles:

Stage 1:

- Literature Survey – a systematic survey of the literature using Ovid Medline, Scopus and PubMed, with some support from Google Scholar and a hand search of key relevant articles from reference lists and alert lists using the following keywords: medical + student*; community-based / "community based"; "medical education"; placement / clerkship / preceptorship; service-learning / "service learning".
- Desktop Analysis – exhaustive sampling based on the Australian Medical Council's website of accredited medical schools (163), the overview of medical placements program as reported by the Medical Deans Australia and New Zealand (136), confirmed by reference to each medical school's own website listing of its curriculum, and further clarified, where needed, by direct contact with faculty offices.

Stage 2: Analysis of pre-existing data – student perspective. The sample includes all the completed student evaluation surveys for the years 2008 – 2011 for the Monash University Central School MBBS Community Based Practice (CBP) program. These surveys comprise a combination of Likert Scale items and open response question items. The surveys were administered and collected anonymously during the students' last CBP lecture for the course before the completion of final assignment work but after completion of the community placements. The sample consists of 672 completed surveys from a population of 1195 students who participated in the course across the five years. The population sampled from included the following demographic data as collected by the faculty:

	Domestic		International		Totals	
	Numbers	*% of overall total (1195))*	Numbers	*% of overall total (1195)*		*% of overall total (1195)*
Male	417	*34.9*	97	*8.1*	514	*43.0*
Female	543	*45.4*	138	*11.6*	681	*57.0*
Totals	960	*80.3*	235	*19.7*	1195	*100.0*

Figure 14: Monash Clayton MBBS Intake Demographics 2008-2011

The numbers of indigenous students is not available but is extremely small. Students were not asked for any demographic data on the surveys so it is not known how closely the sample mirrored the overall demographics. This was not seen as a particularly important issue for this study.

Stage 3: Follow-up surveys – later year student perspectives. The sample consists of all students responding to an email request to complete the survey anonymously and on-line using the Qualtrics system. Using the faculty database all students in Years 3, 4 and 5 (final) years of the Monash Central School MBBS course as well as students in the first year after course completion were sent an email to their official student address explaining the survey and requesting that they complete it by following a link to the secure Qualtrics site. While the whole population was asked to participate it was expected that the actual response sample would be relatively small as has been the general experience with on-line surveys. In fact a sample of 252 students completed the survey from the population of 1195. This put some limitation on the statistical validity of the Likert scale item responses as piece of quantitative research with an error margin of 5.07% and a confidence level of 92.6%, using the Raosoft calculator (164). This is very close to the statistically preferred error margin of 5.0% and confidence level of 95% and is acceptable for the purposes of this study, given the levels of triangulation supporting it. The qualitative analysis of the responses aims to produce useful evidence and insights about what this style of program is capable of producing, or failing to produce, in terms of persistent transformational learning.

Stage 4: In-depth interviews – student perspective. The sample is a purposive sample of eight in-depth interviews drawn from the population of those students taking part in the CBP program who had been short-listed for the faculty's Professor Chris Silagy Award. This annual award is for the student or student health promotion project team in the CBP program whose work best exemplified and met the objectives of the program. All the short-listed students were contacted by email and asked if they would be willing to volunteer to take part in the in-depth interview. From those volunteering, eight were selected to cover the cohort years and be as representational as possible of the range of placement types. The rationale behind this sample selection was that the interviews sought to investigate the possible transformational learning that can arise from engagement with this style of learning. By definition, those students short-listed for this award were the students who had most engaged with the program and were therefore most likely to have had their attitudes and understanding transformed by it. Any transformational learning evident from the interviews would then demonstrate the possibilities of such a program; any demonstration of little or no transformational learning in this group would suggest a failure of the program. There was no attempt to select students who had either favourable or unfavourable views of the program as the data from the open response question items in the surveys had reached saturation in this area and already included very articulate and quite detailed expression both of highly supportive and highly contrarian responses, giving a deep sense of what it was about the program that students most liked or were most critical of. As it was, the student interview sample covered a range of views and experiences, including one student who had had quite an unsatisfactory placement experience.

Stage 5: In-depth interviews –partner perspective. The sample was a sample of six interviews of supervising staff of partner organisations involved with the Monash Central School Community Based Practice program at Clayton, Australia, and a further two interviews of supervising staff from partner organisation involved with the same program at Monash's Sunway Campus in Kuala Lumpur, Malaysia. Partner organisations were selected firstly from those who had had an extended involvement with the program over at least three years and secondly to give a sample representing different kinds of placement and community health areas supported. Selected partner organisation staff were invited by email to participate in the interviews.

Stage 6: In-depth interviews – faculty perspective. The sample is a purposive sample of eight interviews of medical faculty members responsible for overseeing or actually running community-based placement programs that fit the criteria, or come close to fitting the criteria, of the type being investigated. Priority was given to programs in Australian universities but international programs were also included; the latter were selected on a convenience basis where opportunity arose for face-to-face interviews. Selected faculty staff were invited by email to participate in the interviews.

5.6 Data collection and analysis methods

Each of the above stages used the following methods to collect and analyse data from the samples specified.

Stage 1:

- Literature Survey – a systematic survey of the literature following up and building on Dornan et al.'s BEME systematic review (22) using Ovid Medline and Scopus, with some support from Google Scholar and hand searching using the following keywords: medical + student*; community-based / "community based"; "medical education"; placement / clerkship / preceptorship; service-learning / "service learning". The results were analysed in terms of the features of different types of Community Based Medical Education (CBME) programs apparent and their relationship to the community-based, non-clinical, undergraduate medical student placement programs focused on in this research. Those that were relevant were further analysed in terms of their validity and their findings about transformational learning for students and outcomes for faculty and partner organisations.
- Desktop Analysis of Australian medical schools' basic medical degree curricula as detailed above. The data collected were analysed to determine the placement programs in use and were tabulated according to a set of criteria distinguishing between clinical and non-clinical, hospital/clinic and community-based, rotational and longitudinal and service-learning etc. This revealed the number of Australian programs that were relevant to the research design of this thesis and explored the context for them within medical education placement programs.

Stage 2: Analysis of pre-existing data – student perspective. The existing data, as detailed above, was reanalysed as follows:

- Likert scale items were analysed through two sequenced processes using SPSS22:
- A set of scales were derived from the full item set through a dimension reduction facility utilising factor loadings in a varimax rotated component matrix focusing on items with a factor loading of 0.4 or greater; then
- Each scale was tested for reliability using the ANOVA test of item correlation and covariance with Cronbach's Alpha selected;
- The scales derived from the Likert scale items formed the basis of a briefer, more targeted survey, to be used in Stage 3.
- All Likert scale items from the survey were analysed descriptively using SPSS22 with a focus on the Agree / Strongly Agree, and the Disagree / Strongly Disagree responses, as well as on the means.
- The open-ended comment questions that had already been coded thematically and iteratively by the researcher using grounded theory were recoded, using NVivo9, iteratively according to the themes developed from Likert scale items, interviews and open-ended comments from Later Year Student surveys as part of a verification and validation process. It is to be noted that this qualitative data had been read separately by the senior supervisor and the researcher's codings checked for validity.
- The codings for the open-ended comment questions were used iteratively as input for the question guides supporting the interviews in stages 4, 5 & 6.
- As a further triangulation of the findings from the descriptive analysis of the Likert Scale items and the grounded theory thematic analysis of the comments and interviews, both the comments and the interviews were recoded using relevant items from the CanMEDS competencies (165). This grid of competencies for medical practitioners is widely respected and had been a specific reference point for the general revision of the Monash MBBS course in 2000-2001 and for the Community Based Practice program (previously known as the Community Partnerships program) that is the main subject of this study.

Stage 3: Follow-up surveys – later year student perspectives.

- The Likert scale items from the survey were analysed descriptively using SPSS22 with a focus on the Agree / Strongly Agree, and the Disagree / Strongly Disagree responses, as well as on the means and compared to the pre-existing benchmark data to determine persistence or shifts of attitude and understandings as students completed later years of the MBBS course and their intern year after the course's completion.

- Similarly the open-ended comment questions were coded iteratively by the researcher using grounded theory and the results compared to the pre-existing data. Codings developed by the researcher were discussed and samples looked at by both supervisors to check for validity.
- The open-ended comment questions that had already been coded thematically and iteratively by the researcher using grounded theory were then recoded, using NVivo9, iteratively according to the themes developed from Likert scale items, interviews and open-ended comments from End of Program Student surveys as part of a verification and validation process.
- The codings for the open-ended comment questions were used iteratively as input for the question guides supporting the interviews in stages 4, 5 & 6.

Stages 4, 5, 6 & 7: In-depth interviews – student, partner and faculty staff perspectives.

- Data was gathered in the form of recordings. These were transcribed and imported into NVivo 9. They were textually analysed iteratively by the researcher.
- The resulting codings were also analysed iteratively using grounded theory to determine differences in perspective among students from different MBBS years and between students, faculty staff and partner organisation staff.
- Partner organisation staff were analysed for differences between the experiences of different types of organisations and contexts.
- Faculty staff responses were also analysed for differences between the experiences of different programs within Australia and internationally.
- With each of these datasets codings developed by the researcher were discussed and samples looked at by both supervisors to check for validity.
- As a further triangulation of the findings from the descriptive analysis of the Likert Scale items and the grounded theory thematic analysis of the comments and interviews, both the comments and the interviews were recoded using relevant items from the CanMEDS competencies (165). This grid of competencies for medical practitioners is widely respected and had been a specific reference point for the general revision of the Monash MBBS course in 2000-2001 and for the Community Based Practice program (previously known as the Community Partnerships program) that is the main subject of this study.
- All NVivo9 codings were then quantified in terms of number of references and further analysed using Excel spread sheets.
- Key quotations from comments and interviews were selected as most representative of end of program student views, later years student views, faculty staff views and partner views in order to gain and convey nuance and depth in relation to the research questions.

Stage 8: Community-based, student-conducted health promotion research projects. All projects carried out by student teams across the years of the course under study were thematically analysed using NVivo9.

5.7 Objectivity and bias

The researcher has been involved in the Monash CPP/CBP program since 2003, soon after its inception, and has a background of research and practical involvement in community-based education. This sets up the potential for significant bias effects and a potential deficit in objectivity. At the same time it sets up the potential for a deep understanding of the program's nature and practical implementation issues and the effect these may have on the outcomes.

There are two key strategies employed to address the issues of bias and objectivity.

The first of these is to use a validated survey instrument not designed by the researcher. The quantitative data generated from this instrument was analysed by the researcher using well-established and fully detailed strategies in the SPSS22 statistical analysis. The qualitative data was entered into NVivo and then coded using the themes arising from the quantitative data and from such objective techniques as word frequency analysis. The findings were triangulated for consistency against the quantitative data and also against qualitative analysis using a set of relevant external thematic codings – the CanMEDS competencies.

The second strategy was to rigorously design the guiding questions for the interviews around the research questions and the grounded themes arising from the survey data analysis. The interviews were recorded,

entered into NVivo, and coded and analysed using the same codings as the survey data as well as specific grounded thematic codings developed iteratively and used for further triangulation.

Resources did not allow the use of more than one coder for the formal coding of all the qualitative data. The strategies used to address this were threefold:

- The senior supervisor read all the open response question data from the End of Program survey and checked the validity of the researcher's coding, both in respect of the codes used and of their application;
- At each stage the researcher went over the codes developed and samples of their application in detail with both supervisors. Each supervisor was quite familiar with the program and felt confident in assessing the validity of the process; and finally
- The high level of data triangulation in the processes of data gathering and analysis was able to check for any likely inconsistencies or lack of validity.

5.8 Ethical issues

All the research was low impact and did not use participants from any groups deemed by the university's guidelines to be at risk of being unable to give properly informed consent. All stages of the research had ethics approval applied for and granted by the Monash University Human Research Ethics Committee (MUHREC) Approval Application Number – CF07/2610 - 2007001663. Copies of the documentation provided to all survey and interview participants can be found in Appendices 3, 8, 9 and 10. All data has been de-identified.

6 Data Analysis - Finding Transformation: Does anything get changed?

6.1 Student Survey Likert Scale Data at End of Program and in Later Years Surveys

6.1.1 Background to Student Survey Instrument

Instruments for evaluating such programs are rare in the literature, no doubt due to the small number of such programs in the first place. Most existing community based programs over the past ten years or more as covered in key systematic reviews of the literature such as those by Dornan et al (22) and Hunt et al (166) are focused on clinical placements, especially primary care, in primarily medical organisations. Most of those that reach deeper into the non-medical community health support network like Monash's CBP program, especially as part of the service learning movement, are elective rather than core or involve later year students in community based research. Existing instruments such as that developed at Princeton University by Thorne et al (167), are very promising in their coverage of some aspects of such a program but do omit others; Princeton's, for example, specifically focuses on community based research and does not look at the placement experience. Other recent evaluation instruments tend to focus on very specific issues such as a program's effect on students' motivation to work in a particular health area Okayama(168) and Ocek(169); or investigate informants from the community, institutions or practising physicians rather than students, Lovato(170), Kristina(171) and Howe(33). Kristina(172) reports on a survey instrument used at Diponegro University in Indonesia but this community based program was specifically focused on primary health care placements.

The instrument discussed here was developed and validated following de Vellis's principles with use made of Cronbach's(173) work on the coefficient alpha that now bears his name with the length and cohesion of the scales taking into account Raykov(174).

Evaluation of the program was undertaken in various forms from its first year by Flowers(175) and Burkett(176); by its third year, 2006, the program used a student evaluation instrument developed around the themes of the program's objectives that has been used every year up until 2011 with the only revision being the addition in 2010 of an item relating to the health promotion component introduced in 2008. This instrument was used as the basis for three conference papers on the Monash Clayton program (132, 133, 135) and a report on Monash's graduate entry MBBS program in Gippsland(177) but had not until this study been fully tested and validated. The survey itself, in its 2010 form can be found in the Appendices as Appendix 2.

6.1.2 Testing, Validation and Scale Development Process for End of Program & Later Years Student Surveys

This testing and validation used the data set of results from 2006-2010. Its findings then underpinned the validity of the 2008-2011 data set used in this thesis that covers the first four years after the original program was integrated with the Health Promotion and Knowledge Management (HPKM) program and was renamed the Community Based Practice (CBP) program.

The instrument consists of two key sections:

- A series of Likert Scale items, and
- A set of open-ended questions.

This testing and validation process focuses on the Likert Scale items and their analysis to determine the instrument's inter-item reliability. Two sequenced processes were used:

1. A set of scales were derived from the full item set through a dimension reduction facility utilising factor loadings in a varimax rotated component matrix focusing on items with a factor loading of 0.4 or greater; then
2. Each scale was tested for reliability using the ANOVA test of item correlation and covariance with Cronbach's Alpha selected.

All end of program evaluations from the years 2006 to 2010 were compiled giving a sample of 672 evaluations completed out of a total of 1270 students. Evaluations were completed voluntarily and anonymously during or immediately after the final lecture of the year for the program. This lecture took

place immediately after completion of the placements but before completion and submission of final assessment tasks.

For the Likert scaled items students were asked to rate each item as "Strongly Disagree", 'Disagree", "Undecided", "Agree" or "Strongly Agree". Where "Strongly Disagree" was scored as 1 and "Strongly Agree" was scored as 5 with an Undecided scored as 3.

The text of the survey as administered to students at the end of their participation in the CBP program in 2010 is included in the Appendices. Up until 2010, there were 33 items. An item "As a result of participating in CBP, "I have an improved understanding of the principles and role of health promotion in the community" was added. The term "CBP" was listed as "CPP" in the years 2006 and 2007. Similarly, the term "Course Advisor" was listed in those years as "Faculty Field Liaison Officer (FFLO)". FFLO's were Faculty members who volunteered to visit each placement once during the course of the program. The term Field Educator refers to partner agency staff who supervised the students during their placement time.

It is worth noting at this point that this testing and validation process focused on inter-item reliability and was useful for deriving scales that seemed to capture the themes reflecting the pattern of responses from students. The resulting sense of internal validity would be critical in the use of the instrument for the years specifically covered in this thesis, 2008-2011 and to the development of the shorter version of the survey used with students in their later years, both of which are discussed later. It is also worth noting that this later analysis and discussion, along with the analysis and discussion of the open-ended questions in both surveys gives an effective triangulation of the results to help establish the study's external validity.

6.1.3 Findings from Testing & Validation Process based on Surveys conducted with the 2006-2010 Cohorts

Four viable scales were derived from the sample evaluations based on the factor loadings in a varimax rotated component matrix. These have been characterised as follows:

1. Personal Learning – How to apply skills and understanding in practice
2. Personal Engagement – Inner growth, challenge, understanding and reward
3. Understanding the Connections - between Medicine, Community & Health
4. The Community Placement Experience - as a Learning Environment

Items were required to have a factor loading in the rotated component matrix above 0.40 to be included in a scale. Where an item met this criterion across more than one scale it was allocated to the scale that fitted better thematically.

Two items,

1. The CBP information resources such as the Guide, brochures, website, etc. were useful tools.
2. The Academic Advisor visit to the CBP site was valued,

but neither met the factor loading criterion nor fitted well thematically any of the four scales. They have therefore been excluded from this study.

The scales and their items, with factor loadings follow along with their reliability score using the Cronbach's Alpha test can be found in the Appendices as Appendix 5.

Reliability is usually measured as a correlation coefficient with 1.0 being a perfect correlation and zero being no correlation. Values above 0.70 are considered to indicate a reliable instrument although some aim for a figure above 0.80. This data suggests that these scales reliably reflect the key underlying dimensions of the placements with all factor loadings coming in at a minimum of .39 and half being above 0.6, and the Cronbach's Alpha scores based on standardized items coming in for each scale as:

1. Personal Learning: 0.83
2. Personal Engagement: 0.87
3. Understanding the Connections: 0.81
4. The Community Placement Experience: 0.88

6.1.4 Development of Modified Survey of Students in Later Years

A modified form of the CBP End of Program student survey was administered in 2012 as a web-based survey using the Qualtrics program. All students who completed the CBP program in the years 2008-2011 were invited by email to take part.

The survey itself was designed by using items from the original validated survey and drawing upon three of that survey's four subscales:

1. Personal Learning: Items 2, 4, 7 & 12
2. Personal Engagement: Items 1 & 11
3. Understanding the Connections: Items 5, 6, 8, 9 & 10
4. Community Placement Experience: Item 3

The survey text as administered to the students can be found in the Appendices as Appendix 3.

6.1.5 Analysis of the Likert Scale Data from the End of Program Surveys Administered to CBP Students from the 2008-2010 Cohorts

The overall data covering the 2008-11 cohorts gives a sample size of 672 from a population of 1195. Using the Raosoft Sample Calculator (164) this would be expected to give a confidence level of above 99% with a margin of error of 2.5%. With the high levels of internal validity for each scale with Cronbach's Alphas of more than 0.8, as noted above, this data gives an excellent baseline for the students' perceptions of their own learning and for comparison with the perceptions of the students in the later years of their medical education about what they learned from the CBP and what stayed with them.

It is to be noted that the twelve items that have their item number highlighted in the following tables reporting on the End of Program student surveys are those that were used to make up the Later Years Students survey. The italicised number shown is the number of the item in that survey.

Looking at each scale in turn some overall patterns emerge:

Scale 1 focuses on personal learning – the application of skills and understanding in practice as can be seen as follows in Figure 13:

Item #	Item	Factor loading	Corrected Item: Total Correlation	Overall Item Mean % Agree /Strongly Agree	Overall Item Mean % Undecided	Overall Item Mean % Disagree / Strongly Disagree	Overall Item Mean	Overall Std Deviation	Sparkline Graph
7 *(2)*	CBP helped to develop my ability to communicate with a range of people	0.75	0.50	81.1%	10.6%	8.3%	4.08	0.91	
10	Overall, the knowledge and skills developed as a result of the CBP program will assist me in enhancing the wellbeing of people in the future	0.57	0.62	67.1%	21.1%	11.8%	3.79	0.97	
23 *(4)*	My interactions with diverse clients challenged my perspectives and assumptions	0.63	0.52	72.6%	15.2%	12.1%	4	1.12	
26	As a result of participating in CBP, I feel confident to communicate with and assist people with different needs.	0.81	0.68	70.0%	19.6%	10.3%	3.84	0.92	
27 *(7)*	As a result of participating in CBP, I have improved my social and professional skills that can be applied in a medical context	0.63	0.72	73.5%	17.4%	9.2%	3.88	0.92	
34 *(12)*	CBP has challenged my knowledge, skills, and attitudes in being more patient-centred and compassionate to the needs of people.	0.56	0.63	60.0%	23.5%	16.6%	3.81	1.10	
	Scale % Mean by year of students who Agreed/Strongly Agreed or Disagreed/Strongly Disagreed			*70.7%*	17.9%	*11.4%*	3.9		

Figure 15: End of Program Student Survey Data 2008-2011 - Scale1 Personal Learning: How to apply skills and understanding in practice

This data shows a very high level of self-perceived learning with an average of 70.7% of students agreeing or strongly agreeing across the scale as a whole. The high point is Item 7 relating to communication skills, where over 80% agreed or strongly agreed that the program developed their ability to communicate with a range of people. The only item to have less than two thirds of the students agreeing or strongly agreeing was Item 14 relating to whether the program had challenged them about being more patient-centred and compassionate; though even this item still had a 60% level of agreement or strong agreement. This was also the item with clearly the highest level of students selected undecided, disagreeing or strongly disagreeing as their response. This possibly suggests that students perceived the program as having a focus on this area but with quite a few being unsure whether it took their sense of compassion further or simply confirmed their existing sense of themselves as being compassionate and patient-centred. The other interesting thing about this data is the low level of students expressing disagreement or strong disagreement about the program's success in developing their personal learning with an average of 11.4%, coming down to 10.34% if one takes out the slightly anomalous Item 14, discussed above.

Scale 2 focuses on personal engagement covering areas such as students' sense of inner growth, challenge, understanding and reward as can be seen as follows in Figure 14:

Item #	Item	Factor loading	Corrected Item: Total Correlation	Overall Item Mean % Agree /Strongly Agree	Overall Item Mean % Undecided	Overall Item Mean % Disagree / Strongly Disagree	Overall Item Mean	Overall Std Deviation	Sparkline Graph
1	The CBP program was personally challenging	0.50	0.41	68.8%	14.9%	16.3%	3.64	1.00	
3	The CBP program was personally rewarding	0.57	0.71	63.0%	19.0%	18.0%	3.72	1.05	
4 *(1)*	The CBP program helped to develop me as a person	0.46	0.61	62.4%	23.2%	14.4%	3.67	1.00	
19	I was enthusiastic about the CBP program	0.66	0.55	53.6%	20.3%	26.1%	3.43	1.09	
31 *(11)*	The CBP activities have been a valuable component of my learning experiences in the MBBS course	0.70	0.79	43.7%	25.2%	31.1%	3.36	1.19	
32	I enjoyed my CBP placement and would recommend it to other students	0.60	0.71	51.8%	23.2%	25.0%	3.59	1.27	
33	I believe that CBP is important in my future development as a doctor	0.69	0.72	51.5%	25.2%	23.3%	3.44	1.16	
	Scale % Mean by year of students who Agreed/Strongly Agreed or Disagreed/Strongly Disagreed			*56.4%*	21.6%	*22.0%*	*3.55*		

Figure 16: End of Program Student Survey Data 2008-2011 - Scale 2 Personal Engagement - Inner growth: challenge, understanding and reward

Emerging from this data is a theme that gets repeated across the study as a whole. The first three items, Items 1, 3 & 4 all show more than 60% of the students agreeing or strongly agreeing that the program challenged, rewarded and developed them as a person. The rest of the items, which tend to relate more to their sense of relationship to their overall medical course, show a much lower level of agreement or strong agreement, coming down to less than half when asked directly about its intersection with the MBBS course as a whole. This particular item also garnered a higher number of students disagreeing or strongly disagreeing, 31.1% than any other item on the survey. Significantly the only other item to come close, Item 30 with 29.4%, also related to the relationship between the CBP program and the MBBS course as a whole. On the face of it this appears to be an odd finding since the students seem to be saying that the program develops their learning quite strongly and develops them as a person but does not connect well with becoming a doctor. The next scale continues this theme.

Scale 3 looks at students' understanding of the connections between medicine, the community and health in general as can be seen as follows in Figure 15:

Item #	Item	Factor loading	Corrected Item: Total Correlation	Overall Item Mean % Agree /Strongly Agree	Overall Item Mean % Undecided	Overall Item Mean % Disagree / Strongly Disagree	Overall Item Mean	Overall Std Deviation	Sparkline Graph
2	The CBP program broadened my understanding of the role of a health professional in the community	0.51	0.53	72.7%	13.5%	13.8%	3.82	1.00	
5	CBP helped me understand how social context influences origin and progression of disease	0.65	0.34	62.8%	18.6%	18.6%	3.74	1.85	
6	CBP helped me understand how doctors can work with other professionals	0.72	0.46	53.1%	19.2%	27.7%	3.43	1.17	
24 *(5)*	As a result of participating in CBP, I have an improved understanding of barriers and social determinants of health	0.52	0.60	76.9%	13.6%	9.5%	4.04	0.96	
25 *(6)*	As a result of participating in CBP, I have a better understanding of community services available which could be useful in future referrals as a medical practitioner	0.61	0.61	79.0%	10.9%	10.1%	4	1.03	
28 *(8)*	After participating in CBP, I am able to better understand the linkages between clinical and social issues of health	0.62	0.65	73.1%	15.2%	11.7%	3.89	0.99	
29 *(9)*	As a result of participating in CBP, I have an improved understanding of the principles and role of health promotion in the community	0.62	0.51	72.4%	17.8%	9.8%	3.81	1.00	
30 *(10)*	While completing CBP activities, I was able make connections between the practical support of health in the community and material/content /concepts that were learned through lectures across the MBBS program	0.65	0.51	41.6%	29.1%	29.4%	3.09	1.11	
	Scale % Mean by year of students who Agreed/Strongly Agreed or Disagreed/Strongly Disagreed			*66.4%*	17.2%	*16.3%*	*3.73*		

Figure 17: End of Program Student Survey Data 2008-2011 - Scale 3: Understanding the Connections - Between medicine, community and health

The Scale 3 data shows about two thirds of the students across the scale as a whole (66.4%) agreeing or strongly agreeing that they developed improved understanding in this area. However, as with the previous scale, this overall figure hides a disjunction. The level of agreement or strong agreement leaps to 72.8% if you leave out Items 4 & 30. One of these is the other item asking students to evaluate the connections

between learning related to the CBP program and the learning taking place in the rest of the MBBS program (only 41.6%); while the other asked about the program's contribution to their understanding of how doctors can work with other professionals (53.1%). This latter response may be ambiguous in its meaning: the intention was that the students see themselves as future doctors and look at how they could work with the other health professionals they come in contact with through the CBP program. However, since the nature of the program was such that the students came into very little contact with actual doctors, it is possible that a number of students responded negatively to the item on the grounds that they had no opportunity to see practising doctors interacting with other health professionals.

The items that had much more positive responses (Items 2, 5, 24, 25, 28 & 29) all relate in one way or another to the role that community support, social context, social determinants have in the support and promotion of health or on the origins or impact of ill-health. Item 25 relating to the possible use of community health support services by doctors for referrals received the second highest positive score (79.0%) across the three scales that related to students' personal learning, growth and understanding. The highest – Item 7 (81.1%) – related to communication skills. These two areas become a theme across the rest of the data as well.

On the face of it, there seems to be a perception revealed by the data, but possibly unconscious on the part of the students, that the program is quite effective in developing their skills, personal growth, and understanding of health as it relates to community but that it does not connect well with, or have much relevance to, the rest of their MBBS course. This curious disjunction is further explored in the rest of the data, especially the qualitative data.

Scale 4 looks at students' perceptions of their community placements in terms of providing a good learning environment or not as can be seen below in Figure 16:

The remaining fourth scale related to the CBP's learning environment rather than to its learning content and perceived outcomes. As such it was less focused upon, across the study as a whole, with only one of its items being retained for the Later Years Students survey. Nonetheless it is worth looking at briefly.

The overall response was strongly positive with an average of 73.1% of students agreeing or strongly agreeing that the placements provided a good learning environment in various ways. The one item with a more negative response was Item 16 where only 51.4% agreed or strongly agreed; perhaps predictably so given that the item related to the placement supervisors', or Field Educators as they were called within the program, role in the students' assessment – an area of real and understandable sensitivity for students. The next lowest, Item 13, still had about two thirds of the students responding favourably (64.6%); this related to the quality of the activities provided for them by the placements. This result almost certainly was a reflection of there being some unevenness across the large number of placements; nonetheless it is still quite a positive response, especially when taken in conjunction with the one of the other items relating to placement activities, Item 20, which had the most positive response of all the items across the whole survey at 87.6% of students agreeing or strongly agreeing that they were able to actively engage with the activities offered. Other strongly positive items related to the opportunities to interact with other professionals and the quality of these interactions – Items 12, 15, 17, 18 & 21, with the average of agreement or strong agreement across these items being 77.5%. More administrative interactions with the Field Educators, Items 15, 16 & 22 were, as noted above, more problematic and quite uneven.

Item #	Item	Factor loading	Corrected Item: Total Correlation	Overall Item Mean % Agree /Strongly Agree	Overall Item Mean % Undecided	Overall Item Mean % Disagree / Strongly Disagree	Overall Item Mean	Overall Std Deviation	Sparkline Graph
11	The agency's orientation process enhanced my knowledge of the agency and its services	0.48	0.50	81.1%	10.6%	8.3%	3.94	0.96	
12	The field educator's knowledge and expertise provided a professional perspective on issues individuals encounter and services provided to address issues	0.67	0.72	79.6%	11.3%	9.1%	4.07	1.07	
13	The activities offered at the placement facilitated the achievement of my learning objectives listed in the Learning Agreement	0.48	0.66	64.6%	21.6%	13.8%	3.8	1.06	
14	The CBP placement offered a learning environment that allowed me to take initiative, make decisions and enhanced my learning	0.40	0.63	66.2%	18.5%	15.3%	3.76	1.14	
15	My Field Educator met with me for supervision on a regular basis to provide feedback, clarify issues and provide direction	0.81	0.67	76.8%	9.6%	13.5%	4.01	1.13	
16	The ongoing and final formative field educator assessments were valuable learning opportunities that addressed personal and professional issues	0.48	0.63	51.4%	29.5%	19.1%	3.5	1.21	
17 *(3)*	The opportunity to interact with other professionals enabled me to appreciate their roles and responsibilities	0.46	0.59	76.7%	13.8%	9.5%	3.96	0.99	
18	My CBP Field Educator was a professional role model for me on placement	0.71	0.74	70.1%	15.4%	14.5%	3.9	1.16	
20	I actively engaged in activities while completing my CBP placement	0.56	0.49	87.6%	7.3%	5.1%	4.15	0.80	
21	I actively interacted with professionals from other disciplines when given the opportunity to do so	0.58	0.39	84.4%	11.9%	3.8%	4.09	0.80	
22	I utilised my interaction with my field educator as an opportunity to develop specific areas personally and professionally	0.59	0.56	65.8%	24.1%	10.1%	3.78	0.95	
	Scale % Mean by year of students who Agreed/Strongly Agreed or Disagreed/Strongly Disagreed			*73.1%*	15.8%	*11.1%*	3.91		

Figure 18: End of Program Student Survey Data 2008-2011 - Scale 4: Community Placement Experience - as a learning environment

Looking across all the scales it is clear that the students generally considered the program to be successful in providing them with an excellent learning environment that they were able to make the most of; in developing skills and understanding especially in terms of how these might be applied in community-based practice; and was particularly successful in teaching them about the connections between health, social determinants and contexts, and the support for health available from non-clinical sources across the community. The scale showing the least success for the program according to student perceptions was that relating to personal engagement with only a 56.4% average of students agreeing or strongly agreeing about the effectiveness of the program. The most interesting feature of this scale, however, is the way it splits between very personal effects, which were generally seen as positive, and effects relating to their general medical education, which were generally relatively poorly rated. This theme of a disjunction between what the student's perceive as the program's positive benefits for their learning and development and what their experience and even expectations are of a medical course is on the face of it quite anomalous. It does however persist across the rest of the data and possibly suggests a quite profound tension within the students' lived experience of medicine and medical practice.

6.1.6 Analysis of the Likert Scale Data from the Later Years Surveys Administered to Students from the 2008-2010 CBP Cohorts

A modified form of the CBP end of course student survey was administered in 2012 as a web-based survey using the Qualtrics program. All students who completed the CBP program in the years 2008-2011 were invited by email to take part. Of the approximately 1160 students forming this population a sample of 237 completed the survey. Using the Raosoft Sample Calculator(164) this sample size could be expected to give a confidence level of 91.4% and a margin of error of 5.7%. These students ranged across Years 3, 4 & 5 of the five-year MBBS course. An attempt was made to survey students who had graduated but the response rate was far too poor to be useful. Similarly disaggregating the sample by year produced samples that were too small with margins of error clustering around 8-12%; however the pattern of responses from year to year was broadly similar so the aggregated sample yielded usable results.

As discussed above the survey itself was designed by using items from the original validated survey and drawing upon that survey's four subscales:

- Scale 1: Personal Learning – How to apply skills and understanding in practice (Items 2, 4, 7 & 12)
- Scale 2: Personal Engagement - Inner growth: challenge, understanding & reward (Items 1 & 11)
- Scale 3: Understanding the Connections between Medicine, Community and Health (Items 5, 6, 8, 9 & 10)
- Scale 4: The Community Placement Experience as a Learning Environment, (Item 3)

Scale 1: Personal Learning produced the following results for the Later years Students overall:

The data summarised in Figure 16 below shows a degree of polarisation in the results. This is a feature across all the scales in the Later Years student data. It is evident that this polarisation is quite significant and requiring rather nuanced interpretation. The most obvious explanation is that this reflects the intensity of opposition from the small group of students whose opposition to the program was evident in the End of Program surveys, where there was a consistent proportion of about 10% to 20% (highest for the Personal Engagement scale) who fell into the disagree or strongly disagree categories on most items. It is possible that the students from this group who felt most strongly that the CBP program should not be part of the MBBS jumped at the opportunity of a web-based survey to let their feelings be known, becoming somewhat overrepresented in the process. There is some evidence to support this in the comments section of that survey, as will be noted later in this study. However, while there is probably some truth to this explanation of the polarisation in these results, it may be that there is a rather deeper and more interesting, though related, explanation. This is that these results are a reflection of a deep tension in medicine and medical education that is also behind the anomalies in the End of Program student data discussed above. This possibility will be explored further as this study unfolds, but it appears to focus on the differences in mindset between those whose attraction to medicine lies in its science-based power, what Flexner referred to as "the laboratory", and which tends to dominate hospital and research practice, and those whose attraction to medicine focuses on relating to people and wanting to help and care for them directly, even holistically and which therefore tends to see importance in their community, family

and lifestyle contexts. Both these approaches are crucial to good medicine but at times can be somewhat at odds. The success over the past century of the laboratory and the hospital in combating disease and trauma has tended, quite reasonably, to bring them to dominate medical education. It is understandable that a number of those whose attraction to medicine has been its science-based success might be impatient with aspects of medicine that focus on such things as community, social determinants of health and involvement with marginalised groups, and might see these as having no place in a medical course and as in fact detracting from the time and energy needed to learn as much as possible about the science of medicine. The fact that medical education tends to be dominated by the science and technical practice, and that programs, such as the CBP, are rare and seen as being quite unusual, is likely simply to confirm such students in the rightness of their view and to lead a number of them to defend vigorously the forms of medical education that they see as being absolutely critical to medicine's success and their own future competence. A willingness on the part of a number of these students to make use of this web-based survey to assert their views quite strongly is therefore to be expected and is an important component in evaluating the relevance and effectiveness of programs such as the CBP as an important, or at least worthwhile, component of medical education.

However, putting to one side this general observation about the polarisation of much of the data, it is nonetheless quite revealing to look at the more specific aspects of what the data seems to suggest as shown in Figure 17.

Item #	Item	Overall Item Mean	Overall Std Deviation	Overall Item Number Agree / Strongly	Overall Item % Agree / Strongly Agree	Overall Item Number Undecided	Overall Item% Undecided	Overall Item Number Disagree / Strongly	Overall Item % Disagree / Strongly Disagree
	Population/Sample	*1195/237*	*1195/237*	*1195/237*	*1195/237*	*1195/237*	*1195/237*	*1195/237*	*1195/237*
2	CBP helped to develop my ability to communicate with a range of people	3.2	1.25	134	56.5%	44	18.6%	85	35.9%
4	My interactions with diverse clients challenged my perspectives and assumptions	3.2	1.35	138	58.2%	25	10.5%	74	31.2%
7	As a result of participating in CBP, I have improved my social and professional skills that can be applied in a medical context	3.2	1.23	97	40.9%	57	24.1%	78	32.9%
12	CBP has challenged my knowledge, skills, and attitudes in being more patient-centred and compassionate to the needs of people.	3.2	1.35	75	31.6%	44	18.6%	103	43.5%
	Scale Number Mean & % Mean by Year	**3.2**	**n.a.**	**111**	**46.8%**	**43**	**17.9%**	**85**	**35.9%**

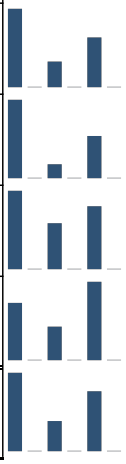

Figure 19: Later Years Student Survey Data 2008-2011 - Scale 1: Personal Learning - How to apply skills and understanding in practice

As far as Scale 1 is concerned a majority of students, even in the years after completing the course, still agree or agree strongly that it helped their learning in two areas. These are in their ability to communicate with a range of people and in the questioning of their perspectives and assumptions about people and their diversity. While about a third only of students disagreed or strongly disagreed with this perception, a similar proportion disagreed or strongly disagreed that the CBP improved social and professional skills relevant to practising medicine, though this area no longer had a majority agreeing or strongly agreeing.

In the area of being patient-centred and compassionate to the needs of people, a clear majority did not see the CBP as having challenged their skills in this area. This echoed a similarly trending, though less negative a response, to the same item in the End of Program survey. It is likely that this reflects a sense across many medical students that they are already compassionate and patient-centred and that this is why they chose medicine as their career, and therefore do not need to have it challenged. The shift from less positive in the End of Program survey to quite negative in the Later Years survey probably stems from

their experience in hospitals and a sense that it is there that patient-centeredness and compassion really get tested and developed, and that the "clients" in CBP placements are not really to be regarded as "patients".

Overall, the Scale 1 results suggests that the CBP does persist across later years of the MBBS course in being perceived as successful in developing communication skills and in broadening understanding of diversity. It is perceived as less successful, and perhaps even irrelevant, in developing compassion and patient-centeredness.

Scale 2 – Personal Engagement, as with the End of Program survey, produced the least positive responses of the four scales as can be seen as follows in Figure 18:

Item #	Item	Overall Item Mean	Overall Std Deviation	Overall Item Number Agree / Strongly Agree	Overall Item % Agree / Strongly Agree	Overall Item Number Undecided	Overall Item% Undecided	Overall Item Number Disagree / Strongly Disagree	Overall Item % Disagree / Strongly Disagree
	Population/Sample	*1195/237*	*1195/237*	*1195/237*	*1195/237*	*1195/237*	*1195/237*	*1195/237*	*1195/237*
1	The CBP program helped to develop me as a person	3.2	1.25	108	45.6%	44	18.6%	85	35.9%
11	The CBP activities have been a valuable component of my learning experiences in the MBBS course	3.2	1.35	78	32.9%	43	18.1%	111	46.8%
	Scale % Mean of students who Agreed/Strongly Agreed by Year	**3.2**	**n.a.**	**93**	**39.2%**	**44**	**18.4%**	**98**	**41.4%**

Figure 20: Later Years Student Survey Data 2008-2011 - Scale 2 Personal Engagement - Inner growth: challenge, understanding and reward

Neither item had a majority of students agreeing or strongly agreeing with either of the items covered in this scale, though the first item about perceptions of the effectiveness of the CBP program to develop them as a person left students fairly evenly divided. However, as with the End of Program survey, the second item, about the value of CBP activities in relation to learning within the MBBS course as a whole, had the second most negative response in the survey. Again, as with the End of Program survey, the most negatively responded to item, in terms of agreement or strong agreement, also focused on the direct relationship between the CBP program and the MBBS course as a whole (see below). Like the previous item this item also left students fairly evenly divided, though in this case about whether the program completely lacked value in this area.

Overall it is clear that, while there is division of opinion about the success of the program in students' perceptions of its effect on their personal development, this is the scale where the program is perceived least positively.

Scale 3, about making connections between community and medicine has many items with quite positive results, though it also has the item with the most negative response of all as can be seen below in Figure 19:

The clearly most positive item here, with 61.6% of the students agreeing or strongly agreeing, is the one relating to understanding the health support services available from the community for doctors to make use of through referrals. This item shares with all the other scale items but one, a level of only one third or less students disagreeing or strongly disagreeing with the perceived effectiveness for them. The other items in this category relate to health promotion and to the social dimensions of health and its determinants.

Item #	Item	Overall Item Mean	Overall Std Deviation	Overall Item Number Agree / Strongly Agree	Overall Item % Agree / Strongly Agree	Overall Item Number Undecided	Overall Item% Undecided	Overall Item Number Disagree / Strongly Disagree	Overall Item % Disagree / Strongly Disagree
	Population/Sample	*1195/237*	*1195/237*	*1195/237*	*1195/237*	*1195/237*	*1195/237*	*1195/237*	*1195/237*
5	As a result of participating in CBP, I have an improved understanding of barriers and social determinants of health	3.2	1.25	125	52.7%	37	15.6%	65	27.4%
6	As a result of participating in CBP, I have a better understanding of community services available which could be useful in future referrals as a medical practitioner	3.3	1.26	146	61.6%	36	15.2%	55	23.2%
8	After participating in CBP, I am able to better understand the linkages between clinical and social issues of health	3.1	1.18	117	49.4%	45	19.0%	70	29.5%
9	As a result of participating in CBP, I have an improved understanding of the principles and role of health promotion in the community	3.0	1.21	114	48.1%	38	16.0%	80	33.8%
10	While completing CBP activities, I was able make connections between the practical support of health in the community and material/content/concepts that were learned through lectures across the MBBS program	2.5	1.11	57	24.1%	60	25.3%	115	48.5%
	Scale % Mean of students who Agreed/Strongly Agreed by Year	**3.0**	**n.a.**	**111.8**	**47.2%**	**43**	**18.2%**	**77**	**32.5%**

Figure 21: Later Years Student Survey Data 2008-2011 - Scale 3 - Understanding the Connections: between medicine, community and health

These findings suggest that, on balance, the program continues to inform many students' understanding of the relationship between health or health support, and the community and community-related social influences.

Against this lies the findings for Item 10, the most negative in the whole survey, suggesting that only a quarter of the students see the CBP has having any positive effect on them seeing connections between their MBBS course as a whole and the health support taking place in the community through the sort of community agencies they were in contact with. Again we see evidence of a significant disconnect between two different aspects of medicine and health support being reflected in the students' sense of their own medical education.

Scale 4, the community placement experience as a learning environment, only had one item, which focused on interprofessionalism, but it had the most positive response across the whole survey as can be seen as follows in Figure 20:

Item #		Overall Item Mean	Overall Std Deviation	Overall Item Number Agree / Strongly Agree	Overall Item % Agree / Strongly Agree	Overall Item Number Undecided	Overall Item% Undecided	Overall Item Number Disagree / Strongly Disagree	Overall Item % Disagree / Strongly Disagree
	Population/Sample	*1195/237*	*1195/237*	*1195/237*	*1195/237*	*1195/237*	*1195/237*	*1195/237*	*1195/237*
3	The opportunity to interact with other professionals enabled me to appreciate their roles and responsibilities	3.2	1.25	155	65.4%	30	12.7%	52	21.9%
	Scale % Mean of students who Agreed/Strongly Agreed by Year	**3.2**	**n.a.**	**155**	**65.4%**	**30**	**12.7%**	**52**	**21.9%**

Figure 22: Later Years Student Survey Data 2008-2011: Scale 4 Community Placement Experience: as a learning environment

With this response a pattern emerges across the Later Years student survey as a whole, which is that the CBP has enjoyed significant success in developing sustained skill development and understanding in the areas of:

- Communication skills (Item 2)
- Interprofessionalism (Item 3)
- Understanding of the community-based health support services available to support a doctor's work (Item 6)
- Understanding the importance to health of diversity, social determinants of health and barriers to health access (Items 4, 5 & 8)

For a smaller, but still sizeable, number of students the program was also successful in:

- Developing them as a person (Item 1)
- Understanding health promotion (Item 9)

It is an intriguing result, and consistent with the analysis of the end of course surveys, that the program seems to have had least success in giving the students a sense of its connectedness with the more traditional learning in the rest of their MBBS course. Only a quarter to a third of the students agreed that it succeeded in this area (Items 10 & 11). This is in spite of the recognisable importance to medical practice of those areas above that were perceived as successful.

Finally the fact that only a little over a third of the students perceived the CBP as developing their compassion and patient-centeredness may result from its nature as a non-clinical placement but still seems somewhat anomalous and was deemed to be another of the things needing to be explored across the students' interviews and survey comments.

6.1.7 Comparison of the Likert Scale Data from both the End of Program and the Later Years Surveys

Twelve survey items, as detailed above, were common to both the End of Program and Later Years student surveys. These were the items selected from the original End of Program survey that would be most relevant to a briefer web-based survey for the Later Years students. These items allow a direct comparison between the two samples from the same population of students who completed the CBP program in the years 2008 to 2011. The Later Years student survey was carried out late in 2012 to ensure that all respondents had had the experience of at least one year of clinical placements after their experience of a non-clinical placement in the CBP program. The results therefore give an indication of the persistence of students' perceptions of what they learned through the CBP after having this overlaid by one to four years experience of more traditional clinical placement experiences in hospitals, clinics of GP practices.

As expected the average agree or strongly agree responses dropped away to some extent as the students had their non-clinical experience of CBP overlaid by the intensity and extensiveness of the clinical years. As discussed above there was also a greater amount of polarisation of responses among the Later Years responses. Nonetheless there were clear similarities between the two sets of responses giving some robust indication of what was most effective for their learning in the CBP experience. This can be seen scale by scale and item by item across the charts for each scale and its items that follow.

Scale 1 (see Figure 21), focusing on personal learning of how to apply skills and knowledge in practice, demonstrates the effectiveness of the program in developing sustainable communication skills, including those relating to interactions with a diverse range of people. On the other hand the proportionately much lower positive Later Years response rate to the application of social and professional skills in a medical context is an indicator of the developing theme of a disjunction between students' perceptions about the relevance of what they have learned in the world of community-based health and the world of clinical and hospital-based medicine that dominates the rest of their MBBS experience. This is even more pronounced in the item related to being patient-centred, where the context of clinical experience seems almost to completely trump any sense at the end of the program that the CBP was effective in this area with a near reversal of perceptions from the students in their later years.

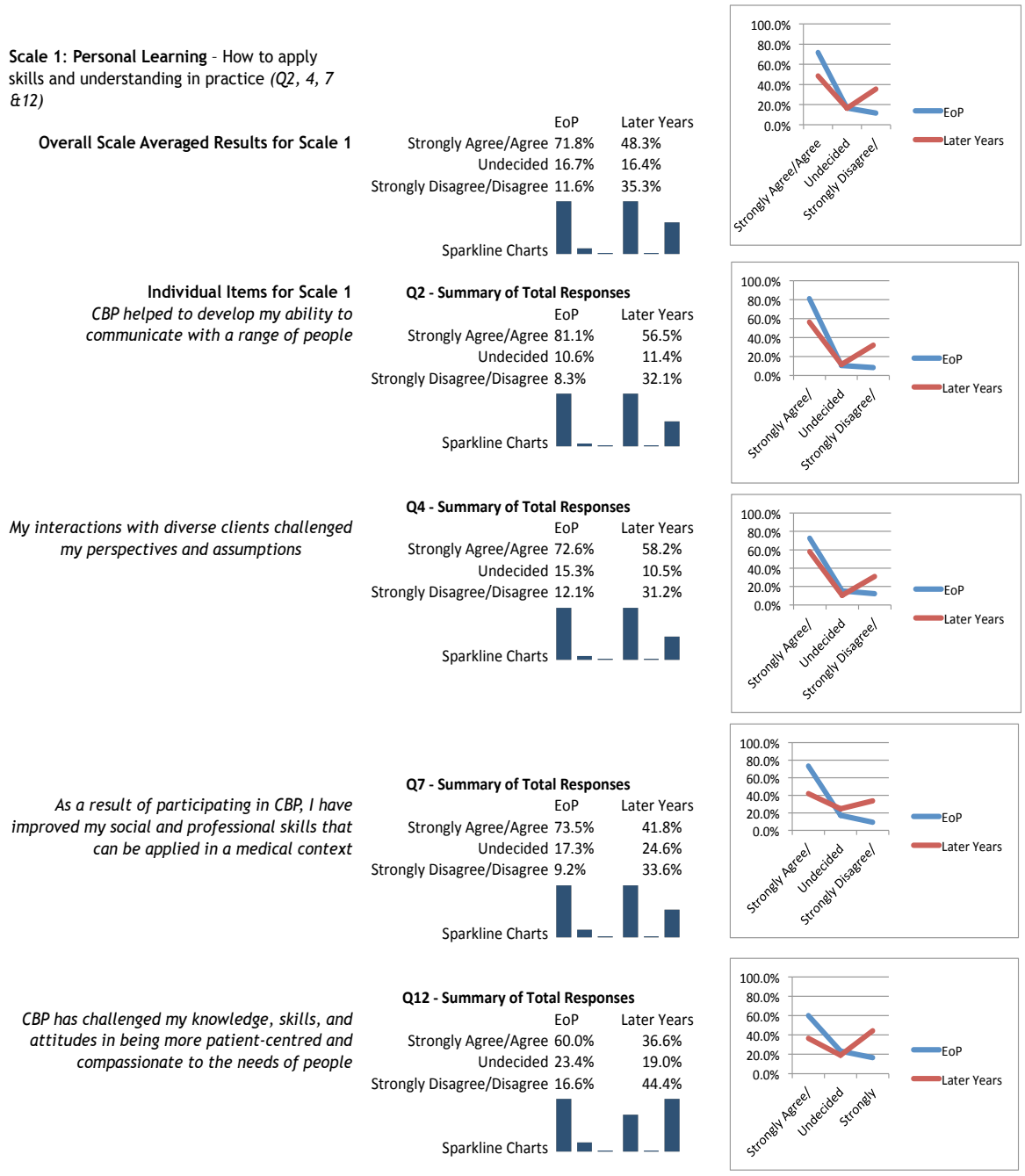

Figure 23: Comparative Data across End of Program and Later years Student Surveys 2008-2011 - Scale 1 Personal Learning

The other distinctive pattern of difference for this scale between the End of Program survey responses and the Later Years survey responses is the polarisation in the later surveys that was not evident in the End of Program ones. Possible reasons for this have already been discussed above but it is suggestive of a divide between students with those who were positive about the usefulness of their learning from the CBP to some extent remaining so, while those who were negative either increasing in numbers or becoming more extreme in their opinions.

Scale 2 (see Figure 22), relating to personal engagement and students' perceptions of inner growth and sense of reward, has a broadly similar pattern of response across the two surveys. This was the scale that was least positive for the End of Program student responses and continued to be so for the Later Years responses. The pattern of increased polarisation noted for Scale 1 is confirmed here as well with the scale average being almost completely balanced across positive and negative responses.

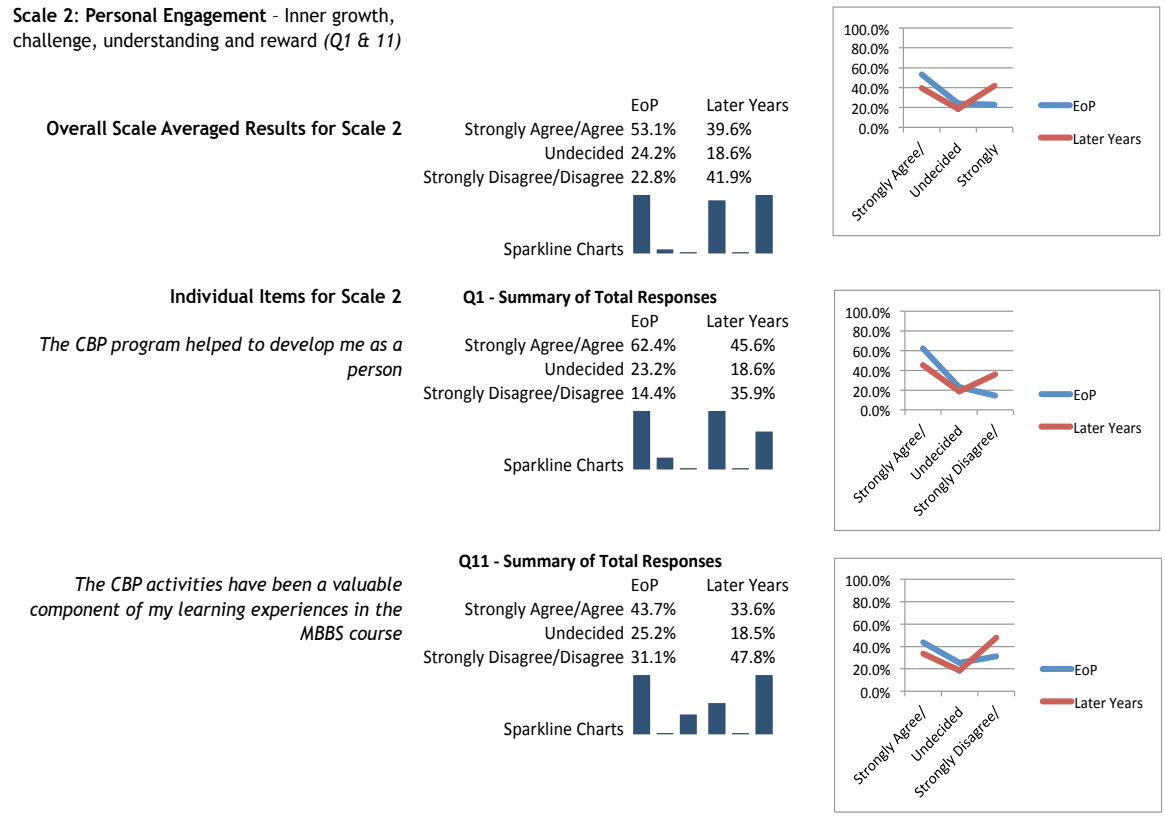

Figure 24: Comparative Data across End of Program and Later Years Student Surveys 2008-2011 - Scale 2 Personal Engagement

The sense of disjunction between learning from the CBP experience and any sense of its relevance to the rest of the MBBS comes across very strongly for Item 11 where almost half the Later Years students are negative about the value of the program as a component of the MBBS and only a third are positive, confirming a trend already evident in the End of Program surveys but even more strongly expressed.

Scale 3 (see Figure 23), with its focus on developing students' understanding of the connections between health, the community context and the practice of medicine, is a particularly important area for a program such as the CBP to be effective in. If one leaves aside the last item, Q10, this area is quite positive in students' perceptions of the effectiveness of their learning from the CBP.

In particular one of the items, Q6, is one of the most positive and least polarised of the items across both surveys with over 60% of Later Years students continuing to agree or strongly agree. The fact that this item deals with an area unique to the CBP within the MBBS course as a whole and is central to what the CBP is about is particularly significant. This is the area of understanding what community-based, non-clinical services can contribute to the support of individuals' health and, especially how a doctor might make use of them in referrals. This is a direct attempt to build a connection within doctors' perceptions and practice between the world of wards and waiting rooms, and the world of community agencies and, often informal, non-clinical health support services. The fact that over 60% of students still perceive the usefulness of this following intensive experiences of hospital and other mainstream clinical medical placements suggests a real strength in what the CBP has given them as part of their education. This is supported by a similar, though slightly lower, level of agreement (57%) continuing to agree or strongly agree that the program improved their understanding of the barriers to, and determinants of, health coming from individuals' social contexts, confirming the responses by students in the End of Program surveys. Both these areas are central to the CBP's aims and neither are much addressed by the rest of the MBBS course.

A comparison of the results across both surveys for the last item in this scale, Q10, yet again confirms the anomaly remarked upon earlier. This is that at the same time as being quite positive about the effectiveness of the CBP in helping students understand the connections between the medical world and

the effects and services coming from the community and social context, students consistently also report a lack of connectedness between what they are learning in the CBP and what they are learning in the MBBS as a whole. The results here make it clear that this perception only gets intensified across the later years of the course.

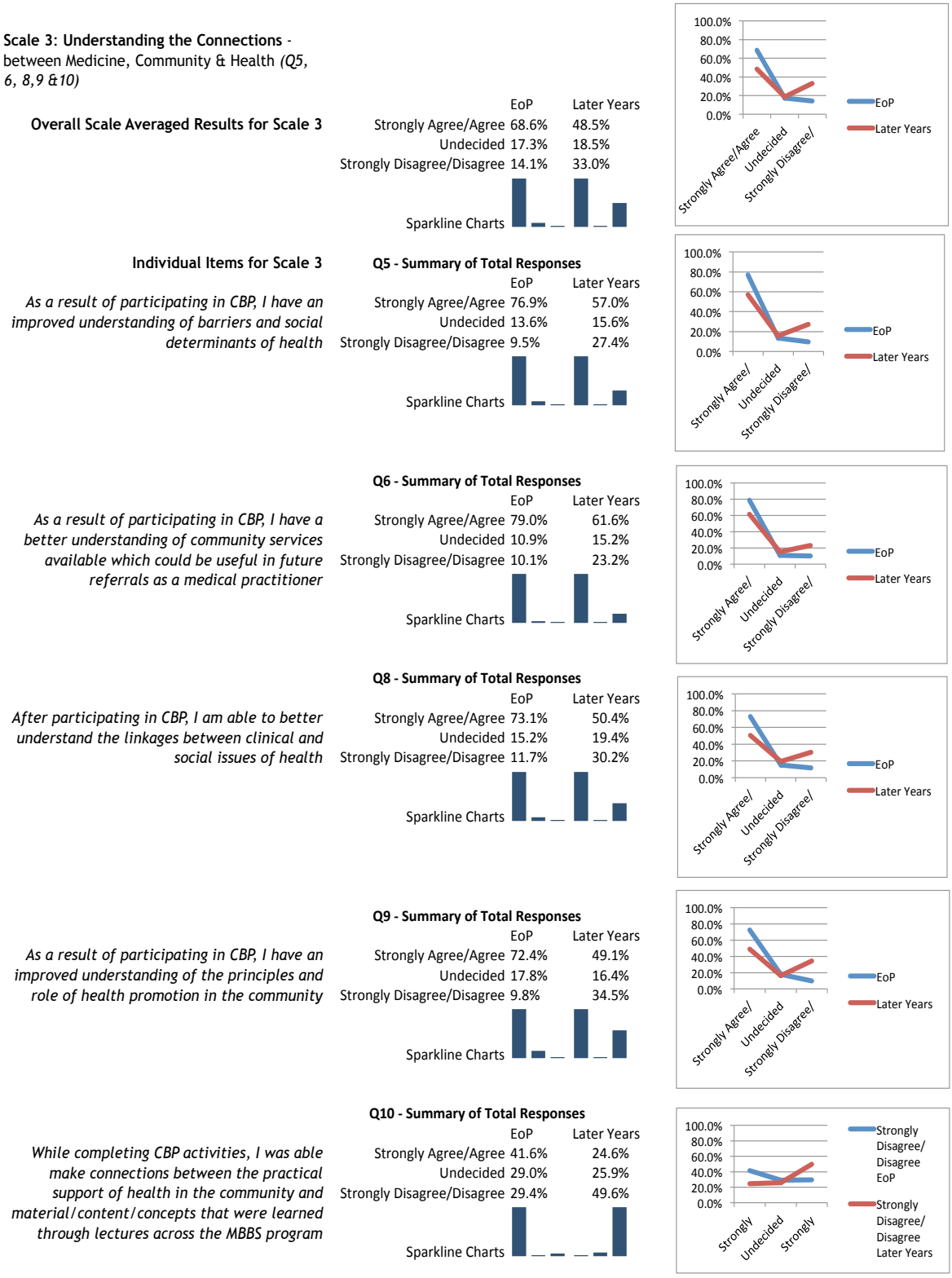

Figure 25: Comparative Data across End of Program and Later Years Student Surveys 2008-2011 - Scale 3 Understanding the Connections

Scale 4 (see Figure 24), focusing on the experience of the CBP as an effective learning environment, has only one item that is common to both surveys. It deals with students' opportunities to develop their interprofessionalism and their understanding of the work and skills of other professionals involved in health support.

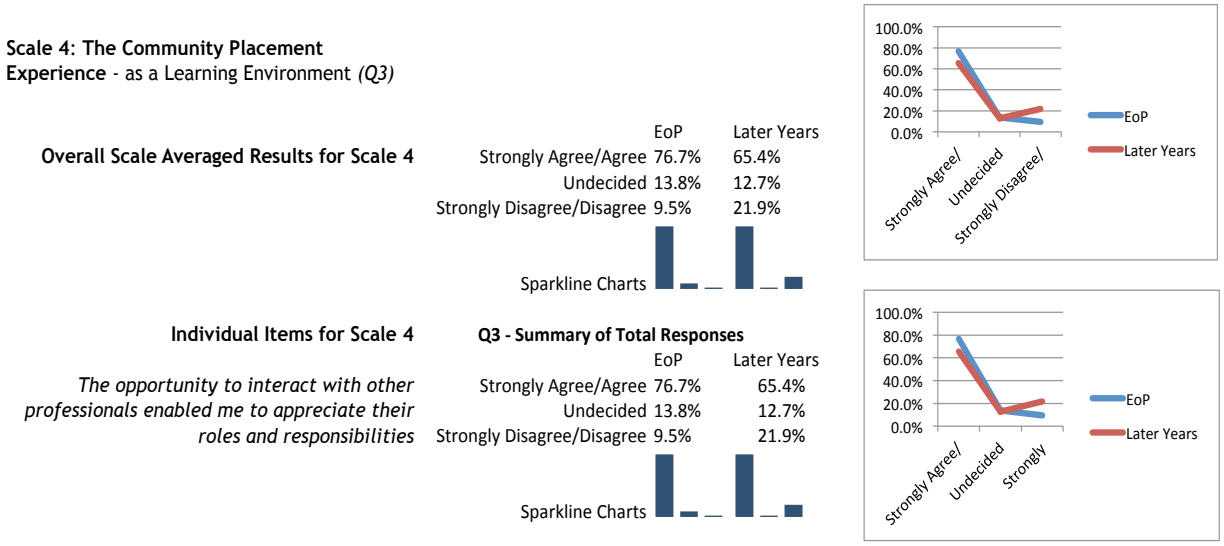

Figure 26: Comparative Data across End of Program and Later Years Student Surveys 2008-2011 - Scale 4 Community Placement Experience

The findings here are perhaps the most positive across the whole survey. This item goes from being one of the more positive ones in the End of Program survey to being clearly the most positive in the Later Years survey. It confirms the Later Years students' perception that one of the more sustainably valuable aspects of the CBP was the opportunity it provided to understand and make connections with the world of health support beyond mainstream medicine; is this case as represented by the contributions and skill sets of other professionals. Unlike the areas in the previous scale of non-clinical community health support and issues such as the social determinants of health, this area does have some clear continuity with their clinical placement experiences as they interact with the nurses, physiotherapists, social workers and the like that can be found in hospitals and clinics. It would appear that, somewhat as with the area of communication skills in Scale 1, this is an area where students have a sense that the CBP experience has helped prepare them for their later clinical placements.

6.1.8 Summary of key findings from the Likert scale data from the End of Program and Later Years student surveys

The program seems to have been reasonably successful and sustainably so in the areas of:

- Communication skills (Item 2)
- Interprofessionalism (Item 3)
- Understanding of the community-based health support services available to support a doctor's work (Item 6)
- Understanding the importance to health of diversity, social determinants of health and barriers to health access (Items 4, 5 & 8)

The importance of this is that the CBP experience is unique within the MBBS in providing this learning; obviously so in the third and fourth points but also subtly in the first two points since both go much further than is generally the case in the rest of their MBBS experience. Communication skills get built around very diverse and often quite marginalized groups, much more so than in a hospital placement where such groups are interacted with less often and usually with the mediation of interpreters or social workers. In the area of interprofessionalism the net of experience is cast much wider and more deeply, so that it includes professionals, such as teachers, not normally encountered in hospitals, and more extensive

and intensive experience than would be available in hospitals with other professionals such as social workers, physiotherapists, occupational therapists and others.

On the other hand both surveys eloquently reveal an apparent disconnect between the MBBS as a whole and the learning developed through the CBP. This disconnect remains strong even when apparently contradicted by the positive areas outlined above. It is almost as though there are two different types of medicine, both of which can be seen as valuable by students but each of which is also perceived as being irrelevant to the other. Furthermore one type is only ever experienced through a program like the CBP and the other type dominates the entirety of the rest of the MBBS experience in a balance so unequal that a significant number of students are led to reject vehemently that represented by the CBP, even while at least half the students clearly still valued it even up to three years after completing the program.

6.2 Student Survey Open Comment Qualitative Data at End of Program and in Later Years Surveys

6.2.1 Introduction

The student responses to the open comment questions on the surveys comprise a rich source of qualitative data, often quite eloquent and passionate. These responses gave both depth and nuance to the Likert scale data and can be used to explore what students actually felt and believed. This study gives the background to the data, spends a little time on looking at the patterns formed by the themes evident in it and what they might imply in the linkages between the quantitative and qualitative data, and then uses wide-ranging examples from it to explore what it can tell us about the program - its effectiveness and why it worked or did not work for different students. The themes generated by the analysis can be seen in full and in relationship to the themes generated from the other data in Appendix 9.

6.2.2 Background to student survey comments

As can be noted from the text of both surveys, reproduced as Appendices 2 and 3, there were with each a series of questions designed to give the students the opportunity to give extended, open-ended comments. The text of these questions was as follows:

On each survey a set of open questions were asked as follows:

- End of Program Survey:
    - What did you enjoy about your CBP experience?
    - As a result of your CBP learning experience, list any positive outcomes, which would enable you to become a better medical practitioner.
    - What aspects, if any, of you CBP learning experience did you find disappointing, unhelpful or negatively or positively challenging (please specify which)?
    - What suggestions can you give that might improve the CBP learning experience for next year's students?
    - Any further comments?
- Later Years Survey:
    - What did you enjoy about your CBP experience?
    - What developments in understanding or attitude, if any, have stayed with you since completing the CBP?
    - As a result of your CBP learning experience, list any outcomes, which might have contributed to you becoming a better medical practitioner.
    - What aspects, if any, of your CBP learning experience and legacy have you found disappointing, unhelpful or challenging (either negatively or positively)?
    - Any further comments?

6.2.3 Broad scale analysis

The responses to these questions were entered into NVivo 9 and coded using grounded theory principles until all comments were coded thematically and saturation was reached with no new themes suggesting

themselves. When these codings were looked at, it was obvious that most fitted into the four scales that were grounded in the Likert scale data. Within each scale clear, dominating themes were also evident and can be listed as follows in Figure 25 for each of the two surveys:

End of Program Student Survey – Themes from extended comment responses	Later Years Student Survey – Themes from extended comment responses
Personal Learning	**Personal Learning**
Teamwork or cooperative learning	Teamwork or cooperative learning
Respect for others &/or empathy	Respect for others &/or empathy
Health promotion project, health promotion & research skills	Health promotion project, health promotion & research skills
Experiencing medical or health support in action	Experiencing medical or health support in action
Developing new understanding and skills	Developing new understanding and skills
Communication and interaction skills	Communication and interaction skills
	Longer term outcomes
	Sustained learning
	Maturation of learning
	Becoming a better doctor
Personal Engagement	**Personal Engagement**
Learning style	Learning style
Interest or passion	Interest or passion
Feeling reward or enjoyment	Feeling reward or enjoyment
Experiencing difference	Experiencing difference
Challenging	Challenging
Understanding the Connections	**Understanding the Connections**
Professionalism & interprofessionalism	Professionalism & interprofessionalism
Determinants of health, social factors and access to health support	Determinants of health, social factors and access to health support
Connections between placement and MBBS	Connections between placement and MBBS
Community health	Community health
Community health support and infrastructure	Community health support and infrastructure
Community health issues	Community health issues
Community Placement Experience as a Learning Environment	**Community Placement Experience as a Learning Environment**
Placement activities	Placement activities
Nature of placement	Nature of placement
Location of placement	Location of placement
Interaction with clients	Interaction with clients
Field Educator and health support professionals	Field Educator and health support professionals
Fellow students on placement	Fellow student on placement
Faculty Administration & Support	**Faculty Administration & Support**
Support for program and students	Support for program and students
Suggestions for change	Suggestions for change

Student welfare support	
Health promotion support	
CBP coordination and organisation	

Figure 27: Themes from Student Survey Extended Comment Responses

Included in Figure 25 was also a fifth category evident relating to the students' observations about the level and quality of administrative support given to them or to the program. The themes generated by the analysis can be seen in full and in relationship to the themes generated from the other data in Appendix 9.

All comments were also coded, wherever relevant, as positive - according to whether they suggested positive feelings – or negative – according to whether they suggested negative feelings or made some criticism about the program.

Figure 26 summarises a count of all the coded references giving the number of references made under each theme and the percentage this represented of all the codings made. It is important to note that this data is essentially qualitative rather than quantitative and that the figures in this table are indicative rather than definitive of the patterns of students' observations about the program. Nonetheless they do provide some useful triangulation for the analysis of the quantitative Likert scale data. Of more interest and value will be the qualitative insight these comments give about what seems to lie behind the quantitative data in the students' minds, giving greater depth and sensitivity to that data. As suggested by Pawson's (157) work this will be particularly interesting in terms of those students for whom the program seemed to be most effective, or least effective, to give some insight as to why this might be and under what circumstances. Nonetheless, it can be useful to first look at the pattern of the comments:

			End of Program Student Surveys Comments				Later Years Student Surveys Comments			
			References				References			
			#	%	# Positive	# Negative	#	%	# Positive	# Negative
Combined Nodes for Key Themes & Scales			4772	100.0%			1691	100.0%		
Personal Learning			**1342**	**28.1%**			**624**	**36.9%**		
	Communication and interaction Skills		212	4.4%	210	6	65	3.8%	12	3
	Develop new understandings & skills		462	9.7%	459	14	100	5.9%	33	5
	Experiencing medical or health support in action		262	5.5%	471	19	120	7.1%	66	8
	HP Project, HP & Research Skills		242	5.1%	112	125	109	6.4%	36	41
	Longer Term Outcomes		n.a.	n.a.	n.a.	n.a.	29	1.7%		
		Better Doctor	n.a.	n.a.	n.a.	n.a.	*14*	*0.8%*	*3*	16
		Sustained Learning	n.a.	n.a.	n.a.	n.a.	*15*	*0.9%*	*4*	27
	Respect for others and or empathy		164	3.4%	160	2	54	3.2%	4	0
	Teamwork or cooperative learning		84	1.8%	64	21	38	2.2%	8	11
Personal Engagement			**629**	**13.2%**			**249**	**14.7%**		
	Challenging		74	1.6%	46	25	40	2.4%	13	29
	Experiencing difference		198	4.1%	197	1	49	2.9%	29	0
	Feeling reward or enjoyment		84	1.8%	107	4	58	3.4%	44	8
	Interest or passion		61	1.3%	72	3	37	2.2%	22	2
	Learning style		212	4.4%	167	46	65	3.8%	48	9
Understanding the Connections			**840**	**17.6%**			**368**	**21.8%**		
	Community health		288	6.0%			123	7.3%		
		Community Health Issues	*117*	*2.5%*	*113*	*1*	*44*	*2.6%*	*14*	1
		Community health support infrastructure	*171*	*3.6%*	*169*	*1*	*79*	*4.7%*	*31*	2
	Connection between placement & MBBS		151	3.2%	223	32	48	2.8%	6	37
	Determinants of health, social factors & access		75	1.6%	72	2	85	5.0%	20	3
	Professionalism & interprofessionalism		163	3.4%	156	7	56	3.3%	18	2
Community Placement Experience			**1183**	**24.8%**			**373**	**22.1%**		
	Fellow students on placement		**45**	**0.9%**	**21**	**26**	25	1.5%	13	11
	Field educator & health support professionals		252	5.3%	151	95	73	4.3%	49	27
	Interaction with clients		387	8.1%	307	79	100	5.9%	62	43
	Location of placement		14	0.3%	7	7	7	0.4%	1	6
	Nature of placement		207	4.3%	282	31	76	4.5%	49	27
	Placement activities		278	5.8%	151	111	92	5.4%	59	45

Figure 28: Summary of Theme Codings of Comments from Student Surveys 2008-2011

These comments are the ones that had some significance to responding students, enough at least to prompt them to the extra trouble of writing something down rather than just ticking a box on a Likert scale. So the general pattern of responses is meaningful as an indicator of what students felt to be important. This applies both within each survey and across the two surveys. While this stage of the analysis does not pick up the thoughtfulness or emotion of students' responses, there are still interesting points to be made about the patterns emerging.

The point must also be made that this data came from a grounded theory approach where the codings were developed in real time as the comments were looked at with as little preconception as possible; even the grouping into scales was done afterwards when it became clear that this was quite a natural, emergent grouping that nicely triangulated with the scales developed from the Likert data. Consequently these codings are intrinsically sensitive to, and reflective of, the students' expressed concerns.

A number of points can be made about the pattern of students' comments, especially when comparing student perceptions of their learning from the program as recorded at the end of the program and as recorded in later years of the MBBS course. The first of these is the significant increase in the proportion of comments made relating to the scales "Personal Learning" and "Understanding the Connections" made by Later Years students compared to those made by students at the end of the program – increases from 28.1% to 36.9% and 17.6% to 21.8% respectively. Since both these scales deal with specific areas of skills and knowledge that are more or less clearly relevant to the study and practice of medicine this suggests that students' perceptions about what they learned, or perhaps did not learn, become more important to them over time than the more personal and perhaps emotive areas covered by the other three scales. This is perhaps to be expected but it does mean that what the students actually say in these comments has growing significance for them and will be particularly worth focusing on.

At a more detailed level, if one focuses on, as being significant, those themes with a response rate of 5% or more - a somewhat arbitrary but quite arguable figure - there are six themes that are significant across both groups and three that are significant for one group but not the other. Most of these, as already noted, cluster around themes that relate to development of skills and knowledge, or to actual practice. They break down as follows:

"Personal Learning":

- Developing new understanding and skills through the program was significant to both groups, though less so to Later Years students. This is understandable since this is an area of almost overwhelming impact during the clinical years; a point that makes even more significant their perception, via 5.9% of all comments, that what they learned in the CBP was still worth noting;
- Experiencing medical or health support in action appears to have been of increasing significance as students moved into their later years. At 7.1% of all comments this is one of the most commented upon areas, with only the Community Health theme, at 7.3%, getting more comments from this group. It is evident from looking at the comments themselves that these two themes are closely related and are about Later Years students having an understanding that the CBP was particularly useful for them learning about how health is supported across the community through a range of groups;
- Health promotion and learning research skills both through the health promotion project that was part of the CBP and through the associated tutorials also came out as significant and of somewhat increasing significance as students moved into their later years.

"Personal Engagement":

- The lack of any significant difference in the response rates across the two groups, and the generally low levels of response rate suggests that this was an area of little issue. This fits with the Likert scale data, where this scale was the lowest ranked for both groups.

"Understanding the Connections":

- As noted above the theme, "Community health" had the most comments from Later Years students; it also had the second most number of comments from End of Program students. The increasing interest in it from students in their later years almost certainly reflects its importance to the CBP and relative lack of coverage anywhere else in the course, especially as it relates to the sub-theme of community health support infrastructure. This strongly reflects the findings from the Likert scale data.
- It is interesting that one of the themes where there is significant divergence between the End of Program students and the Later Years students is in the theme of "Determinants of health, social factors and access", one of the key parts of the CBP's learning objectives. While this had only low coverage from End of Program students (1.6%) it had a much higher response rate from Later Years students (5.0%). It would appear that this learning objective becomes more important to students as they gain in experience and maturity.

"**Community Placement Experience**", which overall had similar response rates from both groups:

- Interaction with clients had the highest response rate from both groups, but with a distinct drop off from End of Program to Later Years students (8.1% down to 5.9%). It is clear that this area of actual practice was perceived as important by both groups but was almost certainly overlaid by a much higher level of experience with patients as students moved into their clinical rounds;

- Placement activities was the other theme with significant response rates from both groups, almost certainly reflecting again medical students' interest in actual practice;
- With the "Field educator and health support professionals" theme there was a marginal drop off from End of Program to Later Years students (5.3% down to 4.3%); this is probably of little significance.

Perhaps the most obvious part of the pattern is the sheer weight of references that have been coded as positive compared to those coded as negative. This is at its most dramatic in the End of Program students' comments, especially for the scales of "Personal Learning" and "Understanding the Connections", both of which, as noted earlier, are focused around the development of specific skills, knowledge and practice. The only exception to this pattern lies with the theme relating to the Health Promotion research project, which clearly divided students and showing a small majority of those wanting to comment on it doing so negatively. Indeed this was the only theme where a majority of comments were negative. In the case of the Later Years students this was also one of a small number of themes with a majority of negative comments. The others involving numbers above the cut off figure were: "Challenging" (13 positive, 29 negative), and "Connection between placement and the MBBS" (6 positive, 37 negative). One other was a theme that only applied to this group – "Sustained learning from the CBP" (4 positive, 27 negative) and it is worth noting that a related theme that did not make the cut off also showed a similar pattern – "Better doctor because of CBP" (3 positive, 16 negative).

For the End of Program students the high level of positivity was almost overwhelming with 13 themes having more than 150 positive comments including two with more than 450 and another two with close to or more than 300. Only four themes had more than 75 negative comments though, interestingly, all of these were also themes with strong positive responses. The noteworthy results were:

- The strength of positivity around the "Personal Learning" scale with the experience of medical or health support in action and the development of new understanding and skills being easily the most positively commented upon themes, with 471 and 459 positive comments respectively.
- Almost all the other themes within the "Personal Learning" scale had more than 100 positive comments each, with only the area of teamwork and cooperative learning getting less at 64 positive comments.
- The other standout themes were in the "Community Placement Experience" scale where high numbers of positive comments were made about interaction with clients (307), echoing the response of the Later Years students, and the nature of the placements (282). This pattern was also followed by the other two strongly positive themes within this scale – the Field Educator and health support professionals theme and the placement activities theme, each of which had 151 positive comments. Again this echoed the response of the Later Years students.
- The "Personal Engagement" scale garnered fewer comments, either positive or negative, than the other scales. Responses were particularly positive about the themes of experiencing difference (197 positive and only 1 negative comment) and the program's learning style (167 positive). While the themes about feeling reward or enjoyment, and the sparking of interest or passion were also predominantly positive. Students were more divided about whether they found positive or negative challenge in the program (46 positive and 25 negative).
- The "Understanding the Connections" scale was solidly positive across all its themes and had fewer negative comments than any of the other scales. Its most interesting set of responses, however, lay with the "Connection between the placement and the MBBS" theme. Both the Likert scale data and the pattern of negativity in the Later Years students' comments suggest that this is a problematic area for the CBP; however, in the End of Program students' comments there are 223 positive comments about it and only 32 negative ones. It may be that this is a case where the program worked very well for a significant group of particular students but not for others, and, for another relatively small group, was perceived as working very poorly. It is further possible that this smaller group was also largely responsible for the similar numbers of negative comments about the themes of teamwork or cooperative learning, the program being personally challenging, its learning style, and the nature of the placements.

For the Later Years students there were eleven themes that received more than 25 positive comments, including three that were very positive – having more than 50 positive comments. Interestingly all three of these related to active involvement in health support practice:

- "Experiencing medical or health support in action" (66 positive comments);
- "Interaction with clients" (62 positive comments). It is to be noted that there were also 43 negative comments about this theme – almost all of these related to placements were a lack of interaction with clients was a problem;
- "Placement Activities" (59 positive comments) followed the same pattern as that for interaction with clients.

If one looks at the scales themselves, all received more positive than negative comments, most markedly in the "Personal Engagement", which received more than three times as many positive as negative comments. Similarly, within each scale there were more themes with majority of positively coded comments than negative. The three themes that most clearly divided students in their responses were quite revealing: "Interactions with clients" and "Placement activities" probably suggest that where placements did these well, students responded well, and where they were less well done the students responded quite negatively. This suggests, as one would expect, that the success of the program for the students, depends critically upon these two factors. The other theme related to the Health Promotion research project. This may relate to how well placements supported such projects, but I suspect it is more revealing of students enjoying research or as seeing it as taking them away from more engaging placement activities. A closer look at the comments themselves reveals more.

These figures give a sense of the patterns across the student comments. These patterns are, furthermore, suggestive of what aspects of the program seem to have most engaged, or even enraged, the students. They suggest that the students' sense of having developed new understandings and having had worthwhile experiences of community-based medical and health support in action coalesces most strongly around a sense of learning about the connections between community agencies and the support of health. It further suggests that this might be most potent through their interaction with community agency clients and, in particular, with their experience of difference in culture, lifestyle, socioeconomic and disability experiences. Also important are the nature of the placement organisation they are placed with, the health support professionals they find there, the activities provided, and the community health issues they are introduced to. There is a sense that, for the Later Years students, better understanding of the connections between health and community may make them better doctors and certainly give them a better understanding of the impact of social, cultural and economic determinants of health. On the other hand the issues of how all this connects with the rest of their MBBS experience and the worthwhileness of the program's introduction for them to health promotion and carrying out research appear to be more problematic.

These figures do not, however, give the real flavour, nuancing and insightful understanding into students' responses to the program that can be found only by looking closely at what they have actually said. The following quotations have been selected to capture as much of this as possible and to explore what seems to have worked best for students and what seems to have worked least well.

6.2.4 Personal Learning

One of the more interesting aspects of this data is how what was learned in the CBP experience in a non-clinical community-based health support setting persisted and became more nuanced over time as the students moved into very intensive, medically focused clinical placements. This also applied to their attitude to the program itself and its style of learning.

Their sense of having learned valuable skills and knowledge from the community partners persisted. This can be seen in the area of communication and interaction skills where a typical end of program response would be to comment on *"being able to talk to people from very different walks of life; being able to interact with marginalised and socially isolated people"* or *"I have a greater understanding and appreciation of how to communicate effectively to those with disabilities - ways to involve the individual and respect and acknowledge their abilities."* With later year students this tended to become either more

detailed and nuanced, *"I think the bare basics of how to approach people with disabilities was the most valuable, to not judge of their appearance, to not make assumptions about their intellectual level, to ask them questions and to listen carefully and give them time to respond"* or concisely focused, *"An understanding of how to talk to people in social crises"*, *"Better communicator – especially more aware of practising cross-cultural communication."*

But it is by no means the case that the perception of gaining new understandings and skills was restricted to communication but was also strongly evident in a range of other areas. Again, as expected, the End of Program comments were a little more generalised in their, often enthusiastic, sense of new discovery, "*My understanding of addiction has been completely transformed and I feel confident in my ability now to assist people suffering addictions in my future role as a medical practitioner"* or "*I now know that doctors aren't everything! The ability to make referrals and work as part of a multiplex disciplinary approach is critical to a wellness focused model of health care."* Other comments were quite thoughtful, "*Learning to understand the scope of terminal illness, and realising that each patient's affected differently, and therefore you can't box someone in to a specific set of signs and symptoms*", *"I now know that, despite any mental or intellectual disability, people should not be treated any differently to those without disability. Your manner should not change, even though your actions may be different"* or "*Understanding the world that goes on beyond the patient and learning to integrate this into treatment"* and "*Understanding the importance of looking past the disease to the person."* Comments from students in their later years tended to reflect their greater level of experience and be a little more focused: *"Understanding of living with disability. Complex family issues related to inherited degenerative conditions", "Working with patients without a discrete problem was key. Learning that we can't fix everyone, and not everyone needs fixing, has stayed with me throughout the course"*, and *"I really like how allied health professionals focus on patients' ability compared to disability, which is what doctors usually do as I go through my clinical years"*. This sense of contrasting what was learned through the CBP experience with the clinical experience continued to come up: *"I think I also have more patience for the patients who seem like malingerers, many of them with complex issues, and the staff just want them sent home but I have a better understanding of why that is a scary concept for a lot of people now", "It has made me more understanding and given me insight into people's lives that I would not have been able to gauge as much in a doctor's clinic"* and *"It granted me a new perspective, namely of long term management of children with developmental delays, instead of just seeing things from the perspective of doctors who only briefly offer diagnosis or supply ongoing medication."*

This area also strongly and logically connected with the theme of "Interaction with clients". Here, however, the later year students tended to focus more on interactions with allied health and other professionals than with the clients, and even when talking about interacting with clients would link the two together, *"I was seeing the clients from a social worker's point of view. This is not prevalent in a clinical setting due to the artificial and almost desensitised environment", "I was involved in the pre-school programme there, thus I was able to observe the interaction of the children with behavioural issues in a social environment and I was also able to interact with them myself"* or *"Being placed in a situation where I had to interact with people I don't normally meet and learning how to do this and growing in appreciation of the people who work supporting adults with disabilities."* Whereas, the end of program students tended to focus more simply on the chance to engage with people and do something with them, *"Having the opportunity to interact with clients and developing a program that will eventually benefit them"* or *"Experiencing and interacting with clients was thoroughly enjoyable and it really reminded me again of the reasons I wanted to do Medicine."* Importantly, where students were in a placement with limited client contact it was seen as very much a negative experience, *"I would strongly recommend a much larger component of client contact if this placement was to continue. The patient contact component was by far the most useful part of the program."* Many end of program students perceived a tension in the program between client contact activities and working on the Health Promotion project and were quite clear as to where their priorities lay, *"Actually getting out and speaking with the clients was when I felt like I was actually learning something as opposed to sitting in an office working on the project, which was very unrewarding."*

6.2.5 Understanding the Connections

A similar trend was clear in the other two main response areas of development of empathetic understanding and of learning about the levels and types of health support in the community.

For the end of program students the development of a sense of empathy linked strongly to the theme of "Social Determinants of Health" as they began to discover whole areas of people's experience out in the community that was very different to and/or less privileged than their own, and aspects of health that were more complex than pathologies and physical trauma - *"Better understanding of the interaction between medical and social elements of a person - holistic 'the whole person' approach"*; *"Eye-opening experience: learning about non-medical factors that can affect health"*; *"Better understanding of a homeless person's perspective."* This area also included learning specifically about societal factors, *"Understanding the incidence and implications of generational poverty on health outcomes"*; *"A better appreciation of the impact on health that having no permanent long-term accommodation can have"*: and *"The understanding of how people live, not just how they present to a doctor."*

For the later years students, there persists an understanding of the social determinants of health – *"Having a broader perspective of the social and medical issues faced by minority groups in our community"*; *"Seeing effects of social disadvantage on healthcare"* – but there was an even stronger appreciation of having developed greater sense of empathy – *"Better understanding of patient's perspective"*; *"I definitely became a lot more understanding and a more patient person as a result of my encounters with these students"* and *"Ensuring I refer to patients by their name as much as possible to humanise them to treating team members in other campuses."*

With both groups, however, by far the most significant area of learning and understanding directly related also to the theme, "Community Health Issues & Infrastructure" as well as to some extent to the "Professionalism & Interprofessionalism" and the "Interaction with Clients" themes. This became even more strongly so with the later year students. Both groups consistently referred to how much they learned about the role of partner organisation, and allied health and other professionals in supporting health out in the community beyond the clinical and hospital worlds. End of program students tended to focus on the discovery of this world – *"Much better understanding of the role and importance of dedicated community services they provide for clients in ways that other professions simply cannot"*; *"Understand the actual pathway that clients take after they leave a clinic"*; and *"I learnt how most GP's are apathetic to community support services, but I personally saw the importance of these services on the lives of the patients; thus thanks to CBP I know I will not follow the example of current doctors and I will ensure I utilise all community services."* Later years students, as might be expected, were more focused on how they might actually use such services in practice – *"Better knowledge about the services available for the homeless people and how to refer them to these services"*; *"More understanding of social work, and extra resources available for doctors when dealing with broken families"*; and *"A desire to find out other services available for potential patients. I now know there are many services I don't know about, and I do not want my patients to suffer from a lack of support when there are services available for them."*

It is interesting to note that the theme, "Suggestions for change" tended to focus very much on End of Program students wanting more opportunity to interact with clients and become more actively involved in placement activities: "*Less time on the damned assignment (the Health Promotion research project) and more time working with the placement and consumers"*; *"I think that it might have been better if the clinical placement aspect and the assessment aspect were separated. I felt that the research project prevented me from truly experiencing the community/communication side of things"* and "*Making sure partners are aware of students' needs regarding opportunities to interact with clients so we get sufficient exposure as intended by the program."* Later Years students tended to echo this: *"I feel that CBP should be more focused on getting the students out there and exposing them to experience, rather than simply have them sitting in an office working on an assignment"* and *"I don't think you can have both the research and the emphasis on meeting different types of people during the CBP program, it needs to be one or the other";* but they also introduced a further concern that is worth noting, *"Rotating placements though a number of community organisations, in order to give students a broader range of experiences and to help negate the impact of inter-organisational quality differences, would be more beneficial."* This is quite a challenging criticism. If clinical placements strongly focus on giving students a full range

experience of different types of medicine through the various rotations, does the lack of this being built into non-clinical placements fatally impoverish the experience and does it more simply reinforce the idea that this a very marginal part of the whole course?

As already suggested, these themes also connected with the theme of "Professionalism & Interprofessionalism" especially in relation to allied health professionals and other professionals such as teachers. End of program students commented on their discovery of how much they could learn from such professionals and from the way they could work in interdisciplinary teams – *"Insight into the specifics of what certain allied health professionals do, through the opportunity to shadow these professionals"*; *"How doctors, lawyers, psychologists are all integrated; how extra-agency services work; team environment"* and *"Opportunity to interact with other health professionals; not looking at medical view but rather a community, social view."* With the later years students there was a tendency to comment on this area in terms of appreciation and future use rather than simply knowledge of existence – *"Better appreciation of not just allied health colleagues but community resources and workers, and their roles in facilitating better healthcare for all"*; *"It gave me a good idea of what allied health is about and I think in my future practice, I would have a better idea of how to work with allied health professionals to improve health outcomes for people in the community"*; and *"Working at a primary school gave me the opportunity to interact with teachers and students from a medical position, which is something that I look forward to hopefully doing in my future career as a doctor."*

By contrast, a consistent, though not universal, message of negativity came across in the theme of "Connection between Placement and MBBS". The low level of agreement about any connections between what was learned in the community placements of the CBP program and the learning from the rest of the more traditional medical curriculum, that was evident from the quantitative survey data was borne out in the qualitative data also. In looking at the qualitative data this appears to have two distinct sources. The first of these is the small percentage of students both in end of program and later years surveys who are vehemently against the CBP program in concept and in practice, most often voicing eloquent resentment at time lost from anatomy study – *"As I find myself in the hospital environment this year, I regret that more time was not devoted to the teaching of anatomy and physiology"*; *"I think completing a community based program is far less helpful that extra anatomy/physiology tutorials we could have had instead"*; and *"I would like to make it clear that while everyone involved with our placement were great, it was not relevant or beneficial to our development as medical students."* It may be that at the heart of these students' negativity is their view of what constitutes medicine: *"My lack of understanding of proper medical science (particularly" anatomy) has stayed with me, and is something I still have to study despite my completion of a medical degree. Stop funding CBP and start funding proper medicine", "A focus on science would better help me be less nervous, as a soon-to-be doctor, about doing my job without hurting people"*, and *"If the aim of the CBP program is to encourage Monash graduates to become empathetic and community-minded doctors then it will inevitably fail. I have never been overly involved in the community."* The second source is those students who accepted the validity of the concept but were concerned that it did not work out as well in practice either because of the placements themselves: *"I was excited by the idea but did not end up enjoying the placement - I sat at a computer most of the time"* and *"Interaction with patients would be nice – my placement didn't involve seeing or talking to any patients whatsoever"* or more particularly because of the demands the health promotion project – *"I appreciate the aims of the program however its aim to integrate a health promotion project with a community placement is too broad, and doesn't really work"*; and *"The project took up too much weight in the year to some active assessment (sic). It took too much time to complete which decreased the amount of time available for personal study and interaction with the clients of the placement."*

This does, however, contrast with a third strand of comment that was much more positive about the role of the program in the MBBS course as whole – *"Overall the program is a good experience and valuable part of the medical course at Monash Uni", "My particular placement was brilliant - palliative care and I learned so much about a part of the health system that we don't learn much about"* and *"I have changed much as a person and feel that I will undoubtedly be a better doctor having met and engaged with the students at my placement"*; and from Later Years students – *"Easily relevant to what we will need to know as a doctor", "I enjoyed seeing community health and people coping in the community away from the doctor setting. I liked interacting with other staff who were not medical and being able to work in a*

professional environment which really helped pave the way for third year", *"My placement was an absolutely fantastic experience and completely invaluable to my personal and professional development", "All the things that I learnt at CBP have and will continue to be invaluable in day to day life as well as in a clinical setting"* and *"The chance to do something different and unique within the MBBS course."*

6.2.6 Personal Engagement

Finally, and perhaps anomalously in the light of the negative comments about the place of the CBP within the MBBS, there was a consistent level of appreciation of the value of the CBP program in providing a different learning style to the rest of the MBBS course. For many of the end of program students, the CBP experience provided some relief from the intensity of academic learning in second year, as well as experiencing health support from a community point of view – *"I enjoyed being able to get away from the intense learning in lectures to a place where the social implications of health in ageing were apparent. In this way I feel I had a lot more perspective in my learning"*; *"I enjoyed being outside the uni environment and being able to experience a community setting. Being in a community agency allowed me to learn different things I hadn't learnt before in regard to care of a client"*; *"One knows you have to be non-judgemental, but it was good to have experience in doing so"* and *"It is a great way to interact in the community and focus on the social side of medicine that is often forgotten."* For the later years students the story was similar – *"It was useful to be exposed to a different setting to people from a variety of social contexts. I felt that this helps in understanding the whole person and not simply focussing on the medical problem"*; *"I think that doing a placement at the same place and going back weekly as we did in CBP was an invaluable way to learn about people with disabilities, their carers and everyone's needs"*; and *"It was a good break from clinical medicine; interesting breadth of experiences"*.

This sense of a difference in learning style particularly came to the fore in the theme of "Teamwork and cooperative learning". For End of Program students this seemed for many to be a particularly powerful experience: *"Making a new friend with my partner and working with her - it was very enjoyable; interacting with out FE - she was an amazing role model and helped us so much; different learning format to normal university learning - more interactive"*; *"The group I was working with was AWESOME! I have new friends because of the CBP program and the program allows me to learn more about teamwork"*; *"Working in collaboration with a team-mate to develop a project that will benefit the organisation and community was very rewarding and felt purposeful"* and *"Being able to interact with other health professionals within the context; being able to be in the community and see the roles that we play as part of a team."* Typically, the responses of Later years students were somewhat more nuanced*: "Working in a team, writing a paper together"; "Just the problems that team work brings and how to somewhat solve that"* and *"The sense of working in groups, tolerance, discipline and punctuality."*

6.2.7 Summary of findings from student survey responses

Overall there is a sense from the comments both groups made that supports the quantitative evidence of the Likert scale data. There was a small group whose perception was that, for them, the program did not work and was a distraction, even a detraction, from the main business of the MBBS, which was learning as much medical science as possible and then putting it into practice in clinical experiences; and focus on health support in the community was perceived as being either irrelevant or antithetical to a "proper medical education". The vehemence with which this view was held became quite evident in some of the Later Years student comments. A rather larger, though still minority, group took the opposite view and were quite enthusiastic about what they perceived they learned from the CBP experience and more or less continued with this view into their later years. The majority came across as recognizing, though not necessarily enthusiastically, that they perceived their learning was enhanced by the CBP:

This was the case particularly in the skill areas of:

- Communication and interaction with patients,
- Ability to refer patients more effectively to community health support services.

They also saw value in the experience it gave them of working in teams with colleagues and with other health professionals.

Finally they perceived that it increased their understanding of:

- The contextualization of health and illness,
- Socially and culturally determined aspects of health, and
- The whole life impacts of conditions such as disability, chronic conditions and addiction.

Quite interesting was also the sense that much of this perceived learning persisted into the later years of the course and seems to have been assimilated by becoming more nuanced, thoughtful and focused on details of practice.

6.3 Student Interview Responses

6.3.1 Introduction

The student interviews and their responses gave an opportunity to explore further the insights and paradoxes suggested by the survey data. The ability to challenge responses or to explore them more deeply meant that the richness and depth of the insights could be teased out in finer detail. This section gives the background to the interviews, spends a little time on looking at the patterns formed by the themes evident in them so that a clear sense of their scope and emergent thematic strands, and then uses wide-ranging examples to explore the rich range of meanings and implications in these themes. The themes generated by the analysis can be seen in full and in relationship to the themes generated from the other data in Appendix 9.

6.3.2 Background to interviews

Interviews were conducted with eight students in the later years of their MBBS course, and one who had completed the course and was currently a registrar. The students were selected from a sample of students who had been shortlisted for the Professor Chris Silagy Award. This was an annual award honouring one of the founders of the new Monash MBBS course and a champion of community based medical education. It was awarded to the student or team of students each year whose work most fulfilled the objectives of the CBP program. This group of students was chosen as the sample on the basis that, on the face of it, they were students who had put a great deal into their participation in the program and therefore were the ones most likely to have got the most out of its potential as an educative program. This is in line with Pawson's realist approach (157) that the most valuable evaluation of a program is to find out how, and under what circumstances, it works for those it works best for. (The converse – how it fails to work for those it does not work for – has already been discussed above in the analysis of the negative survey comments.)

A range of the Silagy Award shortlisted students across the four years of the program under study here, were invited by email to participate in interviews with the intention of finding six who would agree. This range attempted to give a good, representative coverage of the types of placement experience students had, including placements with high client contact and placements with a focus on advocacy and with less opportunity for client contact. From the eighteen students invited, eight accepted. Rather than then rejecting two, it was decided to extend the interview sample to eight.

The support documentation for the interviews – Explanatory Statement and Consent Form are included in Appendix 6. The interviews were conducted at times and in venues convenient to the students and were, with their agreement, recorded. Each interview took between fifty and eighty minutes to complete. The recordings were then transcribed, with the transcription sent to the student as a courtesy.

6.3.3 Broad scale analysis

After transcription the interviews were coded by themes using NVivo9. The coding was carried out according to grounded theory principles with themes being coded until saturation was reached. It became clear that, as might have been expected, there was considerable overlap between the themes produced and the four scales derived from the original surveys. The themes were then organised into these scales. The transcripts were then re-coded using these scales to check that they were indeed accurate and

appropriate. Finally the transcripts were re-coded to determine comments that were positive, negative or suggesting changes to the program.

Finally NVivo9 was used to produce a matrix analysis of the individual themes against the scales and the positive/negative/suggesting change codings. This is presented as Figure 27, below.

The interviews were used to attempt to drill down the key themes and suggested findings coming out of the analysis of the surveys. The actual questions used to guide the interviews were as follows:

- Can you give a brief account of your experience with the CBP program?
- Tell me about the project you did.
- What do you think might have been achieved by it?
- On reflection, how did your CBP experience affect your perception of support for health in the community?
- How did it affect you perception of a doctor's possible role within that support?
- What did you learn about the factors out in the community that impact on people's experience of health and health support?
- What did you learn about relating to clients/patients and to other health professionals?
- How did the CBP experience affect your perception of how to apply skills and understanding in practice?
- What were some of the things that most challenged or rewarded you within the CBP experience?
- In terms of a learning experience within the medical course what was worthwhile about the CBP and why?
- Can you detail any elements of the learning experience that you still use or expect to use in your clinical practice?

	# References	# Positive	# Negative
Personal Engagement			
Challenging	20	9	2
Experiencing difference	16	8	0
Feeling reward or enjoyment	32	24	0
Interest or passion	7	5	0
Learning style	41	28	1
Personal Learning			
Communication and Interaction Skills	32	6	1
Develop new understandings & skills	76	22	1
Experiencing medical or health support in action	19	13	0
HP Project, HP & Research Skills	56	19	0
Respect for others and or empathy	30	11	0
Teamwork or cooperative learning	15	13	0
Better Doctor	23	1	0
Sustained Learning	34	10	0
Maturation of Learning	19	4	1
Understanding the Connections			
Community Health Issues	3	4	0
Community health support infrastructure	14	10	0
Connection between placement & MBBS	65	16	2
Determinants of health, social factors & access	27	0	0
Professionalism & interprofessionalism	40	8	0
Community Placement Experience			
Fellow students on placement	7	7	0
Field educator & health support professionals	45	31	6
Interaction with clients	34	11	11
Location of placement	2	1	0
Nature of placement	28	15	1
Placement activities	33	17	6

Figure 29: Later Years Student Interview Responses - Thematic Analysis

The patterns outlined in Figure 27 relating to the themes themselves resulted as much from the areas of focus set up by the interviewer as by areas brought up by the students. The intent of the interviews was

partly to drill down the findings that had emerged from the surveys, so these were the themes that dominated the interviews. As would be expected, given this intent of the interviews and the nature of the sample, the pattern that emerges when the number and distribution of the codings is tabulated is somewhat different to the patterns emerging from the survey comments. Additionally the students were, on the face of it, more likely to be more conscientious and motivated. This appears to be most reflected in the positivity of the responses, though students were strongly quizzed about what had been negative for them about the CBP experience and its impact on the rest of the course. Only one scale had any significant number of negative responses, the "Community placement experience" and that was mostly due to one of the interviewees having had a poor placement experience (though in other respects that student remained quite positive about the program) and another student whose placement had been built around health advocacy rather than direct client contact. All other scales and themes were strongly positive; a result that was mildly surprising when compared to the survey results.

Perhaps most interesting, given the findings from the surveys, was the positivity of the comments about the connections between the CBP and the rest of the MBBS. The high number of comments coded for this theme, second only to the "Develop new understandings and skills" theme, was mainly a reflection of the use of the interview to drill down on this area, which had come up as being so anomalous in the survey data but their positivity was new. This possibly related to the one new theme that was unique to the interviews, "Maturation of learning"; this reflected a number of observations made by students about how things that they had learned and experiences that they had had in the CBP started to make more sense as the course went on, especially by fifth year.

The other themes that featured strongly in the interviews were the "Health promotion research project, health promotion and research skills", "Community health support infrastructure", "Professionalism and interprofessionalism" and the contribution of the "Field educator and health support professionals". The latter three themes form a cluster that focuses on the possible importance for a practising doctor of understanding how community organisation and other community-based health support professionals work to support health and access to health services at a community level and in mostly non-clinical ways. This was an area that continued to come up as a particularly important contribution of the CBP experience as perceived by most students.

When the actual responses made by students during the interview are looked at some clear findings emerge about what the students valued from the experience, the often subtle ways in which it continued to influence them in their later years and their expectations about how it was likely to continue influencing their behaviours as practising doctors.

In the quotes used the codes S1 to S8 identify the eight students interviewed. Their placement experiences can be characterised in general terms as follows:

S1 – Placed with an advocacy organisation for supporting women. It had some limited client contact.

S2 – Placed with a welfare organisation in a placement supporting a refugee group. It had extensive client contact.

S3 & S7 – Placed together with an agency supporting clients with drug or alcohol addiction and with high rates of homelessness. It had extensive client contact.

S4 – Placed with an agency supporting victims of sexual assault. It had some limited client contact, and extensive contact with school children as part of an education program.

S5 – Placed with an agency supporting refugees, but it was inexperienced as a placement venue and providing limited client contact.

S6 – Placed with a women's advocacy group with minimal direct client contact.

S8 – Placed with a youth support agency with moderate levels of client contact.

The nature of the program meant that there was inevitable tension, as shown in the previous analysis of student survey data, between the demands of the Health Promotion Research Project and opportunities

for direct interaction with agency clients. The survey evidence suggested that the students were somewhat divided about the Health Promotion Project and its research focus but were generally very appreciative of any opportunities to interact with clients. The expectation with the interviews therefore was that those placements with limited client contact, especially advocacy focused community organisation, would give the students less overall satisfaction and probably lower levels of perceived useful learning. Also focused on in the interviews was the issue of the connectedness, or lack thereof, of the program with the rest of the MBBS course. Finally the interviews also focused on the students' perceptions of whether what they learned from the program was perceived as sustaining itself or even developing over subsequent years, or whether it faded or even became irrelevant.

The picture that emerges from the interviews was much more consistent than expected, given the range of placement experiences and of personality types across the interviewees. As with the Later Years survey data it was also quite nuanced and thoughtful in its level of detail. It was also quite rich. To keep it focused, the findings have been organised around the four scales used elsewhere in this analysis:

- Personal Engagement,
- Personal Learning,
- Understanding the Connections, and
- The Placement as a Learning Environment.

6.3.4 Personal Engagement

While this was the scale with the least number of codings, nonetheless the flavour of students' responses suggests that, for most of them, their memories of the placement were still relatively vivid and engaged. This applied whether it related to a sense of being challenged – "*And I was pretty nervous about starting because it was a quite a confronting issue and something that I'd never had much experience" (S4); "Working with a very professional organisation; that was a little challenging in itself, just to figure out where you fit in and doing something that you felt was going to help them in the long run. It was good to have that sort of place that you could fit in and have a purpose and try to fulfil goals for them" (S6); "You walk past and you get a bit scared to go inside; but then, on the flip side, I got to see what a housing commission was like and it was actually really good sometimes. It was a really interesting experience to see the sort of people that were there and the housing and things like that" (S2).* But only for one was that sense of challenge not resolved into something quite positive and rewarding – "*Yeah, it definitely was scary. There was kind of like they were just sitting there and were like so different to us. Kind of we couldn't ask them – who are you? And try and go and make the first step, make the effort… was a little bit hard" (S5)*; significantly that was for the one student with a fairly unsupportive placement.

Most found that the experience of the different was a significant and important part of the experience – "*So it was a very good way to get exposed to a very different environment, which we don't normally get exposed to through a medical course in general, but also I guess in life - like I personally come from a more privileged background and wouldn't have much to do with these kind of centres" (S3); "I think before that I'd never had any real interactions with people in those minority groups. So I think just being aware gave me an awareness that they are here because where I live it's not like that. But when I went out to somewhere different it was a good experience" (S4);* and *"A lot of them don't wear watches and don't cope with the traditional kind of appointment structure: Oh we're running acupuncture at 1:00 on Tuesday, and we would struggle to get them in because they wouldn't be able to tell if it was 1:00. I mean if you're not engaged in a community that requires you to know what day it is, why do you know what day it is? It's no different for you whether it's a Saturday or a Friday, and you don't know. So getting people to turn up and saying: I want you to come and see your doctor on Friday at 2:00 pm is really hard for these people. I mean that's a very simple practical example" (S7).*

There was also a sense of reward for all of the interviewees: "*I didn't have very much understanding of refugees coming here and what their main difficulties like AIDS and anything like that. So seeing how they get support from (welfare support organisation), and I was impressed with what they do and thought it's good that we have these programs for them… umm… Yeah so from that point of view I learned a lot about what they offer and I thought it was a very good thing that they did" (S5);*

"Rewarding – so, lots of rewarding things. So opening my experiences of things: seeing housing commissions; dealing with refugees and understanding the problems, which I wouldn't even have thought would be problems, I suppose. Probably, and I didn't know much about it at the time, like alcohol abuse and things like that – I wasn't aware of it, so just opening my eyes to ideas and things that I'd never thought about" (S2); "I felt like we filled a need – something that they would have had to have done themselves, we were able to do for them; so that was really rewarding. And I think it culminated in making that presentation to General Practitioners Victoria, and really feeling like we were contributing to the knowledge about this issue" (S1); "To get to see an organisation from the inside point of view as opposed to from the outside. I found it invaluable because, as I told you earlier, learning about what all these social organisation are about in supporting a person's health is something that we don't get elsewhere" (S3); "Definitely, definitely; and it was good to kind of just engage with those community groups" (S6); "I think it fit very well in with a lot of community placements I've had since then. There are a lot of very committed, very interested, very caring people working very hard with next to no resources push really hard to try and get things done and really doing the work because they care about it. And I think that was really, for lack of a better word, uplifting – that there were people out there doing the real sort of primary ground work outside of the formal, you know, the clinic, hospital kind of stuff we've got here" (S7); and *"Actually you were contributing something. It was one of the reasons why I'm doing a research project this year" (S8).* As with this last quote this even came to the point for some of sparking an ongoing interest: *"I've always felt passionate about women's rights. But that almost ignited a kind of an interest in that area for me. I think that kind of contributed to me wanting to do research this year, as well. I like the idea of being able to contribute something to scientific or general health knowledge" (S1); "It's actually become a sort of area of interest. I think I said to you in the email that I'm doing my elective later in the year on it. I just finalised it this week, or last week, in addiction medicine" (S7);* and *"Next year I want to do a B Med Sci. and do it in sexual assaults and domestic violence, only because I had that exposure through CBP. And now I'm so interested in that area that it's the sort of thing that I really want to pursue" (S4).*

The other theme within this scale that attracted the most responses was that of the difference in learning style provided by the program. Some focused on different aspects of the learning style that were new for them: *"I learnt a lot about what research involved, even just as basic as writing a research paper: I'd never done anything like that - that had a methods, results and discussion – and that was a really good experience" (S1);* and *Yeah, because we were sitting in lecture theatres four days a week otherwise; and also to get to see an organisation from the inside point of view as opposed to from the outside" (S3).* But others were quite thoughtful about the implications of this approach and its difference from the rest of the course: *"I found it rewarding to be able to focus on something that was quite an important issue, but it wasn't specifically medicine. And it made me feel like, I'm going to come out of my degree as a more well-rounded doctor for having done CBP and now knowing a lot more about that issue" (S1); "I suppose, with CBP, I think you do take on a different role so I think that what we were doing with our project and what other people were doing at schools with disabilities – they were taking on a role of someone that wouldn't be a doctor role and so they were seeing, you know, what it would be like to be working is a different sort of setting – we were seeing what it would be like to be working as a community worker and other people were seeing what it would be like to be a carer or a nurse at a school" (S2);* and *"I have this week where I go to uni that's Monday, Wednesday, Thursday, Friday and on Tuesday I go off and I do this completely different thing. But, looking back now, from a clinical perspective, that's part of the bread and butter of what we do; the science and the knowing of the facts is only an aspect of what we do – the actual meeting people and thinking about people and their overall context is part of our core business" (S7).*

6.3.5 Personal Learning

The nuanced thoughtfulness of these responses about how they engaged with the program carries over into the "Personal Learning" scale. This is particularly evident in their perceptions of what substantive learning they achieved through the program as focused on in terms of new understanding and sensitivities.

This especially applied to the learning that they perceived as staying with them and continuing to contribute in later years of the course. A key area was in communication skills: *"So I think we learnt a lot*

about the subtleties of managing such a difficult situation (communicating with a victim of domestic violence). I wouldn't say I'd be excellent at doing it, but I'd certainly have a better idea than I would have had otherwise" (S1); "We had to learn how to do things in a sensitive way and how to approach – which questions we should go further at and which ones we should sort of leave. (Q. And are those skills that you still call upon now?) Oh yes, I think so. I think it wasn't necessarily the beginning of me learning these skills but it was a great practice at using these skills. Also talking to asylum seekers who have had trauma and things like that, being extra sensitive, so it was a good test of it. CBP related definitely for migrants and people who can't talk English, just clarifying that sort of thing. Some people I suppose need a lot more information given and you just need to confirm that things can occur, that it is possible. So that's probably the main thing that I've learnt for clinical practice" (S2); "The CBP helped me to relate to patients in a way that is I guess seeing them in a non-medical context and seeing: Why are they in this service? Or why are they in this centre? And what are they doing? Just getting to know them more as a person" (S3); "I learned more about the communications aspect of things, but I learned that it's more than just the questions you ask; just the person's behaviour, their demeanour and their affect can tell you a lot about what's going on as well" (S4); "I think getting to interact with people that were very different from yourselves and learning how to interact during a medical course – I think that would be very useful, that would be the main benefit. I think and learning to develop those communication skills, and just realising there are people out there who are having difficulties" (S5); "I want to re-emphasise and I've kind of already said it: how valuable it was to get this experience, dealing with people who don't necessarily want to talk to you. Because it's the best training you could really get – to talk to people who don't want to talk to you, because if you can talk to people who don't want to know, then waking somebody up for a ward round isn't that bad" (S7); "How to ask for things when… you know, arguing about who's going to go and interrupt the busy, kind of snappy social worker, and say you want them to do your form. And now I'm fine with that" (S8). What comes through here is a sense that the program helped sensitise them to the subtleties of communication with patients and with other health professionals; a sense that there is more going on that just eliciting specific medical information; a sense that the patient, or health worker, needs to be seen holistically and that attention has to be paid to more than just what they say. There is also a sense that, though they readily admitted their need for more expertise and experience, the program nonetheless gave them confidence that they knew where they had to get to and that they had got a good start. Though not specifically about communication skills, the following response from student 1 perhaps captures particularly well this sense that there is more to medicine and its practice than the science: *"I guess it gave me a more holistic perception of it; it isn't just about providing medical care, it's about providing all the other things that make a person able to stay healthy – like good housing and social support and, you know, being safe, and all those kind of things. I guess it did show up that it wasn't just about treating medical illness, it was about helping the person" (S1).*

This sense of new understandings that would not necessarily have been gained from the rest of the course came up quite frequently and across a wide range of areas; indeed the theme of developing new understandings and skills, with 76 responses coded for it, was the most frequently referenced across all the interviews. The dominant ideas that come through in the comments are sensitivity and sensitisation: sensitivity to patients' needs and the issues facing them and affecting their health, and to other health professionals; and sensitisation to the value and availability of health support services, the potential role of health promotion and public health, and the holistic nature of health and illness. Some of these ideas are explored in more detail under the scale "Understanding the Connections" but the sense of the newness of these ideas is important to note.

The idea of learning to be sensitive and, importantly, what to be sensitive to comes through strongly: *"I felt like I had a better understanding if I was ever faced with a patient I thought was being abused; I felt like I was more equipped to potentially help them say it, and then know what to do" (S1); "Yeah. Learned a bit about like the limitations that people have to healthcare. And basically how they would be very overwhelmed coming here where it is very different to their culture" (S5); "I couldn't really understand the mindset of someone who would be in that sort of situation but, after doing this, it kind of gave you a better understanding about it" (S6); "I think it's important to know about the factors that they're facing – the whole picture rather than just coming at it from your perspective. I think it was*

about seeing it from their perspective" (S1). This development of sensitivity and respect extended also to other health professionals: "*Oh, absolutely. I wouldn't say I felt differently towards them beforehand but, not having not really spent time in that workplace before, it reinforced your respect. Just normal professional communication with allied health" (S1); "I mean in the hospital I have spent time with a speech pathologist and a physio and stuff like that. Because I mean if us as like future doctors refer to these people I kind of want to have some idea of what they're going to do. But I don't think I would have been inclined to do that kind of thing if not for CBP" (S4);* and "*All the staff for that day – they would sit down and talk about the experiences they'd had – a de-brief, and it's something that we do so badly everywhere else" (S7).* Even, where a student notes that many of the practical skills are more developed through clinical placements, there is an acknowledgement of the importance of the background sensitivities the program developed: "*Not stuff I use now; it's more an appreciation of the different issues and complexities going on but not practical skills" (S8).*

This sensitisation to the community and the health support it can offer, and holistic aspects of medicine and medical practice also comes through thoughtfully and, at times, passionately: "*I found it rewarding to be able to focus on something that was quite an important issue, but it wasn't specifically medicine. And it made me feel like, I'm going to come out of my degree as a more well-rounded doctor for having done this and now knowing a lot more about that issue" (S1); What was worthwhile was becoming aware of different services that were available beyond medicine; seeing the issues that people face – barriers to health mainly; and the issues within a refugee community or a new migrant community – issues that they would have, health-wise" (S2); "I guess it's about getting us to see, and helping us to focus on the person – the holistic view again. And that's where the hospital environment is not very encouraging to a certain extent and that's what this can provide" (S3); People will call or present to ED (Emergency Department) with the hope that we'll know where to refer, what to do with them essentially. And if we ourselves don't know what kind of services there are, then the outcomes for our patients are crap, pretty much" (S4); "I didn't realise there were so many community programs related in a sense to health, in a sense just to supporting people and I think if I do end up in a GP role and then I meet someone like that, I'll be able to talk to them more about there are these services available to help you. So I think that was beneficial, just being aware of special care" (S5); "I learned about the role of the GP in the whole health sort of service and also how important it is for them to know about the resources available for them" (S6); "I think another thing that I found interesting that you can't really be taught in the classroom or lecture theatre: is how different the actual outcomes are from what you expect" (S7);* and "*I think it probably gave me a much more realistic view of how much people need… and just how quite easily nothing can happen" (S8).*

The themes of the sustainability of what was learned in the program and whether it would be likely to make the students better doctors were ones that had been problematic in the Later Years student survey. The responses of the interviewees were more positive and also clearer about what could be gained from the program in this area. A few are also quite critical, explicitly or implicitly, of things that do not happen but which the program has led them to realize should be happening. Responses range widely: "*Oh you could write down, go and see your GP if you need, but you need that extra sitting down discussing and asking to make sure, clarifying: Do you know… do you have a regular GP and do you know what's available? So that's something extra that I do now because I realise that it's not as easy as knowing everything that's available" (S1); I think I definitely am more sensitive to it. Actually the plan, when people go home. Sometimes people are given a discharge summary for example of all these things that they could do all given, just told advice, you know without any thought to is this possible that this can happen and will this person turn up to the next appointment or will they go to their GP; do they have a GP; things like that" (S2); "How, in the end, quite often nowadays it's still the support groups themselves or other organisation trying to reach out to those people through different ways. Or somehow, the patient finds their way after going through a lot of difficulties: Oh I wish I found this organisation earlier. And we can just tell people that, like a list for them to consider" (S3); "It just doesn't occur to them, because they think: Oh we'll refer them to a cardiologist and started them on cardiac rehab, but we haven't referred them to a dietician for their diet; or an exercise physiologist for their community… like health as an outpatient. Like they probably know that's what the patient needs but they haven't said those specific words and therefore haven't got them right. And that's not fair"*

(S4); "I'll put more into detail what's available and wherever I end up working and try and refer people to that. And just more the understanding that for new people to Australia – the main thing I got out of it is how scared and isolated they might be feeling and if I can be more sensitive and just spend a bit more time with them and get them in… would be the main thing" (S5); "Knowing that there are community groups out there, and that you can trust them and they're doing good work, I think influences you to a degree to say: Okay this is a community where I'm going to be set up in for the next ten years. I'm going actively to seek out, say: What community supports are here? What can I make use of that will be of benefit to my patients? Because in a lot of instances it isn't going to just appear - you've got to go and really look for it" (S6); and *"Yeah, but I guess I seem to get the sense that it shouldn't be a reactionary role – preventive medicine – that would be part of it" (S8).*

A theme that came up in the interviews that had not really appeared in the comments from the Later Years student surveys was that of how the learning they gained from the program matured over later years. The sense emerges that they perceive their CBP learning continues not only to have relevance but gains in relevance as the clinical years go on, at times even giving guidance to some of what they learn in their clinical placements. This starts to shed some light on some of the paradoxical earlier findings about student perceptions of the connectedness, or lack thereof, of the program to the rest of the course – an issue that will also be pursued later in this analysis: *"I sort of wished I didn't have to go and do my CBP project, because it was taking time away from those other things, but I certainly, in hindsight, think that it was a good experience" (S1); "I see how what I did in CBP feeds back into what I'm doing in Third and Fourth Year but Fourth Year more so because it's GP we live in a town and we actually do visits to people at their homes" (S3); "It's one of those experiences where maybe at the time you don't get it; maybe a little bit after it you still don't get it; but a long time away you look back at it and go: Oh yeah, that was kind of good" (S6); "But the one that I kind of had in my mind coming halfway through second year and starting CBP was that the biggest problem would be that you wouldn't dose the tablet high enough or you would give them the wrong tablet; but the biggest problem far away and the CBP emphasised this is that nobody takes the tablet. You can tell people time and time again: Get better shoes for your walk to Richmond to… but if it's the difference between spending $20 to get a halfway decent pair of runners to look after their feet and getting $20 of drugs… So I think the compliance and having to really try and pick out the important points to give to people and say: This is the key message; this is something that is really practical and fitting your recommendations to what patients can do" (S7);* and *"I know what it is and I can pay attention, whereas if I didn't know what these organisation were, or what these issues were, I probably wouldn't have a sense of the lay of the land or what was out there or what was lacking or what these things were, so it probably allows us to tap in a bit more to what's going on in that sense, even if our understanding is still very rudimentary" (S8).* Some comments were even quite sharp about how and even why some might not realize the importance of the learning at the time: *"I think CBP was useful and that sometimes we don't know what's good for us. All my friends can have a whinge, but I think it was a good use of our time" (S8); "I think the relevance increases as you get through the year levels. In third year you kind of have that whole culture shock – I'm in a hospital now. So it becomes very much a medical base - apply it within your blanks so far. And in fourth year, you start to see more of those social aspects; the need for allied health professionals in the patients that you know you're following; the relevance to their care becomes more relevant" (S4);* and *"In Second Year you know nothing – you don't know anything when you're in Second Year. Seriously, you just learn the basics; you learn about the cell – it's very, very detached" (S6).*

One further theme covered in the "Personal Learning" scale was that of the Health Promotion project, Health Promotion and Research Skills. Learning about health promotion and how to do research had come into the program in 2008, when it integrated with another program. It built upon the original program's contributory goal requiring students to give something back to the agency they were placed with. The formalisation of this goal into a research project and tying it to learning about and practising health promotion became, for many students, a real challenge, especially in responding to the ethical issues and formal ethics applications, and also in their perception that it took time away from interaction with the clients and agency activities. For other students, it was a rewarding and quite influential part of the course. This dichotomy is well reflected in the data already analysed in earlier sections. The interviewee sample allows exploration of some aspects of this. On the face of it, the interviewees, who were all

shortlisted for the Silagy Prize, an important criterion of which was the quality of the work towards the project, would be expected to fall into the second group - those who found the research task rewarding. They therefore become a good group to look at in terms of what can work well in this aspect of the course, or at what its problems might be even for a group expected to be positive about it. Indeed most of the responses were positive, but also quite targeted about what was good about it and thoughtful about some of the implications. One strong line of response was about the learning they gained: *"I think learning a bit about the research process without having to do a full honours year was sort of a nice introduction to research. Certainly learning that medicine wasn't just - you know, for me I kind of knew this already but for some people probably wouldn't be aware that medicine – there's more to medicine than just treating illness; there's a much bigger picture out there so I think it's important for some people to be shown that" (S1); "Just seeing the process of the things that you had to satisfy and working through with ethics, MUHREC, but just going through and writing up the drafts and things like that to present your project - all that sort of thing that had to be involved with that. That was really helpful to me" (S2); "It's a good way to see it, and seeing things done in a context – the value of that project in a sense, that because we are applying it in a specific context instead of doing something sitting in a classroom or lecture theatre and brainstorming" (S3); "It was that opportunity to let your imagination fly. And, even though, at the end of it, it came down to the project and the poster - The foundation for all of that was that all the community placement was: talking to our supervisors; having regular meetings around what we wanted to get out of the experience; reading - I guess a lot of material" (S4); "I found it good that we had that research component about it" (S5); "It put me off doing research, but it made me more realistic I think in the expectations of what was involved and how committed I'd have to be to it. And I've lived with housemates and things who've done B Med Sci, and they've said: I'm really glad I had some idea of what the ethics proposal was going to be like; because it's always a struggle, and they knew that going in, so they didn't try and start like two days before" (S7)*; and *"I think it was well timed too in second year in that we had a fair bit of health knowledge and we'd discussed these issues before; but we also had a bit more free time compared to later years when it gets even busier and you're trying to cram all this clinical knowledge in then" (S8).*

Another line was the sense or reward they felt about having contributed something back to the community they had been placed with: *"It culminated in making that presentation to GPV, and really feeling like we were contributing to the knowledge about this issue – I found that really rewarding, even though it was such a small part of the big picture, it was really nice to know a lot and to have contributed something to that particular area. And I think that kind of contributed to me wanting to do research this year, as well. I like the idea of being able to contribute something to scientific or general health knowledge" (S1); "We educated them a bit about health services available and what things to do – just through interviews. But they were all very surprised at some things that were on offer, so I think that the community, at least the ones we interviewed, would have got quite a bit out of it" (S2); "Not every project would be successful or effectively promoting health – I can't see that our project was directly promoting health, like say healthy eating; so I see it was good and I guess it helped the centre practically to see whether they wanted to expand on the program, and give them evidence to expand it if they wanted to" (S3); "It was really fruitful. Actually we were able to present our finding to General Practice Victoria" (S6);* and *"The feedback that we got from the caseworkers and the social workers was that they really did want us to produce something like this. And then particularly after we had produced – we had a bit of trouble getting people on board to help us provide the data to make it – after we'd made it then everyone kept asking us for copies" (S8).* Perhaps the response that most captures the overall sense of both learning and contribution was from Student 1: *"For them – I think we gave them some knowledge of the attitudes that GP's had towards women with domestic violence. It gave them a kind of a grounding for them putting into place programs potentially to increase awareness among GP's of this issue, so that they had a basis for doing that. I think that was the main thing that we gave them. In terms of what I got out of it – I learnt a lot about what research involved, even just as basic as writing a research paper: I'd never done anything like that - that had a methods, results and discussion – and that was a really good experience."*

6.3.6 Understanding the Connections

As has already been evident from the above the interviewees' perceptions of new skills and understanding gained through the program include themes that are also about the connections between clinical

doctoring and the community. This is particularly so with their sense of the ways in which community services could be used by doctors through referral to help support patients' health; with their sense of the roles of other health professionals; and with their understanding of what they learned in the program connects with the rest of the course. These are themes that are explored further within this scale as well as the themes of community health issues and the social determinants of health. These latter two themes are at the heart of what the CBP aims to provide that is less focused on in the more science and clinic based components of the curriculum that form the overwhelming majority of the MBBS course. The other themes in this scale then tend to focus on community-sensitive ways of responding to community health issues and to determinants of health that are as much sociocultural as biophysical.

The key perceptions arising from the interview responses interwove the community health issues with the social determinants of health that underlay or exacerbated them. An area regularly touched upon was good access to health support and, through their experience of the program, a developed awareness by students that this is a complex issue with problems at every level. So that problems can be at the level of community members themselves and their own resources and knowledge: "*So they were just having a lot of difficulty integrating but also they had a very minimal knowledge of what was around; so even when we said, for example: If you were sick what would you do? And they weren't really sure and said: Go to the hospital. And we said: What if you just had a cold or something? They weren't aware about GP's" (S2); "Then we identified the lack of just getting there – transport issues: a lot of them couldn't drive, had multi children - can't take everyone in so that was another issue as well" (S5);* and "*Yes, and people don't even realise there's a barrier; there's just no obvious solution so you just work with what's before you like getting a job and health doesn't really get a guernsey" (S8).* It can lie with the lack of good support given to the community workers trying to help them: "*I guess I kind of realised – I'd always imagined that health and community programs were ultimately funded by the government and it really showed me that there's a lot that the government funding doesn't really cover nearly as much as it needs to: there's all these other people that need help but the government isn't helping" (S1); "There are a lot of very committed, very interested, very caring people working very hard with next to no resources push really hard to try and get things done and really doing the work because they care about it" (S7);* and "*Looking back now – I don't know if I realised at the time – it did definitely give me a sense of the fact that in these lower paid jobs or – they're not like the sexiest jobs that everyone aspires to – so the access that the clients would have to health and its knowledge or any sort of assistance that affects their health would really depend on the personality of who was helping them, depending on their caseworker. And if you have someone who is not well trained in that area or less motivated, or burnt out, that can be a big factor" (S8).* And the problems can lie with the doctors themselves: "*I've never seen a doctor sort of do anything like that. I've mainly worked in hospitals and when a minority groups comes in everything is just like - oh social worker; and if there's any social issues – oh social worker get involved. I've never seen anyone, doctors and such get involved and especially the consultants and the high level specialists – they'll just go around on the ward round; they won't be dealing with the bigger issues like discharge planning" (S5); "When you get to doctors in the hospital, nowadays it is so sub-specialised that if you don't deal with women who have family violence directly you wouldn't feel the need to learn anything about it – say a cardiologist: they wouldn't really want to know about it unless they directly faced it and even then they'd just pawn it off to a social worker or something in a hospital. So you really don't have to deal with it; it's very: I'm just like dealing with the medical; that's not my problem. Let's just give that to someone else. And that's how a hospital works" (S6);* and "*And all those barriers and perception and trying to let people know that doctors are there to help them; what sort of services we can supply. A lot of them have had negative experiences in the past as well. For every good, caring doctor that works through that centre and wants to help people, there's a doctor that says: Yuk, I don't want to go near it" (S7).*

More specific community health issues or determinants of health tended naturally to reflect the focus of the placement they were at: "*I learnt a lot about the issue that we were addressing about family violence and domestic violence; and I actually felt quite passionate about it. We learnt that for women aged fifteen to forty-four, the number one burden of disease comes from violence against them" (S1); "There was a lot of alcohol abuse in the community and also that they weren't aware of health services. Seeing the issues that people face – barriers to health mainly; and the issues within a refugee community*

or a new migrant community – issues that they would have, health-wise" (S2); "Looking at the statistics, for example, the vast majority of people with chronic Hep C are injecting drug users. I think it's two per cent with chronic Hep C in Australia get treatment each year – it's 4,000 in 220,000 – it's outrageous" (S7); and "*A lot of elderly people, they are very isolated and they can't just go off to the GP or get things that they need so, and then again the cognitive dementia and on top of that they really have very low access to health care sometimes, and the same for people with mental illness as well" (S8).*

The experience of the program and its placements also led to a great deal of perceived learning about the professional skills of other health support professionals in community settings, what could be learned from them and what the concept of inter-professionalism means in health support: "*I think also a lot of the time these community groups or the services available, a doctor wouldn't be able to provide the services needed. So a lot of things, you really do need an OT or physio to do them or, someone who can spend more time; whereas a doctor, beyond their medical knowledge, sometimes they can't do much; they wouldn't be much more helpful that someone else" (S2); "We get educated in a way about how health professionals want us to treat them, rather than seeing other existing models and modelling potentially on that behaviour" (S3); "I really like being faced with other health professionals because I feel like that there's lots - not that there's not a lot to being faced with doctors and other clinicians - but you learn something completely different. It's the skill sets cross over, definitely, but it's nice to be working with a health professional" (S4);* and *"Essentially the experience in terms of who we met from a professional standpoint was quite broad – podiatrists, nurses, GP's, social workers" (S7).*

This experience had the additional effect of focusing their own sense of what it meant to act professionally with patients: "*Some people are more in tune with things so, for example, if a doctor was talking to a patient and they clearly were not understanding but they were just saying yes. Some people don't register that that doesn't mean anything, whereas, it's quite obvious to me, I suppose, no they're not understanding the question" (S2); "It's okay to work in a team as long as I'm the head, yeah. Instead I think it's more helpful to see it as everyone working in a team and contributing to a different aspect of the person's life" (S3); "I really hate it when we're doing bedside teaching and someone's just there… and you can really tell they're going through the motions of asking the questions. Like, it just really disheartens me because I just think I've got an opportunity to know so much more about this patient than simply what they're presented with but you're not taking that opportunity; it's so frustrating" (S4); "Like I see a lot of times people talking to patients and I think that wasn't… you're not a very good communicator. I wouldn't have done it that way. Like you just don't know the patient skills. Then you never see like how it affected them because you never see them again" (S5);* and "*Everybody at some time falls into the trap of saying: Oh the guy in Room 3 who got his appendix out; he's not Bob, he's the guy in Room 3 who got his appendix out, or the appendix in Room 3, though I'll try not to put myself into too negative a light. Yeah and I think the CBP: it was never… it never boiled down that far; it was never kind of this person who was on these drugs and had these problems; it was always Betty who had broad kind of… and fitted into a social context. I think that was really good, especially as a starter, because it made you come into third year already thinking a little bit that way" (S7).*

The most responded to theme across this scale, however, was that of needing to have formal clinical medicine connect with the more informal health support infrastructure provided by the sorts of community non-clinical agencies and organisation that these students were placed in for the program. Many of the quotations already used above touch upon this area as it intersects with several other themes used to analyse the interviews; indeed it was an important subset of the theme about becoming a better doctor. The following fill out the theme a little further: "*I think it sensitised us a lot – it made us very aware of all the things that can be done to improve health outcomes – yeah, a lot" (S1); "What was worthwhile was becoming aware of different services that were available beyond medicine" (S2); "I found it invaluable because, as I told you earlier, learning about what all these social organisation are about in supporting a person's health is something that we don't get elsewhere. It helps us to recognise that there are these services that exist and that there are more than just the disease itself and these services around are geared towards helping the patients as much as the hospitals" (S3); "I think the most important thing is, because I know that there's certain aspects of community health that haven't been explored, I'm not afraid to go seeking them out. Because they were so friendly at (Agency Z), I'm thinking that they really want doctors to be involved for obvious reasons. So I'm not afraid to go seeking*

it out" (S4); "I didn't realise there were so many community programs related in a sense to health, in a sense just to supporting people and I think if I do end up in a GP role and then I meet someone like that, I'll be able to talk to them more about there are these services available to help you" (S5); "The point they missed was that you know there's other services out there; there's other organisation out there that also have to do with, as we call patients, where other people might be getting advice about their health, advice about support and that sort of thing, that's not from a medical point of view, like a very much more social or holistic view" (S6); "In terms of the doctor's role… I guess you've really got to try and work with the community organisation, especially if you're in a local area, who are going to build a relationship with you. You know where each other's – the limits or the boundaries of what they can do are, and that makes it a lot easier to refer" (S7) and *"I'm not sure how I would have come across all these without it or maybe – it's hard to pinpoint it to definitely the CBP experience, because those things are kind of around and it probably depends how much attention you pay them, but it would be fair to say I do pay a lot more attention to those kind of organisation, I think" (S8).*

All the above data triangulates well with the data from the surveys. A particularly interesting aspect of the interview responses, however, was the theme of how the CBP course connected with the rest of the MBBS. This was less about triangulation and more about clarification. The other data showed a real division of opinion in this area and an increasing level or responses denying that there was a good connection between the two, sometimes very angrily. On the other hand the data was showing a clear majority perception that there was great value in the experiential learning gained from the CBP. The interviews were used to try to find out why this apparently paradoxical result was coming up. That the interviewees were able to perceive a clear and valuable connection between the CBP and the MBBS will have been obvious from many of the responses reported on above. These further quotations reprise that perception: *"I think it was really worthwhile learning how to work in a team over a long period of time; that's just something we don't do any other time" (S1); "Within a medical course? So, what was worthwhile was becoming aware of different services that were available beyond medicine; seeing the issues that people face – barriers to health mainly; and the issues within a refugee community or a new migrant community – issues that they would have, health-wise. And learning to communicate with people, especially vulnerable people, people who can't talk English that well. Other things – yeah, learning the research aspects: how the whole process works and ethics and writing up a paper – that sort of thing was really useful. That would be the main thing" (S2);* and *"I think the fact that, making us kind of do projects, I like to think tells all the students that it's important to think about things, and it's important to contribute to this, and it's important to think about the social determinants of health and how we influence them, from the beginning. And it ties in quite nicely with what we do in the pre-clinical years and then, in the clinical years" (S8).* Perhaps the subtlest and deepest response in terms of its implications for what a medical course could or even should be came from Student 1: *"I found it rewarding to be able to focus on something that was quite an important issue, but it wasn't specifically medicine. And it made me feel like, I'm going to come out of my degree as a more well-rounded doctor for having done and now knowing a lot more about that issue."* This concept of well-roundedness and the importance of the program's non-clinical nature in providing that stands in counterpoint to the generally clinical and science-based focus of the course as a whole. It also implicitly underlies many of the responses reported on in this analysis.

Equally as interesting, however, in what they imply were the responses that related to why so many students apparently did not perceive these connections. Most, but not all, of these responses came as part of the follow-up discussion of Question 10: "In terms of a learning experience within the medical course what was worthwhile about the CBP and why?"

Some responses, such as *"Some people probably wouldn't be aware that medicine – there's more to medicine than just treating illness; there's a much bigger picture out there so I think it's important for some people to be shown that" (S1),* pick up on students' perception that there is a subgroup of students who resist any vision of medicine and medical practice outside a very clinical one of biophysical symptoms, diagnosis and treatment interventions and are impatient with the inclusion of sociocultural determinants of health or any but a very cursory involvement with other health professionals apart, perhaps, from nurses, *"Yeah, lot gets handballed to the social worker" (S5).* These responses often express impatience with this subgroup: *"I think unfortunately in medicine a lot of the people are just*

very scientific focused and I think some people just don't want to see - they just don't see the big picture. I think there's always going to be some people like that, who just… they can see the value of the CBP but they don't see how it had any connection. Even though I think I can see the connection there; I can see where it fits. So I guess it's hard for me to understand why people wouldn't see it. So I think making people who just really don't want to do this type of thing - do a CBP program - they're probably never going to, even if they had the best placement in the world, they are possibly never going to connect with it" (S1); "I think another thing to add is that a lot of people think that programs like working with children with disabilities - they think I'll never have to do this - this would be not a job for me; it's something for an OT or a physio or something like that so why am I wasting my time? I think some people feel that way: Why am I wasting my time when this is not going to be my role? I think that's maybe another thing" (S2); "The reason that it's in the course and the reason that they teach it to us is that it's all part of what we do. You can know medical facts until the cows come home but if you can't communicate to people and think about how they exist and whether they're going to be compliant and whether they're seeing herbalist and getting medications that interact with your medications. You kind of have to have that to do the job" (S7); and *"Yeah I would say the CBP probably built on what we'd learnt in earlier years and then it was really down to different personalities as to whether you pulled any of that through later, and probably subconsciously. There are some people who say that psych placements for nine weeks are a waste of time, but you have to know about that stuff. And people can be just not interested in stuff even though it might be important for them" (S8).*

Another line of response related this to the structure of the MBBS course itself, particularly in its lack of any consistent integration of community-based issues and understanding of the community's role in health support: *"It's not a consistent theme the whole way through. I mean, I don't know - I think definitely in first year there still was a little bit - there was a community message in sociology and stuff. So I think that it is surprising that people don't think it's more a part of it. I think definitely the way it was set up in second year was very much, you know - one day of CBP and then everything else was different - if was a bit more integrated into your, you know, your scientific tutorials or your lectures then it might be seen a bit differently" (S1); "I mean it's not medical - it is connected but it is something separate completely to what we do normally" (S2); "Like in PBL's it's always divided up into epidemiology, the pathologies, treatment and management… like all those different subjects. And it's like CBP really fits into like the social history and the… umm… like the management. So when you consider like all these different components, it's quite small and it doesn't really come up a lot; and so everyone gets quite fixated on the pathologies and the various things that we maybe they like us to understand what we're doing or the exam or helping patients in the future, and just for getting by. And especially in second year when there's such a sudden massive focus on pathologies, and all our physiology lectures come in. There is a potential for all of the CBP stuff to really get lost" (S4); "I think the community placements when you are sent out are more like community clinics and paediatrics type of clinics but not everyone has to do them; it depends on the hospital you are at; it depends which… who's like managing that part of it. There's nothing that everyone has to do" (S5);* and *"I'm not sure what other exposure I would have had apart from a few stakeholder sessions in sociology" (S8).*

6.3.7 The Community Placement Experience

Apart from Student 5, who had a poor placement experience – *"I think the guy was… I don't know if he hadn't done it before; I don't know if it was a new placement. He didn't really seem to know exactly how to run it"* – the students were quite enthusiastic about the placements they had had and especially the quality of the staff they were working with and learning from: *"Well he was really great actually - he took us, not only to meet the community but also he took us to some food shelters - I don't know why I didn't mention that before - we went to some food shelters and he showed us quite a few actually in different areas so that was something I didn't even know existed, like one behind (Church X), which I didn't even know there was something there. So he showed us a lot of those sort of things" (S2); Basically one of the district nurses was actually - she used to be a CAT nurse - and we were following her and she talked about: actually in the homeless context about supporting homeless people with mental illness as well. I guess that's the very first exposure to mental health in my course. I think that was helpful in my development" (S3); "They really provided a really good platform for whatever project that we were going to do and… Yeah they were good, and they gave us our own little desk; and they gave us our own*

space and had lots of opportunities to go out on education sessions like at schools and education forums in the city" (S4); "No, wow! She was really good. She was really old school and knew the ropes; knew exactly what was important; knew exactly how to deal with issues. It was really great that she found a place for us. That was the most important thing" (S6); and *"We were lucky to have a very friendly and very on the ball supervisor – she was lovely so that helped us settle in. Finding our feet was all right; we got to know the team relatively well" (S8).*

This support from the staff at the placements was valued and seen as important, but the most valued aspect was what could be learned from the interaction with clients and involvement with the placement's activities: *"I still feel quite passionately about that issue of domestic violence so certainly that's something I'm going to be aware of in future, you know – if I see women in my practice, or men, thinking about whether maybe that's an issue in their lives, because it is for a statistical percentage" (S1); "Just dealing with people who can't talk English or migrants and just being sensitive and talking to people in an appropriate way and gaining respect and trust from the person" (S2); "I guess meeting the clients directly and talking to them about their experience helps in contributing to our understanding in terms of how – beyond I guess the doctor's role – like how a person's health is being supported, yeah" (S3); "When I'd see a client, I'd feel so terrible for them. It'd be just like: What horrors have they gone through. And that would make me feel pretty sad, so just the emotional toll that the placement actually took on me - it was not insignificant and I think that really helped really learning or appreciating the true nature of what the agency workers were dealing with" (S4); "Yeah, I was impressed that there are… Like obviously I didn't have very much understanding of refugees coming here and what their main difficulties like AIDS and anything like that. So seeing how they get support from (Agency V), and I was impressed with what they do and though it's good that we have these programs for them… umm… Yeah so from that point of view I learned a lot about what they offer and I though it was a very good thing that they did" (S5); "It is quite common and I think shockingly common and I don't think people realise that. And a lot of people, I think, are still in that mindset that, you know, it's the woman's fault and she can leave any time that she wants" (S6); "I suppose broadly for me now, the actual placement experience – getting to be there; getting involved with the clients; meeting good people working in a primary prevention kind of area and saying: Okay we're here in the hospitals but there are people out there in the community doing the work, working really hard feeling passionate – that was really important for me" (S7);* and *"They had a young mothers group, where they would go and do social activities and right education etc. So, having now done obstetrics or women's health last year, I appreciate a lot more that that's really important" (S8).*

6.3.8 Summary of student interview responses

In summary the students interviewed:

- Were overwhelmingly positive about the value of having done the program, seeing it as providing a valuable component of their course that was in many ways not touched on or followed up elsewhere in the MBBS course, apart from occasional and quite chancy community experiences in General Practice, Paediatrics or Gynaecology and Obstetrics rotations;
- Tended to dismiss criticisms of the course by a few other students as showing a narrow lack of understanding of the full nature of medicine and medical practice;
- Valued the experience of non-clinical health support and advocacy;
- Gained a deep respect for other professional working to support health out in the community, and
- Were resolute in their intention to make use of these community resources in their practice;
- Valued the contact with clients;
- Appreciated the activities and work of the agencies they were involved with, even in the one case where aspects of the placement experience had been unsatisfactory; and
- Interestingly there was also quite strong support for having had an introduction to research and health promotion, even though at least one found it quite challenging.

6.4 Partner Organisation Staff Observations

6.4.1 Introduction

The interviews of staff from partner organisation gave an opportunity to gain a different and complementary perspective on the program. These observations give an interesting triangulation on the students' learning by giving the perceptions of supervising staff from the placement organisation about what the students' appeared to be learning and its effect upon them. These partner organisation staff are also able to give insights as to what involvement in the program meant for them and what they believed their organisation and the clients they served would gain from the partnership. This section gives the background to the interviews, spends a little time on looking at the patterns formed by the themes evident in them so that a clear sense of their scope and emergent thematic strands, and then uses wide-ranging examples to explore the rich range of meanings and implications in these themes. The themes generated by the analysis can be seen in full and in relationship to the themes generated from the other data in Appendix 9.

6.4.2 Background to interviews

The interviews of staff in community partner organisation followed the same format as with the student interviews, but with the following guideline questions:

- Can you give a brief description of your involvement with the CBP program?
- What impact, if any, do you believe the program has had on students' perceptions of support for health in the community?
- What impact, if any, do you believe the program has had on students' perceptions of a doctor's possible role within that support?
- What, if anything, did the students seem to learn about the factors out in the community that impact on people's experience of health and health support?
- What features of the program seemed most challenging and/or rewarding for the students?
- In what ways, if any, did the program support your organisation and its work in supporting the health of its clients?
- What, if anything, was the contribution to this of the project the students carried out for you?
- As a result of your organisation's partnership with the Monash medical faculty within this program, what benefits, if any, do you believe there have been for your organisation and its staff?
- What benefits, if any, do you believe there have been for health support in the community?
- In terms of a learning experience for medical students what, if anything, was worthwhile about the program, and why?
- How have your clients responded to having medical students on placement working closely with them?

Staff from eight different community partners were interviewed. The partners can be described in general de-identified terms as:

P1 – A support service for children with behavioural problems and their parents, which is part of a large community health organisation in Melbourne;

P2 – A support service in Melbourne for adults with cognitive disability;

P3 – A support service in Melbourne for people with mental illness;

P4 – An organisation in Melbourne for supporting volunteers working with the elderly and the disabled;

P5 – A Victorian government school for children with high-level disability;

P6 – A homelessness crisis centre that is part of a large Melbourne welfare agency;

P7 – A large Malaysian welfare agency working with refugees and other marginalised groups;

P8 – A local support service for children on the Autism spectrum operating in Kuala Lumpur.

The support documentation – Explanatory Statement and Consent Form – is included as Appendix 7. The interviews took from 50-80 minutes. They were recorded and transcribed with a copy of the transcripts sent to interviewees as a courtesy.

6.4.3 Broad scale analysis

The interview transcripts were coded thematically, using NVivo 9 on grounded theory principles until saturation was reached. Coded themes were then compared to the scales and themes derived from the student surveys and interviews. Where appropriate the partner thematic codings were related to the existing student ones and those codings re-checked to ensure their accuracy. The remaining thematic codings were unique to the partners. They were further analysed and found to group into three categories:

- Responses focused on the students;
- Responses focused on the partners themselves; and
- Responses focused on the faculty-partner relationship.

The coded responses were then further coded, where appropriate, as being positive or negative.

In general terms the partner interview response triangulated neatly with the student data in detailing what were perceived as the most important outcomes of the partnership and the placements. The emphasis focused most firmly on the sensitisation of future doctors to community, especially community needs and community support structures. In comparison, for the partner organisation, the projects were valued but very much seen as of secondary importance.

The pattern of responses, as with the student interview responses, can be gauged through the following analysis by theme and scale but also including emergent theme groupings that are stakeholder specific, reproduced below as Figure 28.

The pattern emerging from this analysis has a number of clear features. Within the themes emerging from the interviews the theme of the students' development of "Community sensitivity" has more references (101) than any other. This focus upon students' ability to relate to or be sensitive to clients/patients and their carers or the community groups trying to support them is supported by the number of references to the following themes:

- "Holistic view of health" (48 references) and
- "Students getting it" (36 references) – the latter theme refers to partners' perception of students realising the deeper impact on people's health and life opportunities of socioeconomic context, chronic conditions and lack of ready access to health support, and the importance of a sensitive and empathetic response to this.
- "Respect for other and empathy" within the "Personal Learning" scale (40 references) and
- "Determinants of health, social factors and access" theme within the "Understanding the Connections" scale (49 references).

Other frequently referred to themes were:

- "Develop new understanding and skills" (66 references),
- "Health promotion project, health promotion and research skills" (54 references),
- "Interaction with clients" (40 references),
- "Communication and interaction skills" (38 references) and
- "Professionalism and interprofessionalism" (34 references).

Virtually all of these focus on what the partners perceive as learning for the students, with the partial exception of the "HP project, HP and research skills" theme where some aspects are about direct benefit to the partners.

	# References	# Positive	# Negative
Partner specific			
Description of partner organisation	13	0	0
Description of placement & range of services	19	0	0
Purpose of Placement	33	5	0
Field Educator experience	22	1	0
Benefits to Partner	33	18	2
Student specific			
Students Getting it	36	7	0
Holistic view of health	48	3	0
Community sensitivity	101	17	1
Ongoing student involvement	7	2	0
Faculty-Partner relationship			
Faculty support	13	1	6
Suggested changes	17	1	5
Student Survey Scale Codings			
Personal Engagement			
Learning style	13	1	1
Interest or passion	10	3	1
Feeling reward or enjoyment	22	8	0
Experiencing difference	18	2	1
Challenging	32	1	6
Personal Learning			
Teamwork or cooperative learning	10	1	0
Respect for others & empathy	40	6	0
Maturation of learning	14	5	1
Becoming a better doctor	19	4	0
HP Project, HP & research skills	54	21	9
Experiencing medical or health support in action	10	1	0
Develop new understanding & skills	66	12	1
Communication & interaction skills	38	1	0
Understanding the Connections			
Professionalism & Interprofessionalism	34	7	0
Determinants of health, social factors & access	49	3	0
Connection between placement & MBBS	4	1	1
Community health support infrastructure	10	5	0
Community health issues	6	2	0
Community Placement Experience			
Placement activities	18	4	0
Nature of placement	11	1	0
Location of placement	3	0	0
Interaction with clients	40	13	0
Field Educator & health support professionals	21	4	1
Fellow students on placement	1	0	0

Figure 30: Partner Organisation Staff Interview Responses - Thematic Analysis

Only two themes were strongly about what the partners might directly get out of the experience:

- "Benefits to partner" (33 references) and
- "Purpose of the placement" (33 references)

– and even these often tended to focus on the students' learning as shall be seen later from the detailed interview quotes.

The codings for positive or negative responses were also revealing. Overall the responses were strongly positive:

- The "HP project" theme (21 positive references) was the strongest, though in an echo of the students' own ambivalence about this area, it also had the highest number of negative references (9 references).

- "Benefits to the partner" (18 references) was the next most positive theme.

It is consistent with the emerging pattern that the other strongly positive themes all focused on the students learning about community and interactions with its members:

- "Community sensitivity" (17 positive references),
- "Interaction with clients" (13 positive references),
- "Communication and interaction skills" (12 positive references), and

6.4.4 Benefits to partner organisations

It is within this context that one can judge what the partner organisation perceive as being the important benefits of participation within the program. The CBP program could notionally be seen as being most likely to provide the following four things to its community partners:

- Money – a modest $500 per student placement;
- Prestige in partnering with a respected university;
- Support in developing an evaluation or intervention to address a perceived health promotion or support need through a project; and
- An opportunity to shape the attitudes and community understandings of future doctors.

In terms of these, the interviewees saw the money as being of minimal importance while the notion of a prestigious connection with the university was barely mentioned.

The Health Promotion Research Project was seen as being useful, and at times quite exciting: *"The first year, you know, the students did the project for us around nutrition and that was really useful. And we gave the results of that to the parents, to the child care parents; so that was really useful" (P1); "I just think it's such a wonderful thing. I'm not going to lose it, because it's so valuable to me, but I just feel that for it to be the requirement is good because it forces them into that place where they've got to engage in that different way. I think that a lot of learning comes from that. An enormous amount of learning comes from that" (P2); "Absolutely! We've had students develop, you know, assessment tools for us… you know, being able to compare effects of nutrition and understanding of nutrition on mental health" (P3); "It went very smoothly with the university; the students were happy – it still gave them a huge client contact; probably even more than they would usually have. And it was beneficial to us as well" (P4);* and *"I mean the Healthy Eating Groups – they were really well received by the clients and lots of fun to do. And were great eye-openers for students in terms of just people's knowledge of what different fruit and vegetables were. People talked about what their diets were" (P6).*

Other responses were more nuanced, noting some of the drawbacks to the projects, especially when they interfered with the students' time to be involved in the placement's main activities: "*What's been problematic for them is when they had to do the project. Not just the workload but they were actually trying to talk to parents and trying to find a time when parents would be available and they'd be prepared to talk to them and all that sort of stuff was quite difficult" (P1); "I think it's valuable for the students and it's valuable for our organisation and for our clients, but at a more broad or general level, I don't think it is, because I don't think it has impact in that way" (P4); "I think that they appreciated the idea of the project, but they found managing the students being here for such a short time, and not being involved in a hands on way because they were out doing project work, disruptive. That was the problem" (P5); "So really what they do can be useful but it is not so critical to us. It's too ambitious for the time. Then I feel they have breadth and not enough depth. And for me, it is an immersion experience – the students are immersed in something not of your own culture, something of a preparation. So I think that is more important than the breadth. With that they need to be a little more flexible but the project doesn't allow them to be flexible because there are so many things that need to be achieved" (P7)*

In the end it was not the Health Promotion projects that were seen as the key benefit of the program. All of the partners interviewed were quite emphatic that what they, their organisations and their clients most got out of the program was an opportunity to educate and influence the next generation of doctors so that they would be more sensitive to and understanding of both their clientele's special needs and problems,

and the general needs and problems of marginalized and disadvantaged community members: *"I guess the area that I would see they would learn more about is that difficulty in parents in actually coming to terms with their child's prognosis, particularly if they really work with the early childhood intervention programs" (P1); ". And we love the opportunity to invite them to come and engage with us and to reflect on who we are; to reflect on what this population is; to reflect on what life for this population's like; and ultimately to reflect on how… where they're going in their career trajectory links to this population of people (P2)"; "I always try and facilitate that sort of learning with the students when they come here as well, because we find that so useful and that is just such a great example of thinking broadly and beyond, you know, what you normally would in a sterile, clinical situation. Yes, you would write a script. And yes to the average Joe, you would say, take this three times a day and put it in the fridge. But, you know, you need to take into consideration all of those aspects to their life and… if they are homeless, then how are you going to treat them?" (P3); "But that client contact where they can, you know, go out on the bus and they spend a day speaking directly to the clients. When they come back, they have a very different understanding of what that person's life is like and what their health is like, and I think that helps them to understand how important their role will be" (P4); "We get hundreds of requests, you know, for visitors and students and everything. So as a school this is something that we're really committed to, because of the long term benefits that we see for our students when they do go into hospitals or to the doctor's… that if we can see a generation of doctors coming through that will have a little bit more understanding or a little bit more empathy, ultimately it makes it better for our parents and carers" (P5); "I talked about clients before being really keen to educate the doctors of tomorrow because of the bad experience they've had. Or they've had a good experience and you need to be like this particular doctor I had. And I think there's a general commitment to that too from staff" (P6); "Our intention in having the students is to help them understand the reality of the poor, the people that they might eventually serve. So our intention is to hope that through their internship with us they become a professional doctor that will be much more empathetic; who understands the reality of what the poor are going through" (P7);* and *"I think the exposure to our group, to our category of disability. Actually because, as I said, most of them have not encountered or had direct contact and actually that is also what I stress, because to me, it is actually a good opportunity to try and find ways in which people who are in the future going to interact with patients can learn. Doctors are one because only Monash down here is doing extensive work" (P8).*

6.4.5 Partner organisations' sense of the purpose of the program

In more detail this concern and sense of purpose behind the placements from the partner organisations' point of view can be seen as having three main dimensions:

The first of these was a perceived need for students, as future doctors, to develop understanding of and sensitivity to the social background and complexity of health problems, especially in people from vulnerable or marginalised backgrounds – *"When you're looking at a child, you have to look at the whole context in which that child lives. And that fits with that idea of we're looking at what are the other supports around a patient really" (P1); "They (the students) consolidate relationships with people who have a disability, so they become familiar and comfortable with them. And they gain a huge amount of professional insight and wisdom" (P2);* "Not everybody, you know, can just go to the supermarket and buy dinner, you know. So to be able to identify then, Okay, so this person has no money and can't afford to buy their medication this fortnight. What do you do in that situation? You know, then can you help them to find food? You know, those sort of things "(P3); "For them to go to the SRS's and understand what those people's lives are like. And then they go and see people in the Safety Register that are socially isolated. So there's a whole range of things… of disadvantage that they would come across. I think that's what they come to understand – is that there's a whole lot of factors for people" (P4); "So it's sort of giving them a little bit of, not education but background into what… what the disabilities are; what they look like; how they present; the fact that children have multiple impairments and we're not just looking at cerebral palsy – you're looking at cerebral palsy, vision impairment, hearing impairment, epilepsy and ADHD. And so, as an educator, I have to look at that child and work out sometimes what's the CP; what's the seizure activity; what's the medication; what's the ADHD? As they all have to as doctors, I guess, seeing those children function, and hearing their stories and hearing from the parents and the families, as being really powerful for them as well… and the ups and downs that happen. You know, that things go*

really, really well and then they go really, really badly; then they even out; then, you know, they go really badly again" (P5); "I remember a couple of students saying, you're talking to them about a particular issue they've got, but then understanding that there's lots of family violence happening, or they are really unstable with their housing so they're sleeping on someone's lounge-room floor, or they're sleeping in their car. They can't like put medicine in the fridge and a whole lot of other things that you don't sort of think of" (P6); *"And also much more dignity, and also much more comprehensive health care that you don't just think that people can come to hospital for free service and that is enough. It is not enough – you need much more than that to be well. So, like the poor, in order for them to go to hospital it costs them money to travel so even though the medical service is free the travel is not free and then if the person is unwell or has an amputation or a stroke someone at home has to stop working to look after them, so there are so many other things involved" (P7);* and *"And actually they then get a good feeler, indeed it's a learning experience and eye-opener for them to actually know that, you know all of them are learning-disabled clientele, but then why are they different? And all of them they are different" (P8).*

This was complemented by a perception that it was critical for them to develop a sensitivity to the needs of vulnerable or marginalised patients to be listened to and treated with respect – *"Hopefully then that would flow through to, you know, as a doctor where, if they say give a diagnosis to a parent, they might have a bit more understanding of how the parent might not always hear what they're saying, or want to hear what they're saying" (P1); "I think a lot of students have come here over the years who had had little or no contact with people who have a disability; little or no understanding of what health issues are like for people with a disability; and, probably more important, little or no understanding of how marginalised people with a disability are; and what communication is like for people with a disability" (P2)*; and, a staff member quoting and commenting on a student, *"You know at the start I really wasn't sure but now I have a better understanding so, if somebody came into my clinic, I wouldn't just judge them… you know you would get to know them and speak to them – Yes, so that's success to me" (P3);* Further points made included: *"Because a lot of them have admitted that yes they've been so immersed in their textbooks that they don't have that social connectedness with people out there. And so they want to know how it works. How they can… you know… How they can have a bit more empathy. How they can actually be a bit more connected to some of the clients out there" (P4); "And hearing from the children – Don't feel sorry for me! I don't want you to feel sorry for me! And don't fix me; I'm not broken. Like my legs don't work but there's nothing… you know, I'm not broken – That kind of thing comes from the children, so to hear that is really powerful" (P5). "Clients say, oh they (students) are going to be doctors. I need to educate them how to be a good doctor. And they will often speak directly to the student, during an assessment – Now you know I had a really good doctor, and he was a good doctor because he listened to me and he spent lots of time. When I described symptoms I had with certain medication, he paid attention and he made adjustments, because, well the doctors that didn't do that, well I just didn't go back there" (P6)*; and *"So if they realise another group of people of modest advantage situation are not so different from them, they will then give them much more respect, which I think is a very important component for them to be good doctors, because a doctor can come from a very superior position and disregard the people that they are working with. And then when they also see how other people work with the poor like my colleagues and other people, that kind of integrity, and also that kind of respect given as equal partners to the poor, I think it helps to instil in the doctors – future doctors – that you know that is actually how you should work with the poor" (P7).*

This focus on the need for students to develop their sensitivity to social background and individuals was further perceived as needing to be complemented by a knowledge of and willingness to work with the community support structures and organisation helping vulnerable and marginalised people: *"Well I would see that what they would get from that is knowing where to refer. I mean we don't expect doctors to be able to do everything. You know, the reality is they see patients for a really short period of time, so what I would like them to get out of it is knowing that there are places out there that they can refer to, and knowing how to make those referrals, really. That's what I would see as being the most important thing" (P1); "We have five centres as well as the other emerging businesses, so I do a roster and those students really just go and participate and meet people and they enjoy the experience of getting to know people. They move into the world, the daily world of people with a disability and that's their brief" (P2);*

"They've identified being aware of other resources in the community; that they don't have to be the be-all and end-all for each of their clients; that you can actually refer and get support and input from other people and networks associated with that client" (P3); *"I'm not suggesting that they aren't learning this in university but I think, when they hear it from someone in the community, it means a lot that that person's working with clients and representing their voice and saying – this is what our clients find is really difficult and then, in a year or two, the penny drops and they say – I've experienced that now; I've seen that now" (P4); "I think it's a whole world that they actually didn't even realise existed. That there is a whole world of medical care and provision of medical services that take place outside of (hospitals and clinics)" (P5); "We're contributing to the sort of broader education of students who are going to one day be doctors and being in fairly significant positions of providing that leadership or advice to people" (P6); "So we have a farm, a training farm for the indigenous people and then when they go there they immerse in the environment, interact with our colleagues and also with the indigenous people. They seem to become inspired by the work that is built around those objectives. So I think they take away – when they can see how this work can directly impact because it's like… and they can see the outcome of this work, the value of it" (P7);* and *"I think the exposure to our group, to our category of disability. Actually because, as I said, most of them have not encountered or had direct contact and actually that is also what I stress. I always want to make sure" (P8).*

This was in the context of a perception that doctors, whether in GP clinics or hospitals, too often treated patients with insensitivity and disrespect and were ignorant of, or indifferent to, the support available within the community. In response, partner organisation saw it as important to contribute to educating better doctors – *"I think health services and medical services are very key services in our community and I think the more we can do to provide a broad education to future professionals who are going to be working in that area, the better" (P6)*; and *"You can see when they come in and they're deer in the headlights – the first time they've ever seen a disabled person. And then I can see the same person in three months time walking around smiling and interacting with a child with complex and severe disabilities and be quite comfortable. And I think that is going to serve them better in the long run, and our kids better in the long run" (P5).*

6.4.6 Partner organizations' perceptions of key factors in the students' learning

These interview responses of partner organisation staff shows a great deal of common enthusiasm for the program, especially in relation to its perceived impact on students' skills, attitudes and understanding. Furthermore, all commented on the degree of change in the students across the length of the program. Many of these comments have already been reproduced above but the following comments add to those. The partner organisations commonly attributed such change in the students to a set of key factors with an overwhelming focus on the experiential learning the students gained through the placement.

Perhaps the most important of these factors was perceived to be direct contact and day to day involvement with the clients, gaining familiarity with their humanity as well as with their special requirements: *"I think that's probably one of the strongest things that comes out of it. What we do here is we give them the opportunity to observe different groups so when we put them in child-care they participate in the groups; they get to meet the families and all that sort of stuff. So I think that gives them a good understanding of how important the families are in terms of working with children" (P1); "So from their perception in the beginning to what it is at the end when they've finished their placement with us – they seem to be a lot more relaxed and have a better understanding of how other factors like socioeconomic status and other influences like drugs and alcohol may affect the person as a whole, and how their mental health interacts and goes alongside those conditions" (P3); "I have a program set out for them so they have direct client contact. Because in the beginning it was about them being involved with the community – know what community is about. It's not all theory – it's about being out there and saying, Well this person's different and we need to address those people in a different manner. So right from the beginning we decided well let's give them as much contact with community as possible" (P4); "So I think working here and going out to the playground and… just helps. Because they can see so many ways people interact with the kids as well" (P5); "Like it's sort of – the more I can get the better; the more grounded as a person I'll be"; (P6); "For them the experience of the poor is far away from their minds, but you can see that during the interaction they try to get involved; they try to be part of them;*

and perhaps tend to change their posture of who they are, which is a very good thing. Yeah" (P7); and *"I would want you guys in this organisation to do is: mingling, interacting, having discussion with them so that you know the different learning disabled in this centre" (P8).*

The importance of this contact with clients was perceived to be complemented by contact with a range of health professionals and health support approaches: *"I think the interaction with the other professionals just deepens… is where they really get the understanding from" (P1); "I would say so, because the staff that work here come from a variety of backgrounds. Like mine's nursing. I have others that are psychology. I have others that are social work or OT. So they are able to get a variety of, you know, backgrounds and inputs just from individuals that work here" (P3); "So you've got teachers, yeah, social workers, nurses, physiotherapists, occupational therapists, speech pathologists. We've got a music therapist here, an art therapist. As well as working in the classroom, you know, in the last two weeks I gave them the opportunity to shadow a therapist if they wanted to, just to see what it was like to be an OT or a physio or a speechie. They really liked that" (P5); "Also we've got a range of backgrounds in our team: so people who are social workers, psychologists, youth workers, drug and alcohol workers background. Some people who are much more in depth and will do much more exploring; and some people who are much more matter of fact and keep things fairly brief. So it's good for them to observe those different styles"(P6)*; and *"So they might interact with three or four professionals. They improve, I think, they improve. They know how to handle things better" (P7).*

Another factor seen as critical was perceived to be the duration of the program, with regular contact over a period of months, as opposed to the experience several of the organisation had had of short, observational visits from groups of students: *"Yeah, we get a huge sense of satisfaction because we see the difference between day one and day fourteen, or whatever it is that they have to do. There's a massive change in them and that's very, very visible. Even in the ones that are still on the perimeter – it's still very visible, which is a wonderful outcome for us" (P2); "It's incredible how much they develop. They seem like different people by the time that they leave" (P4); "Oh, developing relationships. I think they become aware that the relationship is the most significant factor to how you can best help somebody. You actually have to have a relationship with someone and particularly our, you know, complex or higher needs students rely very heavily on a trusted relationship before they really let you in and show what they can do. And that's why the visits over time are much more successful than the observation type visits: because they actually get to experience building a relationship with someone" (P5); "I think that's good, you know, that you have these days over a period of time and there's all this other stuff that they're doing at the same time – those rural placements in the middle of the year and all those sorts of things. There's all these other things that they're quite different by the end than they were at the beginning. So I think, given it's fourteen days, I think having it over a longer period is the best way" (P6)*; and *"For me the challenge is to see that it is an investment from both sides: we are investing in them and they are investing their time into it. So I think that that challenge is to value that experience with that investment – some of them are not willing. But most of them are quite willing when they hear that actually we should see it this way and then they become more open to this experience" (P7).*

Complementing the sense of importance about interaction with clients and health professionals was the perception of what was important about students' involvement in a range of the organisation's activities and services: *"They move into the world, the daily world of people with a disability and that's their brief – their brief is really just to observe, ask questions, raise issues, and then I sit with them at the end of every one of those days and debrief with them until every student's been at every facet of our organisation and they themselves feel that they've got to know people. So it's a critical thing" (P2); "Yes, they do, because they get to attend some of the clinical appointments with the clients. So, through being able to be increasing our collaboration with clinical partners, they're able to see and the clinical partners can get more of an idea of the other programs and other things that are actually going on out in the community that are useful for the participants using the program" (P3); "But what I like is that they can then learn to see the difference between how a child interacts with their teacher, who they know really well and in a really structured environment; how they actually operate in a playground; how they operate when they go off to music, or to cooking. And they can actually see that children operate differently for different people" (P5)*; and *"Yes and no-one can deny that that isn't useful in the long*

term if you're being a doctor in actually observing how a worker will engage with a client. And then hearing the story and observing… that is useful - to have actually had that experience of observing that." (P6).

This sense of the importance of involvement with the organisation's activities was related to the perceived importance of learning directly about the range of support offered by the organisation and by other organisations in the community: *"In a longer term thing I think the benefit is you know: Anything that will help give doctors a better understanding of what's out here and their interaction with the community, I think is of benefit to US! … because it means we get referrals; you know, we get better interaction with doctors - all of that sort of stuff. So I always look at it in a more long-term benefit, rather than an immediate benefit" (P1); "So definitely, they've identified being aware of other resources in the community; that they don't have to be the be-all and end-all for each of their clients; that you can actually refer and get support and input from other people and networks associated with that client" (P3); "So they certainly, I would guess, start to be aware that there's a whole range of agencies out there that you can link in with to get support for a family and child" (P5); "I guess being aware of services is one. You know, that you're just aware that there are services around that can assist people with things, even if it's not really immediate. I mean we refer to services and you know there's a month or two month's wait for it to be picked up. But there are services around" (P6)*; and *"Yes, certainly. I think that if they are really caring they would then be more aware of the resources around them. That's also if they are local, if they live in that community and they might be much more aware of what's happening around them" (P7).*

The final perception about what contributed most to the students' experiential learning was hearing directly from the clients about their good and bad experiences with the medical world: *"Probably the big ones because everything else, particularly in the area of health concerns, relates to communication. And in our population of people, there are very few, even gifted communicators who can adequately speak about themselves and can convey who they are; what they're feeling; how they're thinking; what their desires and needs are; what their wishes are - very few" (P2); "It's one of the really strong messages that the kids will give the students. And they'll say, Talk to me. If you want to know something about me, talk to me. Don't talk to her, or him, or whoever. And even if it's a child who can't give you an answer, you still talk to them as if they can and that that's really important." (P5); "There's some that'll say, Oh yeah, I want to talk to future doctors, because I want them to know what my experience has been (P6)*; and *"Yeah, definitely, because as far as those that come here, I actually give them that message. I say, as a parent, when I first went to the doctors, I couldn't get any help even from the hospital" (P8).*

6.4.7 Sense of partnership

Finally the sense of there being a profitable level of mutuality of support and purpose between faculty and partner organisation can be summarised as: *"I go in each year to the Orientation because I thinks it's a really significant connection and reality; and we're trying to support Monash to build something very strong. And Monash are trying to be with us, as partners, to build that very strong thing. And I think there's an identity and there's a mutuality there" (P2).*

6.4.8 Summary of partner organisation staff responses

Overall there is a clear consensus across the partner organisation that coheres around four points:

- A strongly positive perception that an extended placement program with such non-clinical health support organisation promotes learning among the students that is transformative of their attitudes, skills and understanding in working with clients/patients who are marginalised socioeconomically, culturally, or through disability or chronic health conditions;
- A consistent view that such an approach is successful in achieving their own aim in participating in such a program – the development of community sensitive doctors who will benefit their clients in the future;
- Other benefits the organisation may get from such a program, even if quite useful, are quite secondary to that primary aim. In particular a service learning component, such as this program's Health Promotion Project may be valuable but only in so far as it supports that primary aim and does not interfere with it; and

- The effectiveness of such a program lies in its experiential nature through the active involvement of the students with clients and the organisation's activities, with the development of students' community sensitivity coming particularly through:
- Their interaction with clients, especially in learning how to communicate with them respectfully;
- Through their interaction with the range of health support professionals operating in the organisation so how to work that they learn with such professionals and what skills they can offer;
- Through their gaining of knowledge about how the organisation work to support health and how they might be able to use such services through referrals when out in practice.

An interesting feature of this consensus is that it extended across the two partner organisation that were working in quite a different culture, though with the same program. The two Malaysian partners, working with the CBP as it runs in Monash's Sunway campus MBBS course, came up with essentially the same points as the Clayton campus program in Melbourne, Australia. The only real differences came up in references to the very different levels of government involvement in such community based health support across the two societies, and this difference was of only marginal relevance to the effectiveness of the program.

6.5 Faculty Staff Observations

6.5.1 Introduction

The interviews of staff from faculties gave an opportunity to gain a further set of perspectives on the program. These observations give an interesting triangulation on the students' learning by giving the perceptions of coordinating staff from the faculty about what the students' appeared to be learning and its effect upon them. They are also able to give insights as to what involvement in the program meant for faculty, particularly in terms of its role in the students' general medical education from a curriculum perspective. A particularly useful aspect of these interviews was the way it reached across a range of similar programs making it possible to explore how insights into the program could be generalized across other programs and possibly even to all programs of this type. This section gives the background to the interviews, spends a little time on looking at the patterns formed by the themes evident in them so that a clear sense of their scope and emergent thematic strands, and then uses wide-ranging examples to explore the rich range of meanings and implications in these themes. The themes generated by the analysis can be seen in full and in relationship to the themes generated from the other data in Appendix 9.

6.5.2 Background to interviews

In addition to the interviews conducted with students and partner organisation, a set of interviews was also conducted with university medical school faculty staff across two Monash campuses and three other universities running similar compulsory, core non-clinical placement programs for undergraduate medical students. One of these was at another Australian university and two were at United Kingdom universities. All were with faculty staff who were involved in either the day to day running of such a program or in its faculty oversight.

The interviews of faculty staff in community partner organisation followed the same format as with the student and partner organisation interviews, but with the following guideline questions:

- Can you give a brief description of the non-clinical community based placement program you have been involved with?
- What types of community organisation have you partnered with in the program?
- What have you seen as the criteria for success with them?
- What impact do you believe the program has had on students' perceptions of support for health in the community?
- What impact do you believe the program has had on the students' perceptions of a doctor's possible role within that support?
- What did the students seem to learn about the factors out in the community that impact on people's experience of health and health support?

- What features of the program seemed to be most challenging and/or rewarding for the students?
- In what ways did the program support and integrate with the rest of their course?
- As a result of the faculty's partnership with community organisation within this program, what benefits do you believe there have been for the faculty and/or for health support in the community?
- In terms of a learning experience within a medical course what was worthwhile about the program, and why?

In all, eight interviews were conducted, with one of them involving a team of four staff interviewed as a group. The interviews can be described in general, de-identified terms as:

- F1 – A Monash Clayton faculty staff member who has coordinated the CBP program;
- F2 – A Monash Clayton faculty staff member whose role included oversight of the CBP program;
- F3 – A Monash Sunway faculty staff member who has coordinated the CBP program;
- F4 – A Monash Sunway faculty staff member who has coordinated the CBP program;
- F5 – A Monash Sunway faculty staff member whose role included oversight of the CBP program;
- F6 – An Australian regional university faculty staff member who has coordinated a non-clinical placement CBME program similar to the CBP program;
- F7 – A United Kingdom regional university faculty staff member who has coordinated a non-clinical placement CBME program similar to the CBP program; and
- F8 – A United Kingdom regional university faculty staff team responsible for coordination of a non-clinical placement CBME program similar to the CBP program.

The support documentation – Explanatory Statement and Consent Form – is included as Appendix 8. The interviews took from 50-100 minutes. They were recorded and transcribed with a copy of the transcripts sent to interviewees as a courtesy.

6.5.3 Broad scale analysis

The interview transcripts were coded thematically, using NVivo 9 on grounded theory principles until saturation was reached. Coded themes were then compared to the scales and themes derived from the student surveys and interviews. Where appropriate the faculty thematic codings were related to the existing student ones and those codings re-checked to ensure their accuracy. The remaining thematic codings were unique to the faculty:

- Description of the program,
- Impact on Faculty,
- Integration with the curriculum,
- Leadership,
- Maturation,
- Partnership,
- Resistance, and
- Community sensitivity.

The coded responses were then further coded, where appropriate, as being positive or negative.

In general terms the faculty staff interview responses triangulated reasonably well with both the student data and the partner organisation staff data in detailing what were perceived as the most important outcomes of the partnership and the placements.

	# References	# Positive	# Negative
Specific Faculty Response			
Description of the program	63	2	5
Impact on Faculty	20	1	5
Integration with the curriciulum	51	0	9
Leadership	28	3	0
Maturation	19	3	0
Partnership	86	14	10
Resistance	18	0	3
Sensitisation	77	11	2
Student Scales			
Personal Engagement			
Learning Style	17	3	0
Interest or Passion	12	4	0
Feeling Reward or Enjoyment	11	7	0
Experiencing Difference	8	1	0
Challenging	13	1	1
Personal Learning			
Teamwork or Cooperative Learning	2	0	0
Respect for Others and or Empathy	10	1	2
Sustained Learning	7	0	0
Better Doctor	8	0	1
HP Project, HP & Research Skills	17	3	2
Experiencing Medical or Health Support in Action	3	0	1
Developing New Understandings & Skills	27	0	0
Communication & Interaction Skills	12	0	1
Understanding the Connections			
Professionalism & Interprofessionalism	12	1	1
Determinants of Health, Social Factors & Access	31	3	0
Connection between Placement & MBBS	20	1	3
Community Health Support Infrastructure	32	3	0
Community Health Issues	16	0	0
Community Placement Experience			
Placement Activities	17	1	4
Nature of Placement	48	5	4
Location of Placement	4	0	0
Interaction with Clients	10	0	4
Field Educator & Health Support Professionals	21	3	3
Fellow Students on Placement	3	0	1

Figure 31: Faculty Staff Interview Responses - Thematic Analysis

The pattern of responses, as with the student interview responses and the partner organisation staff responses can be gauged through the following analysis by theme and scale as well as the emergent grouping of themes specific to the faculty staff responses, reproduced above as Figure 29. The pattern emerging from this has a number of features:

- As might be expected there was quite a strong focus on how the relationship with the partner organisation impacted on the students' learning with the "Partnership" theme (86 references overall), the "Community Placement Experience" scale (103 references overall) and the "Understanding the Connections" scale (110 references overall) getting similar, quite high numbers of references;
- The area of what the students learned was also quite high with the "Personal Learning" scale getting 86 references and, of course the "Understanding the Connections" scale (110 references) also fed strongly into this area.
- It was interesting that a set of themes relating to the students' learning came up that were largely only evident in the Faculty staff interviews: "Leadership" (28 references), "Community sensitivity" – i.e. the non-clinical community placement experience leading students to develop more community-sensitive understanding (77 references), and "Resistance" – i.e. students resisting the learning possibilities offered by these programs (18 references);
- There was one theme relating to the students' learning that came up with both students and Faculty staff – "Maturation" (19 references), which focused on the ways in which learning gained from the programs continued to develop and gain greater significance for the students across the length of the programs and then during their clinical years;
- The place of such non-clinical community based placement programs within the wider medical curriculum had a great deal of discussion as reflected in the theme "Integration with the curriculum" (51 references); and

- As might be expected there was also quite a bit of discussion centred on the theme, "Description of the program" (63 references), with some interesting comments on the programs' "Impact on Faculty" (20 references).

The actual interviews themselves covering four different non-clinical extended placement programs, with one of them operating across two very different cultures, show a remarkable commonality of observations as can be seen in the following analysis.

6.5.4 Key program features

When discussing descriptions of the different programs a number of features were quite consistent across them. These can be summed up as their non-clinical nature, their focus on experiential learning over a period of time measured in weeks rather than days and a focus on realising the importance of the social determinants of health.

The importance of the placements' non-clinical nature was summed up in terms such as *"I see it is as a part of the course, which provides students with an opportunity to realise lots of things that are otherwise difficult for them to get access to. Okay, so external perception is that health care delivery occurs predominantly in our community in healthcare settings, and they are typical clinical type settings, and that medicine plays an important role in the health of individuals. But what we know is there are very many more places where important stuff happens that contributes to people's health and that medicine plays, not a trivial role, but that estimates are that only somewhere between 20 and 50% of people's health is a function of medicine, whatever medicine looks like. And so I think it's really important for students to realise that there are lots of places where the approaches are different" (F2)*; and *"An organisation that works around domestic violence, so gender and class are so in your face straight away with this organisation that the students pick that up really quickly. And that's critical it seems to me because it's explicit in a way that it wouldn't be in a clinical setting. It's why white working class guys beat up on women. It's not difficult to see what the question is within two minutes of being in the building (F7).*

Program length was seen as critical. This was expressed by Monash faculty staff, *"The most important aspect of CBP, I think is contact - contact with the external agencies for students, and not only just contact for an hour or two but prolonged contact. I think that is one of the most important aspects of CBP that no other medical school has. I think quite often what we find is that when you have one or two hours, which is the most likely approach, you are seen as a tourist there to see what is going on and then go away. But if you stay a bit longer the message sinks in you see the culture, you understand the philosophy, so I think that actually has so much more impact" (F3)* and *"I think the most important thing for the CBP program is the fact that it has a deep engagement with the NGO's and the various partners that we get our students to get involved in. You know, previous schools that I have been involved in - I have been involved in teaching in medical schools for so long - previous schools have had that sort of thing but very often it has been sort of a touristy thing - you just pass by like visiting a zoo, you look at a cage and read what's happening and make some sympathetic noises and come out - you know. And while the students do get something out of it they never actually have a sense of what it is working in such an organisation; the problems that the various people in the various organisation are involved in and what are the difficulties that they have" (F5).* All of the non-Monash programs involved featured substantial contact hours over a number of months in keeping with their sense of the importance of such depth of engagement: *"They do two five week placements out in community. They do it during their clinical year and they do two different placements, each one of five weeks so they have three days in the placement and one day with a GP in the same area" (F6); "Community Placement comprises a sixty hours in total placement for students with what we describe as a third sector organisation. The sixty hours is spread across twenty weeks so it's equivalent of three hours per week (F7)*; and *"Eight half day sessions a semester - they start in the middle of October and run through to the end of March" (F8).* Even that section of one of the U.K. programs that took place in final year focused on the length of engagement: *"One or two students in each practice and then once a week within a cluster, however that's organised, they'll all come together to work with community organisations to do a project for them for about fifteen weeks" (F8).*

The hands-on experiential nature of the placements was also seen as critical: *"They say - I can actually communicate with a child with learning and intellectual disabilities. The same with when they go to aged care - being able to sit down and have a talk to a lady who's had a stroke, or she's had dementia" (F1); "They themselves get involved" (F3); "To be able to be part of an organisation and learning that - I wouldn't even say learning - to experience what patients or residents go through, which you would never experience when they come to you in the hospital environment" (F4); "Because those sorts of things cannot be taught in a lecture hall or in a room or in however many tutorials that you have; it actually cannot be taught - you need to experience it. So the experiential thing I think is the most important thing" (F5); "I think that the notion of reinforcing or revaluating, revaluing that human connection is something that they find very positive, because they don't get that opportunity in hospital. They don't connect with people" (F6)*; and *"There are some very deprived areas locally where they have ended up having quite profound experiences of going on home visits and not having any comprehension of the way people can actually live and the challenges that that then means" (F8).*

All of these program features were perceived by most as focusing on the importance of what can be summed up as the social determinants of health and the social consequences of ill-health: *"The students finally understand how bloody difficult it is out there in the big, bad world. And what the real person has to deal with - access, cost, inequities, inequalities… all that. Yeah" (F1); "Patients, or members of our community, or whatever you want to call them are individuals that live in a community surrounded by family, community and so on and so forth; that a number of what might seem at first glance to be objective choices that an individual makes about things that are actually not within their power and so forth - and you know - social determinants of health and so on - and that to really understand health and how medicine fits in you've got to encompass that social and cultural perspective" (F2); "They learn things like the importance of poverty, the importance of environment… they see the importance of transport… And then they see this problem of in the younger people, people going astray, getting into drugs and all this kind of thing because of lack of jobs… They can see in these communities where they go to, these are some of the problems, that the organisation sometimes struggles with" (F4); "That writing a prescription and tearing the prescription off the pad is your way of saying, "Bugger off!" to the patient. And that if writing a prescription is the role, sometimes that is actually compounding the problem; and that understanding your patient's social context makes you a better doctor; it makes you better able to deal with the condition that is being presented" (F6); "The social determinants. I would just call them the causes - the causes of the causes of the causes. But I don't think that it's universal that they get that, that they really do begin to grasp that" (F7);* and *"It heightens their understanding and awareness of the breadth of exclusion and in some ways the challenges they face, as a doctor who's going to be serving the public, and the complexity and extent of those health and social care needs (F8).*

6.5.5 Partnership

The themes clustering around partnership were among the most commented upon areas across the faculty staff interviews. Partnership includes issues such as what makes for an effective partner, what the impact of the partnership can be on the partners, and on the faculty:

The features that influenced the effectiveness of a given partner for students and the faculty tended to focus on reliability, the opportunities and support provided for students and consonance of purpose.

Issues relating to reliability tended to relate to funding and to staff turnover. These applied to all the programs looked at and typical comments include: *"They seem to be the most consistent placements as well; the ones who offer year on year, get very good feedback year on year as well" (F8).* This can contrast with those that cannot offer consistently: *"The ones that have been challenging for us have been the local government ones linked into children's services. We used to have a very big offering from youth services that would include all of the out of hours play and street activities and that died away a couple of years ago… but it's all dependent on where the funding's coming from. The government initiative at the moment is to fund that so it's great because we get placements for students but it's very, very variable and I wouldn't mind betting next year it will be something else. So getting on top of that is hard" (F8).* This issue of partners' resources being able to meet the placement demands is a continuing one in terms of partner reliability from year to year, *"I think that, provided they understand our principles, then I think getting them to be on board is not as difficult but maintaining them can be. The*

reason being that CBP is, actually in principle most of them agree with what we aim to achieve, but CBP is quite intensive and we need a lot on input from the agency. And because of that I think a lot of agencies who actually operate on a shoestring budget with only a handful of people, can't cope with that – that's the major difficulty" (F3).

The ability and willingness of partners to provide students with support and active learning opportunities was consistently seen as the key feature of the most effective partners. Interestingly there was some tension here between those partners with an advocacy focus and great enthusiasm for the program but limited opportunity to provide client interaction and those with much greater opportunities for interaction with their clients: *"They provide excellent supervision; that they're role models; that they provide meaningful activities; that they provide the students with structured semesters" (F1); "I suppose that's about the varieties that we had, which between the advocacy and the client-based, the client-based ones were far better. The students came back from the advocacy and said we didn't have anything to do. We didn't see real people; and they couldn't communicate with them" (F5); "The ones that seem to work the best are well organised, well structured. They have an idea about what they want the student to do and they're very clear in their own mind about why they're involved in the School of Medicine, so what's in it for them is very clear as well" (F6); "So what we're looking for from the organisation is that they've got sufficient capacity and willingness to create that bit of space for students; give them some things to do, so the volunteer element comes through there… so is the student going to be an asset to you? And where it works best that's always the case for they do become part of the team somehow. For me that's always a win-win but it does work best in terms of student learning and outcomes as well I think… It will be the people who have the strongest idea of how to create that bit of space for them" (F7)* and, where the provision of support is more inconsistent, this can become problematic, *"Whether they've had lots of changes of supervisors as well because that makes a difference to the experience that students have; like you said earlier, you can have a brilliant supervisor; they disappear; don't tell anybody that they used to have a program and then the organisation's lost that knowledge so it's quite hard sometimes with those organisations to keep them on track" (F8).*

The partnership was perceived to work best of all, however, where there was a combination of shared goals and enthusiasm: *"I think the most important thing is the person that you have as field educator. Those field educators must be on the same page as us. If we can explain and they can appreciate and understand what we are trying to do, they've made it" (F3); "The most appropriate ones are people that want to get engaged. I think that's all. You know they get engaged; they want to be involved. The partners themselves – the senior people of the partners, or the teachers and partners feel that this is important and they take a role and they want to get involved and they understand, and they feel that this is an opportunity that they can actually shape. I think that's the single most important thing in the whole organisation" (F4)*; When this works well the synergy is seen as being quite powerful, *"The classic one it seems to me, and the organisations have grown this, not us, is the one where they say to the students - we'll give you a case, we'll work you through so you'll pick up somebody in the community and you'll come right back up as far as they go… So, that's a kind of a model of a multi-agency one" (F7).*

The most powerful and detailed summary of what faculties want from the partners in these programs came from the most senior faculty member interviewed: *"I think it's much more important to answer this question from the point of view of what is the philosophy and attitude of the organisation rather than what does it physically look like; who is it staffed by; or whatever. The sorts of organisation that are appropriate are ones that get what we're trying to achieve, so therefore they'll have their own commitment towards issues of social justice and equity and health and so on and so forth; AND recognise that, if they're to achieve their goals, which can be many and various, they actually have an external looking focus with a responsibility to engage with educational institutions and the like and provide students with opportunities to go forward. I think that, from the organisational perspective, it needs to be a marriage of philosophy and also mindset and attitude and so forth. Obviously they need to interact with members of the community who are in need and receiving attention to that need. And I think also they need to be able to provide students with some verite about the experience, some real-ness; and what I mean by that is – it should be easy for the students to be able to make the connection between the community and the organisation and their studies - easily rather than with difficulty" (F2).*

In terms of the impact of such a partnership on the partners themselves and on the faculty, the comments were varied and did not really cohere into a consistent set of observations. Nonetheless the points made were quite interesting.

Impact on partners included such points as: *"The field educators get an enormous amount from it, and the organisation, judging by the people coming back each year. The ones that do embrace the program, I think they get an enormous amount out of it, because they feel, especially the ones that are dealing in advocacy, they can mould students to be advocates for thalassaemia, cystic fibrosis… those sort of things" (F1); "In fact when we started CBP, the agencies said finally we see a program that is what we need" (F3); "For a lot of these organisation one of the issues is awareness - awareness of the existence of the organisation" (F5); "Certainly one of the rationales that a number of organisations have made about joining with us is that the big problem that the people they represent face, whether they're women or people with disabilities or whatever, is the lack of information. That you just kind of crash into the wall and you don't know what's there and there's no way of finding out what's there unless you find somebody like these organisation. And that the reason that GP's aren't providing access to these organisations for their patients is that they don't know about them either. So that's their primary objective - to break down those barriers to people finding out and to create the networks that already exist in other places" (F6)*; and *"I suspect sometimes students just don't see their impact because sometimes with a lot of the organisation - their funding's going down and they're just holding it together and get some bright 20 or 22 year olds coming in and their small intervention can actually make a big, big difference; they don't see it; they don't understand what they achieve" (F8).*

Impact of the partnerships on faculty, beyond the obvious one of the learning provided to students, was perceived as much more problematic, even as a lost opportunity, sometimes bitterly so, with only scattered positive points: *"No benefits to the faculty, to be really honest with you, because even though Prof X did say that we were the flagship, no one knows it. Even though it's innovative - it's a leader in the world - I don't think faculty has done much about it" (F1); "I think it gives us some positive press but not a huge amount of it. And there hasn't been the sort of traction, research opportunities and the like, so the program is somewhat disconnected from the rest of the faculty's endeavours. That's a missed opportunity" (F2); "Opportunity for research is there. Quite often our faculty members help with voluntary community organisation as well and we serve as speakers or we provide talks to them if they want to come back to us. So I think we have built quite a good partnership with them. Definitely one of the things that we get back quite often is that Monash, branding them as Monash, students are fantastic because they do get students from all the different organisations. So it has put the Faculty at Monash in a better standing so it's probably a branding exercise for Monash as well" (F4); "I think it has influenced the campus quite a bit. I think they are coming in; for the first time we had the PVC sitting in on some of the sessions we were running on CBP; on CBP Presentation Day some of the senior staff came in. There were photographs taken and a sort of write-up in the Campus News and all these kind of things. So I think they are beginning to be affected quite a bit" (F5)*; and *"Within the school certainly we are engaging them in as many different ways as we can to put some of their service users forward as patients to support exams and things like that. So it's about us becoming more connected with the organisations in a better partnership that's two-way as well really that they get to have the students as well but we're saying to them - Well, would you mind giving a bit back here as well? And they're more than willing. Other faculty benefits come to us - a strategic end that by locating ourselves in our communities when it comes to things like widening participation, so getting in students from areas where people don't do medicine. We won't get any quick wins but, if we've got this network of organisations, people coming to them, seeing our students around, gradually the word gets round and we position ourselves in the local consciousness. So part of our high level thinking is that, over ten, twenty years, this will have value to us in those terms Then, in terms of brand - it's part of how we see ourselves so we want it as part of our marketing really as well (F8).*

6.5.6 Understanding the Connections

The intersection between the impact of partnership and the students' learning outcomes that was most commented upon related to the scale "Understanding the Connections". This particular aspect of student learning is worth singling out because it is so central to the enterprise of developing medical students'

community sensitivity. There were three particular issues commented on here: the interconnectedness of the place of partners, representing the more informal community health support infrastructure, and the place of medicine, in the form of hospitals and clinics; the related issue of interprofessionalism; and the issue, already touched upon of the social determinants of health operating across the community.

The intersection between the community health supported by the partners and formal medicine has been a critical issue arising from much of the analysis already. It continues as such with the faculty staff interviews: *"We all worked well and that's what the students are seeing - that one cannot work without the other" (F1); "I want the students to come out knowing that health is not all about medicine. Health is a very complex exercise that involves a lots and lots of different things - some of which is about traditionally what medicine is and therefore, if they realise that, they can then actually end up as practitioners who are concerned about health and can actually do things to change health" (F2); "So I think what I believe and some of the students have come to tell me that what they appreciate is how the community attempts to answer the certain voice that's not catered to by the government, and appreciate attempts to complement health care. So that's what our students learn" (F3); "There's the importance of the community in helping to support these things; and the fact that the community needs to get involved in it becomes clearer and clearer - that they themselves individually or in groups as health care professionals or whatever alone can't actually make a big difference. They may make a difference short term - get a person out of an acute episode perhaps - but they really don't have a longer-term thing. It is the community coming together, which makes a difference. And I think that's a biggest sense they get" (F4); "So just to give these students the opportunity to get the feel of the community organisations and to tell them that there are these organisation out there. Eventually, when you become a doctor, these are the organisation you can refer your patients back to. And also in the reflective essays when they write down what they think, a lot of them mention their understanding of the importance of these organisation; the importance of handling the social aspects and not just treating the medical aspects, you know, understanding the support for financial problems, the economic situation" (F5); "A lot of them get a much better sense of how small a part formal medicine plays in most people's lives. I think that's important and there's something important goes attached to that around the notion of the kind of interdisciplinary, multidisciplinary environment… They might at least realise there are some community resources. That's the key thing they start looking at (F7);* and *"I think their understanding in terms of the level of contribution the organisations make is vast when they come away from the organisations. Much greater than their initial thoughts and expectations… One of the things about community-based medical education is the clearer understanding that medicine isn't everything (F8).*

Along with this sense of the importance of students understanding the interconnectedness of formal medicine and more informal community health support, goes a sense of the importance of interprofessionalism and an appreciation of the professional skills brought by other professionals working to support community health: *"I think going back to the interprofessionalism - is actually sitting down and seeing a client from the medical perspective, from the social work perspective, from the physio, and so on… also to actually see the interprofessionalism that happens as well, because they're going to have to live with that for the rest of their lives. In the whole medical career they're going to have to work with other people in the community, or in your rooms, or in hospitals; it's going to be everywhere (F1); "It happens actually both ways. They feel you know that these organisation can refer to them, you know; but they also feel as though that they can refer to the places - they know how the places work; how the things work; what is their limitations and what is their strengths and they can actually refer it to them as well. You've got a patient who's got a problem and you can actually get a lot of help from them as well in many ways. So it is actually one of the community resources that we have" (F4); "You know you've got a client, you've got a patient who's got a problem and you can actually get a lot of help from them as well in many ways. So it is actually one of the community resources that we have (F5);* and *"I think what they start to work out is that that intolerable state of living is exactly the case where professionals have to decide what it is they can offer, and understand their contribution. Then it maybe that the first line contribution actually is a medical one; it's life-saving but then there's a whole bunch of other stuff happens before the medic might reappear" (F7).*

Underlying this sense of learning what community organizations, and the professionals working within them, can bring to the support of health is the core aim of such programs to develop students'

understanding of just what health is, especially in terms of its wider determinants and their complexity: *"That came across in a few reflective essays I read, very much so. They say - I didn't realise this: I go to the doctor and we've got private health insurance. But actually out there in real life it doesn't work like that… They actually do health promotion action now; they're doing social determinants of health in action. So they can see that the theory… how it works in practice" (F1); "A number of what might seem at first glance to be objective choices that an individual makes about things that are actually not within their power and so forth – and you know – social determinants of health and so on – and that to really understand health and how medicine fits in you've got to encompass that social and cultural perspective. So for me the community based partnership provides unique opportunity for students to get that angle or window" (F2); "I think that the crucial bit about that from what I gather from my students is that they now realise the social model of health from the medical model of health" (F3); "They come out with a true understanding of the determinants of health, which is the non-biomedical determinants of health. They get a sense of the determinants of health which are social and psychological – the social determinants" (F4); "They know that poverty would be one of the main things, and culturally as well because of the different races: they know that certain races have different cultural requirements, so they see that" (F5); "A big issue is that where you're looking at social disadvantage - you could talk about social disadvantage and its impact on health, but getting to the underlying causes of social disadvantage I think is where the real challenge lies" (F6); "It's about social context, networks, support or its absence and so on. I think that's all critical. I think that something really important happens around assumptions and prejudices and the most concrete examples are: learning to recognise that people smoke, drink, take drugs, have less safe sex, and all sorts of things, that most med students think are so irrational they can't understand it, for really good reasons. And some of them get that really quickly - that it's not simple self-destructiveness; it's much more complicated, coping that way" (F7);* and *"I think that it heightens their understanding and awareness of the breadth of exclusion and in some ways the challenges they face as a doctor who's going to be serving the public, and the complexity and extent of those health and social care needs" (F8).*

6.5.7 Development of personal learning

Faculty perceptions of the students' personal learning and, in particular, the way it developed across the program and in the years beyond were particularly interesting in the themes of community sensitivity; leadership; and the maturation of learning across time:

Community sensitivity was one of the most commented upon themes and was seen as one of the core aims of the programs, closely allied to two areas already commented upon above - understanding the social determinants of health and access to health, and realising the importance of community organisations in supporting health. The focus here is more on the actual outcomes for students' learning than on the aims of the program: *"I always say that CBP gets them to see people for the first time in their life and I mean by that, that in their day-to-day living they may have seen someone with a disability on the street, or seen someone with a white cane or with a dog, but they haven't actually seen them. So once they start working with them they actually see this person and understand… They said - yes it's about the caring; it's about the nuts and bolts; it's about the very close relationship you can have with a client, patient, whatever you want to call them in that context. And yes they say - This is why I want to help" (F1); "I think the most invaluable thing is upsetting assumptions about who people are; where they come from; and where health comes from. I think it's disruptive. I think the most valuable thing about it is it gets people to think" (F2); "One of the things they say is that they appreciate what they have. They'd never realised that there were such situations out there and quite often they end up saying that they would have done something differently if they had not had the opportunities. I think one of the things that sort of comes out more often that the others is that they want to contribute… as practitioners they want to help" (F4); "It becomes clearer and clearer – that they themselves individually or in groups as health care professionals or whatever alone can't actually make a big difference. They may make a difference short term – get a person out of an acute episode perhaps – but they really don't have a longer-term thing. It is the community coming together, which makes a difference" (F5); "It isn't just about learning that health is what happens outside of what doctors do; it's actually learning to be a doctor in different settings" (F6); "Probably the single biggest positive thing that comes out of it is the notion of having got it - that people's lives are a whole lot damn sight more complicated" (F7);* and *"They've had some revelation*

moments whether they liked it or not around the contribution that the private sector currently makes to health care, and can make, and does make" (F8).

The theme of leadership - doctors as leaders or at least advocates came up a number of times. This most often referred to students' sense of themselves as being able to make a difference but also occasionally to students sometimes feeling powerless in the face of social inequity and health problems arising from it. There was a strong sense that leadership from doctors was important, and that this was often taken on board by students, but could also be problematic: *"Health is a very complex exercise that involves a lots and lots of different things - some of which is about traditionally what medicine is and therefore, if they realise that, they can then actually end up as practitioners who are concerned about health and can actually do things to change health. So what they need to back that up with is - complex problems don't have simple answers. But they also need to be able to be given the room and ability to realise that there might be micro-problems that they can work on and make highly significant contributions to. And it's the cumulative mass of people taking micro-approaches that ends up with system reforms and differences" (F2).* While some comments were more nuanced: *"As a doctor you can play many parts. You don't have to play the role of leader, just by being aware and able to refer patients is one role that you can play as a doctor. If you can contribute as a volunteer in any capacity - good; if you contribute your medical knowledge - great; and if you can run with the agency - perfect. So what I told the students basically is - the role is there to play, and it doesn't have to be a medical leadership one. And I don't want them to perceive that just because, we are doctors we must play a leadership role; it doesn't" (F3).* Others were more positive: *"They can go out and get involved in the policies and agencies which develop these policies. They actually find that they have a say, they have a voice - when they speak with a certain level of authority they can actually positively impact these organisation as well as these people in these organisation… As I said, one of the biggest impacts that I hope, and I can already begin to see it happening, is they become strong advocates and they actually develop a sense that they get a sense of empowerment, that they can do things, that they can do something. For example, our students go to Year Three and have started what is called a street feeding program that goes on and has been going on for five or six years now; even twice a week at night they go out and feed the homeless" (F4); "I think that's the biggest sense they get, that they are becoming part of the community and in many ways taking on a leadership kind of a role in that community; and their ability to do it, and ability to advocate is something that you hear all the time… The ones which really challenge them is I think a sense that they have got any influence in this sort of thing. That's an important thing. So they come back and say, you know it's very depressing. I get more and more depressed when I see this; you know I see the parents struggling; they don't have the money but they've got two children, two kids who are, you know, this kind of thing. What's going to happen when the parents are no longer, because we don't have the services. What will happen to them? You see them getting quite depressed and that's an area, which I am very concerned about sometimes" (F5); "I think they get a better, or even maybe for the first time, an understanding that a doctor isn't just there in his or her clinical capacity; that they have a political capacity and a social capacity… What role does a doctor, in a situation like that, have to ameliorate social conditions. And of course that's one of the questions that comes up - you know: What are we expected to do about the fact that this community has no footpaths; it has no street lighting; it has no encouragement for a healthy lifestyle amongst its inhabitants? What am I supposed to do about it? You know, I'm just a doctor. So I guess raising those issues in their minds is one of the bits that I take most joy in myself" (F6); "A strong advocate role, so the students will be encouraged to be getting engaged in taking a political stance on issues" (F7)* and *"Actually having students make a difference to something gives them that opportunity to actually develop some of those leadership skills at a stage that other students can't" (F8).*

The theme that the students' skills and understanding mature across the time of the programs, and then persists and matures afterwards also came up: *"When they go to somewhere like (Organisation X) or (Organisation Y), they're just in awe of what they see. Some are very reticent to get involved and of course you know how they suddenly become very comfortable by the end and then they say - I can actually communicate with a child with learning and intellectual disabilities" (F1); "Yeah, not initially - they don't see it initially. They see it the longer they go, and they also see it as a number of things. But I see the majority of them actually get it. And they get it in different extents: some of them get it so…*

they get smitten by it so much that they sort of go back during the holidays. They do all kinds of things after that and they develop these third year programs and fourth year programs and they keep the thing going" (F4); "I think they're beginning to generalise in Years Three and Four. Part of the reason is they can't come back to the organisation as we said, so in a way they begin to generalise and think of other areas that are quite different. We don't send any of the students to homeless people and all that, but they've started a homeless, sort of street-feeding thing there" (F5); "They're introduced to professionalism issues in a clinical context from the very beginning – gaining the maturity to understand professionalism as something about you, rather than about something to do with the context that you're in takes a little bit longer I think… so there's a risk of students thinking - Well, you know professionalism doesn't matter when I'm in the community - And of course it does, and (across the program) they find out very quickly that it does" (F6); "What it suggests to me is that once the students at some period down the line get into clinical practice, particularly in that GP role, it seems to me, then they recognise what they might be able to do in this way" (F7); and *"I think a lot of the learning and experience that they have they don't necessarily get to appreciate until quite a bit later down in their training maybe even when they are general practitioners themselves" (F8).*

6.5.8 Resistance and engagement

The way students became personally engaged with what they learned in these programs or were resistant to it also attracted comment. Most faculty interviewees noted that students resistant to the program were often a quite small minority and tended to be based either in a lack of confidence or sense of structure, or in a personal investment to an approach to medicine that they saw as being at odds with the program's approach.

There was an acknowledgement that there were challenging aspects to the programs that caused problems for those students who were lacking in confidence or needed more sense of structure: *"I'd say some students are really challenged by getting it; other kids aren't. You know you've just referred to one there. I think some kids are probably also challenged by some peer pressure to not get it. In other words, you know, some people are slow in getting this concept" (F2); "They don't realise the determinants which come before that, you know. And the fact that they can do something about it as well, you know. The fact that the only way that they can do anything about it is to get those individuals themselves enabled; which I think is a very, very difficult thing to come through because they come in to medical school wanting to do things. They want to help; there is no question about it. They want to help" (F4); "I get that while the students are in Second Year. I get that, that they keep saying how is this course going to help me? And it's too stressful and especially it's got marks attached to it and which is quite a substantial sum so they tend to get quite upset with that" (F5)*; and *"I think one of the big challenges they have is where an organisation doesn't lay out on a plate what the student will be doing, doesn't say - This is your timetable, Monday nine to five. They can't cope. It's just amazing – the more freedom, the more difficulty - they just can't handle it. That always surprises me" (F6).*

There was also a perception that there was another group of students who were too personally invested in an approach to medicine that they thought did not fit with what these programs offered: *"And it may not work with some medical students; it may never work!" (F1); "I think it's in the way you see a doctor. Unfortunately this is what happens: You see a group of doctors who see themselves only as clinicians; anything beyond that they don't want to know, and you see a lot of this in the hospital, unfortunately. Then you see another group of doctors who is in the community – that sees the bigger picture" (F3); "And the problem is that among all, among a hundred students there will be five or ten of them who will just not get it. We all live in hope. But I'm not surprised; there are some slightly sociopathic students in every community who are headed toward some kind of a procedural – I wouldn't like to say surgeons but a very, very strict medical, biomedical kind of a thing. Hopefully they get into research or something like that" (F4)*; and *"Ones who at the outset were very sceptical and still thought - I don't see what this has got to do with me wanting to be a surgeon, it's rubbish. I don't need to know this – but it's probably less than 10% that feel like that but that is toxic as well, because they tend to be the most vocal of the year and shout the loudest to the rest of them… On occasion we've had students who have been sort of very vocal in their disgust at this sort of program. It makes me worry about quite how suitable they are for*

their chosen profession because I kind of think, because I do some admissions work as well - I'm sure that's not what you told me when you first came to us (F8).

Alongside this reportedly small group who are resistant to the programs, the interviewees also made many comments on how most students became quite engaged with the programs and their values, and what tended to engage them most: *"They said (in reflective essays) - Yes it's about the caring; it's about the nuts and bolts; it's about the very close relationship you can have with a client, patient, whatever you want to call them in that context. And yes they say - This is why I want to help" (F1); "I think Health Promotion is the challenging bit. I think the biggest problems we have is more of the logistics than concepts. The concept is good but to implement it is difficult but if we can implement it then the reward is enormously rewarding" (F3); "The fact is that by going in and getting engaged, involved in it, having to do projects, and by giving them some areas in which they need to actually explore, otherwise they do not know where to start or where to end so they go and actually do a project, they go and explore - they find out about the agencies; they find out about the individuals in the agencies. That gets them engaged in a sense… You know, we try various ways of doing it, but nothing actually achieves that purpose better than being actually engaged" (F4); "What do the students find most rewarding? Okay, when they feel that they have done something useful to the organisation and the organisation is moving ahead with their suggestions. You can see that they are so proud that they have done something for the organisation" (F5); "Well I think the engagement side is terrific. I try and talk to the students about why engagement of itself is important beyond them being better or worse doctors, or better or worse at understanding social determinants of health - just the process of engagement is important' (F6);* and *"One of the key markers in learning sort of taking place is one of the sorts of attitudes you want to develop is when the students completely off their own bat decide to do some fundraising for the organisation that they've been working with and a number of students have done that after they've been on placement - that sort of says to me that the right attitudes are coming through and that they've got the idea behind the placement and that they want to give something back" (F8).*

6.5.9 Curriculum integration

The perception arising from the student data that there is a lack of connection between these programs and the rest of the medical course, a lack of curriculum integration, was one of the themes pursued in the faculty staff interviews and there were quite a few comments relating to it. Overall, faculty staff were in no doubt as to the place and the importance of these programs within a medical course. Reactions to the idea that students might not see this ranged from surprise to recognition of the possibility.

This showed up in the way some expressed initial surprise followed by a thoughtful reaction: *"I've never thought about how it integrates and your comments are interesting because they suggest that it may not integrate; we may not make any other reference to integration… And there hasn't been the sort of traction, research opportunities and the like, so the program is somewhat disconnected from the rest of the faculty's endeavours. That's a missed opportunity, I think… Well there's a discontinuity between capacities and strengths - the program is somewhat at odds with capacities, faculty strengths" (F2).*

On the other hand there was also acknowledgement that for many students this sense of disconnection is likely to be well based: *"My feeling is that they didn't see it worked at all with anything else… that it's stand-alone. It's an absolute stand-alone program, which is most unfortunate" (F1); "The CBP actually, if you look carefully, it is actually not in its own silo in the concept, but in the implementation, just because of the way it is done it actually becomes very compartmentalised and the students in that year see it that way" (F3); "Beyond that, and this is another concern I've had, is I'm not convinced that they come out with a clearer understanding of how it all fits together. I think they come out completely… you know, that they have a better understanding of what's there but no clear understanding of how it fits together and how it aligns with medical work" (F6);* and *"My suspicion is the Second Years see the SSC as a very stand-alone bit. I don't know, but that would be my suspicion" (F8)*;

Most believed that the students would in fact see the connection, even if not immediately: *"What I think they have learned is that there are three branches of medicine: primary, secondary and tertiary and the one they have been looking at is just only one part of it. And I think that soon they appreciate that" (F3); "Yeah and I mean what I do, since I teach both CBP and PBL and I teach the students medical sciences and*

I do a bit of sociology tutorials as well I bring it all together. I tell them, you know that in CBP you do so much together. But at the end of the day the students must realise that it is integrated, that it is supporting" (F5); "They'll see that connection very quickly because they still see, I think, the doctor's role as providing, as working in a direct relationship – you as the doctor, me as your patient. And it's great to understand that there might be a broader social network and social causes" (F7); and *"Who they're working with in terms of their provider and also the service users and also how they're translating that back to their clinical learning in terms of how they might use it again later on because it is a different perspective that they've had. Students in Fifth Year actually say that they can see the links and can see how it's helped" (F8).*

On the other hand was also some acknowledgement that the integration of these programs would be helped if there was more explicit follow-up in the rest of the course to the idea of community sensitivity: *"It's just by chance and there's no dedicated program to revisit this. I think I agree; I think that should become a thing that we should think about in future - to have a bit of continuity into Years Three, Four and Five; but that continuity needs to be explicit in a sense that we do not have a module – we do not need a module – but we need to put it into the various postings: to expressly address the social issues in each posting. That will bring in a bit of CBP and the health promotion will be quite useful because we do not have a public health posting in our curriculum" (F3).* One senior staff member even noted that some students effectively develop their own integration in the later years of their course: *"The next year quite a large number of them go to these agencies. They have been involved in this, and much more and above what they are actually required to do in the curriculum. So they do that, actually in Second Year they do that; in Third Year they really get into seriously starting something and Fourth Year they do that as well" (F4).*

The one program, in the U.K., that did make an explicit effort to revisit community-based experiences, including many that are non-clinical, commented on why this is important: *"The new program developed the second year SSC and was our first involvement with this style of placements and I think that the fact that they then revisit it in Year Five is a really good thing because I think there would be a danger if it was in Two and then go into what they do class as the clinical years of Three, Four, Five, that for lots of them that experience would kind of drift away and perhaps wouldn't have the same impact that it does "(F8).* While the Australian regional university program that attempts a similar approach, beginning in Year Three rather than Year Two also comments upon its success but worries about a lack of preparatory grounding in the pre-clinical years: *"I think they're getting an idea because they then come back to it fourth year and then they do a bit more in fifth year, you know it does reinforce, but I think I'd like to see it go back to Years 1 & 2 so that we could start that fundamental understanding of the health system more" (F6).*

Most of the comments reported earlier in this analysis of faculty staff interviews emphasise their perceptions of the worth of such programs within a medical course. In terms of what they bring to medical education that complements it and should be seen as integrating with it, the following comments capture what individual staff saw as particularly important aspects: *"I just think it is so important for the students to see the reality of life. That to me is a huge, huge learning curve for them – the reality of life and to see what their patients of the future are going to look like, and what the social and economic issues will be when they come to see you, beyond the operation or the sore throat etc. I think that's amazing" (F1); "I think the biggest potential for support is the fact that before the students get to a clinical environment they'll be able to walk in and possibly for some of them to see: Hey this is a person - in the bed, or in the clinic, or whatever – a person who's got a family, got a social life, got a this, that and whatever. The fact that they smoke and drink too much and eat terribly may not be completely within their powers – you know. Yes they can make choices but making choices may be pretty bloody tough" (F2); "I try very hard to get the students to understand that when you look at patients, don't just look at the kidneys or the heart, but look at the patient as a whole and that will be the most worthwhile" (F3); "One of the most important things about CBP I would say is just getting that part of it – the soft skills - how to talk; how to behave; how to approach. And when the groups of students who go to community partner placements – they tell us that, when you see a Parkinson's patient, the way you talk to them; what you should do; what you shouldn't do to them – that is the best place to learn it. Yeah, it's fantastic. They learn the sign language; these are amazing things. Where else can you learn*

these things? (F4); "They come out with a true understanding of the determinants of health, which is the non-biomedical determinants of health – you know the various organs that go off and give you problems in the biochemical factors – they get a sense of the determinants of health which are social and psychological – the social determinants" (F5); "They take that medical model of disability with them and obviously people with disabilities - it's obviously a medical issue. And of course, you know, their job is to say - Well no, actually it's a social issue… I think they get a better, or even maybe for the first time, an understanding that a doctor isn't just there in his or her clinical capacity; that they have a political capacity and a social capacity" (F6); "One of the things really for us is that it isn't just about learning that health is what happens outside of what doctors do; it's actually learning to be a doctor in different settings. And what one hopes is that for us it's quite a sort of broad attitudinal change; it's this idea that a doctor has a duty to be socially responsible and that isn't just about third sector organisations, it's about everything they do. So we're trying almost to model with them that giving something back is part of the deal that also gives you all of the income, all the job security, all the respect apparently and so on. This is part of that implicit contract with society; that is part of what we are trying to achieve" (F8). One faculty member at a U.K. regional university, when asked to sum up what mattered most about their non-clinical community placement program said simply: *"The students learning to critique the biomedical mode. That's all!" (F7).*

6.5.10 Summary of faculty staff responses

The eight interviews analysed above cover four different undergraduate non-clinical placement community-based medical education programs, with one of them taking place across two campuses each in two quite different countries and cultures. These programs occur across three continents and four different systems of health support. While they all share common medical education roots, essentially Flexnerian medical education, it is nonetheless somewhat surprising how much the issues raised and perceptions explored have in common. Except for a somewhat unfocused response to the programs' impact on the faculties themselves, and a slightly more intense response from the U.K. programs on leadership and social critique, there is a great deal of commonality across all five sets of faculty staff. This can be summarized as follows:

- There was universal agreement on the importance and general success of the placements being non-clinical, being spread out over a period of months rather than days, and being as hands-on and experiential as possible. They were also seen as needing to have a key focus on the social determinants of health, its access and the social consequences of ongoing ill health.
- The concept of partnership complemented these key features of the programs' placements. Effective partners were seen as the ones who were reliable from year to year, gave ample opportunities to students and supported them. They were also seen as being the ones that had real enthusiasm and common purpose with the faculty over what the students should achieve.
- Perceptions about the impacts of these partnerships on the faculty and the partners themselves were less unified. They varied from staff member to staff member, though the relatively more common perceptions were that partners wanted a chance to influence future doctors to be more community sensitive, and that most faculties themselves, as opposed to the students, were not really taking advantage of the opportunities to any great degree.
- One of the key areas of learning by the students was seen as being the development of their understanding of the connections between the formal world of medicine – hospitals and clinics – and the more informal world of community health support organisation. Alongside this went a sense of the importance of students learning to appreciate and work with other health support professionals.

Three further areas of student learning were focused upon very positively:

- Sensitivity to community and community health issues,
- The development of leadership capacity or, at the least, of a capacity to advocate on health issues, and
- The way students' learning matured over time.

In the area of student engagement, there was interest in how and why a few students, typically being seen as about 5% of the students in each program, resisted the learning on offer. The perception was that these fell into two categories: those who were challenged by the programs' demands and were somewhat stressed as a result, with a sense that this was a lesser problem that eased, or even reversed, as students got into the program; and those students who had a view of medicine and medical practice that was intolerant of the programs' social and community focus. Balancing this was an interest in the greater majority of students who engaged well with the program, especially in terms of what engaged them most, tending to focus on concepts such as caring, involvement and making a contribution.

Finally there was significant interest in how the programs integrated, or did not integrate, with the rest of the medical curriculum, and what might be done about it, with the main suggestion that the concept and practice of community sensitivity and the role of non-clinical community health support needed to be revisited at a number of points across the course. Underlying this was a powerful sense that the programs had a great deal to contribute, especially in ways that could not be done by traditional clinical programs.

6.6 CanMEDS Competencies – A Further Perspective on the data

6.6.1 Background to use of CanMEDS competencies

The foregoing qualitative analysis of the students' survey comments, student interviews, partner organisation staff interviews and faculty staff interviews used codings and themes derived from a grounded theory approach. This essentially looks at the themes of the data generated internally from the data with as little external reference as possible. After the generation of these themes and coding comments according to them, it became evident that there was a high degree of consonance with the four scales that derived statistically from the survey Likert scale items and these scales were then used to partially organise the themes that had been derived. All of this essentially arose out of the data rather than being externally imposed upon it. However there was a set of themes from an external source that it was believed might be a useful further reference point for the data and might provide some useful further triangulation of it. These were the CanMEDS competencies that had been highly influential in the redesign of the Monash MBBS for its rebooting in 2001, and which included the CBP program looked at in this research. Consequently a further round of coding was undertaken using the relevant items from the CanMEDS Competencies (165). The CanMEDS competencies used were the relevant ones, as listed, from the following roles:

Collaborator role

- Participate effectively and appropriately in an interprofessional healthcare team
- Effectively work with other health professionals to prevent, negotiate, and resolve interprofessional conflict.

Communicator role

- Develop rapport, trust and ethical therapeutic relationships with patients and families
- Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues and other professionals
- Develop a common understanding on issues, problems and plans with patients, families, and other professionals to develop a shared plan of care

Health advocate role

- Respond to the health needs of the communities that they serve
- Identify the determinants of health for the populations that they serve
- Promote the health of individual patients, communities, and populations

Medical expert role

- Establish and maintain clinical knowledge, skills and attitudes appropriate to practice
- Seek appropriate consultation from other health professionals, recognizing the limits of their expertise

Professional role

- Demonstrate a commitment to their patients, profession, and society through ethical practice

Scholar role

- Maintain and enhance professional activities through ongoing learning
- Facilitate the learning of patients, families, students, residents, and other health professionals, the public and others, as appropriate
- Contribute to the creation, dissemination, application and translation of new knowledge and practices.

It must of course be borne in mind that the above competencies were applied as appropriate to the students' early level and experience of medical education, so that generally these competencies were at a precursor level. It is also to be noted that there was no scope for any exercise of the Manager role, even at a precursor level, so none of its competencies were included.

The numbers of references to these themes as coded in the NVivo 9 analysis for the students' survey comments and for the interviews have been collated in Figure 30. The percentages of references for each category have also been calculated and included to allow comparison between the five datasets.

STUDENT, PARTNER & FACULTY COMMENTS MATRIX BY CANMEDS ROLES

	End of Program Student Survey		Later Years Student Survey		Student Interviews		Partner Organisation Interviews		Faculty Staff Interviews	
CanMEDS Competencies Items	# of References	% of References	# of References	% of References	# of References	% of References	# of References	% of References	# of References	% of References
Collaborator Role	166	16.0%	78	15.0%	25	8.2%	41	16.9%	13	6.7%
Communicator Role	278	26.8%	106	20.4%	58	19.1%	89	36.6%	31	16.1%
Health Advocate Role	300	29.0%	114	21.9%	74	24.3%	47	19.3%	67	34.7%
Medical Expert Role	205	19.8%	116	22.3%	81	26.6%	42	17.3%	55	28.5%
Professional Role	17	1.6%	21	4.0%	6	2.0%	9	3.7%	13	6.7%
Scholar Role	70	6.8%	85	16.3%	60	19.7%	15	6.2%	14	7.3%

Figure 32: References to the Relevant CanMEDS Role Competencies

6.6.2 Broad scale analysis

The CanMEDS Competencies analysis placed a different grid over all the data looked at across the previous sections. The patterns that come up are broadly consistent across the five datasets and the three populations but do have some interesting variations.

The Collaborator role, focusing on the ability to work with colleagues and other professional is, as would be expected most often coded for in the partner organisation staff interviews (16.9% of all partner codings), however it is coded for at virtually the same frequency of response in both student surveys (16% of EoP student codings and 15% of LY student codings). This gives support to the moderate level of importance given by these groups to students learning to work with and appreciate the skills of other health professionals and to work in teams;

The Communicator role was most highly referenced by the partner organisation staff (36.6% of all partner codings) and represented the highest rate of coding for any CanMEDS role for any group. This clearly fitted with the strength of the partners' focus on developing community sensitivity among the students especially in terms of respecting and being able to communicate effectively with their client groups. It was also strongly referenced by the students forming a quarter of all references by the End of Program students and a fifth of all references by Later Years students, both in surveys and in interviews;

The Health Advocate role was most strongly referenced by faculty staff (34.7% of faculty codings) and represented the second highest rate of coding across all roles and groups. This clearly fitted with the strength of interest of staff in having the students learn about and appreciate the importance of the social

determinants of health. The strong referencing by the students (29% in EoP surveys, 21.9% in LY surveys and 24.3% in the interviews) included some interest in the social determinants of health but tended to focus more strongly on the health promotion aspects of the CBP program;

The Medical Expert role was relatively consistent across all groups – highest among faculty staff (28.5% of faculty codings) and lowest among partner organisation staff (17.3% of partner codings). It tended to be dominated by the interest in students using partner organisation and other community health support organisation for referrals when they began their practice.

The Professional role was the lowest referenced role across all groups. This was understandable as virtually all references related to what students learned in the ethics section of their CBP Health Promotion research projects, which was a small albeit important and somewhat controversial aspect of the program as a whole.

The Scholar role also tended to focus on the CBP program's focus on Health Promotion research projects and in particular their role in introducing students to scholarly research principles. Interestingly the two groups that were easily the most interested in this area were the two Later Years student groups, those commenting in the surveys (16.3% of LY student survey codings) and those interviewed (19.7% of student interview codings). The students interviewed were generally very positive about the value of learning how to do research, with a few reporting that they followed up by taking on research in the form of an intercalated Bachelor of Medical Science. The survey comments were divided between being similarly positive about this aspect of the course and being quite negative about the onerousness of it taking away from their opportunities to interact with clients and partner activities.

6.6.3 Collaborator role

The notion of interprofessionalism: being able to work with other health professionals, either as a direct part of a team or in a more partnered collaboration, came up frequently as one of the valuable aspects of the learning within the program. Whether from students at the end of the program: *"Being able to interact with professionally diverse individuals"* and *"Seeing how health works in a community setting; seeing health teamwork in action; interacting with health professionals"*; or those in the later years of the course reflecting on what they gained from the experience: *"Really appreciated sharing, in terms of knowledge and information about patients and also working as a team - like different health professionals working together really as a team rather each treating one aspect"* and *"Well, just personally, I really like being faced with other health professionals because I feel like that there's lots - not that there's not a lot to being faced with doctors and other clinicians - but you learn something completely different. It's the skill sets cross over"*.

Similarly the staff of partner organisation saw this as an important aspect of what they could contribute to students' learning: *"We have such a strong team structure here that you do work with a range of professionals. So you're in the classroom and you know, there's a teacher; there's a physio; there's an OT; there's a whatever or whatever"*.

With faculty staff the concept of working in a multidisciplinary environment was important: *"There's something important goes… attached to that around the notion of the kind of interdisciplinary, multidisciplinary environment"* and *"also to actually see the interprofessionalism that happens as well, because they're going to have to live with that for the rest of their lives. In the whole medical career they're going to have to work with other people in the community, or in your rooms, or in hospitals"*.

6.6.4 Communicator role

The core skills of communication – developing rapport and trust, gaining the perspective of patients and others, and developing common understandings – was one of the most referred to aspects of the program. End of Program students tended to see this in general terms: *"The fact the CBP involves fieldwork and skills - this is not something you can gain just by learning from textbook. It's an opportunity to interact with the public and work with the community"; "Interacting with people on placement - specifically the participants in the programs at (Agency X). Although it was challenging, it was also rewarding seeing them evolve and build a rapport with them over the short time of our placement"* and *"Better active listener and empathy"*. While Later Years students tended to be more detailed and specific: *"I think we*

learnt a lot about the subtleties of managing such a difficult situation. I wouldn't say I'd be excellent at doing it, but I'd certainly have a better idea than I would have had otherwise"; "Through the interviews, we had to learn how to do things in a sensitive way and how to approach - which questions we should go further at and which ones we should sort of leave"; "Making sure that the follow-up plan for the patient is… some people I suppose need a lot more information given and you just need to confirm that things can occur, that it is possible. So that's probably the main thing that I've learnt for clinical practice"; and *"I feel I have a greater perspective with dealing with people with intellectual disability, knowing how to give them the appropriate respect they deserve while interacting with them and carers"*.

Partner organisation staff were clear about the importance of these skills, especially for their own client categories: *"Not just accept it but to find their way through then what the best strategy for their child and their family. And sometimes that might conflict with what the professionals' idea is of the best strategy for the child and the family"; "Being able to understand, well you can't just talk to them in a clinical way about, you know, taking their medication, and their illness and those sorts of things"* and *"It's one of the really strong messages that the kids will give the students. And they'll say - Talk to me. If you want to know something about me, talk to me. Don't talk to her, or him, or whoever"*.

Faculty staff also commented on this aspect of learning to be a doctor, though their comments were less focused on this than on the Health Advocate and Medical Expert roles: *"Communication skills are so much better they'll say as a consequence of their community experience"* and *"I find that with this exposure they can talk to different people and people in communities; and especially when they do their health promotion projects, a lot of them do surveys – they need to talk to a lot of people. So they said that professionally as well they have developed. And this is all reflected in their reflective pieces"*.

6.6.5 Health advocate role

This area lies at the heart of this sort of program – developing understanding of the determinants of health at a community level and then responding to the health needs, particularly through health promotion and advocacy. As with other aspects of learning the End of Program students gave responses that tended to be more generalized and Later Years students were more focused and detailed. Thus responses from End of Program students came up with responses such as: *"I understand more about the social barriers that stop people from accessing health services and improving their health status"; "Eye-opening experience; learning about non-medical factors that can affect health"; "These placements are the few times when I actually have direct interaction with society with health concerns"; "Knowing that I have contributed to community health through the HP project"* and *"Understanding of role of patient advocacy groups in patient management"*. While Later Years students were more inclined to give detailed examples: *"I think, within the community itself, just asking people what they thought the issues were, and it was very obvious what the main issue was, and that was that there was a lot of alcohol abuse in the community and also that they weren't aware of health services. So I think just talking to people and hearing what they had to say and then at the end we did a sort of report back to the community to tell them what we'd found. And, because so many people said the same thing, they sort of realised the extent of the issue and that they really would want to do something about it. So it was just saying: Well what could we do about it? And we said: Well if people had things to do so if they had a soccer game or something that could bring them together and they'd feel less isolated and do things like that, then they could resolve some of the issues and have people more engaged with what's happening around the area"; "Interacting with homeless people was also invaluable and helped me gain insight into their lives. Having the opportunity to contribute to the health care of the homeless people in Melbourne via the project developed was incredibly satisfying"* and *"A constant reminder of the primary goal and focus of healthcare professionals, in improving and maintaining the health of society as a whole, in spite of the multiple barriers to equal access"*.

With partner organisation staff the focus was on the discoveries they helped students make about what it means to be marginalised: *"They'd go to the SRS's and understand what those people's lives are like. And then they go and see people in the Safety Register that are socially isolated. So there's a whole range of things… of disadvantage that they would come across. I think that's what they come to understand – is that there's a whole lot of factors for people"* and *"In the discussion students were saying - Oh, you*

realise if people don't have a fridge because they're homeless or they're in a boarding house and there's a communal fridge that they can't reliably store stuff in – it's really hard to be healthy".

In keeping with the centrality of this role in what these courses focused on, faculty staff made extensive references to this aspect, picking out points such as: *"I want to get them to start thinking about causes of causes. Some of them do get that through their placement… they start to see actually it's about the factors that work for these families"; "A big issue is that where you're looking at social disadvantage… you could talk about social disadvantage and its impact on health, but getting to the underlying causes of social disadvantage I think is where the real challenge lies"; "Actually their own perception of how much difference they can make develops as well because they start to see themselves as agents that really can change things and make a difference"; "I want the students to come out knowing that health is not all about medicine. Health is a very complex exercise that involves lots and lots of different things – some of which is about traditionally what medicine is and therefore, if they realise that, they can then actually end up as practitioners who are concerned about health and can actually do things to change health"* and *"In the end the students came out with a fantastic program, that the school was so happy with the activity and used it. And the school was very happy because the students say that I can see the impact of health promotion; I can see work they had done is actually useful".*

6.6.6 Medical expert role

While there was some reference across the data to developing various aspects of clinical knowledge and skills, the main focus within this role was on use of referral to include non-medical health support services and the importance of this as part of a doctor's skill set.

The balance of End of Program students' responses reflects this: *"Knowing more about a particular illness and disability and how this impacts on a person's life helps my understanding better and also helps in assisting patients later on"; "Interaction with the side of health for which I knew very little; improved knowledge of health services and their function"; "Appreciating the role of health services provided by the community health services"; "Understanding of role of patient advocacy groups in patient management"* and *"Learning to understand the scope of a terminal illness, and realising that each patient's affected differently, therefore you can't box someone in to a specific set of signs and symptoms".*

With Later Years students there was an even stronger focus on this knowledge of community services that can be used for referral and an association of this with a more holistic view of medicine than was available in clinical placements: *"Learning about what all these social organisation are about in supporting a person's health is something that we don't get elsewhere"; "What was worthwhile was becoming aware of different services that were available beyond medicine"; "now I would recognise that, no matter whether I would be a GP or a specialist that I would try to consider from a more holistic point of view in terms of when a patient comes in, besides medicine, maybe some practical things that we have to ask or check how they're doing or going on and maybe potentially refer to the social worker within the hospital or an organisation and say that maybe you should consider talking to them and they will help you solve some of the stuff"; "I guess it's about getting us to see, and helping us to focus on the person – the holistic view again. And that's where the hospital environment is not very encouraging to a certain extent and that's what this can provide"; "Understanding of how allied health works. What resources are available to help the disabled e.g. taxi vouchers, home help etc."; "A desire to find out other services available for potential patients. I now know there are many services I don't know about, and I do not want my patients to suffer from a lack of support when there are services available for them"* and *"I think it influences you to a degree to say: Okay this is a community where I'm going to be set up in for the next ten years. I'm going actively to seek out, say: What community supports are here? What can I make use of that will be of benefit to my patients? Because in a lot of instances it isn't going to just appear - you've got to go and really look for it".*

There was a similar focus from partner organisation staff both in respect to how patients should be viewed and in the use doctors can make of community organisations for referral: *"What I would like them to get out of it is knowing that there are places out there that they can refer to, and knowing how to make those referrals, really. That's what I would see as being the most important thing"; "The knowledge of*

how they could refer; who they could refer to; who were the services that were there"; "They are very different… very, very different. So you need to know where you can go; what services and supports are around, so you don't have to do it all on your own"; "Yes and you can see that. You can see the students that come from the - I'm the doctor and my job's to fix. To fix people. And you can see most of the time that shift to - That's a person" and *"There are a number of our children that have undiagnosed conditions and we talk a lot about what does that mean?"*

The Faculty staff responses echoed these points but also added the idea of a doctor's skill set also needing to include what some called "soft" skills and an appreciation of the complexity of a doctor's task: *"It isn't just about learning that health is what happens outside of what doctors do; it's actually learning to be a doctor in different settings"; "And there is probably some specialisation that is done early, too early, so that the student hasn't grasped the soft skills; and those soft skills are what determines the good doctor in whatever specialty they are in. And that's why I feel that CBP addresses that"; "It is to develop their soft skills and a better understanding of the importance of social aspects of Medicine"; "I think what they start to work out is that that intolerable state of living is exactly the case where professionals have to decide what it is they can offer and understand their contribution"; "It happens actually both ways. They feel you know that these organisations can refer to them, you know; but they also feel as though that they can refer to the places - they know how the places work; how the things work; what are their limitations and what are their strengths and they can actually refer it to them as well"* and *"The reason that GP's aren't providing, you know, access to these organisations for their patients is that they don't know about them either. So, you know, that's their primary objective is to break down those barriers to people finding out about it and to create the networks that already exist in other places"*.

6.6.7 Professional role

The scope within the program for the competencies associated with the CanMEDS Professional role is almost entirely focused on the ethics aspect of their Health Promotion research projects, with occasional reference to wider aspects of ethical practice.

For End of Program students the focus was on: *"Learning the processes of ethics"; "Experience of ethical approval process"; "Respect for other people's confidentiality as this was emphasised much by the organisation"* and *"Learn that setting appropriate boundaries with clients is very important and how to do so while still showing care"*.

A similar, though more detailed, focus applied also to the Later Years students: *"Writing an ethics proposal and going through the process of designing and implementing a community project is a skill which I hope to utilise later on when I want to engage in real research of my own"; "We have to set boundaries and in particular working with these clients we were told from the beginning to learn to understand how we set boundaries about we can offer and what we can't do as a worker for them"* and *"Addressing ethical issues surrounding end of life management"*.

Partner organisation staff had little to say in this area, while faculty staff focused very much on the notion of professionalism: *"It's this idea that a doctor has a duty to be socially responsible"; "They're introduced to professionalism issues in a clinical context from the very beginning… and the maturity to understand professionalism as something about you, rather than about something to do with the context that you're in takes a little bit longer I think"* and *"A risk of students thinking - Well, you know professionalism doesn't matter when I'm in the community. And of course it does, and they find out very quickly that it does"*.

6.6.8 Scholar role

The Scholar role competencies were most relevant to those programs that incorporated a research project, particularly the CBP at Monash and the program at one of the U.K. universities. It tended to focus very much on learning how to do research but also touched upon the translation of this work to the community's benefit.

As detailed earlier in this study student perceptions of the Health Promotion research project were somewhat divided, though the majority found it useful. Those End of Program students who had a positive experience typically reported their confidence and competence as being developed in the following ways:

"Understanding of medical research methods; how to do a literary review, academic writing and reading"; "Good opportunity to develop skills in analysing literature skills and becoming able to distinguish between what makes a good and reliable study"; "Being able to complete a HP Project that will have a genuine practical application and one which is of use to (Agency SYNTHESIS), in an issue I really believe in" and *"I have learnt how to liaise between different organisations to complete a research project"*.

For those Later Years students who commented on what they gained from this aspect of the program the responses were quite focused and thoughtful: *"I learnt a lot about what research involved, even just as basic as writing a research paper: I'd never done anything like that - that had a methods, results and discussion - and that was a really good experience"; "I think we gave them some knowledge of the attitudes that GP's had towards women with domestic violence. It gave them a kind of a grounding for them putting into place programs potentially to increase awareness among GP's of this issue, so that they had a basis for doing that"; "It was really fruitful. Actually we were able to present our finding to General Practice Victoria"; "Going through the ethics application and lit review and saying: Yes we're doing this because we thought about it properly and that's really important"; "From the research side, actually being able to really follow something through, I found really good. It's quite rare that we really have long-term projects anymore, apart from some massive assignment or essay. Being able to take an idea; get really personally invested; have to put a lot of work into it and then getting there on Poster Day and saying here's what we've done, and being really proud of it was really nice"* and *"Conducting a mini-research project - enabling me to understand the principles of medical research and apply them to my current research involvements"*.

While partner organisation staff were not particularly focused on this aspect of the program, there were a few comments noting the usefulness of some of the work: *"The first year, you know, the students did the project for us around nutrition and that was really useful. And we gave the results of that to the parents, to the child care parents; so that was really useful"* and *"We've had students develop, you know, assessment tools for us such as being able to compare effects of nutrition and understanding of nutrition on mental health"*.

Those faculty staff involved in programs that included a research project were quite positive about their usefulness both in general terms and in specific cases: *"They also need to be able to be given the room and ability to realise that there might be micro-problems that they can work on and make highly significant contributions to. And it's the cumulative mass of people taking micro-approaches that ends up with system reforms and differences"; "Our students are actually real agents of change because of our network of a hundred GP practices and as these years roll by more and more of them will learn about organisations - there'll be things like team coordination, accessibility to people with disability, you know, all these things that students are actually working on in both directions. You know we genuinely believe that it'll improve health care"; "What do the students find most rewarding? Okay, when they feel that they have done something useful to the organisation and the organisation is moving ahead with their suggestions - You can see that they are so proud that they have done something for the organisation"* and *"What do you want doctors to know? So they came up with a booklet for the medical practitioners so that when you see a blind patient, what do you do? I thought that was something fantastic"*.

6.6.9 Summary of CanMEDS competencies analysis

One way of judging the effectiveness of a program in developing students' learning is to look at its impact in those areas of competency that are important to the area the students are being trained for. For medical students the CanMEDS competencies is one collection of key competency statements for doctors that is widely respected and which had a specific role in influencing the Monash MBBS course that the CBP is part of. Obviously students in the second year of their course cannot be expected to have anything like mastery of these competencies and, at this stage of their learning, will not even have had any chance of engaging with many of the competencies defined. It is instructive though that when a subset of these competencies is looked at that is relevant to their community placement experience, there is a clear perception that they are gaining understanding, starting the process of developing competence and having experiences that will clearly serve as a foundation for sound competency development. Particularly interesting is the way that Later Years students are able to make clear and thoughtful connections

between their ongoing development of competency and understanding, and the experiences they had in the CBP program.

In terms of a triangulation with quantitative data feedback from the students' surveys, and with the themes that arose from a grounded theory analysis of the survey comments and the interviews, there is considerable corroboration of those analyses. Specifically there is evidence that for the students for whom this program worked to enhance their learning, and these were the considerable majority of all students taking part, the following aspects of their learning were particularly effective:

- Collaboration with other health support professionals was a notable aspect of the program and led to an appreciation and respect for the skills and understanding such professionals could bring to health support. In particular the opportunity to work closely with them was greatly valued and brought with it an understanding of how they might continue to work with such professionals after the students move into medical practice themselves;
- Communication skills were particularly valued and given the opportunity to develop. This was especially the case for groups that can be difficult to communicate with and learning how to work with them was a highlight for many students. Also commented on positively was learning how to communicate with respect and with a holistic understanding of the patient;
- Health advocacy, a core aspect of the program was an area characterised by powerful and complex learning, embracing understanding the importance of socioeconomic context and background to health and access to health services, as well as understanding the complexity of human experience, behaviour and responses to difficult situations. It was also characterised by learning how one might most effectively respond at both an individual and community level. The importance in the development of this area of hands-on interaction with people and with the agencies working with them was clear;
- The development of competency as a medical expert, the acquisition and use of clinical skills and understanding, might be expected to be mostly irrelevant to these programs as they are specifically non-clinical, however it was clear that the skill of making referrals was developed in important ways in the program, specifically in reference to using community organisation and health support professionals. This realisation gained increasing importance to students in their later, clinical years. It was also understandably very important to partner organisation and was consistently seen as a key outcome for the program;
- The Professional and Scholar roles both tended to focus on the Health Promotion research projects. While this was the most divisive area of the program, it is clear that for many students the learning gained was considered quite valuable, especially as they moved on in their courses. It was also notable that there was a real sense of pride and affirmation for those students whose projects clearly achieved something and were appreciated by the partner organisation and the clients they were aimed at supporting. It is notable that there were a number of students who attributed their interest in doing further research to this experience, or for whom the experience was seen as a good foundation for their later work.

6.7 Campus/community engagement: big brother or kissing cousins

A medical school and the community organisations within its area that support health are in many ways quite asymmetric. A medical school is part of a university that is often one of the largest organisations in an area. It is relatively well and stably funded. It is part of a well-established and prestigious system and has a relatively clear and achievable core purpose – to produce accredited doctors, usually within a faculty that also produces medical scientists, nurses, and other health practitioners. It operates comfortably within a hierarchical system moderated by a range of representative committees.

On the other hand the non-clinical, often non-medical, community organisations that contribute to the support of community health within any area are extraordinarily diverse. This diversity covers dimensions such as size, connectedness beyond the community, purpose, governance, funding arrangements and accountability measures. Some are themselves part of a larger system often funded by and answerable to government across a range of levels, while others may be entirely local, funded independently, such as through charity or local fundraising, and have a purpose that is tightly focused around a particular niche. While some may belong to larger systems, as a whole they are quite anarchic. Individually or as a whole, such a wide range of organisations presents real difficulties for a university or faculty to form partnerships with them that can go much beyond provision of some tightly constrained service. An organisation can

provide an opportunity for the educational placement of the faculty's students in return for money or some other constrained reward and this can be called a partnership. It is much more difficult for the two to work together in an authentic partnership of mutual dialogue, learning and action to improve the understanding and delivery of community health. For a faculty to do this simultaneously with a large number of such organisations could be expected to present insuperable challenges administratively and, if the learning is to be a two-way process for organisation and faculty, curricular indigestion. This fits with the findings and the disappointment about lack of mutuality in university-community "partnerships" noted by Hunt(53).

This is what might reasonably be expected, so what can be learned from the attempts at partnership represented by the programs under study here? The interviews of partner organisation staff and faculty staff analysed above suggest that neither party saw any such asymmetry of partnership as a problem. In fact there was a clear sense that both parties saw the partnership as a relatively straightforward transaction of mutual benefit in which:

- The partner organisation provided the faculty with placements for students that gave them hands-on experience with agencies and their clients in areas of greater or lesser marginalisation focusing on gaining a working understanding of:
    - The social determinants of health;
    - The impact of chronic conditions or socioeconomic issues on health and access to health support;
    - Community health support in general and in particular; and
    - The development of a set of skills and understandings as could be summarised from the relevant CanMEDS role competencies; and
- The faculty provided the partner organisation with a much valued opportunity to influence and contribute to the education of the next generation of doctors in the hope that they would be more:
    - Empathetic with and skilled at communicating with their target client groups;
    - Understanding and appreciative of the role and contribution of the agencies and their health profession staff members in supporting health and providing access paths to health support;
    - Willing to use this knowledge to start using community groups for referrals of patients to get ongoing health support as needed and appropriate; and
    - Willing to help in advocacy in relation to community health issues, though it is to be noted that this last point was more implicit than explicit in responses from most partner organisation staff.

There was little interest in the partnership going beyond this, apart from some faculty staff comments, reported above, that the universities' involvement with community organisations perhaps improved the university's profile in the community. There were also some rare suggestions that perhaps the university was missing an opportunity, especially in relation to the work done by the students in research and health promotion projects, to develop a more dynamic and deeper partnership with community groups.

This last point raises the issue of the projects carried out by students for, and in conjunction with, partner organisations. This took place in two of the programs, including the Monash University CBP program, which is at the centre of this study. On this face of it, this element in these programs shifts them some distance towards being part of a service learning approach, as defined by the U.S.A. experience and discussed earlier in this study. A focus on undergraduate students doing research for, or in conjunction with, communities or community organisations is not always, however, a feature of service learning programs. There have nonetheless been a few cases where service learning programs have produced fine examples of undergraduate students carrying out community-based research: Buckner et al., (178), Dehaven et al., (93), Lindemann et al., (179), and Silverstein et al., (180).

In the United Kingdom and Australia, CBME has been a small but growing movement reported on, as noted earlier, by Dornan et al. (22). As with service learning the focus of such programs is not necessarily on introducing students to research, though there has been eloquent argument for its possibilities by, among others, Howe et al. (181). The rare actual examples of its practice have been encouraging as that reported by Weston et al. of the University of Wollongong (182).

The great majority of reported programs with undergraduate students carrying out community-based research have come from developing or newly developed countries such as reported on in Indonesia by Kristina et al. (183), in Kuwait by Bouhaimed et al. (184) and in India by Dongre et al. (185). These programs are often responses to desperate community needs where medical students can be an important resource, rather than as programs deliberately set up to introduce students to research principles and practice.

How to introduce undergraduate medical students to the principles of research is not a simple problem, though it is an important one as discussed by, among others, Murdoch-Eaton et al (186). Issues relate to:

- the stage of the medical course it should be introduced in;
- how much such research should be based in the complexity of real world problems;
- how its ethical nature can be guaranteed;
- how deeply based in the rigour of research principles it can be; and
- in what contexts it should be conducted.

As the Monash CBP program found with its Health Promotion research projects, the need to ensure students understand its ethical aspects adds considerable complexity to any experiential approach to teaching undergraduates about research. Steneck and Bulger (187) report the lack of consensus on how it should be taught, where and by whom; while Bowater and Wilkinson(188) note the limited nature of the literature in this area relating to undergraduate teaching.

In the analysis reported on earlier in this study, both the quantitative data from the Likert scale responses in the student surveys, and the qualitative data from the student survey comments and the interviews of students, partner organisation staff and faculty staff suggest that the Monash CBP research projects were the most contested aspect of the program, despite an overall majority attesting to their worth. As a key part of this program in particular, and an important aspect of a number of other CBME programs, this research project aspect of the program is worth looking at in some detail.

6.7.1 The Monash CBP Health Promotion Research Projects – Working Together

Across the years being looked at in this study, these projects were a mandatory part of the program and comprised a considerable part of its assessment. The context for the projects was that they were one of three required goals negotiated by students as part of their formal Learning Agreement with the partner organisation they were placed with. These goals comprised:

- A Personal Learning goal, in which the students nominated a particular aspect of their learning that they wanted to achieve across the placement;
- A Field Educator's goal, in which the partner organisation staff member directly supervising them nominated a particular aspect of learning that he or she wanted the student to achieve across the placement; and
- A Contributory goal, in which the team of students at a particular placement would negotiate with the partner organisation a health promotion research project that they would conduct and which would make a useful contribution to the organisation or its clients.

The third goal, the Contributory goal, was the starting point for the project. Supported by tutors and a series of seminars and tutorials back on campus, each student team would design, in negotiation with the partner organisation, a health promotion research project; gain formal ethical approval for it; carry out a literature review; design an appropriate methodology; complete the relevant fieldwork; and report on the results through a formal written report, and a conference poster and presentation at a one day conference of students, partner organisation staff and faculty staff showcasing the projects.

The tutorials provided teaching and guidance about the principles of health promotion, and principles and practice of research. They also gave tutors the opportunity to oversee and guide the development and conduct of the projects. All projects required formal ethical approval by the university ethics committee, and this was seen as important both as a learning exercise for the students and to ensure that the research being carried out was appropriately responsible. There was an agreement between the ethics

committee and the program academic conveners that the projects would, wherever possible, be of low impact and that these could be signed off by the conveners and then registered with the committee. The nature of some partner organisation, however, inevitably meant that in a few cases any project that would be of any use at all to the partner organizations would necessarily be deemed high impact; these were required to go directly to the ethics committee for approval.

Over the period focused on in this study, 2008-2011, students completed 464 of these projects with a total of 103 partner organisations.

All the student research projects were entered into an NVivo9 database and classified by

- Year,
- Partner type, and
- General health support category.

Each was then coded for the aspects of health promotion, support or intervention addressed. These codings were developed responsively as each project was looked at and were then thematically organised into:

- General health support categories (as below);
- Health issues – relating to specific health conditions, gender & sexuality, specific socioeconomic & cultural groups; specific biosocial topics;
- Strategies for health support or promotion – based on partner organisation staff & carer development, management approaches for particular conditions, specific treatment & health support approaches, analysing & building community health support infrastructure.

From 2008 to 2011, 1,205 students completed 464 of these research projects with 103 community partner organisations. Many of these provided two or more different placement venues at a time and/or provided placements across more than one year.

The partner organisations comprised five broad types of organisation:

- Community health & advocacy organisations, which have the primary aim of advocating for and supporting a particular health area or community group – 54 projects;
- Community-based health services, which have the primary aim of providing general health support for a local community, usually providing nursing and allied health professional support but frequently not doctors– 113 projects;
- Local government service providers, which cover health support services provided directly by local government – 22 projects;
- Schools, including government, private, secondary, primary and special schools – 62 projects; and
- Welfare Agencies, which have the primary aim of supporting and advocating for marginalised and underserved socioeconomic and cultural groups – 213 projects.

The projects were divided into the following general health support categories according to their primary and secondary focus reflecting the fact that many projects fell into more than one category: for example a project in a secondary school would have been categorised as having a primary focus on adolescent health and wellbeing but may have also had a secondary focus on alcohol related issues, or on mental health and wellbeing. It is important to note that all projects were coded with only one primary focus each but may have had several secondary focus points:

- Adolescent health & wellbeing – 56 projects (12.1%), secondary focus – 54 projects;
- Aged care – 62 projects (13.4%, secondary focus – 58 projects;
- Children & families – 72 projects (15.5%), secondary focus – 36 projects;
- Chronic & palliative care – 34 projects (7.3%), secondary focus – 50 projects;
- Community advocacy & support (usually relating to a very specific health condition or community group) – 67 projects (14.4%), secondary focus – 69 projects;

- Community health & wellbeing (usually relating to supporting the general health of a local community) – 38 projects (8.2%), secondary focus – 150 projects;
- Disability services – 51 projects (11.0%) – secondary focus – 38 projects;
- Drug & alcohol support services – 24 projects (5.2%), secondary focus – 43 projects; and
- Mental health & wellbeing services – 60 projects (12.9%), secondary focus – 106 projects.

The projects were further analysed according to:

- the different types of health-related issues they looked at, with examples including issues such as nutrition or multiple sclerosis; and/or
- the different types of strategies used or advocated for health promotion and support, with examples including strategies such as medication management strategies or improvements to the partner organisation's procedures.

These findings are summarised in Figure 31, demonstrating the wide range both of students' contributions to partner organizations' activities and of their own learning about community health issues and strategies:

Number of projects coded by general against specific health support or promotion areas (N=464) *Note that many projects are coded under more than one category*	Adolescent & youth health & wellbeing	Aged care	Children & families	Chronic & palliative care	Community advocacy or support	Community health & wellbeing	Disability services	Drug & alcohol support services	Mental health & wellbeing services
Health Issues	*48*	*45*	*61*	*51*	*102*	*74*	*45*	*12*	*65*
Issues relating to gender & sexuality	13	4	12	0	30	11	1	1	5
Issues relating to specific biosocial topics	20	25	33	14	19	30	21	8	40
Issues relating to specific health conditions	8	13	9	35	25	17	22	2	16
Issues relating to specific socioeconomic or cultural groups	7	3	7	2	28	16	1	1	4
Strategies for health support or promotion	*106*	*108*	*151*	*77*	*166*	*194*	*110*	*59*	*188*
Strategies based on specific treatment & health support approaches	8	34	10	4	5	22	10	0	11
Management approaches for particular conditions	21	11	14	14	16	28	15	32	47
Strategies based on analysing or building community health support infrastructure	21	12	38	16	70	57	15	10	32
Strategies based on partner organisation staff & carer development	56	51	89	43	75	87	70	17	98

Figure 33: Analysis of CBP Health Promotion Research Projects by General Health Areas against Proposed General Health Promotion and Support Issues and Strategies

Taken as a whole these projects can be seen as a "snapshot" of community-informed health micro-issues. These are issues perceived by community health support organisation as being relevant to their clients but at a scale capable of being worked on by a team of students over about a six month period. As suggested by the types of strategies proposed in the projects, they included health support approaches as well as health promotion. Figure 31 above gives a sense of the range and scope of the health issues addressed and the strategies used, or recommended, in the projects to address them. The random sample below in Figure 32 gives the flavour of the sorts of projects undertaken. The sample is taken from across the 2008-2011 period and was compiled by taking every twentieth title from a database of all the projects; then, to keep the sample anonymous, any titles that included the name of the partner organisation involved were removed and the closest non-identifiable title was included instead.

The following observations about the achievements and problems associated with including partnership research projects in the program are based partly from the student, partner organisation staff and faculty staff data analysed in earlier sections of this study; partly on more informal feedback from students, partner organisation staff and faculty staff in conversations taking place outside that fieldwork, and partly from the researcher's own experience when coordinating the program. It is noteworthy that none of the

problems discussed here arose with the projects arising from the U.K. program featured in the faculty staff interviews and which involved students doing community projects in their final course year.

The strength of this program was its experiential nature. Students were placed in a grassroots community environment and introduced to a wide range of micro-health issues perceived significant to organisations working to support health beyond hospitals and GP or specialist clinics. They were often working with the underserved, the marginalised or those with long term chronic health issues. In this context they became experienced in working out how to do an appropriate search of the literature, how to develop a workable research methodology and how to take the ethics of responsible conduct of research into account. They then learned how the realities of the day-to-day management of organisations and the circumstances of their clients need to be considered when conducting fieldwork, and how sometimes the most carefully designed methodologies can come to grief or can generate less than useful results. On the other hand they learned how often a piece of their research, its conclusions and recommendations could make a real difference to an organisation or its clients.

Health Promotion Research Project Title
Making Lifebooks for Clients with Dementia & Multiple Sclerosis
Archery and the Holistic Health Effects on the Elderly
Assessment of food Intake among the homeless in the CBD
Evaluation of the Lifeskills Program
Expanding Social Activities & Improving Mental Health in High Rise Older Person Public Housing
Evaluation of Systems to Resolve Violence against Women in Supported Residential Services
Availability of Services for Children with Disabilities and their Families
Promoting Appropriate Social Etiquette in individuals with a disability (PASE)
A Health Survival Kit for Newly Arriving Refugees
Educating Carers about Common Medications for Children's Behavioural Difficulties
Art Therapy for Male Survivors of Sexual Abuse
Social support for clients attending pulmonary rehabilitation / maintenance
Home fitness & wellbeing strategies for people with MS
Impact of 'Success Stories' on access to indigenous health services
Does Separation Affect the Health of Parents?
A health services referral tool for non-health community service workers
Disability Respite Initiative – Social Connectedness through Movement and Music
Effective community health education models for culturally diverse populations
The impact of mental health clients' wellbeing on staff wellbeing
The Effect Of A Community Garden On Social Isolation
Pubescent Behavioural Change Experienced by Autistic and Intellectually Disabled Adolescents
Understanding Methadone maintenance therapy: information for General Practitioners
The effects of participating in a regular obstacle course program on the self-efficacy of young adults with a disability
Psychological wellbeing of carers of individuals with an intellectual disability

Figure 34: Random Sample of CBP Health Promotion Research Project Titles across 2008-2011

The research topics covered, as they shared these in their tutorials and saw the products at the end of year poster exhibition, taught them about the issues facing the support and promotion of health in local communities.

The downside is the risk of experiential learning generating negative outcomes. Where students approached their research cynically, as in a very small number who saw this as a distraction from "real" medicine, or where circumstances conspired against them, there was potential to embed bad research attitudes. Projects students might have seen as having "failed", or projects that students felt simply had too high a workload also risked demoralising students.

Despite the number and range of research projects carried out, and given the inexperience of the students undertaking them, the quality of the work was generally high. This was reflected in both anecdotal

feedback and the assessments given to the conference posters and presentations - one of the main ways students reported on their work. Guest markers, many of them senior lecturers or professors, were highly praising both of the presentations and the research underlying them. Most of the partner organisations also affirmed the usefulness of the work done for them.

Nonetheless there were some problematic areas. In addition to inexperience, there were time and resource constraints putting students' work under pressure and, in a small number of cases, compromising both research quality and the learning experience. The time scale available to students for the project was generally about twelve placement days over six months from the initial negotiation of a topic to the presentation of their poster. This necessarily meant that the projects were small scale and were vulnerable to unexpected delays arising from the ethics approval process, accessing clients of partner organisations for surveys or focus groups, or waiting for mail or email based questionnaires to be returned. Similarly, the resources available through some of the smaller partner organisations were quite limited, though overall this had less effect on the quality of the projects than on their scope.

Some constraints arose from the partner organisations themselves. None saw this research as their primary reason for being involved in the program and few saw it as part of what they normally did. For some, though, this became an exciting possibility. For some others, collaboratively developing a project was seen as a chore or of only tangential interest, especially if they had been part of the program over a number of years and were involved in several different projects. A small number of larger organisations had problems negotiating their own internal bureaucracies in gaining permission for the projects. Problems also occasionally arose from the endemic high staff turnover characterising this sector; so that a field educator might set up a project then leave the organisation with the new field educator then not having the same level of understanding and commitment.

As noted earlier a particularly problematic area for some projects was around ethics considerations. Projects involving indigenous groups, clients with mental health or mental disability issues, or partner organisations working with children were either required to be treated as high impact human research or were forced to become very limited in what could be done. This applied only to a relatively small minority of the projects but did affect some that had the potential to be of real interest and worth. In a small number of cases, students and organisations tried to frame projects that would "get around" the ethics issues, and this was not seen as a good message for the students to be taking from the experience.

To some extent a tension developed among the faculty staff responsible for the program. This tension centred, on the one hand, on a sense that this experiential learning was teaching students the reality of research in all its real world messiness as well as the theory and principles – a project that had a real purpose, a real context, affected real people and was rich in learning possibilities. On the other hand, there was a concern that the research was at times compromised and that, where a project failed to get a large enough sample or significant results, students could be demoralised. The possibility was even raised that students might in fact learn to do poor research or become negative about ethics processes.

Finally it was evident from the End of Program surveys that a significant number, though by no means a majority, of students found the demands of doing such research projects quite challenging.

Finally issues also arose for the faculty out of such a program. One was how the tension between potential learning benefits of this experiential approach and potential risks were managed. In some ways this reflected the teaching versus research tensions endemic to universities. Some faculty members, focusing on the need for quality research, suggested that it is inappropriate to allow inexperienced students to take on real research, no matter on how small a scale, and point to those projects that weren't successful and to those students most negatively vocal about the workload involved. Other faculty members, focusing on the learning opportunities within the program, suggested students learn as much from what goes wrong as from what goes right and need the chance of such experience within the framework of active support and supervision provided. Both views have some validity and the program needed constant monitoring to achieve good learning about doing useful community-based research on health.

Another issue for faculty was how to take advantage of this close collaboration with partner community organisations on public health, its support and promotion. The 464 projects provided extensive

information about the community's micro-health issues as perceived by those working most closely with the most marginalised, underserved and chronically unwell. As earlier noted the study by Hunt et al. (53), found that faculties tend not to be good at two-way collaboration with community groups and tend not to make much use of the results. The challenge arising for the faculty was to decide what use, if any, it should make of the research about the health of local communities that its students had carried out and published within the faculty through their reports and posters.

For partner community organisations the experience was a mixed story. For some it was a useful experience producing outcomes adding real value to their work and understanding. For some, projects were a nuisance rather than an opportunity. For some the possibilities were exciting but the results disappointing, whereas for others, the experience opened their eyes to the possibility that well designed research is capable of making a difference, even on a small scale. On balance the experience, as anecdotally reported by field educators, suggested that the smaller organisations focused on advocacy and health support got the most out of it.

The findings of this analysis of these projects can be summarized as follows:

- The quality of the majority of projects produced affirmed that this experiential approach to introducing research skills and practice to students could be successful. However it needed careful monitoring and support;
- The potential for partner community organisations in having students, with university faculty support, taking on research into areas they nominated as useful to them was clear and effective for many of them. The key factor was their control over the research topic. A limitation was their understanding of the possibilities but also the constraints that such research topics needed to be kept within;
- For students the task could be exciting but also challenging. The level of support they were given, especially from tutors was critical. The sense of fulfilment they got from successful projects was high, but it was important that those whose projects produced disappointing results were shown that in research such outcomes can themselves provide much learning; and
- Possibly the most challenging aspect of such a program was ethics approval. Community-based research involving the marginalised, underserved and chronically unwell is inevitably going to introduce projects that would have to be deemed high impact. For inexperienced researchers this could cause problems. It was important for the program to find ways to protect at risk community members, while allowing students to gain real-life experience of how research could and should work to support public health.

Overall the partnership, particularly with respect to the Health Promotion research projects, was more about kissing cousins than a university big brother, albeit with one of the cousins, the university, apparently not much interested in taking the kissing very far.

7 Findings

7.1 Subsidiary Research Question 1: The nature and place of Community Based Medical Education (CBME)

In order to provide a background in curriculum design and a context of actuality from which to develop meaningful answers to the formal research questions guiding this study, it was deemed important to develop a typology of CBME and to look at its place in Australian medical school course design.

When the CBME literature from 1990 was reviewed and analysed in terms of types and purposes of placement programs the following typology was determined:

- Community clinical placements located in community practices and clinics to supplement the placements available in tertiary hospitals and clinics. These are mostly in the areas of primary care/family medicine or paediatrics and often have the avowed aim of increasing recruitment figures for primary care.
- Rural and remote clinical placements are very similar to the first category but have the specific aim of placing students in, and introducing them to, practice in rural and isolated areas with placements located within community practices and clinics, or regional or local non-tertiary hospitals. These programs often have the additional purpose of familiarising students with rural medicine in the hope of better recruitment figures.
- Marginalised & underserved communities clinical placements located in marginalised or underserved communities with the aim of assisting those communities and sometimes with the additional aim of longer-term recruitment doctors for those communities. These often, but not always, are located in developing countries or in underdeveloped areas in otherwise fully developed countries. These programs are similar to the previous two categories but with the specific aims of providing service to such communities and of raising student awareness of the problems associated with such communities;
- Service-learning placements - these are mostly but not always clinical and overlap to some extent with the previous category but have the additional feature of involving a sense of partnership with communities or with organisation within communities characterised by the aim of an equal relationship between faculty and community built around a two-way exchange of service. These partnerships often but not always feature public health or health promotion projects and are most often voluntary or elective; and
- Non-clinical community placements – these have some overlap with the Service Learning category but are specifically characterised by the primary placement of students in non-clinical community organisations. Excluded from this category are placements that are primarily with a clinical setting, or are campus-based, but which involve some non-clinical community component, such as home visits or survey studies of community health or other features. They are generally compulsory programs with the aim of building students' sensitivity to, and understanding of, wider community health issues and problems, and including practical introduction to concepts such as the social determinants of health and the impact of life circumstances of potential patients.

The focus of this study on non-clinical community placements was consequently seen as being a distinctive form of CBME in its own right, though with some capacity for overlap with service learning based programs. More importantly it could be characterized with a set of distinctive features that set it apart from other CBME approaches:

- Students being placed in non-clinical community organisation settings such as health advocacy groups, welfare support groups, schools, supported residential, support groups for those with specific chronic conditions or disabilities and other similar organisation;
- Placements may or may not work in conjunction with a clinical placement, such as with a General Practitioner, but are a major part of the course in their own right and not simply an adjunct to the clinical placement;
- Placements occurring over extended periods of time, such as a day a week over a semester or more;
- Requirement that students become actively involved in the placement organisation's activities and interact with their clients, rather than operating as observers;

- The program is part of the curriculum core, compulsory for all and having an assessment process that forms part of the overall course assessment regime; and
- The students may be required to contribute back to the organisation in some way beyond general participation in the placement organisation's activities. This is a common feature but is not always present.

In a desktop analysis of placement programs that were part of medical courses in Australian medical schools in the period focused on in this study, 2008-2011, there were only three non-clinical community based placement programs in operation:

- A Year One observational two day program at the University of Western Australia;
- A Year Two community placement program with non-clinical community partner organisation running for 14 full days across the year at Monash University (the CBP program focused upon in this study); and
- A Year Three community placement program with non-clinical community partner organisation over ten weeks with each student working with two partner organisation for five weeks at a time running in association with a GP rotation (three days a week in the placement and one day a week with the GP) at the University of Western Sydney.

This provided the context for the study's use of the Monash Community Based Practice program as a base for exploring the effectiveness of this medical curriculum approach for its students, at Monash's Clayton, Australia campus, as well as partner community organisations and medical faculties. To add both richness and further triangulation to the study, staff from community partner organisations and faculty involved in the same program at Monash's Sunway, Malaysia campus were interviewed, as also were faculty staff from a second similar Australian medical school program and two similar programs from U.K. medical schools. These further interviews established that the four programs involved were all comparable and produced similar findings, at least as reported by faculty staff.

A further level of richness was added by triangulating the findings against the CanMEDS role competencies, used by the Monash program as a guide and generally recognised across medical schools as a useful guide to the roles and competencies required of doctors.

Finally, the role of partnership between community organisations and medical faculties and the use of participating students to contribute something back to the partners was explored through an analysis of the Health Promotion research projects carried out by the students for the partner organisations. Such projects are also a feature of one of the U.K. programs.

From this base a set of reasonably robust findings were established for the three research questions.

7.2 Subsidiary Research Question 2: The extent to which such programs succeeded or failed in transforming the attitudes and understanding of students, assisting their development as community aware doctors?

Across the datasets there were a series of findings relating to the transformation of students' attitudes and understanding, and their development of community awareness. These were consistent and nuanced with respect to their sustainability and maturation over time from participation in the course to reflection on its continued effects over later years of medical education and clinical placement experience:

7.2.1 Quantitative analysis of student survey data

Analysis of the Likert scale items common to both the surveys of students at the end of the CBP program (EoP students) and those in their later years of the course (LY students) demonstrated some significant differences in the two groups perceptions of what they learned, but also significant similarities.

Four scales were developed in a validation process of the original end of program survey, where items within each scale all had Cronbach's Alphas of 0.8 or higher:

- Personal learning;
- Personal engagement;
- Understanding the connections; and

- The community placement experience as a learning environment.

These scales were proven to be robustly useful across almost all the data examined.

Each scale taken as a whole demonstrated the degree to which there was a decrease in later years students' perceptions of the learning they gained from the program. Much of this difference can almost certainly be put down to later years students' perceptions and memories of the program being overlaid by the very intense experience of the clinical placement years following. At scale level the differences, as measured by the percentages of students "agreeing" or "strongly agreeing" with the items consolidated for each scale, are quite significant:

- Personal Learning – EoP students: 71.8%; LY students: 48.3%;
- Personal Engagement – EoP students: 53.1%; LY students: 39.6%;
- Understanding the Connections – EoP students: 68.6%; LY students: 48.5%; and
- The Community Placement Experience as a Learning Environment – EoP students: 76.7%; LY students: 65.4%.

In these generalised findings there was clear and sustained agreement that the non-clinical community placements provided in the program were a successful learning environment for the great majority of students, even on reflection after a year or more. This scale comprised only one item (#3) that was common to both EoP and LY student surveys – "The opportunity to interact with other professionals enabled me to appreciate their roles and responsibilities." This, as will be seen, was an area of learning that showed consistent success and considered importance across much of the triangulating data.

In contrast, the Personal Engagement scale was not perceived by students as especially successful, with even the EoP surveys registering only a small majority in agreement. This included two items common to both surveys (Items 1 & 11). Of these, Item 11 was particularly contentious – "The CBP activities have been a valuable component of my learning experiences in the MBBS course" with only 43.7% of EoP students and 33.6% of LY students agreeing or strongly agreeing. The issues raised by this item showed a real division in student attitudes that this study suggests may be of quite deep significance. As will be seen, triangulating data, particularly from student comments and interviews and from faculty staff interviews consistently supported the importance and contentiousness of this area.

Both the Personal Learning and the Understanding the Connections scales showed similar high levels of perceived success from EoP students but considerable decrease to only a little less than half LY students showing perceived agreement generally across these scales. This, however, concealed real differences between specific items. In the Personal Learning scale it is notable that for LY students two items: #7 "As a result of participating in CBP, I have improved my social and professional skills that can be applied in a medical context" and #12 "CBP has challenged my knowledge, skills and attitudes in being more patient-centred and compassionate to the needs of people", had only minority "Agree" or "Strongly agree" support (41.8% & 36.6% respectively). These are both items that could reasonably be expected to be overshadowed by clinical placement experience with its emphasis on "patients" and "professional skills". In contrast the other two items: #2 "CBP helped to develop my ability to communicate with a range of people" and #4 "My interactions with diverse clients challenged my perspectives and assumptions" showed majority LY student support (56.5% & 58.2% respectively).

For the Understanding the Connections scale, the general response in LY students was complicated by one item that tended to be very divisive of students "While completing CBP activities, I was able to make connections between the practical support of health in the community and materials/content/concepts that were learned through lectures across the MBBS program" with both EoP and LY student support running at only 41.6% & 24.6% respectively agreeing or strongly agreeing. This almost certainly is for much the same reasons and with the same significance as was the case for item 11 discussed above and raises real issues about the connectedness of the program with the rest of the medical course.

There was, however, broad agreement by majorities across both groups that the program was perceived to have been reasonably successful and sustainably so, when measured by the percentages of student "agreeing" or "strongly agreeing" with particular items in the areas of:

- Communication skills (Item 2) – "CBP helped to develop my ability to communicate with a range of people" (EoP students – 81.1% & LY students – 56.5% "agree" or "strongly agree")
- Interprofessionalism (Item 3) – "The opportunity to interact with other professionals enabled me to appreciate their roles and responsibilities" (EoP students – 76.7% & LY students – 65.4% "agree" or "strongly agree")
- Understanding of the community-based health support services available to support a doctor's work (Item 6) – "As result of participating in the CBP, I have a better understanding of community services available which could be useful in future referrals as medical practitioner" (EoP students – 79.0% & LY students – 61.6% "agree" or "strongly agree")
- Understanding the importance to health of diversity, social determinants of health and barriers to health access (Items 4, 5 & 8):
- Item 4 – "My interactions with diverse clients challenged my perspectives and assumptions" (EoP students – 72.6% & LY students – 58.2% "agree" or "strongly agree")
- Item 5 – "As a result of participating in CBP, I have an improved understanding of barriers and social determinants of health" (EoP students – 76.9% & LY students – 57.0% "agree" or "strongly agree")
- Item 8 – "After participating in CBP, I have been better able to understand the linkages between clinical and social issues of health" (EoP students – 73.1% & LY students – 50.4% "agree" or "strongly agree")

The importance of this is that the CBP experience is unique within the MBBS medical degree in providing this learning. This is obviously so in their understanding of the community based health support available to support a doctor's work, as well as their understanding of the importance to health of diversity, social determinants of health and barriers to health access. But it is also subtly so in relation to communication skills and interprofessionalism since both of these are taken much further than is generally the case in the rest of their MBBS medical degree experience. Communication skills get built around very diverse and often quite marginalized groups, much more so than in a hospital placement where such groups are interacted with less often and usually with the mediation of interpreters or social workers. In the area of interprofessionalism the net of experience is cast much wider and more deeply, so that it includes professionals, such as teachers, not normally encountered in hospitals, and more extensive and intensive experience than would be available in hospitals with other health professionals such as social workers, physiotherapists, occupational therapists and others.

On the other hand both surveys eloquently reveal an apparent disconnect for the students between the MBBS as a whole and the learning developed through the CBP. This disconnect remains strong even when apparently contradicted by the positive areas outlined above. It is almost as though there are two different types of medical practice, both of which can be seen as valuable by students but each of which is also perceived as being irrelevant to the other. Furthermore one type is only ever experienced through a program like the CBP and the other type dominates the entirety of the rest of the MBBS experience in a balance so unequal that a significant number of students are led to reject vehemently that represented by the CBP, even while at least half the students clearly still valued key aspects of it even up to three years after completing the program.

7.2.2 Qualitative analysis of student survey comments

Overall there is a sense from the comments both groups made that supports the quantitative evidence of the Likert scale data. There were some whose perception was that, for them, the program did not work and was a distraction, even a detraction, from the main business of the MBBS medical degree, which was learning as much medical science as possible and then putting it into practice in clinical experiences, and, for whom, focus on health support in the community was perceived as being either irrelevant or antithetical to a "proper medical education". The vehemence with which this view was held by some became quite evident in some of the Later Years student comments: *"No benefits; I am quite possibly worse at my job as a result. Imagine if I had learned anatomy in this time!"* Others took the opposite view and were quite enthusiastic about what they perceived they learned from the CBP experience and more or less continued with this view into their later years: *"I absolutely loved my CBP placement and am*

continuing it beyond the timetabled CBP program because I continue to get so much out of it" (EoP student) and *"My placement at (Agency X) was an absolutely fantastic experience and completely invaluable to my personal and professional development" (LY student)*. The majority came across as recognizing that they perceived their learning was enhanced by the CBP:

This was the case particularly in the skill areas of:

- Communication and interaction with patients: "I went a long way in overcoming my own hesitation in communicating and interacting with people with severe disabilities" (EoP student); and "As a young medical student, it was confronting to encounter all the difficult health and social issues that people with disabilities and their carers have. It was a challenge to communicate with them and I definitely became a lot more understanding and a more patient person as a result" (LY student);
- Ability to refer patients more effectively to community health support services: "Knowledge of the vast network of mental health support services available for referral already puts me a long way ahead of most GP's we came across" (EoP student); and "Better knowledge about the services available for the homeless people and how to refer them to these services" (LY student);
- They also saw value in the experience it gave them of working in teams with colleagues and with other health professionals: "Interacting with a number of professionals within a community organisation and contrasting their views and insights" (EoP student); and "It was a good introduction as to what Allied Health professionals do, which is something I hardly got to do during my clinical placements in Years 3 to 5" (LY student).

Finally they perceived that it increased their understanding of:

- The contextualization of health and illness: "Learnt the importance of patients' social context in relation to their disease status" (EoP student); and "That for many people, harm minimisation is a good policy for healthcare, and they are much more likely to be open to accessing health services if they are treated with respect and understanding" (LY student);
- Socially and culturally determined aspects of health: "Know more about how social context really affects health of aboriginal people" (EoP student); and "A better understanding of the social determinants of health and the way in which a person's life can shape their attitudes towards their health and healthcare" (LY student);
- The whole life impacts of conditions such as disability, chronic conditions and addiction: "A lot of stigma and general lack of knowledge towards persons suffering intellectual disabilities. I am more aware of the issues they face, and their follow-on treatment" (EoP student); and "Understanding of living with disability, complex family issues related to inherited degenerative conditions, living with inherited degenerative conditions" (LY student).

Quite interesting was also the sense that much of this perceived learning persisted into the later years of the course and seems to have been assimilated by becoming more nuanced, thoughtful and focused on details of practice: *"Think about social circumstances rather than just clinical" (EoP student)* and *"It was useful to be exposed in a different setting to people from a variety of social contexts. I felt that this helps in understanding the whole person and not simply focusing on the medical problem" (LY student)*.

7.2.3 Qualitative analysis of student interview responses

In summary the students interviewed:

- Were overwhelmingly positive about the value of having done the program, seeing it as providing a valuable component of their course that was in many ways not touched on or followed up elsewhere in the MBBS course, apart from occasional and quite chancy community experiences in General Practice, Paediatrics or Gynaecology and Obstetrics rotations;
- Tended to dismiss criticisms of the course by a few other students as showing a narrow lack of understanding of the full nature of medicine and medical practice;
- Valued the experience of non-clinical health support and advocacy;
- Gained a deep respect for other professionals working to support health in the community;
- Were resolute in their intention to make use of these community resources in their practice;

- Valued the contact with clients;
- Appreciated the activities and work of the agencies they were involved with; and
- Quite strongly supported having had an introduction to research and health promotion.

The following quotes give a more generalised and overall flavour of their perceptions:

"Yeah, empathy and understanding - not just being empathetic but, you know, a full understanding: trying to as best you can, understand why they are making these decisions that you might not necessarily make" (S1);

"So opening my experiences of things: seeing housing commissions; dealing with refugees and understanding the problems, which I wouldn't even have thought would be problems, I suppose; and probably I didn't know much about them at the time, like alcohol abuse and things like that - I wasn't aware of it, so just opening my eyes to ideas and things that I'd never thought about. So that was really rewarding and to hear from the community ways that they thought that they could fix the problem" (S2);

"It helps us to recognise that there are these services that exist and that there are more than just the disease itself and these services around are geared towards helping the patients as much as the hospitals. And I guess it's about getting us to see, and helping us to focus on the person - the holistic view again. And that's where the hospital environment is not very encouraging to a certain extent and that's what this can provide" (S3);

"That's something that came up all the time in Paeds. So having that initial exposure back in second year about how to manage that kind of situation really benefited me because I could apply that. And in fourth year, you start to see more of those social aspects; the need for allied health professionals in the patients that you know you're following; the relevance to their care becomes more relevant" (S4);

"I think the main role of a doctor, and with all the time issues, what they should be doing is referring to someone who can help them get access whether that's a social worker working at the clinic or referring them to the actual place themselves, having a better awareness of where the GP works, of the different services in their area they could send people to" (S5);

"So I think that they didn't realise that it was just supposed to introduce you to seeing what's out there; seeing how you might relate to that later. To seeing where other people might be getting advice about their health, advice about support and that sort of thing, that's not from a medical point of view, like a very much more social or holistic view" (S6);

"If they've got Meals on Wheels or Home Help or anything like that - that's all really important and you've really got to keep… I mean it's so clinically important, it's just as important as their blood pressure and what medications they're on. And getting that sort of early exposure of having to think about people and: Will they actually take this medication? Trying to put them into their actual real world context and work with them that way - I think that's just practical" (S7); and

"I think the fact that, making us kind of do projects, I like to think tells all the students that it's important to think about things, and it's important to contribute to this, and it's important to think about the social determinants of health and how we influence them, from the beginning. And it ties in quite nicely with what we do in the pre-clinical years and then, in the clinical years" (S8).

7.2.4 Qualitative analysis of responses for partner organisation staff interviews relating to the students' learning

Overall there is a clear consensus across the partner organisations about student learning that coheres around the related perceptions that the learning students gained from the placement was transformative and that this came from its experiential nature.

There was a strong positive perception that an extended placement program with such non-clinical health support organisation promotes learning among the students that is transformative of their attitudes, skills and understanding in working with clients/patients who are marginalised socioeconomically, culturally, or through disability or chronic health conditions: *"They will come across as being confronted by saying - Oh*

my gosh, I never knew this world existed! I never knew what life was like for these people. I never saw the priority of these issues and how significant they are in people's lives".

It was further perceived that the effectiveness of such a program lies in its experiential nature through the active involvement of the students with clients and the organisation's activities, with the development of students' community sensitivity coming particularly through their interactions with clients and with health support professionals in the community, and further from an understanding of how these might be used for future referrals.

Students' interaction with clients was perceived as particularly important in the development of students' understanding of how to communicate with them respectfully: *"At the beginning some of them think – Oh it is so hard to interact with these people because they are so different. We don't know what to say to them. We don't know what to do with them – But as time goes by, they then say – Yeah actually they are like us – So if they realise another group of people of disadvantaged situation are not so different from them, they will then give them much more respect".*

There was a further perception that it was through the students' interaction with the range of health support professionals operating in the organisations, and through having to work with them, that students learned about such professionals and what skills they can offer: *"What I think has been most worthwhile and probably what they've learnt most from is the interaction with the range of different health professionals".*

Finally it was perceived that the knowledge students developed about how the organisations work to support health would develop their understanding of how they might be able to use such services through referrals when out in practice: *"So definitely they've identified being aware of other resources in the community; that they don't have to be the be-all and end-all for each of their clients; that you can actually refer and get support and input from other people and networks associated with that client".*

An interesting feature of this consensus is that it extended across two of the partner organisations that were working in quite a different culture, though with the same program. These were the two Malaysian partners, working with the CBP as it operates in Monash's Sunway campus MBBS medical degree course; they came up with essentially the same points as the Clayton campus program in Melbourne, Australia. The only real differences came up in references to the very different levels of government involvement in such community based health support across the two societies, and this difference was of only marginal relevance to the effectiveness of the program.

7.2.5 Qualitative analysis of responses for faculty staff interviews relating to the students' learning

The eight interviews analysed earlier in the study covered four different undergraduate non-clinical placement community-based medical education programs, with one of them taking place across two campuses each in two quite different countries and cultures. These programs occurred across three continents and four different systems of health support. While they all shared common medical education roots, essentially Flexnerian medical education, it is nonetheless somewhat surprising how much the issues raised and perceptions explored had in common. Except for a slightly more intense response from the U.K. programs on leadership and social critique, there was a great deal of commonality across all five sets of faculty staff in relation to the effect of the programs on student learning.

One of the key areas of learning by the students was seen as being the development of their understanding of the connections between the formal world of medicine – hospitals and clinics – and the more informal world of community health support organisations: *"They know the existence of these organisation and, as doctors, we understand that the patients are not just having a particular disease or situation. The problem is not just the disease itself as the social aspects of it and they know of the existence of these organisations. They would be able to direct them or even get involved with these organisations".*

Alongside this went a sense of the importance of students learning to appreciate and work with other health support professionals: *"The notion of the kind of interdisciplinary, multidisciplinary environment that's needed".*

Three further areas of student learning that were particularly focused upon very positively were sensitivity to community and community health issues, *"Certainly from the reflectives that I've read in terms of understanding the local health economy, that we live in and that they're working and living in, that definitely some eyes are opened"*; the development of leadership capacity or at the least of a capacity to advocate on health issues, *"One of the biggest impacts that I hope, and I can already see it happening, is they become strong advocates and they actually develop a sense of empowerment, that they can do things – that they can do something"*; and the way students' learning matured over time, *"They don't see it initially – they see it the longer they go, and they also see it as a number of things"*.

In the area of student engagement, there was interest in how and why a few students, typically being seen as about 5% of the students in each program, resisted the learning on offer. The perception was that these fell into two categories: the first comprised those who were challenged by the programs' demands and were somewhat stressed as a result, with a sense that this was a lesser problem that eased, or even reversed, as students got into the program; and those students who had a view of medicine and medical practice that was intolerant of the programs' social and community focus.

Balancing this was an interest in the greater majority of students who engaged well with the program, especially in terms of what engaged them most tending to focus on concepts such as caring, *"I mean there is this issue with altruism and whether we squeeze altruism out because there is a lot of literature suggests that one of our great successes in medical education is reducing it, but I think that again one of the reassuring things about the program is that we haven't completely squeezed it out"*; involvement, *"For example our students go to Year Three and have started what is called a street feeding program that goes on and has been going on for five or six years now – twice a week at night they go out and feed (the homeless) and their enthusiasm for that is growing"*; and making a contribution, *"What they learn is that they can make a difference – that whether that's working with a third sector organisation or working in their team… that actually making a difference is something that they should aspire to and can achieve because they've actually done it"*.

7.2.6 Analysis of qualitative data about student learning in terms of the CanMEDS roles competencies

The CanMEDS roles competencies is one collection of key competency statements for doctors that is widely respected and which had a specific role in influencing the Monash MBBS course that the CBP is part of. Obviously students in the second year of their course cannot be expected to have anything like mastery of these competencies and, at this stage of their learning, will not even have had any chance of engaging with many of the competencies defined. It is instructive though that, when a subset of these competencies is looked at that is relevant to their community placement experience, there is a clear perception that they are gaining understanding, starting the process of developing competence and having experiences that will clearly serve as a foundation for sound competency development.

In terms of a triangulation with quantitative data feedback from the students' surveys, and with the themes that arose from a grounded theory analysis of the survey comments and the interviews, there is considerable corroboration of those analyses. Specifically there is evidence that for the students for whom this program worked to enhance their learning, and these were the considerable majority of all students taking part, the following aspects of their learning were particularly effective:

- Collaborator role: Collaboration with other health support professionals was a notable aspect of the program and led to an appreciation and respect for the skills and understanding such professionals could bring to health support. In particular the opportunity to work closely with them was greatly valued and brought with it an understanding of how they might continue to work with such professionals after the students move into medical practice themselves;
- Communicator role: Communication skills were particularly valued and given the opportunity to develop. This was especially the case for groups that can be difficult to communicate with and learning how to work with them was a highlight for many students. Also commented on positively was learning how to communicate with respect and with a holistic understanding of the patient;
- Health Advocate role: Health advocacy, a core aspect of the program was an area characterised by powerful and complex learning, embracing understanding the importance of socioeconomic context and background to health and access to health services, as well as understanding the complexity of human experience, behaviour and responses to difficult situations. It was also

characterised by learning how one might most effectively respond at both an individual and community level. The importance in the development of this area of hands-on interaction with people and with the agencies working with them was clear.

- Medical Expert role: The development of competency as a medical expert, the acquisition and use of clinical skills and understanding, might be expected to be mostly irrelevant to these programs as they are specifically non-clinical, however it was clear that the skill of making referrals was developed in important ways in the program, specifically in reference to using community organisations and health support professionals. This realisation gained increasing importance to students in their later, clinical years. It was also understandably very important to partner organisations and was consistently seen as a key outcome for the program;
- The Professional and Scholar roles both tended to focus on the Health Promotion research projects. While this was the most divisive area of the program, it is clear that for many students the learning gained was considered quite valuable, especially as they moved on in their courses. It was also notable that there was a real sense of pride and affirmation for those students whose projects clearly achieved something and were appreciated by the partner organisations and the clients they were aimed at supporting. It is notable that there were a number of students who attributed their interest in doing further research to this experience, or for whom the experience was seen as a good foundation for their later work.

7.2.7 Analysis of Health Promotion Research Projects

Despite the number of students who found the Health Promotion research projects problematic, and in a few cases quite a negative experience, for many students the task was exciting but could also be challenging. The level of support they were given, especially from tutors was critical. The sense of fulfilment they got from successful projects was high, but it was important that those whose projects produced disappointing results were shown that in research such outcomes themselves provide much opportunity for learning.

7.2.8 Overall summary of findings for Research Question 2

Across the datasets analysed there was considerable agreement as to what aspects of the program had most impact in transforming students' attitudes and understanding towards assisting their development as community aware doctors. Qualitative analysis, particularly of the Later Years students' survey comments and interview responses suggested that, for many students their learning was powerful, sustained and continued to mature. However, for a significant minority of students there was considerable resistance to this learning and this resistance seemed to be associated with a deeply rooted difference in how medicine and its practice were viewed. This was exacerbated by a sense that the MBBS course design itself favoured a more biophysical view of medicine at the expense of the bio-psycho-social view that informed these programs. This came across from the students as a lack of connection between the program and overall course that it was part of.

The data itself informed a wide range of themes that almost entirely coalesced around four distinct scales:

- Personal Learning – how to apply skills and understanding in practice;
- Personal Engagement – inner growth: challenge, understanding and reward;
- Understanding the Connections – between medicine, community and health; and
- The Community Placement Experience – as a learning environment.

These scales became a useful organising approach to the data, especially when triangulating the different datasets and their findings. They were particularly useful and effective in making sense of the wide range of themes resulting from the grounded theory approach to initial analysis of the qualitative data. This triangulation process produced a set of detailed findings that were broadly consistent across the data and can be summarised as the majority of students perceiving that program achieved significant levels of transformative learning that was sustained across the years after the program's completion in:

- Communication skills, particularly with people from very different background, life experience, or physical and mental conditions to themselves or to their own experience;

- Challenge to, and resultant growth in, their own perspectives and assumptions resulting from interaction with a diverse range of people;
- Understanding of the importance to health of diversity, social determinants and barriers to health access;
- Understanding of the linkages between clinical and social issues of health and the whole of life impacts of conditions such as disability, addiction or chronic conditions;
- Understanding how to collaborate with colleagues on a project as a team;
- Development of a sense of interprofessionalism – understanding and appreciating the skills, roles and responsibilities of other professionals working to support health, and learning how to interact with them; and
- Understanding of the range of community based health support services available to support a doctor's work and which could be useful in future referrals as a medical practitioner.

These strongly positive findings were balanced by a clear division of opinion as to the degree of connectedness between the program and the rest of the course with very strong minorities taking different views of its relevance to medical education, but an overall majority perceiving a real disconnect with the rest of the MBBS despite affirming the worth of the program. It was notable that the extended responses from students up to four years after completing the program available through the interviews were overwhelmingly positive about the value of having done the program and saw it as a valuable component of their overall course but one which was generally not developed or followed through elsewhere in the MBBS. These students also tended to be very dismissive of those students who were negative about the course and its relevance, seeing this as a failure to have a full understanding of the nature of medicine and medical practice.

The other area that was most problematic for students was the introduction to research through the Health Promotion research projects. Many saw these as valuable in themselves and for the learning they provided that could inform future practice, but a significant number saw them as an overly onerous distraction from interaction with placement activities and clients. Notable the later years students who were interviewed were very positive about this part of the experience and reported that it influenced them considerably either through influencing them to take up further research opportunities or through having more confidence in assessing their professional reading.

Interview responses from partner organisation staff and faculty staff strongly supported students' perceptions of the transformative learning they gained through the program, especially in the areas of:

- Communication skills, especially with people who are often not communicated with by doctors very well;
- Respect for, and sensitivity to, people from diverse backgrounds, life experiences and health conditions;
- Knowledge, understanding and appreciation of other professionals working to support health;
- Understanding of how non-clinical community health support organisations operate and how they might be used by doctors for referral;
- Sensitivity to community and community health issues;
- Ability to advocate for health, and especially to care, become involved and making a contribution; and
- Ability to take this learning and mature it over time.

Finally, when a system such as the CanMEDS role competencies, was related to the data, it was clear that the perceived learning by the students developed good levels of precursor competency across quite a few of the competencies in most of the roles a doctor needs competence in.

7.3 Subsidiary Research Question 3: What community organisations appeared to gain through their partnerships with the university?

7.3.1 Analysis of student data

The student data mostly related to the students' perceptions of their own learning rather than to observations about what the partner organisations might have got out of the experience. There were, however, some references that did relate to possible benefits for their placement organisations through direct contributions they could make back to them and through the future ways they could work with them.

There was often real pride in what they were able to give back to their placement organisations through the Health Promotion research projects: *"For them – I think we gave them some knowledge of the attitudes that GP's had towards women with domestic violence. It gave them a kind of grounding for them putting in place programs to potentially increase awareness among GP's of this issue"; Creating a project and actually working to achieve something for my placement"*; and *"The opportunity to make an active and useful contribution toward an organisation whose work I saw as important and valuable"*.

This was complemented by their sense that they would in the future be able to work with such organisations when they began their own medical practice: *"Becoming aware of different services that were available beyond medicine"; "Access to a wide range of community services and referral methods"*; and *"A desire to find out other services available for potential patients. I now know there are many services I don't know about, and I do not want my patients to suffer from a lack of support when there are services available for them"*.

7.3.2 Qualitative analysis of responses for partner organisation staff interviews relating to the impact on partner organisations

Overall there is a clear consensus across the partner organisations cohering around the concept of contributing to the development of future community sensitive doctors through giving the students opportunity for powerful experiential learning about their clients and their own activities.

There was a consistent perception that the approach of an extended placement program with non-clinical health support organisations is successful in achieving their own aim in participating in such a program – the development of community sensitive doctors who will benefit their clients in the future: *"Usually I see at the end of the program that the students become more open-minded. They don't presume so much anymore, then they become a little more empathetic, a little more comfortable with the poor… tend to change their posture of who they are, which is a very good thing… I think it helps instil in the doctors – future doctors – that you know that is actually how you should work with the poor"*.

As noted above in relation to Research Question 1 but also relevant here, they perceived that the effectiveness of such a program in achieving this resulted from its experiential nature through the active involvement of the students with clients and the organisation's activities, with the development of students' community sensitivity coming particularly through their interaction with clients, especially in learning how to communicate with them respectfully, *"At the beginning some of them think – Oh it is so hard to interact with these people because they are so different. We don't know what to say to them. We don't know what to do with them – But as time goes by, they then say – Yeah actually they are like us – So if they realise another group of people of disadvantaged situation are not so different from them, they will then give them much more respect"*.

Further they perceived that through their interaction with the range of health support professionals operating in the organisations and having to work with them, students learned about such professionals and what skills they could offer, *"What I think has been most worthwhile, and probably what they've learnt most from, is their interaction with the range of different health professionals"*.

They perceived that a consequence of these experiences and the students' development of knowledge about how the organisations work to support health, they might be able to use such services through referrals when out in practice: *"So definitely they've identified being aware of other resources in the*

community; that they don't have to be the be-all and end-all for each of their clients; that you can actually refer and get support and input from other people and networks associated with that client".

Finally it was clear that other benefits the organisations might get from such a program, even if quite useful, are quite secondary to that primary aim. In particular a service-learning component, such as this program's Health Promotion Project may be valuable but only in so far as it supports that primary aim and does not interfere with it: *"The teachers like it better with no project, because they feel that the students can actually be here"; "I think the project's valuable for the students and it's valuable for our organisation and our clients but at a more broad or general level, I don't think it is"*; and *"It's too ambitious for the time. Then I feel they then have breadth but not enough depth. And for me the placement's an immersion experience".*

7.3.3 Qualitative analysis of responses for faculty staff interviews relating to the benefit for partner organisations

Responses in Faculty staff interviews concerning the benefits for partner community organisations tended to focus on a perception that partners' main concern was to have a chance to influence future doctors to be more community sensitive: *"Yes, absolutely. I think that's very much an important part for them… just to get these young students exposed to real life situations"* and *"Irrespective of what happens, they're going to be partners because, you know, no-one's really doing this for the material gain or whatever. They are achieving a part of their goals by being provided with this opportunity (of having medical students on placement)".*

7.3.4 Analysis of Health Promotion Research Projects

The potential for partner community organisations in having students, with university faculty support, taking on research into areas they nominated as useful to them was clear and effective for many of them. The key factor was their control over the research topic. A limitation was their understanding of the possibilities but also the constraints that such research topics needed to be kept within.

The analysis of the Health Promotion research projects demonstrated that the students were in most cases able to take on genuine, if small scale, health support issues nominated by the partner community organisations and to produce worthwhile results for them. This was clearly a benefit for the partners and was often noted as such: *"Last year's group wrote a tool, called Consultability, which is an absolutely brilliant thing!"* and *"One was around swallowing difficulties and a protocol for supporting children that have tricky mealtime assists. And the other was around staff welfare".* However, as noted above, these were generally considered a side benefit to the main aim of developing students' community sensitivity.

7.3.5 Overall summary of findings for Research Question 3

There was a very clear consensus about what community organisations appeared to gain through their partnerships with the universities in these programs, especially from the perceptions of partner organisation staff:

- That such extended placement non-clinical community medical education programs helped develop community aware doctors sensitive to, and capable of working respectfully with, the people who were their clients so that their clients would get improved medical support from future doctors;
- That doctors who had been educated through such programs would have better knowledge of, and would make more referral use of, the sorts of community health support they could provide people who were often left underserviced or inappropriately serviced by traditional medical clinics and hospitals; and
- That the key to this learning was extended experiential involvement in partner organisation activities and interaction with partner organisation clients and professional staff.

There was considerable support from student and faculty staff data for this perception.

Partner organisation staff also noted that there was often benefit from the contributions students made to the organisations and their clients through the projects carried out within the program, and that this benefit was often highly appreciated. Student and faculty staff responses also supported the worth of this.

However partner organisations also clearly saw this as an ancillary benefit that was of much lesser importance than the primary benefits outlined above and, which occasionally interfered with them by taking students away from the direct interactions with the organizations' core activities and clients.

7.4 Subsidiary Research Question 4: What the university faculty appeared to gain through its partnership with community organisations?

7.4.1 Analysis of student data

As could be expected the students had less to say relevant to this question than to Research Question 1 about their own learning. However, there were areas of response relating to the place of the program within the general course curriculum design, which is clearly relevant to the impact on the faculty of running such a course built around non-clinical community placements.

They often valued the learning style of the program compared to the rest of their course experience: *"To get to see an organisation from the inside point of view as opposed to the outside; I found it invaluable because, as I told you earlier, learning about what all these social organisations are about in supporting a person's health is something that we don't get elsewhere"*; and *"The chance to do something different and unique within the MBBS course – community-based learning instead of constant lecture and university based teachings"*.

On the other hand there was division of opinion about the connection between this program and the rest of the MBBS: *"I personally feel it fits. I think it really depends on whether a person has caught on about that idea of how medicine is holistic, because I know some friends are very focused medically and would say it's a social thing and we are not here to deal with that; or like we don't want to deal with that – it's none of our business"*; and *"I think the medical course by its nature exists in parts and quite obviously they've divided it into themes, and the fact that there's a bit more of an obvious gap between themes 1&2 was a bit more of the broad, kind of people would say – but I don't agree with this – kind of airy-fairy kind of stuff, and the solid science of themes 3&4. The reason that it's in the course and the reason that they teach it to us is that it's all part of what we do"*.

7.4.2 Qualitative analysis of responses from partner organisation staff interviews relating to their perceptions of impact on faculty

Partner organisation staff had little directly to say about their perceptions of the impact of the program on faculty. There is, however, an implied comment relating to their strongly positive perception that such an extended placement program with non-clinical health support organisations is effective in promoting learning among the students that is transformative of their attitudes, skills and understanding in working with clients/patients who are marginalised socioeconomically, culturally, or through disability or chronic health conditions. The implication of this is that they perceive such a program as having an important place in the design of the medical curriculum and that its impact on faculty is to critically improve the quality of student learning and subsequently of potential future medical practice as it impinges on their clients.

7.4.3 Qualitative analysis of responses from faculty staff interviews relating to the program's impact and implications for faculty

Faculty staff responses in the interviews mostly focused on perceptions of student learning and interaction with the partner organisations. There were, however, some other areas of comment that picked up on other possible faculty impacts.

A particularly interesting impact, echoing the concern of many students was how the programs integrated, or did not integrate, with the rest of the medical curriculum and what might be done about it, with the main suggestion that the concept and practice of community sensitivity and the role of non-clinical community health support needed to be revisited at a number of points across the course: *"The Second Years see the SSC as a very stand-alone bit"; "Based on a social determinant of health or determinants of health within the client base of the placement organisation and you're looking at identifying the client cohort and focus on how they're affected by that particular determinant of health… So in other words it's building on MED1011"; "The health promotion bit integrated more and needed support from social*

medicine and from Sociology, which they did in Year One… The CBP would have helped them a lot in PBL's; I see that – it definitely supported that"; "I think that having a community introductory program or whatever description in their first year is really important; I think that by Year Three, when our community placement program occurs, it's getting too late"; and *"The new program developed the second year SSC and was our first involvement with this style of placement and I think that the fact that they can then revisit it in Year Five, that's a really good thing"*;

There was some sense that the programs had a great deal to contribute, especially in ways that could not be done by traditional clinical programs, though this was not a strong theme: *"CBP and the health promotion will be quite useful because we do not have a public health posting in our curriculum, and so I think that is important";* and *"It is to develop their soft skills and a better understanding of the importance of social aspects of medicine".*

Some of the faculties were aware that engagement with the partner organisations from the local community could be seen as better positioning the university within its community: *"It's about us becoming more connected with the organisations in a better partnership that's two way as well really that they get to have the students as well but we're saying to them – Well would you mind giving a bit back here as well? – And they're more than willing… twenty-three of them are"; When you step back and take a look at it we have a lot of organisations on board and we've made an awful lot of links with the local community" and "The university wants to run what's called community engagement; they want to get involved in it. They want to start that… and they haven't succeeded very well. But now because we are in an area… we go into a slum area. So they have come in and wanted to get engaged with them so we have started a number of projects with them. So I think it has influenced the campus quite a bit";* and *"We won't get any quick wins but, if we've got this network of organisations, people coming from them, seeing our students around, gradually the word gets around and we position ourselves in the local consciousness. So part of our high level thinking is that, over ten, twenty years, this will have value to us in those terms. Then, in terms of brand – it's part of how we see ourselves so we want it as part of our marketing really".*

7.4.4 Analysis of qualitative data relating to the CanMEDS roles competencies and its implications for faculty

The core purpose of these non-clinical community-based placement programs is to develop the skills and understanding of students to become well-rounded, competent doctors as is ultimately the purpose of all programs within a medical course. The principle in the case of these programs is that they contribute by developing students' skills in areas to do with community health, community practice, and understanding how community factors influence health and may be worked with to advocate for and promote better health. The analysis of the data through the lens of the relevant CanMEDS roles competencies was a useful way of evaluating from another angle the effectiveness of the programs in supporting the central faculty aim of developing better doctors. The evidence from across the qualitative data sets: survey comments from End of Program students and from Later Years students; responses in student interviews; responses in partner organisation staff interviews; and responses in faculty staff interviews demonstrated impact on relevant competencies across all but one of the CanMEDS roles, with there being no scope for development of the Manager role:

Collaborator role - relevant competencies supported by the evidence:

- Participate effectively and appropriately in an interprofessional healthcare team
- Effectively work with other health professionals to prevent, negotiate, and resolve interprofessional conflict.

Communicator role – relevant competencies supported by the evidence:

- Develop rapport, trust and ethical therapeutic relationships with patients and families
- Accurately elicit and synthesise relevant information and perspectives of patients and families, colleagues and other professionals
- Develop a common understanding on issues, problems and plans with patients, families, and other professionals to develop a shared plan of care

Health advocate role – relevant competencies supported by the evidence:

- Respond to the health needs of the communities that they serve
- Identify the determinants of health for the populations that they serve
- Promote the health of individual patients, communities, and populations

Medical expert role – relevant competencies supported by the evidence:

- Establish and maintain clinical knowledge, skills and attitudes appropriate to practice
- Seek appropriate consultation from other health professionals, recognizing the limits of their expertise

Professional role – relevant competencies supported by the evidence:

- Demonstrate a commitment to their patients, profession, and society through ethical practice

Scholar role – relevant competencies supported by the evidence:

- Maintain and enhance professional activities through ongoing learning
- Facilitate the learning of patients, families, students, residents, and other health professionals, the public and others, as appropriate
- Contribute to the creation, dissemination, application and translation of new knowledge and practices.

This is not to say that the second year (or with one program third year) students exhibited full competence across any of these, rather that all had activities or aspects of the program clearly supporting their development to at least some level of precursor competence. This ranged, for example, from students beginning to learn, through their Health Promotion research projects, how to work in teams to resolve conflicts and achieve worthwhile outcomes (Collaborator role); how to develop trust, rapport and understanding with difficult groups such as elderly with dementia or children with severe disability (Communicator role); or the possibilities and potential benefits of extending referrals of future patients, where relevant, to community health support organisations (Medical Expert role).

7.4.5 Analysis of Health Promotion Research Projects relating to the program's impact and implications for faculty

This is one area where potential for impact of the program on faculty is characterised by missed opportunity, *"There hasn't been the sort of traction, research opportunities and the like, so the program is somewhat disconnected from the rest of the faculty's endeavours. That's a missed opportunity"*. Analysis of the 464 research projects carried out within the CBP by teams of students for, and with the support of, community health support organisations in the area of health promotion and health support interventions suggests a very wide-ranging scope of target groups, health issues and targeted responses. In a sense these provide a snapshot of micro-health issues of concern to the community. Through the Poster Presentation days put on at the end of each course for partners and for faculty staff, this work is put on display for the faculty with many senior staff attending. There is, however, no mechanism within the faculty for responding to this work or doing anything further with it, apart from some small support given to students committed enough to want to attempt further publication of their work. This is understandable given the way academic faculties are generally organised into virtual siloes; however the disconnect involved does mean there is little or no impact from this aspect of the program. As suggested by one of the faculty staff, that would probably *"Require a specific sort of leadership that can grab and run with these sorts of opportunities"*.

The quality of the majority of projects produced affirmed that this experiential approach to introducing research skills and practice to students was a successful component of the MBBS curriculum providing opportunity for valuable learning. However it needed careful monitoring and support.

Possibly the most challenging aspect of such a program was ethics approval. Community-based research involving the marginalised, underserved and chronically unwell is inevitably going to introduce projects that would have to be deemed high impact human research. For inexperienced researchers this could

cause problems. It was important for the program to find ways to protect at risk community members, while allowing students to gain real-life experience of how research could and should work to support public health.

7.4.6 Overall summary of findings for Research Question 4

On the face of it, this research question was quite clearly answered with the most obvious finding that the university faculty gained, through its partnership with non-clinical community organisations, a great deal of learning for its students that was not generally available through the rest of its MBBS curriculum. This came, however, with a clear challenge, for there was a strong perception from students, and some faculty staff, that the program, and by implication the learning it delivered, did not effectively integrate with the curriculum as a whole. Certainly this was a perception from a great majority of the students with their somewhat anomalous overall view that the program was worthwhile in the learning that they perceived they gained from it but that it did not connect with the rest of the curriculum and, in the eyes of at least some, was even irrelevant to the MBBS as a whole, and perhaps even to medical practice.

At one level, according to a number of students and faculty staff, this was a matter of simply needing more formal follow up and preparation across the other years of the course, perhaps using the model of one of the U.K. universities examined with a preparatory introduction in First Year and a follow-up community-based project in the Final Year; or, as suggested by some students in the interviews, a compulsory community component in one or all of the General Practice, Paediatrics, Women's Health and Mental Health clinical rotations building on the existing experience that some placements in these areas already provided depending on the luck of the draw as to where one is placed.

At another level, some students and some faculty staff suggested that there was a much deeper clash in differing views of what medicine should be, with one of these views, the biophysical model, strongly privileged by accepted curriculum design.

There were other benefits noted by some faculty staff, such as improved community profile for the university but there was no clear consensus on these. And there was certainly no sense that the community research projects developed, implemented and reported on by students in partnership with their placement organisations had any perceptible impact on the university faculty.

8 Discussion, Conclusions & Recommendations

8.1 Discussion

8.1.1 Strengths of the study

The key strengths of this study have been its contextualization and its exhaustiveness. It focuses on an area of medical education, non-clinical community based placements, that has only emerged over the last decade or so; it is still relatively rarely implemented, and has had little published on it. Out of the few papers that do exist, even fewer have attempted to evaluate its effectiveness, implications for its stakeholders or potential for curriculum design. Consequently there has been much to do.

The first step has been to provide a background for understanding its aims and its effects. The approach taken has been to explore the context in which it occurs and to define its distinctive features. To achieve this the study has used a systematic critical review of the literature both to explore why there has been a perceived need for community based medical education, given the clear general success of the Flexnerian paradigm that has been dominant for the last century and continues to be accepted as the standard model for medical education. By finding and looking at a sample of more than 800 published papers, the study has been able to determine a typology of CBME with five categories, each with its own distinctive features. In this way a clear sense of what the type of program being examined looks like and what its distinctive features are was established. This process of contextualization was then supported by a desktop analysis of the placement programs offered across all Australian medical schools, establishing what programs of this type existed in Australia and where they were being offered.

Once the definition and context of what was being studied had been established the effectiveness of such programs was evaluated through a rich, mixed methods approach using different sets of data to establish and triangulate the findings. This centred on one particular example of the program, Monash University's Community Based Practice (CBP) program in Year Two of its MBBS course at its Clayton campus in Melbourne, Australia. This focus was then enriched by triangulation with data from the same program as taught at Monash's Sunway campus in Kuala Lumpur, Malaysia, and with data from three other similar but independent programs taught at other universities in Australia and the U.K. While the data from the Monash Clayton program was the most extensive, findings from the other four programs were useful in confirming its likely general relevance across this form of medical education.

The richness and validity of the data developed and used was quite strong. An evaluation survey instrument was used that had already been developed and validated before this study. The instrument itself was then further analysed and validated with a robust four scales emerging from that process. These scales covered students' personal learning, personal engagement, understanding of the connections between community health and formal medicine, and the community placement experience itself as a learning environment. This survey was then administered to students completing the program across a period of four years, 2008-2011.This work and these scales were used to develop a further, shorter survey for the same cohorts of students across the years after their completion of the program suitable both for administration across the internet and, as it consisted of items common to both surveys, for direct comparison with the End of Program surveys. Both surveys included items based on Likert scale responses suitable for quantitative analysis, and open comment items suitable for qualitative analysis. This mixed methods approach allowed for considerable depth in the data as well as relatively robust statistical validity. Both surveys were completed by statistically acceptable response rates across the population of 1160 students: the End of Program survey results having a confidence value of 99% and a margin of error of 2.5%, and the Later Years survey results having a confidence value of 91.4% and a margin of error of 5.7%.

The findings from the quantitative and qualitative analysis of the student surveys were then further triangulated by a series of eight interviews with students consisting of a sample spread across the years after they had completed the program ranging from one year to four years. This sample allowed in-depth probing of the deeper meanings and implications behind a number of the survey findings. The resulting findings from these three student datasets gave an extensive and rich summation of student perceptions of the learning they had gained from the program and its implications.

The student dataset was complemented by a range of interviews of staff from partner community organisation who had had students from the program on placement with them. To give added richness to the dataset and some check on its possible cultural specificity, these interviews included two from community partner organisation participating in the same program but as it was run by Monash in Kuala Lumpur, Malaysia. This dataset was able to demonstrate that there was little substantial difference in partner perceptions across Australia and Malaysia, apart from some references to differing levels of governmental support for community health. This dataset was able to explore partner organisation staff's perceptions of the program's impact on them as one of the stakeholder groups. It was also, very usefully, able to corroborate student perceptions of their own learning within the program.

Both these data sources, students and partner organisation staff, were further complemented by interviews of faculty staff involved in coordinating or overseeing the program, or similar programs. The power of this data lay in the fact that it drew on faculty staff perceptions of five different examples of such programs: the two instances of the Monash program with staff being interviewed from both the Australian and Malaysian operations of the program; a similar program from another Australian university, a regional one in another state, and programs from two U.K. universities. This dataset allowed comparison between geographically widespread examples of such programs, at least from the perceptions of those faculty staff most intimately involved in coordinating or overseeing them up to and including professorial and Deputy Dean level, and was able to demonstrate a high level of consistency in findings across all the programs examined giving further levels of robust triangulation.

The qualitative data from students, community partner organisation staff and faculty staff was analysed according to grounded theory principles in order to be as thorough and open as possible, as appropriate to such data from a type of program about which almost nothing evaluative had previously been published. However, a further check on the results was carried out by re-coding the data according to an established and widely respected set of criteria, the CanMEDS role competencies for doctors. This set of criteria had additional relevance as it had been influential in the original design of the Monash program. The resulting analysis showed robust consistency with the rest of the findings and was further able to demonstrate the usefulness in developing a range of students' medical competencies in at least some aspects of all but one of the CanMEDS roles.

Finally some descriptive analysis was carried out of the more that 400 Health Promotion research projects carried out by teams of students for the community partner organisations they were placed with. This was able to demonstrate the range of actual outcomes of the program in at least one area of operation, as an additional level of triangulation in relation to student, partner organisation staff and faculty staff perceptions of what the program was able to achieve.

In summary this study provides a rich and robust level of analysis of the impacts of such a program for its three stakeholder groups: students, partner organisation staff and faculty staff. It also takes significant further steps towards the generalisation of its findings across other examples of such programs setting up a potentially strong foundation for further studies of this style of community based medical education.

8.1.2 Limitations of the study

As is inevitable in any study that attempts to break new ground in evaluating a previously neglected area of medical education, there were some significant limitations to be taken into account.

The first of these is that, despite the use of data from partner community organisation staff and faculty staff that reaches into other programs beyond the one the study is mostly built around, the study, especially in the analysis of student perceptions, is generally focused on only one instance of such programs as operating from one campus at one medical school. While the study credibly contends that its findings can be generalised to other such programs, it would clearly be useful to test this in future studies, especially focusing on student data.

It would have been ideal if the response rates for both sets of student surveys – those administered as students reached the end of the program and those administered to the same student cohorts in the years after they had completed the program – had been similarly robust. The response rate of those at the end of the program was statistically robust, however that from students in their later years was somewhat less

so, though still acceptable. These latter surveys were web-based and such surveys can have problems with response rates (189) (190) (191), so the level of statistical validity was much higher than might have been expected, but still less than would be ideal. There is some suggestion that this might have impacted on the results by the possibility that there had been a higher response rate from those students with an axe to grind about the program, but this was unable to be verified.

It would further have been ideal if the sampling of the End of Program students and the Later Years students could have been matched samples, however, given the anonymous nature of the interviews this was clearly impossible in this study. Instead the study had to content itself with matched populations such that both samples were taken from the same population of students since it took them from the same year cohorts.

It would have also been ideal if students could have been surveyed after a greater length of time from completion of the program, perhaps even after having begun their medical practice. This was impossible in this particular study, primarily because of the difficulty in contacting enough of them to develop a useful sample. It would also have meant that two differing populations would have been involved, where in this study all students surveyed, and interviewed, came from the same population – those completing the program in the years 2008-2011. Nonetheless it could be useful to follow up this study with interviews of a sample of students from this population after they had begun their medical practice.

The analysis of the qualitative data was not able to be fully independently verified by a second coder, due to the limited resources available to a Ph.D. study so there is a possibility of some unconscious bias having crept in, despite the triangulation process. However there were some strategies set in place to address this issue as outlined earlier:

- The senior supervisor read all the open response question data from the End of Program survey and checked the validity of the researcher's coding, both in respect of the codes used and of their application;
- At each stage the researcher went over the codes developed and samples of their application in detail with both supervisors. Each supervisor was quite familiar with the program and felt confident in assessing the validity of the process; and finally
- The high level of data triangulation in the processes of data gathering and analysis was able to check for any likely inconsistencies or lack of validity.

It would nonetheless be useful to replicate this work as part of a larger research project involving at least two independent coders and with data gathered from students participating in other similar programs. To some extent this limitation also applies to the systematic literature review.

8.2 Conclusions

Non-clinical community based placement programs have a distinct place in community based medical education (CBME), which itself serves an important role in the medical education curriculum. As defined in this study these programs are quite different to clinical placement programs, even when these are community based, precisely because they are not clinical and may even involve medical students being placed in non-medical settings such as schools. Such programs may also overlap with service learning based programs but tend to have a somewhat different dynamic and background.

The primary strength of these programs seems to be their particular effectiveness in developing community aware medical students who have an enhanced understanding of health in a much broader sense than the standard biophysical paradigm that dominates most medical curriculum. In important respects this connects with the 2010 call from Lancet Commission on Education of Health Professionals for the 21st Century (192) for such education to move from informative learning to formative and especially transformative, or to move from experts to professionals to enlightened change agents. The study has demonstrated that the sort of placement experiences the students have in the program provide a real foundation for such a shift for many of the students. The finding that the students are more aware of the role of the informal health support network provided by agencies beyond the world of hospitals and clinics, and of the potential for them to work in partnership with it through, for example referring patients to appropriate support agencies, also connects with the Commission's call for more

interdependence to "promote interprofessional and transprofessional education that breaks down professional silos while enhancing collaborative and non-hierarchical relationships in effective teams" (192) (p 1924). This breadth of understanding comes directly from the experiential and transformative nature of their placements working with health support organisations that are deeply rooted in community and with staff who bring a range of health support skills, experience and understanding that are not normally found in hospitals and clinics. It is also strongly dependent on the students interacting directly, and over an extended period of time, with people who are clients of the community organisations and who effectively introduce the students to radically different life experiences. These clients are usually marginalised from what the students have known as "normal" society by sociocultural factors, by experiences such as poverty, homelessness, addiction, or by isolating disabilities such as major chronic conditions, mental health problems, cognitive or physical disabilities, or disabilities arising from old age.

This accords with published work over recent years concerning the importance of doctors being more society and community oriented and with the global health debate sparked in part by the 2008 Final Report from the WHO Commission on Social Determinants of Health (CSDH) Closing the Gap in a Generation (137). The work in recent years from a range of authors has generated not only a great deal of interest in this area but also suggestions about how traditional medical education might be developed to address these concerns. Chokshi's work in the U.S.A. (138) on using a social determinants framework to underpin the teaching of medical students about socially based health disparities reflects on the need to address the dominance of the biophysical paradigm, "Training future physician-scientists and health services researchers using a social determinants framework could help balance dominant investigative interests in traditional molecular pathophysiology and access to high quality medical care respectively" (p S183). He also notes the importance of doctors understanding the contributions of community health support staff that students in non-clinical placements closely work with, "The argument is not for physicians to assume a radically paternalistic role but rather to understand the health effects of social factors that are potentially modifiable – often by our colleagues in social work, physical and occupational therapy, or nutrition" (p S183). He calls for a focus on "the role of a physician as preserving health beyond fighting disease" (p S185). In Brazil the work of Machado (193) and Iwama De Mattos (30) focusing on the need to understand and work with communities shows developing sophistication and commitment, recognising that "the need to train professionals willing to take on the responsibility of caring for a diversity of needs and to use resources available in the community is imperative" (193) (p 595). Meanwhile, working from the experiences of countries such as Ukraine and U.A.E., as well as from their U.K. background, Gibbs and McLean (194) note that issues of social accountability are global as well as local and that "an awareness of social accountability together with a collaborative and cohesive approach to the issue will help try solving many of the global issues facing medical education" (p 620). With the increasing scale and diversity of refugees and migrants surging across many nations, the connection between local and global inequities and their effects on health is becoming inescapable.

One of the most cited leaders in the debate on how best to understand and respond to how medical education might respond to such issues of social accountability in medicine, social determinants of health, local and global inequities and the need for interprofessionalism and community based care has been Boelen, with publications, particularly focusing on social accountability, from 1995 (195), where he first raised the concept of the "five star doctor" including the goal of teaching doctors how "work efficiently in teams, both within the health sector and beyond it" (p S23), through to 2015 where his work with Hosny (196) is looking to formalise the way a medical school's social accountability might be evaluated in practice. His key works have probably been that with Woollard (197) with its development and application to medical education of the continuum of curricular development from incorporating "social responsibility", through "social responsiveness" to "social accountability" further refined in his work with Dharamsi and Gibbs (198) with its greater detailing of the Conceptualization/Production/Usability (CPU) model. The non-clinical placement programs looked in this study focus on having students work with a range of health support professionals "both within the health sector and beyond it" in ways and with populations that very much relate to such "social accountability".

Boelen and Marmot's work with the World Health Organization has been strongly responded to by U.K. medical educators. Global health as part of a medical education has been championed, for example by Rowson's team in association with the UCL Institute for Global Health (199). There has been a great deal

of work looking at the importance of primary care as the core interface with communities, especially those at risk and marginalised from mainstream care, such as the "City Reach" approach reported on by Pfeil and Howe (200). It is precisely these sort of populations that programs such as Monash's CBP and the Keele & Durham programs looked at in this study are seeking to have students work with. Work on developing interprofessionalism at the undergraduate level can be seen in O'Halloran's team's report on the "New Generation Project" (201). While this approach has medical students working with students from a range of other health support professions, rather than the non-clinical placement's approach of having them work with experienced health support professionals, the thrust towards developing future doctors' understanding of, respect for, and ability to work with such professionals in their local communities remains the same. McMenamin's team's work on surveying Service Learning (112) also explores the intersection of teaching for social accountability with programs that have students working out in the community with community organisations.

In ways that appear to fit well with the work outlined above, these non-clinical CBME placement programs appear to be effective in developing a range of skills and understanding important to the practice of medicine in ways that complement or make up for deficits in the traditional medical curriculum. These include:

- Respectful and medically effective communication skills with patients from marginalised groups;
- Understanding of the impact of social determinants of health on both the maintenance and promotion of health, and on barriers to accessing effective and appropriate health support;
- Collaboration with, and appreciation of, other professionals working in the community to support health;
- Understanding the role of community organisations in supporting health and the possibilities of using them for referrals; and
- Understanding some of the possibilities for doctors in playing a role at the community level in supporting health advocacy or health promotion.

Their effectiveness in the development of these skills and understanding, at least in a foundational way, fits well with such enjoinders coming from respected sources such as WHO's CSDH Final Report's formal recommendation to "Provide training on the social determinants of health to policy actors, stakeholders, and practitioners…" (137) (p 21); and from the Lancet's report on the proposed global health learning outcomes for medical students on behalf of the Global Health Learning Outcomes Working Group in the U.K. (202), which include three specific proposed outcomes relating the "socioeconomic and environmental determinants of health", three around students' understanding of and ability to respond to "cultural diversity and health", as well as the ability to "Discuss the essential components of a health system" and "Describe the particular health needs of vulnerable groups and migrants". (p 2034). Indeed its claim that the connection of cultural diversity to health outcomes "requires health professionals to translate cultural understanding into appropriate skills and behaviours" (p 2035) would seem to be well met by the experience of these students working closely with community agency staff and interacting with culturally diverse at risk community members having appropriate skills and behaviours directly modelled and reflected upon for them. The students were then able to report that they took this understanding back into the hospital ward in later clinical rounds suggesting that this style of placement can be a good strategy for meeting these goals.

For those programs that also incorporate some form of health support or health promotion research project in partnership with placement organisations, students appear to gain useful practical experience and understanding of:

- Collaborative teamwork with colleagues;
- Principles and protocols of research, importantly including ethical issues and protocols;
- Principles of health promotion and community based health support intervention, and
- Communicating with, and enlisting the support of, subjects.

For the partner community organisations the primary value to be gained from this partnership is their ability to contribute to the education of medical students, especially in sensitising them to the issues of

community health and issues of health and health access for marginalised members of the community. In some programs there is also some secondary value in service learning style projects and work that the students might do for the organisation and its clients through the program but this is very much ancillary to the value of helping educate the students.

Recent literature on such direct engagement with community organizations often closely intersects with the push for socially accountable medical education (SAME) and with finding means to getting more effective and grounded experience for students on what interprofessionality means in local practice. A key initiative in socially accountable engagement with vulnerable or hard to reach communities has been THEnet (Training for Health Equity Network), (203). In Australia this has been particularly active in rural and remote areas, especially in working with indigenous populations as reported by Murray's team, (204), with its focus firmly on partnership with local communities and a social accountability approach. In the U.S.A. work such as that by Kaprielian's team from Duke University (205) has focused on better levels of engagement generally with local communities, asserting that "They must employ community-engaged (i.e., community-relevant, community-informed, and community- anchored) strategies, such as forming and maintaining equitable partnerships with public health departments, local agencies, and community organizations, to understand local population health needs and to jointly address them" (p 2). In terms of working with local community to develop students' interprofessionality, the literature review by Lawlis's team (206) surveyed the barriers and enablers experienced across a wide range of programs finding, as did Hunt (53) earlier, that there is much frustration in these partnerships especially with ambitious health support projects. The findings from the study developed here suggest that what many community organisations value most is simply a chance to influence and educate future doctors.

The greatest challenge and perhaps potential benefit for medical faculties posed by these programs is their integration, or lack thereof, with the rest of the medical curriculum. The great strength of the Flexnerian reforms to medical education was the way they focused on hospital, clinic and laboratory. This grounding of theory in the science of medicine, and of practice in the supervised interaction with hospital and clinic settings focused students' learning on the diagnosis, treatment and study of what could go wrong with the body and its biochemistry particularly through trauma and pathology. This has been immensely beneficial for over a century, leading to countless medical breakthroughs in diagnosis, intervention and scientific understanding. It has given powerful focus to medical research and developed key principles such as evidence-based medicine and the power of specialisation.

This great strength, however, has also been its great weakness for it has turned medicine's focus away from how health and ill health actually plays out in the community and has tended to isolate doctors from the lived worlds of their patients. Areas that have the potential to intersect with these worlds such as public health, epidemiology and health promotion tend to be marginalised in medical education as more akin to sociology than to medicine, or to be reshaped into hard science paradigms such as randomised controlled trials even when these are clearly inappropriate, such as when the factors and populations are simply too complex to be effectively controlled for, and which inevitably fail to connect with the bio-psycho-social-cultural realities of their subjects.

This concern about medicine and medical education has been a recurrent theme as traditional medical education has struggled to incorporate the goals of social accountability, understanding social determinants of health, a wider spread of interprofessionalism and more effective sensitivity to community, whether that be community health supporting agencies or the community contexts of the patients themselves. This includes such passionate pieces as that by Ioannidis, Howe and others in The Lancet (207), as well as arguments for specific approaches such as Westerhaus's argument for Social Medicine alongside the more traditional curriculum ((208). In this work he and his team put a quite uncompromising case, "Medical education in its drive to educate the young clinician in the intricacies of human anatomy or the wonder of the biochemical processes that sustain life, has failed to to link the interplay of important biological processes with the social space their hosts inhabit" (p. 566), concluding that "teaching on the social, economic, cultural, and behavioural determinants of health must be seamlessly integrated into the basic science, epidemiological, pathophysiologic, and clinical topics already in place. Biosocial training cannot be accomplished by relying on electives or applying haphazard curricular strategies" (p567). Frenk's team's report in the Lancet has already been alluded to above (192). The report gives a litany of failed challenges and claims that in response, "What is clearly needed is a

thorough and authoritative re-examination of health professional education, matching the ambitious work of a century ago" (p 1923).

It is also attempted to be directly addressed in many current courses, including the Monash MBBS with its focus on horizontal and vertical integration of themes, such as Theme II "Society, Population, Health and Illness" as outlined in Section 4.7 above, though the findings of this study suggest that students do not necessarily perceive that such integration is happening.

So powerful and effective has been the Flexnerian paradigm of medical education that it has hegemonised medical education, privileging certain experiences and types of learning to the point that students often resist other types of learning or, when drawn to them and appreciating them, nonetheless tend, at least initially, to see them as being of marginal or no relevance to their "real" medical education. This can become divisive when those students, whose natural bent is towards "hard" science actively resent any intrusion into their education of "soft" science or even worse of the "art" of medicine, demanding, for example, more time for anatomy or surgery. Meanwhile other students whose bent is towards a medicine that is "caring" and "holistic" in its approach to patients, find themselves frustrated or even "dehumanized" as their instincts for empathy are actively worked against in the sometimes brutal intensity of the clinical hospital rounds. These tendencies been documented in the literature from the early work of Feudtner in 1994 (209). Coulehan and Williams' 2001 study (210) noted that "The culture implicitly, and often explicitly, devalues primary medical care and relationship-centred approaches to practicing medicine. The hothouse atmosphere is psychologically and spiritually brutal" (p 600). Haidet's 2002 work (211) noted how the power of this effect suggests "that the culture of medicine and the structure of medical education erode patient-centred attitudes in spite of the international movement toward patient satisfaction and patient-centred care" (p. 572). The power of this culture and structure was further illustrated by the evidence "that interventions timed during the pre-clinical years and intended to foster patient-centred attitudes and behaviours are often overshadowed by the powerful experiences of the clinical years (p 572). Haidet further followed up this work in 2006 (212). While Hutchinson's (18) work on the need for medicine to be aware of and to be open to using the difference between "curing" and "healing" takes the issue beyond medical school and into career practice. The fact that the findings in this thesis demonstrate some persistence of community sensitive and patient-centred attitudes into the clinical years after their community-based non-clinical experience suggests such an approach is well worth further exploration by medical schools. A consequence is that much medical practice then struggles with the social and economic determinants of such "lifestyle" diseases as diabetes, heart conditions or some mental illnesses; or fails to understand how to provide the whole-of-life support needed by many chronic conditions and disabilities. This concern about the shift over the last century from acute to chronic ill health has been noted by researchers such as Bodenheimer (213) and Mayes and Oliver (214), where the importance of the health promotion and public health aspects of medicine is seen as crucial with their necessary focus on understanding how community sensitivity as well as interdependent interprofessionalism on the part of doctors and other health support professionals.

Community based medical education has been one response to this emerging weakness in the Flexnerian paradigm, though this is by no means the only factor in its increasing popularity from the 1990s. Clinically based CBME fits readily enough into the now traditional approach though it does extend it well beyond that Flexnerian core - the teaching hospital. Service learning versions of such clinically based programs do tend to start reaching out into the non-clinical community while retaining a firm clinical base. Non-clinical CBME placement programs, however, represent a significantly challenging step further, and even a definite step too far for some. Their non-clinical nature is precisely their problem but is also precisely their strength for it is that nature that allows them to connect students with the actual lived experience of people's health and ill-health as it impacts on their daily existence in their communities, especially those more social aspects of health and ill-health that are often so intractable for hospital medicine. This has been noted by proponents of "social medicine" such as Westerhaus (208) and Goldberg (215) both building on the seminal 1957 work of McKeown (216) with its radical questioning of the apparent heroic success of hospital and laboratory medicine. It also connects them with the informal network of health supporting community organisations that try to service those most marginalised and vulnerable, or to provide a voice for those who are most neglected or misunderstood. Finally it gives them understanding of the skillsets developed by professionals working in health support community settings, providing them

with much more potential for future collaboration when they move into their own medical practice. The importance of such an ability to work interprofessionally has already been noted above.

This study has demonstrated the strength and place of such programs in medical education but it has also demonstrated how difficult it can be to work them fully effectively into the medical curriculum and course design. Because they at odds with the hegemonic Flexnerian paradigm they risk always being seen as marginal or even tokenistic. They also risk losing at least some part of their effectiveness through failure to follow them up cohesively across the course as a whole. It is probably quite instructive that the U.K. university course, which was looked at briefly in this study and which has programs across Years One, Two and Five, is quite secure, while the Monash Clayton course, that formed the main subject of this study and which consisted of only one program in Year Two, has been effectively discontinued across 2014 to 2015. It seems clear that these programs' strength, which is that they complement the mainstream paradigm partly by running counter to it, also makes them particularly vulnerable. Even the curricular integration that is designed into the Monash course seems, at least to the students' perceptions, to some extent ineffective in its implementation. To some extent even the senior staff responsible for the curriculum acknowledge that this is a concern. This fits in with the findings of other researchers such as Haidet (211) as referred to above. Monash, in its 2001 development of a new MBBS course had made a determined effort to integrate all aspects of medicine in its education of students in an attempt to develop technically skilled, well-rounded, patient-centred, community-sensitive doctors at home in the hospital ward, them community and the laboratory. The findings of this study suggest that the non-clinical placement program aspect of the course has made a genuine contribution to this. The concern is that, even in this situation, a number of students nonetheless do not consciously make those connections.

In summary it seems clear that such programs provide important learning for students that is hard to gain elsewhere. Further they provide a valued chance for partner community organisations to help develop a new generation of more community aware doctors. However, they do present a difficult challenge for medical faculties in genuinely developing fully rounded doctors who are at home with modern medicine and its powerful science but also capable of a holistic and community aware approach to their patients. This community awareness should enable them both to be sensitive to the influence on their health of their patients' community experience, and also capable of working with community health support organizations and professionals rather than in disconnected parallel.

8.3 Recommendations

The findings and conclusions of this study allow the possibility of a set of recommendations about the design and implementation of such programs to maximise their benefit for students, partner organisations and faculty. These recommendations fall into two categories:

Non-clinical community based medical education placement programs and general medical course curriculum:

- That a community based medicine stream be part of any general medical course in order to complement hospital and laboratory based medicine with a fully holistic understanding of the interaction between health and patients' life experience in the community;
- That this community based medicine stream explicitly include and connect with an extended placement experience with non-clinical community organisations that have a role in health support for populations subject to marginalisation in some form in order that students gain an understanding of social determinants of health and the role of community organisations and their professional staff in supporting such populations;
- That the education of students to become community aware doctors be explicit, revisited at several points across the whole course and connected with learning about public health and health promotion; and
- That students' clinical experience of at least General Practice, Paediatrics, Women's Health, and Psychology always include some community placement experience that as well as being clinical also connects with relevant local non-clinical health support services.

The conditions needed to maximise the benefits of such programs to students, faculty and community organisation include the following:

- Selection of community partner organisations that are committed to their involvement in partnership and can provide:
    - Students with a targeted orientation program briefing them on the organisation's mission, structure, target client population and key community health issues relevant to their work;
    - Students with extensive interaction with clients;
    - Students with extensive involvement in a range of organisation activities;
    - Students with contact with any health support professionals on staff;
    - Students with a structured and negotiated opportunity to contribute something back to the organisation or its clients; and
    - At least one staff member with time to supervise, brief and debrief students on a regular basis;
- A training program by faculty staff for key partner community organisation staff on:
    - What is expected of them in their supervision of the students; and
    - How the program fits into the rest of the students' course, its aims and requirements;
- A preparatory program for students before their placements, which explicitly makes clear to them:
    - What is expected from them while on placement in terms of demeanour, professionalism and active participation in the opportunities provided;
    - What skills, knowledge and understanding they can expect to develop at the placement and how these are relevant to medical practice; and
    - How they are expected to contribute back to the placement organisation in some negotiated form that will benefit the organisation and its clients;
- An assessment regime that gives the program the same standing as other parts of the course, along with an opportunity for every student to prepare and share a formal reflection on their experience and the learning they gained from it.

Where such programs might include a formal project to be carried out for, and in partnership with, the placement organisation or organisations, it is recommended that:

- Such a program is more likely to be successful and less divisive if carried out late in the course when the students are more experienced and their professionalism is more matured;
- Such formal projects are likely to work best if the following conditions are met:
- The project involves genuine negotiation between students, partner organisation staff and faculty staff so that it is relevant, timely and well targeted;
- The project is conducted as a team project, preferably involving active collaboration with partner organisation health support professional staff;
- The project involves a research component, which fully complies with standard research principles and protocols including ethics requirements for human research;
- The faculty explicitly supports students in:
- Understanding the research principles and protocols, supervises them across the course of the project, and
- Receiving encouragement and assistance in possible publication of results.

The evidence presented in this study suggests that placement programs with non-clinical community organisation are a distinct and valid form of community based medical education and can strongly support medical schools in developing well rounded, skilled doctors who will bring to their practice a degree of community awareness and sensitivity that powerfully complements the biophysical side of medicine so strongly focused on in traditional Flexnerian medical education.

Finally, this study clearly needs to be built upon further. A team approach looking more deeply at the different kinds of CBME placement programs outlined in the typology established in this study and including more research into a range of programs to replicate this and other studies would help give a firmer theoretical and evidence based foundation to the full range of community based medical education approaches that seek to take students' understanding of medical practice beyond the hospital ward and even beyond the clinic.

9 Appendices

9.1 Appendix 1 – Summary Table of Survey Results for Systematic Critical Review of CBME Literature: Towards a Typology of CBME

Towards a Typology for Community Based Medical Education (CBME)

Exclusions: Articles where abstract indicated no actual placement into a community setting OR where focus was on preceptors/staff/setting not on students' learning OR where focus was on aspect where community component was irrelevant

Ovid MedLine - Black; Scopus & not Ovid - Green; PubMed & not Scopus or Ovid - Red; Google & not PubMed, Scopus or Ovid; Hand Search & not Ovid, PubMED, Scopus or Google

Key for Clinical Placements: PC - Primary Care/General Practice/Family Medicine; P - Paediatric; MCH - Maternal & Child Health; GM - Geriatric Medicine; IM - Internal Medicine; PH - Public Health/Epidemiology/Health Promotion; SYNTHESIS - Women's Health; HC - Home Care; O - Osteopathic; R - Radiography; RH - Rheumatology; S - Surgery; PS - Psychiatry; SYNTHESIS - Home-based; Int - International; Pal - Palliative Care; NS - Not Specified

Article (authors)	Year Published	Title	Geographic Setting	Placement Type - Clinical *(C & see key above); Service Learning (SL); Non-Clinical (NC)*	Targets *Underserved* or *Marginalised (M)/ Wider health awareness (HA) / Rural medicine (RM)*
Halperin & Kaufman (1990)	1990	The teachers. Ambulatory medical education: A reconsideration of sites and teachers.	USA	C (NS)	
Weaver (1990)	1990	The National Health Service Corps: a partner in rural medical education.	USA	C (PC)	
Hamilton & Ogunbode (1991)	1991	Medical education in the community: A Nigerian experience.	Nigeria	C (PC & PH)	M
Lang & Ware (1991)	1991	A national study of required family medicine clinical rotations.	USA	C (PC)	
Hamad (1991)	1991	Community-oriented medical education: what is it?	Egypt / WHO	C (NS)	HA
Cooper (1992)	1992	Medical students' perceptions of an undergraduate general practice preceptorship.	Australia	C (PC)	
Adelman et al (1992)	1992	Geriatric education. Part II: the effect of a well elderly program on medical students attitudes toward geriatric patients.	USA	C (GM)	
Mathur et al (1992)	1992	An integrated community based approach in undergraduate medical teaching of maternal and child health - an experiment.	India	C (MCH)	
Dowrick et al (1992)	1992	Mental health in the community.	UK	C (PC)	
Hedgecock et al (1992)	1992	Community health centres: a resource for service and training.	USA	C (PC) & SL	M & HA
Butterfield & Libertin (1993)	1993	Learning outcomes of an ambulatory care rotation in internal medicine for junior medical students.	USA	C (IM)	

Article (authors)	Year Published	Title	Geographic Setting	Placement Type - Clinical *(C & see key above); Service Learning (SL); Non-Clinical (NC)*	Targets *Underserved* or *Marginalised (M)/ Wider health awareness (HA) / Rural medicine (RM)*
Satran et al (1993)	1993	Hospital-based versus community-based clinical education: Comparing performance and course evaluations by students in their second-year paediatrics rotation.	USA	C (P)	
Summerlin et al (1993)	1993	A community-oriented primary care experience for medical students and family practice residents.	USA	C (PC)	RM & HA
Herold et al (1993)	1993	Influence of longitudinal primary care training on medical students' specialty choices.	USA	C (PC)	
Greer et al (1993)	1993	A comparison of student clerkship experiences in community practices and residency-based clinics.	USA	C (PC)	
Shore & Rodnick (1993)	1993	A required fourth-year ambulatory clerkship: a 10-year experience with family practice and primary care internal medicine sites.	USA	C (PC)	
Srinivasa et al (1993)	1993	Community experience for medical students.	India	C (PC, PH)	
Van Weel & Crebolder (1993)	1993	General practice and medical education: experience in the Netherlands	Netherlands	C (PC)	
Scheiner (1994)	1994	Guidelines for medical student education in community-based paediatric offices. American Academy of Pediatrics Council on Pediatric Education Subcommittee on Medical Student Curriculum.	USA	C (P)	
Potts (1994)	1994	Rural community health agencies as primary care clerkship sites for medical students.	USA	C (PC)	HA & RM
Jonas et al (1994)	1994	Educational programs in US medical schools, 1993-1994.	USA	C (NS)	
Duggan & Mantell (1994)	1994	Community-based learning in obstetrics for undergraduate medical students.	New Zealand	C (SYNTHESIS)	
Kurlandsky et al (1994)	1994	Paediatric clerkship performance in diverse community clinical settings.	USA	C (P)	
Obbard et al (1995)	1995	Medical student initiatives to promote the education of generalist physicians.	USA	C (PC)	
Bauer (1995)	1995	Community-based teaching of general internal medicine to first year medical students.	USA	C (IM)	
Hamilton & Mornex (1995)	1995	Establishing standards and measurement methods for first year medical students.	Australia & Nigeria	C (PC)	RM

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Article (authors)	Year Published	Title	Geographic Setting	Placement Type - Clinical *(C & see key above); Service Learning (SL); Non-Clinical (NC)*	Targets *Underserved* or *Marginalised (M)/ Wider health awareness (HA) / Rural medicine (RM)*
Glasser et al (1995)	1995	Defining a generalist education: An idea whose time is still coming.	USA	C (PC)	
Fisher (1995)	1995	Community service as an integral component of undergraduate medical education: Facilitating student involvement.	USA	C (NS) & SL & NC	M
Lesky & Hershman (1995)	1995	Practical approaches to a major educational challenge. Training students in the ambulatory setting.	USA	C (P, PC)	
Rivo et al (1995)	1995	State Legislative Strategies to Improve the Supply and Distribution of Generalist Physicians, 1985 to 1992	USA	C (PC)	
Snadden & Mowat (1995)	1995	Community-based curriculum development: what does it really mean?	UK	C (PC)	HA
Tippets & Westpheling (1996)	1996	The Health Promotion-Disease Prevention Project: effect on medical students' attitudes toward practice in medically underserved areas.	USA	C (PC) & SL	M
Weltzman et al (1996)	1996	Financing paediatric education in community settings.	USA	C (P) & SL	M
Archer (1996)	1996	The Community Health Advocacy Program: changing relations between communities and the medical campus.	USA	C (NS) & SL	M & HA
Lesky & Hershman (1995)	1995	Practical approaches to a major educational challenge. Training students in the ambulatory setting.	USA	C (P, PC)	
Rivo et al (1995)	1995	State Legislative Strategies to Improve the Supply and Distribution of Generalist Physicians, 1985 to 1992	USA	C (PC)	
Snadden & Mowat (1995)	1995	Community-based curriculum development: what does it really mean?	UK	C (PC)	HA
Jones et al (1996)	1996	Attitudes of patients to medical student participation: General practice consultations on the Cambridge Community-Based Clinical Course.	UK	C (PC)	
Melville et al (1996)	1996	Population-based medical education: linkages between schools of medicine and public health agencies.	USA	C (PH)	
Gjerde et al (1997)	1997	Skills actively performed during a family medicine community-based preceptorship.	USA	C (PC)	

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Steele (1997)	1997	Orienting medical students in community-based teaching sites.	USA	C (NS)	
Eckenfels (1997)	1997	Contemporary medical students' quest for self-fulfilment through community service.	USA	C (NS) & SL	M & HA
Murray et al (1997)	1997	Can general internal medicine be taught in general practice? An evaluation of the University College London model.	UK	C (PC)	
Wasylenki et al (1997)	1997	The social contract challenge in medical education.	Canada	NC	HA
Frank et al (1997)	1997	Direct observation of community-based ambulatory encounters involving medical students.	USA	C (PC)	
Wasylenki et al (1997)	1997	A pivotal agency model for community-based undergraduate medical education.	Canada	NC	HA
Sidebotham & Zoritch (1997)	1997	Going beyond the core curriculum: Developing a special interest module in child development and disability for medical students.	UK	C (P)	HA
Hennen (1997)	1997	Demonstrating social accountability in medical education.	Canada	C (NS) & NC	
Holden & Pullon (1997)	1997	Trainee interns in general practices.	New Zealand	C (PC)	
Greenberg (1997)	1997	Home health care: paediatric education in the community.	USA	C (P) & NC	
Epstein et al (1998)	1998	How students learn from community-based preceptors.	USA	C (PC)	
Maple et al (1998)	1998	Tracking the contribution of a family medicine clerkship to the clinical curriculum.	USA	C (PC)	HA
Gjerde et al (1998)	1998	Unique learning contributions of a family medicine preceptorship.	USA	C (PC)	
Haist et al (1998)	1998	A first-year primary care experience for first-year medical students: Is it a positive experience?	USA	C (PC)	HA
O'Keefe & Robertson (1998)	1998	Medical student education in paediatrics and child health: Where are we going?	Australia	C (P)	
Magzoub et al (1998)	1998	Student assessment in community settings: A comprehensive approach.	Sudan	C (N)S	
Hamilton et al (1998)	1998	Development of a multidisciplinary primary care program at the Drew University of Medicine and Science.	USA	C (PC)	

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Crump et al (1998)	1998	The community continuity experience: generalist training for preclinical medical students.	USA	C (PC)	HA
Lennox & Petersen (1998)	1998	Development and evaluation of a community based, multiagency course for medical students: Descriptive survey.	UK	C (PC) & NC	M & HA
Goswami et al (1998)	1998	Community-based education in rural areas by the All India Institute of Medical Sciences.	India	C (NS)	RM
Jira & Kaba (1998)	1998	The Jimma community-based training programme.	Ethiopia	C (NS)	
Patricoski & Doyle (1998)	1998	Community Diagnosis by Summer Externs in Rural West Virginia.	USA	C (PH) & NC	HA & RM
Hamilton et al (1998)	1998	Interdisciplinary student health teams: Combining medical education and service in a rural community-based experience.	USA	C (NS)	RM
Seifer (1998)	1998	Service-learning: community-campus partnerships for health professions education.	USA	C (NS) & SL & NC	
Horak (1998)	1998	Preparing health care professionals for quality improvement: the George Washington University/George Mason University experience.	USA	C (PC) & SL	M
Balestreire et al (1998)	1998	Teams in a community setting: the AUHS experience.	USA	C (PH) & SL & NC	HA
Mohi Eldin et al (1998)	1998	Student assessment in community settings: A comprehensive approach.	Sudan	C (PC)	
Iwama De Mattos et al (1998)	1998	Teaching in the community: Changing and implementing a New Curriculum.	Brazil	C (PC) & NS	
Mash & de Villiers (1999)	1999	Community-based training in family medicine - a different paradigm.	South Africa	C (PC)	
Laschinger et al (1999)	1999	The effects of family nursing and family medicine clinical rotations on nursing and medical students' self-efficacy for health promotion counselling.	USA	C (PC)	
Lubetkin et al (1999)	1999	The use of questionnaires to assess achievement of course goals in medical students' longitudinal community-based clinical experiences.	USA	C (NS)	

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Hunt et al (1999)	1999	Trends in clinical education of medical students: implications for paediatrics.	USA	C (P)	
Sternas et al (1999)	1999	Nursing and medical student teaming for service learning in partnership with the community: an emerging holistic model for interdisciplinary education and practice.	USA	SL & NC	M & HA
Thistlethwaite & Jordan (1999)	1999	Patient-centred consultations: a comparison of student experience and understanding in two clinical environments.	UK	C (PC)	HA
Alderson & Oswald (1999)	1999	Clinical experience of medical students in primary care: use of an electronic log in monitoring experience and in guiding education in the Cambridge Community Based Clinical Course.	UK	C (PC)	
Londo & Glasser (1999)	1999	Community-oriented primary care: An early report on a promising innovation.	USA	C (PC) & SL	RM
Irons et al (1999)	1999	Partnerships between Academic Health Centres and Area Health Education Centres in developing community-based ambulatory education networks in North Carolina and Texas.	USA	C (NS)	
Shipengrover & James (1999)	1999	Measuring instructional quality in community-oriented medical education: Looking into the black box.	USA	C (NS)	
Williams et al (1999)	1999	Practical skills and valued community outcomes: The next step in community-based education.	South Africa	C (PC)	RM
Nazareth & Mifenyana (1999)	1999	Medical education in the community - The UNITRA experience.	South Africa	C (PC)	M
Zayas et al (1999)	1999	Exploring instructional quality indicators in ambulatory medical settings: An ethnographic approach.	USA	C (PC)	
Stacy & Spencer (1999)	1999	Patients as teachers: A qualitative study of patients' views on their role in a community-based undergraduate project.	UK	C (NS)	HA

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Worley & Lines (1999)	1999	Can specialist disciplines be learned by undergraduates in a rural practice setting? Preliminary results of an Australian pilot study.	Australia	C (PC)	RM
Fournier (1999)	1999	Service learning in a homeless clinic.	USA	C (PC) & SL	M
O'Toole et al (1999)	1999	Experiences and attitudes of residents and students influence voluntary service with homeless populations.	USA	C (PC)	M
Iputo (1999)	1999	Impact of problem-based learning curriculum on the learning styles and strategies of medical students at the University of Transkei.	South Africa	C (NS)	
Lempp et al (1999)	1999	Increasing community-based learning in a medical curriculum through electives: A preliminary report.	UK	NC	HA
Davison et al (1999)	1999	Community-oriented medical education in Glasgow: Developing a community diagnosis exercise.	UK	C (PH)	HA
Carney et al (1999)	1999	The impact of early clinical training in medical education: A multi-institutional assessment.	USA	C (NS)	
Kaplan et al (1999)	1999	Evaluating students on an interdisciplinary primary care clerkship at the Pennsylvania State University College of Medicine	USA	C (PC, IM, P)	
Matson et al (1999)	1999	Integrating early clinical experience curricula at two medical schools: Lessons learned from the Robert Wood Johnson Foundation's generalist physician initiative.	USA	C (PC)	
Campos-Outcalt & Senf (1999)	1999	A longitudinal national study of the effect of implementing a required third-year family practice clerkship or a department of family medicine on the selection of family medicine by medical students.	USA	C (PC)	
Lawrence et al (1999)	1999	What students value: learning outcomes in a required third-year ambulatory primary care clerkship.	USA	C (PC)	
Irigoyen et al (1999)	1999	Learning primary care in medical school: does specialty or geographic location of the teaching site make a difference?	USA	C (PC)	

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Parle et al (1999)	1999	Community-based medical education at the University of Birmingham Medical School.	UK	C (PC)	
Burrows et al (1999)	1999	Required Service Learning for Medical Students: Program Description and Student Response	USA	SL & NC	HA
Alnasir & Grant (1999)	1999	Student Self-assessment in a Community-based Clinical Clerkship in Family Medicine: A Preliminary Report.	Bahrain	C (PC)	
Weeks et al (2000)	2000	Using early clinical experiences to integrate quality-improvement learning into medical education.	USA	C (NS)	
Carney et al (2000)	2000	An encounter-based analysis of the nature of teaching and learning in a 3rd-year medical school clerkship.	USA	C (PC)	
Steiner & Sands (2000)	2000	Responding to a natural disaster with service learning.	USA	C (NS) & SL	M
Boulos et al (2000)	2000	A community rheumatology practice offers an educational experience comparable to that of a university tertiary care centre.	Canada	C (RH)	
Howe et al (2000)	2000	Can nurses teach tomorrow's doctors? A nursing perspective on involvement in community-based medical education.	UK	C (PC)	
O'Sullivan et al (2000)	2000	Students' perceptions of the relative advantages and disadvantages of community-based and hospital-based teaching: A qualitative study.	UK	C (NS)	
Thistlethwaite (2000)	2000	Introducing community-based teaching of third year medical students: Outcomes of a pilot project one year later and the implications for managing change.	UK	C (PC)	HA
Seifer (2000)	2000	Commentary in introducing community-based teaching of third year medical students. Outcomes of a pilot project one year later and implications for managing change. The critical role of faculty in supporting and sustaining innovation.	USA	C (PC) & SL	
Waddell & Davidson (2000)	2000	The role of the community in educating medical students: Initial impressions from a new program.	USA	C (PH) & SL & NC	HA

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Cameron (2000)	2000	Community based education in a South African context: Was Socrates right?	South Africa	C (PC)	RM
Seifer & Connors (2000)	2000	Improved student learning and community health: the CCPH faculty service-learning institute.	USA	C (NS) & SL NC	
Davenport (2000)	2000	Witnessing and the medical gaze: how medical students learn to see at a free clinic for the homeless.	USA	C (PC) & SL	M
Dixon et al (2000)	2000	Does a brief clerkship change Hong Kong medical students' ideas about general practice?	Hong Kong	C (PC)	HA
Stearns et al (2000)	2000	Illinois RMED: a comprehensive program to improve the supply of rural family physicians.	USA	C (PC) & SL	RM
Peach & Bath (2000)	2000	Comparison of rural and non-rural students undertaking a voluntary rural placement in the early years of a medical course.	Australia	C (PC)	RM
Mennin (2000)	2000	Community-based medical education: toward the health of the public.	USA	C (PC)	RM
Hyppola et al (2000)	2000	Evaluation of undergraduate medical education in Finnish community-oriented and traditional medical faculties: a 10-year follow-up	Finland	C (PC)	
Masters & Nester (2001)	2001	A study of primary care teaching comparing academic and community-based settings.	USA	C (PC)	
O'Keefe et al (2001)	2001	An inter-university child health clinical placement programme for medical students.	Australia	C (P)	HA
Howe & Ives (2001)	2001	Does community-based experience alter career preference? New evidence from a prospective longitudinal cohort study of undergraduate medical students.	UK	C (PC)	
Rooks et al (2001)	2001	A primary care preceptorship for first-year medical students coordinated by an Area Health Education Centre program: a six-year review.	USA	C (PC)	
Oswald et al (2001)	2001	Evaluating primary care as a base for medical education: the report of the Cambridge Community-based Clinical Course.	UK	C (PC)	

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Wolff et al (2001)	2001	A senior elective: promoting health in underserved communities	USA	SL & NC	M & HA
Mugford & Martin (2001)	2001	Rural rotations for interns: a demonstration programme in South Australia.	Australia	C (PC)	RM
Conning et al (2001)	2001	Educating tomorrow's doctors for today's world: introducing a new diversity course for year 2 medical students in a community-based setting.	UK	C (PC)	HA
Ramsey et al (2001)	2001	From concept to culture: the WAAMI program at the University of Washington School of Medicine.	USA	C (PC)	RM
Howe (2001)	2001	Patient-centred medicine through student-centred teaching: A student perspective on the key impacts of community-based learning in undergraduate medical education.	UK	C (NS)	HA
Prideaux et al (2001)	2001	Country report: Australia.	Australia	C (NS)	
Nicholson et al (2001)	2001	Designing a community-based fourth-year obstetrics and gynaecology module: An example of innovative curriculum development.	UK	C (SYNTHESIS)	
Skochelak et al (2001)	2001	The interdisciplinary generalist curriculum project at the University of Wisconsin Medical School: The generalist partners program.	USA	C (PC)	
Steele et al (2001)	2001	The interdisciplinary generalist project at the University of Nebraska Medical Centre.	USA	C (PC)	
Potts et al 2001	2001	Meeting curricular goals in multiple paediatric clerkship sites through independent study and focused oral examination of medical students.	USA	C (P)	
Goodrow et al (2001)	2001	The community partnerships experience: A report of institutional transition at east Tennessee State University.	USA	C (PC)	RM
Dahan et al (2001)	2001	Changing the approach for teaching medical students in the primary care setting.	Israel	C (PC)	
Murray et al (2001)	2001	What do students actually do on an internal medicine clerkship? A log diary study.	UK & Netherlands	C (IM)	

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Sturmberg et al (2001)	2001	Community based medical education in a rural area: a new direction in undergraduate training.	Australia	C (NS)	RM
Magill et al (2001)	2001	Integrating public health into medical education: community health projects in a Primary Care Preceptorship.	USA	C (PC, PH)	HA
Kurth et al (2001)	2001	Structuring student learning in the primary care setting: where is the evidence?	USA	C (PC)	
Lindeman et al (2001)	2001	Medical education through community experience: community projects at the University of South Dakota School of Medicine.	USA	C (PH) & SL	HA
Prislin et al (2001)	2001	Patients' perceptions of medical students in a longitudinal family medicine clerkship.	USA	C (PC)	
Cauley et al (2001)	2001	Service learning: integrating student learning and community service.	USA	C (PC) & SL	
Barley et al (2001)	2001	What did we learn about the impact on students' clinical education?	USA	C (NS)	
Collinson et al (2002)	2002	"Seeing old people with real problems like leaving the gas on": students' and tutors' reflections after piloting the second phase of a new, community-based course for second-year medical students.	UK	C (NS)	
Brill et al (2002)	2002	Community medicine in action: an integrated, fourth-year urban continuity preceptorship	USA	C (PC, IM, SYNTHESIS) & NC	M & HA
Davidson (2002)	2002	Community-based education and problem solving: the Community health Scholars Program at the University of Florida.	USA	C (NS) & SL	M & HA
Gould et al (2002)	2002	Improving patient care outcomes by teaching quality improvement to medical students in community-based practices.	USA	C (PC)	
Leung et al (2002)	2002	The development and evaluation of an integrated community-based, patient-centred learning activity at the university of Hong Kong.	Hong Kong	C (NS)	HA
Young et al (2002)	2002	Service-learning in healthy aging for medical students and family medicine residents.	USA	C (GM) & SL	M & HA

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Howe et al (2002)	2002	In our own image - A multidisciplinary qualitative analysis of medical education.	UK	C (PC)	HA
Worley (2002)	2002	Relationships: A new way to analyse community-based medical education? (Part One)	Australia	C (PC)	RM
Worley (2002)	2002	Integrity: The key to quality in community-based medical education (Part Two).	Australia	C (PC)	RM
Ferrari III & Cather (2002)	2002	Community service, learning and the medical student.	USA	C (NS)	RM
Jinadu et al (2002)	2002	Evaluation of an innovative approach to community-based medical undergraduate education in Nigeria.	Nigeria	C (NS)	
Brobby & Ofosu-Barko (2002)	2002	Developing appropriate community-based postgraduate training in a developing country.	Ghana	C (NS)	
Henderson et al (2002)	2002	Attitude of medical students towards general practice and general practitioners.	UK	C (PC)	
Coleman & Murray (2002)	2002	Patients' views and feelings on the community-based teaching of undergraduate medical students: A qualitative study.	UK	C (PC)	HA
Sakai et al (2002)	2002	School of health education at the Queen Emma Clinics: a service-learning project at the John A. Burns School of Medicine.	USA	C (PH)	
Ossonnaya et al (2002)	2002	Community-oriented medical emergency programme: development and evaluation.	UK	C (NS)	
Corbett et al (2002)	2002	Effect of a second-year primary care preceptorship on medical students' career plans	USA	C (PC)	HA
Wilkinson et al (2002)	2002	The earlier, the better: the effect of early community contact on the attitudes of medical students to older people.	New Zealand	NC	HA
Carek et al (2002)	2002	Does Community- or University-based Residency Sponsorship Affect Future Practice Profiles?	USA	C (PC)	
Albritton et al (2002)	2002	Linking Cultural Competency and Community Service: A Partnership between Students, Faculty and the Community.	USA	C (PC) & SL	M & HA

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Haq et al (2002)	2002	Leadership Opportunities with Communities, the Medically Underserved, and Special Populations (LOCUS)	USA	C (PC) & SL	M & HA
Clark et al (2003)	2003	A multidisciplinary, learner-cantered, student-run clinic for the homeless.	USA	C (PC)	M & HA
Elam et al (2003)	2003	How we implemented a service-learning elective.	USA	SL & NC	M & HA
Olm-Shipman et al (2003)	2003	Teaching children about health, part II: the effect of an academic-community partnership on medical students' communication skills	USA	SL & NC	HA
Urbina et al (2003)	2003	"Where have all the students gone?" retaining medical school graduates through educational innovations.	USA	C (NS)	
Lempp et al (2003)	2003	An example of interprofessional teaching in the community for final-year medical students: Challenges and rewards.	UK	C (PC)	
Unalan (2003)	2003	Role of family medicine in undergraduate medical education.	Turkey	C (PC)	
Musal et al (2003)	2003	Community-based education programme of Dokuz Eylul School of Medicine.	Turkey	C (NS)	
Glasser et al (2003)	2003	Meeting the needs of rural populations through interdisciplinary partnerships.	USA	C (PC, PH) & SL	RM
Jackson et al (2003)	2003	Participating in medical education: Views of patients and carers living in deprived communities.	UK	C (PC)	M & HA
Topps et al (2003)	2003	Wanted: Trainees for rural practice.	Canada	C (NS)	RM
Matsunaga et al (2003)	2003	Building cultural competence in an interdisciplinary community service-learning project.	USA	C (PH) & SL	HA
Greenberg et al (2003)	2003	A community-campus partnership for health: the SEAT Pleasant-University of Maryland health partnership	USA	C (P)	M
Kalantan et al (2003)	2003	Students' perceptions towards a family medicine attachment experience.	Saudi Arabia	C (PC)	
Griswold (2003)	2003	Refugee health and medical student training.	USA	C (PC, P, PS, SYNTHESIS)	M & HA

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Unverzagt et al (2003)	2003	Integrating population health into a family medicine clerkship: 7 years of evolution.	USA	C (PH) & SL	M & HA
Elam et al (2003)	2003	Service learning in the medical curriculum: developing and evaluating an elective experience	USA	SL & NC	M & HA
Fisher (2003)	2003	Medical training in community medicine: a comprehensive, academic, service-based curriculum.	USA	C (PC) & SL	HA
Morrison & Watt (2003)	2003	New century, new challenges for community based medical education	UK	C (PC)	
Phillips et al (2004)	2004	Partnerships between health care organisation and medical schools in a rapidly changing environment: a view from the delivery system.	USA	C (NS)	
Hsueh et al (2004)	2004	What evidence-based undergraduate interventions promote rural health?	New Zealand	C (PC)	RM
Sakuyama & Fukushima (2004)	2004	Clinical clerkship of home care for medical students.	Japan	C (HC)	
Worley et al (2004)	2004	What do medical students actually do on clinical rotations?	Australia	C (NS)	RM
Gibbs (2004)	2004	Community-based or tertiary-based medical education: So what is the question?	Bahrain	C (NS)	RM
Cashman et al (2004)	2004	Applying service learning through a community-academic partnership: Depression screening at a federally funded community health centre.	USA	C (PC) & SL	M
Howe (2004)	2004	Education in family medicine - Gains and dangers.	UK	C (PC)	
Goodrow et al (2004)	2004	An application of multidisciplinary education to a campus-community partnership to reduce motor vehicle accidents.	USA	C (PH) & SL	RM
Kristina et al (2004)	2004	Defining generic objectives for community-based education in undergraduate medical programmes.	Indonesia	C (PH) & NC	M

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Article (authors)	Year Published	Title	Geographic Setting	Placement Type - Clinical *(C & see key above); Service Learning (SL); Non-Clinical (NC)*	Targets *Underserved* or *Marginalised (M)/ Wider health awareness (HA) / Rural medicine (RM)*
Omotara et al (2004)	2004	Assessment of the impact of community-based medical education of the University of Maiduguri on communities in three local government areas of Borno State, Nigeria: Community leaders' perspectives.	Nigeria	C (PH)	RM
Cullen et al (2004)	2004	Undergraduate medical students' experience in general practice.	Ireland	C (PC)	
Imperato (2004)	2004	A third world international health elective for U.S. medical students: the 25-year experience of the State University of New York, Downstate Medical Center.	USA	C (PC, PH) & SL	HA
Schwarz (2004)	2004	The WAMI Program: 25 years later.	USA	C (PC)	RM
Hussein & Musa (2004)	2004	Experiencing service learning: students of a new medical school as vaccinators and independent monitors.	Sudan	C (PH) & SL	M
Mareck et al (2004)	2004	Rural interprofessional service learning: the Minnesota experience.	USA	SL & NC & SL	RM
Monroe & Shirazian (2004)	2004	Challenging linguistic barriers to health care: students as medical interpreters	USA	C (NS) & SL	M
Phillips et al (2004)	2004	Partnerships between health care organisation and medical schools in a rapidly changing environment: a view from the deliver system.	USA	C (NS)	HA
O'Toole et al (2005)	2005	Teaching professionalism within a community context: perspectives from a national demonstration project	USA	C (NS) & SL & NC	M & HA
Lang et al (2005)	2005	The Appalachian Preceptorship: over two decades of an integrated clinical-classroom experience of rural medicine and Appalachian culture.	USA	C (PC)	RM
Halaas (2005)	2005	The Rural Physician Associate Program: new directions in education for competency.	USA	C (PC)	RM
Carney et al (2005)	2005	The influence of teaching setting on medical students' clinical skills development: is the academic medical centre the "gold standard"?	USA	C (NS)	

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Article (authors)	Year Published	Title	Geographic Setting	Placement Type - Clinical *(C & see key above); Service Learning (SL); Non-Clinical (NC)*	Targets *Underserved* or *Marginalised (M)/ Wider health awareness (HA) / Rural medicine (RM)*
Steele et al (2005)	2005	Community-based osteopathic manipulative student clinic: Changes in curriculum and student confidence levels.	USA	C (O)	HA
Benson et al (2005)	2005	Impact on patients of expanded, general practice based, student teaching: Observational and qualitative study.	UK	C (PC)	
Wondmikun et al (2005)	2005	Successful coupling of community attachment of health science students with relief work for drought victims	Ethiopia	C (PC) & SL & NC	M & HA
Kristina et al (2005)	2005	Does CBE come close to what it should be? A case study from the developing world. Evaluating a programme in action against objectives on paper	Indonesia	C (PC)	M & HA
Lucas & Pearson (2005)	2005	Learning medicine in primary care: Medical students' perceptions of final-year clinical placements.	UK	C (PC)	
Dehaven & Chen (2005)	2005	Teaching medical students research while reaching the underserved	USA	C (PH) & SL & NC	M
Davidson & Waddell (2005)	2005	A historical overview of interdisciplinary family health: A community-based interprofessional health professions course.	USA	C (PH) & SL	M
Iputo & Kwizera (2005)	2005	Problem-based learning improves the academic performance of medical students in South Africa.	South Africa	C (NS)	
Nicholson et al (2005)	2005	Maintaining the quality of community-based education: An evaluation of an innovative centralised system for giving student feedback to undergraduate general practice tutors.	UK	C (NS)	
Oz (2005)	2005	Cost-effective community-based medical education in developing countries using existing resources.	Turkey	C (NS)	
Liaw et al (2005)	2005	A compulsory experiential and inter-professional rural health subject for undergraduate students.	Australia	C (NS)	RM
Smucny et al (2005)	2005	An evaluation of the Rural Medical Education Program of the State University of New York Upstate Medical University, 1990-2003.	USA	C (PC)	RM

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Peleg et al (2005)	2005	The family medicine clerkship over the past 10 years at Ben Gurion University of the Negev.	Israel	C (PC)	
Pacheco et al (2005)	2005	The Impact on Rural New Mexico of a Family Medicine Residency.	USA	C (PC)	RM
Hayes & King (2005)	2005	Community-service Learning: An Annotated Bibliography	Canada	C (NS) & SL & NC	M & HA
Brown & Marcus (2005)	2005	Bearing Witness: The Political Agenda of Community-Based Service Learning	USA	C (NS) & SL	HA
Brush et al (2006)	2006	The relationship between service learning and medical student academic and professional outcomes.	USA	C (PH) & SL	M
Cox et al (2006)	2006	Caring for the underserved: blending service learning and a web-based curriculum.	USA	C (P) & SL	M & HA
Olney et al (2006)	2006	Becoming better health care providers: outcomes of a primary care service learning project in a medical school.	USA	C (PC) & SL	HA
Setla & Wason (2006)	2006	Medical students as hospice volunteers: the benefits to a hospice organisation.	USA	C (Pal) & SL	HA
Omotara et al (2006)	2006	Communities' awareness, perception and participation in the community-based medical education of the University of Maiduguri.	Nigeria	C (NS)	
Mennin & Petroni-Mennin (2006)	2006	Community-based medical education	USA	C (NS)	
Al-Faisal (2006)	2006	Applying a teaching programme in community-based medical education.	Syria	C (PH)	
Caro-Bruce et al (2006)	2006	Addressing gaps in abortion education: A sexual health elective created by medical students.	USA	C (PH)	HA
Worley et al (2006)	2006	Empirical evidence for symbiotic medical education: A comparative analysis of community and tertiary-based programmes.	Australia	C (PC)	RM
Buchanan & Witlen (2006)	2006	Balancing services and education: ethical management of student-run clinics.	USA	C (PC) & SL	M & HA

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Kristina et al (2006)	2006	Comparison of outcomes of a community-based education programme executed with and without active community involvement.	Indonesia	C (PC)	M & HA
Kristina et al (2006)	2006	Does Community-Based Education come close to what it should be? A case study from the developing world: students' opinions.	Indonesia	C (PC)	M
Johnson et al (2006)	2006	Using families as faculty in teaching medical students family-cantered care: what are students learning?	USA	C (P)	M & HA
Moskowitz et al (2006)	2006	Students in the community: an interprofessional student-run free clinic.	USA	C (PC) & SL	M
Dornan et al (2006)	2006	How can experience in clinical and community settings contribute to early medical education? A BEME systematic review.	UK	C (NS)	
Griswold et al (2006)	2006	Refugees and medical student training: results of a programme in primary care.	USA	C (PC)	M & HA
Florence et al (2007)	2007	Rural health professions education at East Tennessee State University: survey of graduates from the first decade of the community partnership program.	USA	C (NS) & SL	RM
Averill et al (2007)	2007	A first-year community-based service learning elective: design, implementation and reflection	USA	SL & NC	M & HA
Critchley et al (2007)	2007	A required rural health module increases students' interest in rural health careers.	Australia	C (NS)	RM
Leung et al (2007)	2007	Factors affecting students' evaluation in a community service-learning program.	Taiwan	C (NS) & SL	HA
Peek (2007)	2007	An innovative partnership to address breast cancer screening among vulnerably populations.	USA	C (PH) & SL	M
Cosgrove et al (2007)	2007	Addressing physician shortages in New Mexico through a combined BA/MD Program.	USA	C (PC)	RM
Street et al (2007)	2007	Child disability case studies: An interprofessional learning opportunity for medical students and paediatric nursing students.	UK	C (P)	

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Firth & Wass (2007)	2007	Medical students' perceptions of primary care: The influence of tutors, peers, and the curriculum.	UK	C (PC)	
Kalet et al (2007)	2007	Medical training in school-based health centres: A collaboration among five medical schools	USA	C (PC)	
Muir (2007)	2007	Placing the patient at the core of teaching	UK	C (PC)	HA
Jones & Donald (2007)	2007	Teaching medical students about children with disabilities in a rural setting in a school.	Australia	C (P)	RM
Lee et al (2007)	2007	Health Problems of Micronesian Patients at a Student-Run Free Homeless Clinic.	USA	C (PC) & SL	M
Thistlethwaite et al (2007)	2007		Australia	C (PC)	
Wolff et al (2007)	2007	The Development and Evaluation of Community Health Competencies for Family Medicine.	USA	C (PC) & SL	M & HA
Hays (2007)	2007	Community-oriented medical education.	UK	C (NS)	
Powers et al (2008)	2008	Smoking Sleuths: a pilot tobacco prevention elective for medical school students.	USA	SL & NC	HA
Turner & Farquhar (2008)	2008	One medical school's effort to ready the workforce for the future: preparing medical students to care for populations that are publicly insured.	USA	C (NS)	M & HA
Wear & Kuczewski (2008)	2008	Perspective: medical students' perceptions of the poor: what impact can medical education have?	USA	C (NS) & SL	M & HA
Heestand Skinner et al (2008)	2008	Community-based education in Nigerian medical schools: students' perspectives.	Nigeria	C (NS)	M, HA
Hoat & Wright (2008)	2008	Community-university partnership: key elements for improving field teaching in medical schools in Vietnam.	Vietnam	C (NS)	RM
Parsi & List (2008)	2008	Preparing medical students for the world: service learning and global health justice.	USA	C (Int) & SL	M & HA
Fitzakerley & Westra (2008)	2008	Service learning in rural communities. Medical students teach children about the brain.	USA	SL & NC	RM

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Lipkin et al (2008)	2008	Two decades of title VII support of a primary care residency: Process and outcomes	USA	C (PC) & SL	M & HA
Rich & Mullan (2008)	2008	Commentary: Evaluating title VII investments in primary care training: Drop in the ocean, or levee against the flood?	USA	C (PC)	M & HA
Mubuuke et al (2008)	2008	Evaluation of community based education and service courses for undergraduate radiography students at Makaree University, Uganda.	Uganda	C ®	M & HA
Marahatta & Dixit (2008)	2008	Students' perception regarding medical education in Nepal.	Nepal	C (PC, PH)	M
Balmer et al (2008)	2008	Understanding paediatric resident-continuity preceptor relationships through the lens of apprenticeship learning.	USA	C (P)	
Vaidya et al (2008)	2008	Acquaintance with the actuality: Community diagnosis programme of Kathmandu Medical College at Gundu village, Bhaktapur, Nepal	Nepal	C (PH)	M
Jiminez et al (2008)	2008	The promise clinic: A service learning approach to increasing access to health care.	USA	C (PC) & SL	M
Bouhaimed et al (2008)	2008	Outcomes associated with community-based research projects in teaching undergraduate public health	Kuwait	C (PH)	
Major & Booton (2008)	2008	Involvement of general practice (family medicine) in undergraduate medical education in the United Kingdom.	UK	C (PC)	
Tsai (2008)	2008	Community-oriented curriculum design for medical humanities	Taiwan	SL & NC	HA
Chamberlain et al (2008)	2008	Integrating collaborative population health projects into a medical student curriculum at Stanford	USA	C (PH) & SL & NC	HA
Bin Abdulrahman (2008)	2008	The current status of medical education in the Gulf Cooperation Council countries.	Saudi Arabia	C (NS)	
Carney & Hackett (2008)	2008	Community-academic partnerships: a "community-first" model to teach public health.	USA	C (PH) & SL	HA

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Zink et al (2008)	2008	The rural physician associate program: the value of immersion learning for third-year medical students.	USA	C (NS)	RM
Nongkynrih et al (2008)	2008	Linking undergraduate medical education to primary health care.	India	C (PH, PC)	M
Young et al (2008)	2008	Clinical location and student learning: outcomes from the LCAP program in Queensland, Australia.	Australia	C (PC)	RM
Page & Birden (2008)	2008	Twelve tips on rural medical placements: what has worked to make them successful.	Australia	C (NS)	RM
McIntosh et al (2008)	2008	Training medical students in community health: a novel required fourth-year clerkship at the University of Rochester.	USA	C (PH) & SL	M & HA
Howe (2008)	2008	Twelve tips for community-based medical education.	UK	C (PC)	HA
Cashman & Seifer (2008)	2008	Service-Learning: An Integral Part of Undergraduate Public Health.	USA	C (NS) & SL & NC	HA
Vogel & Seifer (2008)	2008	Evaluating the Long-Term Sustainability and Impact of SL in the Health Professions: A Ten Year Follow-up Study of the HPSISN Program	USA	C (NS) & SL & NC	M & HA
Coleman et al (2008)	2008	Interprofessional ambulatory primary care practice-based educational program.	USA	C (PC)	HA
Cronholm et al (2009)	2009	Student attitudes: potential barriers to implementing a community medicine field activity	USA	C (NS)	HA
Goldstein et al (2009)	2009	Teaching Advanced Leadership Skills in Community Service (ALSCS) to medical students.	USA	C (NS) & SL	M & HA
Batra et al (2009)	2009	The Columbia-Harlem Homeless medical Partnership: a new model for learning in the service of those in medical need.	USA	C (PC) & SL	M
Reynolds (2009)	2009	Free medical clinics: helping indigent patients and dealing with emerging health care needs.	USA	C & SL	M
Symons et al (2009)	2009	A curriculum to teach medical students to care for people with disabilities: Development and initial implementation	USA	C (PC)	HA

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Stagg et al (2009)	2009	A new model to understand the career choice and practice location decisions of medical graduates.	Australia	C (PC)	RM
Morgan et al (2009)	2009	From the bush to the big smoke - development of a hybrid urban community based medical education program in the Northern Territory, Australia.	Australia	C (NS)	RM
Marahatta (2009)	2009	Community based medical education: Prospects and challenges.	Nepal	C (NS)	M
Perez et al (2009)	2009	The revised "Early Learning in Medicine" curriculum at the University of Otago – focusing on students, patients, and community	New Zealand	C (NS)	HA & RM
Prideaux (2009)	2009	Medical education in Australia: Much has changed but what remains?	Australia	C (NS)	RM
Shankar & Piryani (2009)	2009	Medical education and medical educators in South Asia - A set of challenges.	Nepal	C (NS)	RM
Strasser & Lanphear (2009)	2009	The Northern Otario School of Medicine: Responding to the needs of the people and communities of Northern Ontario.	Canada	C (NS)	RM
Donnon et al (2009)	2009	Issues related to medical students' engagement in integrated rural placements: an exploratory factor analysis.	Canada	C (NS)	RM
Deaville et al (2009)	2009	Perceptions of UK medical students on rural clinical placements.	UK	C (NS)	RM
Hufford et al (2009)	2009	Community-Based Advocacy Training: Applying Asset-Based Community Development in Resident Education.	USA	C (P) & SL & NC	M & HA
Tatum et al (2009)	2009	Expanding surgical clerkships to remote community sites: the success of the Washington, Wyoming, Alaska, Montana, and Idaho experience.	USA	C (S)	RM
Vogel (2009)	2009	Advancing Service-Learning in Health Professions Education: Maximizing Sustainability, Quality, and Co-Leadership	USA	C (NS) & SL & NC	M & HA
Vogel & Seifer (2009)	2009	Sustaining Service-Learning	USA	C (NS) & SL & NC	M & HA

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Mainous & Baker (2009)	2009	Service Learning Helps Sustain the Status Quo.	USA	C (PC) & SL	M
Saultz et al (2010)	2010	Medical student exposure to components of the patient-cantered medical home during required ambulatory clerkship rotations: implications for education.	USA	C (PC)	
McConnell et al (2010)	2010	Community service and the paediatric exam: an introduction to clinical medicine via a partnership between first year medical students and a community elementary school	USA	C (P) & SL	M
Packer et al (2010)	2010	Development of a four-day service-learning rotation for third-year medical students.	USA	C (PC) & SL	M & HA
Kaye et al (2010)	2010	Perceptions of newly admitted undergraduate medical students on experiential training on community placements and working in rural areas of Uganda.	Uganda	C (NS)	RM
Buckner et al (2010)	2010	Using service learning to teach community health: the Morehouse School of Medicine Community health Course.	USA	SL & NC	M & HA
Dharamsi et al (2010)	2010	Enhancing medical students' conceptions of the CanMEDS Health Advocate Role through international service-learning and critical reflection: a phenomenological study	Canada	C (Int) & SL	M
Mullen et al (2010)	2010	Improving medical students' attitudes towards the chronic sick: A role for social science research	UK	C (GM)	HA
Dent et al (2010)	2010	Chronic disease management: Teaching medical students to incorporate community.	USA	C (PC)	RM
Farry et al (2010)	2010	Development of a Rural Immersion Programme for 5th-year medical students at the University of Otago.	New Zealand	C (NS)	RM
Wee et al (2010)	2010	The pedagogical value of a student-run community-based experiential learning project: The Yong Loo Lin School of Medicine public health screening	Singapore	C (PH)	HA
Strasser (2010)	2010	Community engagement: a key to successful rural clinical education.	Canada	C (NS)	RM

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Shankar (2010)	2010	Attracting and retaining doctors in rural Nepal.	Nepal	C (NS)	RM
Dongre et al (2010)	2010	An evaluation of ROME camp: Forgotten innovation in medical education.	India	C (PC) & SL	RM
Hudson et al (2010)	2010	Are patients willing participants in the new wave of community-based medical education in regional and rural Australia?	Australia	C (PC)	RM
Cene et al (2010)	2010	Community-based teaching about health disparities: combining education, scholarship and community service.	USA	C (PC) & SL	M & HA
Yardley et al (2010)	2010	What has changed in the evidence for early experience? Update of a BEME systematic review.	UK	C (NS)	
Mudarikawa et al, 2010	2010	Community-based practice program in a rural medical school: Benefits and challenges	Australia	NC	M, RM & HA
Howard et al (2010)	2010	Borrowing from the East to Strengthen the West: Merging Public Health Case Studies of Community-Based Service-Learning Practices from India and the United States.	USA & India	C (PC, PH) & SL	M & HA
Couper & Worley (2010)	2010	Meeting the challenges of training more medical students: lessons from Flinders University's distributed medical education program.	Australia	C (PC)	RM
Marcus et al (2011)	2011	Linking service learning with community-based participatory research: an interprofessional course for health professional students	USA	SL & NC	M & HA
Hunt et al (2011)	2011	Understanding the goals of service learning and community-based medical education: A systematic review.	USA	C (NC (NS) & SL & NCS)	M & HA
Dehaven et al (2011)	2011	Reaching the underserved through community-based participatory research and service learning: description and evaluation of a unique medical student training program	USA	C (PH) & SL	M
Long et al (2011)	2011	Developing leadership and advocacy skills in medical students through service learning.	USA	SL & NC	M & HA

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Okyama & Kajii (2011)	2011	Does community-based education increase students' motivation to practise community health care? - A cross sectional study.	Japan	C (NS)	HA
Liang En et al (2011)	2011	Caring for underserved patients through neighbourhood health screening: outcomes of a longitudinal, interprofessional, student-run home visit program in Singapore.	Singapore	C (NS) & SL	M
Meili et al (2011)	2011	Teaching social accountability by making the links: qualitative evaluation of student experiences in a service-learning project.	Canada	C (NS) & SL	HA & RM
Wee et al (2011)	2011	Doctors-to-be at the doorstep - comparing service-learning programs in an Asian medical school	Singapore	C (SYNTHESIS) & SL	M
Geppert et al (2011)	2011	Reuniting public health and medicine: the University of New Mexico School of Medicine Public Health Certificate.	USA	C (PH) & SL	HA
Sakuyma et al (2011)	2011	Home medical support at Jikei Medical University	Japan	C (SYNTHESIS) & SL	
Cameron et al (2011)	2011	Medical student participation in community-based experiential learning: reflections from first exposure to making the diagnosis.	South Africa	C (PC)	
Dongre et al (2011)	2011	The benefits to medical undergraduates of exposure to community-based survey research.	India	C (PH)	HA
Meurer et al (2011)	2011	The Urban and community health pathway: Preparing socially responsive physicians through community-engaged learning.	USA	SL & NC	M & HA
Sheu et al (2011)	2011	Learning through service: Student perceptions on volunteering at interprofessional hepatitis B student-run clinics.	USA	C (IM) & SL	M
Kaye et al (2011)	2011	The organisation and implementation of community-based educational programs for health worker training institutions in Uganda.	Uganda	C (NS)	RM
Lee et al (2011)	2011	Choosing family medicine residency programs: What factors influence residents' decisions?	Canada	C (PC)	

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Wearne (2011)	2011	Teaching procedural skills in general practice.	Australia	C (PC)	
Stoddard & Risma (2011)	2011	Relationship of participation in an optional student-run clinic to medical school grades.	USA	C (PC) & SL	
Chang et al (2011)	2011	Perceptions and valuation of a community-based education and service (COBES) program in Uganda.	Uganda	C (NS)	RM
Levin & Rutkow (2011)	2011	Infrastructure for teaching and learning in the community: Johns Hopkins University Student Outreach Resource Center (SOURCE).	USA	SL & NC	HA
Buff et al (2011)	2011	Junior Doctors of Health ©: an interprofessional service-learning project addressing childhood obesity and encouraging health care career choices.	USA	SL & NC	M
Vyas et al (2011)	2011	Integration of academic learning and service development through guided projects for rural practitioners in India.	India	C (NS) & SL	RM
Bridges et al (2011)	2011	Interprofessional collaboration: three best practice models of interprofessional education.	USA	C (NS) & SL	HA
Aslam et al (2011)	2011	Service learning: increasing civic responsibility in Pakistani students.	Pakistan	C (PC) & SL	M & HA
Iles-Shih et al (2011)	2011	Health and illness in context: a pragmatic interdisciplinary approach to teaching and learning applied public health within an urban safety net system.	USA	NC	M & HA
Johnson et al (2011)	2011	Integration of Community Health Teaching in the Undergraduate Medicine Curriculum at the University of Toronto.	Canada	C (PC) & NC	HA
Stephenson et al (2011)	2011	King's Undergraduate Medical Education in the Community Evaluation Report 2011: Executive Summary	UK	C (PC, PH) & NC	HA
Rainer Elley et al (2012)	2012	Effectiveness of simulated clinical teaching in general practice: Randomised controlled trial.	New Zealand	C (PC)	
Fogarty et al (2012)	2012	Florida state university college of medicine: From ideas to outcomes.	USA	C (PC)	HA

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Galukande et al (2012)	2012	Social accountability: a survey of perceptions and evidence of its expression at a Sub Saharan African university.	Uganda	C (NS)	HA
Watson (2012)	2012	Commentary: Discovering a different model of medical student education.	USA	C (PC)	
Bradley et al (2012)	2012	The surgical clerkship: A contemporary paradigm.	USA	C (S)	
Hasnain et al (2012)	2012	Training future health providers to care for the underserved: a pilot interprofessional experience.	USA	C (NS)	M
Chroinin et al (2012)	2012	Medicine in the community: A unique partnership.	Ireland	C (PC)	HA
Matejic et al (2012)	2012	Student-centred medical education for the future physicians in the community: An experience from Serbia	Serbia	C (PC) & NC	HA
Adler & Homayounrooz (2012)	2012	Medical student education improvement using a resident-driven student rotation.	USA	C (NS)	
Bhugra (2012)	2012	Foundation for what? Commentary on current position of psychiatry in UK foundation schools.	UK	C (P) S	
Birden & Wilson (2012)	2012	Rural placements are effective for teaching medicine in Australia: evaluation of a cohort of students studying in rural placements.	Australia	C (NS)	RM
Walters et al (2012)	2012	Outcomes of longitudinal integrated clinical placements for students, clinicians and society.	Australia	C (NS)	RM
Ali (2012)	2012	Community-oriented medical education and clinical training: comparison by medical students in hospitals.	Iran	C (NS)	HA
Hudson et al (2012)	2012	Patient perceptions of innovative longitudinal integrated clerkships based in regional, rural and remote primary care: a qualitative study.	Australia	C (NS)	RM
Widyandana et al (2012)	2012	Preclinical students' experiences in early clerkships after skills training partly offered in primary health care centres; a qualitative study from Indonesia.	Indonesia	C (PC)	
Ash et al (2012)	2012	The context of clinical teaching and learning in Australia.	Australia	C (PC)	RM

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Article (authors)	Year Published	Title	Geographic Setting	Placement Type - Clinical *(C & see key above); Service Learning (SL); Non-Clinical (NC)*	Targets *Underserved* or *Marginalised (M)/ Wider health awareness (HA) / Rural medicine (RM)*
Chew et al (2012)	2012	Development, implementation, and evaluation of a student-initiated undergraduate medical education elective in HIV care.	Canada	C (NS)	HA
Farnsworth et al (2012)	2012	Community-based distributive medical education: advantaging society.	USA	C (NS)	
Kelly et al (2012)	2012	General practice: the DREEM attachment? Comparing the educational environment of hospital and general practice placements.	Ireland	C (PC)	
McNeal & Buckner (2012)	2012	Using mini-grants and service-learning projects to prepare students to serve underserved populations.	USA	SL & NC	M & HA
Jefferson et al (2012)	2012	Medical student education program in Alzheimer's' disease: the PAIRS Program.	USA	C (GM) & SL	HA
Veronesi & Gunderman (2012)	2012	Perspective: the potential of student organisation for developing leadership: one school's experience.	USA	SL & NC	HA
Roberts et al (2012)	2012	A longitudinal integrated placement and medical students' intentions to practise rurally.	Australia	C (NS)	RM
Dornan et al (2012)	2012	Manchester Clinical Placement Index (MCPI). Conditions for medical students' learning in hospital and community placements.	Netherlands & UK	C (NS)	
Martinez & Mora (2012)	2012	A community-based approach for integrating geriatrics and gerontology into undergraduate medical education.	USA	C (GM) & SL	
Abedini et al (2012)	2012	Understanding the effects of short-term international service-learning trips on medical students.	USA	C (Int) & SL	M & HA
Puvanendran et al (2012)	2012	What do medical students learn when they follow patients from hospital to community? A longitudinal qualitative study.	Singapore	C (SYNTHESIS)	HA
Stoltenberg et al (2012)	2012	Global health and service learning: lessons learned at US medical schools.	USA	C (NS) & SL	HA

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Mak & Miflin (2012)	2012	Living and working with the people of "the bush": a foundation for rural and remote clinical placements in undergraduate medical education.	Australia	C (PC) & SL	RM
Goodall (2012)	2012	Beyond the Ward & Waiting Room: A community-based non-clinical placement program for Australian medical students	Australia	NC	M & HA
Mahoney et al (2012)	2012	Urban community based medical education - general practice at the core of a new approach to teaching medical students.	Australia	C (PC)	HA
Mahoney & Tong (2013)	2013	Patient participation in, and attitudes towards, community-based medical education.	Australia	C (PC)	
Archambault (2013)	2013	Community-based training helps solve physician shortage. Community residencies offer new medical training models.	USA	C (PC)	
Northrip (2013)	2013	Techniques for education in community medicine.	USA	C (P) & SL	HA
Deutsch et al (2013)	2013	Early community-based family practice elective positively influences medical students' career considerations - A Pre-post-comparison.	Germany	C (PC)	HA
Mauiliu et al (2013)	2013	Community experience of a pacific immersion programme for medical students in New Zealand	New Zealand	NC	M & HA
Rebholz et al (2013)	2013	Integrated models of education and service involving community-based health care for underserved populations: Tulane student-run free clinics.	USA	C (PC) & SL	M
White et al (2013)	2013	Teaching and addressing health disparities through the family medicine social and community context of care project.	USA	C (PC, PH)	HA
MacDowell et al (2013)	2013	A decade of rural physician workforce outcomes for the Rockford Rural Medical Education (RMED) Program, University of Illinois.	USA	C (PC)	RM
Crampton et al (2013)	2013	A systematic literature review of undergraduate clinical placements in underserved areas.	UK	C (NS)	M

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Chastonay et al (2013)	2013	Development and evaluation of a community immersion program during preclinical medical studies: a 15-year experience at the University of Geneva Medical School.	Switzerland	C (NS)	HA
Atkinson et al (2013)	2013	Teaching medical student geriatrics competencies in 1 week: an efficient model to teach and document selected competencies using clinical and community resources.	USA	C (GM)	HA
Block et al (2013)	2013	International service and public health learning objectives for medical students.	USA	C (WH) & SL	HA
Belkowitz et al (2013)	2013	Teaching health advocacy to medical students: a comparison study.	USA	SL & NC	M & HA
Saffran (2013)	2013	Dancing through Cape Coast: ethical and practical considerations for health-related service-learning programs.	USA & Ghana	C (NS) & SL	HA
Hancock et al (2013)	2013	Balancing structure and choice in intergenerational service learning.	USA	C (GM) & SL	
Roodin et al (2013)	2013	Intergenerational service learning: a review of recent literature and directions for the future.	USA	C (GM) & SL	
Smith et al (2013)	2013	Integrating service learning into the curriculum: lessons from the field.	USA	C (NS) & SL	
McGeehan et al (2013)	2013	A community continuity program: volunteer faculty mentors and continuity learning.	USA	C (PC)	HA
Macallan & Pearson (2013)	2013	Medical student perspectives of what makes a high-quality teaching practice.	UK	C (PC)	
Kane et al (2013)	2013	Summer in the country: changes in medical students' perceptions following an innovative rural community experience.	USA	C (PC)	RM
Wenrich et al (2013)	2013	What are the benefits of early patient contact? - A comparison of three preclinical patient contact settings.	USA	C (PC)	
Azer et al (2013)	2013	Enhancing learning approaches: practical tips for students and teachers.	Saudi Arabia	C (NS) & SL	

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Henschen et al (2013)	2013	The patient centred medical home as curricular model: perceived impact of the "education-centred medical home".	USA	C (IM, P)	
Thistlethwaite et al (2013)	2013	A review of longitudinal community & hospital placements in medical education: BEME Guide No. 26	Australia	C (NS)	RM
Duffy et al (2013)	2013	Processes & outcomes for a successful engagement between a medical school & a remote indigenous community In North Queensland, Australia.	Australia	C (PC) & SL	HA & RM
Daly et al (2013)	2013	What factors in rural and remote extended clinical placements may contribute to preparedness for practice from the perspective of students and clinicians?	Australia	C (NS)	RM
Filek et al (2013)	2013	Students' experience of prison health education during medical school.	Canada	SL & NC	M
Karasik, 2013	2013	Reflecting on reflection: Capitalizing on the learning in inter-generational service learning	USA	C (GM) & SL	HA
Pincavage et al (2013)	2013		USA	C (IM) & SL	M
Al Garf & Naseeb (2013)	2013	The community as an educational field for medical students: Medical sociology revisited	Bahrain	C (SYNTHESIS)	HA
Gough, 2013	2013	Perspective transformation amongst Student Interns in and East African International Service-Learning Program: A Case Study	Canada & East Africa	C (NS) - SL	HA
Rock et al (2014)	2014	Impact of an academic-community partnership in medical education on community health: evaluation of a novel students-based home visitation program.	USA	C (SYNTHESIS, PC) - SL	
Farokhi et al (2014)	2014	A student operated, faculty mentored dental clinic service experience at the University of Texas Health Science Centre at San Antonio for the underserved refugee community: an interprofessional approach.	USA	C (NS) & SL	M & HA

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Article (authors)	Year Published	Title	Geographic Setting	Placement Type - Clinical *(C & see key above); Service Learning (SL); Non-Clinical (NC)*	Targets *Underserved* or *Marginalised (M)/ Wider health awareness (HA) / Rural medicine (RM)*
Gorrindo et al (2014)	2014	Medical students as health educators at a student-run free clinic: improving the clinical outcomes of diabetic patients.	USA	C (PC) & SL	M
Jones et al (2014)	2014	Promoting Sustainable Community Service in the 4th Year of Medical School: A longitudinal Service-Learning Elective.	USA	C (PC) & SL	M
Tani et al (2014)	2014	Community-based clinical education increases motivation of medical students to medicine of remote area - comparison between lecture and practice.	Japan	C (NS)	RM
Van Schalkwyk et al (2014)	2014	"Going rural": Driving change through a rural medical education innovation.	South Africa	C (NS)	RM
Bagala et al (2014)	2014	Implementation of the medical education partnership initiative: Medical students' perspective.	Uganda	C (NS)	M
Watmough et al (2014)	2014	An evaluation of medical students' views on the introduction of a community placement and its impact on their understanding of patients with disabilities	UK	C (PC)	HA
Kelly et al (2014)	2014	Community-based medical education: is success a result of meaningful personal learning experiences?	Canada	C (PC)	
Poncelet et al (2014)	2014	Creating a longitudinal integrated clerkship with mutual benefits for an academic medical centre and a community health system.	USA	C (NS)	
Woloschuk et al (2014)	2014	Comparing the performance in family medicine residencies of graduates from longitudinal integrated clerkships and rotation-based clerkships.	Canada	C (NS)	RM
Buff et al (2014)	2014	Interprofessional service learning in a community setting: findings from a pilot study.	USA	SL & NC	
Arndell et al (2014)	2014	Street outreach and shelter care elective for senior health professional students: an interprofessional educational model for addressing the needs of vulnerable populations.	USA	C (PC) & SL	M & HA

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Article (authors)	Year Published	Title	Geographic Setting	Placement Type - Clinical *(C & see key above); Service Learning (SL); Non-Clinical (NC)*	Targets *Underserved* or *Marginalised (M)/ Wider health awareness (HA) / Rural medicine (RM)*
Seif et al (2014)	2014	The development of clinical reasoning and interprofessional behaviours: service-learning at a student-run free clinic.	USA	C (PC) & SL	M & HA
Smith et al (2014)	2014	The effect of involvement in a student-run free clinic project on the attitudes toward the underserved and interest in primary care.	USA	C (PC) & SL	M & HA
Choudhury et al (2014)	2014	Peer mentorship in student-run free clinics: the impact on preclinical education.	USA	C (PC) & SL	M & HA
De Los Santos et al (2014)	2014	Interprofessional education and service learning: a model for the suture of health professions education.	USA	C (PH) & SL	M & HA
Cacari Stone et al (2014)	2014	The potential conflict between policy and ethics in caring for undocumented migrants at academic health centres.	USA	C (NS) & SL	M & HA
Hutchins et al (2014)	2014	An anthropological approach to teaching health sciences students cultural competency in a field school program.	USA & Ecuador	C (Int) & SL	HA
Myhre et al (2014)	2014	Beyond bricks and mortar: a rural network approach to preclinical medical education.	Canada	C (PC)	RM
Brooks et al (2014)	2014	Profiles of rural longitudinal clerkship students: A descriptive study of six consecutive student cohorts.	USA	C (PC)	RM
McMenamin et al (2014)	2014	Training socially responsive health care graduates: Is service learning an effective educational approach?	Ireland	C (NS) & SL & NC	HA
Dornan et al (2014)	2014	How and what do medical students learn in clerkships? Experience based learning (ExBL)	UK	C (NS)	

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9.2 Appendix 2 – End of CBP Program Survey as Administered to Students in 2008-2010 Cohorts

MONASH University
Medicine, Nursing and Health Sciences
Community Based Practice Program

STUDENT EVALUATION – 2010

Please note that this evaluation has been approved by MUHREC: Application#: CF07/2610 – 2007001663 previously known as Community Partnerships Program

Explanatory Statement

We are interested in how you evaluate the CBP program, placement, and yourself, in relation to knowledge, skills, and attitudes developed as a result of the Community Based Practice Program Placement you have just completed. The data collected is totally de-identified and only summary results will be presented to Faculty Management Committees, CBP Strategic and Operational Management Committees, field educators, medical educators and students so as to use an evidence-based approach in developing and implementing community-based medical education programs. No additional identifying information will be obtained and the data collected will comply fully with MUHREC guidelines. In order to ensure your responses are confidential and anonymous, you are requested ***NOT*** to write your name on the form. In this evaluation you are asked to give your opinion honestly and fairly. In this way, we trust these evaluations will augment the purpose of meeting the educational needs of students. If you have any questions, please contact me on: [redacted] via email to CBP Academic Convener [redacted]**)**

For each statement below, **circle the extent to which you disagree or agree.**

Academic Convener (Prof. Christine McMenamin)

Community Based Practice Program (previously known as the Community Partnerships Program)

The Community Based Practice Program This section deals with the CBP program as an integral part of the MBBS Year II course. Please evaluate how this **course** helped you to learn in relation to the following issues:	**Strongly Disagree**	**Disagree**	**Undecided**	**Agree**	**Strongly Agree**
1. The CBP program was personally challenging.	1	2	3	4	5
2. The CBP program broadened my understanding of the role of a health professional in the community.	1	2	3	4	5
3. The CBP program was personally rewarding.	1	2	3	4	5
4. The CBP program helped to develop me as a person.	1	2	3	4	5
5. CBP helped me understand how social context influences origin and progression of disease.	1	2	3	4	5
6. CBP helped me understand how doctors can work with other professionals.	1	2	3	4	5
7. CBP helped to develop my ability to communicate with a range of people.	1	2	3	4	5
8. The CBP information resources such as the Guide, brochures, website, etc. were useful tools.	1	2	3	4	5
9. The Academic Advisor visit to the CBP site was valued.	1	2	3	4	5
10. Overall, the knowledge and skills developed as a result of the CBP program will assist me in enhancing the wellbeing of people in the future.	1	2	3	4	5
CBP Placement and Field Educator Support This section deals with your evaluation of the CBP placement and the Field Educator and how well your learning was facilitated at the placement.	**Strongly Disagree**	**Disagree**	**Undecided**	**Agree**	**Strongly Agree**
11. The agency's orientation process enhanced my knowledge of the agency and its services.	1	2	3	4	5
12. The field educator's knowledge and expertise provided a professional perspective on issues individuals encounter and services provided to address issues.	1	2	3	4	5
13. The activities offered at the placement facilitated the achievement of my learning objectives listed in the Learning Agreement.	1	2	3	4	5
14. The CBP placement offered a learning environment that allowed me to take initiative, make decisions and enhanced my learning.	1	2	3	4	5
15. My field educator met with me for supervision on a regular basis to provide feedback, clarify issues and provide direction.	1	2	3	4	5
16. The ongoing and final formative field educator assessments were valuable learning opportunities that addressed personal and professional issues.	1	2	3	4	5
17. The opportunity to interact with other professionals enabled me to appreciate their roles and responsibilities.	1	2	3	4	5
18. My CBP Field Educator was a professional role model for me on placement.	1	2	3	4	5

My Contributions to the Learning Process It is important for us to assess your own commitment and contribution to the learning process. As a result of participating in CBP, please evaluate what you have learned and how you facilitated your own learning in terms of the following issues:	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
19. I was enthusiastic about the CBP program.	1	2	3	4	5
20. I actively engaged in activities while completing my CBP placement.	1	2	3	4	5
21. I actively interacted with professionals from other disciplines when given the opportunity to do so.	1	2	3	4	5
22. I utilised my interaction with my field educator as an opportunity to develop specific areas personally and professionally.	1	2	3	4	5
23. My interactions with diverse clients challenged my perspectives and assumptions.	1	2	3	4	5
24. As a result of participating in CBP, I have an improved understanding of barriers and social determinants on health.	1	2	3	4	5
25. As a result of participating in CBP, I have a better understanding of community services available, which could be useful in future, referrals as a medical practitioner.	1	2	3	4	5
26. As a result of participating in CBP, I feel confident to communicate with and assist people with different needs.	1	2	3	4	5
27. As a result of participating in CBP, I have improved my social and professional skills that can be applied in a medical context.	1	2	3	4	5
28. After participating in CBP, I am able to better understand the linkages between clinical and social issues of health.	1	2	3	4	5
29. As a result of participating in CBP, I have an improved understanding of the principles and role of health promotion in the community.	1	2	3	4	5
30. While completing CBP activities, I was able make connections between the practical support of health in the community and material/content/concepts that were learned through lectures across the MBBS program.	1	2	3	4	5
31. The CBP activities have been a valuable component of my learning experiences in the MBBS course.	1	2	3	4	5
32. I enjoyed my CBP placement and would recommend it to other students.	1	2	3	4	5
33. I believe that CBP is important in my future development as a doctor.	1	2	3	4	5
34. CBP has challenged my knowledge, skills, and attitudes in being more patient-centred and compassionate to the needs of people.	1	2	3	4	5

ADDITIONAL COMMENTS

34. What did you enjoy about your CBP experience?

_____
_____
_____
_____
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_____

35. As a result of your CBP learning experience, list any positive outcomes, which would enable you to become a better medical practitioner.

_____
_____
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_____
_____

36. What aspects, if any, of your CBP learning experience did you find disappointing, unhelpful or negatively or positively challenging (please specify which)?

_____
_____
_____

37. What suggestions can you give that might improve the CBP learning experience for next year's students?

_____
_____
_____

38. Any further comments?

_____
_____
_____

Thanks much for your feedback and cooperation!

9.3 Appendix 3 – Later Years Program Survey as Administered to Students from 2008-2010 CBP Cohorts

MONASH University
Medicine, Nursing and Health Sciences

Community Based Practice Program

LATER YEARS STUDENT EVALUATION – 2011

Please note that this evaluation has been approved by MUHREC: Application#: CF07/2610 – 2007001663 previously known as Community Partnerships Program

Explanatory Statement

We are interested in how you evaluate the CBP program, placement, and yourself, in relation to knowledge, skills, and attitudes developed as a result of the Community Based Practice Program Placement you completed in your second year of the MBBS. The data collected is totally de-identified and only summary results will be published or presented to Faculty Management Committees, CBP Committees, field educators, medical educators and students so as to use an evidence-based approach in developing and implementing community-based medical education programs. No additional identifying information will be obtained and the data collected will comply fully with MUHREC guidelines. In order to ensure your responses are confidential and anonymous, you are requested ***NOT*** to write your name on the form. In this evaluation you are asked to give your opinion honestly and fairly. In this way, we trust these evaluations will augment the purpose of meeting the educational needs of students. If you have any questions, please contact me on: [redacted] to CBP Academic Convener [redacted]

For each statement below, **circle the extent to which you disagree or agree.**

Academic Convener (Prof. Christine McMenamin)

Community Based Practice Program (previously known as the Community Partnerships Program)

The Community Based Practice Program	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
35. The CBP program helped to develop me as a person.	1	2	3	4	5
36. CBP helped to develop my ability to communicate with a range of people.	1	2	3	4	5
37. The opportunity to interact with other professionals enabled me to appreciate their roles and responsibilities.	1	2	3	4	5
38. My interactions with diverse clients challenged my perspectives and assumptions.	1	2	3	4	5
39. As a result of participating in CBP, I gained an improved understanding of barriers and social determinants for health.	1	2	3	4	5
40. As a result of participating in CBP, I gained a better understanding of community services available that could be useful in future referrals as a medical practitioner.	1	2	3	4	5
41. As a result of participating in CBP, I improved my social and professional skills that can be applied in a medical context.	1	2	3	4	5
42. After participating in CBP, I have been able to better understand the linkages between clinical and social issues of health.	1	2	3	4	5
43. As a result of participating in CBP, I gained an improved understanding of the principles and role of health promotion in the community.	1	2	3	4	5
44. In completing CBP activities, I have been able make connections between the practical support of health in the community and the material/ content/ concepts that were learned through lectures across the MBBS program.	1	2	3	4	5
45. The CBP activities were a valuable component of my learning experiences in the MBBS course.	1	2	3	4	5
46. The CBP challenged my knowledge, skills, and attitudes in being more patient-centred and compassionate to the needs of people.	1	2	3	4	5

ADDITIONAL COMMENTS

13. What did you enjoy about your CBP experience?

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14. What developments in understanding or attitude, if any, have stayed with you since completing the CBP?

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15. As a result of your CBP learning experience, list any outcomes that might have contributed to you becoming a better medical practitioner.

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16. What aspects, if any, of your CBP learning experience and legacy have you found disappointing, unhelpful, or challenging (either negatively or positively)?

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17. Any further comments?

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Thanks very much for your feedback and cooperation!

9.4 Appendix 4 – Australian Medical School Placement Programs

Australian Medical School Medical Education Placement Programs - 2010

Abbreviations used *Note that figures in parenthesis are the years of the course in which programs are offered*	***AU** - Adelaide University; **ANU** - Australian National University; **BU** - Bond University; **DU** - Deakin University; **FU** - Flinders University; **GU** - Griffiths University; **JCU** - James Cook University; **MU** - Monash University; **NU** - Newcastle University; NDS - Notre Dame Sydney; NDW; Notre Dame Western Australia; UM - University of Melbourne; UQ - University of Queensland; US - University of Sydney; UT - University of Tasmania; UNSW - University of New South Wales; UWA - University of Western Australia; UWS - University of Western Sydney; WU - Wollongong University*				
	Pre-clinical Years **(Clinical Observation)**	**Rotational** **(medical area based)**	**Longitudinal** **(patient based)**	**Community** **(local context or rural based)**	**Service Learning /** **(project based)**
Hospital based (tertiary & quaternary)	ANU(1&2) BU(1&2) DU(1) GU(1&2) JCU(3,4,5&6) UM(1&2) MU(1&2) NU(1&2) NDW(1&2) UQ(1&2) US(1&2) UT(1&2) UNSW(1&2) WU(1)	AU(3,4,5&6) ANU(3&4) BU(3&4) DU(2,3&4) FU(2,3&4) GU(3&4) UM(3,4&5) MU(3,4&5) NU(3,4&5) NDS(3&4) NDW(3&4) UQ(3&4) US(3&4) UT(3,4&5) UNSW(3,4,5&6) UWA (4,5&6) UWS(3,4&5) WU(2&4)	FU (3&4) UM(6) WU(3)	DU(3) FU(3&4) JCU(6) MU(2) NU(3) NDS(4) NDW(4) WU(3)	
Clinic based (secondary & some tertiary)	ANU(1&2) DU(1&2) JCU(3,4,5&6) UM(1&2) NDW(1&2) UQ(1) US(1&2) UT(1&2) UNSW(1&2) WU(1)	AU(4,5&6) ANU(3&4) BU(3&4) DU(3&4) FU(3&4) GU(3&4) UM(3,4&5) MU(3,4&5) NU(3,4&5) NDS(3&4) NDW(3&4) UQ(3&4) SU(3&4) UT(3,4&5) UNSW(3,4,5&6) UWA ($,5&6) UWS(3,4&5) WU(2&4)	FU (3&4) UM(6) WU(3)	AU(6) DU(3) FU(3&4) JCU(6) MU(2) NU(3) NDS(4) NDW(4) UQ(3) US(3&4) WU(3)	
Hospital/Clinic out-patient or other out-patient (medical ambulatory)	BU(2) DU(1&2) FU(2) JCU(2) JCU(3,4,5&6) UM(1&2) NU(2) NDS(1&2) NDW(1&2) UQ(1&2) US(1&2) UT(1&2) UNSW(1&2) WU(1)	AU(3,4,5&6) DU(3&4) FU(3&4) UM(3,4&5) MU(3,4&5) NU(3,4&5) NDS(3&4) NDW(3&4) UQ(3&4) US(3&4) UT(3,4&5) UNSW(3,4,5&6) UWA ($,5&6) UWS(3,4&5) WU(2&4)	FU (3&4) UM(6) WU(3)	AU(6) DU(3) FU(3&4) GU(4) JCU(6) NU(3) NDS(4) NDW(4) UQ(3) US(3&4) UWS(5) WU(3)	
General practice based (Primary)	AU(1) ANU(1) BU(2) DU(1) GU(1&2) JCU(1) MU(1) NU(1&2) NDS(1&2) NDW(1&2) UT(1&2) UWA(1,2&3) WU(1)	AU(4,5 &6) BU(4) DU(3&4) FU(3&4) GU(4) UM(6) MU(3&4) NU(3) NDS(3) NDW(3) UQ(3) UT(3&5) UNSW(5) UWA(5) UWS(5)	FU (3&4) WU(3)	AU(6) DU(3) FU(3&4) GU(4) JCU(6) NU(3) NDS(4) NDW(4) UQ(3) US(3&4) UWA(6) UNWS(3) UWS (5) WU(3)	
Non-clinical (other ambulatory & health promotion)	NDW(1&2) UWA(1)			MU(2), UWS(3)	MU(2) – 2007-11

Scale 1: Personal Learning
Reliability

Notes

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Case Processing Summary

		N	%
Cases	Valid	743	96.1
	Excluded[a]	30	3.9
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a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.834	.838	6

Item Statistics			
	Mean	Std. Deviation	N
CPP helped to develop my ability to communicate with a range of people	4.08	.913	743
Overall, the knowledge and skills developed as a result of the CPP program will assist me in enhancing the wellbeing of people in the future	3.79	.974	743
My interactions with diverse clients challenged my perspectives and assumptions	4.00	1.120	743
As a result of participating in CBP, I feel confident to communicate with and assist people with different needs	3.84	.915	743
As a result of participating in CBP, I have improved my social and professional skills that can be applied in a medical context	3.88	.916	743
CBP has challenged my knowledge, skills, and attitudes in being more patient-centred and compassionate to the needs of people	3.81	1.103	743

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.901	3.790	4.083	.293	1.077	.014	6
Item Variances	.988	.834	1.255	.421	1.504	.039	6
Inter-Item Covariances	.449	.324	.580	.256	1.788	.008	6
Inter-Item Correlations	.462	.322	.688	.366	2.136	.009	6

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
CPP helped to develop my ability to communicate with a range of people	19.32	15.043	.499	.272	.827
Overall, the knowledge and skills developed as a result of the CPP program will assist me in enhancing the wellbeing of people in the future	19.61	13.957	.619	.402	.804
My interactions with diverse clients challenged my perspectives and assumptions	19.41	13.813	.522	.274	.827
As a result of participating in CBP, I feel confident to communicate with and assist people with different needs	19.57	13.931	.680	.528	.793
As a result of participating in CBP, I have improved my social and professional skills that can be applied in a medical context	19.52	13.700	.718	.571	.786
CBP has challenged my knowledge, skills, and attitudes in being more patient-centred and compassionate to the needs of people	19.59	13.128	.634	.435	.801

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
23.40	19.411	4.406	6

Scale 2: Personal Engagement

Reliability

Notes

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Resources	Processor Time	00 00:00:00.016
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Case Processing Summary

		N	%
Cases	Valid	759	98.2
	Excluded[a]	14	1.8
	Total	773	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.868	.866	7

Item Statistics

	Mean	Std. Deviation	N
The CPP program was personally challenging	3.64	1.002	759
The CPP program was personally rewarding	3.72	1.046	759
The CPP program helped to develop me as a person	3.67	.996	759
I was enthusiastic about the CBP Program	3.43	1.092	759
The CBP activities have been a valuable component of my learning experiences in the MBBS course	3.36	1.193	759
I enjoyed my CBP placement and would recommend it to other students	3.59	1.274	759
I believe that CBP is important in my future development as a doctor	3.44	1.158	759

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.549	3.356	3.717	.361	1.108	.020	7
Item Variances	1.239	.993	1.623	.630	1.634	.055	7
Inter-Item Covariances	.600	.201	1.093	.892	5.433	.055	7
Inter-Item Correlations	.480	.184	.758	.574	4.122	.023	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
The CPP program was personally challenging	21.20	28.469	.412	.255	.877
The CPP program was personally rewarding	21.13	25.345	.705	.593	.841
The CPP program helped to develop me as a person	21.17	26.604	.610	.530	.854
I was enthusiastic about the CBP Program	21.42	26.452	.554	.362	.861
The CBP activities have been a valuable component of my learning experiences in the MBBS course	21.49	23.364	.788	.696	.828
I enjoyed my CBP placement and would recommend it to other students	21.26	23.474	.711	.580	.840
I believe that CBP is important in my future development as a doctor	21.40	24.323	.718	.613	.838

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
24.85	33.872	5.820	7

Scale 3: Understanding Connections with HP Item (Introduced for 2010 cohort)

Reliability

Notes

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Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
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Case Processing Summary

		N	%
Cases	Valid	127	16.4
	Excluded[a]	646	83.6
	Total	773	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.829	.836	8

Item Statistics

	Mean	Std. Deviation	N
The CPP program broadened my understanding of the role of a health professional in the community	3.84	.971	127
CPP helped me understand how social context influences origin and progression of disease	3.73	1.072	127
CPP helped me understand how doctors can work with other professionals	3.24	1.306	127
As a result of participating in CBP, I have an improved understanding of barriers and social determinants of health	4.30	.759	127
As a result of participating in CBP, I have a better understanding of community services available which could be useful in future referrals as a medical practitioner	4.19	.870	127

After participating in CBP, I am able to better understand the linkages between clinical and social issues of health	4.06	.857	127
As a result of participating in CBP, I have an improved understanding of the principles and role of health promotion in the community	3.81	.998	127
While completing CBP activities, I was able to contextualise material / content / concepts that were learned through lectures across the MBBS program	3.34	1.063	127

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.813	3.236	4.299	1.063	1.328	.143	8
Item Variances	.999	.576	1.706	1.129	2.959	.121	8
Inter-Item Covariances	.378	.148	.728	.580	4.919	.016	8
Inter-Item Correlations	.389	.142	.596	.454	4.197	.010	8

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
The CPP program broadened my understanding of the role of a health professional in the community	26.66	23.305	.522	.416	.814
CPP helped me understand how social context influences origin and progression of disease	26.77	22.717	.516	.436	.815
CPP helped me understand how doctors can work with other professionals	27.27	20.150	.621	.470	.803

As a result of participating in CBP, I have an improved understanding of barriers and social determinants of health	26.20	24.386	.557	.426	.812
As a result of participating in CBP, I have a better understanding of community services available which could be useful in future referrals as a medical practitioner	26.31	23.329	.601	.381	.805
After participating in CBP, I am able to better understand the linkages between clinical and social issues of health	26.45	23.075	.647	.523	.800
As a result of participating in CBP, I have an improved understanding of the principles and role of health promotion in the community	26.69	23.246	.509	.296	.815
While completing CBP activities, I was able to contextualise material / content / concepts that were learned through lectures across the MBBS program	27.17	22.631	.532	.290	.813

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
30.50	29.141	5.398	8

Scale 3: Understanding Connections Minus HP Item (For 2006-2009 Cohorts)

Reliability

Notes

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Resources	Processor Time	00 00:00:00.016
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Case Processing Summary

		N	%
Cases	Valid	766	99.1
	Excluded[a]	7	.9
	Total	773	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.772	.809	7

Item Statistics

	Mean	Std. Deviation	N
The CPP program broadened my understanding of the role of a health professional in the community	3.82	.996	766
CPP helped me understand how social context influences origin and progression of disease	3.74	1.852	766
CPP helped me understand how doctors can work with other professionals	3.43	1.169	766
As a result of participating in CBP, I have an improved understanding of barriers and social determinants of health	4.04	.961	766
As a result of participating in CBP, I have a better understanding of community services available which could be useful in future referrals as a medical practitioner	4.00	1.028	766

After participating in CBP, I am able to better understand the linkages between clinical and social issues of health	3.89	.994	766
While completing CBP activities, I was able to contextualise material / content / concepts that were learned through lectures across the MBBS program	3.09	1.111	766

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.713	3.091	4.037	.945	1.306	.116	7
Item Variances	1.427	.924	3.429	2.504	3.710	.803	7
Inter-Item Covariances	.466	.345	.580	.235	1.680	.005	7
Inter-Item Correlations	.377	.199	.602	.404	3.029	.013	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
The CPP program broadened my understanding of the role of a health professional in the community	22.18	23.427	.532	.328	.739
CPP helped me understand how social context influences origin and progression of disease	22.25	20.374	.344	.124	.814
CPP helped me understand how doctors can work with other professionals	22.57	23.004	.462	.277	.750
As a result of participating in CBP, I have an improved understanding of barriers and social determinants of health	21.96	23.061	.603	.442	.728

As a result of participating in CBP, I have a better understanding of community services available which could be useful in future referrals as a medical practitioner	22.00	22.546	.609	.424	.725
After participating in CBP, I am able to better understand the linkages between clinical and social issues of health	22.11	22.415	.653	.505	.718
While completing CBP activities, I was able to contextualise material / content / concepts that were learned through lectures across the MBBS program	22.90	22.907	.509	.310	.741

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
25.99	29.549	5.436	7

Scale 4: Learning Experience

Reliability

Notes

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Resources	Processor Time	00 00:00:00.016
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Case Processing Summary

		N	%
Cases	Valid	758	98.1
	Excluded[a]	15	1.9
	Total	773	100.0

a. Listwise deletion based on all variables in the procedure.

Item Statistics			
	Mean	Std. Deviation	N
The agency's orientation process enhanced my knowledge of the agency and its services	3.94	.957	758
The Field Educator's knowledge and expertise provided a professional perspective on issues individuals encounter and services provided to address issues	4.07	1.067	758
The activities offered at the placement facilitated the achievement of my learning objectives listed in the Learning Agreement	3.80	1.064	758
The CBP placement offered a learning environment that allowed me to take initiative, make decisions, and enhanced my learning	3.76	1.140	758
My Field Educator met with me for supervision on a regular basis to provide feedback, clarify issues and provide direction	4.01	1.128	758
The ongoing and final formative Field Educator assessments were valuable learning opportunities that addressed personal and professional issues	3.50	1.213	758
The opportunity to interact with other professionals enabled me to appreciate their roles and responsibilities	3.96	.987	758
My CBP Field Educator was a professional role model for me on placement	3.90	1.164	758

I actively engaged in activities while completing my CBP placement	4.15	.799	758
I actively engaged with professionals from other disciplines when given the opportunity to do so	4.09	.804	758
I utilised my interaction with my Field Educator as an opportunity to develop specific areas personally and professionally	3.78	.945	758

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.885	.882	11

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.906	3.496	4.154	.658	1.188	.036	11
Item Variances	1.067	.638	1.471	.833	2.306	.077	11
Inter-Item Covariances	.439	.147	.890	.743	6.068	.036	11
Inter-Item Correlations	.405	.171	.717	.546	4.192	.014	11

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
The agency's orientation process enhanced my knowledge of the agency and its services	39.03	52.138	.502	.276	.881

The Field Educator's knowledge and expertise provided a professional perspective on issues individuals encounter and services provided to address issues	38.89	48.182	.721	.631	.867
The activities offered at the placement facilitated the achievement of my learning objectives listed in the Learning Agreement	39.16	48.973	.663	.501	.871
The CBP placement offered a learning environment that allowed me to take initiative, make decisions, and enhanced my learning	39.21	48.648	.632	.463	.873
My Field Educator met with me for supervision on a regular basis to provide feedback, clarify issues and provide direction	38.95	48.165	.674	.532	.870
The ongoing and final formative Field Educator assessments were valuable learning opportunities that addressed personal and professional issues	39.47	47.967	.628	.427	.873
The opportunity to interact with other professionals enabled me to appreciate their roles and responsibilities	39.00	50.775	.586	.403	.876
My CBP Field Educator was a professional role model for me on placement	39.07	46.873	.738	.641	.865
I actively engaged in activities while completing my CBP placement	38.81	53.668	.486	.387	.881
I actively engaged with professionals from other disciplines when given the opportunity to do so	38.87	54.679	.392	.365	.886

I utilised my interaction with my Field Educator as an opportunity to develop specific areas personally and professionally	39.19	51.571	.555	.368	.878

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
42.96	59.989	7.745	11

MONASH University
Medicine, Nursing and Health Sciences Community Based Practice Program

Explanatory Statement - Students

12th June 2013

Title: MBBS Community Based Practice (CBP) Program Evaluation – Follow-up student, university staff and agency staff interviews

This information sheet is for you to keep.

My name is John Goodall and I am conducting a research project with Professor Christine McMenamin, in the Faculty of Medicine, Nursing & Health Sciences, Department of MBBS and Dr Tangerine Holt adjunct senior lecturer in the Faculty of Medicine, Nursing & Health Sciences, towards a PhD at Monash University. This means that I will be writing a thesis, which is the equivalent of a short book as well as several journal articles and conference papers.

You are invited to take part in this study. Please read this Explanatory Statement in full before making a decision.

You have been selected to be asked to take part in this interview stage of the project as you were shortlisted for the Silagy Award in your CBP year, indicating that you had taken full advantage of the opportunities presented by the program and will therefore be in an ideal position to reflect upon it more fully and deeply.

The purpose of the research is to gain evidence from you, as students, in the years after your completion of the Community Based Practice (CBP) program in Year 2 of your MBBS course as to whether there has been any persistence of change (if any) in your attitudes towards and understandings of the psychosocial determinants of health in a community, the barriers to health and the role of the non-medical community health support infrastructure. Evidence will also be sought as to what relevant skills you perceive as having been developed or enhanced by your experience of the program and what elements of the program were most or least satisfactory for you as students. Findings will be used both for further development of the program and to contribute to the body of research knowledge about community based medical education, both through contribution to a PhD thesis by one of the researchers, and through preparation and publication of papers and journal articles. The interview will be built upon the responses gained from previous surveys in order to gain a deeper qualitative understanding of the data arising from them. This is potentially important for medical education, as the experience you have had through this non-clinical community based program is almost unique across western medical education. Evidence of its success, or lack of success, will have very wide implications.

What does the research involve?

This part of the study involves for you a recorded semi-structured interview of approximately forty minutes length. To minimise any possible inconvenience for you, the interview will take place in a mutually agreed upon location as comfortable as practicable.

Can I withdraw from the research?
Being in this study is voluntary and you are under no obligation to consent to participation. However, if you do consent to participate, you may withdraw from further participation at any stage but you will only be able to withdraw data specifically arising from your interview.

Confidentiality & Storage of data

The information arising from your interview for publication in thesis or other form will be de-identified, including any quotations that may be used, with all other data being used only in summary form. Stored data will not be anonymous but will be kept confidential and private. Data collected will be stored in accordance with Monash University regulations, kept on University premises, in a locked filing cabinet or on a secure Monash server for 5 years. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

Results
If you would like to be informed of the aggregate research finding, please contact John Goodall on [redacted].

If you would like to contact the researchers about any aspect of this study, please contact the Chief Investigator:	If you have a complaint concerning the manner in which this research <insert your project number here> is being conducted, please contact:
Professor Christine McMenamin Telephone: [redacted] or via email to CBP Academic Convener [redacted]	Executive Officer Monash University Human Research Ethics Committee (MUHREC) Building 3e Room 111 Research Office Monash University VIC 3800 [redacted]

Thank you

[redacted]

John Goodall

MONASH University
Medicine, Nursing and Health Sciences
Community Based Practice Program

Consent Form - Students

Title: MBBS Community Based Practice (CBP) Program Evaluation – Follow-up student, university staff and agency staff interviews

NOTE: This consent form will remain with the Monash University researcher for their records

I agree to take part in the Monash University research project specified above. I have had the project explained to me, and I have read the Explanatory Statement, which I keep for my records. I understand that agreeing to take part means that:

List all procedures relevant to your data collection – delete those not applicable

I agree to be interviewed by the researcher	☐ Yes ☐ No
I agree to allow the interview to be audio-taped and/or video-taped	☐ Yes ☐ No
I agree to make myself available for a further interview if required	☐ Yes ☐ No

and

I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalised or disadvantaged in any way.

and

I understand that any data that the researcher extracts from the interview for use in reports or published findings will not, under any circumstances, contain names or identifying characteristics.

and

I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party.

and

I understand that data from the interview will be kept in a secure storage and accessible to the research team. I also understand that the data will be destroyed after a 5 year period unless I consent to it being used in future research.

Participant's name

Signature

Date

9.6 Appendix 7 – Documentation Relating to Interviews of Partner Organisation Staff

MONASH University
Medicine, Nursing and Health Sciences

Community Based Practice Program

Explanatory Statement -

Partner Community Organisation Staff

16 April 2013

Title: MBBS Community Based Practice (CBP) Program Evaluation – Follow-up student, university staff and agency staff interviews

This information sheet is for you to keep.

My name is John Goodall and I am conducting a research project with Professor Christine McMenamin, in the Faculty of Medicine, Nursing & Health Sciences, Department of MBBS and Dr Tangerine Holt adjunct senior lecturer in the Faculty of Medicine, Nursing & Health Sciences, towards a PhD at Monash University. This means that I will be writing a thesis, which is the equivalent of a short book as well as several journal articles and conference papers.

You are invited to take part in this study. Your email contact address has been obtained from Monash University's Community Based Practice (CBP) database with permission from the Head of Department. Please read this Explanatory Statement in full before making a decision.

You have been asked to take part in this project as you and your organisation have been involved over several years in coordinating or supervising students in Monash University's Community Based Practice (CBP) program for second year medical students.

The purpose of the research is to gain evidence as to whether there has been any perception from your organisation's point of view of change (if any) in student attitudes towards and understandings of the psychosocial determinants of health in a community, the barriers to health and the role of the non-medical community health support infrastructure. Evidence will also be sought as to what relevant skills you perceive as having been developed or enhanced by students' experience of the program and what elements of the program were most or least satisfactory for the faculty and/or for students. A further focus of the interview will be on the quality, authenticity and effectiveness of the partnerships developed through the program between your community organisation and the university medical faculty, especially in relation to opportunities for the faculty, students and community organisation to work together on projects to support community health or health promotion.

Findings will be used both for further development of the program and to contribute to the body of research knowledge about community based medical education, both through contribution to a PhD thesis by one of the researchers, and through preparation and publication of papers and journal articles. The interview will be built upon the responses gained from previous student surveys on the program in order to gain a deeper qualitative understanding of the data arising from them. This is potentially important for medical education as the experience of such core curriculum, non-clinical community based programs is quite rare across western medical education. Evidence of their success, or lack of success, will have wide implications.

What does the research involve?

This part of the study involves for you a recorded semi-structured interview of approximately forty minutes length. To minimise any possible inconvenience for you, the interview will take place in a mutually agreed upon location as comfortable as practicable.

Can I withdraw from the research?
Being in this study is voluntary and you are under no obligation to consent to participation. However, if you do consent to participate, you may withdraw from further participation at any stage but you will only be able to withdraw data specifically arising from your interview.

Confidentiality & Storage of data

The information arising from your interview for publication in thesis or other form will be de-identified, including any quotations that may be used, with all other data being used only in summary form. Stored data will not be anonymous but will be kept confidential and private. Data collected will be stored in accordance with Monash University regulations, kept on University premises, in a locked filing cabinet or on a secure Monash server for 5 years. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

Results
If you would like to be informed of the aggregate research finding, please contact John Goodall on [redacted]

If you would like to contact the researchers about any aspect of this study, please contact the Chief Investigator:	If you have a complaint concerning the manner in which this research <insert your project number here> is being conducted, please contact:
Professor Christine McMenamin Telephone: [redacted] to CBP Academic Convener [redacted]	Executive Officer Monash University Human Research Ethics Committee (MUHREC) Building 3e Room 111 Research Office Monash University VIC 3800 [redacted]

Thank you

[redacted]

John Goodall

Consent Form

Partner Community Organisation Staff

Title: MBBS Community Based Practice (CBP) Program Evaluation – Follow-up student, university staff and agency staff interviews

9.6.1.1 NOTE: This consent form will remain with the Monash University researcher for their records

I understand I will be asked to take part in the Monash University research project specified above. I have had the project explained to me, and I have read the Explanatory Statement, which I keep for my records. I understand that agreeing to take part means that:

I agree to be interviewed by the researcher ☐ Yes ☐ No

I agree to allow the interview to be audio-taped ☐ Yes ☐ No

I agree to make myself available for a further interview if required ☐ Yes ☐ No

and
I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalised or disadvantaged in any way.
and
I understand that any data that the researcher extracts from the interview for use in reports or published findings will not, under any circumstances, contain names or identifying characteristics.

and
I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party.

and
I understand that data from the interview will be kept in a secure storage and accessible to the research team. I also understand that the data will be destroyed after a 5 year period unless I consent to it being used in future research.

Participant's name

Signature

Date

9.7 Appendix 8 – Documentation Relating to Interviews of University Faculty Staff

MONASH University
Medicine, Nursing and Health Sciences Community Based Practice Program

Explanatory Statement - Faculty Staff

14 February 2013

Title: MBBS Community Based Practice (CBP) Program Evaluation – Follow-up student, university staff and agency staff interviews

This information sheet is for you to keep.

My name is John Goodall and I am conducting a research project with Professor Christine McMenamin, in the Faculty of Medicine, Nursing & Health Sciences, Department of MBBS and Dr Tangerine Holt adjunct senior lecturer in the Faculty of Medicine, Nursing & Health Sciences, towards a PhD at Monash University. This means that I will be writing a thesis, which is the equivalent of a short book as well as several journal articles and conference papers.

You are invited to take part in this study. Please read this Explanatory Statement in full before making a decision.

You have been asked to take part in this project as you have been responsible for the development and/or coordination of a non-clinical, community based placement program for undergraduate medical students that works in partnership with a range of community organisations.

The purpose of the research is to gain evidence as to whether there has been any perception from the faculty's point of view of change (if any) in student attitudes towards and understandings of the psychosocial determinants of health in a community, the barriers to health and the role of the non-medical community health support infrastructure. Evidence will also be sought as to what relevant skills you perceive as having been developed or enhanced by students' experience of the program and what elements of the program were most or least satisfactory for the faculty and/or for students. A further focus of the interview will be on the quality, authenticity and effectiveness of the partnerships developed through the program between your faculty and community organisations, especially in relation to opportunities for the faculty, students and community organisation to work together on projects to support community health or health promotion.

Findings will be used both for further development of the program and to contribute to the body of research knowledge about community based medical education, both through contribution to a PhD thesis by one of the researchers, and through preparation and publication of papers and journal articles. The interview will be built upon the responses gained from previous student surveys on such a program at Monash University, Australia, in order to gain a deeper qualitative understanding of the data arising from them. This is potentially important for medical education as the experience of such core curriculum, non-clinical community based programs is quite rare across western medical education. Evidence of their success, or lack of success, will have wide implications.

What does the research involve?

This part of the study involves for you a recorded semi-structured interview of approximately forty minutes length. To minimise any possible inconvenience for you, the interview will take place in a mutually agreed upon location as comfortable as practicable.

Can I withdraw from the research?
Being in this study is voluntary and you are under no obligation to consent to participation. However, if you do consent to participate, you may withdraw from further participation at any stage but you will only be able to withdraw data specifically arising from your interview.

Confidentiality & Storage of data

The information arising from your interview for publication in thesis or other form will be de-identified, including any quotations that may be used, with all other data being used only in summary form. Stored data will not be anonymous but will be kept confidential and private. Data collected will be stored in accordance with Monash University regulations, kept on University premises, in a locked filing cabinet or on a secure Monash server for 5 years. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

Results
If you would like to be informed of the aggregate research finding, please contact John Goodall on [redacted].

If you would like to contact the researchers about any aspect of this study, please contact the Chief Investigator:	If you have a complaint concerning the manner in which this research <insert your project number here> is being conducted, please contact:
Professor Christine McMenamin [redacted] to CBP Academic Convener [redacted]	Executive Officer Monash University Human Research Ethics Committee (MUHREC) Building 3e Room 111 Research Office Monash University VIC 3800 [redacted]

Thank you

[redacted]

John Goodall

Consent Form

Faculty Staff

Title: MBBS Community Based Practice (CBP) Program Evaluation – Follow-up student, university staff and agency staff interviews

NOTE: This consent form will remain with the Monash University researcher for their records

I agree to take part in the Monash University research project specified above. I have had the project explained to me, and I have read the Explanatory Statement, which I keep for my records. I understand that agreeing to take part means that:

I agree to be interviewed by the researcher	☐ Yes ☐ No
I agree to allow the interview to be audio-taped and/or video-taped	☐ Yes ☐ No
I agree to make myself available for a further interview if required	☐ Yes ☐ No

and

I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalised or disadvantaged in any way.

and

I understand that any data that the researcher extracts from the interview for use in reports or published findings will not, under any circumstances, contain names or identifying characteristics.

and

I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party.

and

I understand that data from the interview will be kept in a secure storage and accessible to the research team. I also understand that the data will be destroyed after a 5 year period unless I consent to it being used in future research.

Participant's name

Signature

Date

9.8 Appendix 9 – Summary of all Thematic Codings for all Qualitative Datasets

Student Evaluation Responses	Later Years Student Comments	Later Years Student Interviews	Faculty Interviews	Partner Interviews
Student Surveys Scales	**Student Surveys Scales**	**Student Surveys Scales**	**Student Surveys Scales**	**Student Surveys Scales**
Understanding the Connections	**Understanding the Connections**	**Understanding the Connections**	**Understanding the Connections**	**Understanding the Connections**
Professionalism & Interprofessionalism	Professionalism & interprofessionalism	Professionalism & interprofessionalism	Professionalism & interprofessionalism	Professionalism & Interprofessionalism
Determinants of health, social factors & access	Determinants of health, social factors & access	Determinants of health, social factors & access	Determinants of health, social factors & access	Determinants of health, social factors & access
Connection between placement & MBBS	Connection between placement & MBBS	Connection between placement & MBBS	Connection between placement & MBBS	Connection between placement & MBBS
Community Health	Community health	Community health	Community health	Community Health
Community Health Support Infrastructure	Community health support infrastructure	Community health support infrastructure	Community health support infrastructure	Community health support infrastructure
Community Health Issues	Community Health Issues	Community Health Issues	Community Health Issues	Community Health Issues
Personal Learning	**Personal Learning**	**Personal Learning**	**Personal Learning**	**Personal Learning**
Teamwork or Cooperative Learning	Teamwork or cooperative learning	Teamwork or cooperative learning	Teamwork or cooperative learning	Teamwork or cooperative learning
Respect for others and or empathy	Respect for others and or empathy	Respect for others and or empathy	Respect for others and or empathy	Respect for others & empathy
	Longer Term Outcomes	**Longer Term Outcomes**	**Longer Term Outcomes**	**Longer term outcomes**
	Sustained Learning	Sustained Learning	Sustained Learning	
	Maturation of Learning	Maturation of Learning	Maturation of Learning	Maturation of Learning
	Better Doctor	Better Doctor	Better Doctor	Better Doctor
HP Project, HP and Research Skills	HP Project, HP & Research Skills	HP Project, HP & Research Skills	HP Project, HP & Research Skills	HP Project, HP & research skills
Experiencing medical or health support in action	Experiencing medical or health support in action	Experiencing medical or health support in action	Experiencing medical or health support in action	Experiencing medical or health support in action
Develop new understandings and skills	Develop new understandings & skills	Develop new understandings & skills	Develop new understandings & skills	Develop new understanding & skills
Communication and interaction skills	Communication and Interaction Skills	Communication and Interaction Skills	Communication and Interaction Skills	Communication & interaciton skills
Personal Engagement	**Personal Engagement**	**Personal Engagement**	**Personal Engagement**	**Personal Engagement**
Learning style	Learning style	Learning style	Learning style	Learning style
Interest or passion	Interest or passion	Interest or passion	Interest or passion	Interest or passion
Feeling reward or enjoyment	Feeling reward or enjoyment	Feeling reward or enjoyment	Feeling reward or enjoyment	Feeling reward or enjoyment
Experiencing difference	Experiencing difference	Experiencing difference	Experiencing difference	Experiencing difference
Challenging	Challenging	Challenging	Challenging	Challenging
Community Placement Experience	**Community Placement Experience**	**Community Placement Experience**	**Community Placement Experience**	**Community Placement Experience**
Placement Activities	Placement activities	Placement activities	Placement activities	Placement activities
Nature of placement	Nature of placement	Nature of placement	Nature of placement	Nature of placement
Location of placement	Location of placement	Location of placement	Location of placement	Location of placement
Interaction with clients	Interaction with clients	Interaction with clients	Interaction with clients	Interaction with clients
Field Educator & health support professionals	Field educator & health support professionals	Field educator & health support professionals	Field educator & health support professionals	Field Educator & health support professionals
Fellow Students on Placement	Fellow students on placement	Fellow students on placement	Fellow students on placement	Fellow students on placement
Faculty Administration & Support	**Faculty Administration & Support**	**Faculty Administration & Support**		
Support for Program & Students	Support for Program & Students	Support for Program & Students		
Student Welfare Support	Suggestions for Change	Suggestions for Change		
HP Support				
CBP Coordination & Organisation				
Suggested Changes				
Feelings	**Feelings**	**Feelings**	**Feelings**	**Feelings**
Positive	Positive	Positive	Positive	Positive
Negative	Negative	Negative	Negative	Negative
CanMeds Competencies	**CanMeds Competencies**	**CanMeds Competencies**	**CanMeds Competencies**	**CanMeds Competencies**
Scholar Role	Scholar Role	Scholar Role	Scholar Role	Scholar Role
Professional Role	Professional Role	Professional Role	Professional Role	Professional Role
Medical Expert Role	Medical Expert Role	Medical Expert Role	Medical Expert Role	Medical Expert Role
Health Advocate Role	Health Advocate Role	Health Advocate Role	Health Advocate Role	Health Advocate Role
Communicator Role	Communicator Role	Communicator Role	Communicator Role	Communicator Role
Collaborator Role	Collaborator Role	Collaborator Role	Collaborator Role	Collaborator Role
			Specific Faculty Response Codings	**Specific Partner Response Codings**
			Sensitisation	**Student specific**
			Resistance	Students Getting it
			Partnership	Ongoing student involvement
			Maturation	Holistic view of health
			Leadership	Community sensitivity
			Integration with the curriculum	**Partner specific**
			Impact on Faculty	Purpose of Placement
			Description of the program	Field Educator experience
				Description of placement & range of services
				Description of partner organisation
				Benefits to Partner
				Faculty-Partner relationship
				Suggested changes
				Faculty support

10 References

1. Dewey J. Experience & Education. New York, USA: Kappa Delta Pi; 1938.
2. Freire P. Cultural Action for Freedom. Harmondsworth: Penguin; 1972 1972.
3. Elam CL, Sauer MJ, Stratton TD, Skelton J, Crocker D, Musick DW. Service learning in the medical curriculum: developing and evaluating an elective experience. Teaching and Learning in Medicine. 2003;15(3):194-203.
4. World Health Organisation. Declaration of Alma-Ata. In: Organisation UNWH, editor. Geneva: World Health Organisation; 1978.
5. General Medical Council. Tomorrow's Doctors. London, UK: General Medical Council, 2003.
6. Flexner A. Medical Education in the United States and Canada: A Report to the Carnegie Foundation for the Advancement of Teaching. Boston: Carnegie Foundaiton for the Advancement of Teaching, 1910 1910. Report No.
7. Osler W. The principles and practice of medicine: Appleton; 1909.
8. Silagy C. The Cochrane collaboration. Education for Health. 1997;10(1):115-7.
9. Illich I. Medical Nemesis. London: Calder & Boyars; 1975.
10. WHO. Ottawa Charter for Health Promotion. Ottawa: World Health Organisation; 1986.
11. World Health Organisation. Jakarta Declaration on Leading Health Promotion into the 21st Century. Geneva: World Health Organisation, 1997.
12. World Health Organisation. The Bangkok Charter for Health Promotion in a Globalized World. Geneva: World Health Organization, 2005.
13. WHO. Jakarta Declaration on Leading Health Promotion nto the 21st Century. Jakarta: World Health Organization; 1997.
14. WHO. The Bangkok Charter for Health Promotion in a Globalized World. Bangkok: World Health Organisation; 2005.
15. Vogel AL. Advancing Service Learning in Health Professions Education: Maximizing Sustainability, Quality, and Co-leadership. Baltimore, Maryland: John Hopkins Huniversity; 2009.
16. Vogel AL, Seifer SD. Evaluating the Long-Term Sustainability and Impact of SL in the Health Professions: A Ten Year Follow-Up Study of the HPSISN Program". Eighth International Research Conference on Service-Learning and Community Engagement; October 25-28, 2008; New Orleans, LA2008.
17. Australian Medical Council. Assessment and Accreditation of Medical Schools: Standards and Procedures. Canberra, Australia: Australian Medical Council Limitied, 2010.
18. Hutchinson TA. Whole person care: Springer; 2011.
19. Durkheim E. Emile Durkheim: Selected Writings. New York: Cambridge University Press; 1972 1972.
20. Parsons T. Essays in Sociological Theory. Revised Edition: Ill., Free Press; 1954.
21. Parsons TPD. Ilness and the role of the physician: A sociological perspective*. American Journal of Orthopsychiatry. 1951;21(3):452-60.
22. Dornan T, Littlewood S, Margolis SA, Scherpbier A, Spencer J, Ypinazar V. How can experience in clinical and community settings contribute to early medical education? A BEME systematic review.[see comment]. Med Teach. 2006;28(1):3-18.
23. Davison H, Capewell S, Macnaughton J, Murray S, Hanlon P, McEwen J. Community-oriented medical education in Glasgow: developing a community diagnosis exercise. Medical Education. 1999;33(1):55-62.
24. Goodrow B, Meyers PL. The Del Rio Project: A Case for Community-Campus Partnership. Education for Health. 2000;13(2):213-20.
25. Kristina TN, Majoor GD, van der Vleuten CP, van der Vleuten CPM. Defining generic objectives for community-based education in undergraduate medical programmes. Medical Education. 2004;38(5):510-21.
26. Nazareth IM, K. Medical education in the community - the UNITRA experience. Medical Education. 1999;33(10):722-4.
27. Worley P, Silagy C, Prideaux D, Newble D, Jones A. The Parallel Rural Community Curriculum: An integrated clinical curriculum based in rural general practice. Medical Education. 2000;34(7):558-65.
28. Howe A. Twelve tips for community-based medical education. Med Teach. 2002;24(1):9-12.
29. Goswami K, Anand K, Lobo J, Kapoor SK. Community-based Education in Rural Areas by the All India Institute of Medical Sciences. Education for Health. 1998;11(3):327-35.
30. Iwama De Mattos MC, Machado JLM, Ruiz T. Teaching in the Community: Changing and Implementing a New Curriculum. Education for Health. 1998;11(3):319-25.

31. Daly M, Perkins D, Kumar K, Roberts C, Moore M. What factors in rural and remote extended clinical placements may contribute to preparedness for practice from the perspective of students and clinicians? Med Teach. 2013;35(11):900-7.
32. Rivo ML, Henderson TM, Jackson DM. State legislative strategies to improve the supply and distribution of generalist physicians, 1985 to 1992. American journal of public health. 1995;85(3):405-7.
33. Howe A. Teaching in practice: a qualitative factor analysis of community-based teaching. Medical Education. 2000;34(9):762-8.
34. Sprafka S. Defining and Using Professional Behavior Standards: An Approach Underway at the University of New England. Education for Health. 1999;12(3):245-8.
35. O'Sullivan M, Martin J, Murray E. Students' perceptions of the relative advantages and disadvantages of community-based and hospital-based teaching: a qualitative study.[see comment]. Medical Education. 2000;34(8):648-55.
36. Alnasir F, Grant N. Student self-assessment in a community-based clinical clerkship in family medicine: A preliminary report. Education for Health. 1999;12(2):161-6.
37. Lempp H, Seabrook M, Woodfield S. Increasing Community-based Learning in a Medical Curriculum through Electives: A Preliminary Report. Education for Health. 1999;12(1):39-47.
38. Snadden DM, D. Community-based curriculum development: what does it really mean? Med Teach. 1995;17(3):245-8.
39. Howe A, Ives G. Does community-based experience alter career preference? New evidence from a prospective longitudinal cohort study of undergraduate medical students. Medical education. 2001;35(4):391-7.
40. Seifer SD. Commentary on introducing community-based teaching of third year medical students: Outcomes of a pilot project one year later and implications for managing change. The critical role of faculty in supporting and sustaining innovation. Education for Health. 2000;13(1):63-7.
41. Coleman MT, Roberts K., Wulff D, van Zyl R, Newton K. Interprofessional ambulatory primary care practice-based educational program. J Interprof Care. 2008;22(1):69-84.
42. Monash University Council. Monash Directions 2025. Clayton Australia: Monash University, 2005 2005. Report No.
43. Stella A, Baird J. Community Engagement and Inclusion in Australian Higher Education: A Thematic Analysis of AUQA's Cycle 1 Audits. Melbourne: The Australian Universities Quality Agency, 2008.
44. Kite Centre for Knowledge Innovation Technology and Enterprise. Towards a stakeholder perspective on university/community engagement. Newcastle Upon Tyne: University of Newcastle Upon Tyne, 2010.
45. The South African Council on Higher Education. Community Engagement in South African Higher Education. Auckland Park, South Africa: The South African Council on Higher Education, 2010.
46. Clover DE, McGregor C, editors. Community-University Partnerships: Connecting for Change. Third International Community-University Exposition (CUexpo 2008); 2008; Victoria, British Columbia, Canada: University of Victora.
47. Harvard University. Beyond the Yard: Community engagement at Harvard. Boston, USA: Harvard University, 2009.
48. Driscoll A. Carnegie's Community-Engagement Classification: Intentions and Insights. Menlo Park, California: The Carnegie Foundation for the Advancement of Teaching, 2008.
49. McCormick AC. The Carnegie Classification of Institutions of Higher Education, 2000. Menlo Park, California: The Carnegie Foundation for the Advancement of Learning, 2000.
50. Peters N. Community Based Practice Program: CBP Guide 2013. Clayton, Victoria, Australia: Monash University, Faculty of Medicine, Nursing & Health Sciences; 2013.
51. Jacoby B. Building Partnerships for Service-Learning. San Fancisco, CA, U.S.A.: Jossey-Bass, John Wiley & Sons; 2003.
52. Cashman SB, Seifer SD. Service-Learning: An Integral Part of Undergraduate Public Health. American Journal of Preventive Medicine. 2008;35(3):273-8.
53. Hunt JB, Bonham C, Jones L. Understanding the goals of service learning and community-based medical education: a systematic review. Academic medicine : journal of the Association of American Medical Colleges. 2011;86(2):246-51.
54. Warren MD. A Chronology of State Medicine, Public Health, Welfare and Related Services in Britain 1066-1999. London: Faculty of Public Health Medicine of the Royal Colleges of Physicians of the United Kingdom; 2000.
55. Ogur B, Hirsh D, Krupat E, Bor D. The Harvard Medical School-Cambridge integrated clerkship: an innovative model of clinical education. Academic Medicine. 2007;82(4):397-404.
56. Thistlethwaite JE, Bartle E, Chong AAL, Dick M-L, King D, Mahoney S, et al. A review of longitudinal community and hospital placements in medical education: BEME Guide No. 26. Med Teach. 2013;35(8):e1340-64.

57. Australian Medical Council. Standards for Assessment and Accreditation of Primary Medical Programs by the Australian Medical Council 2012. In: Limited AMC, editor. Canberra, Australia: Australian Medical Council Limited; 2012.
58. Hamad B. Community-oriented medical education: what is it? Medical Education. 1991;25:16-22.
59. Cooper CW. Medical students' perceptions of an undergraduate general practice preceptorship. Fam Pract. 1992;9(3):323-9.
60. Howe A. Twelve tips for community-based medical education. Med Teach. 2002;24(1):9-12.
61. Wenrich MD, Jackson MB, Wolfhagen I, Ramsey PG, Scherpbier AJJ. What are the benefits of early patient contact?--A comparison of three preclinical patient contact settings. BMC Med Educ. 2013;13:80.
62. Yardley S, Brosnan C, Richardson J. The consequences of authentic early experience for medical students: creation of metis. Medical Education. 2013;47(1):109-19.
63. Yardley S, Littlewood S, Margolis SA, Scherpbier A, Spencer J, Ypinazar V, et al. What has changed in the evidence for early experience? Update of a BEME systematic review. Med Teach. 2010;32(9):740-6.
64. Mathur SS, Bhalerao VR, Gorey R. An integrated community based approach in undergraduate medical teaching of maternal and child health--an experiment. J Postgrad Med. 1992;38(1):16-8.
65. Van Weel C, Crebolder H. General practice and medical education: experience in the Netherlands. The British Journal of General Practice. 1993;43(377):490.
66. Jira C, Kaba M. The Jimma community-based training programme. Education for Health. 1998;11(2):165-71.
67. Jinadu MK, Ojofeitimi EO, Oribabor P. Evaluation of an innovative approach to community-based medical undergraduate education in Nigeria. Education for Health. 2002;15(2):139-48.
68. Peleg R, Biderman A, Polaceck Y, Tandeter H, Shvartzman P. The family medicine clerkship over the past 10 years at Ben Gurion University of the Negev. Teach Learn Med. 2005;17(3):258-61.
69. Okayama M, Kajii E. Does community-based education increase students' motivation to practice community health care?--a cross sectional study. BMC Med Educ. 2011;11:19.
70. Puvanendran R, Vasanwala FF, Kamei RK, Hock LK, Lie DA. What do medical students learn when they follow patients from hospital to community? A longitudinal qualitative study. Med Educ Online. 2012;17.
71. Satran L, Harris IB, Allen S, Anderson DC, Poland GA, Miller WL. Hospital-based versus community-based clinical education: Comparing performances and course evaluations by students in their second-year pediatrics rotation. Academic Medicine. 1993;68(5):381-2.
72. Martinez IL, Mora JC. A community-based approach for integrating geriatrics and gerontology into undergraduate medical education. Gerontol Geriatr Educ. 2012;33(2):152-65.
73. Nicholson S, Osonnaya C, H. Carter Y, Savage W, Hennessy E, Collinson S. Designing a community-based fourth-year obstetrics and gynaecology module: An example of innovative curriculum development. Medical Education. 2001;2001(35):398-403.
74. Bradley III EL, Littles AB, Romrell LJ. The surgical clerkship: A contemporary paradigm. Journal of Surgical Research. 2012(177):14-20.
75. Worley P, Lines D. Can specialist disciplines be learned by undergraduates in a rural general practice setting? Preliminary results of an Australian pilot study. Med Teach. 1999;21(5):482-4.
76. Couper ID, P.S. W. Meeting the challenges of training more medical students: lessons from Flinders University's distributed medical education program. Medical Journal of Australia. 2010;193(1):34-6.
77. Medical Training Review Panel. Medical Training Review Panel: First Report. Canberra, Australia: Commonwealth Department of Health & Family Services, Australia, 1997.
78. Mugford B, Martin A. Rural rotations for interns: a demonstration programme in South Australia. Aust J Rural Health. 2001;9 Suppl 1:S27-31.
79. Duffy G, Ross SJ, Woolley TS, Sivamalai S, Whaleboat D, Miller A. Processes and outcomes for a successful engagement between a medical school and a remote Indigenous community in North Queensland, Australia. Rural and remote health. 2013;13(2):2277.
80. Page S, Birden H. Twelve tips on rural medical placements: what has worked to make them successful. Med Teach. 2008;30(6):592-6.
81. MacDowell M, Glasser M, Hunsaker M. A decade of rural physician workforce outcomes for the Rockford Rural Medical Education (RMED) Program, University of Illinois. Acad Med. 2013;88(12):1941-7.
82. Meili R, Fuller D, Lydiate J. Teaching social accountability by making the links: qualitative evaluation of student experiences in a service-learning project. Med Teach. 2011;33(8):659-66.
83. Farry P, Adams J, Walters L, Worley P, Dovey S. Development of the Rural Immersion Programme for 5th-year medical students at the University Of Otago. The New Zealand medical journal. 2010;123(1323):16-23.
84. Kaye D, Mwanika A, Burnham G, Chang LW, Mbalinda SN, Okullo I, et al. The organization and implementation of community-based education programs for health worker training institutions in Uganda. BMC Int Health Hum Rights. 2011;11 Suppl 1:S4.

85. Hoat LN, Wright EP. Community-university partnership: key elements for improving field teaching in medical schools in Vietnam Australia: Hanoi Medical University, Hanoi, Vietnam. luungochoat@gmail.com; 2008 [cited 8 101174860]. 4:[894]. Available from: http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=medl&NEWS=N&AN=18950254.
86. Boelen C. Social Accountability: Medical Education's Boldest Challenge. MEDICC Rev. 2008;10(4):52.
87. Crampton PES, McLachlan JC, Illing JC. A systematic literature review of undergraduate clinical placements in underserved areas. Medical Education. 2013;2013(47):969-78.
88. Fournier AM. Service learning in a homeless clinic. Journal of general internal medicine. 1999;14(4):258-9.
89. Clark DL, Melillo A, Wallace D, Pierrel S, Buck DS. A multidisciplinary, learner-centered, student-run clinic for the homeless. Family Medicine. 2003;35(6):394-7.
90. Lee DF, Lindshield CJ, Kuribayashi T, Kleinschmidt CK, Lee EK, Omori JS. Health Problems of Micronesian Patients at a Student-Run Free Homeless Clinic. provider. 2007;12:13.6.
91. Batra P, Chertok JS, Fisher CE, Manseau MW, Manuelli VN, Spears J. The Columbia-Harlem Homeless Medical Partnership: a new model for learning in the service of those in medical need United States: College of Physicians and Surgeons, Columbia University, New York, NY, USA. priya.batra@gmail.com; 2009 [cited 86 c5l, 9809909]. 5:[781-90]. Available from: http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=medl&NEWS=N&AN=19585243.
92. Dharamsi S, Richards M, Louie D, Murray D, Berland A, Whitfield M, et al. Enhancing medical students' conceptions of the CanMEDS Health Advocate Role through international service-learning and critical reflection: a phenomenological study. Med Teach. 2010;32(12):977-82.
93. Dehaven MJ, Gimpel NE, Dallo FJ, Billmeier TM. Reaching the underserved through community-based participatory research and service learning: description and evaluation of a unique medical student training program. J Public Health Manag Pract. 2011;17(4):363-8.
94. Hamilton JD, Ogunbode O. Medical education in the community: A Nigerian experience. Lancet. 1991;338(8759):99-102.
95. Mubuuke AG, Kiguli-Malwadde E, Byanyima R, Businge F. Evaluation of community based education and service courses for undergraduate radiography students at Makeree University, Uganda. Rural Remote Health. 2008;2008(8):976.
96. Bagala JP, MacHeka ND, Abebaw H, Wen LS. Implementation of the medical education partnership initiative: Medical students' perspective. Academic Medicine. 2014;89(8):32-4.
97. Kristina TN, Majoor GD, van der Vleuten CP, van der Vleuten CPM. Does CBE come close to what it should be? A case study from the developing world. Evaluating a programme in action against objectives on paper. Education for Health. 2005;18(2):194-208.
98. Wee LE, Xin YW, Koh GC. Doctors-to-be at the doorstep - comparing service-learning programs in an Asian medical school. Med Teach. 2011;33(9):e471-8.
99. Aslam R, Jaffery T, Zaidi Z. Service-learning: increasing civic responsibility in Pakistani students. Medical Education. 2011;45(5):524.
100. Howard DE, Rao CR, Desmond SM. Borrowing from the east to strengthen the west: Merging public health case studies of community-based service-learning practices from India and the United States. Journal of Community Practice. 2010;18(2):336-60.
101. Furco A. Service-learning: A balanced approach to experiential education. Expanding boundaries: Serving and learning. 1996;1:1-6.
102. Billig SH, Eyler J. Deconstructing Service-Learning: Research Exploring Context, Participation, and Impacts. Advances in Service-Learning Research: Information Age Publishing Inc., 80 Mason Street, P.O. Box 4967, Greenwich, CT 06830 (hardbound: ISBN-1-59311-071-5, $65.95; paperbound: ISBN-1-59311-070-7, $31.95). 2003. 278- p.
103. Seifer SD. Service-learning: Community-campus partnerships for health professions education. Academic Medicine. 1998;73(3):273-7.
104. Seifer SD. Service-learning: community-campus partnerships for health professions education. Academic medicine : journal of the Association of American Medical Colleges. 1998;73(3):273-7.
105. Fisher HM. Community service as an integral component of undergraduate medical education: facilitating student involvement. Bull N Y Acad Med. 1995;72(1):76-86.
106. Burrows MS, Chauvin S, Lazarus C, Chehardy P. Required Service Learning for Medical Students: Program Description and Student Response. Teach Learn Med. 1999;11(4):223-31.
107. Liang En W, Koh GC, Lim VK. Caring for underserved patients through neighborhood health screening: outcomes of a longitudinal, interprofessional, student-run home visit program in Singapore. Academic medicine : journal of the Association of American Medical Colleges. 2011;86(7):829-39.
108. Jones K, Blinkhorn LM, Schumann SA, Reddy ST. Promoting sustainable community service in the 4th year of medical school: a longitudinal service-learning elective. Teach Learn Med. 2014;26(3):296-303.

109. Brown RL, Marcus M. Bearing witness: the political agenda of community-based service learning. Subst Abus. 2005;26(3-4):3-4.
110. Gough R. PERSPECTIVE TRANSFORMATION AMONGST STUDENT INTERNS IN AN EAST AFRICAN INTERNATIONAL SERVICE-LEARNING PROGRAM: A CASE STUDY. 2013.
111. Karasik RJ. Reflecting on reflection: Capitalizing on the learning in intergenerational service-learning. Gerontol Geriatr Educ. 2013;34(1):78-98.
112. McMenamin R, McGrath M, Cantillon P, MacFarlane A. Training socially responsive health care graduates: Is service learning an effective educational approach? Med Teach. 2014;2014(36).
113. Mak DB, Miflin B. Living and working with the people of 'the bush': a foundation for rural and remote clinical placements in undergraduate medical education. Med Teach. 2012;34(9):e603-10.
114. Goodall J. Beyond the ward and waiting room: a community-based non-clinical placement programme for Australian medical students. Med Teach. 2012;34(12):1070-4.
115. Iles-Shih M, Sve C, Solotaroff R, Bruno R, Gregg J. Health and Illness in Context: A Pragmatic Interdisciplinary Approach to Teaching and Learning Applied Public Health Within an Urban Safety Net System. Journal of Public Health Management and Practice. 2011;17(4):308-12.
116. Hennen B. Demonstrating social accountability in medical education. Cmaj. 1997;156(3):365-7.
117. Wasylenki D, Byrne N, McRobb B. The social contract challenge in medical education. Medical Education. 1997;1997(31):250-8.
118. Wasylenki D, Cohen CA, McRobb B. Creating community agency placements for undergraduate medical education: a program description. Can Med Assoc J. 1997;156(3):379-93.
119. Lennox A, Petersen S. Development and evaluation of a community based, multiagency course for medical students: descriptive survey. British Medical Journal. 1998;316:596-9.
120. Johnson IL, Scott FE, Byrne NP, MacRury KA, Rosenfield J. Integration of community health teaching in the undergraduate medicine curriculum at the University of Toronto. American journal of preventive medicine. 2011;41(8704773, apl):S176-80.
121. Vogel A, Seifer S. Sustaining service-learning and maximising its benefits: the perspectives of community and academic partners. 137th Annual Meeting and Exposition of the American Public Health Association; November, 2009; Philadelphia, PA2009.
122. Hayes E, King C. Community-service Learning: Annotated Bibliography. 2006.
123. DeHaven MJ, Chen L. TeachingMedical Students Research While Reaching the Underserved. Family Medicine. 2005;37(5):315-7.
124. Jones P, Donald M. Teaching medical students about children with disabilities in a rural setting in a school. BMC Med Educ. 2007;7(12).
125. Powers CA, Thomson CC, Feuerstein I, Cross M, Powers EM, Prout M, et al. Smoking Sleuths: a pilot tobacco prevention elective for medical school students. J Cancer Educ. 2008;23(2):122-5.
126. Fitzakerley JL, Westra R. Service learning in rural communities. Medical students teach children about the brain. Minn Med. 2008;91(12):38-40.
127. Buff SM, Gibbs PY, Oubre OL, Ariail JC, Blue AV, Greenberg RS. Junior Doctors of Health(c): an interprofessional service-learning project addressing childhood obesity and encouraging health care career choices. Journal of allied health. 2011;40(3):e39-44.
128. Wolff M, Young S, Maurana C. A senior elective: promoting health in underserved communities. Family medicine. 2001;33(10):732-3.
129. Elam CL, Musick DW, Sauer MJ, Skelton J. How we implemented a service-learning elective. Med Teach. 2002;24(3):249-53.
130. Tsai DJ. Community-oriented Curriculum Design for Medical Humanities. Kaohsiung J Med Sci. 2008;24(7):373-9.
131. Mauiliu M, Sopoaga F, Ekeroma A. Community experience of a Pacific Immersion Programme for medical students in New Zealand. The New Zealand medical journal (Online). 2013;126:9-18.
132. Holt T, Goodall J, Canny B, Mendes P. Managing change and continuity in community-based medical education. AMEE; 2007 25-29 August; Trondheim, Norway2007.
133. Holt T, Goodall J, Jones K, Canny B, Mendes P. Community-based medical professionalism: learning by doing. 13th Ottowa Conference on Clinical Competence; 2008 5-8 March; Melbourne, Australia2008. p. 469-72.
134. Mudarikwa R, McDonnell J, Whyte S, Villaneuva E, Hill R, Hart W, et al. Community-based practice program in a rural medical school: Benefits and challenges. Med Teach. 2010;2010(32):990-6.
135. Goodall J, Holt T, Mandeltort H. CBP - The give and take of Community engagement. Inaugural Annual Medical Education Symposium; 2009 20-21 March; Churchill, Australia2009.
136. Carmichael A, McCall M. National Clinical Training Review, Report to the Medical Training Review Panel Clinical Training Sub-committee. Sydney: Medical Deans Australia & New Zealand, 2008 26 March, 2008. Report No.

137. WHO Commission on Social Determinants of Health World Health Organization. Closing the Gap in a Generation: Health Equity Through Action on the Social Determinants of Health: Commission on Social Determinants of Health Final Report: World Health Organization; 2008.
138. Chokshi DA. Teaching about health disparities using a social determinants framework. Journal of general internal medicine. 2010;25(2):182-5.
139. Ogur B, Hirsh D. Learning through longitudinal patient care-narratives from the Harvard Medical School-Cambridge Integrated Clerkship. Academic Medicine. 2009;84(7):844-50.
140. Monash Faculty of Medicine Nursing & Health Sciences. The Monash School of Medicine Undergraduate Course Clayton, Australia: Monash University; 2014 [cited 2015]. Available from: Monash University > Medicine, Nursing and Health Sciences > Medicine > Admissions > Direct-entry >.
141. Kaufman DM, Mann KV. Teaching and learning in medical education: how theory can inform practice. In: Swanwick T, editor. Understanding Medical Education: Evidence, Theory and Practice. Edinburgh, UK: Wiley-Blackwell; 2010. p. 16-37.
142. Schon DA. The new scholarship requires a new epistemology. Change. 1995;27(6):26.
143. Fry R, Kolb D. Experiential Learning Theory and Learning Experiences in Liberal Arts Education. New Directions for Experiential Learning. 1979;6:79-82.
144. Kolb AY, Kolb DA. The Learning Way: Meta-Cognitive Aspects of Experiential Learning. Simulation & Gaming. 2009;40(3).
145. Mezirow J. Contemporary paradigms of learning. Adult Education Quarterly. 1996;46(3):158-73.
146. Greene J, Caracelli V. Defining and describing the paradigm issue in mixed-method evaluation. In: Greene J, Caracelli V, editors. Advances in mixed method evaluation: The challenges and benefits of integrating diverse paradigms. San Francisco, CA: Jossey-Bass; 1997.
147. Greene J, Caracelli V, Graham W. Toward a conceptual framework for mixed-method evaluation design. Educational Evaluaiton and Policy Analysis. 1989;11(3):255-74.
148. Tashakkori A, Teddlie C. Mixed Methodology. Thousand Oaks, CA: SAGE Publicaitons; 1998.
149. Mayring P, Huber GL, Gurtler L, Kiegelmann M, editors. Mixed Methodology in Psychological Research. Rotterdam, Netherlands: Sense Publishers; 2007.
150. Leech N, Dellinger A, Brannagan K, Tanaka H. Evaluating Mixed Research Studies: A Mixed Methods Approach. Journal of Mixed Methods Research. 2009;4(1):17-31.
151. Onwuegbuzie AJ, Bustamante RM, Nelson JA. Mixed research as a tool for developing quantiative instruments. Journal of Mixed Methods Research. 2010;4(1):56-78.
152. Tavakol M, Sandars J. Quantitative and qualitative methods in medical education research: AMEE Guide No 90: Part I. Med Teach. 2014;36(9):746-56.
153. Tavakol M, Sandars J. Quantitative and qualitative methods in medical education research: AMEE Guide No 90: Part II. Med Teach. 2014;36(10):838-48.
154. Dwyer SC, Buckle JL. The space between: On being an insider-outsider in qualitative research. International journal of qualitative methods. 2009;8(1):54-63.
155. Adler PA, Adler P. Membership roles in field research: Sage; 1987.
156. Glaser BG, Strauss AL. The discovery of grounded theory: Strategies for qualitative research: Transaction Publishers; 2009.
157. Pawson R. The Science of Evaluation: A Realist Manifesto. London: Sage; 2013 3013.
158. Pawson R, Greenhalgh T, Harvey G, Walshe K. Realist review--a new method of systematic review designed for complex policy interventions. J Health Serv Res Policy. 2005;10 Suppl 1:21-34.
159. Medical technology: figuring in the equity factor. MEDICC Rev. 2009;11(1):3.
160. Kirkpatrick DL. The Four Levels of Evaluation. Infoline. 2007;07(0701):1-16.
161. Cherry MG, Fletcher I, O'Sullivan H, Shaw N. What impact do structured educational sessions to increase emotional intelligence have on medical students? BEME Guide No. 17. Med Teach. 2012;34(1):11-9.
162. Yardley S, Dornan T. Kirkpatrick's levels and education 'evidence'. Medical Education. 2012;46(1):97-106.
163. Australian Medical Council. Australian Medical Council Limited - Schools Canberra, Australia2010. Available from: http://www.amc.org.au/index.php/ar/bme/schools.
164. Raosoft Inc. Sample size calculator: Raosoft Incorporated; 2004 [cited 2013].
165. Frank JE. The CanMEDS 2005 physician competency framework. Better standards. Better physicians. Better care. Ottawa: The Royal College of Physicians and Surgeons of Canada, 2005.
166. Hunt JB, Bonham C, Jones L. Understanding the Goals of Service Learning and Community-Based Medical Education: A Systematic Review. Academic Medicine. 2011;86(2):246-51.
167. Thorne T, Lichtenstein G, Cutforth N, Tombari M. Community Based Learning Initiative: CBR Learning Outcomes Survey Princeton, NJ: Princeton University; 2011 [cited 2010 20/05/2011]. Available from: http://princetonsurvey.qualtrics.com/SE/?SID=SV_YUKLLiSQlsxLQE.

168. Okayama M, Kajii E. Does community-based education increase students' motivation to practice community health care? - a cross sectional study. BMC Med Educ. 2011;11(1):19.
169. Ocek ZA, Gursoy ST, Ciceklioglu M, Aksu F, Soyer MT. Student evaluation of an integrated, spiral model of epidemiology education at the Ege University. Education for Health. 2008;21(2):126.
170. Lovato C, Bates J, Hanlon N, Snadden D. Evaluating distributed medical education: what are the community's expectations? Medical Education. 2009;43(5):457-61.
171. Kristina TN, Majoor GD, Van Der Vleuten CP, Van Der Vleuten CPM. A survey validation of generic objectives for community-based education in undergraduate medical training. Education for Health. 2006;19(2):189-206.
172. Kristina TN, Majoor GD, van der Vleuten CP, Kristina TN, Majoor GD, van der Vleuten CPM. Comparison of outcomes of a community-based education programme executed with and without active community involvement. Medical Education. 2006;40(8):798-806.
173. Cronbach KJ. Coefficient alpha and the internal structure of tests. Psychometrika. 1951;16:297-334.
174. Raykov T. Scale Reliability, Cronbach's Coefficient Alpha, and Violations of Essential Tau-Equivalence with Fixed Congeneric Components. Multivariate Behavioral Research. 1997;32(4):329-54.
175. Flowers C. Community Partnerships Program Evaluation. Melbourne, Australia: Monash University Faculty of Medicine Nursing & Health Sciences, 2003 November 2003. Report No.
176. Burkett C, Robinson A. Community Partnerships Program - Final Report. Melbourne, Australia: Monash University Faculty of Medicine Nursing & Health Sciences, 2003 November 2003. Report No.
177. Mudarikwa RS, McDonnell JA, Whyte S, Villanueva E, Hill RA, Hart W, et al. Community-based practice program in a rural medical school: benefits and challenges. Med Teach. 2010;32(12):990-6.
178. Buckner AV, Ndjakani YD, Banks B, Blumenthal DS. Using service-learning to teach community health: the Morehouse School of Medicine Community Health Course. Academic medicine : journal of the Association of American Medical Colleges. 2010;85(10):1645-51.
179. Lindemann J, Hansen L, Neu N. Medical education through community experience: community projects at the University of South Dakota School of Medicine. South Dakota Journal of Medicine. 2001;54(6):213-6.
180. Silverstein NM, Johns E, Griffin JA. Students explore livable communities. Gerontol Geriatr Educ. 2008;29(1):19-37.
181. Howe A, Billingham K, Walters C. Helping tomorrow's doctors to gain a population health perspective - good news for community stakeholders. Medical Education. 2002;36(4):325-33.
182. Weston KM, Mullan JR, McLennan PL. Building research capacity through community-based projects. Medical Education. 2010;44(5):496-7.
183. Kristina TN, Majoor GD, van der Vleuten CPM. Defining generic objectives for community-based education in undergraduate medical programmes. Medical Education. 2004;38(5):510-21.
184. Bouhaimed M, Thalib L, Doi SA. Outcomes associated with community-based research projects in teaching undergraduate public health. Med Teach. 2008;30(4):384-8.
185. Dongre AR, Kalaiselvan G, Mahalakshmy T. The benefits to medical undergraduates of exposure to community-based survey research. Education for Health: Change in Learning and Practice. 2011;24(3):1-7.
186. Murdoch-Eaton D, Drewery S, Elton S, Emmerson C, Marshall M, Smith JA, et al. What do medical students understand by research and research skills? Identifying research opportunities within undergraduate projects. Med Teach. 2010;32(3):e152-60.
187. Steneck NH, Bulger RE. The history, purpose, and future of instruction in the responsible conduct of research. Academic Medicine. 2007;82(9):829-34.
188. Bowater L, Wilkinson M. Twelve tips to teaching (legal and ethical aspects of) research ethics/responsible conduct of research. Med Teach. 2012;34(2):108-15.
189. Mayr A, Gefeller O, Prokosch H-U, Pirkl A, Fröhlich A, de Zwaan M. Web-based data collection yielded an additional response bias—but had no direct effect on outcome scales. Journal of clinical epidemiology. 2012;65(9):970-7.
190. Sinclair M, O'Toole J, Malawaraarachchi M, Leder K. Comparison of response rates and cost-effectiveness for a community-based survey: postal, internet and telephone modes with generic or personalised recruitment approaches. BMC medical research methodology. 2012;12(1):132.
191. Hohwü L, Lyshol H, Gissler M, Jonsson SH, Petzold M, Obel C. Web-based versus traditional paper questionnaires: a mixed-mode survey with a Nordic perspective. J Med Internet Res. 2013;15(8).
192. Frenk J, Chen L, Bhutta ZA, Cohen J, Crisp N, Evans T, et al. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. The lancet. 2010;376(9756):1923-58.
193. Machado JLM, Machado VMP, Vieira JE. How to Progress from Discourse to Practice? A New Agenda for Change in Medical Schools into the Next Decade. Creative Education. 2012;3(04):595.

194. Gibbs T, McLean M. Creating equal opportunities: The social accountability of medical education. Med Teach. 2011;33(8):620-5.
195. Boelen C. Prospects for change in medical education in the twenty-first century. Academic medicine : journal of the Association of American Medical Colleges. 1995;70(7 Suppl):S21-8; discussion S9-31.
196. Hosny S, Ghaly M, Boelen C. Is our medical school socially accountable? The case of Faculty of Medicine, Suez Canal University. Med Teach. 2015;37(S1):S47-S55.
197. Boelen C, Woollard R. Social accountability: the extra leap to excellence for educational institutions. Med Teach. 2011;33(8):614-9.
198. Boelen C, Dharamsi S, Gibbs T. The social accountability of medical schools and its indicators. Education for Health. 2012;25(3):180.
199. Rowson M, Smith A, Hughes R, Johnson O, Maini A, Martin S, et al. The evolution of global health teaching in undergraduate medical curricula. Global Health. 2012;8(1):35-.
200. Pfeil M, Howe A. Ensuring primary care reaches the 'hard to reach'. Qual Prim Care. 2004;12(3):185-90.
201. O'Halloran C, Humphris D. The New Generation Project Curriculum Model. Common Learning in Health and Social Care Undergraduate Education2004.
202. Johnson O, Bailey SL, Willott C, Crocker-Buque T, Jessop V, Birch M, et al. Global health learning outcomes for medical students in the UK. The Lancet. 2012;379(9831):2033-5.
203. The Training for Health Equity Network. THEnet's Evaluation Framework for Socially Accountable Health Professiobnal Education Version1. Monograph 1. Belgium: The Training for Health Equity Network; 2011.
204. Murray RB, Larkins S, Russell H, Ewen S, Prideaux D. Medical schools as agents of change: socially accountable medical education. Med J Aust. 2012;196(10):653.
205. Kaprielian VS, Silberberg M, McDonald MA, Koo D, Hull SK, Murphy G, et al. Teaching Population Health: A Competency Map Approach to Education. Academic medicine : journal of the Association of American Medical Colleges. 2013;88(5):626-37.
206. Lawlis TR, Anson J, Greenfield D. Barriers and enablers that influence sustainable interprofessional education: a literature review. J Interprof Care. 2014;28(4):305-10.
207. Ioannidis JPA, Ahmed T, Awasthi S, Clarfield AM, Clark J, Dandona L, et al. Open letter to the leader of academic medicine. BMJ (Clinical research ed). 2007;334(7586):191-3.
208. Westerhaus M, Finnegan A, Haidar M, Kleinman A, Mukherjee J, Farmer P. The Necessity of Social Medicine in Medical Education. Academic Medicine. 2015;90(5):565-8.
209. Feudtner C, Christakis DA, Christakis NA. Do clinical clerks suffer ethical erosion? Students' perceptions of their ethical environment and personal development. Academic medicine. 1994;69(8):670-9.
210. Coulehan J, Williams PC. Vanquishing virtue: the impact of medical education. Academic Medicine. 2001;76(6):598-605.
211. Haidet P, Dains JE, Paterniti DA, Hechtel L, Chang T, Tseng E, et al. Medical student attitudes toward the doctor–patient relationship. Medical education. 2002;36(6):568-74.
212. Haidet P, Stein HF. The Role of the Student-Teacher Relationship in the Formation of Physicians. Journal of General Internal Medicine. 2006;21(S1):S16-S20.
213. Bodenheimer T, Chen E, Bennett HD. Confronting the growing burden of chronic disease: can the US health care workforce do the job? Health Aff (Millwood). 2009;28(1):64-74.
214. Mayes R, Oliver TR. Chronic disease and the shifting focus of public health: is prevention still a political lightweight? J Health Polit Policy Law. 2012;37(2):181-200.
215. Goldberg D. The preparation of a syllabus in social medicine: McKeown revisited. Social Medicine. 2013;7(3):147-56.
216. McKeown T. The preparation of a syllabus in social medicine. Academic Medicine. 1957;32(2):110-5.

[i] It is interesting the Flexner himself devotes a whole chapter to the medical education of women (Chapter XIII, pp178-9). In it he is quite supportive of women having full access to medical training and notes that this was, in his time, readily available. He also notes however that there was a continuing decline in women taking up this opportunity and was at a loss to explain this.