Opening the Black Box of Guideline Implementation: Primary Health Care Nurses' Use of a Guideline for Cardiovascular Risk

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Certificate Of Authorship/Originality

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

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Abstract

Background

The implementation of evidence-based clinical practice guidelines in primary health care can substantially improve health promotion, early disease detection and the reduction of the burden of chronic disease. However, the implementation of evidence into clinical practice is a highly complex endeavour that has been said to occur in a 'black box', defying easily reached explanations of how it happens in practice.

The aim of this study is to explore the 'black box' of guideline implementation associated with primary health care nurses' use of a guideline that targets high health need populations in a region of New Zealand. The potential for improvement of cardiovascular health overall and the reduction of the marked disparities between Mäori (indigenous people of New Zealand) and non-Mäori drives the imperative to enact the recommendations of the Assessment and Management of Cardiovascular Risk guideline. Primary health care nurses are well positioned at the frontline of healthcare to implement the guideline and an investigation of the realities of their practice as they do so will help to illuminate the contents of this particular 'black box'.

The aim is achieved in two components by:

1. Exploring the complexities of primary health care nurses' use of the New Zealand Assessment and Management of Cardiovascular Risk guideline.
2. Employing the Promoting Action on Research Implementation in Health Services (PARiHS) framework to identify the enablers and

barriers to guideline implementation in the primary health care setting.

Method

Both components of this study involve qualitative methods. The first component involves qualitative description utilising focus groups and interviews to explore the perceptions and experiences of a range of primary health care professionals involved in implementing the AMCVR guideline and thematic analysis of data. The second component utilises template analysis of the data, based on the Promoting Action of Research Implementation in Health Services (PARiHS) framework. There are three elements of the PARiHS framework: Evidence, Context and Facilitation. This second component of the study is a systematic analysis of the enablers and barriers encountered by nurses as they implement the AMCVR guideline.

Results

The first component of the study generated four themes, which together have provided a rich portrait of the realities for nurses as they implemented the guideline. The four themes are self-managing client, everyday nursing practice, developing new relationships in the health team, and impact on health care delivery. The template analysis revealed that there were several enablers and barriers to guideline implementation in relation to Evidence and Context and that Facilitation was not occurring in a planned way.

Conclusion

Successful guideline implementation demands multidisciplinary, transformational practice development to create an effective workplace culture. Practice development is a powerful approach well suited to supporting primary health care nurses to maximise their practice-based knowledge and skills, and for them to contribute to the development of systems that will meet the information and communication requirements of successful guideline implementation. The imperative to improve cardiovascular health overall and specifically to address Mäori health inequity mandates sustained effort and mobilisation of resources to ensure successful implementation of the AMCVR guideline.

Chapter 1 - Introduction

This work reports an investigation of the use of an evidence-based guideline in primary health care nursing in a northern area of New Zealand. It seeks to explore the realities for primary health care nurses of implementing a guideline that targets high health need populations. Three convictions underpin this work; firstly, that care based on best evidence is most likely to achieve best health outcomes; secondly, that exploration of the implementation of a guideline has the potential to illuminate the complexities of evidence-based practice; and thirdly that primary health care nurses' potential for contributing to guideline implementation has yet to be optimised.

Background

I chose the Cardiovascular Risk Assessment and Management (AMCVR) guideline (New Zealand Guidelines Group, 2003a) because of its high credibility as a source of research evidence that addresses a major health problem in New Zealand. Cardiovascular disease statistics expose high prevalence as well as significant health inequity between Mäori (the indigenous people of New Zealand) and non- Mäori in New Zealand. Implementation of the guideline has the potential to prevent 55 per cent of future cardiovascular disease events (New Zealand Guidelines Group, 2003a). The region chosen as the location of the study represents a 'worst case scenario' of the need for implementation of the AMCVR guideline implementation: high levels of health need, socio-economic inequity and, specifically for Mäori, marked inequity in cardiovascular health, and, in general, rugged geography with a sparsely distributed population.

I see this work as an opportunity to contribute to the growing body of work about the transfer of evidence into practice and to give voice to primary health care nurses' knowledge, skills and expertise associated with the implementation of a guideline. Rather than merely describing what it is that nurses do when they are working with a guideline, I come to this study with a higher level purpose than merely informing or even changing the ideas of individuals. What I am interested in understanding is the reality of using guidelines in practice, not just a description of practice. I am seeking an in-depth understanding of the challenges, difficulties, barriers and enablers that primary health care nurses currently face in their everyday work. The study conforms to McCormack's (2009) view that the primary purpose of systematic critical inquiry into practice is to "generate new understandings about practice and its social, cultural, discursive and relational dimensions that enable and hinder clinical effectiveness" (p. 33). The value of this study is as a vehicle to uncover, generate and articulate everyday practice knowledge and to reveal opportunities for maximising nursing potential.

The implementation of the AMCVR guideline is imperative because of its potential to alleviate health inequity. Mäori suffer disproportionately on all measures of cardiovascular morbidity and mortality, and receive less cardiovascular treatment than the average New Zealander (Sharpe & O'Sullivan, 2006). Even though recent statistics show some improvement of cardiovascular health for the NZ population as a whole, there is a continued gap between Mäori and non-Mäori for all cardiovascular disease indicators (Tobias et al., 2008). While Mäori health status measured over time has improved, disparities persist when compared with those of non-Mäori (Ajwani, Blakely, Robson, Tobias, & Bonne, 2003). Coronary heart disease mortality rates for Mäori males from 35 to 64 years of age are 3.5 times higher compared with non-Mäori (Sharpe, 2006). For Mäori males aged 45 to 64 years, heart failure hospital admissions and mortality rates due to heart failure are more than eight times greater than for non-Mäori. There is similar inequity for Mäori females (Sharpe, 2006). These disparities are one measure of the inadequacy of health services to Mäori.

Improved health care for Mäori is essential not only in accordance with their rights to social justice but also under the terms of the Treaty of Waitangi [1]. The moral, ethical and Treaty-based imperative of improved cardiovascular health for Mäori is another sound reason for this study because maximising implementation of the AMCVR guideline increases the likelihood of risk reduction and the effective treatment of cardiovascular disease. Government agencies that fund and deliver

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[1] The Treaty of Waitangi is an agreement between the British Crown and the Mäori people and was signed in1840. It guarantees that the principles of Participation, Protection and Partnership will be taken into account in relation to all services provided by the New Zealand Government (as the Crown's representative) that affect Mäori.

health care services are mandated to improve health overall for Mäori. Government directives for cardiovascular health improvement are included in strategic plans, and through various funding streams and mechanisms (Minister of Health, 2001a, 2001b, 2001c, 2001d). Directives from central government and the district annual plans for the 21 New Zealand District Health Boards dominate the policy environment related to implementation of the AMCVR guideline in primary health care.

Guideline implementation is an endeavour influenced by complex and overlapping factors. The precise nature of getting evidence into practice is so resistant to explanation that it has been described as occurring in a 'black box' (Estabrooks, Wallin, & Milner, 2003; Forsetlund, Olaisen-Talseth, Bradley, Nordhem, & Bjorndal, 2003; Zeigler, 1980). Systems theory offers a useful perspective of the gap between evidence and practice with the 'black box' concept (Factor-Litvak & Sher, 2009). Using the analogy of a black box, a system consists of inputs, throughputs and outputs in which a casual mechanism occurs, is unknown ("black") but is assumed to occur within the throughput processes ("box") (Bhopal, 1997). Therefore, changes to outcomes may occur in two ways; either through changes to the inputs or by changing the processes within the box. Any changes to the processing within the box requires an understanding of the structure of the box, its workings and its pathways (Factor-Litvak & Sher, 2009).

The bulk of implementation research has been designed to skip over the messiness of the black box in an effort to expose cause-effect relationships between implementation interventions and consequent outcomes but have found no ‘magic bullets’ that predict successful guideline implementation (Oxman, Thomson, Davis, & Haynes, 1995; Shojania & Grimshaw, 2004). The study reported here is designed to carefully illuminate the recesses of the black box of guideline implementation to reveal its structure, workings and pathways and thereby contribute to an understanding of the potential for change likely to improve the uptake of evidence into practice.

Assumptions Underpinning This Study

Three assumptions underpin this work. The first is that care based on robust evidence is most likely to achieve the best health outcomes for most people. Guidelines provide a convenient form of pre-appraised evidence ready to implement in practice. The second assumption is that the recesses of the black box of evidence implementation can be illuminated through systematic inquiry designed to expose the everyday realities of clinical practice. The third assumption is that primary health care nurses’ expertise is not fully potentiated, is poorly understood and that inquiry into the implementation of the AMCVR guideline is a way to expose the complexities, barriers and enablers of practice.

Therefore, the aim of this study is to explore the ‘black box’ of guideline implementation associated with primary health care nurses’ use of a guideline that targets high health need populations in a region of New Zealand.

The aim is achieved in two components by:

1. Exploring the complexities of primary health care nurses' use of the New Zealand Assessment and Management of Cardiovascular Risk guideline.
2. Employing the Promoting Action on Research Implementation in Health Services (PARiHS) framework to identify the enablers and barriers to guideline implementation in the primary health care setting.

The research approach for the study facilitates access to the knowledge embedded in primary health care nurses' practice by employing, as advised by McCormack (2009), both inductive and deductive methods: qualitative thematic analysis and template analysis respectively.

The Framework Used to Guide the Study

There is extensive literature on guideline implementation that describes the use of research evidence by health professionals in clinical decision making, and the factors which may predict, facilitate or hinder the use of evidence in general (Cullum, 2002; Flottorp, Havelsrud, & Oxman, 2003; J. M. Grimshaw et al., 2004; Grol & Wensing, 2004; G. Harvey et al., 2002; R. Harvey, 2004; Haynes, Devereux, & Guyatt, 2002; Horne, 2004; Kitson, 1999; Kitson, Harvey, & McCormack, 1998; Loftus-Hills & Harvey, 2001; McCormack et al., 2002; McDonald & Smith, 2001; Rycroft-Malone, Harvey et al., 2002; Rycroft-Malone et al., 2001; C.

Thompson, Cullum, McCaughan, Sheldon, & Raynor, 2004; C. Thompson et al., 2001). However, there is less clarity about what works best in particular circumstances, and what actually works at the point of care, specifically for guideline utilisation in primary health care nursing.

In spite of rigorously developed evidence-based guidelines being available and widely disseminated for a vast range of health problems, there is still a gap between evidence and practice. The consequence is that many people do not receive optimal care and struggle with the physical, psychological, economic and social demands of their illness (Wagner, Austin et al., 2001).

An investigation of the black box of the implementation of the AMCVR guideline in primary health care nursing requires finely tuned tools to illuminate what really happens and how. The Promoting Action on Research Implementation in Health Services (PARiHS) framework has been found to be a useful tool for exploring the complexities of getting evidence into practice (Conklin & Stolee, 2008; Cummings, Estabrooks, Midodzi, Wallin, & Hayduk, 2007; Doran & Sidani, 2007; Larkin, 2008b). In light of the implementation literature, the PARiHS framework offers a useful guide for illuminating the black box of guideline implementation.

While there seems to be no reliable recipe for successful implementation of evidence into practice, the most likely ingredients have been incorporated in the PARiHS framework. The PARiHS framework situates the implementation of evidence at the point of health care delivery where client meets clinician. Successful implementation of evidence into practice in PARiHS terms occurs as an interplay of three core elements – the level and nature of the evidence, the culture of the environment into which evidence is to be implemented, and the mode of facilitation used to enhance implementation (G. Harvey et al., 2002; Kitson et al., 1998; McCormack et al., 2002; Rycroft-Malone, Harvey et al., 2002; Rycroft-Malone, Harvey et al., 2004; Rycroft-Malone et al., 2001). The multidimensional and interconnected nature of successful implementation (SI) of evidence into practice is represented in the framework as a function (f) of the nature of the Evidence (E) to be implemented, the Context (C) of implementation and the approach to Facilitation (F) so that SI = f (E,C,F) (Kitson et al., 1998). Each element has several sub elements with indicators for high and low likelihood of successful implementation.

Brief Introduction to the Chapters That Follow

The three elements of the PARiHS framework, Evidence, Context and Facilitation, provide the titles of Chapters Two, Three and Four. For the purposes of exploring the ‘big picture’ as well as the point of care issues associated with Evidence, Context and Facilitation, each of these chapters begins with an exploration of the broad perspective of primary health care, then drills down into to the specific issues that may impact on everyday practice.

In Chapter Five, I will describe and explain the methods used to achieve the aims of the study. This chapter provides the details of how participants were identified and ethical and cultural considerations were managed. Details also include how focus groups and individual interviews were conducted to access the realities of practice for those who are using the AMCVR guideline in their everyday practice. Data collection and analysis using thematic and template analysis processes are described in detail.

Chapter Six lays out four themes generated through thematic analysis of the data. Each theme is defined, interpreted and illustrated with examples of the participants' words to demonstrate that interpretation of the data has remained close to the data.

Chapter Seven presents the findings produced using the PARiHS framework as an analytical template in order to gain further understanding of the realities of practice for primary health care nurses in using the AMCVR guideline.

Chapter Eight compares, contrasts and integrates the findings from Chapters Six and Seven in order to make sense of the contents of the 'black box' of guideline implementation in Primary Health Care nursing. The suitability of the PARiHS framework is discussed as to its capacity to indicate the enablers and barriers to implementation of the AMCVR guideline in primary health care nursing. Finally, the implications of the findings for primary health care delivery, nursing practice and further research are presented.

Chapter Two - Evidence to Inform Practice

Introduction

This chapter explores the nature, use and usability of evidence in general and more specifically in the form of a guideline to inform primary health care practice. There are four key aspects to this chapter. Firstly, the early part of the chapter explores broadly the notion of evidence-based practice and what counts as evidence for practice and then proceeds to consider the use of guidelines as a form of pre-appraised, research based evidence. Secondly, the content of the AMCVR guideline is summarised to set the scene for a study of the use of this guideline in practice. Thirdly, a brief overview of the Promoting Action on Research Implementation in the Health Services (PARiHS) framework is presented as background to how the notion of Evidence[2] is situated within this work and also to foreshadow the focus of the next two chapters, Context and Facilitation. Finally, the first element of the PARiHS framework, Evidence, is explored in order to identify potential supports, tensions and constraints, relevant to the implementation of the AMCVR guideline in primary health care nursing.

Evidence-based practice (EBP) has attracted significant attention and debate in the literature. To illustrate, the Medline bibliographic database produced 34,228 hits on April 24th 2009 using "evidence-

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[2] Uppercase is used for the first letter of Evidence, Context and Facilitation when they represent the three elements of the PARiHS framework.

based practice" as a keyword and mapped by Ovid to "Evidence Based Practice" and "Evidence Based Medicine". In spite of this proliferation, the uptake of evidence into practice is not well understood and is said to occur in a black box (Estabrooks et al., 2003; Forsetlund et al., 2003).

What Counts as Evidence for Practice?

What actually counts as evidence for practice has been the subject of much debate. For some, the word 'evidence' refers to knowledge that is research based (P. French, 2002) and for others evidence comes from a variety of sources (Rycroft-Malone, Seers et al., 2004). A key proponent of evidence based practice considered it to involve the "…tools and resources for finding and applying current best evidence from research for the care of individual patients" (Haynes et al., 2002). This perspective has been well documented but its central focus on the relative worth of various research designs is now outdated because of its failure to inform the real crux of evidence based practice, that of getting evidence into clinical decisions at the point of care (Rosenberg & Donald, 1995; Sackett, Richardson, Rosenberg, & Haynes, 1998; Sackett & Rosenburg, 1995; Scottish Intercollegiate Guidelines Network, 2000). Many researchers have investigated implementation strategies (Dobbins, Ciliska, & DiCenso, 1998; Leeman, Baernholdt, & Sandelowski, 2007; Oxman et al., 1995; Shojania & Grimshaw, 2004) but have not presented conclusive evidence about the best way to 'do' implementation.

Clinical practice is messy, client-centred, multidimensional and context specific. Consequently, nurses' use of evidence in practice requires multiple sources of evidence, including but not restricted to research evidence. Primary health care nurses' needs for evidence to inform their practice in the context of this study will be explored in specific relationship to implementing the AMCVR guideline, not only to shed light on their use of the guideline but also to reveal the need for and uses of non research based evidence.

A much broader view of what counts as evidence is required to capture the complex, interactive process of getting evidence into everyday practice (Rycroft-Malone, Seers et al., 2004). One definition of evidence is that it is comprised of any observation that reveals an apparent relationship between phenomena (DiCenso, Guyatt, & Ciliska, 2005). One advantage of such a nonspecific definition is the implication that evidence based practice can occur at any time that observations are taking place. However, while evidence for practice arises from observations gleaned from a range of sources, critique and validation is essential for observations to be developed into evidence that is understood, shared and used by a health care team (Clarke, 1999; Majumba, Finlay, & Furberg, 2004; Rolfe, 2002; Rolfe & Gardner, 2006; Rycroft-Malone et al., 2004).

The Evidence/Practice Gap

The time lag from the generation of research evidence and the time it takes for its use in practice has been the subject of much study and debate. Researchers in the mid to late 1990s identified a number of barriers to obtaining clinically important evidence including that research findings are not seen as relevant to practice (Dobbins, Ciliska, Cockerill, Barnsley, & Dicenso, 2002), the lack of time necessary for keeping up to date (Dobbins et al., 2002; Sackett & Rosenburg, 1995), textbooks out of date (Sackett & Rosenburg, 1995), limited critical appraisal skills (Dobbins et al., 2002) and professional journals too disorganised to be helpful (Sackett & Rosenburg, 1995). All of these studies have limited their focus to evidence from research and the behaviour of individual clinicians. The complex environment of healthcare practice was mostly overlooked.

More recently the need for resources, leadership and skilled facilitation have been recognised as pivotal to the uptake of evidence into practice (G. Harvey et al., 2002; Kitson et al., 1998; McCormack et al., 2002; Rycroft-Malone, 2004; C. Thompson, 2003; C. Thompson, McCaughan, Cullum, Sheldon, & Raynor, 2005). Throughout this study, I will return to the importance of multiple sources of evidence, the complexity of the practice environment and the need for skilled facilitation as essential factors affecting the implementation of evidence into practice.

The AMCVR guideline as evidence for practice. The development and dissemination of the AMCVR guideline has been well resourced by the NZ Ministry of Health, developed by a New Zealand Guidelines Group team of recognised experts, with the support of the NZ Stroke Foundation and the NZ Heart Foundation. Guidelines developed by this group conform to the internationally validated Appraisal of Guidelines Research and Evaluation (AGREE) criteria (The AGREE Collaboration, 2003), including quality standards for evidence access and critique, formal consensus procedures, consumer participation and well planned implementation strategies (Burgers, Grol, Klazinga, Makela, & Zaat, 2003). These attributes have been linked to improved guideline adherence in practice (Burgers et al., 2003; Grol et al., 1998). The AMCVR guideline is of high quality and can be regarded as a credible source of research evidence for practice.

Credibility is a significant factor in the importance clinicians will attribute to a guideline. A comparison of cardiovascular disease prevention guidelines from UK, Canada, Australia, New Zealand and USA found the NZ-developed AMCVR guideline advocates the most cost effective and efficient cardiovascular disease prevention because it uses risk as the principal determinant of treatment rather than individual risk factors (Marshall, 2005). The AMCVR guideline recommendations are based on a client’s comprehensive overall score for the combined risk factors for cardiovascular disease. Risk equations are better predictors of cardiovascular disease than individual risk factors because they draw together the synergistic effect of multiple factors (Marshall, 2005).

The cardiovascular risk score measures the synergistic effect of cardiovascular risk factors, in particular, a history of cardiovascular disease, age, gender, diabetes, smoking, blood pressure and blood lipid concentrations (Jackson, 2000). The AMCVR guideline recommendations describe interventions, see below Table 2.1, to modify risk factors and thereby reduce the risk score. The risk score can be calculated using tools (e.g. computer software, and/or colour coded charts) based on the Framingham risk equation for first cardiovascular events (New Zealand Guidelines Group, 2003a). The goal of cardioprotective care is to achieve a score of less than 10% absolute risk of suffering a cardiovascular event within a five year period.

Table 2.1

The Assessment and Management of Cardiovascular Risk[4] *- Grading of Recommendations*

Guideline Sections	**Risk Assessment** [3]	**Drug Therapy**	**Advice to Guide Treatment Decision/s**	**Lifestyle Advice**
C/V Risk Assessment	12 x C			
Treatment Decisions	1 x A	1 x A, 1 x B, 2 x C	2 x C, 1 x ✓	2 x A, 1 x B, 3 x C
Cardioprotective Dietary Patterns	1 x A			7 x A, 1 x B, 2 x ✓
Intervention: Physical Activity				5 x B, 1 x C
Intervention: Smoking Cessation	1 x ✓	1 x A, 2 x C		1 x A
Intervention: Lipid Modification	2 x C	2 x A, 1 x B, 3 x C	2 x B	1 x A, 2 x B
Dietary Interventions that Modify lipids				5 x A, 1 x ✓
Monitoring and duration of Lipid Lowering Treatment	1 x C	1 x C, 2 x ✓		1 x ✓
Intervention: Blood Pressure Lowering	1 x A & 1 C	3 x A, 1 x B, 1 x C	1 x A, 2 x B, 1 x ✓	1 x A, 1 x B, 1 x C
Dietary Interventions that reduce Blood Pressure				5 x A, 1 x ✓
Intervention: Antiplatelet Therapy		2 x A		
Intervention: Complementary and Alternative Therapies	1 x ✓			3 x C, 1 x I
Management of Diabetes, Hyperglycaemic States and Metabolic Syndrome	1 x C	3 x A, 1 x B	C B A ✓	3 x A
Diagnostic Criteria for Type 2 diabetes, IGT & IFG	6 x C & 1 x ✓			
CV Risk Assessment Diabetes or High Risk of Diabetes	2 x C, 5 x C			
Dietary Recommendations Hyperglycaemic States type 2 diabetes, Metabolic syndrome				9 x A,1 x B, 1 x C 1 x ✓
Monitoring and Duration of Treatment for People with Diabetes		2 x ✓	1 x ✓	
Drug Therapy After MI and Stroke: Anticoagulant		9 x A, 2 x B,2 x C, 1 x I	1 x C, 2 x ✓	
Beta-Blocker		2 x A, 5 x ✓		
Ace inhibitor		2 x A, 3 x ✓		
Lipid- modifying Agents		1 x A, 1 x B		
Anti-arrhythmics		1 x A		
HRT		1 x A		
Calcium Channel Blockers		1 x A		
Nitrates		1 x A		
Cardiovascular Health of Pacific People	1 x ✓		7 x ✓	
Total recommendations (all grades)	37	60	25	59
TOTAL	181			

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[3] Evidence grades used in guideline: A – Supported by good evidence, B – supported by fair evidence, C – supported by non-analytic studies or consistent expert opinion, I – evidence insufficient, ✓ - Good Practice Point

[4] New Zealand Guidelines Group. (2003). *The Assessment and Management of Cardiovascular Risk.* Wellington: NZGG.

Clinicians' perceptions of the importance of research evidence impacts on how they will use it in their practice. One way of indicating the importance of research evidence has been to use a rating scale linked to each recommendation, as in Table 2.1. A variety of rating scales exist that score research evidence according to the strength of the cause-effect relationship between interventions and outcomes (Hayward, Wilson, Tunis, Bass, & Guyatt, 2001; Scottish Intercollegiate Guidelines Network, 2000). Consequently, good quality systematic reviews of randomised controlled trials that provide robust estimates of the effects of interventions are rated highly.

Research evidence is rated lower for recommendations for practice that have not or cannot undergo experimentation. Expert opinion rates lowest. Clinical questions about aspects of practice other than the effectiveness of interventions may be answered by research evidence from studies other than randomised controlled trials (Flemming, 1998) or by evidence from sources other than research (Rycroft-Malone, Seers et al., 2004), for example clinical experience, client experience and local data . Even though these alternative forms of evidence may be useful in practice, they rarely feature in guidelines. The use of non-research based forms of evidence warrant further investigation.

Recommendations with high ratings may not be those that are most relevant or useful to everyday practice. The AMCVR guideline recommendations are graded according to the following scale: A supported by good evidence, B supported by fair evidence, C supported by non-analytic studies or consistent expert opinion, I for insufficient evidence and '✓' for recommendations that are based on the consensus of the guideline development team (see Table 2.1). The upshot of such a rating scale is that the evidence that clinicians need most or would find most valuable to guide their practice may not be rated highly because of being not amenable to clinical trials. Research evidence with a high grade tends to come from well designed randomised studies. Table 2.1 indicates that of 750 information sources for 181 recommendations, those for drug treatment are supported by "A" grade evidence (30 of 60), far more than "A" grade evidence for lifestyle advice (34 of 59), and way ahead of risk assessment and treatment advice (35 of 62).

Randomised trials of the effectiveness of drugs are likely to be more plentiful than for non-pharmaceutical interventions because clinical trials are required for drugs to be cleared for human consumption, a compelling objective for drug manufacturers. According to Rolfe (1998), research evidence graded highly according to its methodology rather than its relevance for practice attributes it with importance that is not justified.

So far this chapter has indicated the position of this work in relation to the meaning of evidence and the accessibility of research evidence for use in practice in the form of guidelines. The next section provides an overview of the PARiHS framework and situates it in relation to this work as a suitable framework for exploring the complexities of evidence implementation. The chapter concludes with an exploration of Evidence as represented in the PARiHS framework: research evidence, clinical experience, client experience, local data.

Overview of the PARiHS Framework

The PARiHS framework is introduced here because its three elements, Evidence, Context and Facilitation offer, overall, a useful focus to the three background chapters, this being the first.

Inquiry into the implementation of evidence into practice requires a comprehensive organising framework capable of capturing the complexities of such an endeavour. The lack of clarity about predictors of successful implementation of evidence has turned researchers' attention away from factors that influence individual health professional behaviour and towards the interplay of the multiple complexities of clinical practice and their effect on the implementation of evidence (Estabrooks et al., 2003; J M Grimshaw et al., 2004; Grol, 1997; Grol & Wensing, 2004; Rycroft-Malone, 2008). Some of the conceptual models that represent the implementation of evidence into practice are:

- Rogers' Diffusion of Innovation Model (Rogers, 2003),
- The Push-Pull Framework (Nutley, Davies, & Walter, 2003),
- Understanding User Context Framework (Jacobson, Butterill, & Goering, 2003)
- Ottawa Model of Research Use (K. Graham & Logan, 2004)
- Knowledge-to-Action Process (I. D. Graham et al., 2006)
- Framework for Knowledge Transfer (J. Lavis et al., 2002)
- The Promoting Action on Research Implementation in Health Services (PARiHS) Framework (Rycroft-Malone, 2004)
- Stetler Model of Research Utilisation (Stetler, 2001)
- Knowledge Translation (D. Graham & Tetroe, 2007)
- Knowledge Transfer (G. Thompson, Estabrooks, & Degner, 2006)
- Knowledge diffusion and utilisation (Vingilis et al., 2003)

Of these, I chose the elements of the PARiHS framework, Evidence, Context and Facilitation, to provide an overall structure to Chapters One, Two and Three because of the comprehensive and integrated nature of its constituent elements.

The PARiHS framework has been successfully applied in a number of implementation guises and in a wide variety of settings. For example, it has formed the basis of an instrument to evaluate the uptake of guidelines in hospitals in southern Sweden (Bahtsevani, Willman, Khalaf, & Ostman, 2008); to evaluate the use of networks for knowledge exchange (Conklin & Stolee, 2008); to explore factors affecting prison based research studies (Larkin, 2008a); to develop and test a theoretical model of organisational influences on implementation (Cummings et al., 2007); and outcomes focussed knowledge translation (Doran & Sidani, 2007). One of the main strengths of the PARiHS framework is its capacity to accommodate the simultaneous and dynamic interlinking of its three elements in complex environments. Another strength of PARiHS is that its elements are sufficiently generic to be applicable to a variety of clinical settings at the everyday 'engine room' of practice. These strengths reflect its capacity to encompass the complexities of practice and suggest its suitability as a framework to guide exploration of the guideline central to this study.

The PARIHS framework was developed by a team at the Royal College of Nurses (UK) based on their collective experience, regular ongoing review, research and involvement in implementing evidence and changing practice (Kitson et al., 2008; Rycroft-Malone, 2004). One of the strengths of the PARiHS framework is that it accommodates the uncertain nature of implementing evidence with well defined key elements that line up the issues well to help make sense of a process that can be "complex, messy and demanding" (Rycroft-Malone 2004, p.297). The focus of the PARiHS framework right on the day to day work of clinicians and clients further suggests its suitability to inform an understanding of the implementation of the AMCVR guideline in everyday practice.

The main proposition of the PARIHS framework is that the successful implementation of evidence into practice is a function of three integrated and interdependent core elements – the level and nature of Evidence, the Context of the environment into which the research is to be placed, and the mode of Facilitation into practice (Kitson et al., 1998; Rycroft-Malone, 2004; Rycroft-Malone et al., 2001). The basic tenet of the PARiHS frame is that successful implementation (SI) is a function (f) of the presence of the indicators for high Evidence (E), Context (C) and Facilitation (F) so that SI = f (E,C,F) (Kitson et al., 1998).

From its inception, the purpose of the PARiHS framework has been to help navigate the complexity of evidence implementation by identifying positive and negative indicators that suggest where there may be supports and inhibitors in a clinical setting (Kitson et al., 1998; Kitson et al., 2008; Rycroft-Malone, 2004). Over the last decade the PARiHS framework has undergone review and development intended to fine-tune its capacity to encompass the complexity of the implementation of evidence. An assessment of the capacity of the PARiHS framework to aid analysis of the implementation of the AMCVR guideline into primary health care nursing is an aim of this study.

Another the strength of the PARHIS framework is the broad and inclusive nature of its main elements: interlinked, considered simultaneously and able to accommodate inexact and overlapping issues relevant to the implementation of evidence into practice (Kitson et al., 1998; Rycroft-Malone et al., 2001; Rycroft-Malone, Kitson et al., 2002). The continua and indicators for ‘high’ and ‘low’ associated with each of the sub elements offer an evaluative function of a given situation of evidence implementation that may expose the supports and barriers. The next section indicates how the framework operates as a tool for exploring Evidence in relation to the AMCVR guideline.

Evidence, the first element of the PARiHS framework

Evidence includes research evidence, evidence from clinical experience, from client experience and gained from local data. Successful implementation is highly likely when evidence from all sources is valued, judged as relevant, its importance weighted as part of a comprehensive whole and conclusions reached that takes evidence into account. Table 2.2 (below) details the indicators for both high Evidence and low Evidence for each of its constituent sub-elements. Each form of evidence is now considered in relation to the implementation of the AMCVR guideline.

Table 2.2

PARiHS Framework Element – Evidence

Sub elements	**Low**	**High**
Research	• Poorly conceived, designed, and/or executed research • Seen as the only type of evidence • Not valued as evidence • Seen as certain	• Well-conceived, designed, and executed research, appropriate to the research question • Seen as one part of a decision • Valued as evidence • Lack of certainty acknowledged • Social construction acknowledged • Judged as relevant • Importance weighted • Conclusions drawn
Clinical experience	• Anecdotal, with no critical reflection and judgment • Lack of consensus within similar groups • Not valued as evidence • Seen as the only type of evidence	• Clinical experience and expertise reflected upon, tested by individuals and groups • Consensus within similar groups • Valued as evidence • Seen as one part of the decision • Judged as relevant • Importance weighted • Conclusions drawn
Patient (client) experience	• Not valued as evidence • Patients not involved • Seen as the only type of evidence	• Valued as evidence • Multiple biographies used • Partnerships with healthcare professionals • Seen as one part of a decision • Judged as relevant • Importance weighted • Conclusions drawn
Local data/ information	•Not valued as evidence • Lack of systematic methods for collection and analysis • Not reflected upon • No conclusions drawn	• Valued as evidence • Collected and analyzed systematically and rigorously • Evaluated and reflected upon • Conclusions draw

(Rycroft-Malone, 2004)

Research evidence. Three of the indicators in Table 2.2 above, that implementation of evidence is likely to be successful when it is “well-conceived, designed, and executed research, appropriate to the research question”, “valued as evidence”, and “seen as important”, refer to the rigour and credibility of research evidence. As indicated above, the AMCVR guideline has been produced by the New Zealand guidelines Group complying with the standards of the AGREE collaboration (The AGREE Collaboration, 2003). As ready-to-use research evidence, in the form of summarised recommendations for practice, guidelines that are rigorously developed from robust evidence can provide credible information for clinical decisions (Brouwers, Hanna, Abdel-Motagally, & Yee, 2009; S. Hysong, Best, & Pugh, 2007; Kitson, 2009; Lugtenberg, Schaick, Westert, & Burgers, 2009). The AMCVR guideline as a form of research evidence is likely to have credibility and be seen as important to the work of primary health care professionals.

The remaining indicators for successful implementation of research evidence refer to the extent to which research evidence is deemed useful to those who use it in their everyday work. For the AMCVR guideline to be “seen as one part of a decision”, clinicians need to be able to use the recommendations as part of comprehensive and individualised healthcare for clients. Research evidence for one health problem needs to be seen in relation to other health problems that an individual client may have. For example, diabetes and cardiovascular disease are common co-morbidities requiring clinicians to blend research evidence from multiple guidelines when providing individualised healthcare. Another sense of “seen as one part of a decision” is the many other factors that impinge on clinical decisions such as resources, workforce capability and, especially with regard to Evidence, evidence from the three other sources that comprise the sub elements of Evidence.

Research evidence recommends care that is most likely to gain the best outcomes for most people. Therefore, “lack of certainty acknowledged” and “social construction acknowledged” refer to the lack of guarantee that implementing research evidence will bring about expected health outcomes. The final three indicators for the likelihood of successful implementation of research evidence are “judged as relevant”, “importance weighted” and “conclusions drawn”. These indicators refer to the clinicians’ perceptions of the usefulness, credibility and relevance of the research evidence and are judged by them in relation to everyday practice.

Clinical experience as Evidence. Knowledge gained from clinical experience has the potential to become evidence for practice. When everyday work experiences are reflected on in structured and supported ways, such knowledge can be transformed through peer critique into clinical experience as evidence (Manley, 2004). The exposure of practice to one’s peers for reflection, critique and testing requires a culture of trust, learning and inquiry and is an important success indicator for clinical experience in the sense of the PARiHS framework. A prerequisite of that process is that knowledge from practice in tacit form becomes explicit through discussion. Professional knowledge held as tacit has long been recognised as “knowing more than you can tell” (Kinchin, Cabot, & Hay, 2008, p.93) , clinical experience as evidence for practice being more than anecdote. Once articulated, knowledge from practice can be exposed and undergo examination, transformation to gain group consensus that moves it from personal anecdote to clinical experience as evidence (Rycroft-Malone, Seers et al., 2004). The release and exploration of clinical experience as potential evidence for practice relies, in the first instance, on clinicians giving voice to their practice expertise.

Other indicators for high clinical experience are that it is “valued as evidence”, “acknowledged as part of a clinical decision”, “leads to conclusions”, and is “relevant” and “important”. Once experience is spoken or written about, it is open to critical review and, therefore, to be refined, understood and validated (Garbett, 2004). The transformation of clinical experience from anecdote to evidence involves a demanding, intense and rigorous process requiring time, resources and organisational support (McCormack et al., 2002; Rolfe, 1998). The opportunities for such discussion for primary health care nurses in the location of this study may be few. In rural locations with a shortage of doctors and nurses opportunities for the transformation of clinical experience into evidence may be limited.

Evidence generated from clinical experience is complementary to research evidence. Clinical experience as Evidence is likely to inform the 'how' of working with clients to act on the research based Evidence for 'what' to do. Of 59 recommendations in the AMCVR guideline about lifestyle, none advises how to implement them in practice. Clinical experience as Evidence may bridge that gap.

Client experience as Evidence. In the PARiHS framework, high Evidence requires a person-centred approach in which client experience is valued, seen as relevant and important, and included in healthcare decisions and conclusions. Manley (2004) commented that person-centred care is a hallmark of an effective workplace culture in which people are valued and respected. Therefore, a client's view and preferences are central to all aspects of their care, not only the client as an individual but also their family, friends, and carer. Effective partnerships are essential between healthcare professionals and clients in order for them to work together to realise clients' health potential. Person-centred healthcare enables, encourages and rewards innovation and change (McSherry, 2008) and, in such an environment, client experience is crucial evidence for practice.

A person-centred approach encompasses cardiovascular risk management as ultimately the domain of the client. For clients to fully participate in decisions about their own care, their values and preferences must be expressed, taken seriously and form a platform for the negotiation of goals and plans for ongoing health management. Values and beliefs are filtered through a cultural lens that moulds clients' expectations, experiences and self knowledge (Ramsden, 2002). Implementation of a guideline into clients' everyday lives relies on the skills of healthcare professionals to recognise, respect and appreciate a client experience as evidence on which to base their practice.

Client experience as a form of evidence safeguards against 'one size fits all' healthcare. People learning to manage their cardiovascular risk may appear to have similar information needs. However, their cultural lens determines the ways that they perceive health, illness and self-management. Broadly speaking, people with chronic conditions have a set of common challenges to work through – accessing healthcare, coping with symptoms, changes to functional capacity, managing treatment regimens, dealing with the impact on emotional health and changes to relationships and roles (Wagner, Austin et al., 2001). Client experience as evidence for practice emphasises the priority of individual values, beliefs and needs.

Local data as evidence. Local data includes systematically obtained information about a population, a locality, health outcomes, performance of a health service against targets, for example through clinical audits. It includes local knowledge about patients, their communities, local networks and how an organisation functions (Rycroft-Malone, Seers et al., 2004). Local data as high Evidence is rigorous and systematically collected and analysed. Evidence from local data needs to be made accessible to a health team for consideration, evaluation and reflection so that it can inform their practice.

The skills and resources for the systematic collection, processing and preparation of local data for use may be less available in primary health care compared with secondary care settings because of the infrastructure required to collect and manage such information. However, in primary healthcare, client management software is used widely for tracking progress and tracing trends for individuals, families and populations. Local data produced by software can be valuable for the successful implementation of the AMCVR guideline, for example to use for accessing target populations, recording and retrieving cardiovascular risk scores, using alerts for follow-up appointments and prescriptions.

Not all local data as evidence for practice are entered into databases as a matter of course. Facts about the geography of a place, local politics, networks, relationships, communities and families are all essential to primary healthcare practice. The hilly terrain and subtropical weather of the location of this study makes for difficult vehicle access in more remote regions, some restricted to four wheel drive especially in winter. Some coastal settlements rely mostly on vehicle access along a beach and are subject to tide levels. Local data as Evidence comes from various sources only some of which are amenable to formal information management.

Summary of the Chapter

This chapter has explored the potential issues concerning the nature, use and usability of evidence to inform clinical practice generally and then has introduced the PARiHS framework as a suitable tool to guide an exploration of the black box of guideline implementation. Drilling down further into the everyday practice of implementing a guideline, the first PARiHS element, Evidence, with its four sub elements, provided the structure for suggesting possible issues faced by primary health care nurses in their work with the guideline. Research evidence, clinical experience, client experience and local data were explored in terms of the potential barriers and enablers for the implementation of the AMCVR guideline into practice.

The next chapter follows the structure of this chapter in the exploration of Context. The earlier part of the chapter will provide a broad overview of the political, demographic, policy and legal context of primary health care in New Zealand and then concentrate focus on the everyday practice Context from the perspective of the PARiHS framework.

Chapter Three - The Context of Guideline Implementation

Introduction

The aim of this chapter is to explore the context of primary health care nursing practice in order to understand the implementation environment of AMCVR guideline. Using the structure of the previous chapter, this chapter will begin with a broad overview of the context in which this work is situated, including the political, demographic, policy, cultural and legal context of primary health care in New Zealand. Secondly, the focus will turn to the day-to-day environment of primary health care nursing practice. The second element of the PARiHS framework, Context, will provide the structure for exploring everyday practice through its three sub elements - Culture, Leadership and Evaluation.

A Broad Overview of the Primary Health Care Context

This section provides a broad overview of the wider context of primary health care in order to identify and discuss the implications of the background influences on health professionals' work in everyday practice. A brief discussion of seminal events leading up to contemporary primary health care will foreshadow the current political, legal, economic, cultural and social contexts that impact on everyday primary health care practice.

The development of contemporary primary health care. The ambitious call for “Health for All by the Year 2000” by the World Health Organisation (WHO) thirty years ago, along with the release of its global primary health care strategy, was a rally call for major changes in primary health care. Nations attending the WHO conference at Alma-Ata in South Eastern Russia in 1978, collectively embraced the principles of the Declaration of Alma-Ata: 1) health as a basic human right; 2) inequity as politically, socially and economically unacceptable; and 3) health as a reflection of the social and economic conditions affecting people’s lives (World Health Organization, 1978). These three principles heralded a turnaround from the view of health as a biological state, directed at individuals, experienced and modified by individuals, and separated from the socio-economic and political environment in which people reside. While the year 2000 is long gone and universal health remains an aspiration, the Declaration of Alma-Ata was a turning point for primary health care towards more actively addressing persistent inequity, injustice and general lack of fairness in the delivery of health care (Salmond, 2008).

The intentions of ‘Health for All by 2000’ were reaffirmed at later conferences in each of the decades following Alma-Ata: the Ottawa Charter for Health Promotion (Health and Welfare Canada, 1986), the Jakarta Declaration (World Health Organization, 1997) and the Bangkok Charter (World Health Organization, 2005) . New Zealand delegates at these conferences pledged top priority to primary health care but, along with other nations, New Zealand has struggled to reduce inequity and prevent illness in the face of the burgeoning costs of chronic illness and an ageing population (McAvoy & Coster 2005). Some health statistics have improved: average age at death; others have worsened, for example, the gap between Mäori and non-Mäori for average age at death (Tobias et al., 2008). The goals declared at Alma-Ata in 1978 remain relevant today.

Unique relationship between the New Zealand Government and Mäori. Mäori have constitutional rights that provide for a special relationship with the New Zealand Government, a unique feature of healthcare in New Zealand. In 1840, the British Crown and Mäori had signed the Treaty of Waitangi that established, in its three articles, how Mäori and early settlers would coexist in New Zealand. The first article, Kawanatanga, declares the right of the Government and its agencies to govern. The second, Tino Rangatiratanga, provides for Mäori tribes to have control over their own affairs. The third, Oritetanga, provides for equity of opportunity and life chances between Mäori and non-Mäori New Zealanders (Durie, 1994). The Treaty is the foundation of biculturalism in New Zealand in which Mäori, as indigenous people, have constitutional rights guaranteed by the Government as representative of the British Crown.

The right to equity for Mäori is now embedded in the legal and policy context of healthcare in New Zealand. Although the Treaty-based rights of Mäori regarding land and the environment were confirmed in law (following decades of war), they were not taken seriously until translation into policy by a Royal Commission on Social Policy in 1988. The Commission underscored the relevance to social policy of the Treaty and identified three principles that would establish the Crown's obligations to Mäori: partnership, participation and protection (A. King & Turia, 2002). Partnership represents the nature of the relationship of Mäori tribes with the agents of the Crown. Participation indicates that Mäori are to be genuinely involved and have power in all matters that affect them. Protection directs the Crown to actively strive for social equity for Mäori. The Treaty principles are a guide to understanding the Crown's obligation to all New Zealanders and its special obligations to Mäori.

Influences of law and policy on New Zealand primary health care.

Radical healthcare reforms were instituted in 2001 to reduce the detrimental effects of a decade of economic rationalism and managerialism in the health sector. During the mid 1990s, the governing National Party had abolished elected area health boards, and introduced a competitive business model of contracting for health services (Laugesen, 2005). The general consensus of policy analysts of the time was that the expected efficiency gains were unlikely to eventuate and that a competitive model was unlikely to be compatible with the public sector service philosophy of many health care workers (Ashton, 2005). This approach to health care became increasingly unpopular and health was a major agenda item in the 1999 general election that saw in a new Labour Government. Changes to New Zealand's publicly funded health sector, that were more congruent with the population health approach called for 30 years earlier at Alma-Ata, were made very quickly (Tenbensel, Cumming, Ashton, & Barnett, 2008).

The incoming Labour government was committed to reducing health inequity through introducing laws, restructuring funding and services, and establishing strategic directives for a more effective health care system overall. The NZ Public Health & Disability Act (2000) spawned the NZ Health Strategy (2000) to guide the strategic direction for the implementation of the Act and as an umbrella for a range of service sector strategies, including the Primary Health Care Strategy (Minister of Health, 2001c). A change back to a National party government at the end of 2008 along with a global economic recession has foreshadowed potential jeopardy for ongoing investment in implementation of the Primary Health Care Strategy.

The Primary Health Care Strategy aims to reduce health inequity, achieve population health gains, to promote and prevent disease (Minister of

Health, 2001c). The Strategy defines high quality primary health care as "essential health care based on practical, scientifically sound, culturally appropriate and socially acceptable methods that are:

1. universally accessible to people in their communities
2. involve community participation
3. integral to and a central function of, New Zealand's health system
4. the first level of contact with our health system" (Minister of Health, 2001c, p.1)

The expectations were clear that primary health care clinicians were to enact the Strategy in everyday practice, thereby meeting the Crown's Treaty obligations. An important feature of the health care context of guideline implementation in primary health care at that time was the high level of expectation of change amid a lack of planning and guidance that articulated how those changes would change healthcare practice.

Embedding the Treaty of Waitangi into health law. The incoming Labour government of 1999 recognised that the Treaty of Waitangi lacked constitutional clout unless it was embedded in law. Therefore, the Treaty obligations of the Crown were included in the New Zealand Public Health and Disability Act 2000. The Act required health boards to address inequity by improving health outcomes for Mäori and to include two Mäori members appointed by the Minister of Health to each of the twenty one district health boards (Durie, 2003). The Act was intended to ratify the

Treaty in two ways. Firstly, there was greater Mäori representation on boards and committees with formal links to tribal groups and Mäori community organisations. Secondly, there was more funding for Mäori systems of health care delivery (Durie, 2003) and restructuring of funding throughout the primary health care sector. Directives to DHBs from the Ministry of Health required primary health care practitioners to change their practice particularly with clients with most health need, many of whom were Mäori.

Health inequity is not only experienced by Mäori. The Primary Health Care Strategy also sought to reduce barriers to primary health care, for people with low incomes, Pacific peoples, those with disabilities and with chronic disease, by funding on a capitation basis based on population demographics (Tenbensel et al., 2008). The Primary Health Care Strategy had financial back up with a funding boost of $2.2 billion dollars over seven years (Hefford, Crampton, & Foley, 2005). Specific populations were targeted through a series of complementary health strategies : The New Zealand Disability Strategy (Dalziel, 2001), He Korowai Oranga (Mäori Health Strategy) (King & Turia, 2002) and the Health of Older Peoples' Strategy (A. King, 2002). The legislative and policy frameworks had been constructed. The challenge was to get them embedded in practice. Table 3.1 indicates the contrast between 'old' and 'new' primary healthcare. The implications of each of these aspects on the implementation of the AMCVR guideline are explored in the sections that follow the table.

Table 3.1

The Differences Between 'Old' and 'New' Primary Healthcare

Old Primary Healthcare	**New Primary Healthcare**
Focuses on individuals	Looks at health of populations as well
Provider focused	Community and people-focused
Emphasis on treatment	Education and prevention important too
Doctors are principal providers	Teamwork – nursing and community outreach crucial
Fee-for-service	Needs-based funding for population care
Service delivery is monocultural	Attention paid to cultural competence
Providers tend to work alone	Connected to other health and non-health agencies

From: The Primary Healthcare Strategy (Minister of Health, 2001c, p.6)

Each of these differences has had a significant impact on the broader context of implementation of the AMCVR guideline. The following sections are headed up using the wording of the "New Primary Healthcare" column in Table 3.1.

“Looks at the health of populations as well [as individuals]”. Population Health refers to improving the health of individuals, families, communities and systems by modifying the social determinants of health. There are five characteristics of population health (Keller, Schaffer, Lia-Hoagberg, & Strohschein, 2002). Firstly, there is a focus on entire populations (those possessing similar health concerns or characteristics); secondly, population-based practice is based on thorough community-involved health assessment to establish priorities and planning; thirdly, population-based care includes the range of the determinants of health: social, economic, spiritual, physical and psychological. The fourth element is that all levels of prevention are employed; primary prevention improves health before a problem has occurred; secondary prevention reduces risk factors or early symptoms and continues on to disease management and chronic care. Finally, population-based practice employs interventions for populations, communities, families and individuals and emphasises population health outcomes to reduce health inequity through the delivery of health care that portrays the features of the approach detailed in Table 3. 2. How population health plays out in everyday primary health care may be revealed through investigating the implementation of the AMCVR guideline as a specific example of evidence-informed practice.

Table 3.2

The Features of a Population Health Approach

The features of a population health approach
• A culture across the organisation (such as PHO or DHB) that places the same emphasis on promoting health and preventing disease as on treating illness; • Investment in activities that influence the determinants of health; • Operational commitment to reducing inequalities; • Intersectoral and intrasectoral collaboration on local initiatives so that there are working partnerships and alliances with a range of community groups; • Genuine community participation; • Support for sustainable community development; • Data collection that is comprehensive and considers ethnicity, deprivation and outcomes; • Workforce development to support this wider population health approach.

From (Poore, 2004)

A population health focussed service requires a sophisticated infrastructure to support care for all life stages and levels of health need. Systems are required for identifying health inequity in a population, planning health improvement initiatives in collaboration with the community and accessing local services that can contribute to health gain. Mechanisms are required to establish cooperative intersectoral action, improve access to health care, collect and manage health information, and monitor heath gain indicators against population health targets (Coster & Gribben, 1999). Population based healthcare

> "… focuses on entire populations, is grounded in community assessment, considers all health determinants, emphasises prevention and intervenes at multiple levels" (Keller, Strohschein, Lia-Hoagberg, & Schaffer, 2004, p. 454).

The extent to which existing infrastructures support nurses to implement guidelines in primary health care requires further exploration.

Population-based primary health care is provided at three levels simultaneously. The treatment of the biophysical effects of disease characterises a “short-term, problem specific, individual-based ‘downstream’ approach” (Cypress, 2004, p.249); midstream healthcare includes early risk detection and reduction through a partnership approach to changes lifestyle behaviours (J. McKinlay & Marceau, 2000); upstream actions to strengthen the determinants of health – education, employment, housing, nutrition, income, working conditions (Keller et al., 2004; Kleffel, 1991; Sharpe, 2006). A population health approach is fundamental to ‘new’ primary health care.

“Community and people-focused”. Community engagement is a prerequisite for consumer and community involvement in the planning and delivery of health care. The various layers of health care governance in relation to the implementation of the cardiovascular risk guideline include the guideline development team, District Health Boards and Primary Health Organisations. Even though each of these groups is required to include community representatives, the extent to which consumers are empowered to influence health decisions is debatable (Coney, 2004). Exploring community engagement leads to an understanding of the enablers and barriers that influence primary health care nurses' engagement with their communities and the relevance of this to implementation of the AMCVR guideline.

Community requires a clear definition in the health care context because of the plethora of interpretations assigned to it. Five core elements have been derived from a narrative review of 154 definitions: locus of community, sharing common interests and perspectives, joint action as a source of cohesion and identity, a foundation of social ties, and diversity of some characteristics (McQueen et al., 2001). That study found that communities assigned emphasis to the core elements differently which suggests the need for customised collaboration and connection with communities.

Locus of community. The various locations of communities in the region create a range of challenges for primary health care. There are challenges to access to healthcare associated with a subtropical, rainy climate and a coastline of 1700km. Although neither the land area nor the population numbers of are remarkable, the shape and geography of the area are challenges to primary healthcare delivery. The population is distributed across one small city, several towns and in sparsely populated rural areas with hilly topography and many poor quality roads, 40 per cent of which are unsealed. Some areas have only four-wheel drive access, especially after heavy rain and when access is at low tide only. The region has the highest percentage of the New Zealand population living in rural areas, 27 per cent in locations with low urban influence compared with the national average of six per cent (Statistics New Zealand, 2006a). The geography and population spread of the region has a significant impact on access to health care services. Public transport is virtually non-existent in smaller towns and infrequent in bigger towns. The impact of the locus of the community on primary health care nursing needs further investigation.

The locus of a community is not just where people live but also other places that they come together, for example where they work and socialise. Larger size workplaces with many employees can provide convenient access to clients for primary health care, especially for mass screening such as for early cardiovascular risk as recommended in the AMCVR guideline. Some of the larger companies in the region employ several hundred employees, and include the target populations: Mäori men aged over 35 years, non-Mäori men aged over 45 years, Mäori women over 45 years and non-Mäori women over 55 years. However, in rural areas where agriculture and fishery work is the usual paid occupation and, even though 67.4 percent of people employed in these occupations are male (Statistics New Zealand, 2006a), employees are too sparsely spread for convenient access during working hours. Rural people are more difficult to reach both at home and at work. Therefore, where clients live and work has an important influence on the way that nurses engage with communities. What nurses do take into account about location of clients and how they factor this into primary health care delivery, is yet to be explored.

Common interests and perspectives. An understanding of the shared interests and health perspectives of a community is foundational to the planning and delivery of relevant and acceptable health services. In spite of high top-down priority being given to reducing cardiovascular risk, public support for a health campaign is essential for community buy-in (Riddell & North, 2003). Community engagement relies on the active representation of the diversity of the views, positions and needs of communities. A study about community participation as part of a large U.K. Healthy Cities Project (Jewkes & Murcott, 1998) found that the fundamental requirement of effective representation was that representatives were well known to those they represented. The presence of a representative does not ensure their voice is heard or acted on (Coney, 2004). Genuine consultation is difficult to achieve.

The community consultation requirement of the Primary Health Care Strategy is a complex endeavour. A New Zealand study questioned the extent that strategic planning towards population health was actually shaped by community participation and input and found that, in particular, Mäori were doubtful that their views were taken into account in local planning. They were of the opinion that health boards took ‘advice rather than direction’ and that they were consulted late in the decision making process (Rada, Ratima, & Howden-Chapman, 1999, p.1147). An understanding of community engagement in the implementation of the AMCVR guideline requires investigation of how primary health care services access, engage with and act on authentic community consultation.

Awareness Raising for Joint Action. Awareness raising in health care has recently adopted social marketing techniques to understand and influence human behaviour, both in a commercial sense to increase profits, also in the not-for-profit sector to bring about public good (Hastings & Saran, 2003). The design and implementation of programs to promote socially beneficial behavioural change (Grier & Bryant, 2005). Social marketing targets consumers of a service and must also convince policy makers because improved health outcomes fundamentally requires improving the social determinants of health (Grier & Bryant, 2005). Examples of social marketing that influence cardioprotective behaviour include Pharmac’s ‘One Heart Many Lives’ (raising awareness about cardiovascular risk assessment), the Heart Foundation’s ‘Tick’ programme (for cardioprotective food choices), and the Heart Racers programme (sponsoring running and walking events). Raising public awareness of cardiovascular health at a national level requires careful planning to reach and include smaller, local communities (Hastings & Saran, 2003).

Community engagement involves both bottom-up and top-down approaches (Laverack, 2006). The Ministry of Health's Primary Health Care Strategy (Minister of Health, 2001c) and other health documents, including the AMCVR guideline (Minister of Health, 2001a, 2001d; Ministry of Health, 2005; New Zealand Guidelines Group, 2003a, 2003b) have involved some community consultation at a high-level level but it is unlikely to be representative of the priorities of all community stakeholders (Coney, 2004). Health care interventions coming from a top-down position are directed at people as individuals, initiated by an outside agency and aim to correct health deficits. Bottom-up, community empowered initiatives are population-directed and aim to improve the social determinants of health (Laverack 2000). For example, guideline implementation can start out as top-down (as a directive from the Ministry of Health to DHBs) and develop to include bottom-up community engagement for local adaptation and planning. Community engagement builds community capability when people can access the resources to bring about change (Gibbon, Labonte, & G Laverack, 2002). Appreciation of the barriers and supports affecting primary health care nurses' engagement with communities is important to an understanding of the context of their everyday practice.

“Education and prevention important too”. The context of primary health care has changed with increased investment in and expectation of health promotion and preventive care in conjunction with conventional first point of contact care of those who are ill. However, the rationing of investment to provide health education and disease prevention has been difficult in the face of ever increasing demand and cost for illness treatment (Sharpe & O'Sullivan, 2006). Care that is curative, illness focussed, and dominated by medical interventions has been the norm for decades in General Practice in New Zealand but is not geared for health promotion, risk screening and the management of ongoing chronic care (Bodenheimer, MacGregor, & Stothart, 2005; Ministry of Health, 2004; Wagner, Austin et al., 2001). Implementation of the AMCVR guideline requires changes to everyday practice to embed health promotion and disease prevention into usual care alongside conventional disease management. The nature of these changes and ways of practising need further investigation in the context of this study.

Health professionals are being challenged to address the unjust and disproportionate burden of cardiovascular disease experienced by disadvantaged populations, Mäori being the worst off even when study outcomes were controlled for ethnicity (Ajwani et al., 2003; Blakely, Tobias, Atkinson, Yeh, & Huang, 2007; Curtis, Harwood, & Riddell, 2007; Sharpe & O'Sullivan, 2006; Stewart et al., 2009; Tobias, Sexton, Mann, &

Sharpe, 2006). Such differences have been associated not only with ethnicity, but also poverty and rurality (Blakely et al., 2007), a lethal blend of inequity. In health promotion and education, health professionals have the challenge to provide clients with the most appropriate support to improve the social determinants of health. This study may reveal some examples of how they do this, as they implement the AMCVR guideline.

Health inequity in New Zealand is progressively worsening (Ajwani et al., 2003). In a study comparing disease-specific mortality rates of the indigenous populations of New Zealand, Australia, Canada, and the United States, the relative size of mortality disparities are highest in New Zealand and Australia (Bramley, Herbert, Jackson, & Chassin, 2004). Mäori had the highest mortality rates among indigenous and non-indigenous populations of all four countries for a range of morbidities including ischaemic heart disease (Bramley et al., 2004). In the twenty years between 1980 and 1999 mortality rates for Mäori men increased from 1.48 times higher than the non-Mäori rate to 1.74 times higher, while for Mäori women the disparity rose from 1.96 to 2.20 (Ajwani et al., 2003). In 2007, Mäori had the highest age-standardised prevalence (7.41%) of cardiovascular disease compared to non-Mäori, non-Pacific, and non-Indians (4.45%) (Chan et al., 2009). The implementation of the AMCVR guideline requires an equity lens to be applied to all levels of healthcare for the population (Whitehead 2007). The reality of practice related to applying an equity lens needs to be explored.

“Teamwork – nursing and community outreach crucial”. The Primary Health Care Strategy calls for expanded nursing services and community outreach to meet the challenges of health care delivery. Since 2001, primary health care nursing has undergone significant and incremental change in some settings (Mäori Health Providers) but not in others (some General Practices) (Finlayson, Sheridan, & Cumming, 2008). Recommendations to the Ministry of Health for the direction of change to primary health care nursing following release of the Primary Health Care Strategy came initially from nurse leaders as the Expert Advisory Group on Primary Health Care Nursing. Their vision was that optimal nursing practice required:

> “…the environment that enables nurses to provide integrated comprehensive nursing care to individuals and population groups in New Zealand primary health care settings…” (Ministry of Health, 2003b, p. 9).

That vision was to be reached by aligning nursing practice with community need, developing and using innovative models of nursing practice, governance, leadership and education and career development (Ministry of Health, 2003b) with the overall aim to strengthen nurses’ role

in the healthcare team. The challenge for primary health care nurses is to meet the expectations spelt out in this recent definition:
“Primary health care nursing is practical and research-based. Employing socially and culturally acceptable practices, nurses make care accessible to people in the places they live and work. Primary health care nurses aim to reduce inequity in the health status of the population, in particular for Mäori, Pacific and other underserved populations. A population health approach is required, alongside work to assist individuals to make decisions about their own health and independence” (Primary Health Care Nursing Expert Advisory Group, 2008, p. n/a).

The potential for extended nursing practice in primary health care has been well recognised by academics and in government documents and reports (Astin, Closs, & Lascelles, 2005; Finlayson et al., 2008; Haskell, 2003; Minister of Health, 2001a, 2001c; Ministry of Health, 2003b; Page, Lockwood, & Conroy-Hiller, 2005; Renders et al., 2001; Wagner, Austin et al., 2001). The Primary Health Care Strategy clearly states that the services of primary health care nurses are crucial to reducing health inequity, achieving population health gains and promoting and preventing disease (Minister of Health, 2001c). The context of the implementation of the AMCVR guideline is likely to illustrate how nurses are meeting these expectations in the reality of everyday practice.

Contemporary health professional roles were going to be stretched further with activating the Primary Health Care Strategy. A new breed (in New Zealand) of health professional took advanced practice to another level to improve access to and responsiveness of primary health care. The Nurse Practitioner title was initiated in 2001 and remains protected and approved for use by only those who had met the requirements of the role. The Nursing Council of New Zealand launched the trademarked Nurse Practitioner (NP) role in 2001 as a new registration for nurses who can demonstrate advanced competency. Primary health care NPs would seem to be the answer to getting affordable, accessible and appropriate care to populations but the approval of NPs is constrained by an overzealous process.

The road to establishing the NP title in New Zealand has been protracted and convoluted and even when a NP is approved, there are barriers to optimal practice. Advice in 2008 to the Minister of Health identified 69 pieces of legislation involving 14 different government departments as potential barriers to NP practice (The Nurse Practitioner Advisory Committee of New Zealand, 2008). In spite of slow progress addressing these barriers, there has been steady growth in the numbers of NPs from 1 in 2001, to 30 in 2006 and 53 in May 2009, 33 of whom have prescribing rights (Future Workforce, 2009). Regulatory and administrative blocks to NP practice in primary health care impede the ordering and receiving results of diagnostic tests, protracted employment difficulties within District Health Boards and delays in prescriptive authority (Hughes, 2003).

A multidisciplinary team is well suited to the implementation of the AMCVR guideline. Of the 183 recommendations in the guideline (New Zealand Guidelines Group, 2003a), 60 require medication prescription and the remaining 37 for risk assessment, 25 for advice to guide treatment and 59 for lifestyle are appropriate for implementation by nurses, so long as they can order basic laboratory tests, for example blood lipids. Nurses are better prepared than others to take a whole person approach to health care that is more likely to address the social determinants of health (Finlayson et al., 2008). Contemporary educational preparation of nurses emphasises the health impacts of lifestyle, psychology, cultural implications, family dynamics, occupational/environmental factors as well as the more traditional knowledge bases from the physical sciences (Ajwani et al., 2003; Carryer, Dignam, Horsburgh, Hughes, & Martin, 1999) . Exploration is required into ways of that primary health care teams work with the AMCVR guideline.

The perceptions and expectations of clients, doctors, and nurses about professional boundaries impact on the provision of nursing services. Traditionally, when clients visit “the doctor” with a health problem, they have expected to see a doctor for diagnosis and treatment and maybe a nurse for weight and blood pressure measurement. This outdated model of care underutilises nursing skill and knowledge. Collaborative ways of working to release nursing potential require further investigation (Bodenheimer et al., 2005; Finlayson et al., 2008; Horsburgh, Goodyear-Smith, Yallop, & O'Connor, 2008; Minto, 2006).

Some changes have occurred in the patterns of General Practice patient consultations since the Primary Health Care Strategy. Even though there was no difference in the number of adults overall who saw a primary health care nurse when consulting a General Practitioner (GP) between 2002/03 and 2006/07, other changes were significant. There was an increase in Mäori men who saw a nurse as part of a GP consultation. Also important was a large increase in the proportion of both men (8.7%) and women (14.7%) who saw a primary health care nurse alone (without seeing a GP at the same time) (Ministry of Health, 2008). These changes would suggest that changes have occurred in the role of some primary health care nurses in accord with the intent of the Primary Health Care Strategy. The nature of and processes involved in these changes requires further investigation.

Multidisciplinary teams rather than individual clinicians are able to provide primary health care across the continuum of care (Neale, 1999), as long as issues about accountabilities, professional practice autonomy, workloads and power relationships are addressed effectively (Breen, Carr, Mann, & Croussen-White, 2004). The population health goals of the Primary Health Care Strategy require collaboration among the members of a primary healthcare team. Common understanding of roles, abilities and responsibilities is the foundation of such collaboration (Neuwelt et al., 2009). An exploration of how the AMCVR guideline is being implemented is likely to reveal examples of practice that suggest how teams work collaboratively.

Getting health care services out into community settings for improved access for clients requires a rearrangement of traditional clinic-based care. Nurses are usually more mobile to do this than doctors and have achieved much improved access to care for clients by bringing care to clients (Bodenheimer et al., 2005; Kennedy et al., 2008). The realities of making care more accessible to clients can be explored using the implementation of the AMCVR guideline as the focus.

"Needs-based funding for population care". A radical change in healthcare funding resulted from the Primary Health Care Strategy. The previous funding model had allocated funding on a fee-for-service basis and this was replaced with funding based on population characteristics and health need. The purpose of the change was to distribute funding to where there was the most potential for health gain (Tenbensel et al., 2008).

However, new funding mechanisms did not overcome the struggle at a local level of translating population health care commitment into action and many District Health Boards had neither the skills nor the capacity to undertake a health needs approach to strategic planning (Ashton, Tenbensel, Cumming, & Barnett, 2008). The trickle-down effect of funding changes on health professionals' everyday practice requires investigation.

Given that Mäori are known to have a seven-year lower life expectancy than non- Mäori, health equity requires that the needs of Mäori are given high priority in funding healthcare (Neuwelt et al., 2009). PHOs receive 'Services to Improve Access' (SIA) funding intended to reduce barriers to people receiving primary health care. The impact of SIA funding on access to healthcare has yet to be explored.

"Attention Paid to Cultural Competence". As population mobility has increased the cultural diversity of populations worldwide, health care services have been more aware of the need for cultural competence (Betancourt, Green, Carrillo, & Park, 2005; Callister, 2005; Carrillo, Green, & Betancourt, 1999). Health professionals work with people who hold a variety of beliefs about health, illness and treatment and have different thresholds for seeking health care (Betancourt et al., 2005; Leishman, 2004). Even though health outcomes research has been sparse in this respect, health professional education for cultural competence is expected to reduce health disparities and improve health care effectiveness

(Betancourt et al., 2005; Callister, 2005; Carrillo et al., 1999). From a Mäori client's point of view, health care that has been designed to be culturally appropriate, affordable and accessible gains a high level of client satisfaction (Maniapoto & Gribben, 2003). Cultural competence is vitally important in primary health care and has special meaning in New Zealand in light of the Treaty of Waitangi and health inequity for Mäori.

AMCVR guideline implementation demands an effective and meaningful relationship between client and clinician that is reliant on cultural competence. The Treaty of Waitangi acknowledges the special status of Mäori in New Zealand, is embedded into health law and culturally safe care is to be enacted in health care delivery that is consistent with the principles of partnership, participation and protection. Nurses are in the 'engine room' of primary health care where most interaction takes place with clients and where cultural safety is pivotal to clients' experience of healthcare.

The application of partnership, participation and protection in health care requires the knowledge, skills and attitudes of cultural safety. Cultural competence was coined 'cultural safety' under the guidance of Irihapeti Ramsden, a New Zealand nurse and scholar, who lead the way in establishing cultural safety as essential to healthcare practice in all settings and with all clients (Ramsden, 1993, 2002). Cultural safety denounces the uncritical aggregation of clients of similar cultures into groups with common values, customs, beliefs and behaviours (Carrillo et al., 1999). Culturally safe healthcare practice is informed by an analysis of the politics inherent in marginalisation, poverty and deprivation (Ramsden, 2002). Healthcare is judged by the client as culturally safe in terms of their own experience. Culturally safe care is essential to successful implementation of the AMCVR guideline.

“Connected to other health and non-health agencies”. Primary health care providers that are well integrated with each other and other social services can provide a seamless service for their clients (Sheridan, 2005). This is an essential aspect of population health because the recognition of opportunities to improve the social determinants of health relies on relationships that can help with housing, education, and a range of other social services. Not least of all, care that is integrated across primary and secondary services can avoid gaps and overlaps in health services. A recent discussion document suggests than future primary health care organisations, whatever form they take, “will need to define together what the glue will be that will hold them together” (Primary Health Care Advisory Council, 2009, p.4) . Exploring the implementation of the AMCVR guideline may reveal the ‘glue’ that integrates services. The way that services are arranged and connected with each other is represented in the model of healthcare on which they are constructed. The following section briefly explores an integrated care model to lay open some of the features that hold it together and while connecting it with other services.

Integrated healthcare is individualised to suit the client and also has a population health focus (Sheridan, 2005) and relies on ongoing relationships that can do that effectively (Wagner, Austin et al., 2001; Wagner, Davis, Schaefer, Korff, & Austin, 1999; Wagner, Glasgow et al., 2001). In order to achieve this a comprehensive reorientation of health services across the health continuum is required (Bodenheimer, Wagner, & Grumbach, 2002a, 2002b). Six interlinked components are essential to effective integration of care (Bodenheimer et al., 2002b; Wagner, Austin et al., 2001; Wagner, Glasgow et al., 2001) :

Community Resources - mobilising community resources to meet the needs of people with long-term conditions

Healthcare Organisation - creating a culture, organisation, and mechanisms that promote safe, high quality care

Self-Management Support - empowering and preparing people to manage their health and healthcare,

Delivery System Design - delivering effective, efficient care and self-management support,

Decision Support - promoting care that is consistent with research evidence and patient preferences

Clinical Information Systems - organising patient and population data to facilitate efficient and effective care (Wagner, 1998)

These six features of integrated healthcare are essential to a context that supports the implementation of the AMCVR guideline.

This chapter has presented so far an exploration of the 'big picture' context relevant to implementation of the AMCVR guideline by providing a broad overview of the political, demographic, policy, cultural and legal context of primary health care in New Zealand. The focus of the chapter now turns to the context of everyday primary health care nursing practice. The second element of the PARiHS framework, Context, provides the structure for exploring everyday practice through its three sub elements - Culture, Leadership and Evaluation.

The Context of Everyday Practice

The second element of the PARHIS model, Context, refers to the practice environment into which evidence is being introduced. The culture of an organisation, the nature of leadership and the role of evaluation are essential ingredients of Context and form its sub elements, see Table 3.3 . Highly successful environments for the implementation of evidence into practice are those in which decision making is shared, individuals are valued, organisational systems are effective and leadership is transformational rather than controlling (Rycroft-Malone et al., 2001). A healthcare environment that is conducive to evidence-based practice requires active knowledge translation processes to encourage change (J. S.

Robinson & Turnbull, 2004). The organisational context of primary health care is highly influential on nurses' work with guidelines. Lasting change is dependent on understanding the culture of the practice context (McCormack et al., 2002). The following sections will unravel the sub elements of Context to reveal potential enablers and barriers to successful implementation of the AMCVR guideline.

Table 3.3

The PARiHS Framework Element, Context, with Sub Elements and Indicators for Low and High

Context	**Low context**	**High Context**
Culture	• Unclear values and beliefs • Low regard for individuals • Task-driven organisation • Lack of consistency • Resources not allocated	• Able to define culture(s) in terms of prevailing values/beliefs • Values individual staff and clients • Promotes learning organisation • Consistency of individual's role/experience to value • Relationship with others • Teamwork • Power and authority • Rewards/recognition • Resources—human, financial, equipment – allocated • Initiative fits with strategic goals and is a key practice/patient issue (Well integrated with strategic goals[5])
Leadership	• Traditional, command, and control leadership • Lack of role clarity • Lack of teamwork • Poor organisational structures • Autocratic decision-making processes • Didactic approaches to learning/teaching/managing	• Transformational leadership • Role clarity • Effective teamwork • Effective organisational structures • Democratic-inclusive decision-making processes • Enabling/empowering approach to teaching/learning/managing
Evaluation	• Absence of any form of feedback • Narrow use of performance information sources • Evaluations rely on single rather than multiple methods	• Feedback on Individual, Team, System performance • Use of multiple sources of information on performance • Use of multiple methods • Clinical • Performance • Economic • Experience evaluations

From (Rycroft-Malone, 2004)

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[5] Communication with Jo Rycroft-Malone confirmed that this indicator was incorrectly included in the "Low" column in the published article

Culture. The implementation of evidence into practice is highly contingent on the organisational culture of the clinical practice environment. In the PARiHS framework, Culture refers to the inherent values and beliefs, the roles and relationships, how power is distributed and used and the resources allocated for implementation of evidence into practice (Rycroft-Malone, Harvey et al., 2004). Culture is expressed in practice through "distinctive behavioural norms that manifest specific values, beliefs and assumptions" (McCormack, Manley, & Walsh, 2008, p. 20). Workplace culture is a potent influence on practice and intrinsic to an understanding of the implementation of the AMCVR in primary health care.

Organisational Values/ Beliefs and Roles /Relationships. While there is powerful, national and regional direction for health providers to the implement the AMCVR guideline, successful implementation in practice is strongly mediated by the values and beliefs underpinning the everyday face-to-face interaction of clinicians and clients (B. French et al., 2009). Labonte and Laverack (2008) have indentified fundamental concepts underpinning health promotion practice as health, equity, social justice and empowerment. These concepts also apply across the continuum of health care. The related values and beliefs of people working in primary health care (or any clinical setting) have a profound impact on how clients will be treated. In an environment that difference in health status is attributed to genetics and socio-economic status, a client's health status is attributed to his/her constitution and behaviour (McCreanor & Nairn, 2002) rather than to the social determinants of health. Values and beliefs fundamentally orientate heath care practice.

The culture of a primary health care provider needs to be in tune with the culture of the community in which it is based. Ethnicity is an important aspect of culture and an appreciation of the holistic and relational Mäori view of health is fundamental to effective health care. Traditional concepts, especially wairua (spirit) and whanau (family), hinengaro (mind) and tinana (body), are central elements in health and healing (Cram, Smith, & Johnstone, 2003). Rapport with clients is built through openness to cultural perspectives, genuine and personal interest in them and the challenges they face, and offering information in a way that is meaningful to them.

The roles and relationships in a health team, both formal and informal, are influenced strongly by workplace culture. A culture that values health, equity, social justice and empowerment engenders action on those values. Labonte and Laverack (2008) have identified the roles of health promoters in such a culture as that of educator/watchdog, resource broker, community developer, partnership developer and advocate/catalyst. Roles of individuals in a healthcare team are a reflection of the values and beliefs of their culture.

Teamwork for the implementation of evidence into practice is more likely to be successful if it has a multidisciplinary focus. If the evidence suggests a change in practice, whole team involvement engenders connection to and ownership of decisions and the opportunity to consider the impact of change. The formation of multidisciplinary teams is crucial for successful local improvement (Rycroft-Malone, Harvey et al., 2004). Multidisciplinary teamwork is an important feature of guideline implementation and there may be some challenges to achieving this in rural primary health care when clinicians are spread thinly across regions.

Power Distribution and Use. Power in its simplest form is the capacity to create or resist change (Labonte & Laverack, 2008). How power is claimed and exercised is fundamental to the culture of a health care setting. Some important questions to ask about power and its distribution in a primary health care setting are: Who holds power? What is the basis of that power? How is power exercised? How is a power base maintained? Whose power is limited and how? A population health, person-centred approach to primary health care requires at least a basic understanding of the dynamics of power use (Labonte & Laverack, 2008). Therefore how power is viewed and used is an essential element of culture.

The use of power can be subtle. Power-over the behaviour of others is antithetical to the tenets of primary health care but may be insidious in a seemingly objective, professional health assessment (Labonte & Laverack, 2008). When problems or health deficits are perceived as the problem of the individual, the client may internalise their situation as their own fault and that can lead to self-blaming helplessness that increases the burden of deprivation (Labonte & Laverack, 2008). The assessment of cardiovascular risk could operate in this way and, thereby, increase cardiovascular risk through engendering a low perceived control of one's health (Banks, Marmot, Oldfield, & Smith, 2006). Health professionals require the reflexivity to recognise how they are using power in their practice.

Power-with approaches enable a concordant partnership in which clients manage their own health, using the tools, knowledge and support they need to plan and action their own care. The paternalism of issuing instructions to clients is antithetical to concordance. Concordance refers to partnership in decision making in which clients' preferences are co-interpreted and co-conceptualised (Bissell, May, & Noyce, 2001; Parker, 2005). Barriers and enablers to a concordant relationship warrant attention as to how they are played out in everyday practice.

The bases, mechanisms and use of power within a health team are fundamental to the culture of an organisation. The roles and relationships in primary health care organisations differ on a number of bases, including employment relationships, professional expectations, and legal accountabilities. General practices are private businesses, owned by General Practitioners (GPs) and funded with public money distributed by PHOs and co-payments by clients. GPs are business owners and employ staff: nurses, administrators, and practice managers. On the other hand, Mäori Provider Organisations (MPOs) are owned by trusts. All of their funding comes from public money so that clients are not charged for the service provided. The multidisciplinary team approach to guideline implementation in primary health care may be fundamentally influenced by the management style of the employer.

Resource Allocation. The most important resources for the implementation of evidence are time, finances, equipment and skills (Rycroft-Malone, Harvey et al., 2004). Lack of time is commonly reported as a barrier to implementing evidence (Closs & Cheater, 1999; C. Thompson et al., 2004; C. Thompson et al., 2005), more so when linked to staff shortages and staff expectations (Rycroft-Malone, Harvey et al., 2004). Lack of allocated resources can be a major barrier to guideline implementation in any setting.

If the implementation of evidence into practice requires a change to how things are done, staff may feel powerless to make that change. The culture of an organisation has such a powerful effect on ways of practising, that possibilities to do things differently can be overlooked. Manley (2008) refers to the ‘hamster-wheel of busyness’ (p. 84), in which clinicians are so busy all the time that they can see no other way to do things and accept the status quo as inevitable. Such a position renders them unable to reflect on their work, to see other ways of practising and they may lose perspective of their key values and goals. Kemmis (2006) suggests that being critical about practice through reflexivity can expose how things are, and how they have come to be. The culture of an organisation can be transformed by processes that “integrate changing the practice of individual practitioners with the challenging of contextual factors that act as barriers to effective practice, and inform and shape policy/strategy” (McCormack, 2006, p. 91). Cultural change involves an organisation as a whole not just individuals, structures and systems within it.

Leadership. The PARiHS framework developers found that effective leadership is required for successful implementation of evidence into practice as it leads to clear roles, effective teamwork and effective organisational structures (Kitson et al., 1998). Leadership is not assigned to individuals because of their position but the notion that “all practitioners [can be] a leader of something” is central to the concept of leadership as it contributes to a culture of team involvement and the valuing of individuals’ contributions (McCormack et al., 2002, p. 98). The nature of the association of leadership with the overall culture of a healthcare setting has not been made explicit except that effective leaders are known to have characteristics that motivate, stimulate and inspire people to envision a future state (McCormack et al., 2002). Boomer and McCormack (2008, p. 125) explain that such leadership leads to a transformational culture that enables "the ability to continuously achieve positive change and is adaptable to the ever-changing environment". Organisations that lack adaptability for change will founder among the complex realities of health care. Potentially, leadership in primary health care has some extraordinary challenges especially in relation to communication and engendering collaboration across small organisations, many operating as private businesses. Enquiry into the implementation of the AMCVR guideline requires analysis of the nature, purpose and style of leadership.

Leading the Workforce. The primary health care workforce presents a number of challenges to leadership. The nursing workforce is stable and ageing. The medical workforce is dwindling and ageing. In the location of the study to follow, there are 852 nurses per 100,000 persons in the population, comparing favourably with the New Zealand average of 853.2 per 100,00 persons (New Zealand Health Information Service, 2004). Ten point six per cent of nurses, nationally, are employed in primary health care settings. The rural primary health care nursing workforce is relatively stable, 58 percent retention over a five year period (Litchfield & Ross,

2000) and 74 percent expected to still be working in that setting in five years (Norris, 2003). General practitioners, on the other hand, are a workforce “on the move” (Norris, 2003) p.287) with 40 percent of fulltime rural doctors intending to leave the region within five years and 80 percent intending to leave if conditions were to get worse. The difficulty of replacing those who have left is causing a growing shortage of rural doctors nationally (London, 2000, 2001, 2002), an issue that the Ministry of Health is addressing with incentives. The impact of workforce makeup and changes need to be explored further to understand its impact on primary health care practice.

The boundaries of nursing practice in primary health care are currently under scrutiny as extended nursing practice is considered as part of the solution to improve access to primary health care (Primary Health Care Advisory Council, 2009). In legal terms, the boundaries of health professional practice are clear. The Health Practitioners’ Competence Assurance Act, 2003, stipulates that regulated health professionals are accountable for their own practice within the scope directed by statutory bodies, for example The Nursing Council of New Zealand and the Medical Council of New Zealand (Ministry of Health, 2003a). However, when doctor-employers believe that they are responsible for nurse-employees’ practice they may restrict the nursing practice that they cannot directly supervise, for example in nurse-led clinics and community-based care (Minto, 2006).

Factors that enhance or constrain nursing potential need further exploration.

The relationship that primary health care nurses have with their employer has a direct impact on their practice. Employment arrangements for primary health care nurses vary between GPs and Mäori Health Providers as employers. General practices operate as businesses with doctor as employer and nurse as employee. In this model, the doctor is the owner of the business, controls the budget, and usually is the clinical director as well. This employment arrangement can detract from multidisciplinary, shared decision making (Minto, 2006). Mäori Health Providers employ both doctors and nurses so they are both employees which may improve teamwork. An understanding of the impact of employment arrangements on health team relationships is one aspect of Context that may influence the implementation of the AMCVR guideline.

Organisational structures. Traditionally primary health care has been delivered from general practice clinics originally geared for illness treatment rather than wellness support. When a health service is geared for treatment of sporadic, discrete, illness related events, clients can disappear from the clinical radar in between episodes only to reappear for the next encounter *(Kane, 2006).* Such an interrupted approach works for illness events but not for the ongoing nature of health promotion, risk assessment and chronic disease management. The recommendations of the AMCVR guideline address the continuum from health promotion, early risk detection, and managing ongoing risk for those with established heart disease. Therefore, implementation of the AMCVR guideline requires a different approach than that used for clinic-based, doctor-patient consultations for episodic illness events. Accessing healthy people for cardiovascular risk screening, continuity of support for those with identified risk and established disease requires systems and processes fit for purpose.

Evaluation. Evaluation of the impact of practice that aims to implement evidence is a vital aspect of Context. Evaluation provides feedback on the effectiveness, feasibility and processes of evidence implementation and informs ongoing practice. In the PARiHS framework, successful implementation of evidence occurs in a context that includes multiple methods and sources of information about the performance of individuals, teams and systems (McCormack et al., 2002).

Multiple Sources and Methods. A context that is conducive to successful implementation of evidence includes an approach to evaluation that recognises the world of practice as messy and multi-factorial (McCormack et al., 2002). Evaluation geared to this approach relies on multiple sources of evidence of effectiveness, both ‘hard’ data to measure the effectiveness of practice against tangible outcomes and ‘soft’ data to capture the complexity of processes and the multiple realities of a range of stakeholders (McCormack et al., 2002; Rycroft-Malone, Harvey et al., 2004). “Measurement” was changed to “Evaluation” in the PARiHS framework in 2002 to reflect the limitation of gauging effectiveness by numerical measures only (Kitson et al., 1998; McCormack et al., 2002). “Evaluation” replaced “Measurement” to indicate the need for a multi-method approach to gaining feedback on the impact of changes to practice. A recent systematic review of audit and feedback, as a form of providing evidence of achieving results, found a modest, but significant positive effect on outcomes (S. J. Hysong, 2009). This effect was found to strengthen when specific suggestions for improvement were written and frequent. Successful implementation of a guideline is enhanced when multi-method evaluation and feedback is used.

An evaluation agenda that is fixated on what is measurable, at the expense of what is meaningful, is unsupportive of successful guideline implementation because it undervalues the ‘how’ in favour of the ‘how many’. Currently primary health care providers have reporting requirements that may already be at the limit of their capacity for collecting data. In a recent address to a General Practitioners’ conference, the newly appointed Minister of Health, Tony Ryall, indicated the pressure and the volume of current reporting requirements:

> “The Ministry of Health advises me that we are currently asking you to measure the performance and quality of our public health system through: 13 health priorities and 61 objectives, with an additional subset of 13 health objectives; a set of 10 health targets measured through 18 indicators; 25 other indicators of DHB performance; not to mention 4 hospital benchmark indicators assessed through 15 measures; and an outcomes framework with 9 outcomes, measured against 39 headline indicators. The only thing missing is the partridge and the pear tree” (Ryall, 2009).

When the capacity of primary health care providers is already heavily burdened with compulsory reporting, evaluation of practice processes involved in guideline implementation may slip off the radar.

An eclectic and inclusive approach to the evaluation of evidence implementation requires methods that take account of multiple realities, enable the monitoring of progress over time and provide feedback on the impact of team strategies and decisions. Pawson and Tilley (2001, p. 322) offer six maxims to ward off evaluations cursed by what they call “short-termism”. First is to speak always of evaluations in the plural; to eschew the one-off and to appreciate the cumulative power of iterative enquiries. Second is to be unafraid to use small interventions to answer big questions and to test big theories against small interventions. Third is that the methodological gold standard is pluralism. Multiple methods and multiple data sources are essential for a whole picture view. The fourth maxim is to recognise that similar outcomes may be achieved in different ways. A policy, guideline or directive may activate multiple mechanisms in different ways depending on the context. The fifth maxim calls for evaluators to avoid the expectation of finding out the ultimate of “what works” (Pawson & Tilley, 2001, p. 323) but to just keep on trying to find out.

Evaluation of interventions that tackle stubborn problems needs to be couched in terms of keeping on “trying, trying, and then trying again" (Pawson, 2002, p. 157). The last maxim points out that evaluations that pitch interventions against each other to find out what works best to reach the same end (outcome) is complementary to an analysis of same/similar actions (process) that achieve different ends. Therefore, a context in which evaluation employs an ongoing programme of multiple methods and data sources; analyses outcomes as well as processes; and takes account of multiple realities is one that supports successful implementation of evidence into practice.

Summary of the Chapter

This chapter has highlighted the complexity of the context of primary health care nursing and exposed some of the background and foreground influences on practice. Exploration of the broad context of global and national policy, health law, funding, and inequity has revealed some significant influences on primary health care practice. With this ‘big picture’ as the backdrop to primary health care nursing, the focus moved to the context of everyday practice and was explored using the structure provided by the second PARiHS element, Context, with its three sub elements: Culture, Leadership and Evaluation.

The potential enablers and barriers relevant to successful implementation of the AMCVR guideline have been revealed. The potent influence of the culture of a health care organisation has been exposed in terms of how the AMCVR guideline would be embedded into everyday practice. The impact of the orientation and style of healthcare leadership was suggested as having a powerful moderating effect on the context of everyday practice. Finally, evaluation (as opposed to measurement) was considered for its impact on healthcare context and potential barriers and enablers to implementation of the AMCVR were identified.

This chapter and the previous one have explored Evidence and Context to reveal the background and foreground influences on everyday practice. The next chapter explores the third element of the PARiHS framework, Facilitation.

Chapter Four – Facilitation

Introduction

This chapter presents an exploration of the third element of the PARiHS framework, Facilitation, and concerns the processes, skills and knowledge required for facilitating the successful implementation of evidence into practice. The chapter begins with a definition of Facilitation and then explores, in a broad sense, the issues, different approaches and processes related to the facilitation of evidence into practice. The focus of the chapter then moves to consideration of the potential barriers and enablers affecting successful implementation of the AMCVR guideline in primary health care nurses' everyday practice. The two sub elements of Facilitation and the associated indicators for successful implementation provide the structure for the rest of the chapter. Facilitation is situated under the umbrella of practice development as an overarching approach to transformational change in healthcare teams through maximising human agency. The chapter concludes with a summary of the key features of Facilitation to be investigated in the context of this study. The purpose of the chapter is to illuminate the complexities of Facilitation and foreshadow processes that are likely to enable health professionals to implement the AMCVR guideline.

Definition of Facilitation

Facilitation in the sense of the PARiHS framework refers to the characteristics, role and style of facilitators who assist the transfer of evidence into practice. A concept analysis of Facilitation by the PARiHS developers used interpretive techniques of literature review to describe the meaning, features and characteristics of facilitation and to determine as well as advance the maturity of the concept (G. Harvey et al., 2002). Harvey et al. (2002) based their concept analysis on literature that specifically examined the role of the facilitator whose explicit focus was to implement evidence into clinical practice. A driving factor for that analysis was to address any lack of clarity associated with Facilitation so that there would be a sound platform for ongoing development of the PARiHS framework. The concept analysis of Facilitation concluded that

> “…facilitation can be represented as a set of continua, with the purpose of facilitation ranging from a discrete task-focused activity to a more holistic process of enabling individuals, teams and organisations to change” (G. Harvey et al., 2002, p. 578).

The concept analysis determined that the roles and skills associated with Facilitation lacked distinction from other change agent roles, such as opinion leader or critical companion (G. Harvey et al., 2002). As with Evidence and Context, the indicators for the sub elements of Facilitation are positioned at the ends of continua. For Facilitation, the low ends of the continua are labelled 'task' and the high end is 'holistic'. Task and holistic refer to the orientation, style and attributes of facilitators. Table 4.1 below presents the continua, sub elements and indicators for Facilitation.

Table 4.1

The PARiHS Element, Facilitation: Continua, Sub Elements and Indicators

Facilitation		
Purpose Role	Task	Holistic
	Doing for others • Episodic contact • Practical/technical help • Didactic, traditional approach to teaching • External agents • Low intensity—extensive coverage	Enabling others • Sustained partnership • Developmental • Adult learning approach to teaching • Internal/external agents • High intensity—limited coverage
Skills and attributes	Task/doing for others	Holistic/enabling others
	• Project management skills • Technical skills • Marketing skills • Subject/technical/clinical credibility	• Co counselling • Critical reflection • Giving meaning • Flexibility of role • Realness/authenticity

(Rycroft-Malone, 2004, p. 302).

A precise definition of facilitation was not readily accessible to Harvey and others (2002), partly because the concept is commonly used, but has different meanings in different disciplines. Drawing on literature from the fields of counselling, education, quality management and health promotion, Harvey et al (2002) found that facilitation is multidimensional and can apply to work with individuals, groups and whole organisations and therefore requires various techniques to suit the facilitation situation.

Instead, the concept analysis of facilitation concentrated on identifying the key characteristics of successful facilitation as represented in a wide range of literature. From the counselling literature the PARiHS authors deduced that facilitation entails critical reflection, reduction of defensive reactions and the challenging of norms to motivate changes in practice. The education literature established that facilitative practice-based learning is person-centred, problem-based and experiential, and has been used to challenge existing practices and cultures and to inform practice change. They found that critical reflection, practice development and action research literature were similarly informed by experiential, adult learning approaches and were closely related in purpose and process to Facilitation (G. Harvey et al., 2002). In the quality management and health promotion literature, facilitation was found to be more focused on the achievement of tasks or specific goals, such as with the 'Oxford Model' used in coronary health disease prevention and management (G. Harvey et al., 2002). Facilitation has many guises, draws on knowledge from a range of disciplines and is closely related to other practice change endeavours, for example Practice Development.

As previously referred to in Chapter Two of this work, over the last decade and a half the PARiHS framework has been continually developed and refined through research (Rycroft-Malone, Harvey et al., 2004) and a series of concept analyses of its constituent elements (G. Harvey et al., 2002; McCormack et al., 2002; Rycroft-Malone, Seers et al., 2004). The multidimensional and interconnected nature of successful implementation (SI) of evidence into practice is represented in the framework as a function (f) of the nature of the Evidence (E) to be implemented, the Context (C) of implementation and the approach to Facilitation (F) so that SI = f(E,C,F) (Kitson et al., 1998).

A recent development of the PARiHS framework is the suggestion that successful implementation of evidence into practice is a two stage diagnostic and evaluative process in which the first stage is the evaluation of Evidence and Context. In the second stage Facilitation is specifically “shaped and moulded” as indicated by the information generated in stage one (Kitson et al., 2008, p. e1). The notion of implementation as a two stage process warrants further investigation and will be explored later in this study.

The 'holistic, enabling' column in Table 4.1 indicates the characteristics of facilitation that will support thoughtful, client-centered implementation of research findings (G. Harvey et al., 2002, p. 586). A 'task, doing for others' approach is directive and compliance focused, not ideal, but can be appropriate as a pragmatic way of getting evidence to the point of care in situations of high risk, for example an epidemic of the H1N1 virus.

Approaches to Facilitation

A brief overview of approaches to facilitation is provided here to set the scene for exploring contemporary approaches to implementing evidence into practice in the context of this study. Approaches to the implementation of evidence have evolved over time from a primary focus on the evidence itself, to the behaviour of individual clinicians, and, more latterly, to more comprehensive, holistic strategies. Early implementation efforts concentrated on a unidirectional process of ‘science push’ in which the benefit of using research evidence pushed out to clinicians was expected to be self-evident (McWilliam, Kothari, Ward-Griffin, Forbes, & Leipert, 2009; Randell, Mitchell, Thompson, McCaughan, & Dowding, 2009). Pushing out the evidence to clinicians using passive distribution methods is still occurring most likely due to a lack of knowledge about how to go about implementation (I. D. Graham et al., 2006). The consequences of the ‘science push’ approach to evidence based practice has resulted in a lack of attention to implementation as a process and has contributed to the persisting gap between evidence and practice (Rycroft-Malone, 2006).

A change of tack followed as the lack of adoption of evidence into practice persisted. ‘Science push’ was then combined with ‘demand pull’ in which sophisticated efforts were made to educate clinicians to pull in evidence, presented to them in increasingly palatable formats (Dopson, FitzGerald, Ferlie, Gabbay, & Locock, 2002). Both push and pull efforts targeting behaviour change in clinicians had only limited success (Bero, Grilli, Grimshaw, & et al, 2000; Dobbins et al., 1998; Oxman et al., 1995). Even later as Grimshaw and others (2004) continued the search for the right strategy to increase the uptake of evidence into practice, they found no straight answers. In 235 studies that compared 309 interventions, some improvements in care were associated with reminders (14.1%), some with educational materials (8.1%), audit and feedback (7%) and a mere 6% showed improvement using multifaceted educational outreach. One study into the use and usefulness of four guidelines among GPs in New Zealand found that a combination of push-pull strategies (targeted education following dissemination, easily accessed recommendations and convenient decision support) did have some effect on behaviour (Arroll, Goodyear-Smith, & Kerse, 2002). However, with no definitive behavioural strategies found to improve the uptake of evidence, other approaches are more likely to be useful in the facilitation of guidelines into practice.

'Push-pull' approaches to the implementation of evidence are not comprehensive enough to accommodate the messy world of healthcare practice. The facilitation of evidence into practice requires methods that acknowledge the chaos and unpredictability of healthcare settings and multiple layers of interaction and change cycles (Rycroft-Malone, 2008). A New Zealand study investigating the use of a guideline in primary health care concurred that implementation is a multilayered process and suggested that successful facilitation takes account of the level of change to current practice required and clinicians' readiness to change (E. McKinlay, McLeod, Dowell, & Marshall, 2004). The facilitation of evidence into the "complex cocktail of interactions and engagements" of clinical practice requires methods that can fully embrace that mix (McCormack, 2008, p. 160). The style, methods and pace of Facilitation are contingent on careful evaluation of Evidence and Context.

Adaptation of a guideline for local use must take account of clinicians' response to the guideline, whether or not they have internalised it, or can create a shared understanding of it, and whether the broader organisational context supports use of the guideline (Kitson, 2009). The readiness of an individual, group or organisation determines the requirements for facilitation in terms of style, role and skills required (Kitson et al., 2008).

Robust barriers to the adoption of guidelines into practice have been attributed to a lack readiness of health professionals to change their practice, rather than a lack of willingness to change. People are not ready for guideline adoption when there is a lack of awareness, familiarity, agreement, self efficacy, motivation, expectation of success and the perception that external barriers are insurmountable (Grol & Wensing, 2004). The notion of readiness is useful as it moves attention away from finding fault in the behaviour of individuals to the Facilitation of what is required to maximise successful guideline implementation.

With no universal recipe for implementing evidence, Facilitation requires methods that are particularlised to people, time, place, and purpose. One of the most powerful potentials of the PARiHS framework is that the approach and methods to be adopted for Facilitation in a specific clinical setting may be guided by an evaluation of the 'Highs' and 'Lows' of Evidence and Context (Kitson et al., 2008). Facilitation in the dynamic and complex environment of healthcare practice requires an approach that is customised to the situation at hand.

The positive end of the continua for the sub elements: Purpose/role, and Skills and Attributes of facilitators are designated as 'holistic/enabling others' while the negative end denotes a 'task/doing for others' orientation. The following sections will identify potential supports and barriers for successful Facilitation of the implementation of the AMCVR guideline in primary health care nursing. As indicated earlier in this chapter, Facilitation presupposes that people have been designated as facilitators to undertake the role as part of their employment.

Holistic purpose/role. When the purpose and role of a facilitator is holistic, they work in a sustained partnership with clinicians to enable them to implement evidence into their everyday practice (G. Harvey et al., 2002). Holistic facilitators adopt a person-centred approach based on the belief that people can transform and be transformed by the environment in which they live and work; they take an adult learning approach to teaching that enables and empowers; they may be internal to the organisation or come from outside; and they work intensively with staff in clinical settings (G. Harvey et al., 2002; Rycroft-Malone, 2004).

The indicators for the holistic poles of the Facilitation continua are consistent with a perspective that recognises the world of practice as imprecise, dynamic and multidimensional. It also recognises human potential for changing the culture of an organisation, so that even when a clinical context seems intractable to change, skilled facilitation can enable positive change.

The holistic poles of the indicators for Facilitation can be aligned to the core qualities of human agency (Bandura, 2000, 2006) and are also closely connected to Practice Development processes (Manley & McCormack, 2003; McCormack, Manley, Kitson, Titchen, & Harvey, 1999; McCormack, Wright, Dewar, Harvey, & Ballantine, 2007b; Walsh, Moss, & Fitzgerald, 2006). Because human agency and practice development are intrinsic to successful facilitation, I will now explore each of them in depth in the following sections.

Human agency. Successful facilitators work with clinicians as individuals and teams to enhance the core qualities of human agency (Bandura, 2006). The first of these is shared intentionality, which underpins changes brought about by teams. The facilitator needs to help a team to collectively believe in their capability to bring about desired outcomes (Bandura, 2006). The second core quality is forethought which entails the envisioning of goals and anticipation of the likely outcomes of prospective action. Therefore, forethought brings about behaviour change in anticipation of reaching desired goals and outcomes. Facilitators require the skills and attributes to encourage the articulation of forethought in a team. The third core quality of human agency, self reactiveness, involves the ability to construct and implement self regulated action towards anticipated outcomes. The fourth core quality of human agency is self reflectiveness, the ability to examine the thinking used to decide on actions and to evaluate the outcomes of action. The four core properties of human agency are fundamentally linked to enabling the capability and capacity for individuals and teams to effect desired change.

Facilitators of the successful implementation of evidence into practice enable clinicians to express human agency. Human agency enables people to be:

> "…self-organizing, proactive, self-regulating, and self-reflecting… not simply onlookers of their behaviour… [but as] contributors to their life circumstances, not just products of them" (Bandura, 2006, p. 164).

Human agency is employed when a person is motivated to act in a certain way because s/he believes that s/he can produce desired effects and avoid undesired ones. Therefore skills and attributes that enhance human agency encourage confidence, belief and vision in individuals and teams. Collective agency, exercised through the shared beliefs of a team, enables collective action towards desired outcomes (Bandura, 2000). Perceived collective efficacy is a powerful mediator of envisioning future states, of the way that resources will be used, of the effort and staying power a team can muster, and how vulnerable they are to adversity (Bandura, 2000).

Embedding a new practice into everyday routine is promoted or inhibited by the extent that actors can express human agency. An analysis of how a practice is embedded into everyday action requires knowledge of what people actually do and how they work (May et al., 2009). The investigation of primary health care nurses' use of the AMCVR guideline in practice, that follows in the next chapters of this work, will reveal how they are embedding the guideline into their work and the enablers and barriers they encounter. May et al (2009) suggest that practices become everyday routines as a result of people working together and individually to enact them.

A practice will become the 'normal' way of doing when people collectively invest meaning, commitment and effort in it (May et al., 2009). Facilitation that potentiates collective agency will enhance the capacity of a team or group to change the culture of their workplace and their practice patterns. The PARiHS framework informs this process by identifying the enablers and barriers intrinsic to Evidence and Context and suggesting that

Facilitation for ‘high Evidence – low Context’ is different to that required for ‘low Evidence-high Context’ (Kitson et al., 2008).

Practice Development. Because Facilitation is often discussed in nursing as coming under the umbrella of practice development, I have drawn on the PD literature to inform an exploration of the potential issues concerning facilitation of the AMCVR guideline into primary health care nursing practice. Facilitation is considered integral to PD so that the roles/ purpose, skills, and attitudes of one are common to the other (G. Harvey et al., 2002; McCormack, 2006; McCormack et al., 2002; McCormack et al., 1999). Practice development is:

> “…a continuous process of developing person-centred cultures. It is enabled by facilitators who authentically engage with individuals and teams to blend personal qualities and creative imagination with practice skills and practice wisdom. The learning that occurs brings about transformations of individual and team practices. This is sustained by embedding both processes and outcomes in corporate strategy” (Manley, McCormack, & Wilson, 2008, p. 9)

PD and, therefore, Facilitation are concerned directly with ways to initiate and sustain change in the midst of the realities of everyday clinical work. In stating that PD is concerned with “achieving sustainable change through practitioner enlightenment, empowerment and emancipation and an associated culture”, Manly and McCormack (2003, p. 22) reveal the transformational, critical social science foundations of PD. The nine principles of PD, detailed in Table 4.2 below, indicate the way that the theoretical underpinnings of PD are reflected in the activities of PD.

Table 4.2

Nine Principles for Practice Development (PD) Activities

1. Aim to achieve person-centred and evidence based care that is manifested through human flourishing and a workplace culture of effectiveness in all healthcare settings and situations

2. Direct attention at the micro-systems level – the level at which most healthcare is experienced and provided, but ensure coherent support from interrelated mezzo and macro-systems levels develops

3. Integrate work-based learning with its focus on active learning and formal systems for enabling learning in the workplace

4. Integrate and enable both the development of evidence from practice and the use of evidence in practice

5. Integrate creativity with cognition in order to blend differing energies, enabling practitioners to free their thinking and allow opportunities for human flourishing to emerge

6. Recognise the complexity of the methodology and its many uses across health care teams and interfaces to involve all internal and external stakeholders

7. Utilise key methods that are consistent with the methodological principles being operationalised and the contextual characteristics of the PD programme of work

8. Utilise a set of processes including skilled facilitation that can be translated into a specific skill-set required as near to the interface of care as possible

9. Integrate evaluation approaches that are always inclusive, participative and collaborative

(McCormack, Dewing et al., 2009, p. 94)

The interlinked knowledge bases of critical social science each serve a different human interest: technical knowledge for greater technical skill and mastery, practical knowledge for understanding the perceptions of self and others, and emancipatory knowledge for transforming life conditions through reflection on the conditions that maintain the status quo and realising actions required to change them (Habermas, 1987). Each knowledge base is directly applicable to the implementation of the AMCVR guideline: technical knowledge for understanding the scientific base of the guideline and the intricacies of cardiovascular risk calculation, practical knowledge for appreciating and learning from the experiences of clients, self and others, and emancipatory knowledge for perceiving and acting on ways to optimise implementation of the AMCVR guideline recommendations.

Different approaches to PD can facilitate the acquisition and blending of different knowledge forms according to need. The specifics of the approach required for Facilitation of the AMCVR guideline into primary health care practice will depend on the barriers and enablers identified through applying the indicators for high and low Evidence and Context to the practice locations involved in this study. Broadly speaking, PD is either task focussed, in which case it is known as technical practice development (tPD), or focussed on enabling or empowering others, when it is known as emancipatory practice development (ePD). The style of PD adopted needs to be fit for purpose, informed by an evaluation of Evidence and Context.

The two poles of the continua for Facilitation - ‘task/doing for others’ versus ‘holistic/enabling others’ correspond to tPD versus ePD. In task focussed Facilitation, the facilitator uses tPD, knows what has to be done and how to do it and staff become the means by which the outcome (decided by others) is achieved. For example, a technical/task approach to the implementation of a guideline into practice would have the facilitator informing staff about what they need to understand and do, the standards to be followed and how practice would be audited for compliance with guideline (Manley & McCormack, 2003). An enabling approach to Facilitation using ePD:

> "seeks to first deconstruct and then reconstruct the different types of patterns within the workplace and enable staff to better understand and facilitate their workplace cultures"(McCormack, Dewing et al., 2009, p. 93).

ePD is more time-consuming than tPD, requires more patience and different skills of the facilitator. The facilitator of ePD needs the ability engage clinicians in meaningful conversations that enable creative, innovative and alternative ways of conceptualising positive and sustainable change (Walsh, Jordan, & Apolloni, 2009). Walsh et al (2009) contend that facilitators of change in clinical practice help clinicians to visualise and realise effective workplace cultures. This realisation is engendered through meaningful conversations that focus on a "better possible future" (McCormack, Dewing et al., 2009, p. 175).

The approach to Facilitation should match the developmental stage and needs of staff (G. Harvey et al., 2002) and may vary along the continuum from a directive, task focus to cooperative support and guidance and to holistic, self-directed approaches. The skilled facilitator can determine the appropriate approach according to the needs of clinicians and the organisation, and need to be flexible and sufficiently skilled to work in tune with a group to fulfil the requirements of the role at a given point in time (G. Harvey et al., 2002). The style of facilitation adopted in the implementation of the AMCVR guideline across a range of General Practices and Mäori Health Providers is likely to differ from place to place according to each workplace setting. Task oriented Facilitation must be used with caution, though, because of its suitability for quick-fix solutions that fail to address organisational systems and processes and therefore may not be suited to sustained change (Walsh, 2007).

There is a fine balance to be found between genuinely urgent changes in practice and an artificial urgency driven by a pragmatic ‘can do, let’s get it done’ attitude, possibly a trait of Antipodeans (Walsh & Moss, 2007) and maybe of nurses globally. Walsh and Moss (2007) acknowledge the tensions of dealing with the “balance point” of managing organisational imperatives for practice change at the same time as “bringing people with [them] on the journey in respectful and person-centred ways” (p. 83). Their suggestion is to adopt “alongside” PD to deal with conflict between process and outcome, by adhering to constant, core principles while PD evolves according to the environment. Therefore the relevance of the approach to facilitating implementation of the AMCVR guideline in a given setting depends on how it matches up to the indicators for ‘High’ and ‘Low’ for Evidence and Context. A whole region approach to Facilitation of the implementation of the AMCVR guideline would seem unlikely given the bespoke nature of successful methods and role/s.

External or internal facilitators? The process of facilitation is influenced by the relationship that a facilitator has with an organisation. Facilitators from within an organisation and those who come from outside (usually from academia and/or professional organisations (Manley, Titchen, & Hardy, 2009)) can have complementary roles in the facilitation of evidence into practice. External facilitators are most useful in mentoring/support roles where they work alongside identified internal facilitators coaching them in action learning methods and the skills and knowledge of change management (G. Harvey et al., 2002). In this way they help to build the capacity and capability for internal facilitation. Effective internal facilitation is crucial as actual changes in practice have not been associated with external roles only (McCormack, Wright, Dewar, Harvey, & Ballantine, 2007c). That primary health care nurses are spread throughout the region in which this study is located, mostly in small teams at a distance from each other, will also influence the model of facilitation that can be adopted.

External facilitators working alongside individuals and teams can have a significant effect on enabling them to turn around the cultures and practices of a clinical setting (Manley et al., 2009). Such external facilitation may be conducted within an action/practitioner research context in which clinicians not only learn about their own practice but also contribute to the growth of knowledge about transformative facilitation (Manley et al., 2009). Skilled internal facilitators offer the best opportunity for clinicians to take control of their own practice and its context. Traditional education approaches have not been seen to bring about the transformation of practice (McCormack, Wright, Dewar, Harvey, & Ballantine, 2007a). Therefore, facilitators, whether internal or external, require the skills and attributes of action learning that will enable sustainable change.

The skills and attributes of holistic facilitation. Both practice development and holistic Facilitation require skilled facilitators with the ability to engage in sustained partnerships with others to enable lasting change in practice. Therefore, successful facilitators require a repertoire of skills and attributes with a person-centred orientation to guiding, motivating, teaching and facilitating change (Walsh, McAllister, Morgan, & Thornhill, 2004). Engaging with and motivating clinicians to work together on practice changes are essential capabilities of facilitators, both in the initial stages of an initiative and also throughout change. Walsh et al (2004) drew on their skills as psychiatric nurses in their practice development work. They found that their counselling skills (active listening, paraphrasing, interpretation and problem solving) were transferable to their work with clinicians to change practice. More specifically, the skills and attitudes of motivational interviewing, as used in drug and alcohol treatment, are suitable for the facilitative style of interpersonal relationships that help clinicians to connect with the need for changes in their practice (Walsh et al., 2004).

A most important principle of the motivational approach to facilitative relationships is that people/clinicians are more likely to engage in change processes if they come to their own conclusions about what needs to change in their practice. Drawing on the work of Miller (1983), Walsh et al built their techniques on the fundamental principles of “I learn what I believe when I hear myself talk”, that resistance to change is not the default position of people and that “a person is more likely to integrate and accept that which is reached by his or her own reasoning processes” (2004, p.95). Motivational interviewing techniques adapted to facilitation in PD were found to be invaluable for helping clinicians to engage in reflection on practice, to become aware of where change was needed and to discuss candidly any gaps between their values, beliefs and actual practice. Skilled facilitation of this type involves the ability to help a team to maintain focus on and support positive change, build self esteem and self efficacy and to avoid blaming and judgmental behaviours that can lead to helplessness, skepticism and apathy.

So it would seem that there is no single method for Facilitation. Facilitators need to be able to particularise their approach according to an evaluation of Evidence and Context. Therefore, they require the skills, knowledge and attitudes to apply the principles of facilitation in a variety of ways that best meet a specific environment. As a result of a realist synthesis of evidence relating to PD, McCormack and others confirmed that a diversity of methods is appropriate for undertaking PD (McCormack et al., 2007c). Methods could be associated with four groupings: those that use and generate knowledge; that involve stakeholders; that develop participation and shared ownership and, lastly, those that effect the development of patient care. Further, they concluded that all of the methods detailed in Table 4.3, below, may be demonstrated in a PD project. The successful facilitator is multi-skilled, well versed in the methods and approaches that enable successful implementation and their role and influence is well supported in the organisation.

Table 4.3
Practice Development Methods

Agreed ethical processes
Values clarification
Developing a shared vision
Workplace culture analysis
Collaboration and participation
Developing shared ownership
Stakeholder analysis and agreed ways of engaging stakeholders
Methods to facilitate critical reflection (e.g. action learning
Person-centredness
High challenge and high support
Feedback
Knowledge use
Process and outcome evaluation
Facilitation of transitions
Giving space for ideas to flourish
Dissemination of learning
Rewarding success
Reflective learning

(McCormack et al., 2007c, p. 69)

Facilitating engagement and solution generation. The multi-skilled facilitator is focussed on solutions rather than problems. The likelihood that a group or team can successfully generate robust answers to clinical problems can be enhanced by facilitation that pays attention to carefully planned solutions rather than quick answers to problems. “Puzzling practice” has been suggested as an approach to encouraging new understandings and actions to resolve clinical practice issues and, as such, has particular merit in relation to the skills and attributes of holistic facilitation (Walsh, Moss, Lawless, McKelvie, & Duncan, 2008). The elements of “puzzling practice” have been described as “naming the issue; puzzling the issue; testing the puzzle; exploring the heart of our practice; formulating the puzzle question ; visualizing the future; and generating new strategies for action” (Walsh et al., 2008, p. 94). This novel approach to solution finding uses innovative ways to explore, ‘unpack’ and reframe clinical issues. In the beginning stages of a team working with a PD approach, a facilitator can introduce contemporary methods and approaches that help a team to identify and recognise the issues they wish to work on.

An essential skill of successful facilitators is that they help clinicians to engage with each other and with other stakeholders in a way that develops effective communication, understanding of each other’s viewpoints, and the exploration of solutions to clinical practice difficulties. As they continued to refine their practice development work, Walsh et al applied the principles of motivational interviewing and the PARiHS equation, SI = f(ECF), to the development of a tool to assist engagement, the Building Effective Engagement Tool (BEET) (Walsh, Lawless, Moss, & Allbon, 2005). The impetus for the tool was clinicians' awareness that without successful engagement, they tend to generate multiple solutions for ill-defined problems without engaging partners who were critical to the change process. The BEET was designed to enhance the engagement of people in change that they, themselves, have deemed necessary and, therefore, is most relevant to them.

Since the BEET has been built on the PARiHS framework, it may well have special relevance to the engagement of clinicians for the implementation of the AMCVR guideline in the environment of this study. Each of the three parts of BEET (Evidence, Context and Facilitation) consists of straightforward questions that act as checkpoints for clarifying issues, tracing progress towards effective engagement and encouraging cooperation for improved health services (Walsh et al., 2005). Engagement in relation to sharing views about 'the evidence', reaching agreement about its applicability in practice and agreeing its place in decision making is crucial to successful implementation of the AMCVR guideline (Rycroft-Malone, 2006). The 'context' part of the BEET is about engaging with both people/partners and conditions in the context of change that can help or hinder change.

The conditions affecting the context have been explored at length in the previous chapter. It would seem then that a powerful mediator of successful implementation of the AMCVR guideline may be a complex combination of individuals' and teams' acceptance and understanding of evidence and the readiness to action the recommendations in their place of work.

Facilitation concentrates on the enablers and barriers to successful implementation in relation to the facilitator's role, skills and attributes. The BEET can operate in tandem to guide the engagement of those involved in change, with the people, the issues and the multiple interactions that determine the success or failure of the implementation efforts (Rycroft-Malone, 2006). The facilitation part of the BEET guides how people work with identified partners to engage them in the change process by mobilising their cooperation and participation (Walsh et al., 2005). The BEET has been purpose built for enhancing the engagement of staff in change to improve health outcomes and seems to have particular relevance to this study because it draws attention to an otherwise underdeveloped aspect of guideline implementation and also because of its close relationship to the PARiHS framework.

The literature is rich in description and explanation of how the roles, skills and methods of facilitation can enable and empower health professionals to make changes to workplace cultures and, thereby, the ways they practice. An investigation of the use of the AMCVR guideline in the context of this study requires consideration of any and all forms of facilitation used to embed the guideline in practice. Even if none of the methods explored above can be recognised in their purest forms, any indication of roles, situations, and examples of facilitation in action will shed light on the enablers and barriers to successful facilitation.

Chapter Summary

The purpose of this chapter has been to illuminate the complexities of Facilitation and foreshadow processes that are likely to enable health professionals to implement the AMCVR guideline. Facilitation for successful implementation of evidence into practice has been established as a holistic, enabling process carried out by personnel allocated to the role. Successful facilitators aim for sustained partnerships built on valuing and respecting people, and building the capacity and capability of teams and individuals to find their own solutions to barriers and ways to enhance supports. Because facilitation of a guideline into everyday practice is context dependent, non-linear and imprecise, facilitators need to finely tune implementation activities to each situation. The notion of the PARiHS framework as a two phase process (Kitson et al., 2008) in which Facilitation is planned and delivered according to the evaluation of *Evidence* and *Context* will be investigated further on in this study.

The following chapter presents the methodology for a detailed investigation and analysis of the implementation of the AMCVR guideline in a primary health care setting.

Chapter Five - Study Methods

The purpose of this chapter is to present and explain the methods used to investigate nurses' use of an evidence-based guideline in primary health care in a region of New Zealand. The previous chapters have foreshadowed some of the issues related to Evidence, Context and Facilitation, that primary health care nurses may face in implementing a guideline in everyday practice. The sections that follow provide the details of a two-component qualitative study employed to achieve the research aim. This chapter provides a detailed account of the methods used, firstly, to expose the practice realities surrounding guideline implementation and, secondly, to identify the enablers and barriers to successful implementation.

Aim of the Study

The aim of this study is to explore the 'black box' of guideline implementation associated with primary health care nurses' use of a guideline that targets high health need populations in a region of New Zealand.

The aim is to be achieved in two components by:

1. Exploring the complexities of primary health care nurses' use of the New Zealand Assessment and Management of Cardiovascular Risk guideline.

2. Employing the Promoting Action on Research Implementation in Health Services (PARiHS) framework to identify the enablers and barriers to guideline implementation in the primary health care setting.

Approach to the Study

This study is comprised of two components in which the same data are analysed in two distinctly different ways. Qualitative methods were used for both components because they are appropriate for advancing understanding and interpretation of complex social interactions in the everyday world as is the case in guideline implementation (Denzin & Lincoln, 2000; Ezzy, 2002). The methods draw on the tenets of naturalistic inquiry to study primary health care nurses' use of the guideline in a way that gets as close as possible to the natural environment in which implementation takes place and provides a comprehensive account of events in the everyday language of those who are using the guideline (Sandelowski, 2000).

Qualitative methods are most appropriate for this study because they enable access to context specific knowledge that is embedded in healthcare practice. The methods for this study require accessing the knowledge that practitioners gain through interacting with each other through their everyday practice. Learning gained through practice may be viewed from two different perspectives. Firstly, learning may be considered to be gained through experience and then interpreted and located within the minds of individuals, in which case it is known as cognitive theory. Secondly, learning may be thought to be non-individual, context specific and socially constructed, then known as socio-cultural theory (Manley et al., 2009; Tagliaventi & Mattarelli, 2006). The aims and interests of this study are informed by socio-cultural theory in that practice is the expression of learning, is context specific, socially situated and powerfully influenced by social exchange and the culture of the environment (Manley et al., 2009).

This study focuses on practice with an emphasis on nurses' practice as the means through which their knowledge about the implementation of the AMCVR guideline is generated and made accessible. As practitioners give voice to how they are working, their practice becomes accessible as the unit of analysis for understanding the situated learning associated with implementing the guideline that is central to this study.

Both components of this study fall under the umbrella of qualitative description, recommended by Sandelowski (2000) as the method that is "especially amenable to obtaining straight and largely unadorned answers to questions of special relevance to practitioners and policy makers" (p. 337). Qualitative description has been relatively unacknowledged as a distinct research method even though it is the most frequently applied qualitative method in practice disciplines (Sandelowski, 2000) . Sandelowski argues that many qualitative researchers engage in “methodological acrobatics” (2000 p.335) in the belief that grounded theory, phenomenology, or ethnography are more worthy methods than qualitative description. Such distinctions can artificially render a method “as easier, less valuable, or less scientific than another” (Sandelowski, 2000, p. 335) rather than more or less useful for the purpose employed. Qualitative descriptive methods were chosen for this study for their potential to tell it like it is and as the most appropriate approach when there is little known about a subject.

Clinicians who use the Assessment and Management of Cardiovascular Risk guideline are the best source of information about how implementation plays out in everyday terms. Therefore, the study is designed to engage with those who know most about the realities of everyday guideline implementation, to gain comprehensive and detailed accounts of their work and to process that information in ways that best represent the factors and issues as they see them. Both components of the study share the same methods up to the stage of data analysis and then different data analysis techniques are employed in order to best meet the different foci of the two sub aims presented above.

Ethical Considerations

The study proposal gained institutional support from the District Health Board of the region and ethics approval from the New Zealand Ministry of Health Northern X Regional Ethics Committee (reference NTX/06/07/087) and the University of Technology Sydney Human Research Ethics Committee (reference 2006-250). All participants volunteered to be included in the study and received an information sheet and consent form at least two weeks before data collection and a signed consent form was gained from each participant prior to data collection. Each participant was assured that their identity would not be revealed in reports of the study and the focus groups were asked to maintain confidentiality of the identities of group members and content discussed. The anonymity of participants was protected in all openly available documents related to this study. Any information linking participants to data are stored electronically and are password protected. The transcripts have been viewed only by me, my supervisors and, for those that included a Mäori perspective, by Maureen Allan, a Mäori nurse leader who advised me throughout the study to help me understand the cultural context and to check that my interpretations were culturally appropriate.

Cultural Considerations

Methods that are culturally appropriate to Mäori were essential at all stages of this research because of the setting and focus of the study. The setting for this study, is a region of New Zealand that has a Mäori population of 31.8% compared with a national average of 14.6% (Statistics New Zealand, 2006b). Appreciation of the Mäori worldview was vital to the study in order to faithfully represent the ideas of Mäori participants and their accounts of working with Mäori clients. Appropriate access, consultation and negotiation with Mäori was required for every stage of this study (Health Research Council of New Zealand, 2008).

Consultation with Mäori began very early in the design of this study and continued through data collection, analysis and interpretation. I sought and followed the advice and guidance of three key advisors, all Mäori and all senior nurse leaders. As a non-Mäori researcher, it was essential that I recognized that my perceptions of the topic under study may have made it difficult for me to gain insight into the special nature of the Mäori Health Provider nurses' work and for Mäori clients, as they perceived it. In order to appreciate and preserve culturally specific Mäori perspectives, I worked in close partnership with a senior Mäori nurse throughout the study and am indebted to her generous and valuable help. She helped me to form and conduct one of the focus groups. She also independently coded data from that group and reviewed how I had allocated codes both inductively and also against the PARiHS framework as a template. My intention throughout the study has been to engage with Mäori to preserve authentic cultural perspectives in all stages of the study.

Participants

Participants were invited to contribute to the study on the basis of their potential to collectively provide a broad range of perspectives from the viewpoints of their professional roles, the setting in which they worked and its location in the region under study. This method of recruiting participants is appropriate in qualitative studies to include informants likely to have a spread of experience and knowledge most relevant to the research topic (Mays & Pope, 2000). Recruitment to gain maximum variation is suitable for a comprehensive exploration of both common and unique perspectives inherent in a study context (Sandelowski, 2000).

The primary health care services in the location of this study are situated in one small city, several towns and rather remote rural areas (by New Zealand standards). Each of these settings is likely to have a different impact on primary health care delivery and, therefore, participants were chosen from each setting. Employers of primary health care nurses who are implementing the guideline fall into two main categories; either general medical practitioners (GPs) or Mäori governed and managed services (Mäori Health Providers). Potential participants were eligible if their work was associated with the implementation of the AMCVR guideline and included the range of occupational groups who would be appropriate informants for this study: nurses, general practitioners, managers, health planners and funders.

Thirty-three participants were recruited to provide a mix of occupational groupings, rural/urban services and GP or Mäori Health Providers as employers. Participants included:

1. Primary health care nurses from General Practices throughout the region in focus groups:
    a. Rural town (n=3)
    b. Semi-urban area (n=4)
    c. Rural area (n=5)
2. Primary health care nurses employed by Mäori Health providers as a focus group (n=5)
3. A Nurse Practitioner in an individual interview (1)
4. Doctors from General Practice as a focus group (n=4)
5. Nurse leaders as a focus group (n=3)
6. Primary Health Organization (PHO) managers as a focus group (n=5)
7. District Health Board (DHB) and Mäori Access (MAPO) Primary Health Care funder/planners in individual interviews (n=3).

Recruitment of Participants. I recruited nurse participants who would provide maximum variation of experiencing implementation of the AMCVR guideline by consulting nurses throughout the region who then approached other nurses on my behalf by email, phone or in person to invite them to participate in the study. Also, I emailed invitations to doctors, managers and primary health care funder/planners. An information sheet (see Appendix 1) was provided to all potential participants who indicated their willingness to participate by phoning or emailing me. The venues and times for the interviews and focus groups were planned to suit the participants.

Data Collection

Data collection was achieved in focus groups and individual interviews in the period between December 2006 and May 2007. Focus groups were used for their potential to generate discussion about events, assumptions, views and opinions, (Kitzinger, 1995) and individual interviews in situations when it was impossible to bring together a group of people who would be likely to have complementary views of events. The only Nurse Practitioner in the region was also interviewed individually because of having a different occupational role than any other participant.

Formation of focus groups. Seven focus groups were formed with the members of each group having the same occupational role. Three focus groups were held with nurses from General Practices. The remaining focus groups were comprised of GPs, managers, nurse leaders or nurses working for Mäori health providers. The reason for forming focus groups of people from similar work contexts was that people who understand each other's work, or who are known to each other, are more likely to voice their concerns and points of view by bouncing off each other (Kitzinger, 1995; Krueger & Casey, 2000; Webb, 2002).

The group size originally aimed for was six to eight people, because this was reportedly the ideal size for encouraging discussion (Krueger & Casey, 2000). However, the groups ended up smaller than originally planned because it was impossible to get all volunteers for a group to be available at the same time. The largest group in the study was five, with most groups being three participants. Even though discussion can be restricted in smaller groups (Lewis, 1995), in the event, all focus groups were lively, highly interactive and all topics included on the interview guide (Appendix 2) were easily accommodated in the groups. The smaller than planned size of the groups did not appear to adversely affect engagement or interaction.

Conducting the focus groups. The purpose of bringing the informants together was to stimulate and focus discussion, description, explanation, sharing of experiences and to encourage them to give voice to how they go about implementation of the AMCVR guideline. Lively interaction among participants was encouraged in order to jog participants' memories about past events and to promote self disclosure and expression of the issues as they saw them (Krueger & Casey, 2000; Pope & Mays, 2000). Compared with one-to-one interviews, focus groups have been found to boost social interaction and improve the expression of complex ideas (Fontana & Frey, 2000) . Focus groups are thought to help people feel confident to discuss issues that may be rarely discussed, and to agree and disagree with what peers are saying without fear of social sanction (Krueger & Casey, 2000).

Focus groups were held at mutually agreed, convenient and comfortable venues as close to their natural work surroundings as possible and where people were most likely to engage in candid discussion. The timeframe for the group was agreed at the start of the meeting and was usually adhered to. The shortest groups were the GPs' and the managers' groups (both 30 minutes) as they had allowed me as much time as they could during one of their regular business meetings. By signing the participant consent form all participants gave their permission for focus groups or individual interviews to be taped and the recordings to be used as data. The focus groups of nurses lasted approximately one hour, time enough to cover the topics on the interview guide and until the participants had said all they wanted.

The focus groups commenced with a review of the participant information sheet that had been provided at least two weeks before convening the group and I asked if any further clarification was required. The participant consent forms that had been previously provided with the information sheet were then collected. Those who did not bring the consent form to the group completed a form before the group commenced. The focus groups began with introductions, an explanation of my role as facilitator, the length of time the focus group would probably take, and that there was no compunction to stay (if participants wanted to leave at any time). I then asked for agreement that what was said in the group would be kept in confidence by the group. The goal of the focus group was for participants to discuss the research topic freely in the knowledge that the findings would be presented in a way that they would not be personally identified. My role was to encourage all points of view, keep the conversation moving, ask open-ended questions and to avoid any language or gestures that might indicate approval or disapproval (Krueger & Casey, 2000).

As a 'warm-up' to the research topic, each focus group commenced with a general question about the nature of primary health care in their region. After that, I prompted discussion, moving from the general to the more specific by probing when appropriate to guide discussion to a deeper level. Follow-up questions were based on the participants' responses and were asked as they arose during the focus groups. The interview guide (Appendix 2) was referred to as needed but usually only towards the end of the focus group to review whether the topics had all been covered in the group. Very few prompts were required at this stage as the groups had mostly covered the topics on the interview guide during the course of the discussion.

In order to encourage frank conversation and maximum interaction, I aimed for a low-key presence that involved subtle techniques to start the groups off and to keep the discussion generally on track with the interview guide without closing down topics that seemed relevant to the groups. None of the groups required much probing or prompting to eventually cover the topics on the interview guide in their own way so that I intervened only occasionally with probes or requests for clarification.

My probing and clarifying comments were fewer in the third and later groups, probably because I had more confidence that the topics on the interview guide were likely to arise without too much prompting. This mode of facilitating the groups seemed to encourage lively interaction with comments bouncing from one to the other. Even though I prompted for opposing views, there were few disagreements and the groups agreed in principle on most issues. In three of the nurse focus groups there was at least one more vocal member and I managed this by regularly directing attention to others and asking for their thoughts about the topic under discussion. Each person did contribute but the more vocal group members did have more say. The main impression I had of the nurse focus groups was that nurses were enthusiastic about discussing their practice and said they would like to do it more often. At the end of one focus group, I closed the discussion but then the group started up a very lively discussion again outside in the car park.

The GPs' group and the PHO managers' group were also highly interactive and they needed few prompts to cover the topics on the interview guide. I had planned for the GP and PHO Managers' groups to be shorter (30 minutes) than the nurse groups because I asked for background information from them rather than discussing nursing practice in any detail. They had allowed me a thirty-minute focus group within one of their regular business meetings and I was aware of the pressure of the time limit. Even though conversation in these groups was more strictly to the point, all topics were covered and they had the opportunity to raise any other issues.

As explained above, the nurse groups were longer and more interactive than the manager and doctor groups. In each nurse group, participants used humour and laughed regularly throughout, most often at the beginning of the group as they warmed up or when discussing a serious or difficult issue. Participants warmed quickly to discussing the realities of implementing the guideline especially regarding the difficulties and challenges that they faced.

The nurse focus groups were particularly interactive. their enthusiasm to talk about their practice was impressive and many of them said after the group had finished that they had enjoyed the opportunity to get together and discuss issues that affected their practice. These opportunities were rare for some of them.

I noticed that, even though I had made a conscious effort to come to each focus group afresh, after the third focus group I had a sense that the sequence of topics on the interview guide followed easily on from each other. Because of this, I was able to be less concerned about whether the topics would be covered and I made fewer prompts. I could then concentrate more on any and all angles of discussion and be more conscious of talk that ran counter to the topic guide. Therefore, as data collection progressed, a form of interim analysis resulted in a refining of the data collection process that enabled any topics and emphases to emerge. Even though the interview guide was used systematically for all groups and interviews, I was less concerned about the sequence of topics and the time spent on topics in the later groups and interviews.

Individual interviews. Four participants were interviewed individually – a Nurse Practitioner (by phone) and three health planners (two in person and one by phone). The interviews were conducted using the same interview guide as for the focus groups. Each interview was approximately

40 minutes long so each interviewee potentially had more time to speak than each focus group member but, in the event, did not provide substantially different data apart from the perspective relevant to their occupational role. For example, the funder/planners spoke about the implementation of the guideline more in relation to funding, strategic direction and systems for accountability. The interviews began in the same way as the focus groups, with an open question about the nature of primary health care. From there, very little prompting was needed from me to cover the topics in the interview guide.

Data Analysis

The first stages of data analysis commenced at the start of data collection. As Sandelowski (2000 p.335) points out, “All inquiry entails description, and all description entails interpretation… Descriptions always depend on the perceptions, inclinations, sensitivities, and sensibilities of the describer”. I began to interpret data right from the start because as data collection proceeded, I had to make sense of what I was hearing. This is common in qualitative research because it is impossible to avoid thinking about what is being seen and heard (Pope et al 2002). Data are subjected to degrees of analysis and reflection right from when they are spoken.

In qualitative descriptive studies, the “surface” meaning of the words that participants use are taken to convey just what they say, rather than the deeply interpretive processes and transformation of data appropriate to the purposes of other qualitative methods, for example grounded theory or phenomenology (Sandelowski, 2000). Data-derived content analysis is used in qualitative description to summarise the informational content of the participants' words, and any notes made 'in the field'. Although there is an effort to understand both the "manifest" and the "latent" content of data, qualitative description does not warrant transformation of data to mean anything other than the words expressed by participants (Sandelowski, 2000).

The transcription of the recordings made during focus groups and interviews was an exercise in familiarisation with the data that prepared me well for the coding stage to follow. The mean duration of recordings for the five nurse focus groups were 57 minutes, 30.4 minutes for the GP group and the PHO manager group took 31.12 minutes. The four individual interviews totalled 126 minutes (mean 31.5 minutes). The transcriptions were line-numbered and double spaced with a wide margin to allow for line referencing and note-making. The method of data analysis for each of the components of the study is described in the following sections.

Thematic analysis. Thematic analysis in qualitative description uses a form of qualitative content analysis (Sandelowski, 2000) that Hsieh &

Shannon (2005) have defined as a "method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns" (p.1278). In order to achieve this, I used a schema of data analysis that involved five steps: familiarisation, identifying a thematic framework, indexing, charting, mapping and interpretation (Pope, Ziebland, & Mays, 2000). Each step is described in the following sections.

Familiarisation. Familiarisation involved repeatedly listening to the recorded interviews and reading the transcripts, initially quite quickly to gain a sense of the whole, and then more carefully to focus on the voices, paying attention to the content of conversation and to make notes of general impressions, initial ideas and clues to possible links.

Identifying a thematic framework. The second stage of data analysis began with systematic annotation of the transcripts identifying whenever the topic of conversation changed. Each topic was then given a provisional label. All the key ideas and issues raised by participants were carefully captured by this process to make sure that the unit of analysis was a topic or idea that directly related to raw data. All ideas expressed in the data were taken into account including ideas that were different from the rest. Studies that neglect non-conforming views are likely to have distorted interpretations of data (Mays & Pope 1995). Following initial annotation of each transcript, I went back and systematically considered each annotation in each transcript in turn to check that the code name captured the essence of what was said. The end product of this stage was a set of transcripts in which topics were identified and labelled as manageable chunks that would enable later re-examination, retrieval and manipulation (Pope et al., 2000; N. Robinson, 1999).

Indexing. Indexing began with the construction of a table for each transcript, confirming or changing the provisional name given to the tracts of text formed in the previous step, and noting the line numbers of the transcript that included the data for each chunk (see Appendix Three for an example). Each named chunk then became a code.

The next level of indexing was to aggregate codes that represented similar content, irrespective of whether the view being expressed was affirming or dissenting. These groupings remained fluid until I was satisfied that like was aggregated with like. Constant and thorough checking and rechecking of codes to data and codes with each other ensured the best fit for the groupings. The groupings of codes became provisional categories and a table was developed for each category. There were 29 provisional categories– 15 came from the first transcript, a further nine from the second transcript, three more from the third transcript and one more from each of the fourth and fifth transcripts . The remaining transcripts, sixth to eleventh, revealed no more categories. This indicated to me that the existing categories had captured the breadth of content of the ideas expressed in the data.

All codes for each category were checked and rechecked using constant comparison (Mays and Pope 1995), a process in which each code was compared with the other codes for overall best fit. Systematic allocation of codes to emergent categories was made transparent by constructing criteria for inclusion of each code to a category. As advised by (Pope et al., 2000; N. Robinson, 1999), I ensured that the process was inclusive; categories were added, rather than restricted, to reflect as many of the nuances in the data as possible. Codes were allocated to multiple categories if the content they represented could fit and these codes were cross indexed so they could be tracked through data analysis. Three hundred and seventy four topic codes had been derived from data during indexing and provisionally grouped for similarity of content into 29 categories.

Charting. Charting took data analysis to a further level of abstraction and synthesis and resulted in condensing the 29 categories derived from the previous step to 22 categories (See Appendix Five). Charts were constructed as a product of arranging and rearranging the allocation of codes to categories for best fit and then aggregating categories for similarity of content into provisional themes. This process took place over several weeks during which the logic for category allocation was gradually developed, checked and rechecked until there were four themes each with a chart as "distilled summaries of views and experiences" (Pope et al., 2000, p. 116). Each chart included categories derived from codes that linked directly to verbatim data. Appendix Four presents one of the four charts that demonstrate the linking of codes to categories to one of the four themes.

The allocation of codes to categories was carefully checked and reviewed against criteria for inclusion and then the same process was applied to the formation of four themes derived from categories. Care was taken to look out for non-conforming and deviant codes and/or categories that appeared to sit outside of the framework. However, a comfortable fit was found for codes, categories and themes that accommodated the views and experiences of the participants.

Mapping and interpretation. The final stage of data analysis involved using the charts to further review, refine and define the major concepts that had been derived from the data themselves, checking carefully for congruence or lack of fit of categories with provisional themes. A key characteristic of this stage was the careful examination of themes to identify what was unique about each, to look for associations between them that may suggest explanations for the findings, and to identify limits to the scope of the themes that might indicate the need for further research and theory development.

The main association among the four themes (see Appendix Five) was that they each represented a “layer” of the proximity to the client of various episodes and activities of healthcare professionals, from the self managing client, to the work of nurses, then the healthcare team and finally the wider healthcare environment. I went back through the five steps checking and rechecking the transparency of the decisions I had made and was then satisfied that the four themes could be tracked back logically to the raw data.

The indexing, charting and mapping stages were recorded on documents that created an audit trail throughout data analysis and interpretation. These have been provided as appendices, and thus contribute to the credibility of the findings of the study. Justification of qualitatively-derived knowledge claims made as research findings is crucial to rebut a common criticism of qualitative research – that it is nothing more than “subtle obfuscation” (S. Miller & Fredericks, 2003, p. 1).

Template analysis

The second component of the study uses template analysis (King, 2004; Miller & Crabtree 1992), also known as directed content analysis (Hsieh & Shannon, 2005) in which data were mapped to the constituent elements of the PARiHS framework. Studies that are conceptually informed have been found to be satisfactory for exploring complex situations (Dopson, Locock, Gabbay, Ferlie, & Fitzgerald, 2003). There were two reasons for using an additional technique to analyse data. Firstly, it provides a form of triangulation to see whether analysing the data in another way would shed more or different light on guideline implementation in the context of this study. Secondly, template analysis is a way of applying the data to the PARiHS framework to identify the enablers and inhibitors of evidence implementation and, thirdly, to contribute to the development of the framework in relation to Kitson's call for researchers to consider "the hypothesis that the PARiHS framework could be applied by practitioners as a diagnostic and evaluative tool to successfully implement evidence into practice" (2008, p. E1).

Template analysis began as a separate component of the study at the point at which, as described above, I had analysed the transcribed data into tracts of text, each related to a discrete idea and each named according to the topic that it represented. These tracts were now codes and it was at this point that the PARiHS framework was employed as the template for analysis with the allocation of codes to each of the elements: Evidence, Context and Facilitation (see Appendix Six), and then to the sub elements of each element (see Appendix Seven).

Allocation of codes to sub elements against the actual words of the participants was checked and rechecked for the fit of the content of each code with PARiHS sub elements. The first attempt at mapping codes to elements went quite smoothly with some codes being mapped to more than one element. The second attempt involved a review of the definitions for the elements and allocations of the codes resulting in some reallocation of codes. Further checking and review did not result in further reallocations.

There are a number of pitfalls to be aware of when using template analysis. Codes that do not conform with the template are just as important as those that do. If a template has insufficient structure to guide the management of extensive narrative data, the template may need adaptation (N. King, 2004). Sandelowski agrees with this warning and suggests that radical modification or even abandonment and reconstruction of the template may be required to ensure the best fit to the data (Sandelowski, 2000).

The PARiHS framework had the capacity to accommodate the data codes. However, the few codes that seemed best allocated to Facilitation did not actually fit the sub elements of purpose/role and skills/attributes but they did relate in a way to this element. Hseih and Shannon (2005) note that findings from directed content analysis can offer supporting and/or non-supporting evidence for a theory or point to proposed refinements. The paucity of codes for the processes and style of facilitation was a useful finding in relation to ongoing development of the PARiHS framework and is discussed in more depth in the seventh and eight chapters.

Another pitfall of directed content or template analysis is researcher bias arising from a strong orientation to the framework and the risk of overlooking data that are unsupportive of the framework (Hsieh & Shannon, 2005). One feature of the PARiHS framework that prevented such an oversight was that the comprehensive nature of the elements accommodated all of the codes generated from the data. Credible and valid allocation of codes was aided by the development of clear, workable and defining characteristics of the PARiHS framework elements based on a series of concept analyses of Evidence, Context, and Facilitation (G. Harvey et al., 2002; Rycroft-Malone, Seers et al., 2004; C. Thompson, 2003) and provided workable definitions of the framework elements. The indicators for High and Low for each of the indicators for the sub elements of Evidence, Context and Facilitation were functional in terms of code allocation and, therefore, provided information for a detailed analysis of the enablers and barriers to successful implementation of the AMCVR guideline.

Summary of the Chapter

This chapter has provided a description of the methods used to achieve the aims of this study. Explanation, discussion and rationale have been provided for this qualitative study of two components under the umbrella of qualitative description as described by Sandelowski (2002). Thematic analysis and template analysis were used in parallel each addressing one of the two sub aims of this study. Details have been provided of the ethical considerations and the process used to enable culturally sensitive collection and interpretation of data. Each stage of the study has been explained including the recruitment and engagement of participants, and the collection and analysis of data. Validity and auditability of the methods have been addressed by providing details of each phase of the research process and appendices are included to illustrate how data were processed.

The next two chapters present the findings as generated by the methods described in this chapter. Chapter Six presents the findings produced by thematic analysis and Chapter Seven presents the analysis enabled by template analysis.

Chapter Six - Findings from Thematic Analysis

This chapter presents the findings aligned to the aim of the first component of this study; qualitative description with thematic analysis of data. This analysis of participants' views of implementation of the AMCVR provides a comprehensive representation of their everyday practice, their concerns, and strengths based on their own words. Three hundred and seventy four topic codes were derived from data and grouped for similarity of content into 22 categories that were then further grouped into four themes. Codes, categories and themes were named according to their content. Four themes were generated from data: Self-managing Client; Everyday Nursing Practice; Developing New Relationships in the Health Team; and Impact on Health Care Delivery. Throughout this chapter, each theme is defined; the categories mapped to each theme are described and then illustrated with examples of transcribed data.

In the following sections, each theme is introduced with a table to indicate the categories associated with the theme and also the nature of the ideas that relate to each category. As described in the previous chapter, the ideas were generated directly from the words of participants. Repeated and thorough checking and rechecking of codes to verbatim data and codes with each other ensured the best fit of data to codes. All codes for each category were checked and rechecked using constant comparison (Mays and Pope 1995), and descriptions were made explicit of the common content of codes assigned to categories. In this way, the basis of code allocation to categories was made transparent by constructing criteria for inclusion of each code to a category. The criteria for inclusion of codes to categories were inductively derived from the data and represent the ideas of the participants.

Self-managing Client

The first theme, Self-managing Client, was generated from categories in which participants spoke about supporting clients to plan for and manage a cardioprotective lifestyle, as in Table 6.1 below. Participants were well aware that management of cardiovascular risk was at the client's discretion so that ultimately the AMCVR guideline recommendations are enacted by the client who, therefore, requires the knowledge and skills to manage their own cardiovascular risk. Self-managing Client included two categories: Client Empowerment and Client Satisfaction.

Table 6.1

Categories and code inclusion criteria for Self-managing Client

THEME	**CATEGORY**	**FOR INCLUSION – CODES MUST REFER TO:**
Self-managing Client	Client empowerment	Benefits of, challenges to, what is required for self-management
	Client satisfaction	Client feedback positive, satisfied

Client Empowerment. The codes assigned to Client Empowerment were those that stressed the importance of *"letting the client determine priorities"* (9:334), *"set goals"* (3:425) and "*take control of their own health*" (4:189). Client Empowerment was valued highly by nurse participants as foundational to clients' self management:

> *For the client to become self managing. That's the goal. It's knowing how to get there. A journey in itself…*
> *Yeah yeah.* (3:420-2).

Conversation about client self management included nurses' acknowledgement of the complexity of the journey both for clients and health professionals, and that readiness for change was an important factor in empowerment:

> *You can't just fix it. You've got to allow people to decide what they want … One of my kaumatua*[6] *says to me, "Why do you want to keep fixing me?"(4:105-108)*

Participants believed that while client empowerment underpins self management, it was important to realise that clients may not be predisposed to following the recommendations of the AMCVR guideline. The 'self' in self management could involve a range of family/whanau, and/or self/other partnerships. Even though a client's choices may not be optimally cardioprotective, participants voiced their respect for the right to self-management and deciding the pace of change.

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[6] Male elder

Client Satisfaction. The second category, Client Satisfaction, was generated from nurses' observations that clients appreciate intensive one-on-one education and planning associated with implementing the guideline. The guideline recommendations for clients with a cardiovascular risk score above 15% require ongoing support, education and resources at a more intense nurse-client level than the usual contact in General Practice. Where extra funding was available through Care Plus[7], nurses explained that they held their own clinics to implement a programme of ongoing care, often referring to the AMCVR guideline alongside the resources produced for Careplus. Mäori providers also offered nurse-led clinics and home visits with doctors' input as required. Nurses were of the opinion that clients were satisfied with working directly with them in their own clinics.

Practice nurses reported that Care Plus clients were satisfied with nurse-led clinics because they were likely to be on time and to allow enough time for health planning. Clients appreciated that a doctors' advice and input was readily available when nurse consultations were held in a GP clinic. As one nurse said:

> *I think they do like to come and see me because I'm always on time [Laughing] I've got more than 15 minutes. I guess they know – oh – I'm going to talk to the doctor directly about that or else I'm going to get them into the doctor immediately [if needed]" (2:211-217).*

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[7] Careplus is a chronic care programme that includes funding for support and education for clients with two or more co-morbid, chronic conditions

The Care Plus programme has been a catalyst for nurses to work directly, one-on-one, with clients in a way previously not common in general practice (Finlayson, Sheridan, & Cumming, 2009). An evaluation of Care Plus indicated clients' satisfaction with working in this way:

> *We've just done a feedback – patient satisfaction thing on a lot [of clients] after the first 18 months [of Care Plus] and feedback from the patients is just amazing and that something they mention a lot is that they really value their wellness plan because they own it. They're setting their own achievable small goals…Instead of just going to their GP to get their three monthly prescription for meds, now they have an inherent understanding of what that orange pill is for and what the blue one is for … and what else they can do for themselves to improve the quality of life … (1:170-184).*

In General Practice, Care Plus clients would be given the choice of working with a nurse or doctor and some preferred to see a doctor. A nurse-only consultation may have been unfamiliar territory:

> *Some patients decline to come to the nurse though. Some have declined to come because I ring up and I say "You qualify for this and they say "Oh, I'm quite happy with the doctor". ….. You know they think "Well, what's the nurse got to offer? I'll stick with the doctor thanks very much…' (2:218-221)*

However, nurses employed by Mäori Health Providers routinely saw clients at nurse-led clinics for no charge, an arrangement that nurses said their clients seemed satisfied with. Doctors were contracted for set periods of time during the week when nurses could refer clients as needed for medication prescriptions, ordering of diagnostic tests and referrals to medical specialists. Nurse-led clinics with medical backup seemed to nurses to work well for implementing the AMCVR guideline.

Summary of Self-managing Client. The categories included in this theme are derived from discussion about how health providers are working to empower clients to manage their health and the positive results. This theme has revealed that participants considered that the client's role in their own care is an important factor in managing cardiovascular risk and that nurse-led clinics worked well for client-centred health management.

Everyday Nursing Practice

Everyday Nursing Practice encompasses seven categories (see Table 6.2) that reveal how nurses are working with the guideline recommendations in their day-to-day work. The names of categories for Everyday Nursing Practice all include action verbs because the data for this theme was about 'doing' nursing.

Table 6.2

Categories and code inclusion criteria for Everyday Nursing Practice

THEME	CATEGORY	FOR INCLUSION – CODES MUST REFER TO:
Everyday Nursing Practice	Taking a whole person approach	Consider whole person, health determinants, continuum of care
	Gaining client buy-in	Strategies and factors affecting buy-in
	Building relationships	Factors affecting and strategies for relating with clients. Impact of effective relationships
	Engaging with community	Strategies to know community. Viewing community as a whole population. Wider view than care to individuals Accommodating orientation, needs, circumstances of community
	Brokering knowledge and resources	Meeting patient education needs. Accessing and referring to other resources. Enhancing community capacity
	Nurses relating to nurses	Issues, problems, solutions re relating nurse-to-nurse. Benchmarking

Taking a Whole Person Approach. Cardiovascular risk assessment was seen by nurses as just one aspect of overall health assessment. Relationships with clients were said to be built on a comprehensive appreciation of all that influences and impacts on health, such as cultural beliefs and values, the social determinants of health. One nurse group spoke about using the cardiovascular risk score as just one aspect of the whole picture:

> *Nurse 1 - It's part of the picture. You use the tool. You get the number and you use it as part of the whole thing.*
> *Nurse 2 - You do go through the process though in a way… you've got one person, ten in the family. Other members a lot worse - like obese children who will be a cv risk in the future. You know all that sort of thing.*

> *Nurse 1 – Yeah you know it's not about CV for me. It's about healthy living – healthy eating, exercise ra-ra you know? (9:305-313).*

Several nurse groups spoke about being aware of the health impact of poverty. Goal setting had to be realistic and for some clients, multigenerational poverty had created a sense of hopelessness:

> *There are a lot of social factors you know. People who are unemployed. They never really get a good job . They never have that steady income . There are a lot of things that are out of their control.. It's the way it has always been and through generations and you can go out there and do health promotion and they can't deal with it. They are surviving. There's a lot of issues. (2:423-427).*

Nurses were aware that the level of deprivation was closely associated with the level cardiovascular risk. The whole person view encompassed an understanding of a client's circumstances, support needs and pace of change. Cardiovascular risk assessment gave a score that was just the starting point for ongoing long term management.

While opportunistic screening was a way to initiate health planning, PHO manager participants realised that risk reduction support had to be sustained over time:

> *[It's] no mean feat to get that working. I think the challenge is still about a population with, certainly in the mid-north, with obesity, with smoking, with reduced exercise. And those lifestyle things trying to work on a model of support for change within the patient. That's where we come from … responding to a patient coming in with a sore throat, being much more proactive about taking the next step. Like "If you want a long life and be there for your mokopuna[8], these are*

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[8] Grandchildren

> *some of the things…" So we're seeing some real movement there. But again, it's like, it's not a quick fix. (4:76-84).*

Gaining Client Buy-in. Gaining buy-in required getting clients connected with the importance of cardiovascular health. Clients with known cardiovascular disease were already aware of the heart as a vital organ and nurses found them more aware of the immediacy of reducing risk than those with no obvious sign of disease:

> *Nurse 1 - Cardiovascular risk. They seem somehow a lot easier to work with because they regard their heart as an important part of their body…*
> *Nurse 2 - ..so they respond very well to the messages.*
> *Nurse 1 - Especially if they've had some event with their heart, they listen to everything you say … (2:30-40)*

Buy-in was understandably more difficult for clients at the younger end of the target age range and for those with no obvious sign of cardiovascular disease. These clients had been targeted by social marketing strategies that appealed cardiovascular risk assessment. For example, the New Zealand Ministry of Health, through its drug buying agency - Pharmac, had sponsored an awareness raising campaign, "One Heart Many Lives". One of the messages of the campaign, aimed at Mäori men over 35 years, was to appeal to them to survive long enough to become elders in their families. Premature death, primarily from cardiovascular disease, has severely depleted the numbers of Mäori who survive beyond their early sixties:

> *It's about keeping our dads and our grandads healthy. We know that many of our Mäori men don't get to kaumatua*[9] *status. … So if they're not the ones who will take on kaumatuatanga*[10]*, then who are they going to leave it to? There's 18yr old children – their sons, so there's a huge – in terms of the Mäori world, in terms of our tikanga*[11]*, that's a huge responsibility to leave on your teenage children. And so we as Mäori men have a social responsibility to our whanau*[12]*, our hapu*[13]*, our iwi*[14] *to be living healthier and living longer (8:263-270).*

Building Relationships. Nurse participants are aware that even though mass screening can be a successful tactic for one-off awareness raising, successful cardiovascular risk reduction relied on effective long-term relationships. Cardiovascular health as a life-long goal requires ongoing support for clients. Participants agreed that sustained support following risk assessment requires enduring relationships built over time. Nurse participants appreciated the importance of being available and accessible to their clients:

> *Nurse 1 - And they come here because they know that we care about them.*
> *Nurse 2 - We'll listen to them.*
> *Nurse 3 - We'll take the time (9:96-98).*

Cardiovascular risk assessment has opened up opportunities for nurses to interact more directly with clients than they had in a more traditional Practice Nurse role. One group of Practice Nurses spoke about having

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[9] Male elder

[10] Customary role and responsibilities of male elder

[11] Customs and beliefs

[12] Family

[13] Extended family

[14] Tribe

mixed results engaging clients in discussion about their cardiovascular risk score:

> *Nurse 1 - What is the purpose of it [cardiovascular risk assessment]? You know for me it's so you can talk to the person about improving that risk using the guideline. Nurse 2 - Just explaining what it means – what that risk assessment means. I guess you have to gauge how receptive someone is just listening to you. Some people are very inquisitive.... . but there's some people, they just glaze over and you don't know whether they've heard a single thing but they've just come in to get their blood pressure done (*5:110-121).

There was a marked difference between a clinic-based versus a home-visiting based approach to building the early stages of relationships with clients. The Practice Nurses are mostly clinic-bound and nurses employed by Mäori Health Organisations hold clinics as well as visiting clients in their own homes. Home visits could involve highly complex situations that had nurses "*treading carefully*" (8:99) with a heightened awareness of the difficulties families faced and their possibly cynical perceptions of "*mainstream*"[15] (8:93) health care in which they may hold ...

> *…the nurse to account for certain disappointments in the health system at large. Because whanau do perceive that nurses are an extension of the health system… when you are talking to whanau who are impacted with issues of poverty …they are very sceptical and somewhat cynical of the health system…they are coming from that worldview or that perspective of "Oh well, we've just had the social worker here the other day and Hone (common Mäori name) got in trouble. The policeman brought him home the other day and now we've got the nurse here." It's the whole thing about building up the cynicism towards mainstream, to government, to agencies that do want to help … It can be quite a harsh environment in terms of*

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[15] Mainstream is a term used mainly by Mäori health providers to denote health services, providers and clinicians working in non-Mäori led primary health care.

> *getting through some productive work of understanding and education with these clients. (8:82-99).*

Brokering Knowledge and Resources. Nurses recognised that effective relationships underpinned the role of Brokering Knowledge and Resources. Helping clients to move from awareness of the significance of their cardiovascular risk to realistic risk reduction hinged on client education and tapping into resources. One nurse group discussed the importance of an open-minded and individualized approach:

> *Nurse 1- ... If you sit down with them one to one, they are really interested and they ask questions and I go ,"Ooh. Really, did you know that? Where did you hear that?" And they come up with some amazing things …*
> *Nurse 2 - There's a gap between them wanting the knowledge and actually making changes*
> *Nurse 1 - I know that. That's always…*
> *Nurse 3 - It's about change theory…*
> *Nurse 1 - You need to push those boundaries time and time again sometimes many times before someone will change. They will be slow. I have waited a whole year for a woman...*
> *Nurse 3 - I wondered when she was going to bring that up (laughing)*
> *Nurse 1 - .. to have fasting lipids. Oh you know "Your blood pressure's this. Come and do a blood test." She's a sitting duck" (Laughing) (9:233-237).*

Implementation of the AMCVR guideline relies on clinicians having the time, skill and resources to build effective partnerships for change.
One group expressed frustration with clients who lacked enthusiasm and motivation for lifestyle changes:

> *Nurse 1 - Uh definitely in the initial stages with a number of people there can be quite a bit of denial because they are feeling so well. There's nothing wrong.*

> *Nurse 2 - Or they may just not be motivated. Looks too much like hard work. It's really interesting talking to them about their medications because so many people know so little about what they are taking... They must be told at some stage by their doctor but they just don't listen properly what it's for and they have no idea and if you take a pill, you'd think they'd wanna know what it's for!* (2:74-81)

Frustration also came through about food and lifestyle choices. Nurses were aware of many learning and support needs of clients and their role as broker of the resources needed. The participants believe that nurses are well positioned to tap into the help provided by community based agencies so long as they are well connected in community networks. The PHO managers emphasised the need for better networking:

> *PHO manager 1 - One of the challenges for CV screening is that you have to have services to refer people to. No point in identifying a risk if you can't do anything about it. And it has been about everybody making sure that everyone has access to the range of services … I mean it's not just a matter of saying "You've got a risk here. Take a pill"; "You've got transport? Na"- those sort of things ... Nurses need to know much more what's happening in the community and I guess one of the things we can do is make sure those things are readily available as close to their fingertips as possible.*
> *PHO manager 2 - There's a lot here, be it housing, employment, that's still in silos and nurses don't know what they are or our GPs don't know. But how nurses don't know what is in front of them! There are some amazing things in terms of improving the housing stock of [the region]. But are we making the right connections? (4:133-153)*

Engaging with Community. Making the right community connections involves adopting a broad view of community in which the client is a population rather than an individual. Participants spoke about working with populations and the a broad view and the skills required to connect and collaborate with key community contacts and other health and social service providers. Rural nurses who live and work in the same neighbourhoods as their clients are usually well known in their communities but need to foster effective relationships with influential contacts:

> *Nurse 1 - You have to do the footwork first to start with before you make any plans. The reason we did this thing [at a workplace] was because the opportunity came up with our health promotion team at a time that suited. So we thought we can't miss this opportunity. But next year we're going to be sitting down with the planning team and saying "Well , we'll have these screening times with these people and be a bit more onto it."*
> *Nurse 2 - Yeah it's just doing the footwork especially with the outreach areas where the telecommunications are limited.... Gotta think of all those things (3:262-274).*

Engaging with the community for cardiovascular screening had to involve:

> *...applying those guidelines in a community sense not just a scientific sense (1:280-281).*

Nurses agreed that successfully implementing the guideline required knowledge and skills to carefully build community alliances. Relationships with communities could be facilitated by person/s known locally, for example, community health care workers:

> *I think that going out to people's homes.. perhaps having someone like a kaiawhina [community health worker] to make it safe and comfortable and that works really well. And so if you had a nurse going out with a community health worker to a family say on a Saturday morning – not in winter when they are all at rugby (1:279-293).*

Engagement with the community involved nurses in an ongoing relationship that accommodated the needs, nature and circumstances of that community rather than individuals:

> *I feel a bit naughty saying this but – I don't care about cv risk [whispering] I care about the relationship I have with them [clients]. Because for us we're a community development team. We look at all of the family… so if there's any older people in the house, "Do you need anything? We have a home-based nursing service. Do you need some home-care for your elderly?" They tell me all these things. They just spill their guts about sexual problems, about, you know, their children and what's wrong with them… So I end up talking about all sorts of things not always cv risk (9:292-298).*

Nurses Relating to Nurses. Nurse focus groups spoke about how they valued their relationships with each other for what they could achieve together. Strategising among nurses across the region had brought about the establishment of three nurse leader positions (now expanded to four) for the region in association with PHOs and funded by the Ministry of Health. The purpose of the positions was to integrate nursing services, avoid overlap, and put nurses in touch with each other. The ability of the nurse leaders to relate widely to the primary health care nursing workforce relied on the fact that their position and role was a result of nurses working together to establish a resource to help them connect with each other:

… roles have been supported by the people who put us there in the first place (1:37-41).

Getting together over specific projects, such as implementation of the AMCVR guideline, was proving a challenge, though. Nurses were concerned about a lack of communication about the nature of their practice in implementing the guideline. The guideline recommended what to do but not how to do it and that with nurses practising virtually in isolation of each other, they were not sharing the knowhow of their practice:

> *That's the thing there's no measured way to gauge the nurses on their competencies on that because it's quite individual. It's quite personal, eh? So it's how do you…?*
> *You know it's a different skill set. (3:428-433).*

Making the Most of Experience. Even without clear indicators of how they should be implementing the guideline, nurses had readily taken up the opportunities to work more actively with clients. Several nurse participants spoke about the enthusiasm that primary health care nurses had for working in this way:

> *… nurses have just jumped at this whole new approach…. It's as if the nurses are doing what they became a nurse for … They've actually become "Like I'm home" so that philosophy seems to be catching easier for nurses than GPs (4:62-68).*

Enthusiasm for the role was not always matched by confidence and there was clearly a gap in support for nurses knowing how to implement the guideline. The Careplus programme funding had included the salary for a nurse to work closely alongside Practice Nurses in a support role. This was a key support for nurses with their Care Plus clients:

> *I think that one of the important contributors to it [Care Plus] being uptaken is having a facilitator work with the practices so someone like (name of person) …working with the nurses... When they are dealing with an issue she's helping them work through it. So the IT support's there and so's the clinical nurse …yeah, face to face support helping build confidence in using it …Nurses had the competence but they didn't have the confidence (1:142-151).*

Summary of Everyday Nursing Practice. Everyday Nursing Practice was generated by seven categories that collectively describe what nurses saw as most important in their everyday practice in implementing the guideline. Key features of their work related to adopting a 'whole person' approach to clients, relating in new ways with each other and their communities and drawing on their experience and other resources.

Developing New Relationships in the Health Team

Health professionals found that they worked differently with each other through implementation of the guideline. As with the previous theme, the names of the categories mapped to this third theme all began with an action verb to reflect the way that all participant groups and interviewees spoke about how they went about their work. As primary health nurses have had a more active role to play in client consultations, primary health care team relationships have undergone change. Implementation of the AMCVR guideline is one example of this change in action. New ways of working have brought about new relationships not only between doctors and nurses but also with laboratory staff, District Health Board funder/planners and resource people in communities.

Table 6.3

Categories and code inclusion criteria for Developing New Relationships in the Health Team

THEME	**CATEGORY**	**FOR INCLUSION – CODES MUST REFER TO:**
Developing New Relationships in the Health Team	Focusing on health needs of the population	High health needs in general, not just CV risk
	Using a systematized approach	Using/adapting established programmes or creating new ones
	Working together differently	Work and role (re)-organisation
	Communicating with the team	Multidisciplinary connections – factors affecting
	New understandings needed	Burnout, attitudes are barrier to successful implementation
	Using the guideline and its tools	Resources, tools, skills re how the guideline is used. Impact of use
	Accessing target population	Factors affecting problems and strategies re access/reach to target population,

Focusing on the Health Needs of the Population. Implementation of the AMCVR guideline has put pressure on funders and providers to meet cardiovascular health targets even though they were uncertain about what to fund and where. The lack of a ‘silver bullet’ was frustrating for one funder/planner:

> *..So planning around that and try[ing] to work out how do you address those inequalities and make change. What are the levers to pull? What is going to make a difference and how do you fund it?...Those are all the planning implications that we work with every day 7:32-38.*

Funder/planners were of the opinion that anomalies in primary health care funding were a major impediment to coordinated planning and delivery of care across the health continuum. While the DHB is responsible for the overall health care for their allocated population, they do not have control of the whole health budget for the region. Primary health care funding for public health is divided off into a separate funding stream directly from the Ministry of Health to regional Public Health Units and Mäori Health providers. This anomaly has caused a disaggregation of projects that should be joined up. For example, with regard to implementation of the AMCVR guideline, planners made the point that health promotion is funded from a different pool than screening. Consequently, there is a disconnect with general practices not funded for smoking cessation but funded for other interventions to reduce cardiovascular risk. While the AMCVR guideline recommends interventions across the care continuum, the funding is in separate pots, a split that splinters efforts regionally.

The different funding and non-traditional organisational structures of Mäori providers have enabled more innovation in the way they work, especially for the nurses employed by them. A funder/planner explained that Mäori provider organisations are:

> *… very young. The oldest one is only 11-12 yrs old so yeah I think that certainly the SIA funding - because that's the area where there's able to have been some innovation, some piloting, some testing, a little bit of risking taking around what*

> *actually might work in areas where we don't have evidence necessarily to build new services on. We might have to try something and see how it works. That's been able to do that and GPs haven't been able to do that. SIA funding has been directly targeting at high need Mäori so yeah, it's a lot more rigid. I agree that it is definitely more flexible (11:119-126).*

Mäori providers have more active relationships with the wider population they served rather than GPs who tend to see just the clients coming through the door of their clinic. As one funder/planner put it:

> *Mäori providers themselves know how to access and link with [the Mäori population]. Particularly with mainstream organisations there are cross-cultural issues around getting the right service to the right people at the right time (11:46-50).*

The GP group was aware of the health needs of their enrolled population, but could do little more than try to cope day-to-day with the workload pressures of high levels of deprivation and poor health of their enrolled populations:

> *… just over 70% Mäori and a fairly high level of deprivation and fairly high morbidity which puts a fairly heavy workload to cover that. And lots of comorbidiites. …our doctor-nurse ratio is pretty high and our patient- doctor ratio is pretty high …we're stretched and so if you add something more in … you push resources even further (10:16-26).*

For these doctors, health promotion comes second to illness care because that is all they can cope with.

A group of nurses who worked for a Mäori health provider agreed that the pressing illness care needs of the population could be overwhelming and that statistics showed that conventional medical care wasn't improving health:

> *There are gaps, large gaps, and that's why we've got dreadful statistics for cv disease, for respiratory, for diabetes. I mean we're getting nowhere. We've got renal disease top of the pops in [the region]. … we get the lowest socio economics. The determinants of health for those people - they are in cyclic poverty a lot of them. They are large families. They've got large family histories and it seems like, not that it's anyone's fault, but it looks like the medical teams don't really give a toss (9:9-20).*

The AMCVR guideline recommendations made sense but implementation in the current climate seemed unrealistic.

Using a Systematized Approach. Nurses thought they would be more likely to implement the guideline in everyday practice if the recommendations were embedded into protocols or systems. Where there were no such protocols or inadequate ones, nurses constructed new systems or adapted old ones to create a way of embedding the guideline recommendations into everyday practice. They had found, previously, that paper-based recommendations were not put into practice but they were using a computerised programme (PREDICT) based on the AMCVR guideline:

> *… those hard copy best practice things that went out five years ago that we all thought were great but they weren't put into practice ..[but[the PREDICT programme, the nurses have just embraced it – "Oh this is great!" (1: 124-130).*

A care plan based on the AMCVR guideline was also useful recording a client's progress and also communicating that information to others caring for client, for example:

> *…a standardised care plan… everyone can see. …The mobile nurse might do the screening.…The DSM [Disease State management] nurse may do … health education,. Lifestyle…It provides the basis where you can bring in other team members to the client's, to whanau care… (6:82-90).*

Nurse-led clinics were also changing expectations that clients would be seen by a doctor. One nurse group agreed that their nurse-led clinics had been the platform for opportunistic and systematic, cardiovascular risk assessment:

> *We've run a nurse- led clinic for many years so it allows some independence for a lot of the nurses and I'd say a lot of the CVD risk is initiated by the practice nurse. You know as the information is being gathered they'd go ahead and do it [cardiovascular risk assessment] themselves (5:95-98).*

One of the nurse focus groups had collaborated to develop a 12 week programme that incorporated the recommendations of both the Cardiac Rehabilitation guideline (New Zealand Guidelines Group, 2002) and the AMCVR guideline into client/family centred care post myocardial infarction. They found that embedding guideline recommendations into a systematic programme of care and, using a kaupapa Mäori approach, provided a framework for culturally appropriate care that was guideline compliant:

> *Well that's how the programme's been set up. … the guidelines [are incorporated into] the programme that we use. It's also about the little handbook that we take*

> *with us all the time. But it's about knowing what is in there for us working to this guideline within our programme. That's how we set the programme up, running alongside the guideline (3:144-148).*

Systematic approaches to assessing and managing cardiovascular risk were beneficial to individual providers and to PHOs, as a way of facilitating their working together. One group of nurse participants explained that traditional GP services were lacking in systematic, planned approaches and that this led to inequitable access to primary health care for Mäori:

> *And one of the things coming in now is systematic management of CVD. So that if you think about the way that generally lots of people have used GP services in the past, people like educated, middle-class, pakeha*[16] *people have been able to access easily and get what they need. But of course Mäori people or those in lower socio-economic [groups] in rural areas where there aren't services, they've got what's available and there's not very much and the state of their health is affected. (1:632-638).*

Working Together Differently. Implementation of the guideline had triggered changes in the way that primary health care professionals worked together as a team, both at the provider level and across the region. The Primary Health Care Strategy had brought providers together under the umbrella of the PHO[17]s with a more regional approach to healthcare delivery. Implementation of the AMCVR guideline is one initiative that required a regional, strategic approach. One nurse thought:

> *... the establishment of the PHOs and the collaborative working and the environment of PHOs, because if you look back at what was there before, there was the business*

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[16] Mäori term for non-Mäori people usually Caucasian

[17] Primary Health Organisation

> *model of individual practices working in their own particular way and it was really ad hoc. And now you've got something that's much more strategic. You've got some drive; you've got some initiatives; you've got funding; you've got the whole whammy there driving it forward. So you've got things that weren't there before now (1:638-644).*

Other nurses had noticed a big difference at the GP clinic level in relation to how doctors and nurses were relating and the impact on trust and respect in the team:

> *Nurse 1 - The pace has definitely changed. You've got to work much quicker. There's more expected.*
> *Nurse 2 - I think for me it's meant that you work with the GP as a team and I think over the last few years, with a lot of the things that we've been doing It's become a team effort; so there are certain aspects that the doctor says to the patient and so that makes you feel good and gives you a feeling that [builds] … trust and respect (2:556-565).*

This group thought that doctors valued nurses having a more active role in client care because of benefits to clients and also themselves:

> *Nurse 1 - I think they can see the benefit of patients staying out of hospital and they can see that as being a positive … surely they'll pick up on that.*
> *Nurse 2 - The doctors really think it lightens their load because they spend so much time with them. You'll notice that where you are?*
> *Nurse 3 – Definitely. They [doctors] are happy that I'm there and you know they can just skim over my notes written in front of them and they can get straight to the point. It just makes their job heaps easier and the patients get more … because of the shortage of doctors (2:248-255).*

Doctors' support and encouragement was seen as important to progressing the role of Practice Nurses towards more direct client care appropriate to implementing the guideline. Doctors' support would be essential because, as employer, they had the power of veto. According to one nurse participant:

> *I think that the GPs are in agreement that it's a good thing. You know it's not something that takes a long time to change your thinking. It's happened a lot quicker than things in the past. They're actually taking it on board. This is a good idea so they've actively encouraged – you know, they actually support the nurses to do them. Rather than say "No, no, we haven't got time for that" (5:276 – 280).*

Working together differently resulted in better team work and made a noticeable difference to clients' knowledge and confidence. One of the nurse groups found that:

> *So that people with chronic diseases aren't taking up all the doctors' time with the same questions. They don't come in asking about their pills. They've got a lot more education so they're more at ease about how things are going because they are more in control. So the doctors are rapt because it saves them time. So it's good teamwork (2:202-208).*

The focus group of doctors agreed that nurses could do the majority of what was recommended in the guideline if only they had more of them:

> *Doctor 1 - I don't think there's much doubt that you can use practice nurses to do 80% of the work probably but you've got to have the numbers to be able to do it and that's really what it boils down to.*
> *Doctor 2 - You've gotta have path lab services that are appropriate. You've gotta have specialised people like dietitians to be part of that. Most of our problem here is to do with obesity, isn't it? Not just diabetes but cv issues. (10: 206-211).*

All nurse groups were in favour of nurses expanding their Primary Health Care role, but, as one group warned, they needed to be careful to recognise the limits of their knowledge and skill. One nurse explained this dilemma:

> *You know, you have to be aware that you don't work outside your skill-base . …you've got to have accountability for your work in your relationships with your doctors …you've gotta be free to go and say "You know I'm not sure about this". Because you can come a cropper if you don't watch it."(2:617-623).*

Implementation of the guideline in a changing healthcare environment has resulted in clinicians working together differently. The sheer volume of work involved in cardiovascular screening and follow-up has been one factor that has contributed to a realisation of the largely untapped potential of nurses in General Practice.

Communicating With the Team. The category included data that referred to how clinicians communicated with each other within and outside of their workplace. As nurses took on a more direct role in client care in the implementation of the guideline, they noticed that they discussed client care with doctors in a more collegial way than previously:

> *I guess, like I'm writing in the daily record everyday using the Care Plus form that I've made up and so all seven of the doctors are used to that, and if something comes up and I need help I'll double book them [clients] into a doctor or send a memo through Medtech [client management software] "What do I do now?" - to get feedback to make sure you know, like to make sure I'm not working outside of my limits or get them to come back because BP is too high because their cat died or something …I guess it's kinda….definitely different (2:177-184).*

Nurses had noticed that taking more responsibility for client care had a positive impact on doctors' workloads:

> *Definitely they are happy that I'm there and you know they can just skim over my notes written in front of them and they can get straight to the point. It just makes*

> *their job heaps easier … because of the shortage of doctors... You know some of the GPs are getting really stressed at the moment (2:252-254).*

However, nurses who worked for Mäori health providers spoke about a general lack of understanding by ‘mainstream’ colleagues about their role and the work they did and this impacted on their reputation in the community. One nurse group explained that:

> *There’s still a lot of ill feeling out there in the community about iwi providers, those particularly that don’t know what it’s all about. I’ve heard a lot of comment about how these things go collapsing because the money’s misspent. You know, “Do they actually do any work during the day?”(9:501-504).*

Communication between GP clinics has been hampered by the lack of compatible computer software. In one area, a number of clinics were being brought together under one roof in the expectation that communication would be improved by proximity and also a change to systems that allow better sharing of information there and throughout the region. Communication between providers was essential to the coordination of care for a mobile population who may be risk of being screened by one provider and seeking treatment from another:

> *Yeah and I know …there is some work towards you know, with all GPs going into that complex at the hospital, there’s the hope that in October [we’d have] one practice management system for the … region and that would make our lives a lot easier because we do have a mobile population and that leads to confusion (6:287-299).*

New Understandings Needed. Data codes for this category referred to the impact that implementation of the guideline had on health professionals’ understanding of the team. Changes in primary health care were perhaps more positive for nurses than for doctors. As nurses were taking on a more satisfying role in client care, doctors also needed to change their practice in a number of ways that required new understandings in the health care team. As one nurse leader stated:

> *What's interesting is that the nurses have taken it and really, really enjoyed it, which is why they've taken on PREDICT so well, because they've got that background. It's the GPs that have trouble because they've always prescribed that way or this way and suddenly the nurses are saying "Well actually, you know, the evidence says this is actually best practice". So there's been this huge resurgence of it [implementing evidence] from those hard copy best practice things that went out five years ago that we all thought were great but they weren't put into practice.(1:120-127).*

New understanding about health professional role changes involved GPs relinquishing some of the control they had over client care. For example, one nurse leader acknowledged that:

> *…GPs [are] wanting to maintain autonomy and wanting to maintain power with them having chosen their area of work, which is General Practice and them wanting to continue doing that. Not wanting to have their work taken away and being told to do something different, or their work given to the nurses (1:457-460).*

Role changes in the health care team also meant a shift in the nature of the relationship that nurses and doctors had with clients. Whereas the change gave nurses a more satisfying role with clients, the change for doctors may have been less positive, as explained by one nurse leader:

> *But part of that is that really special relationship that GPs have with their patients, that they value very highly and I think that GPs are often reluctant to share*

> *information to let nurses do work, that they do, because they have inherited and acquired a huge amount of trust with people and they don't want to lose that trust (1:450-455).*

Population-based funding in primary health care was a catalyst for another shift in understanding how providers were to deliver care. The change from an illness to a wellness model and, therefore, across the continuum from health promotion to disease management required adaptation of how care was provided. One doctor had expressed to a nurse that new knowledge and skill was needed for implementation of many of the recommendations of the AMCVR guideline:

> *"I haven't trained to promote wellness. I'm a doctor and I fix illness. This is a big shift for me to think this way " (1:438-444).*

The changes in primary health care delivery that were coming into effect required the health care team to have new understanding of the nature of their work.

Using the Guideline and Its Tools. New resources and tools to support the use of the guideline in everyday practice changed the way that evidence was used at the point of care. The nurse leaders spoke about a "penny drop" that had occurred as clinicians realised that the guideline in booklet format was incorporated into computer-based tools, e.g. Predict[18],

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[18] Predict is software that enables risk assessment information to be entered online to a database of patient-specific, evidence-based advice on managing CVD risk and diabetes, and to track the progress of individuals as well as to provide population data. (Bannink, Wells, Broad, Riddell, & Jackson, 2006)

they were using every day. The format of the guideline affected the likelihood of its uptake in practice. According to the nurse leaders:

> *Nurse Leader 1 - There's really a penny drop going on at the moment and I think it's been enabled by really good IT systems*
> *Nurse Leader 2 - … and I think that the systems, like Predict, give them a structure to work to…*
> *Nurse Leader 1 - because it's quite different… every practice has probably got, you know, the NZ guidelines CVD risk assessment and management – you know, books ,… but how often do you pick them up and read them. So having a kind of summarised thing on Predict and being able to work through the process has been great (1:132-139).*

The use of Predict was not completely straightforward especially in rural areas, mostly because it requires a laptop computer with mobile internet connection. As one nurse explained:

> *I think in rural Primary Health Care settings using the guideline as a tool, like, some of the barriers have been because we're not an urban centre, for example, because we have trouble accessing resources. Like for example if one wanted to use the Predict tool, there aren't enough laptops around for us to all use them and things like that. We have to dial in where there's access available with the laptop …(6:260 -268).*

The 'rollout' of Predict has been uneven throughout the region and not necessarily in tune with ready access to computers. Some nurses had been introduced to it, but didn't have enough computers and others had the hardware and the necessary software but had to wait until "specialised people trained to do it" arrived. One nurse focus group explained why they were not using PREDICT:

> *Nurse 1 - No, no we're not at the moment because we are going to have our clinic set up specifically to use that [PREDICT]. We were told from here that they didn't want us and our General Practice to use the PREDICT tool because we are going to get specialised people trained to do it. We are going to set up a clinic with one of the doctors there.*
> *Nurse 2 - We use the CV checklist – you know there's a checklist that comes with the cv risk folder…you know that we use on each visit. So we haven't implemented PREDICT yet. We've all got it in our computer but we don't work with that at all – do we?*
> *But what we do with Care Plus is so similar anyway. You know the BMI thing, the weight the BP and all those things (2:140-152).*

They were aware of the guideline recommendations and were implementing them by using other tools available to them. The training requirements for using PREDICT may have been more stringent than needed leading to lost opportunities to implement the guideline more systematically.

A number of computer programmes intended to facilitate implementation of the guideline have been used with mixed success and generated frustration among users. A funder/planner spoke about the lack of coordination and direction about integration and use of programmes and the frustration caused by overlaps:

> *We got the CCM [Chronic Care Management] programme and then Care Plus and then the DHB also picked up PREDICT; so we've got this mish-mash and, oh then, the MoH [Ministry of Health] piloted Canary which is also one specifically for diabetes; so you end up with you know "Under your free check on Canary, but this bit of your risk assessment can come under something else." It's a nightmare and I don't know what the hell we're gonna do about it. I think it would have been better if the MoH [Ministry of Health] had actually … taken the line that, "This is what you're gonna use" (11:262-273).*

The PHO manager group also recognized the effect on clinicians of software that was not fit for purpose. As one manager said:

> *… providers have lost confidence and are less willing to try new ones … but it's very necessary to have tools that work and are reliable. That's been a disappointment and a significant barrier to confidence of nurses in particular in their experience. (4:45-61).*

The guideline was used not only as a guide at the time clinical decisions were made. Some participants spoke about the potential to use the guideline as an instrument for assessment of the quality of care already provided. One funder/planner related that:

> *Like any quality tool, you've got to have a system and a process in place to ensure that it's used properly and I don't believe that all nurses, doctors understand or know how you use something like a guideline or a quality or standards as a tool. I think that's an area we could do training on. If you've got a guideline, how do you use it in your monthly or weekly training sessions. You know, "If this is what the guideline says ,then what are we actually doing? How far away from it are we? What are we doing to get there? You know that basic stuff (11:131-138).*

Another way of using the guideline as a tool to review care given was explained by a nurse group. This group agreed that even though the guideline was not yet being used much for early risk detection, it was a useful guide to review prescribed medication for those with established cardiovascular disease:

> *Nurse 1- I think though at the moment we are doing it [risk assessment] for chronic patients. Try to make sure they are on the appropriate treatment. But eventually we'll have healthier people coming through. But for a time CVD risk is used for people with disease to see if they are getting the treatment they need. You know' "What is their CVD risk? Are we on appropriate treatment to lower that risk". You*

> *might pick up that they are not on a lipid lowering medication or their blood pressure control isn't optimal. It's a useful tool to know whether they are having the most appropriate care for that patient (5:170-198).*

This category captured participants' perspectives about the usability of the guideline in its various formats. The hard copy booklet, A4 sized and 189 pages, was clearly not as convenient for use in practice as a computerised programme (e.g.PREDICT), with reminders, client information sheets, and risk calculators so long as the required computer equipment and internet access was available.

Accessing Target Populations. The last category refers to factors that affect access to the target population for the guideline and strategies used by the wider heath team to overcome problems. This category emphasised the importance of an inclusive view of the health team: not only for those directly employed by a health provider but also for those out in the wider community or health system who contribute to care delivery. The nurse leader group indicated that although they realised that standard clinic hours did not suit employees working fulltime and may not be the most convenient venue, they were at a loss to know what would work:

> *Nurse Leader 1 - I think the whole approach needs to change. You look at Mäori men aged 35. They're at work doing things and so from a Mäori health perspective, they say a marae or workplace [as a venue for cardiovascular risk assessment].*
> *Nurse leader 2 - You look at the primary health hours we work, you know*
> *Nurse Leader 1 - No weekends (laugh)*
> *Nurse Leader 3 - Yeah and it's looking at a whole new way of, "OK, how as providers do we…?" you know the timing . Do we use glide time to access those*

> *people? …but it's how do you actually engage with those people at risk is the difficulty … how do we go out there and do that (1:257-271).*

A group of GP-employed nurses recognised that community outreach was essential as clinic-bound staff were not accessing the target group appropriately, only those who came to the clinic with health problems. Although they recognised the importance of community outreach, they were unsure of what went on currently or who the community contacts were. They were vague about the role of nurses employed by Mäori health providers even though they were working in the same community as they were:

> *Nurse 1 – We have a community diabetes/ lay community liaison person. Who else do we have?*
> *Nurse 2 - Not terribly much more I wouldn't think.*
> *Nurse 1 - Communiuty health workers don't particularly deal with that, they deal with…*
> *Nurse 3 - I don't know if they are lay or all registered nurses I'm not sure – Mäori health providers.*
> *Nurse 2 - I think they actually go in and take BPs and things of people who have already got diabetes and heart disease.*
> *Nurse 1 - If we did have a person who did that typically they would be a key person in targeting oh, you know, like finding out how it's received in the community and then encouraging people to come along. You know sort of like a bridging with the person at home and getting them to come in' "When can I have this done" "What happens when you have a CV risk". For some people it's a huge barrier and they think, "Oh I'm not going to go in and ask that" (5:556-572).*

As discussed earlier in this chapter, the nurses employed by Mäori Health Providers were aware of the lack of understanding of their role by 'mainstream' and the quote above from GP-employed nurses attests to that lack of awareness. Clearly there is room for improvement in communication and coordination between nurses working for different providers in this area, especially where they served the same population group.

For a group of nurses employed by a Mäori Health Provider the problems of access for the target population to cardiovascular risk assessment were more about lack of understanding of the services available. For the nurses, the main issue was too few staff to provide a health service for too many clients. As one of them explained:

> *… the patients are difficult themselves because they won't present and they give this opinion like that they don't want anything done. That's not true. They do want things done but they don't know how to access it properly. … you know we've got no capacity! We've got no resources. We've got five nurses and we've got something like 3,000 clients between us. Not just cardiovascular disease and chronic disease but Tamariki Ora[19] and our women's health and issues. It's huge (9:20-29).*

The GP group also indicated they were at a loss as to how to encourage well people to come forward for cardiovascular screening. They were more at ease with *"explaining to them what they should do"* (10:253) when they already had an established relationship with them. There was clearly an understanding that 'access' meant that clients would come to them rather than the other way round:

> *Doctor 1 - Particularly the ones who need the help can be the hardest to reach.*

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[19] Tamariki ora is children's health

> *Doctor 2 - Just getting people in here would be difficult. I'm not sure what or how you'd get them in. I think sort of you know 40 yr old Mäori men who we really need to be screening, we very rarely see them. Just working out how you'd see them – there'd have to be some ways of actually promoting the screening programme and working out appropriate ways to get people in; and that's all manpower and cost. Ultimately cost! (10:253-265).*

This category has been included in Developing New Relationships in the Health Team because many of the issues impacting on access to the target group as recommended in the guideline could be addressed by changes in the way that the health team worked with each other and included community people not traditionally thought of as members of the health team.

Summary of Developing New Relationships in the Health Team. This theme brought together participants' various and similar ideas about the impact of the implementation of the guideline on relationships in the health team. The health team found that there were a number of changes to the ways they were working and communicating with each other. In particular, they had noticed both rewarding and frustrating aspects in the development of new understandings about their work; had turned their focus more to a population view of health and were questioning ways to access the target population for the AMCVR guideline.

Impact on Healthcare Delivery

The last theme, Impact on Healthcare Delivery, relates to participants' experiences and concerns about the impact of implementing the guideline on health care delivery more broadly. The six categories, set out in Table 6.4 below, cover a range of paradoxes and tensions that emerged as participants spoke about the wider health care environment.

Table 6.4

Categories and code inclusion criteria for Impact on Health Care Delivery

THEME	**CATEGORY**	**FOR INCLUSION – CODES MUST REFER TO:**
Impact on Healthcare Delivery	Mäori health providers work differently	Strengths, challenges, integration with mainstream
	Funding issues	Any referral to funding
	Difficulties, challenges	Health care organizational issues, barriers
	Changes in service delivery	Who, how of care delivery. From illness model to wellness one, changes in contracting
	Regional cohesion	Factors and effects of working collaboratively across the region
	Challenges to workforce capacity	Stress due to lack of staff numbers, skills, resources, training

Mäori Health Providers Work Differently. For Mäori health providers, the underlying philosophy of care is inextricably linked to Mäori values and beliefs and this profoundly affects health care delivery. Health is conceptualised as whare tapa wha (the four–sided house) in which each wall represents one aspect of health – spirituality (taha wairua), the mind (taha hinengaro), physical health (taha tinana) and family and social relationships (taha whanau)[20]. This holistic conceptualisation of health practised by Mäori health providers is not well understood generally, a factor that interferes with the integration and coordination of services (Durie, 2003). The PHO manager group was aware of the different way that Mäori health provider nurses practised and the reason for that as indicated in this quote:

> *Iwi based nurses in particular – I mean we often criticise them for being so inefficient at running programmes … But when they go into a household, they have to prioritise everything. You know they might have gone in to do the diabetes check for someone and come out with a whanau ora problem that needs higher priority. They constantly have to change priorities in relation to what's in front of them you know I think …they've got to be real jacks of all trades. They can't just do a narrow set of functions really. (4:175-184).*

The quote above indicates an appreciation of nurses practising differently mixed with a level of misunderstanding of a different care delivery approach.

A Mäori Health Provider nursing group spoke about moving on from worrying about criticism and 'putting themselves out there' (9:588) in an effort to educate other clinicians and the community about what their service is there for and what they aim to achieve:

> *…and finally we've decided to put ourselves out there and say "We don't do what you do …but we deliver care differently …but it's just not what you do…It's not secondary services. We're not a medical centre… We don't need to be. We've already got one. This is a nursing service. But nobody knows what a nursing service is! (9:588-596).*

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[20] Personal communication with a nurse leader, 13 October 2008.

The GP group was concerned that fragmentation of services would waste resources and that the answer would be for initiatives (such as implementation of the AMCVR guideline) to be ‘sent through the GPs’. Their view was that:

> *Doctor 1 – With a fragmented service, you get fragmented results, coordination, follow-up. It’s a waste of resources.*
> *Doctor 2 - We get the iwi providers doing the diabetes bus sometimes and they will do blood sugars you know but then those people – they’re not fasting. It’s very opportunistic … then they [the clients] have to come down to us to tell us themselves and it all seems a bit…*
> *Doctor 3 – Visiting people at home, taking their blood pressure and blood sugar. I had a patient the other day who said the nurse came round took my blood pressure but no one’s told me what it is. It’s a waste of resources! (10:219-230).*

On the other hand, one of the funder/planners thought highly of the innovative and creative ways that Mäori health providers were working and put that down to the different funding model funding that included health promotion funding that GPs did not get. The GP group was aware of this funding difference and voiced their dissatisfaction how they thought Mäori providers were spending funding:

> *Doctor 1 - I mean they are funded to provide services here but they don’t a lot.*
> *Doctor 2 - We don’t really know of any services that they provide here. We just don’t really know. There have in the past been promotions that were supposed to have happened like mammography, Hep B programmes but we’ve never been terribly aware of them at this end of their area that they cover. We’ve not really seen how they..*
> *Doctor 1 (talking over) – Despite them getting funding to do that. I mean Hep B was a case in point. They got $25,000 for promotion and there was no sign of any promotion here (10: 179- 186).*

There was clearly a lack of understanding in 'mainstream' about the work of Mäori health providers and the lack of connection between them that may affect integration and coordination of services across the region.

Funding Issues. This category was generated from any codes that referred to the effect of funding on the capacity to deliver on the recommendation of the AMCVR guideline. As expected, none of the participants spoke positively about the financial resources available for implementation of the guideline. The quotes chosen to illustrate this category indicate the spread across participant occupational groups, all as frustrated as the others about lack of funding. A funder/planner stated that the lack of funding left them "*all good to go , but not quite*":

> *…one of the biggest problems around the cv risk stuff… We've quite nicely got PREDICT rolled out and we've got nurses who are keen to do it but we've not got enough resource to do as much of it as there is energy to do it. Not enough nurses and enough funding so that's a little bit frustrating in that we're all good to go, but not quite (11:249-256).*

The GP group was clearly frustrated by what they perceived as lack of funding emphasising that:

> *Doctor 1 – That's what the problem is. You know the guideline is being pushed to save money at the other end. It makes sense doesn't it, economically?*
> *Doctor 2 - But we really need to be resourced at this end. I'm amazed. …No resourcing at this end! You must be mad. It's just a crazy situation! It's not going to work! It's all gonna fall flat! All these glossy documents. It's not going to happen (10:291-298).*

A practice nurse group was equally at a loss as to how they were going to implement the guideline within existing resources:

> *Nurse 1 - At the moment they [funder/planners] actually want to know basically how we are going to target the population... They want a price. It's a little bit back to front because they actually want to know ...how are we going to manage?*
> *Nurse 2 - There's no point screening if you can't follow up with what's required ...*
> *Nurse 3 - ... there was nothing actually about what you gonna do when you've found them! Who's gonna pay for all this extra work that is going to be done? (5:234-256).*

Difficulties and Challenges. Participants spoke about the difficulties and challenges they faced due to the barriers to implementing the guideline that were based on the way primary health care is currently organised. Mass cardiovascular risk screening at public events posed particular difficulty with follow-up and ongoing care. Each person screened would be enrolled with their own selected GP but communicating the screening results electronically with a range of GP clinics was 'hit and miss' because of software incompatibility. Nurses were concerned that screening could be a waste of time if the information did not get to the relevant GP. At least when screening was held at a GP clinic, the clients coming in the door were likely to be enrolled at that practice. As one nurse participant explained:

> *Nurse 1 – It's like ... going into work places, they may not be our patients or what do you do about patients that are not yours? If you identify a risk, how are you gonna manage non-registered patients? (5:258-269)*

Another difficulty for nurses was how to adjust a cardiovascular risk score for clients who had diabetes. PREDICT did not include information about how cardiovascular parameters are affected by diabetes as a co-morbidity, a problem addressed addressed in the latest AMCVR guideline handbook for clinicians (New Zealand Guidelines Group, 2009). There is a separate guideline for managing diabetes but no information was available at the time of the study about how to use the two guidelines together. According to one nurse focus group, there was not enough information to guide them:

> *Nurse 1 - sometimes when I'm flicking through. I can't even remember what I was trying to find – trying to have your diabetes guideline alongside your CVD one , they do differ and it's sort of BP is one – and I was trying to find out if adding on the 5% - because PREDICT adds on 5% for patients with diabetes who are Mäori or PI – it was already added on or not? Was it adding it on when it did the risk assessment? Because there's not help with PREDICT.. It doesn't let you online with PREDICT about the parameters – or how accurate it actually is. (5:627-632).*

Nurses and doctors found that many of the challenges they face in implementing the guideline are associated with trying to deliver on the recommendations in an environment with "no endless bucket of money" (8:403). The GP group was clearly at a loss as to how screening for CV risk could actually be delivered in the current funding climate:

> *Just working out how you'd see them – there'd have to be some ways of actually promoting the screening programme and working out appropriate ways to get people in. and that's all manpower and cost. Ultimately cost! (10:265-268).*

A further barrier to making primary health care accessible is the geography of the region. Some rural areas are relatively remote not only in terms of distance but also poor roading, patchy cell phone coverage, and some clients are isolated from transport at high tide. These issues combined with population spread and staff shortages create real barriers to getting primary health care out to the highest risk population. One funder/planner explained that:

> *… service delivery is very challenged by our geography, by our remote communities, or far-flung communities and so trying to deliver services, close to where people live to reduce their travel times, is very difficult to get an adequately skilled workforce and the cost of delivery in remote communities. I think the geography and how it isolates communities is a big challenge (7:28-31).*

The difficulties and challenges that clinicians faced in delivering on the guideline recommendations were not just to do with the lack of money but were also affected by weather, geography, tides, roading and phone coverage.

Changes in Service Delivery. Implementation of the guideline was viewed by participants as an example of several drivers that were bringing change to the way primary health care is delivered. Codes for this category included data that referred to changes in who and how care was contracted and delivered; and the pressure on services generated by the incompatibility of an illness model of care for health promotion and early risk detection.

The nurse leader focus group spoke about the lead that practice Nurses can take in opportunistic, cardiovascular risk screening for all clients to come into a GP clinic. They thought that screening should become usual nursing practice:

> *Nurse 1 - It becomes part of the overall assessment of every patient they see walk in the door. They should be thinking…*
> *Nurse 2 - … take blood pressure, weigh and while you are doing that you are asking other questions...*
> *Nurse 3 - It is a barrier for that to happen in General Practice 'cos often what the practices do is what they call a 'triage' of the patient which is just kinda like very, very basic and that's the obvious time to do a quick cardiovascular screen using PREDICT. But often … they are preparing the patient for the GP to see them about a specific problem so … it's an ideal opportunity to say, you know, "The doctor's running a couple of minutes late. Let's do a quick screen and maybe we can order a blood" and then you get the full picture but often it's just constraints of the time. (1:395-406).*

One of the Practice Nurse focus groups thought that cardiovascular screening for everyone in the target group who came to the clinic required a team approach with protocols and systems to make it usual practice. They spoke about what would need to happen:

> *Nurse 1 - No it doesn't take a lot of time . It takes buy-in from all your practice nurses.*
> *Nurse 2 - Yeah. Every time you have a face to face contact with the patient you flick up the risk assessment to discuss. OK we are missing your BP… you haven't had that done lately. Do you mind if we do it?*
> *Nurse 3 - But to turn the place around you have to have team work, common goals*
> *Nurse 1 - So it's opportunistic screening*
> *Nurse 3 – Yeah, but also every time the patient came to see the GP they did the same thing.*
> *Nurse 1 - You've gotta have buy-in, you've gotta have structure, protocols..*
> *Nurse 2 - I think for me it would be just part of your thing – triage (2:346-363).*

Participants realised that changes to the way General Practices were used to doing things required systems and processes to sustain change. The PHO managers' group were aware that healthcare set up for individuals with episodic illness was not compatible with a population health approach. The challenging nature of changing health care delivery from a reactive to a proactive approach was voiced in that group:

> *I think also the workforce itself is diminished in terms of numbers so the pattern of work has always been sort of for episodic, rapid and missed cardiovascular risk screening which needs a proactive approach and that's quite a different model and … resource-intensive and so I think moving from a reactive to a proactive model challenges the [region] (4:30-34).*

The PHO managers' group agreed that the knowledge and skill of the primary health care nursing workforce was a largely untapped resource constrained by regulations that prevented them from realising their potential:

> *PHO manager 1 - We talk about the extended role of the nurse. We see that it hasn't kept up in terms of liberalising the things like laboratory testing. In CVD screening that's a huge constraint. They might have the extra skills and knowledge but they can't do the deed because they are not able to sign the piece of paper. So we've got to try and line the ducks up like that too you know (4:289-293).*

One manager spoke about nurses taking the lead in primary health care as GPs aged and "disappeared" (4:259-262), resulting in an increase in the ratio of nurses to doctors. The shortage of doctors was said to be another driver for extension of primary health care nursing practice in the future:

> *PHO manager 2 - At the same time, the other workforce that's getting old and disappearing quicker are the doctors. The future of primary health care in [the region] is definitely going to be nursing lead. You know a few years ago you would have only two nurses –oh sorry, two doctors, one nurse. Now it'll be one doctor and three nurses to do the care of that population (4:259-63) .*

Although participants spoke more about care delivery changes required for the future than in place currently, two main drivers for current change were evident. Firstly, the population health agenda of the Government has been taken forward by the DHBs and, under governance by PHOs, has changed the expectations of primary health care from mainly illness care to also include wellness care. Secondly, as the doctor to nurse ratio has changed, nurses have been more visible and, in many cases, better educated to support clients in ongoing health promotion and disease reduction.

Regional Cohesion. A common thread found in the data related to participants' ideas on working collaboratively deals with connecting regionally and the impact this has on healthcare delivery. The PHO managers were convinced that the collaborative way that they worked for the whole region made it unique:

> *… there is the strength of the PHOs that work collaboratively, collectively together for the entire region and we've got the entire region enrolled in our PHOs and we [emphasis] work together. Every single person in [the region] is part of a PHO and we work collectively to address some of these and I think that's uniqueness (4:44-47).*

The nurse leader group agreed with the value of regional cohesion:

> *well I spose one of the strengths of [the region] for primary health is our regional perspective and working together and sharing information and keeping, even though we are spread out geographically, our linkages. We meet regularly at all levels so you have this um besides own specific area, you have regional consistency and cohesiveness eh? (1:15-10).*

Challenges to Workforce Capacity. The final category associated with this theme refers to the concerns that were raised by participants when asked about impediments to implementation of the guideline. They were all concerned about the gaps in the workforce numbers, skills, resources and training on their capacity to implement the guideline. Nurses, doctors and PHO managers spoke of the challenges of clinical staff shortages and the need for up-skilling so they could provide primary health care that met the expectations of policy-makers and funders. Nurse leaders spoke about some of the challenges that they see for practice nurses with regard to professional development expectations.

Burnout:

> *We've all been doing it [professional development] in our areas but sometimes that's a problem because you've got so much training you want your practice nurses to go on. Or you want your other nurses to go on that they're getting burnt out with the training (1:91-94).*

Reluctance to embrace change:

> *Nurse Leader 1 - And you know there's some nurses out there too who aren't ready to change*
> *Nurse Leader 2 - They don't want it either (laugh)*
> *Nurse Leader 1 - They're comfortable and you know sometimes the barrier is the one who's at the front desk (1:490 – 493).*

Need for acceptance and support for change by the whole team:

> *So for new things, structures, ways of doing things to be brought in they have to be brought in and supported by the practice manager and the doctor to say "This is the way we want you to work" and they really have to be supported to take on it on board because otherwise, if you haven't got the GPs and practice manager support, then you haven't got support for it and it's not going to happen (1:502-508).*

Succession planning to replace the ageing workforce was the main workforce challenge for the PHO managers:

> *The workforce is older so there's more to it than what we need to prepare our current workforce for. We need to also look beyond that …we will probably lose X% or Y% of our workforce but are they being replaced? And if we're not replacing them what is going to happen? (4:245-250).*

Clinicians identified a range of challenges to the primary health care workforce. One group of practice nurses pointed out that an increase in cardiovascular risk assessments would put pressure not only on the staff within the practice but also other allied health professionals outside of the practice, especially laboratory staff processing blood tests:

> *Nurse 1 - You need fasting blood tests and the laboratory services. And our lab technician is very busy.*
> *Nurse 2 - We blood test all day. So again that would be barriers. What we can do? We can locate the patients; get to them but we still have to manage the load on the lab work. (5:329-346).*

Another key challenge to workforce capacity was thought to be the lack of Mäori nurses. The result of the "abysmally low" (6:155) numbers was a challenge to the primary health care workforce in terms of addressing the cultural component of health care. One Mäori nurse was concerned that given the high percentage of cardiovascular disease for Mäori in the region, there were:

> *…cultural elements within all of this that haven't been addressed or looked into or researched enough - that cultural component of having Kaupapa Mäori nurses working with Mäori people to address need (6:156-160).*

The GP group echoed her concern admitting that they needed help to address problems of high deprivation:

> *Where you have social deprivation, overcrowding and we've got the Mäori factor as well. We've got all the problems already but we don't get the extra help to look to provide a solution. We've got huge problems catering for the diseases that we know about already (10: 141-144).*

All of the clinician groups conveyed a sense of despair that their workloads were already too heavy and that they did not have the capacity for adequate cardiovascular risk profiling, mass cardiovascular screening and the follow-up required post assessment. The GP group acknowledged that while most of the work involved in implementing the guideline could be carried out by practice nurses, (for example, risk assessment, client education and chronic care follow-up), there were not enough of them to do so:

> *Doctor 1 - … and then once you start intervening you've got vastly increased nursing input plus medical input and follow-up issues and all the things that go along with that. So it's grossly under-resourced. If you want to implement something like this and actually make it work, then you need to resource it particularly in areas like ours where you've got such high morbidity because we have such a huge patient base who are eligible for it (10: 41-46).*

They were adamant about their lack of capacity for follow-up at the same time revealing their despondency about their effectiveness in dealing with "non-compliance":

> *Doctor 2 - There's a huge amount of work you can put into chasing up these people who need treatment and who aren't interested and have a long history of non-compliance with drugs. They say, "Why can't I take Aunty Bertha's drugs? They work for her". There's a lot of education in process which is very, very time consuming and very expensive in doctor and nurse hours (10:52 – 56).*

One group of practice nurses drew a stark comparison between their workload when they ran their own Care Plus funded clinics compared with the time when they were "practice nursing" (meaning not seeing their own clients but assisting the GPs). They saw the two aspects of their role as distinctly different in terms of workload, pace and stress:

> *Nurse 1 – [In relation to running her own clinics] Toilet breaks! I get toilet breaks now that I never got when I was practice nursing. No time to even go to the loo. (Laughing). Like I worked full time for the GPs last Thurs and I had no time to go to the loo whatsoever.*
> *Nurse 2 - And you don't get time to drink – no time (others talking over the top)*
> *Nurse 3 - Let alone lunch*
> *Nurse 2 - ..You're putting yourself under stress like that. I don't think you are working to your full potential*
> *Nurse 3 - No*
> *Nurse 4 - No*
> *Nurse 2 - You make mistakes! (2:493-504).*

This final category for Impact on Health Care has revealed a number of challenges by all participant occupational groups. The requirements of implementation of the AMCVR guideline have highlighted the lack of capacity to profile the cardiovascular health of the population, assess cardiovascular risk for the number of potential clients in the target group, and to establish and maintain effective relationships necessary to support risk reduction. The sense of despair conveyed by participants regarding their lack of capacity to fully implement the guideline may have been all the more difficult for them, given their support in principle of the guideline goals as revealed earlier in this chapter.

Summary of Impact on Healthcare. Participants identified several factors that affected healthcare in relation to implementation of the AMCVR guideline into practice. They were most vocal about the negative impact of the lack of funding, insufficient workforce capacity and other difficulties that impeded their ability to deliver on the guideline recommendations. A number of issues were raised concerning the need for changes to be made to the way that primary health care delivery was organised within individual providers and also regionally. In comparison, there was less mention of factors with positive impact, although regional cohesion was considered to be a unique feature of primary health care and to have a positive impact on healthcare. The different way that Mäori providers provided primary health care was thought to have a positive impact by some participants and negative by others. The data assigned to this theme have defined significant factors impacting on healthcare delivery in relation to implementation of the guideline.

Summary of the Chapter

This thematic analysis of participants' views of implementation of the AMCVR has provided a portrait of their work, concerns, strengths and challenges in their own terms. A summary of the realities of practice for participants has been based on their words. Thematic analysis generated four themes. Self-managing Client concerns practice aimed at enabling clients to take charge of their own health. Everyday Nursing Practice relates to how nurses are going about implementing the AMCVR and the impact on their practice. Developing New Relationships in the Health Team concerns new ways of communicating and working in the team and also with client populations and community members. Impact on Health Care Delivery explores broader health system factors impeding or enhancing clinicians' ability to deliver on the guideline recommendations. In the next chapter I will present the findings for the second component of this study, a template analysis based on the PARiHS framework.

Chapter Seven – Findings from Template Analysis

This chapter presents the findings from the second component of this study designed to employ the Promoting Action on Research Implementation in Health Services (PARiHS) framework to identify the enablers and barriers to guideline implementation in the study location. Evidence, Context and Facilitation each have a set of sub elements with descriptive indicators for the high and low likelihood of successful implementation of evidence into practice. The basic equation for successful implementation is SI = f (E,C,F) in that successful implementation (SI) is a function (f) of the presence of the indicators for high Evidence (E), Context (C) and Facilitation (F) (Kitson et al., 1998). In this chapter each element of the PARiHS framework is presented with illustrative data. The chapter concludes with a discussion of the understandings gained about implementation of the guideline and comments on the use of the PARiHS framework to inform guideline implementation in day-to-day primary health care nursing.

Broad Overview of Findings

For this component of the study, all data codes were mapped firstly to at least one of the PARiHS framework elements, Evidence, Context and Facilitation, and then for the best fit for the indicators that define ‘low’ or ‘high’ for the sub elements. Following allocation of codes to E, C and F,

they were then assigned to the sub elements of each element with thorough checking that the actual words of the participants were consistent with the PARiHS framework meanings. Codes were checked and rechecked for the fit of the content to elements and sub elements.
This exercise enabled a detailed impression of the enablers (codes assigned to the indicators for high for sub elements) and barriers (codes assigned to low) in relation to successful implementation of the AMCVR guideline.

Content analysis using the PARiHS framework as a template produced some useful perspectives on the data overall. Firstly, the number of codes mapped to each of the elements revealed the volume of ideas for each element. Context was by far the most mentioned element (figure 7.1).

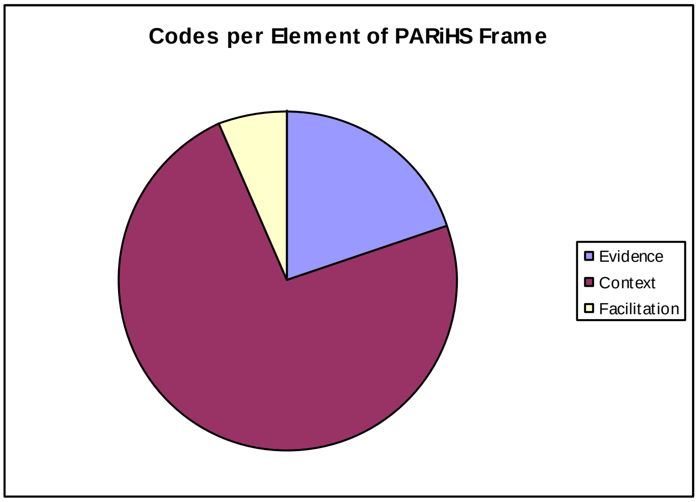

Figure 7.1

Data Codes per Element of PARiHS Frame

Secondly, a comparison by occupational group of the number of data codes versus the time in which they were spoken revealed that the funder/planners discussed fewer topics per minute than the other occupational groups (Figure 7.2), possibly because they were interviewed one at a time and would have had more chances to speak.

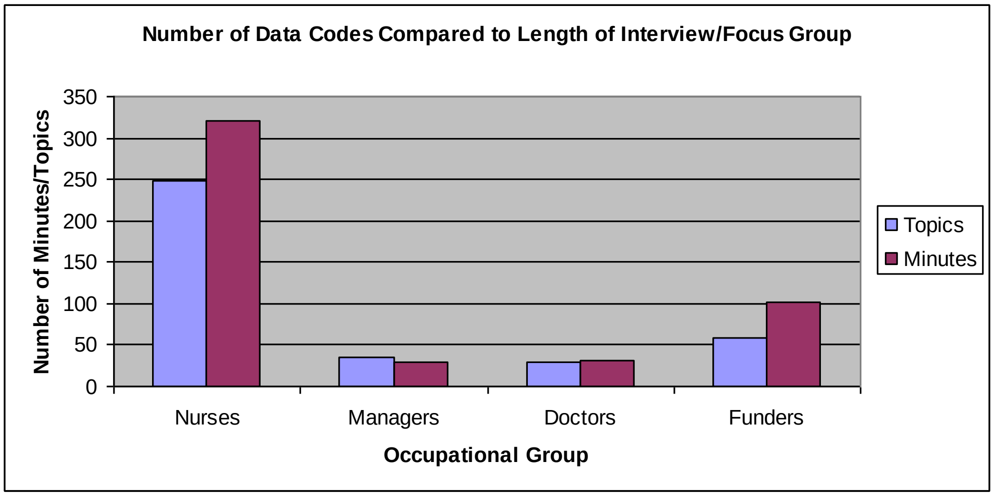

Figure 7.2

Data codes compared to length of time of interview/focus group

The next section lays out the findings that relate to Evidence. All data codes represented participants' ideas and issues. Those that were relevant to the sub elements of Evidence were carefully assigned, checked and rechecked, as described above and in Chapter Five, so that the unit of analysis was a topic or idea directly represented in data.

Evidence

The PARiHS framework (Rycroft-Malone, Seers et al., 2004) includes four sources of evidence that each form a sub element of Evidence: research, clinical experience, client experience and local data. The descriptors for high or low (Table 7.1) for each of these sub elements are intended to indicate the likelihood of successful implementation of evidence into practice.

Table 7.1

Indicators for Sub Elements of Evidence

Sub elements	**Low**	**High**
Research	• Poorly conceived, designed, and/or executed research • Seen as the only type of evidence • Not valued as evidence • Seen as certain	• Well-conceived, designed, and executed research, appropriate to the research question • Seen as one part of a decision • Valued as evidence • Lack of certainty acknowledged • Social construction acknowledged • Judged as relevant • Importance weighted • Conclusions drawn
Clinical experience	• Anecdotal, with no critical reflection and judgment • Lack of consensus within similar groups • Not valued as evidence • Seen as the only type of evidence	• Clinical experience and expertise reflected upon, tested by individuals and groups • Consensus within similar groups • Valued as evidence • Seen as one part of the decision • Judged as relevant • Importance weighted • Conclusions drawn
Patient (client) experience	• Not valued as evidence • Patients not involved • Seen as the only type of evidence	• Valued as evidence • Multiple biographies used • Partnerships with healthcare professionals • Seen as one part of a decision • Judged as relevant • Importance weighted • Conclusions drawn
Local data/ information	•Not valued as evidence • Lack of systematic methods for collection and analysis • Not reflected upon • No conclusions drawn	• Valued as evidence • Collected and analyzed systematically and rigorously • Evaluated and reflected upon • Conclusions draw

Of 109 data codes mapped to Evidence, participants had the most to say about local data and least to say about clinical experience (Figure7.4). The reason for this is not clear, but clinicians may not be used to discussing knowledge they gain from clinical experience.

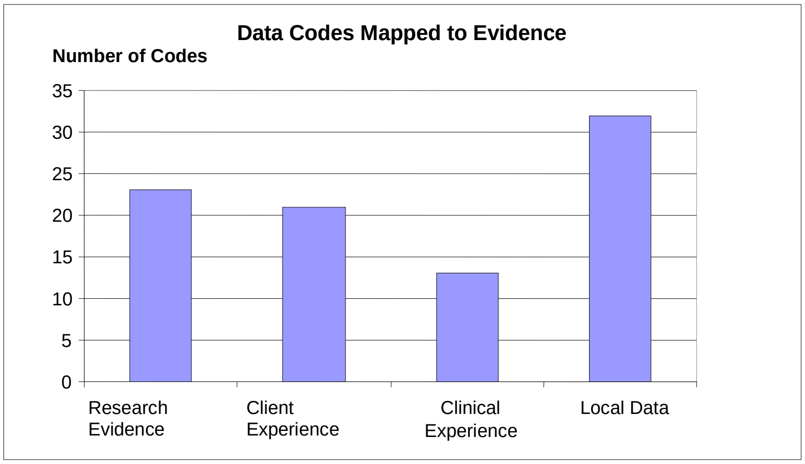

Figure 7.4

Data codes per sub element of Evidence

Research evidence. The focus of this study is on the implementation into practice of pre-appraised research evidence in the form of the AMCVR guideline. The AMCVR guideline was well known by participants as an information source regarding cardiovascular risk. Clinicians spoke about its importance, the value of the recommendations for practice and the expectations of them to implement it. Their conversations about how they used the guideline were consistent mostly with the descriptors for high research evidence (Table 7.1). The following sections reveal how data were linked to the high and low indicators for research evidence.

Valued as evidence. Nurses regarded the recommendations of the AMCVR guideline as valuable and relevant for interpreting an individual's cardiovascular risk score and to use that score as the basis for planning of risk reduction. One participant explained:

> *And what it does is that it takes the best of all practices and the best of research and it puts it all into one hit and it does it for you and you know where else can you, especially when you are living in rural communities like ours with limited resources? It's an invaluable tool (6:66-69).*

In particular, nurses found that the guideline armed them with credible information that gave them confidence to engage in discussion with doctors about treatment decisions. When clients were seen in nurse-run clinics or nurses visited them at home or workplace, nurses would consult with doctors after the visit. According to one focus group:

> *We have regular case reviews with our … medical officer and … we see a patient with cv [cardiovascular] disease and they might be on an ACE inhibitor but they need Cartia as well and we look in our records and say "Oh his lipid levels are up. He needs a statin." So in that case review with the GP they are able to write up the prescription …*
> *Our management is constantly being looked at with the guidelines so that we are running alongside. (3:179-185)*

The guideline recommendations were useful not just for managing early risk. Nurses also found them relevant to and helpful for reviewing treatment regimens for patients with chronic disease. One focus group agreed "We are doing it for chronic patients. Try to make sure they are on the appropriate treatment" (5:171).

Nurses found the guideline "fantastic" (1:524) for developing clear and consistent pathways of treatment. Familiarity with the recommendations enhanced nurses' confidence and understanding of guideline-based treatment programmes, for example, Careplus for chronic disease management and PREDICT, an electronic system to guide implementation of the guideline. They found that:

> *…now it's normal part of practice. So the PREDICT programme the nurses have just embraced it. "Oh this is great! "– Actually when you say to them, "You've been using the colour charts up until now - the Framingham [chart as a guide to estimating risk] – and that's what this is, " they go – "Oh!" (Laughing)… (1:127-8)*

Seen as one part of a decision /Lack of certainty acknowledged. The indicators at the 'high' end of the continuum for research evidence include the acknowledgement that evidence from research is seen as part of what is taken into account for clinical decisions and that is not seen as the absolute truth. Some nurses recognised that the AMCVR guideline recommendations were just a part of clinical decisions and spoke of the difficulty of fitting guidelines alongside each other for clients with co-morbidities. Nurses were not sure about how to patch together two or more guidelines that could apply to a single client, for example with heart failure (National Heart Foundation of New Zealand, 2001), diabetes (New Zealand Guidelines Group, 2003b)and pulmonary disease (Thoracic Society of Australia and New Zealand & Australian Lung Foundation, 2006). One nurse said:

> *You shouldn't just take it from one chronic illness… if you know that someone's at risk you use at least one of them. You match them together and wonder if they are going to be at risk for all these other things. You screen them for that as well (5:62-66).*

However, another nurse found the guideline especially useful for assessing and managing both cardiovascular disease and diabetes together, a common co-morbidity in the population. She commented that the guideline is:

> *…absolutely [useful] given the statistics for my work – 85% of my clients are Mäori. They are chronic care complex. They do fall into the category where they [have] CVD (cardiovascular disease) and diabetes. … You are assessing both every time. Yes, so you are finding the guideline is very useful then (6:73-6).*

Importance weighted. The high end of the research evidence continuum has evidence for implementation seen as important. Some participants were convinced that the implementation of the AMCVR guideline was an essential tool for practice. One interviewee spoke of the compelling need to reduce the social and economic impact of cardiovascular disease on Mäori men:

> *These Mäori men, as tax payers, are hardly ever getting to receive superannuation. One in 30 will live beyond 65. So it's a travesty, a tragedy. We've got to get these messages out to a broader age group. It's these guys who have got kids and the messages are for men. … It's such an economic impact and then there's the social impact in terms of .. seek[ing] support from social providers … It's about those resources that those whanau are going to draw on. … And so we as Mäori men have a social responsibility to our whanau[21], our hapu[22], our iwi[23] to be living healthier and living longer.(8: 248 – 270)*

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[21] Immediate family

[22] Extended family

[23] Tribe

The guideline has been promoted as an essential tool nationally through the “One Heart Many Lives” (OHML), a Pharmac[24] sponsored social-marketing campaign, and through other health services including the New Zealand Heart Foundation . The guideline was seen as important tool for addressing the damage to society of the premature loss of the older generation, especially Mäori men:

> *OHML is focused on men and the message is your one heart is very valuable because it affects the lives of many whanau (family). …it recognises men as valuable, hold many different roles. ..if they don’t look after their heart they’ll die early and there’s too many … who are dying early. Mäori men are dying early – 14 yrs younger than non-Mäori men… One in 30 will live beyond 65. .. it’s a travesty, a tragedy. For Mäori we talk about whanau (family), we talk about whakapapa (family connections), we talk about sticking around for your tamariki (children), for your mokopuna (grandchildren) (8:237-53).*

All five focus groups of nurses commented on the relevance and usefulness of the guideline in its various formats. They considered the guideline to be easily located in their workplaces either in hard copy or electronically and that they used it as an everyday tool. Several members of one focus group agreed that:

> *Oh yes! It’s like our little bible.*
> *… There are times, I mean depending on what we are doing, we have to refer back to remind us… I did do the right thing. It is very much part of our everyday tool we use.*
> *…. hard copy [is]much easier.*
> *… We’re pretty lucky we’ve got access to guidelines in much of the things we use. We are very lucky with that. (3:202-224)*

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[24] Pharmac is the pharmaceuticals purchasing arm of the NZ Ministry of Health

One participant made others in the group laugh when she added that even though she used the guideline regularly she wasn't "… that conscientious" (3:210) (as the nurse making the comment above) enough to load up the CD version of the guideline onto her laptop every time she assessed a client's risk but she did enter data later. This group agreed that using a computer while talking with a client interfered with communication and they were reluctant to turn their attention away from the client while they were talking with them. Another group added that not only were they reluctant to enter data at the same time as assessing patients because it impeded eye contact but that also there were rarely enough computers to go around. One nurse focus group had found a way to use PREDICT[25] at the same time as maintain attention on clients:

> *We wrote out a questionnaire that matches the info for PREDICT so that if we didn't have access to a computer at the time we could take notes on paper and enter it later. Sometimes it feels a bit rude to use the computer while trying to engage with the patient [while] tapping away. I find that I write it out on paper and enter it later unless they want to know what the outcome of that risk is and then you can print off information to give them that is suited to what they've had assessed.*
> *(5:125-132)*

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[25] Predict is software that enables risk assessment information to be entered online to a large database to provide patient-specific, evidence-based advice on managing CVD risk and diabetes, to track progress for individuals, to provide population data. (Bannink et al., 2006)

Nurses were emphatic about the importance of the research evidence provided in the guideline; so much so that they found ways to adapt the PREDICT tools to suit their preferred style of communication.

Conclusions drawn. Research evidence at the high end conclusions sees conclusions drawn on the basis of its acceptance. Participants emphasised the value of the evidence provided in the guideline for drawing conclusions about the level of cardiovascular risk and interventions recommended for each level (refer to Chapter 2). According to one nurse:

> *… You've got the management part of it and the preventative part of it. So your prevention is obesity, pre-diabetes, metabolic syndrome, cv [cardiovascular] risk.. and …just gotta get to put it into action. (9:151-8)*

Others found that the conclusions to be drawn from risk calculation and the computerised graphics that could be produced were useful to show patients the progress they had made in reducing their cardiovascular risk. One nurse found:

> *… that graph in the computer which is coloured … It's nice to have colour and show it to them on the screen.... I always do that one first and then it's back so nice and quickly and then I can do a comparison. (2:155-60)*
>
> *There's really a penny drop going on at the moment and I think it's been enabled by really good IT systems. (1:126-131)*

Other nurses used the guideline not only to guide cardiovascular risk assessment but also found the recommendations about risk management invaluable to review patients' current treatment regimens. They were then more confident to question prescriptions that differed from recommended treatment:

> *CVD risk [assessment] is used for people with disease to see if they are getting the treatment they need - you know' "What is their cvd risk? Are we on appropriate treatment to lower that risk?" … but also making sure as a bit of an algorithm that they are on the most appropriate because you might pick up that they are not on a lipid lowering medication or their blood pressure control isn't optimal. It's useful tool to know whether they are having the most appropriate care for that patient. (5:175-85)*

Another group agreed that the guideline advice for treatment was currently most useful for those with cardiovascular disease but in future would be used more to assess risk at an earlier stage of disease progression:

> *I think though at the moment we are doing it for CVD [cardiovascular disease] risk. We are doing it for chronic patients. Try to make sure they are on the appropriate treatment… but eventually we'll have healthier people coming through. But for a time CVD risk is used for people with disease to see if they are getting the treatment they need … you know "what is their cvd risk?" "Are we on appropriate treatment to lower that risk (5:171-7)*

The guideline was valued by some as the basis for a clear pathway of treatment. The nurse leaders agreed that:

> *The other thing about the CVD guidelines is that they are so clear. There's such a clear pathway of treatment and follow-up and that's why these guidelines are just fantastic because you know if you are [cardiovascular risk is] 10-15 [per cent of having a cardiovascular disease event over the next five years] you can manage it this way and if over 15… You know and it's just based on risk . That's the best thing about them . (1:571-77)*

The value of the guideline was not only the clarity of the recommendations but also that the clinical team would draw conclusions from cardiovascular risk assessment to negotiate clients' guideline-based care plans and as a means of communication within the health care team. They found that a guideline-based care plan:

> *...provides a standardised ...approach to care that I can implement. Because I'm part of a wider team we can set that as a careplan so to speak ... then everyone can see. Because I'm part of a wider team, the mobile nurse might do the screening, you know but as an enrolled nurse, they don't have the competency to go further, so the DSM [disease-state management] nurse may do some – may take over health education, lifestyle, you know, so, like, it provides the basis where you can bring in other team members to the clients, to the whanau[26] care. So you ... go for a wider approach but you are still applying that risk tool... So if it's lowering cholesterol as an example, if they are not the cook in the house, we maybe teach whanau you know. (6:82-94)*

Summary of research evidence. The findings in relation to research evidence indicate that the guideline was valued by participants and they used it in various ways to review clients' medications, to demonstrate clients' progress over time and to underpin multidisciplinary care plans. While the guideline provided information about what needed to be done to improve cardiovascular health, there was little guidance on how the recommendations could be incorporated into healthcare. Although the guideline is used by clinicians in various formats, it does not include evidence for how to work with people to embed the guideline recommendations into practice.

The findings indicate that the conditions for research evidence are favourable for successful implementation of the guideline. Only one

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[26] Family

indicator for successful implementation was not apparent in the data – “social construction acknowledged”. Participants spoke about the importance and relevance of the research evidence within the guideline but did not speak of the abundance of recommendations for what to do and the lack guidance for how to do it.

Clinical experience. Much of the data that mapped to the indicators for clinical experience were congruent with low Evidence (Table 7.2). The transformation of clinical experience from anecdote to robust evidence requires the rigour of peer review and critique (Rycroft-Malone, Harvey et al., 2004). Anecdotes about practice are an initial step in establishing clinical experience as evidence. They are then exposed to critique and ongoing development as evidence for practice (Rycroft-Malone, Seers et al., 2004).

Table 7.2

Clinical Experience with Descriptors for High and Low

	Low	High
Clinical experience	• Anecdotal, with no critical reflection and judgment • Lack of consensus within similar groups • Not valued as evidence • Seen as the only type of evidence	• Clinical experience and expertise reflected upon, tested by individuals and groups • Consensus within similar groups • Valued as evidence • Seen as one part of the decision • Judged as relevant • Importance weighted • Conclusions drawn

Of the 109 data codes for Evidence, clinical experience attracted the fewest codes (13). The following section links data to the descriptors for low or high clinical experience.

Importance weighted/Valued as evidence. In their talk about their everyday use of the guideline, nurses spoke about their clinical experience in ways that indicated an appreciation of its value and importance as part of the knowledge base of practice:

> *Sometimes it's something that you can't learn. It's based on experience you know. And it's trial and error. It really is trial and error. You can walk into a home and they feed you and send you on your way and then you can walk into the house next door and it's like - slam goes the door. You know you can have the best skills, know how to debrief and sort of get sort of de- something the situation but it makes no difference… It's just what is happening for that person on that day . They are not going to let you in.*
> *And in that situation you know you have to hook into something that will catch their attention. Whatever it is at that time (background 'yeahs') 3:398-408.*

Anecdotal, with no critical reflection and judgment. Clinical experience at the low end of the continuum has not undergone any review process and is in the form of anecdotes. When the nurse focus groups spoke about their practice, they readily provided numerous examples of what they knew from experience. They seemed to really enjoy talking with their colleagues about their work. One focus group assembled were very reluctant to leave after the focus group had finished and they kept up a lively conversation in the carpark afterwards. One group agreed that interaction with their clients was a special feature of their work:

> *I guess it's around the rural nature of the area. The places that we go to and it's also around the way that we communicate or interact with the clients that we see. Totally different from how one would do it in the hospital setting. And it's all around whanaungatanga for us. That's the most important thing before we start, we korero [converse] with our clients. That's what makes us unique as nurses in primary health care. In knowing sometimes that the buck stops with us.(3:44-50)*

This group knew that their experience told them much about relationships with clients but it seemed by their conversation that they were not used to talking about it:

> *It's kinda hard to say. Because we don't know – well from my own perspective, from my own experience, when you work in a clinic area you work within specific guidelines which may be within those guidelines as well and it's very clinical. What [name of nurse] and I do, we tend to adapt those guidelines of clinicalness, I guess, and we move it into to suit the environment. So if its going out into primary health care and its going to a whanau's home, we adapt ourselves to go into that environment. We don't go in with a crisp white uniform on and a stethoscope wrapped around our neck and that, and it's very informal (3:172).*

High clinical experience requires processes that generate reflection, review, testing and consensus among clinicians about knowledge from practice. Once experience is spoken or written about, it is open to critical review, and to be refined, understood and validated (Garbett, 2004). The focus groups may have been a rare occasion for nurses to speak about their work in focused way.

Nurses were acting on their knowledge from clinical experience. One nurse focus group from a large practice in a small town explained that even though they had been told that the cardiovascular risk assessment could be done in six minutes, they would not attempt to do that based on their knowledge of the population they provide care for:

> *Nurse 1 -Like I said before, you can't just do an assessment in six minutes … people think you are rude!*
> *Nurse 2 - It's hard … you need to follow it up so (all talking at once)*
> *Nurse 1- so if it was just the screening alone … but then you've got to have the follow-up after that. (5:496-503)*

Other nurses spoke of experience as a source of information gained through getting to know their clients and how they used that knowledge to interpret situations. As one nurse put it:

> *When you've been working with a patient and they ring up and say this is happening and I don't think it's anything to worry about and I think "Ah ha. It's that person and they need to be seen". And they ring up with a query and you know full well there's a problem and they've got to come in but others , you sort of, you know that … when you've been working with people for a certain length of time, you get to know how urgent it is. (2:593-599)*

Another nurse in the same focus group had learnt from experience about how to work alongside clients making sure she wasn't seen as 'the big boss":

> *But I don't think it's ever a situation where the nurse is bossing – giving orders – "this is what you need to do to improve your health " , it's more of a conversation exchange in general and what they're finding difficult and so it's good that way. .. So that they take responsibility for their own health and you're not the big boss. (2:111-116)*

Summary of clinical experience as evidence. The nurse focus groups drew on their clinical experience to talk about their work but the resources and processes for robust critical reflection were not evident. However they did indicate that they valued experience as a knowledge source, judged it as relevant and recognised that it was only part of a decision. In summary, Clinical Experience as a source of evidence was recognised and valued but the supports required to further develop practice knowledge were not evident for the nurses in the context of this study.

Client experience. Knowledge gained by clients about themselves, their families, their health status and their experience of healthcare is essential evidence for practice. Much of the research evidence about the effect of healthcare interventions aims for generalisation to populations similar to those in the studies appraised. However, implementation of evidence into healthcare requires partnerships that accommodate a client's individual needs. In spite of the importance of clients' perceptions and preferences in evidence-based nursing, little is known about their input into healthcare decisions (Rycroft-Malone, Seers et al., 2004). The following table identifies the indicators for Low and High Client Experience and the following sections examine these indicators in relation to the data.

Table 7.3

Indicators for Low and High Client Experience

	Low	High
Client experience	• Not valued as evidence • Patients not involved • Seen as the only type of evidence	• Valued as evidence • Multiple biographies used • Partnerships with healthcare professionals • Seen as one part of a decision • Judged as relevant • Importance weighted • Conclusions drawn

Of the four sub elements for Evidence, client experience had the highest profile. All participants except the GP group commented on the essential nature of client experience as a form of evidence that was relevant to implementing the guideline.

Valued as evidence/ Judged as relevant/Importance weighted. Data codes mapped to indicate that participants value client experience as relevant and important. One group spoke about the importance of building relationships that enabled clients to speak candidly about the difficulties they faced in enacting guideline recommendations. One participant illustrated this point:

> *We had a patient that needed to increase weight loss and activity. You know, What are you going to do? Ok so you live in a place where you've got no sport... so you could walk couldn't you? You could walk. But [the client says] "I haven't got any shoes" You know so you've got to be in … a relationship with the patient, that the patient will declare that, because most wouldn't and so you've got to be in a position where you can say "Oh well. Come on. We can refer you to this, that and the other. Or maybe we can help you with that." Those are the challenges you face. It's not as easy as you think sometimes. (4:191-198).*

One nurse focus group spoke about the importance of knowing what clients enjoy doing when helping them to plan lifestyle changes:

> *I think there's a nice part of it you know - some nice things for patients too. You know "I get this, do you get that?" "I get to go to the pool twice a week". (1:273-276)*

Another group explained that clients would come to their clinics because they knew that the nurses cared about them and understood their problems:

> *[Lots talking at once] - It's about the financial situations of these families that we deal with. Quite frankly some of these families, I don't think a lot of them have much money*
> *No they don't*
> *And they come here because they know that we care about them*
> *We'll listen to them*
> *We'll take the time (9:92-98)*

An understanding of client experience was an essential ingredient in making healthcare decisions. Some families face such complex problems and issues that their cardiovascular risk is well down the priority list of their immediate problems. These families need help to deal with immediate issues before they can take on recommended lifestyle changes. As one DHB funder/planner explained:

> *…the vast majority of families are impacted by a number of issues …and you have to establish that initial rapport and then build trust with that family. You are essentially engaging with families whom we may have referred to previously as 'hard-to-reach' but you could say that they are hard to engage with. That's not putting the blame on anyone in particular but we are talking about families that are so swamped with their own issues that they find it hard… (8:59-65)*

This participant stressed how important client experience was to an understanding of the target cardiovascular risk population:

> *One Heart Many Lives (OHML) is essentially a social marketing campaign [with] health promotion and education components … Studying our men … their behaviours as consumers of a whole smorgasbord … and recognising that … people's lives are busy and how can they get a heart health check by a GP or nurse to sit on their list of priorities for the day. (8:215-228)*

The OHML initiative was launched with workshops in the region by a social marketing team sponsored by Pharmac. Primary health care service providers were invited to submit proposals for funding for implementing the AMCVR guideline, based on their perceptions of client experience. One of these plans was a one-day, show-ground event with entertainment, activities and prizes with several teams of nurses providing free cardiovascular risk assessments. Rewards for having an assessment were geared to appeal to the cardiovascular risk target group – male Mäori over 35 years of age. As explained to me:

> *… there were fishing rods and other prizes … "If you get your blood test done, you'll go into the draw." So we gave away 3 fishing rods, quite good ones too, surfcasting rods and about $400 of gift vouchers for the local sport and fishing shops. That's more your male thing. You know, men like fishing. Men like sport. This campaign needs to be seen as centering around these men … While you've got a captured audience there, you really need to get stuck into them with positive messages like sticking around for your children and grandchildren. (8:305-315)*

Nurses working for Mäori Health Providers spoke about client experience as crucial evidence for their work. Their Kaupapa Mäori approach is based on a solid understanding of family and how a family connects with the world. Family as central was explained in these terms:

> *[It's] about understanding Mäori whanau, their values, their networks in terms of extended whanau, their behaviours, what their daily routine looks like and it could be that you have some whakapapa (family) connection to this family so …if it's not there already you need to establish a relationship … as the foundation for ongoing work is really built on that relationship and that thorough understanding of that family and the background and history of that whanau…so that you understand that whanau dynamic and how they connect with the outside world. (8:158-170)*

Other nurses found that even though cardiovascular risk assessment was the original purpose of a visit to a family home, they took a whole family approach to heart health promotion. For example:

> *Nurse 1 - Other members [of the family may be] a lot worse, like obese children who will be a cv risk in the future. You know all that sort of thing.*
> *Nurse 2- Yeah you know it's not about cv for me. It's about healthy living – healthy eating, exercise ra-ra you know?*
> *Nurse 3- They're all entangled. You can't really separate*
> *Nurse 2 - It's managing health risk as a whole*
> *Nurse 3 - That's certainly how I see it. I've done about 100 of them since I've been here so. (9:308-317)*

Client experience as evidence was essential when asking people to consider lifestyle changes for reducing their cardiovascular risk, especially for clients who are asymptomatic. A PHO manager recalled that one of the kaumatua[27] of the region asked "Why do you want to keep fixing me?" (4:105-108). This was especially true for early risk clients who felt perfectly well and found it difficult to relate to the need for lifestyle change, "They

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[27] Elder/s

are feeling so well. There's nothing wrong" (2:74-80). For clients who already had cardiovascular disease, the relevance of cardioprotective actions was high because they were aware of the seriousness of heart disease. "They seem somehow a lot easier to work with because they regard their heart as an important part of their body…"(2:28-33).

Partnerships with healthcare professionals. Another nurse group spoke about the importance of a consultative approach to decisions about treatment:

> *.. they've [doctors] got their own ways of doing it not so much to the guidelines but how they think their clients might cope with the medications . So it's based on the perception of how the client actually copes …The client might say, "I don't want that medication anymore." They could quite easily take them off it, as opposed to keeping them on it. (3: 300-305)*

Three of the nurse focus groups and the managers' group spoke of the importance of the skills and knowledge crucial to the formation, maintenance and optimal function of partnerships. They all referred to letting the client's agenda unfold:

> *When you're talking with patients about problems that they have and… not necessarily on your agenda at all but if you deal with what's important to them (2:489-492);*
>
> *So you encourage that patient to take control of their own health and destiny and they've got to be in a position they are comfortable to share with you what their barriers are (4:184-190);*
>
> *It is about having good listening skills (3:343-340);*

> *"We've all been brought up through a hospital based model where we're being told to talk, talk, talk. Do this. It's about sometimes learning to listen" (1:331-2)*

Partnering skills required genuine interest in clients because:

> *Nurse 1- They can tell straight away if you're not interested, if you're not listening. You've got to be interested in your job to do it. You can't pretend. They can just know.*
> *Nurse 2 - You are there because you are interested. You like dealing with people (2:319-321).*

Nurses and doctors spoke about time as the scarcest resource in primary health care. Nurses recognised that their time was more flexible than doctors' who usually had a tight schedule of at least one client per 15 minutes:

> *So I've got more than 15 mins. ..I'm definitely not typing as I'm listening to them. I'm giving eye contact and I guess they know – oo – I'm going to talk to the doctor directly about that or else I'm going to get them into the doctor immediately (2:211-216).*
>
> *When people ring you and they say, 'I know you're really busy', but you know, it's never a good time , you know. 'I won't take up too much of your time' You know, we are there to provide a service. 'You can call me any time' (2:505-509).*

Nurses spoke of the growth of a client's trust as an indicator of a growing partnership:

> *You know you are getting somewhere when you get the phone call: 'I've just got a question. You know when you talked about some aspect. I've been thinking about it. Can you tell me more? Have you got anymore information that you can give me? ….2:446-451*

Partnerships were formed at various levels, not only with individuals but also with families and whole communities. One nurse focus group agreed that the key to partnerships was to encourage enquiry and exploration of choices. At the family level:

> *Giving them that structure is putting them in a place where they can start doing something for themselves. And that's the whole thing and when I came back, he had a big circle around depression and said "Maybe I am a bit depressed...Where do I go from here? What do I do? Where do I start?" And that started the whole ball rolling. And his wife goes, "You have been a pain in the arse lately but I didn't really want to say that. (3:453-461).*

Also at the community level:

> *You know you can get a whole kind of community ground swell. Let's do this together and let's approach this together because this is what is killing our community.*
> *Yeah 40% [of people die from cardiovascular disease]*
> *MMM 40% and that is an absolute travesty and together we have to work together and so it's about engaging community, as well as applying those guidelines in a community sense not just a scientific sense (summarised from 1:271-280).*

Multiple biographies used. The complexity of blending the scientific with the experiential (Rycroft-Malone, 2004) requires a well developed and broad appreciation of the multitude of experiences, life stories and points of view that may be held by clients and often developed over years of open-minded clinical practice. The most targeted population for cardiovascular risk reduction is the most deprived. This population may also be targeted for multiple health, education, and social programmes aimed at reducing disparities. There is a real risk of cynicism and mistrust associated with 'programme fatigue' in deprived populations.

For home visits, the timing and scope of each visit had to be quite flexible because a nurse may find more people than expected at home who may have more urgent health care needs than a cardiovascular risk assessment. Client Experience was incorporated into nurses' work by initially "tread[ing] carefully" (8:99) and concentrating on building trust with a family before attempting to assess cardiovascular risk.

Nurses employed by Mäori Health Providers explained the significance of whanau (family) in all aspects of the lives of their clients. They had developed a 12 week model of care which strengthened the linking of cardiovascular health to whanau. One nurse group explained how the Manaaki Manawa programme was structured:

> *I've sort of taken on the screening as well which will all become part of Manaaki Manawa because it's not just for the individual. It's for the whanau. It gives the whanau the opportunity. To give them this education and awareness and screen them at the same time so they've got something a little bit concrete to go with rather than just the korero [talk] (3:137-140).*

A whanau emphasis on client experience was also vital to the appeal to Mäori men to be screened for early cardiovascular risk. The premature death of Mäori men has depleted the number of kaumatua (male elders) whose traditional role and associated mana (high-level respect) is pivotal in Mäori society:

> *It's about keeping our dads and our grandads healthy. We know that many of our Mäori men don't get to Kaumatua status. …then who are they going to leave it to. There's 18 year old children – their sons, so there's a huge, in terms of the Mäori world, … responsibility to leave on your teenage children. (8:262-270).*

Local Data. Knowledge from the local context was added as a sub element of Evidence following a revision of the PARiHS frame in 2002 (McCormack et al., 2002). Local data includes systematically obtained information about performance, health outcomes and clinical audits. It includes patient stories and narratives, knowledge about the culture of an organisation and also encompasses social and professional networks and policy (Rycroft-Malone, Seers et al., 2004). This following section explores the findings that were mapped to local data.

Table 7.4

Indicators for Low and High Local Data

	Low	High
Local data/ information	•Not valued as evidence • Lack of systematic methods for collection and analysis • Not reflected upon • No conclusions drawn	• Valued as evidence • Collected and analyzed systematically and rigorously • Evaluated and reflected upon • Conclusions draw

Lack of systematic methods of collection and analysis. Data mapped to the low end for local data in relation to the collection and analysis of data. In spite of some difficulties with management of local data, nurses were aware of the value of local data for tracking trends and feedback. Patient information was collected and recorded in various ways across the region but a lack of coordinated information systems and a paucity of shared information restricted the extent to which local data could be accessed and retrieved. One nurse group discussed the difficulty of getting local information that would inform them of health trends:

> *…you still look at what you are measuring it [smoking] against whether that's going to make a reduction. Those are the things that I'd like to see measured … (1:188-193).*

The transformation of locally gained knowledge into local data as high Evidence requires processes that were not evident in the context of this study. Clients' narratives were related with enthusiasm, especially in the focus groups, but the management and sharing of such data was not usual practice. Some data codes that linked to local data were equally relevant to two of the sub elements of Context (culture and evaluation) and are discussed below.

One of the nurse focus groups spoke of a database they had developed to capture cardiovascular risk data from screening employees of a local abattoir. Follow-up, referrals and subsequent screening data would be added to the database to provide an ongoing searchable record. While commendable and useful for that particular nursing service, the lack of comprehensive, systematic, regional (or even better, national) cardiovascular risk data management using common software restrains health care providers benchmarking their data with others regionally and nationally.

Some local data are provided by health care providers to the District Health Board as part of their contract to provide health services. However, none of the clinician participants referred to those data being used by them as feedback or for reflection. Data from reports to the DHB were limited to counts of clinical outputs (for example, number of fasting blood lipids test) rather than health outcomes, such as blood pressure readings. Some qualitative information was provided in reports, but not in a format useful to clinical staff. Narrative data about nursing practice was not included in any reporting processes leaving a gap in local data.

One funder/planner participant believed that the value of Mäori health provider -based nurses' Kaupapa Mäori approach remains anecdotal because of the lack of mechanisms to capture the essence of their work:

> *… most of the recording templates are of quantitative outputs, number of this, breakdowns of that and then the qualitative data is just a narrative but we need to explore different ways of categorising or recording that narrative. The very rich stories that come out … (8:112-129)*

Local data were not consistently available. However, a "One Heart Many Lives" day, described above, did demonstrate what could be achieved with community-based cardiovascular screening en masse. The novelty, showground atmosphere and incentives for screening brought along whole families who were encouraged to pressure adults to get screened. As one participant described the day:

> *Come and get your warrant of fitness done. Come on." And the Mums were giving their husbands a punch in the ribs you know "Off you go" and we'd given them red t-shirts …Near the end of the day you'd see all these red t-shirts around. People would say 'I want one of those" and then we took this photograph of this heart with all the red t-shirts. All the men around the heart and then we said "we need some people to come and fill it up" so all the family members who had come to support their men came to fill the heart. (8:321-329).*

A photograph (Figure 7.5) taken on the day had great visual impact and was published in the print media as well as in various newsletters and reports.

Figure 7.5

Photo depicting those who underwent cardiovascular risk assessment, 'One Heart Many Lives' day, June 2007 (Source: Northland District Health Board)

Summary of Findings Related to Evidence. All data codes for research and patient experience mapped to high and all of the indicators for high could be aligned to data. High for clinical experience and local data were not as well supported by data. The guideline was well disseminated throughout the region and the nurse focus groups all spoke of how the guideline gave them credible evidence to guide their practice and to engage in discussion with clients, other nurses and doctors about cardioprotective behaviours and interventions. As the shaded indicators in Table 7.5 below reveals, overall, that data relevant to Evidence mapped to high for most of the indicators for research, half of those for clinical experience, all for client experience and only one for local data. The indicators for low Evidence attracted data codes for only one indicator of clinical experience and three for local data.

Table 7.5

Shaded Indicators for Data Mapped to Evidence

Sub- elements	**Low**	**High**
Research	• Poorly conceived, designed, and/or executed research • Seen as the only type of evidence • Not valued as evidence • Seen as certain	• Well-conceived, designed, and executed research, appropriate to the research question • Seen as one part of a decision • Valued as evidence • Lack of certainty acknowledged • Social construction acknowledged • Judged as relevant • Importance weighted • Conclusions drawn
Clinical experience	• Anecdotal, with no critical reflection and judgment • Lack of consensus within similar groups • Not valued as evidence • Seen as the only type of evidence	• Clinical experience and expertise reflected upon, tested by individuals and groups • Consensus within similar groups • Valued as evidence • Seen as one part of the decision • Judged as relevant • Importance weighted • Conclusions drawn
Patient (client) experience	• Not valued as evidence • Patients not involved • Seen as the only type of evidence	• Valued as evidence • Multiple biographies used • Partnerships with healthcare professionals • Seen as one part of a decision • Judged as relevant • Importance weighted • Conclusions drawn
Local data/ information	•Not valued as evidence • Lack of systematic methods for collection and analysis • Not reflected upon • No conclusions drawn	• Valued as evidence • Collected and analyzed systematically and rigorously • Evaluated and reflected upon • Conclusions draw

Context

More data codes were mapped to Context than either of the other two elements (Evidence and Facilitation), 275 of a total of 372. With Context as 'the specific environment in which implementation, utilisation and creation of evidence take place' (McCormack et al., 2002, p. 101), its impact on practice is complex. Study participants spoke about the issues, challenges and resources affecting their implementation of the AMCVR guideline in ways that were mapped to both ‘high’ and ‘low’ indicators see Table 7.6 below.

Table 7.6

Indicators for Sub Elements of Context

Context	**Low context**	**High Context**
Culture	• Unclear values and beliefs • Low regard for individuals • Task-driven organisation • Lack of consistency • Resources not allocated • Well integrated with strategic goals[28]	• Able to define culture(s) in terms of prevailing values/beliefs • Values individual staff and clients • Promotes learning organisation • Consistency of individual’s role/experience to value • Relationship with others • Teamwork • Power and authority • Rewards/recognition • Resources—human, financial, equipment – allocated • Initiative fits with strategic goals and is a key practice/patient issue
Leadership	• Traditional, command, and control leadership • Lack of role clarity • Lack of teamwork • Poor organisational structures • Autocratic decision-making processes • Didactic approaches to learning/teaching/managing	• Transformational leadership • Role clarity • Effective teamwork • Effective organisational structures • Democratic-inclusive decision-making processes • Enabling/empowering approach to teaching/learning/managing
Evaluation	• Absence of any form of feedback • Narrow use of performance information sources • Evaluations rely on single rather than multiple methods	• Feedback on Individual, Team, System performance • Use of multiple sources of information on performance • Use of multiple methods Clinical Performance Economic Experience evaluations

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[28] Jo Rycroft-Malone confirmed by email that this indicator was incorrectly included in the “Low” column in the published article - (Rycroft-Malone, 2004).

Culture. Culture refers to the inherent values and beliefs that underpin the context of practice, the roles and relationships of healthcare professionals in a practice context, how power is distributed and used and the resources allocated for implementation of evidence into practice (Rycroft-Malone, Harvey et al., 2004). As the following sections demonstrate, data codes were mapped to all of the indicators for culture, both high and low, except for with regard to the codes for resources that mapped only to low.

Able to define culture(s) in terms of prevailing values/beliefs/ Initiative fits with strategic goals and is a key practice/patient issue. At the high end of the continuum for culture, the health care team are aware of and can define their context in relation to the inherent values and beliefs and the implementation of evidence is relevant to the strategic goals of the workplace. Participants considered cardiovascular disease to be a key practice issue due to its prevalence and disease burden, and that ideally should to be prevented rather than treated, as revealed in one nurse focus group:

> *Nurse 1, It would be better to be starting at a different point than starting with people who have already got coronary heart disease, got the risk factors, but that is where a lot of people are at now so it is essential to start there. There are lots of people out there who are getting educated and living their life in a way that is not leading them towards coronary health disease but that isn't the people that we are targeting.*
> *Nurse 2, And when you look at Mäori health - Mäori men because they are seven times more likely to get CVD so it is sometimes, ... I know that within the [region]*

> *the number of people who have just dropped dead and they have been quite fit and healthy. (1:373-385)*

A funder/planner spoke about the strategic importance of reducing health inequity, improving cardiovascular statistics and acting on the values and beliefs that drive the District Health Board's Cardiovascular Action Plan:

> *I think the geography and how it isolates communities is a big challenge. The ethnic split of the demographics because we know Mäori tend to have worse health and that's not just because of their economic status … even if you allow for that they still have poorer outcomes and life expectancy and we have appalling disparities in life expectancy in [the region]. So planning around that and trying to work out how do you address those inequalities and make change. What are the levers to pull? What is going to make a difference and how do you fund it? If we adequately fund it in order to deliver to our particular demographic, our particular geography and so on. Those are all the planning implications that we work with every day. (7: 32-41)*

In spite of the importance that participants placed on addressing health inequity, some of the focus groups seemed at a loss to know where to start to help their clients to cope with the difficulties they face:

> *There are a lot of social factors you know. People who are unemployed. They never really get a good job . They never have that steady income . There are a lot of things that are out of their control.. It's the way it has always been and through generations and you can go out there and do health promotion and they can't deal with it. They are surviving. There're a lot of issues. (2:423-427)*

The goal of self management of cardiovascular risk had to be factored in to what was realistic for clients in relation to their circumstances:

> *Because of the deprivation, it's not only health issues. There's the social issues, the housing issues, the rurality and … if you're going to cover one thing, you leave the others behind. (4:110-114)*

Other groups discussed the conflict between their support of screening in principle and their awareness of the limitations of current primary health care for screening the target population. Those who most needed help were often the hardest to reach:

> *Just getting people in here would be difficult. I'm not sure what or how you'd get them in…Just working out how you'd see them – there'd have to be some ways of actually promoting the screening programme and working out appropriate ways to get people in and that's all manpower and cost. Ultimately cost! (10:252-256)*

Others realised that the expectation that clients would visit a clinic for screening was unrealistic and that they needed to change the way they operated:

> *I think the whole approach… needs to change. You look at Mäori men aged 35. They're at work doing things and …you look at the primary health care hours we work, you know (1:278 – 283)*

Nurses employed by Mäori health providers offered cardiovascular risk assessment as an outreach service and this enabled them to action their Kaupapa Mäori[29] approach (8:23-30) and to take the time needed to enact a whole person view of health (9:318-323).

Some data codes mapped to the indicators for Low in relation to values and beliefs implied in the culture of their workplace. Several nurse focus groups considered that a culture shift was required to overcome a persistent disease/illness focus in the General Practice environment. They felt that both the attitudes of health professionals and also a lack of

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Adhering to Mäori beliefs, values and protocols funding created this barrier and impacted negatively on the implementation of the guideline. One group agreed that:

> *…some people find it really hard to care. You know 'I'm the professional' and it's supposed to be that caring component. Some people I don't think they really have the art. For the client to become self managing. That's the goal. It's knowing how to get there. A Journey in itself (3:413-421)*

Several groups recognised that poverty disconnected their clients from the health service so that clients were hard to reach, while others were puzzled about the lack of accessibility of their service. A comment made in one group seemed to be an attempt to make light of their frustration about accessing potentially high risk people for cardiovascular risk assessment:

> *Nurse 1- I know one of the suggestions was trying to target someone in the community for the heart programme that may have already had a heart attack and made lifestyle changes but also had some standing in the community and using them as a liaison person to go into these workplaces perhaps and …*
> *Nurse 2 – Are you saying that such a person exists? [Lots of loud laughing] (5:576-582)*

There were a number of other comments that indicated a sense of frustration of health professionals not knowing how to have more impact on their clients. For example:

> *I mean we're getting nowhere… They are in cyclic poverty, a lot of them. They are large families. They've got large family histories and it seems like, not that it's anyone's fault, but it looks like the medical teams don't really give a toss. They don't mean to and the patients are difficult themselves because they won't present and they give this opinion like that they don't want anything done. That's not true. They do want things done but they don't know how to access it properly.(9:14-29)*

> *You tabulate how many visits they've had and how many prescriptions they had and the costs over a year and then WINZ [Work and Income New Zealand] will say –"Right we'll increase your benefit by so much a week or fortnight… which has always been a problem. Because it ends up in the TAB [horse-racing betting agency] or spent on clothing or whatever – but not spent on health care. (10: 108-117)*

On balance there were more data indicative of High than Low for "Able to define culture(s) in terms of prevailing values/beliefs" and "Initiative fits with strategic goals and is a key practice/patient issue". Implementation of the guideline as a key issue affecting their communities was especially obvious and there was congruence of values and beliefs for addressing inequalities and reducing cardiovascular risk.

Rewards/Recognition/Values individual staff and clients. These indicators refer to recognition and rewards given to staff for their work and how individual staff and clients are valued in the context of healthcare. Although there was no specific mention of staff being identified for recognition, there were several comments that showed an appreciation of nurses' collective energy and commitment to AMCVR guideline implementation. Nurses were seen as taking the lead:

> *My sense is that nurses are taking it [cardiovascular risk assessment and management] and running with it but there's some way to go for other parts of the team. (1:187)*

> *… nurses have just jumped at this whole new approach working with patients using the cv guidelines or some other chronic care. It's as if the nurses are doing what they became a nurse for. Nurses have just jumped at this. They've actually*

> *become "Like I'm home!" so that philosophy seems to be catching easier for nurses than GPs. (4:62-68)*

There was enthusiasm for nurses to take on new roles and ways of practicing in the face of the growing burden of chronic illness, an ageing health workforce and a shortage of rural GPs. The PHO managers recognised the potential for nurses to lead the way:

> *The future of primary health care in [the region] is definitely going to be nursing led. You know a few years ago you would have only two doctors and one nurse. Now, it'll be one doctor and 3 nurses to do the care of that population. (4 :259-262.)*

Promotes learning organisation. The PHO manager group agreed that ongoing learning and development was essential but that it must be relevant and meaningful to the workforce:

> *… you've also got to have the smorgasbord of choices available because you're still going to have some people who are on the other side of the hill and not …postgraduate training [but] still need to keep up with the stuff but again you know it's less a priority for them so there needs to be support so encouragement for them to develop. You can't stay still. (4:238-244)*

Consistency of individual's role/experience to value: Teamwork, Relationship with others, Power and authority. Many changes in primary health care, for example funding streams, governance processes and requirements of health providers, have affected health professional relationships and teamwork. Several participants acknowledged that although there was a "big culture shift" (1: 491-498) going on, health promotion was not embedded into everyday General Practice as much as disease treatment. Nurses indicated that they were comfortable with health promotion work but they thought that some doctors were unsure about their role. One nurse recalled a doctor saying:

> *I haven't trained to promote wellness. I'm a doctor and I fix illness. This is a big shift for me to think this way (1: 442-444).*

The doctors' group agreed that nurses could take on much of the work involved in implementing the guideline recommendations. The viewpoint of doctor-as-employer, allocating and delegating work to nurse-as-employee, was illustrated in the following quote from the doctors' group:

> *[Nurses] could do basic cv risk because all you need is to get the correct information and feed it in and they could certainly educate patients about the risk and what that really means and they could do smoking cessation training. It would be great to have more people available to do that. .And the follow-ups, they could do a lot of the chronic care follow-ups (10:272-281).*

Nurses working for GPs found that implementing the guideline exposed both supports and constraints that impacted on teamwork:

> *Nurse 1 - And GPs wanting to maintain autonomy and wanting to maintain power … having chosen their area of work which is General Practice and wanting to continue doing that. Not wanting to have their work taken away and being told to do something different or their work given to the nurses.*
> *Nurse 2 – But part of that is that really special relationship that GPs have with their patients that they value very highly and I think that GPs are often reluctant to share information, to let nurses do work that they do, because they have inherited and acquired a huge amount of trust with people and they don't want to lose that trust. (1:499-512)*

On the other hand, there were many indicators of positive teamwork and working differently to implement the AMCVR guideline. In particular, in organisations where doctors and nurses were both employees, their relationships with each other were more collegial. One nurse group spoke about how the multidisciplinary team regularly reviewed client care:

> *We have regular case reviews with our medical officer and that's when the guidelines… we see a patient with cv disease and they might be on ACE inhibitor but they need Cartia [aspirin] as well … and say oh his lipid levels are up. He needs a statin. So in that case review with the GP they are able to write up the prescription …Our management is constantly being looked at with the guidelines so that we are running alongside. (3:180-192)*

For other nurses the changes in primary health care had brought in a change of pace and expectations that had fostered closer teamwork with doctors, irrespective of employment status:

> *It's up to us a lot over the last few years. The pace has definitely changed. You've got to work much quicker. There's more expected*
> *… you work with the GP as a team and I think over the last few years … it's become a team effort so … that the doctor talks to the patient [in a way] that makes you feel good and gives you a feeling that … trust and respect (2:557-564).*

The way that teamwork and relationships affected guideline implementation is congruent with indicators for both high and low for culture. Several participants spoke about a lack of coordination and teamwork between those in General Practice and those working for Mäori health providers. The GP group said that the lack of communication and planning between the two provider streams lead to fragmented services and potential double-ups and gaps because they did not know about any of the activities of the Mäori Health Provider in their area (10:236). Nurses employed by a Mäori Health Provider in a different area were equally disconnected from health professionals at the local GP clinic and "felt like second-class citizens" at a recent community meeting. These indicators of "Low Culture" for the lack of inter-provider collaboration function to interfere with local coordination of guideline implementation.

On the other hand, the PHO managers' perspective was that, regionally, their collaborative, non-competitive teamwork brought planning and funding together in a way not possible before they were set up. Regional cohesion had lead to programmes being delivered across the region, for example One Heart Many Lives, Careplus, PREDICT :

> *some principles of community development, community actions models Ottawa Charter stuff is absolutely critical in how you can move a community to be a whole… support for community and how the reduce the barriers for the community not getting there. So that stuff I think is critically important. (4:284-288)*

A nurse focus group explained the necessity of building allegiance with a community and the importance of working with leaders who use their position to influence and motivate. The following quote indicates how one nurse focus group worked through a community leader to encourage cardiovascular risk screening. The catchy slogan, "Pleasure, Treasure, Measure", was central to the campaign:

> *Nurse 1 - Oh X is the social worker and I think .. the manager for social services … Because [place name] isn't my area and he's the advocate for One Heart Many Lives … to the community ….And X's been advocating and promoting CVD screening. X really wants it at [place name] and really identifies self as a risk person. But also X's looking at strategies of how we can get into the meatworks. How we can tap into areas like the taverns.*
>
> *Nurse 2 - Anything that has a high population of males - X is a really good advocate in that area for us X's really close to the kaumata and kuia and on the otherside.. the exercise. 'How far can you bike? And if you get the furtherest you get a meat pack' … and there's another thing that if you do the screening there's a prize because X believes in "Pleasure, treasure, measure" (3:289-299).*

Once health professionals had identified those at risk, their follow-up work with clients was reliant on health professional actively collaborating with a wide range of social services:

> *One of the challenges for CV screening is that you have to have services to refer people to. No point in identifying a risk if you can't do anything about it. … It has been about everybody making sure that everyone has access to the range of services … I mean it's not just a matter of saying "You've got a risk here. Take a pill (4:133-137)*

Resources—human, financial, equipment – allocated. All participants expressed their concerns about the lack of resources available to them to implement the guideline. The DHB, PHOs and General Practices were required to increase numbers and widen the age range for cardiovascular risk assessment and management but within existing budgets and with no disinvestment in existing services. Human resources were lacking in numbers, skills, knowledge, experience, forward planning with an ageing workforce and not enough time to do what was expected. A lack of financial resources, as well as a workforce shortage, caused a lack of equipment required to carry out risk assessment. Poor internet and mobile phone coverage was a hindrance to electronic support. The lack of resources to do the job was a common topic, voiced freely and with passion by focus groups and interviewees.

Doctors and nurses in General Practice were adamant that they did not currently have the workforce capacity required to assess and manage cardiovascular risk for the target population. The doctors' focus group had proportionately the most to say on this topic and all of the nurse focus groups also contributed to data for this indicator. A number of comments offered are outlined below.

There were not enough nurses:

> *I don't think there's much doubt that you can use practice nurses to do 80% of the work probably but you've got to have the numbers to be able to do it and that's really what it boils down to. (10:206-208)*

The work involved in screening for risk was only one part of the problem. The follow-up care was not feasible:

> *Doctor 1 – The problem is that the nurse is a finite resource and the problem is that if you look for more work, you haven't got the nurse hours to do it.*
> *Doctor 2 - I don't have any doubt that that's the role of the nurse in chronic disease management but you've got to have the nurse to be able to do it; and you've got to have a nurse who's trained to do it, to start with, in the hours available. And that's the biggest problem we face is we don't have the scope to increase our nurses numbers. In fact probably the reverse, and so adding in an extra layer of what is quite significant nurse involvement is just not feasible. (10:132-139)*

Case finding uncovered work that was beyond their capacity:

> *So the risk assessment takes a certain amount of time and you've got the blood test, you've got the risk, but it's the flow-on from that really. It's persuading someone they need to take aspirin or start on a blood pressure med or stop smoking. It all takes time and you can't manufacture time. (10:239-252)*

Areas with high health needs were worst off:

> *And then once you start intervening you've got vastly increased nursing input plus medical input and follow-up issues and all the things that go along with that. So it's grossly under-resourced. If you want to implement something like this and actually make it work, then you need to resource it, particularly in areas like ours where you've got such high morbidity because we have such a huge patient base who are eligible for it.(10:42-46)*

Providers had to compete with each other to employ nurses:

> *We have local hospitals, we have our iwi providers, you know all wanting the same small workforce … there's not enough of them (10:57-62)*

General Practices are run as private businesses with no capacity to do more for the same income:

> *Well it's a business. It's got to make money to stay afloat so sometimes you can't always have nurse time where we would like it. Because we don't charge to do these assessments. (5:305-307)*

The shortage of doctors was also acute:

> *We've been a doctor down and we've had doctors filling in. One guy came for 3 months and then when he left another one filled in for a month now we've got a couple of part-time that are just 2 days a week (2:513-521).*

> *You know some of the GPs are getting really stressed at the moment*
> *They are getting tired. They are putting in really long hours and there's not that many locums around You know they come to work if they've got a cold they come to work. You know they just keep going (2:255-267).*

Several of the nurse focus groups spoke about how the pace of their work impacted on their capacity to implement the guideline. One group of nurses contrasted the difference in the pace and quality of their work between when they "worked for the GPs"(2:496) compared with when they had scheduled clinics designated to implement the Careplus[30] programme. When they were assisting doctors with seeing their own clients:

> *Nurse 1 - We run. You know people say to me how was your day? I say, "You know I've run all day." The doctors are too busy. They've got too many patients. Because of the lack of GPs...*
> *Nurse 2 - I have no time to go to the loo whatsoever.*
> *And you don't get time to drink – no time (others talking over the top)*
> *Nurse 1 - Let alone lunch*
> *Nurse 3 - ..you're putting yourself under stress like that I don't think you are working to your full potential*
> *Nurse 4 - No*
> *Nurse 2 - No*
> *Nurse 1 - You make mistakes (2:484-504).*

However, when they had scheduled clinics to see Careplus clients, it seemed that they thought their practice to be entirely different than when "practice nursing" (2:493):

> *Nurse 1 - You often do 45 mins so I have enough time to go over time and then I can do my paperwork later. Yeah and often in that first little bit when you're talking with patients about problems that they have … not necessarily on your agenda at all but you deal with what's important to them. They are more ready to be exchanging...*
> *Nurse 2 - Toilet breaks. I get toilet breaks now that I never got when I was practice nursing (2:484-496).*

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[30] Careplus is a separately funded programme in which people with two or more chronic co-morbidities received extended appointments at no charge to work on a self-management plan in partnership with clinicians.

This exchange captured a dichotomy that nurses experienced in their practice when working sometimes in an assistant role to doctors and other times when seeing clients in their own clinics. The extra funding coming into General Practices for Careplus has created the opportunity for nurses to work one-to-one with clients in partnership in a way, that it seemed, could not be afforded without extra funding support. Participants were adamant that in General Practice, there is limited capacity for the time and staff required to work with clients to reduce a cardiovascular risk score of over 15:

> *And then once you start intervening you've got vastly increased nursing input plus medical input and follow-up issues and all the things that go along with that. So it's grossly under-resourced. If you want to implement something like this and actually make it work, then you need to resource it particularly in areas like ours where you've got such high morbidity because we have such a huge patient base who are eligible for it (10:41-46).*

Most of the nurse groups and the manager group spoke about what was needed to optimise the capacity of the current health workforce to implement the guideline. They identified a number of challenges and supports that affect the building of skills, knowledge and experience of nurses and doctors. Challenges included

- remote access to professional development for nurses in rural areas
- finding nurses with skills and experience to implement Careplus
- opportunities and time to practice new ways to engage with clients, families and communities

- getting back-fill for staff to meet and exchange ideas or to attend professional development
- encouragement and support required for doctors to work differently
- inadequate Mäori health workforce to work in regions with predominately Mäori populations
- lack of allied health professionals e.g., dietitians, sports advisors
- lack of access to gaining the specialty knowledge of primary health care nursing
- Ageing of the nursing workforce
- Reluctance of some health professionals to change their practice when they were near the end of their career.

Supports included:

- Careplus funding enabled nurse clinics for improved relationships towards client self management
- PHOs have added an additional layer of support and workforce initiatives
- Collegial multidisciplinary relationships when doctors and nurses are both employees of an organisation

The challenges were numerous and complex, unlikely to be alleviated by any single solution – for example, an injection of funding, or more staff – but would require a combination of interlinked solutions, careful planning and managing to build workforce capacity.

Basic assessment of cardiovascular risk requires minimal equipment to assess seven factors - age, gender, blood pressure, total and HDL cholesterol, smoking, and diabetes status. The calculation of risk can be calculated quickly by entering the client's clinical details into web-based software, PREDICT (described above). This programme processes client information and produces a cardiovascular risk score that becomes the basis of working with a client to reduce risk to an optimal level. When clinicians use PREDICT, they enter an anonymised electronic record of each patient's risk profile into a national database, building and enabling ongoing epidemiological research. The value of PREDICT has been acknowledged above. However, access to the internet and a laptop computer are not always available for nurses working outside of a clinic setting. The more remote the practice setting, the less likely they were to have internet and/or mobile phone cover.

Nurses have adapted their practice to accommodate limited access to PREDICT online. Some even preferred to work with hard copy when with a client and enter information into PREDICT later because they felt that working with a computer detracted from the quality of their interaction with clients. According to one group:

> *Nurse 1 - PREDICT is nice and it stores the stuff well but you have to be attached to the internet.*
>
> *Me – And you're not?*
> *Nurse 1 – Well, not in outreach, you're not.*

> *Me - You have to have mobile cover don't you?*
> *Nurse 1 – Yeah got that but even then it won't populate until you put in the NHI number. It has to have it on the system and if it hasn't – because mostly it will self-populate but imagine the girls having to do that. It takes half an hour and so when I do it, it takes a full half hour. Imagine that! And it detracts from the interview so you don't get all the info (9:261-270).*

Summary of culture. Overall, participants' conversation about their workplace culture aligned with the indicators for high culture as shaded in Table 7.7 below. In particular, codes were mapped to high for prevailing values and beliefs, relationships, and the fit of guideline implementation with overarching goals. However, all of the nurses and doctors in focus groups were clearly of the opinion that inadequate resources were allocated to implement the guideline.

Table 7.7

Shaded Indicators for Data Mapped to Culture

Culture	• Unclear values and beliefs • Low regard for individuals • Task-driven organisation • Lack of consistency • Resources not allocated	• Able to define culture(s) in terms of prevailing values/beliefs • Values individual staff and clients • Promotes learning organisation • Consistency of individual's role/experience to value • Relationship with others • Teamwork • Power and authority • Rewards/recognition • Resources—human, financial, equipment – allocated • Initiative fits with strategic goals and is a key practice/patient issue

Leadership. The second sub element of Context, leadership, focuses on the style and processes that leaders adopt in practice and the impact that has on the likelihood of successful implementation of evidence into practice (Rycroft-Malone, 2004). The indicators for the low end of the leadership continuum, are about a traditional command and control role and the negative effects this has on Context (see Table 7.8 below). High leadership is transformational and affects the context positively through enabling, challenging and inspiring others (Rycroft-Malone, 2004). The following sections will present the data codes that mapped to leadership and indicate how the data mapped to the indicators for both low and high leadership.

Table 7.8

Indicators for low and high Leadership

	Low	High
Leadership	• Traditional, command, and control leadership • Lack of role clarity • Lack of teamwork • Poor organisational structures • Autocratic decision-making processes • Didactic approaches to learning/teaching/managing	• Transformational leadership • Role clarity • Effective teamwork • Effective organisational structures • Democratic-inclusive decision-making processes • Enabling/empowering approach to teaching/learning/managing

Role clarity/Effective teamwork. In the main, the nurse focus groups had the most to say about teamwork and role clarity – with data mapped to both high and low ends of these continua. One nurse focus group was surprised that GPs had come on board quickly with implementation of the guideline compared with previous changes:

> *It's happened a lot quicker than things in the past. They've actually taking it on board. This is a good idea so they've actively encouraged – you know they actually*

> *support the nurses to do them. Rather than say, "No, no we haven't got time for that." (5:276-280)*

Teamwork between doctors and nurses was enhanced through the introduction of Careplus. Delivery of this programme freed up traditional "doctor sees patient and nurse helps doctor" ways of working to one that was more associated with teamwork with nurses seeing clients one-to-one following a doctor's referral. This reduced the chronic care workload for doctors and paved the way for nurses to take on a more direct client care role. The financial incentive that came with Careplus was, no doubt, a factor in its uptake and there were other positive spin-offs for doctors and nurses. A nurse in one group spoke about the effect of this role change on how the client might perceive seeing a nurse rather than a doctor when they come to the "doctors":

> *From my perspective, [the doctor] tells the patient "You've gotta see [the nurse] for the Care Plus programme. She'll explain it all to you." So they've been told and suddenly they think what's it all about? I'll sit down with them to discuss [Care Plus] and they'll go "Oh looks alright" But [the doctor] says" I tell them to see you and you give them the gen." and they realise that she's enthusiastic for them to do it and that sort of does help if the doctor suggests it would be a good programme.(2:230-235).*

Another nurse in that group also attributed improved teamwork to unburdening GPs from some of the workload of consulting with clients with chronic conditions. The teamwork context described is consistent with 'high' leadership:

> *Yeah. it's good for team work, though. The GPs are noticing the difference. Like one GP I work with was a bit skeptical about how it would all go but now he's*

> *noticing the difference. So that people with chronic diseases aren't taking up all the doctors' time with the same questions. They don't come in asking about their pills. They've got a lot more education so they're more at ease about how things are going because they are more in control. So the doctors are rapt because it saves them time. So it's good teamwork. (2:202-208).*

With nurses adopting new roles, role clarity is essential so that the limits of nurses' scope of practice are understood and upheld in the team:

> *… nurses have to be aware because we are so busy you know you get pressure put on you by people ringing up. You know you have to be aware that you don't work outside your skill base ... you've got to have accountability for your work in your relationships with your doctors so you aren't intimidated … you know you've gotta be free to go and say "You know I'm not sure about this". Because you can come a cropper if you don't watch it.(2:617-623)*

The focus group of GPs was enthusiastic for a more active role for nurses in follow-up following cardiovascular risk assessment, but only on the condition of an increase in funding:

> *As part of the team, I think they [nurses] could be utilised hugely as part of the ongoing management and education. But we really need to be resourced at this end. I'm amazed…but there's no resourcing as to how we do it! No resourcing at this end!. It's just a crazy situation! It's not going to work! (10:286-298)*

Another constraint on nurses' practice in working with clients to manage their cardiovascular risk was their lack of authority to order laboratory tests. The PHO managers all agreed that an extension of nurses' roles in ongoing cardiovascular risk management but recognised that current limitations prevented nurses from ordering and receiving essential clinical information from diagnostic laboratory tests:

> *We talk about the extended role of the nurse we see that it hasn't kept up in terms of liberalising the things like laboratory testing. In CVD screening that's a huge constraint. They might have the extra skills and knowledge but they can't do the deed because they are not able to sign the piece of paper. So we've got to try and line the ducks up like that too you know. (4:289-293)*

Participants spoke about the importance of teamwork not only in their workplace but also across the region. The six PHOs in the region formed an alliance in 2004 as a collective agency that would develop common goals and maximise the combined resources and knowledge available to the group. A non-competitive environment was enhanced through population-based funding that included the same 'top-ups' across the region:

> *…getting people together on regional projects is a huge strength. But I think one of the key things about the rollout of the Primary Health Care strategy was the funding – that all of [the region] was Access funded right from the beginning and that set a great level playing field for working together and not that competitive model … (1:26-28)*

Others, however, spoke about the need for better communication and team work between social agencies and primary health care providers. Better networks and liaison between GP practices and their communities was called for:

> *Nurse 1 – We have a community diabetes, lay community liaison person. Who else do we have?*
> *Nurse 2 – not terribly much more I wouldn't think.*
> *Nurse 1 - don't know if they are lay or all registered nurses I'm not sure*
> *Nurse 2 - I think they actually go in and take bps and things of people who have already got diabetes and heart disease.*

> *Nurse 3 - If we did have a person who did that typically they would be a key person in targeting oh you know like finding out how it's received in the community and then encouraging people to come along. You know sort of like a bridging with the person at home and getting them to come in' "When can I have this done?" "What happens when you have a cv risk?." [For] some people it's a huge barrier and they think "Oh I'm not going to go in [to the clinic] and ask that." (5:555-575)*

Role clarity was especially low in relation to the work of nurses employed by Mäori health providers. The nurses were clear about their role but they explained that doctors and nurses who worked in General Practice did not understand what they did and had criticised them:

> *Nurse 1 - I think that one of the strong things that we do – and we're getting stronger at it over the last .. well since I've been here. Because a couple of times we get a lot of criticism about what we do when we're over there [at the medical centre], right? And … finally we've decided to put our selves out there and say, "We don't do what you ...but we deliver care in a different way… we're not a medical centre. …This is a nursing service.". But nobody knows what a nursing service is!*
> *Nurse 2 - But [when the manager gives a] presentation, people sit there and go "Oh it's amazing" when it's presented in a structured power-pointy sort of way. (9:591-601)*

The doctors' focus group had no idea about the role of Mäori health provider nurses and that they were disgruntled that funding went directly to Mäori health providers for unknown services. Another issue for them was lack of coordination between Mäori health providers and 'mainstream':

> *Doctor 1 – We don't really know of any services that they [Mäori health nursing service] provide here. We just don't really know. There has been, over the past years, promotions that were supposed to have happened like mammography, Hep*

> *B programmes but we've never been terribly aware of them at this end of their area that they cover. We've not really seen how they..*
> *Doctor 2 - (interrupting)– Despite them getting funding to do that. I mean Hep B was a case in point. They got $25,000 for promotion and there was no sign of any promotion here. We do…*
> *Doctor 1 (interrupting)– On Mäori radio I think it happened.*
> *Doctor 3 - Yeah but you know that's diddly squat really. Mäori radio you know. You need a lot more outreach things and so on which never happened (10:187-197).*

Organisational Structures. Data mapped to both high and low indicators for organisational structures. The organisational structures in Mäori providers were reported to be effective while those in General Practices are thought to be anchored in an out-of-date service delivery model.

The organisational structures of Mäori Health Providers were reported to be effective because they enable flexible, mobile, free-of-charge and responsive primary healthcare. Although the services they provide are not limited to Mäori clients, a large proportion of their clients are Mäori and they adopt a whole health care team approach to address the health and social issues that affect their clients. Nurses deliver healthcare wherever, however and at a time most acceptable to their clients. They take into account the barriers to access of healthcare such as, cost, lack of transport, and mistrust of mainstream health services:

> *Within the organisation that I work for, and it's because we are so Mäori health driven, we have initiatives that we are driving forward. We are quite a small team but we are quite wide in the type of skills we are able to offer our community. There's innovative programmes about to be kicked off very shortly within One Heart*

> *many Lives and so we are going to combine not only the nursing skills but the health promotion skills and medical skills targetting – a programme that's been worked out within the organisation targeting going wider within the community. Does that make sense? (6:138-145)*

On the other hand, GP practices are traditionally organised to provide illness care rather than reaching out to a healthy community to provide cardiovascular risk screening. Health professionals in General Practice reported that they are so consumed with dealing with fast-paced, clinic-based illness care that they lack opportunities to practice differently. The PHO manager group agreed that a shortage of health professionals in the region was a barrier to change:

> *… the workforce itself is diminished in terms of numbers so the pattern of work has always been episodic rapid and missed cardiovascular risk screening which needs a proactive approach and that's quite a different model and resource-intensive and so I think moving from a reactive to a proactive model challenges the area. (4:30-34).*

One nurse focus group suggested that the business model structure of General Practice was an impediment to the changes required for contemporary primary health care:

> *It's coming from a business model. In the pilot that we're running, we're paying protected time for nurses to do that so it's protected time for targeting and getting people to come in [for cardiovascular risk assessment] because even though PREDICT was put on every Medtech computer in [the region], in many practices it just sat there and hasn't been used. Because the idea was to do it opportunistically and in [one PHO] there's probably three GPs who have made a commitment to do that. The rest say you know "Oh well. I just haven't got the time".*
>
> *… .the pilot down here have done intensive training but …if we make a commitment to some training we'd also have to make the commitment of paid*

> *protected time. Otherwise it just won't happen. That's why Care Plus has worked because it's got protected time. (4:414-528)*

Practice nurses found that a lack of communication with nurses in other general practices impeded teamwork and shared goals across the region, a challenging endeavour for nurse leaders:

> *Nurse 1 - No it doesn't take a lot of time. It takes buy-in from all your practice nurses*
> *Nurse 2 - Yeah. Every time you have a face to face contact with the patient you flick up the risk assessment to discuss. "OK we are missing your [fasting lipids]… you haven't had that done lately. Do you mind if we do it?"*
> *Nurse 1 - But to turn the place around you have to have team work, common goals. So it's opportunistic screening (2:346-357)*

The limitations of traditional GP services are that clients are expected to get themselves to a GP clinic for health care, during usual working hours and irrespective of where they live or work. The nurse leaders' focus group recognised the need for changes in the way that primary health care is delivered:

> *Nurse 1 - I think the whole approach needs to change. You look at Mäori men aged 35. They're at work doing things and so from a Mäori health perspective, they say a marae or workplace.*
> *Nurse – 2 You look at the primary health hours we work you know*
> *Nurse 3 - No weekends*
> *All laughing*
> *Nurse 1 - Yeah and it's looking at a whole new way of, OK how as providers do we… you know the timing. Do we use a glide time to access those people and then I 'spose working to the guidelines would be quite easy because you ensure that you have the optimum of whatever the guideline says but it's how do you actually engage with those people at risk is the difficulty. If they're scattered and if like in the Far North there's the petrol costs and all that and how do they access that or a primary health nurse access them? (1:257-268)*

However, mass cardiovascular screening would expose serious shortcomings in the capacity of healthcare services to follow up with the care required according to cardiovascular risk scores. One group of nurses voiced what they feared most of all:

> *Nurse 1- There's no point screening if you can't follow up with what's required*
> *Nurse 2 - a lot of talk about where these people are… but there was nothing actually about what you gonna do when you've found them. Who's gonna pay for all this extra work that is going to be done?*
> *Nurse 3– … they may not be our patients … If you identify a risk, how are you gonna manage non-registered patients. And then again how do we manage the registered patients with, you know cvd risk, if we are already stretched doing a lot of Careplus. (5:246-257)*

The impact of organisational structures on guideline implementation at the level of day-to-day practice was represented consistently in the data and from all occupational groups of participants. Indicators for High were fewer than for Low.

Enabling/empowering vs didactic approaches to teaching/learning/ managing/Democratic-inclusive vs autocratic decision making processes. Approaches to teaching and learning in General Practices depended on the organisational culture. Nurses spoke of difficulty getting paid leave for professional development not only because of the reluctance of employers to release them but also because of the lack of staff for back-fill. Consequently, a great deal of professional development was offered in the evenings and at weekends and rarely addressed nurses' immediate learning needs. The third element of the PARiHS model, Facilitation considered below, clearly reveals the teaching/learning that participants reported that they needed.

In general, nurses' conversations about the environment of their work indicated that those employed by GPs as practice nurses experienced few opportunities for innovation and change. As indicated above, participants viewed the fast pace of their work, constant time pressures and limited resources as barriers to changes in nursing practice. An enabling and empowering approach to management was, however, evident in two nurse-led initiatives outside of General Practice. The nurse leader group spoke about how their positions were established and are supported. The Ministry of Health had called for proposals for funding for innovative nursing projects in primary health care and a proposal for three nurse leaders to be based in PHOs with the aim to bring together primary health care providers in the region. They attributed the success of their roles to ownership from 'bottom-up':

> *And I think that has been the success of the project. Do you agree that it came from the bottom up? We've always said that the model came from the group - from the nurse leadership group and we always at every step of the way our roles have been supported by the people who put us there in the first place. (1:37-41)*

There are now five nurse leaders who have completed numerous projects aimed at avoiding overlap and gaps among Primary Health Care providers. They took an early lead in a project to establish five Nurse Practitioner (NP) positions in the region. The positions have all been filled, two with Nurse

Practitioners and the remainder with nurses who are being supported to complete the preparation for NP status.

Summary of leadership. Data that were mapped to the indicators for Leadership revealed a disconnect between Mäori Health Providers and 'mainstream' GPs. Misconceptions about roles and the lack of coordination and collaboration of providers have impeded the development of comprehensive strategies to implement the guideline. Table 7.9 illustrates how data were mapped to Leadership.

Table 7.9

Shaded indicators for data mapped to Leadership

	Low	High
Leadership	• Traditional, command, and control leadership • Lack of role clarity • Lack of teamwork • Poor organisational structures • Autocratic decision-making processes • Didactic approaches to learning/teaching/managing	• Transformational leadership • Role clarity • Effective teamwork • Effective organisational structures • Democratic-inclusive decision-making processes • Enabling/empowering approach to teaching/learning/managing

Evaluation. Organisations that seek feedback on their performance are more likely to be receptive to change (Rycroft-Malone, 2004) so that the third sub element of Context, evaluation, is crucial to ongoing improvement of healthcare. The broader the sources of evaluative data, the more likely they are to have relevance to the complexities of a practice context. Table 7.10 below details the indicators for low and high evaluation and the following section explores the data that related to evaluation of health care services in the context of this study.

Table 7.10

Indicators for low and high evaluation

	Low	High
Evaluation	• Absence of any form of feedback • Narrow use of performance information sources • Evaluations rely on single rather than multiple methods	• Feedback on Individual Team System performance • Use of multiple sources of information on performance • Use of multiple methods • Clinical • Performance • Economic • Experience evaluations

The eight data codes that were mapped to evaluation indicated overall that this sub element of Context was poorly represented in the data. Feedback on performance was limited to the numbers of diagnostic tests performed and medication prescriptions written. In general, reliance for feedback on such a narrow information base has limited the evaluation of services provided.

One nurse focus group commented that data were provided as part a computer-based chronic care management programme. The trends were useful as the basis for discussion within the team about how to improve the care they gave. Referring to one general practitioner, a nurse said:

> *She's very much into reading that information that comes out and making comments back to me and then she'll leave me a note –"We need to talk about this" and we'll sit down and go through all the bits and pieces. So it makes it much easier when your doctor is reading all the information coming back … and you sit back and think well, what do we do, where will we go? (2:639-642).*

There was a lack of feedback available to nurses about their own practice:

> *… there's no measured way to gauge the nurses on their competencies on that because it's quite individual. It's quite personal.eh? … each nurse could be quite different. (3:428-430)*

Although national/regional statistics are improving overall for cardiovascular disease and data are available for a 'big picture' view, systematic 'small picture' feedback to General Practices and Mäori health providers was not readily called to mind by participants. One participant was of the opinion that there…

> *… needed to be new models of healthcare because even though we're making improvements in health disparities, there still a widening gap between Mäori and non-Mäori … . It's something that we are really on the frontline of. So because of that we also have looked at [models of care] what isn't working or when something isn't working, why is it not? (6: 26-33)*

Evaluation that relies on single rather than multiple methods is an indicator of low evaluation. A wider view could include client satisfaction data, audits of the ongoing effects of initiatives, eg the 'One Heart Many Lives' project. Constructive criticism of performance is important as a solid basis for team discussion in ongoing quality improvement (11:192-199).

As one funder/planner said:

> *We need to be looking at other ways of evaluating service and also recording that performance… The very rich stories [within] the narrative of a report ..as indicators of Mäori health gain. And that hasn't been done yet ..(8:122-30)*

Evaluation as a sub element of Context ranks as low overall according to the findings. While there appeared to be some appreciation of, and enthusiasm for, gaining feedback, the energy, commitment, planning and resources needed for systematic evaluation appear not to be available within the organisations the participants worked for. Where data were entered into a database as part of an electronic care management programme, there was at least some feedback available at the individual health provider level.

Summary of Context. The context of practice is multidimensional and Primary Health Care in New Zealand is no exception with various providers, funding streams, employment arrangements, organisational structures and a number of competing interests. An important feature of the context of this study is the imperative for healthcare to be culturally appropriate for Mäori given the inequity of prevalence of health problems across the board. Many of the PARiHS framework indicators for both low and high Context were found in the data and a number of environmental factors affecting implementation of the guideline have been identified. However, data could not be mapped to some of the indicators, for example for leadership and evaluation, indicating a gap in these aspects of Context. Overall, as indicated in Table 7.11 below, data codes were mapped more to high for culture with some mapped to low; for leadership there was a fairly even balance of high and low; and the few data codes that were mapped to evaluation were low.

Table 7.11

Shaded indicators for data mapped to Context

Context	**Low context**	**High Context**
Culture	• Unclear values and beliefs • Low regard for individuals • Task-driven organisation • Lack of consistency • Resources not allocated	• Able to define culture(s) in terms of prevailing values/beliefs • Values individual staff and clients • Promotes learning organisation • Consistency of individual's role/experience to value relationship with others • Teamwork • Power and authority • Rewards/recognition • Resources—human, financial, equipment – allocated • Initiative fits with strategic goals and is a key practice/patient issue
Leadership	• Traditional, command, and control leadership • Lack of role clarity • Lack of teamwork • Poor organisational structures • Autocratic decision-making processes • Didactic approaches to learning/teaching/managing	• Transformational leadership • Role clarity • Effective teamwork • Effective organisational structures • Democratic-inclusive decision-making processes • Enabling/empowering approach to teaching/learning/managing
Evaluation	• Absence of any form of feedback • Narrow use of performance information sources • Evaluations rely on single rather than multiple methods	• Feedback on Individual, Team, System performance • Use of multiple sources of information on performance • Use of multiple methods ● Clinical ● Performance ● Economic ● Experience evaluations

Facilitation

Facilitation involves a process in which a facilitator enables the transfer of evidence into practice. A ‘holistic, enabling’ approach to facilitation is more likely to support thoughtful, client-centered implementation of research findings rather than a ‘task’ approach (G. Harvey et al., 2002). However, even though a 'task, doing for others' approach limits the development of skills, confidence and knowledge, it may in some circumstances be appropriately pragmatic in situations that require rapid and standardised change (G. Harvey et al., 2002). This was not the case in the context of this study so that a holistic, enabling approach would be indicated for successful implementation of the guideline. Table 7.12 presents the indicators for Facilitation identifying the nature of the role, the skills and the attributes of a facilitator.

Table 7.12

Indicators for Facilitation

Facilitation		
Purpose Role	Task	Holistic
	Doing for others • Episodic contact • Practical/technical help • Didactic, traditional approach to teaching • External agents • Low intensity—extensive coverage	Enabling others • Sustained partnership • Developmental • Adult learning approach to teaching • Internal/external agents • High intensity—limited coverage
Skills and attributes	Task/doing for others	Holistic/enabling others
	• Project management skills • Technical skills • Marketing skills • Subject/technical/clinical credibility	• Cocounselling • Critical reflection • Giving meaning • Flexibility of role • Realness/authenticity

On mapping data codes to Facilitation, only 23 of 375 data codes could be so mapped, and even then the linking of data codes to indicators was not a comfortable fit. Instead of talking about personal style, attributes and skills of a facilitator, participants spoke about professional development that they needed to gain the skills and knowledge required for them to implement the guideline. The position of facilitator did not exist, per se, and participants did not speak about how such a person would work with them. Therefore, in the absence of data that mapped coherently to indicators for low and high Facilitation, data codes were considered for their relevance to the professional development needs as stated by participants in this study. This approach was useful in that it revealed the participants’ perceptions of their learning needs for implementing the guideline.

The lack of fit of data for Facilitation has been a useful finding on two counts. Firstly, the facilitation of evidence into practice is for people who will be implementing the recommendations, usually health professionals. However, in the setting of this study, the client is also the implementer of the guideline recommendations and in that sense Facilitation has a different connotation. All health professionals require the attributes of facilitation to implement the AMCVR guideline. Secondly, in a recent review of the PARiHS framework, the authors (Kitson et al., 2008) suggest that successful implementation of evidence is a two stage process: the first stage sees the PARiHS framework as a diagnostic and evaluative tool in which a clinical practice situation is benchmarked against the indicators for Evidence and Context. The second stage involves Facilitation that is tailor-made to suit the conditions revealed in the first stage. This use of the PARiHS model as a two step process is appropriate in the example of guideline implementation under investigation in this study because Facilitation was not evident in the data and the results of an analysis of the setting in relation to Evidence and Context presented here could be a useful foundation for planned Facilitation.

Table 7.13., below, details the participants' perceptions of what would help them to implement the guideline, expressed in terms of subjects, topics, and capabilities that they needed, implying that their understanding of professional development was that of a task oriented approach.

Table 7.13

Association of codes for Facilitation with indicators for ‘task’ and ‘skills and attributes’

Data Codes Referring to Clinicians” Learning Needs to Implement the AMCVR Guideline	**Indicators for ‘Task’**
Training needed for skills to foster lifestyle change Need professional development prior to roll out of new programmes Workforce development needed on interaction with patient in deciding the plan Need workforce development in case management Wellness model requires core competencies of Primary Health Care nursing – new specialty practice Skill set at a distance from reactive care Training required for cardiovascular risk assessment and for PREDICT Guideline excellent resource but need training to use it Nurse training required for programmes – eg PREDICT, diabetes annual review	**Purpose/Role** Doing for others Episodic contact Practical/technical help Didactic, traditional approach to teaching External agents Low intensity—extensive coverage
Brief Opportunistic Interventions training doesn’t need 2 days Clinical training and information technology training going on but need how to work with patients re Chronic Care Model Staff training programme needs planning, recall systems Good and flexible access to ongoing training but held at night and weekends Professional development important and need protected time but backfill difficult Professional Development needs to be broad across lifespan Unclear about study opportunities Flinders BOI training helps with understanding of stages of change Scholarships for P/G study and conferences helps you think about your work, read more broadly Postgrad education leads to “You do get a bit more critical and don’t accept everything that comes along”	**Skills and Attributes** Project management skills Technical skills Marketing skills Subject/technical/clinical credibility

The following figure (7.6) compares two ways of assigning data codes to the PARiHS frame elements. One way was to assign data codes in a way that is consistent with the health professional as the implementer of evidence. The other way was to assign codes in a way that was consistent with the clients as an implementer of evidence as well as health professionals. The assignment of codes consistent with the client as implementer of the guideline recommendations creates a different picture of codes assigned to E, C and F. When data were interpreted with the client enacting the evidence into their own lives, several data codes were relocated from Evidence and Context to Facilitation. When evidence is to be actioned as lifestyle changes for clients, the facilitation of evidence into practice puts clients into the 'driver's seat' of implementation and all health professionals are facilitators of evidence into practice. Facilitation then becomes two layered. Health professionals are the facilitators of evidence into practice through their work with clients. Facilitation also involves facilitators working with health professionals to help them to implement the recommendations of the guideline. A two layered interpretation of Facilitation is congruent with the person-centred principles that underpin primary health care and warrants further investigation in relation to the use of the PARiHS framework in primary health care settings.

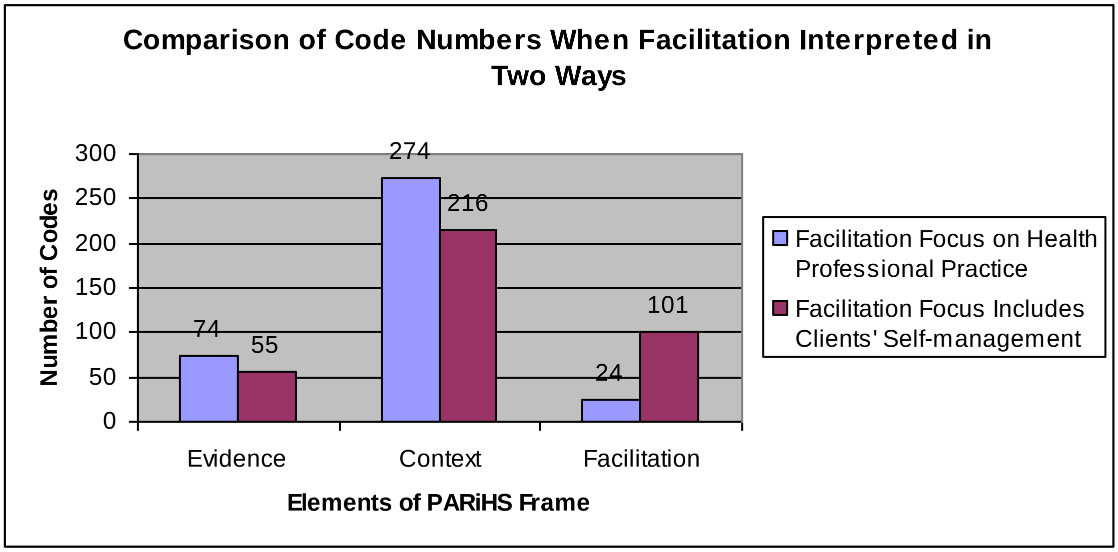

Figure 7.6

Codes for Facilitation - Health professionals as implementers of evidence vs clients as implementers.

Summary of Facilitation. The absence of data that were consistent with the PARiHS indicators for *Facilitation* has exposed an important gap in the the likelihood of successful implementation of the AMCVR guideline into practice. In this case, the indicators provide a useful blueprint for establishing holistic Facilitation. Additionally, the implementation of evidence that concerns lifestyle change in clients, as with the AMCVR guideline, suggests that health professionals are facilitators and also facilitatees. The indicators for Facilitation are just as relevant for both meanings of the word.

Overall Summary of the Chapter

This chapter has presented the findings of the second component of the study reported here in which the PARiHS framework was used as a template for data analysis. The basic tenet of the PARiHS framework is that successful implementation (SI) is a function (f) of the presence of the indicators for High Evidence (E), Context (C) and Facilitation (F) so that SI = f (E,C,F) (Kitson et al., 1998). The mapping of data codes to either high or low for Evidence, Context and Facilitation has contributed not only to an evaluation of the likelihood of successful implementation of evidence into practice but also to the identification of the enablers and barriers to the successful implementation of the AMCVR guideline. Data codes mapped to 'high' reveal the enablers and those mapped to low are the barriers. Table 7.14 indicates how the data mapped overall.

Table 7.14

Summary of how data codes mapped to low and high for the elements and sub elements of the PARiHS framework.

Evidence	Research Evidence – Low and High Clinical Experience – Low and High Client Experience – Low and High Local Data - Low
Context	Culture – High and Low Leadership - High and Low Evaluation - Low
Facilitation	Purpose/Role – No data codes appropriate Skills and attributes – No data codes appropriate

The diagnostic function of the PARiHS framework has revealed the potential for optimising implementation of the AMCVR guideline in primary health care in the region. Data codes consistent with the indicators for Evidence mapped to High for most of the indicators for research, half of those for clinical experience, all for client experience and only one for local data. The indicators for low evidence attracted data codes for only one indicator of clinical experience and three for local data. For Context, data codes were mapped some to both high and low for culture; there was a fairly even balance of high and low for leadership; and the few data codes that were mapped to evaluation were low. The requirement for Facilitation, therefore, is the establishment of facilitators who can take a holistic approach consistent with enabling others, engaging in sustained partnerships, using adult learning techniques and who have the skills and attributes to enable others to develop their clinical practice.

The concluding chapter follows with a review and discussion of the findings of both components of this study. A comprehensive interpretation of the findings is presented that explores how the knowledge gained in this study has progressed an understanding of guideline implementation in primary health care nursing. The last chapter also indicates the impact of these findings on future practice and research.

Chapter Eight – Discussion and Conclusions

Introduction

The contents of the 'black box' of evidence implementation have been illuminated in this study through systematic investigation of the realities of everyday primary healthcare practice. Each of the two components of the study has contributed to revealing the complex and context-specific nature of implementation and the factors that enable and inhibit guideline-based practice. The methods used have illuminated the black box to enable an understanding of guideline implementation as it is played out in everyday primary health care nursing. The chapter will clarify how health professionals implement the guideline, how they think about their work and the fundamental impact of the workplace context on their practice. The direction, focus and approaches required to optimise nurses' implementation of a guideline in primary health care. The chapter will close with recommendations for transformational change in primary health care and the overall conclusions reached as a result of the study.

Discussion of Findings Generated by Thematic Analysis

The following sections focus on the implications of the findings using the four themes generated through thematic analysis. They provide a rich and detailed representation of the practice realities of implementing the AMCVR guideline in primary health care settings.

Self-managing client. The first theme refers to the client as the central focus of participants' healthcare practice. Person-centred care is a foundational value of healthcare in general and its prominence in the implementation of the AMCVR guideline reveals coherence between the practice values of the participants of the study reported here and is a crucial tenet of primary health care.

Client engagement, empowerment and support for self efficacy are pivotal to implementing the AMCVR guideline because, ultimately, enacting the recommendations is at the client's discretion. Individualised care is required that closely matches a client's readiness for change (Regan-Smith, Hirschmann, Lobst, & Battersby, 2006). The role of the client as principal implementer of evidence in primary health care is underscored here but much of the guideline implementation literature focuses on behavioural change in health professionals (DiCenso et al., 2005; Grol & Grimshaw, 2003), even though reliable predictors of such behavioural change have not been found (Hulscher, Wensing, Weijden, & Grol, 2005). In particular, there is a paucity of research about primary health care practice that leads to health promoting actions of clients (Hrisos et al., 2009). The findings underscore the client as a major player in the implementation of evidence in health care and the importance of evidence that recommends not only what should be done, but also informs how to engage, empower and support client self efficacy.

The focus on the client as an individual suggests that population based health care health care is not yet embedded into usual practice. ‘New’ primary health care brought in with the Primary Health Care Strategy (Minister of Health, 2001c) requires health professionals to broaden their skills set to deliver healthcare not only for individual clients but also for populations. However, population based health care has been conventionally the domain of public health practitioners rather than those working in general practice (Baum, 2008).

The provision of healthcare for individuals while maintaining a population focus requires a broad set of competencies. In particular, population healthcare must address the most important contributors to health: the social determinants of health (Edgecombe & Stephens, 2010; Keller et al., 2004; Neuwelt et al., 2009). Primary health care that fails to address socioeconomic disparities as the most direct means of improving population health, has been deemed ineffectual (Gervas, Starfield, & Heath, 2008; Goldberg, 2009). The literature is clear that the reversal of health inequity relies on specifically addressing the social determinants of health (Banks et al., 2006; Marmot, 2003; Sharpe & O'Sullivan, 2006). However, there remains a lack of research that informs clinicians about specific interventions consistent with a population health approach in general practice.

The challenges of primary health care delivery are complex, multiple and demanding. In particular, small General Practices are already stretched to provide healthcare simultaneously for individuals and populations, at all stages of the lifespan, and across the trajectory from health promotion to chronic disease management. However, solutions to difficult clinical practice challenges can be found by clinicians through processes of facilitated support (Bandura, 2000, 2006; Manley, 2008; McCormack & Garbett, 2003). Clinicians who engage in facilitated solution finding can find new ways of delivering person-centred care of individuals and for populations.

The results derived from the first theme, self-managing client, suggest that:

- The empowered client has a pivotal role in the implementation of the AMCVR guideline.
- Creative, context-specific solution finding that engages clinicians in facilitated processes, is required to envision and implement innovative ways to provide health care for individuals and populations in primary health care settings.

Everyday Nursing Practice. The second theme exposes both the nature of nursing practice and how human agency is expressed in nurses' everyday work with the AMCVR guideline. It also reveals nurses' awareness of the social structures that influence their practice, essential in the expression of human agency as discussed in Chapter Four. Consequently , the representation of nursing practice in this theme goes beyond a “thinned out” (Nairn, 2009, p. 191) description of everyday nursing practice to a deeper level of understanding of the interactions between the social structures of their clinical context and their work. Nairn (2009) cautions that isolating the activities of practice from the realities of the structural mechanisms that influence it can lead to excessive emphasis on actions and insufficient attention to the context of practice.

Everyday nursing practice as represented in this theme is more than an inventory of experiences and activities. Nurses also reveal the nature of their practice and their awareness of the impact of social structures on their work. They recognise the limits imposed on the scope and nature of their work by the low expectations of doctors and funders, a finding supported by others (Finlayson et al., 2008; Nairn, 2009). Nurses also recognise the limitations on their practice of a model of care more suited to treating the illnesses of individual clinic attendees rather than the health of populations (Daniels, Kennedy, & Kawachi, 2000; Goldberg, 2009; Marmot, 2003) and were frustrated by their inability to achieve the ideal.

Health professionals’ awareness of the interactions between their work activities and the social context of their practice positions them well to envision change (Manley et al., 2009; Nairn, 2009). Such awareness coupled with “a real appetite to move forward and explore in a more collaborative and negotiated way the potential for different models of care” (Smith, 2009, p. 7) indicates a predisposition for change. Primary health care nurses are ready for practice change

The implementation of a guideline requires consultation and engagement with communities at all stages (Coney, 2004). However, community engagement is especially difficult for nurses working in general practice because they are more likely to be clinic-bound and illness-focussed, those being the confines of their practice. This finding is supported by a study of integrated care projects in primary health care nursing in New Zealand that explored the nature of a population approach to primary healthcare and exposed the limitations of inadequate nurse-community partnerships (Sheridan, 2005). The population health focus of primary health care requires effective and enduring community partnerships, a challenge yet to be met adequately at the interface of primary health care professionals and their clients in the context of this study. Clinic-bound professionals have difficulty in establishing and maintaining partnerships with communities and are less able to provide community based interventions.

The results associated with the second theme suggest that:

- Health professionals who are aware of the interactions between their work activities and the social context of their practice are better able to develop ideas for changes in their practice. Nurses are making these connections and are, therefore, well placed to engage in change planning and implementation.
- Partnerships between health professionals and community groups and organisations are difficult to establish and maintain when primary health care is focussed on individuals visiting a clinic for treatment of their health problems.

Developing New Relationships in the Health Team. Health care teams recognise the need to work together more collegially and to extend their everyday relationships to include other primary health care and social services professionals. This finding is well supported by McCormack, Manley and Walsh (2008) who stress the importance of relationships that build social capital, and release synergies gained through connected networks. The building of social capital benefits organisations by better knowledge sharing, reduces transaction costs, increases staff retention, and improves organisational stability (McCormack et al., 2008). In essence, with social capital as the fuel for an effective workplace culture (Manley, 2008), this study indicates the importance of processes that support, extend and maximise relationships and networks throughout the primary health care sector.

Cultural change throughout the primary health care sector is essential. The expectations of the Primary Health Care Strategy (Minister of Health, 2001c) have not been realised (Finlayson et al., 2008; The College of Nurses Aotearoa (NZ) Inc., 2009). In particular, a “shift in service delivery emphasis from doctors as the main providers to a teamwork approach involving other health professionals” (Workforce Taskforce, 2008, p. 2) does not appear to have been experienced by general practice nurses. The findings of the study concur with the Workforce Taskforce’s report (2008) to the Minister of Health that the barriers to change are the private business funding model of General Practices, the continuation of traditional organisational structures and function, the lack of leadership at different levels of the sector, inadequate training of primary health care clinicians and managers , and unsystematic quality improvement and assessment (Workforce Taskforce, 2008). These barriers are said to “operate in a context of traditional attitudes, values and ways of working” (Workforce Taskforce, 2008, p. 3), a position supported by the findings of this study and an indication that a redevelopment of functional relationships and work practices is required.

A key finding is that primary health care nurses' practice is limited by a culture of low expectations and an out-dated model of care. This finding is echoed in a report that indicates, in spite of wide and enduring recognition of the impact of current funding and employment arrangements on the potential of all primary health care professionals, that little change has been seen over the last decade (Finlayson et al., 2009; The College of Nurses Aotearoa (NZ) Inc., 2009). This finding is further supported by a call for the removal of the current constraints on primary health care nurses' practice (Primary Health Care Advisory Council, 2009). Implementation of the AMCVR guideline is restricted by limitations on primary health care nursing practice.

Nurses find that, when seeing clients in their own clinics, their confidence grows; they feel that they are using their skills and knowledge appropriately; and they notice increased job satisfaction, patient appreciation and a more collegial relationship with doctors. Improved service delivery and job satisfaction as a result of nurses holding their own clinics have been reported elsewhere (Horsburgh et al., 2008; Page et al., 2005; Stromberg et al., 2003). Nurses employed by Mäori providers have a great deal more autonomy in the healthcare team, setting their own priorities, venues for healthcare, and flow of clients through clinics. The distinctly different employment models between nurses in General Practice and those working for Mäori health providers have a significant impact on nurses' control over the scope of their practice. This study emphasises the benefits for clients and nurses of nurse led clinics in primary health care.

The findings are congruent with a recent evaluation of the impact on nursing of the Primary Health Care Strategy that found positive changes in roles and relationships in General Practice teams. In particular, where there is additional funding for nurses to take up expanded roles (for example the Care Plus scheme discussed earlier in this work), there is increased acceptance by clients of consulting with nurses at clinic visits, the freeing up GPs' time, and greater job satisfaction for the healthcare team (Finlayson et al., 2009). In General Practices and PHOs that more explicitly aim at population heath expanded nursing roles lead to increased client choice of healthcare provider, improved access and cost-effectiveness of services. Expanded nursing roles have a positive effect on clients' experience of health care and access to primary health care services, health professionals' job satisfaction, the relationship between GPs and nurses and on cost-effectiveness. Everyday working relationships in healthcare teams improve when clinicians have greater control over their work. Many of the recommendations of the AMCVR guideline can be enacted by nurses but this study reveals the limits placed on their practice by the organisational and cultural structures of their workplace.

The development of nursing practice in primary health care requires knowledge exchange and the sharing of practice experiences, best gained during side-by-side clinical practice. Collaborative healthcare practice not only improves interprofessional relationships but also enhances the effectiveness of healthcare (McCormack et al., 2008). As clinicians from different professional groups with similar values work together in close proximity, a network of practice can evolve that enables mutual action learning (Tagliaventi & Mattarelli, 2006). However, changes in roles and relationships may be difficult to achieve in small rural General Practice where there may be only one or two nurses and doctors. Support from a distance for primary health care nurses through networks of practice warrants further investigation.

Improved teamwork associated with the Care Plus scheme indicates the potential for enhancing interprofessional collaboration in other aspects of primary health care and the sharing of knowledge across professional boundaries. In particular, professional role margins and autonomy can be actively tested and challenged through skillfully facilitated discussion and resolution of dilemmas and contradictions that arise in everyday practice (Tagliaventi & Mattarelli, 2006). In a broader sense, the achievement of population health goals relies on the collaboration of all stakeholders in the primary healthcare sector through common language and understanding (Neuwelt et al., 2009). The need for role development and enhanced collaboration is not limited to the hands-on clinical team but is also relevant to the wider healthcare and social services sector. This finding indicates the need for innovative and effective interprofessional teamwork and networks of practice that include relationships with professionals from a variety of social services.

The findings associated with the third theme suggest that:

- There is unmet potential for realising the benefits of collegial relationships and clinical practice networks.
- Implementation of the AMCVR guideline is restricted by limits to primary health care practice indicating that a redevelopment of functional relationships and work practices is required.
- The benefits of expanded nursing roles on clients' experience of health care and on health professionals' job satisfaction have yet to be realised.
- Facilitated collaborative problem solving is required within interprofessional teams and networks of practice.

Impact on Healthcare Delivery. The implementation of the AMCVR guideline has had a noticeable impact on healthcare delivery in primary health care. The most obvious impact of the guideline is that it highlights the lack of funding to carry out the recommendations. This finding is supported in several other studies and reports. Current funding arrangements are well recognised as a major impediment to new ways of delivering primary health care (Expert Advisory Group on Primary Health Nursing, 2003; Finlayson et al., 2008; Primary Health Care Nurse Innovation Evaluation Team, 2007). Where extra funding has been available for new ways of practising, nurses have developed creative alternatives. Eleven primary health care nursing innovations, funded as an initiative by the Ministry of Health, enabled new ways of practising that progressed the primary health care nursing contribution to implementation of the Primary Health Care Strategy (Minister of Health, 2001c; Primary Health Care Nurse Innovation Evaluation Team, 2007). In particular, when nurses with advanced skills were funded to establish and deliver first-level care differently from the predominant General Practice model, there was improved access and more comprehensive care for clients. Preparation and support for expanded roles and more flexible, ongoing funding arrangements are required for primary health care nurses to maximise implementation of the AMCVR guideline in primary health care.

Primary health care delivery has not changed significantly in the last decade in spite of changes in funding and policy directives at a national level. An additional $1.7 billion was added to the national health budget over a six year period from 2001 to support changes in primary health care and improve access to health services (Workforce Taskforce, 2008).

However, the capitation based funding model introduced with the Primary Health Care Strategy has been spent mostly on maintaining traditional service delivery rather than on innovation and change in practice so that limitations on health professional roles have continued. A key finding is that implementation of the AMCVR guideline is unaffordable in a service in which illness care swallows up the funding that is also supposed to fund healthcare.

The primary health care workforce is stretched in areas with high health need populations. Workforce development that strengthens the capacity and capability of the Mäori health and disability workforce is required to maximise health outcomes for Mäori (Ratima et al., 2007). A major and enduring under-representation of Mäori in the health and disability workforce (5.7% of the health workforce vs. 30% of the population) is a significant impediment to the provision of culturally appropriate healthcare for Mäori especially given ethnically-based cardiovascular health inequity in New Zealand (Ratima et al., 2007). The need for active recruiting, support, education and retention of Mäori healthcare professionals has been uncovered by the challenges faced in the implementation of the AMCVR guideline.

The results derived from the fourth theme suggest that:

- Changes are required to the current funding model of primary health care that will better support ongoing development of primary health care nursing roles to maximise implementation of the AMCVR guideline.
- Implementation of the early detection and risk management recommendations of the AMCVR guideline is problematic in a health care service model in which illness care is more urgent, has a higher profile and consumes the majority of funding.
- The need for active recruiting, support, education and retention of Mäori healthcare professionals has been uncovered by the challenges raised in the implementation of the AMCVR guideline.

Summary of discussion of findings from thematic analysis. The findings derived from thematic analysis provide clear insights into the realities of the implementation of the AMCVR guideline in primary health care. Nurses reveal a tangible willingness to improve their practice amid environmental constraints on their work. Person-centric values and beliefs about partnership, empowerment and working together with clients are clearly expressed. There is an obvious appetite for developing practice and a propensity to learn from experience that indicates a state of readiness to engage in the challenges of changing workplace cultures. However, there is also a pervading sense of despair about implementing the AMCVR guideline within their current working environment, particularly regarding screening and managing early cardiovascular risk.

Practice Development, as described by (Manley & McCormack, 2003; Manley et al., 2009; McCormack et al., 2008) has the potential to support healthcare teams to address challenges in their practice through employing person-centred approaches that involve stakeholders in collective problem solving for community based reduction of cardiovascular risk. This style of learning fosters new understandings and actions through well facilitated, shared learning and reflection on practice in the company of peers (Dewar & Sharp, 2006). The energy and enthusiasm of the nurses' focus groups indicates their predilection for discussing their work. Action learning offers a process for nurses to progress their discussions of their work to a level of review, critique, and knowledge construction.

Action learning has also enabled groups or sets of clinicians to adapt evidence for local conditions more effectively and then to implement it in practice (Dewar & Sharp, 2006). Given the opportunity for action learning, the multidisciplinary teams in the setting of this study may experience its advantages. The problems faced in implementing the AMCVR guideline and identifying possible solutions are best 'unpacked' and resolved by those who work at the point of care.

The ongoing development and support for the development of nursing expertise may be not as accessible in rural primary health care as in secondary care settings because nurses are spread over a wide area. An environment that fosters nursing expertise includes support for organisation, priority setting, autonomy, authority, accountability and confidence in decision making, for good interpersonal relationships and recognition from others (Hardy, Titchen, Manley, & McCormack, 2006). These factors are relevant to the work described by primary health care nurses in the study reported here and suggest that interactive, action learning may provide opportunities for the nurture of primary health care nurses' expertise. This first component of the study has revealed the nurses are ready for facilitated, well supported, bottom-up development of their clinical practice.

The next section of this chapter presents a discussion of the findings derived from data analysis directed by the PARiHS framework as a template.

Discussion of Findings in Relation to the PARiHS Framework

The second component of the study found the PARiHS framework to be an effective tool for identifying the challenges, problems, successes and resources required for the implementation of a guideline in primary health care nursing. Of the three central elements of the PARiHS framework, Evidence and Context attracted the majority of data, indicating clearly where the findings are focused. The lack of data for the third element, Facilitation, is also an important finding with significant implications for practice and further research. The three elements of the framework, Evidence, Context and Facilitation, provide the structure for the discussion of findings that follows.

Evidence. The multiple forms of evidence included in the sub elements of Evidence element (research, clinical experience, client experience and local data) were appropriate for making sense of the enablers and barriers affecting the use of the evidence-based recommendations of the AMCVR guideline.

An important finding in relation to research evidence is that the participants did recognise the AMCVR guideline as a valuable source of information, saw it as important, and believed that systematic integration of the guideline recommendations into everyday practice is essential for reducing the burden of cardiovascular disease. This finding is supported by research that showed that factors improving the uptake of evidence into practice were the importance of the problem addressed, the relevance of the content of the recommendations, the source of dissemination and the way it is presented (Grol & Grimshaw, 2003). Further support for this finding comes from a study that warns of the barriers to implementation, of the lack of applicability of evidence, environmental constraints, a lack of knowledge about how to enact the recommendations and unclear or ambiguous recommendations (Lugtenberg et al., 2009). Because the guideline central to this study is valued by clinicians, they are more inclined to adopt its recommendations in practice.

The AMCVR guideline is highly valued by clinicians as a tool to reduce the burden of cardiovascular disease. Even though better guideline adherence and user satisfaction has been linked to guidelines for acute problems (Grol & Grimshaw, 2003; C. Thompson et al., 2004), participants recognise the importance of the AMCVR guideline in addressing chronic disease, a positive factor for successful implementation. However, the single disease focus of the guideline is not a good fit for clients with co-morbidities because of the difficulty of combining the recommendations of the AMCVR guideline alongside another guideline, for example for diabetes. This difficulty has also been found in general practice elsewhere (Lugtenberg et al., 2009). This problem has been somewhat addressed in the recently released handbook for primary health care practitioners to accompany the AMCVR guideline (New Zealand Guidelines Group, 2009).

The recommendations of the guideline are clearly well accepted but further evidence is also required. Evidence for how to enact the recommendations is just as important as what is recommended (Hulscher et al., 2005).

Disappointingly, a recently completed integrative review of literature indicates a lack of evidence, generally, of the impact of nursing actions in community settings (Kennedy et al., 2008). More outcomes oriented research is required to inform primary health care nursing practice.

The AMCVR guideline has clear recommendations for what constitutes best practice but falls short of advising how to go about putting the recommendations into practice. Participants made no mention of research evidence to inform them of how to put the AMCVR guideline recommendations into practice, for example how to help clients adopt lifestyle changes. The Flinders approach to motivational interviewing (Regan-Smith et al., 2006) was mentioned briefly by some participants as an approach to partnering clients with chronic disease, but not the evidence base supporting its use. The lack of research evidence, for putting into practice what the guideline recommends, underscores the need for bodies of evidence other than the guideline itself.

Evidence in the form of clinical experience is not recognised as such by the participants in this study. Although they enjoy talking about their work with the guideline, knowledge from practice is largely unexamined and anecdotal. Nurses draw readily on their experience to discuss their work but the resources and processes required to move anecdote to critical reflection are not referred to. They light up with enthusiasm as they speak about their practice, possibly a rare occurrence given the geographic spread of nurses in the region and the relatively isolated nature of their practice. One of the problems of knowledge produced through nursing practice experience is that it is subject to variations of quality, relevance and usefulness (Kim, 1999). Evidence as clinical experience requires the transformation of personal knowledge into knowledge in the public domain (Higgs, Fish, & Rothwell, 2004; Higgs & Titchen, 2001; Kim, 1999). Nurses are enthusiastic about their experience-based knowledge and, given opportunities, may be keen to engage in more rigorous development of practice based knowledge.

The transformation of practice experience into shared knowledge about how to actually ‘do’ the guideline requires a level of peer review and development not seen in this study. Health professionals can make this transition by giving voice to their experience and by using techniques of critical reflection to develop and share evidence for practice (Dewar & Sharp, 2006; Eve, 2004; McCormack & Garbett, 2003; Vratny, 2007). For example nurses spoke about redesigning the flow of patients through a clinic to enable more nurse -client contact, a suggestion that has the potential for transforming clinical experience into evidence through the rigorous processes described by the authors above.

Client experience, the third sub element of Evidence, is an essential ingredient in the nurse-client relationship. The client may be an individual, and/or a family (whanau), and/or a community. Nurses refer to the fine balance of particularising health care for a client, using the guideline recommendations as an information source, while, at the same time, eliciting, acknowledging and incorporating clients' experiences and preferences in shared decision making. Some families are facing far more urgent problems than their cardiovascular risk and see it as a low priority in the context of their immediate problems. A single disease agenda may not be appropriate in a client encounter and the closer the relationship that a nurse has with a client, the more comprehensive is their grasp of the multiple needs of clients.

All the nurse focus groups consider client experience to be important evidence for practice. Nurses working for Māori Health Providers consider their Kaupapa Māori approach to be based on a solid understanding of the family as client and that any work with individuals was explicitly within an extended family orientation. Mäori Health Providers have made explicit their whanau ora approach (in which Māori families are supported to achieve their maximum health and wellbeing) as fundamental to healthcare (A. King & Turia, 2002). A whanau ora approach means that, even if cardiovascular risk assessment is the original purpose of a visit to family, more urgent problems may surface that must be addressed first.

The priority all nurse groups give to client experience as evidence concurs with the first theme in which nurses spoke about forging partnerships that empowered clients to manage their cardiovascular health. The orientation of nurses in this study indicates a person-centredness that is a foundational value of Practice Development and is pivotal to all relationships in a healthcare team (McCormack et al., 2008).

Even though client experience is valued by participants, general practice nurses find that shared decision making is difficult to achieve during the usual time allocation for consultations (approximately 10 minutes). Not all clients need to see a doctor and could just as well have their needs met by a nurse. Longer consultation times and a sense of involvement in their care is known to make a difference to the quality of healthcare experience of clients (Smith, 2009). Where extra funding is available for extended nurse-client interaction, as with Care Plus, and when nurses saw clients away from GP clinics, more time is available to build the relationships required for genuine client/clinician partnerships. An evaluation of the impact of the Primary Health Care Strategy on the development of nursing echoes the finding that the expansion of nursing roles provides better access to appropriate services but is contingent on additional funding for specific programmes (Finlayson et al., 2009). Extended nurse-client interaction maximises access to client experience as evidence and improves clients' healthcare experiences.

PHOs have a clear responsibility to work with communities and have governance arrangements that involve community input. However, they lack the levers to require community involvement at the point of care (Smith, 2009). Stakeholder involvement in guideline implementation is an important step to enhancing buy-in and support from client communities (Coney, 2004). Evidence implementation projects that involve local adaptation of evidence to the clinical context have been found to be more likely to be successfully integrated into practice (Bruggen, Gorter, Stolk, Verhoeven, & Rutten, 2008; Collett & Elliott, 2000). Inclusion of the input of the wider community as client experience requires more attention at the point of care.

The fourth sub element of Evidence, local data, lacks systematic capture, management and dissemination. Participants are aware of the value of using data to plan and evaluate healthcare but have had limited access to any such evidence until recently. Until recently there has been a lack of software compatibility among health care providers regionally. This has now been remedied so that the systematic collection, analysis and sharing of information that has been found to be valuable in primary health care is well supported (Hunt, Haynes, Hanna, & Smith, 1998). Local data are becoming increasingly available and useful to the implementation of the AMCVR guideline.

Local data is a source of evidence with the potential to provide population based health information relevant to planning, benchmarking and tracing trends. The capture of local data is essential for audit and feedback of clinical performance, that can then be used to set new targets and ways of achieving them (Del Mar & Mitchell, 2004; National Institute for Health and Clinical Excellence, 2005). The use of PREDICT enables practice based data, like cardiovascular assessment rates, to be reported by individual GPs and by PHOs. More sophisticated reporting, generally, has become possible with new software installed by healthcare providers in the region (R. Lightfoot, personal communication, Jan 12 2009). Accurate capture and reporting of local data is an important feature of evidence use that supports guideline implementation.

Anecdotal local data in the form of who lives where, who is related to whom, and local knowledge, for example, tidal-limited access to homes, is seen by participants as important evidence for primary health care. The usefulness of these data and ways to record and share them requires further investigation.

The results associated with Evidence suggest that:

- The AMCVR guideline is considered to be valuable to clinicians and they appreciate the reasons for its adoption in practice.

- The single disease focus of the guideline is not a good fit for use with clients who have co-morbidities but this issue has been addressed somewhat in a redeveloped handbook to accompany the guideline (New Zealand Guidelines Group, 2009).
- Evidence for how to implement the AMCVR guideline recommendations is required from bodies of evidence other than the guideline itself.
- Nurses are enthusiastic about their experience-based knowledge and, given opportunities, would engage in more rigorous development of such knowledge.
- Extended nurse-client interaction maximises access to client experience as evidence and improves clients' healthcare experiences.
- More effective capture, management and reporting of local data is required in primary health care to support a population health approach to guideline implementation.

Context. The context into which the AMCVR guideline is being implemented is the PARiHS element most mentioned by participants (75% of all data codes), and mostly in relation to indicators for conditions likely to support successful implementation. Context includes three sub elements – culture, leadership and evaluation. Each of these is considered in the following sections in terms of the understandings reached.

The reasons for choosing the AMCVR guideline as the focus of this study were well founded. The guideline does have credibility and is known to be an important tool to combat a serious health problem. The location of the study was also well chosen for its manifest health inequity that mandates high priority for implementation of the guideline. These factors have contributed to the study by ensuring a context of high expectation of implementation of the guideline.

Culture is the first sub element of Context and refers to the workplace environments into which the AMCVR guideline is being implemented. The values and beliefs expressed by participants in are consistent with the promotion of cardiovascular health and concern that the prevalence and burden of cardiovascular disease is an important practice issue. This finding is echoed in a Canadian study of the adoption of an innovation to increase evidence-based cardiovascular risk management that found that two attributes were associated with successful implementation: relative advantage and observability (Scott, Plotnikoff, Karunamuni, Bize, & Rodgers, 2008). Relative advantage involves the degree to which what is to be implemented is seen as better than what is already in use. Observability is about the extent to which people can envision the benefits of acting in the way that is recommended. The positive attitudes to cardiovascular health in workplace contexts have a powerful effect on guideline implementation and indicate a predisposition to the successful implementation of the AMCVR guideline into practice.

Participants agree on the relative advantage of implementing the AMCVR guideline, can envision the benefits of it and are willing to try new ways of working. However, they have difficulty envisioning the enactment of the recommendations for mass cardiovascular screening and the follow-up work that would be involved. Their willingness to consider ways that they could implement the AMCVR guideline is an important attribute of people working in a learning organisation (Estabrooks 2003). Learning organisations enhance guideline usability through fostering effective health professional communication networks, active use of technology, and a willingness to adopt different models of providing care (Ansell & Watts, 2000).Willingness to change is an essential attribute in learning organisations.

An effective workplace culture is transformational. Its characteristics have been identified as having a “focus on developmental work, patient-centredness and quality services, staff empowerment, values and evidence-based practice, democratic and participative approaches involving all stakeholders, and, continuous positive change in response to a changing healthcare environment” (Manley, 2008, p. 83). Some of the attributes of learning organisations are articulated but further development may lead to more effective workplace cultures.

Participants talk positively about a culture of teamwork although nurses recognise that they have unmet potential for applying their skills and knowledge to practice. A large proportion of the guideline recommendations are within the scope of practice for a registered nurse, yet few nurse participants described a way of working with the guideline that maximised nursing knowledge and skills in health education, ongoing risk management and follow-up. Nurses also have a great deal of unmet potential to contribute to monitoring and educating clients taking long term medication. This finding is important in relation to a recent New Zealand study that revealed substantial evidence-to-practice gaps for the medication recommendations of the AMCVR guideline (Peiris et al., 2008), the reasons for which were not clear. Patterns of practice that optimise the application of knowledge and skills of all members of the healthcare team have the potential to improve implementation of the guideline.

One way that teamwork can be enhanced is through networks of practice. Such "..spontaneous groupings of peers with similar skills and positions" (Tagliaventi & Mattarelli, 2006, p. 292) enable linkages of professionals working in different organisations. Involvement in a network of practice can bring people together to exchange knowledge and discuss practices outside of their usual workplace. Also, networks of practice can foster diffusion of knowledge and practices by transferring practices learnt elsewhere into members' working contexts through working side-by-side with colleagues and embedding relevant innovations into practice through physical proximity (Tagliaventi & Mattarelli, 2006). Networks of practice may be an effective way of putting rural primary health care nurses in touch with each other electronically to exchange and review knowledge from practice without moving out of their actual work contexts.

A resounding message from participating doctors and nurses is that insufficient resources have been allocated to fully implement the guideline and that the extra work involved was not feasible on top of their usual workload. Manley (2008) refers to the 'hamster-wheel of busyness' (p. 84), in which clinicians are so busy all the time that they can see no other way to do things and accept the status quo as inevitable. Such a position renders them unable to reflect on their work or to see other ways to use their time and they tend to lose perspective of their key values and goals. Clinicians indicate that human resources are lacking in numbers, skills, knowledge, and experience; there is a lack of forward planning to replace the ageing workforce; also lacking are sufficient computers and reliable, mobile internet coverage required to use PREDICT software. As discussed further below, I do not mean to trivialise participants' experience or dismiss the importance of sufficient resources. However, given the opportunity to step back from the rush of everyday work, clinicians may see things differently and conceive of alternative ways of working (Manley, 2008). Opportunities to revise and redesign their work patterns may enable primary health care clinicians to find relevant solutions to their workload issues.

The most obvious barrier to implementation of the AMCVR guideline expressed by clinicians in this study is the lack of funding. Funding models have featured prominently in a number of recent reports to the Ministry of Health that have exhorted DHBs and PHOs to work more closely with providers to address a number of issues as (Martin, Artus, & Blatchford, 2008; Smith, 2009; Smith & Cumming, 2009). These reports signal the widespread concern about funding and that change must be coordinated at all levels from the Ministry of Health to DHBs, to PHOs and to primary health care providers whose position at the end of the funding chain probably affords them little room for movement. There is no quick fix for the lack of funding experienced by primary health care providers. Long term solutions require the input of all levels of funding and healthcare provision.

The usability and accessibility of the AMCVR guideline has been enhanced by PREDICT software. Complexity and ambiguity in the assessment of cardiovascular risk is minimised by requiring limiting the entry of clinical data to those that are essential and by the speed of calculation of a cardiovascular risk score. In contrast, a British study of the adoption of a computerised decision support system for chronic disease in primary care found low uptake was associated with prescriptive, unrealistic and inflexible decision prompts (Rousseau, McColl, Newton, Grimshaw, & Eccles, 2003). The ease of use of PREDICT and its interactive interface with graphics and patient information sheets is a feature of the usability of the guideline for clinicians.

The findings for the second sub element of Context, leadership, are mixed, data consistent with the indicators for both high and low. Given that professional practice is highly sensitive to the style and processes adopted by leaders, the relative neglect over the last decade of the development of primary health care leadership has been highly criticised (Martin et al., 2008; Smith, 2009; Smith & Cumming, 2009). Furthermore, the link between the prevailing professional and organisational stance towards quality and client outcomes suggests that effective leadership is prerequisite to effective care (Grol & Grimshaw, 2003). When professionals from varied health disciplines collaborate in primary health care, patients have been offered multiple entry points, with improved quality and access to care (Thornhill, Dault, & Clements, 2008). This study concurs with that of Smith and Cumming (2009) that attention is now required on the development of management expertise and clinical leadership at all levels of primary health care governance and provision.

Planned organisational change through effective clinical leadership made prior to introducing a cardiovascular risk assessment programme looks important for success. A New Zealand General Practice that put the ideal plan into place with extra funding, upgraded information technology, multidisciplinary teams with GP supervision and support for nurses, and additional staffing and staff training, easily reached its AMCVR guideline targets (Horsburgh et al., 2008). This best case scenario shows what can be achieved with optimal planning, resourcing and leadership. Success stories like this one need to be shared, analysed and critiqued for the key leadership lessons to be gained from them.

Teamwork has been discussed above in relation to the first sub element of Context, culture. It is included here again because it also falls under the second sub element of Context, leadership, for its sensitivity to the style and skill of the leader. In small size General Practice settings, clinical leadership is provided by default by the GP who is also a small business owner/employer. Regional nursing leadership positions are established but cover a large geographic area that spreads their leadership capacity thinly. That this situation seems to work well for GPS but not for nurses is a finding of this study supported by the Workforce Taskforce's (2008) report to the Minister of Health that calls for more effective teamwork in primary health care. GPs have made little change to the way they work even though they claim that teamwork is established and functioning in their practices (Pullon, 2006; Workforce Taskforce, 2008). Nurses on the other hand report to the contrary that they had little influence over the way care was delivered, their own roles or ways of working. Leadership for effective teamwork in GP settings requires interprofessional redesign and planning to realise the potential of doctors and nurses.

This study indicates the need for leaders in general practices to have highly developed skills for building effective interprofessional teams. The most noticeable single effect on team effectiveness in a study of 528 members of 68 primary health care teams in the UK has been identified as the ability to reach consensus about objectives (Poulton & West, 1999). Leadership that promotes interprofessional team development is essential in primary health care teams.

Role clarity is an essential ingredient of effective leadership. At the most basic level, scopes of professional practice must be understood and upheld in a healthcare team. This is particularly relevant in relation to an understanding by doctors, nurses and clients of accountabilities and responsibilities for direct patient care. Role changes can engender fear of relinquishing professional turf (Clements & Helmer, 2006) and ought to be managed through skilled leadership. Participants' views of professional roles are particularly unclear in relation to the work of nurses employed by Mäori health providers. Effective information sharing and relationship building between them and "mainstream" health teams is an obvious gap.

Doctors speak of the benefits of maximising nursing skills and knowledge to improve client care but are adamant that they do not have the staff numbers to change their practice patterns. The redevelopment of nursing roles in primary health care has been found to open up opportunities to organise care differently (Finlayson et al., 2008; Katon, Korff, Lin, & Simon, 2001; McNamara, Giguère, St-Louis, & Boileau, 2009). Client care may be stepped into phases, each featuring the services of different professional groups, and improve client access and movement through treatment episodes (Katon et al., 2001). An advanced practice nursing role can focus attention on improving the quality of care to a specific population of clients (McNamara et al., 2009). The implications of a more active client care role for nurses in cardiovascular risk management, and more generally in primary health care, need further investigation.

The development of multidisciplinary teamwork within an environment of role clarity has the potential to improve clinical care. Teamwork attuned to collaborative ways of working is more likely to improve patient care than if professional boundaries are distinctly drawn (Thornhill et al., 2008;

Workforce Taskforce, 2008). The demand for multidisciplinary teamwork in primary healthcare has a number of drivers including the optimal use of the capacity and capability of the workforce, and continuous improvement of care through clinical governance(Workforce Taskforce, 2008). At the level of everyday practice, role clarity and teamwork require “bottom-up” engagement, decision making and planning that are well grounded in the culture and structure of the workplace.

Effective organisational structures are an indicator of ‘high’ for the leadership continuum of Context. The structure of a healthcare organisation has a profound effect on the way that care is organised and delivered (B. French et al., 2009; Senge, 1990; Smith & Cumming, 2009). Participants are sceptical of the capacity for existing structures to cope with the demand of delivering on the recommendations of the AMCVR guideline. Not only are participants uncertain about how they would manage to screen target populations, they are aware that there is no point in assessing for risk unless effective follow-up is provided. The forms of local organisational structures that best suit the needs of population-based screening and follow-up in primary health care require planning and redesign that includes all stakeholders.

Optimal organisational support for the implementation of evidence into practice requires systems and processes that may seem unachievable for small primary health care providers operating as private businesses. A multi-method study of organisations that support the use of research evidence has seven recommendations for those involved in leading the implementation of evidence (J. N. Lavis, Oxman, Moynihan, & Paulsen, 2008): collaborate with other organisations; establish strong links with policy makers and involve stakeholders in the work; be independent and manage conflicts of interest among those involved in the work; build capacity among those working in the organisation; use good methods and be transparent in the work; start small, have a clear audience and scope, and address important questions; and be attentive to implementation considerations, even if implementation is not a remit. The capacity of small primary health care providers to follow the recommendations of the organisations described above needs further exploration.

Indicators for 'high' leadership demand the provision of an empowering, enabling approach to managing, teaching and learning. However, access to teaching and learning is problematic for primary health care professionals because of the difficulty of getting release time from usual work hours. Consequently, professional development is offered mostly in the evenings and at weekends and, for the participants of this study, the sessions rarely addressed nurses' immediate learning needs. Work-based learning has been discussed above along with the advantage it provides of a high degree of relevance to the learner's and the organisation's actual and immediate needs (Manley et al., 2009). Education delivered in a way that matches clinicians' personal situations can enable transformation of the workplace "by ensuring that workplace activity is the driver for learning and development" (Manley et al., 2009, p. 88). Creative solutions and organisational support are required for meeting health professionals' work-relevant learning needs.

This study points to a lack of infrastructure support essential to meet the indicators for 'high' evaluation, the last sub element of Context. Only very limited feedback on the performance of General Practices is available and then only as clinical indicators, for example, numbers of diagnostic tests performed and prescriptions issued. These data are of limited value in providing feedback about what is working and what is not. Participants demonstrated some appreciation of, and enthusiasm for gaining feedback, but there was no mention of systematic evaluation of the effects of implementation of the AMCVR guideline. Data entered into PREDICT enabled at least some feedback about acting on the guideline at the individual health provider level. There is a lack of talk of gaining comprehensive information of the ongoing effects of initiatives, eg the 'One Heart Many Lives' project. A culture of giving and receiving feedback is a feature of workplace effectiveness (Manley, 2008). There is a need for establishing processes for constructive feedback and criticism of performance as a solid information base for ongoing quality improvement.

There is not only unmet potential for comprehensive, inclusive approaches to evaluation at the healthcare provider level but a lack of using data about performance as the basis for team discussion about ongoing quality improvement This finding is mirrored at PHO level in a synthesis of five reports about the effectiveness of PHOs (Smith, 2009). For example, the absence of discussion about information that exists through the PHO Performance Management Programme is indicative of missed opportunities in the planning, development and quality management of primary health care delivery. A comprehensive, collective understanding of primary health care provision is not enabled if the evaluation of performance is limited to narrow snapshots of statistics matched to key performance indicators (Walsh, 2007). The potential for more sophisticated and inclusive approaches to the assessment of quality and health provider performance is required for developing systems and processes that improve health outcomes.

Results in relation to Context are:

- The positive attitudes to cardiovascular health in the workplace contexts of this study indicate a predisposition to the successful implementation of the AMCVR guideline into practice.
- Ongoing development of workplace contexts is required develop effective workplace cultures.

- Networks of practice within a Practice Development environment may be an effective way of putting primary health care nurses in touch with each other to exchange and review knowledge from practice.
- Opportunities to revise and redesign their work patterns may enable primary health care clinicians to find solutions to their workload issues.
- Long term solutions require consideration of all levels of funding and healthcare provision.
- Attention is required to the development of management expertise and clinical leadership at all levels of primary health care governance and provision.
- Leadership for effective teamwork in GP settings requires interprofessional redesign and planning to realise the potential of doctors and nurses.
- Role clarity and teamwork require “bottom-up” engagement, decision making and planning that are well grounded in the culture and structure of the workplace.
- The forms of local organisational structures that best suit the needs of population-based screening and follow-up in primary health care require planning and redesign that includes all stakeholders.
- Creative solutions and organisational support are required for meeting health professionals’ work-relevant learning needs.

- The potential for more sophisticated and inclusive approaches to the assessment of quality and health provider performance is required for developing systems and processes that improve health outcomes.

Facilitation. An important finding is that, although some data were assigned to Facilitation, they do not fit with the indicators for ‘high’ or ‘low’. Participants are aware that they need help to implement the AMCVR guideline and see this in terms of formal professional development and academic study. This finding concurs with the work of McCormack and others (2007a) who found that practitioners tended to identify their professional development needs in terms of access to formal education rather than recognising their own need for opportunities for critical inquiry into their practice and finding their own solutions to problems (McCormack et al., 2007b). An essential responsibility of a facilitator is to raise awareness of the possibilities for ways to change practice and to enable solution finding in everyday workplaces.

The PARiHS developers suggest that one of the strengths of the framework is its capacity for indicating the nature of the complexities, strengths and challenges of translating evidence into a particular situation. Therefore, it provides a useful tool for signaling the appropriate direction and focus for Facilitation (Kitson et al., 2008). Used in this way the framework is the overarching guide for a two phase process. The first phase is to identify the barriers and enablers for Evidence and Context. The second phase involves a customised approach to Facilitation, to fit a practice situation (Kitson, 2008).

Kitson (2008) suggests that once an evaluation has been made of Evidence and Context, a point could be plotted on a grid (see Figure 8.1) that accommodates continua from high (strong) to low (weak) for each of those elements. Work is still in progress to construct a typology of Facilitation in relation to various positions on the Evidence and Context axes. The red area in Figure 8.1 below suggests the way that the findings of this study plot on the axes: midway on the axis for Evidence and also mid-way for Context.

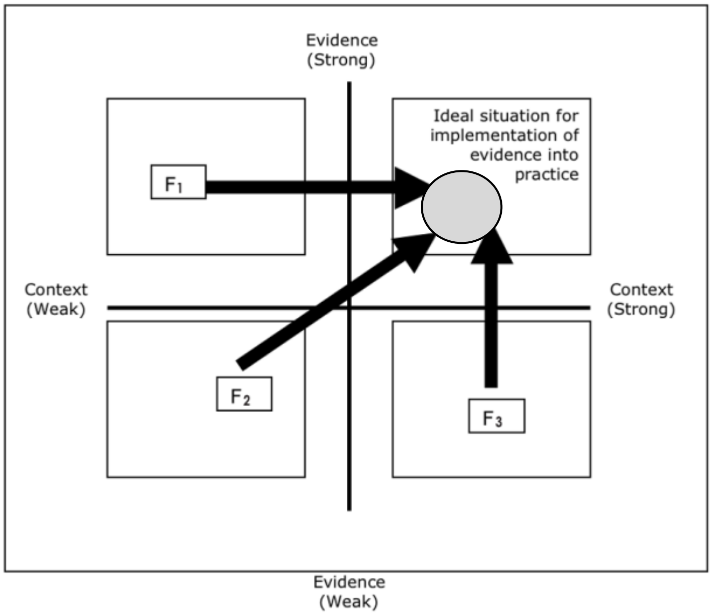

Figure 8.1
The PARiHS Diagnostic and Evaluative Grid with Position Suggested for Midway E and C (Kitson et al., 2008)

Valid and reliable measurement of the factors affecting the implementation of evidence has been persistently problematic (Estabrooks et al., 2003). Vote counting methods of the negative and positive effects of implementation strategies have not been found to be useful indicators of the effects of a particular approach (Grol & Grimshaw, 2003). A systematic review of literature about interventions aimed at increasing research use in nursing found there to be uncertainty, almost silence, about effective ways to gauge the implementation of evidence into practice (D. Thompson, Estabrooks, Scott-Findlay, Moore, & Wallin, 2007). More recent attempts to develop diagnostic and prognostic tools based on the constructs of the PARiHS framework include the Context Assessment Index (CAI) (McCormack, McCarthy, Wright, & Coffey, 2009) and the Organizational Readiness to Change Assessment (ORCA) (Helfrich, Li, Sharp, & Sales, 2009). Both of these instruments have shown potential as tools fit for purpose but require further development to increase reliability and validity.

The immediate power of PARiHS is as a framework for exposing comprehensively the realities for primary health care nurses of implementing a guideline that targets high health need populations. The PARiHS framework has been employed, specifically, to identify the enablers and barriers to guideline implementation in the primary health care setting and it has been effective for that purpose. Also, more than as an aid to the identification of enablers and barriers for Evidence, Context and Facilitation, the constructs on which the framework is based provide a valuable blueprint for goal setting towards successful implementation.

Facilitators are required who have high level of engagement with health professionals through sustained relationships that build solution finding capacity and capability alongside teams and individuals. Superficial understanding of the constraints affecting the working lives of health professionals results in individuals being blamed for their failings and triggers calls for more and more formal education instead of examination of the contextual issues in a healthcare setting to identify fundamental problems (Nairn, 2009). The power of such an approach to facilitation is that engaging teams and individuals in teasing out the influences on what they have, what they think and how they behave stimulates the search for alternative ways of doing and thinking. A major gap in implementation potential is the lack of facilitators to work alongside practitioners to help them make sense of practice.

The lack of planned Facilitation indicates a major deficit in the requirements for successful implementation of the AMCVR guideline. A practice development approach to address this gap has the potential for more successful implementation of the AMCVR guideline as well as for other gains associated with such an approach. Table 8.1, below, suggests some key elements of a plan to introduce practice development based on the findings of a realist synthesis of practice development (McCormack et al., 2007b). A detailed proposal is outside the scope of this work but the brief overview provided below presents the key elements of a plan that aligns the elements of practice development with steps to be taken to establish practice development in primary health care settings.

Table 8.1

Overview of Practice Development Planning for Primary Health Care

Findings from Realist Synthesis of Practice Development (McCormack et al., 2007c)	**Implications for Introducing Practice Development into Primary Health Care Nursing**
No one methodology is favoured but PD work should have evidence of a participatory, inclusive and collaborative methodology being used.	Preparation in the methodology of PD and ongoing support for practice developers
Methods fall into four groupings: (1) using and generating knowledge; (2) involvement of stakeholders; (3) developing participation and shared ownership; (4) effecting development of patient care.	
Discontinue the dominant focus on PD roles *per se* and instead develop transferable principles for the facilitation of PD within and across organizations.	Review nursing roles to identify and/or establish positions that could include a PD function.
Review the variety of roles in place/ needed that can operationalise PD methods and develop an infrastructure to enable senior staff to coordinate this work.	
Managers need to understand how PD can contribute to the modernization and development of effective services.	Provide education and awareness raising for managers to understand the methodologies and methods of PD.
Proactive service user involvement (or engagement) in PD work.	Develop processes for meaningful, engaged relationships between practice developers and service users
PD costing models should be based on the funding of PD methods, alongside the funding of roles that can facilitate the transferability of these methods across different contexts.	Establish a comprehensive business case that anticipates the costs of planning, preparing, implementing and maintaining a programme of PD
Further research is needed to advance the development and testing of these PD methods in order to inform outcome measurement.	Establish a Primary Health Care Nursing Practice Development Unit as a university and PHO partnership to implement a research programme that evaluates the health outcomes of PD and generates new knowledge about PD.
Collaborative relationships with higher education institutions can provide an important means of reducing isolation for practice developers and the potential for systematic and rigorous processes to be adopted.	
A strategic level evaluation framework should be developed that is consistent with the theory of complex interventions and their evaluation to generate new knowledge about the effectiveness of PD processes and outcomes derived.	

Summary of the Discussion of Findings

The two components of this study have provided compatible and complementary insights into the black box of implementation of the AMCVR guideline. The key messages have been presented throughout the discussion of findings following each theme of the first component of the study and then in relation to each element of the PARiHS framework. A synthesis and distillation of those messages follows that draws together the overall understandings gained.

The key messages of the study fall fundamentally into two areas. Firstly, health professionals have much to gain from collaborating in ways that build on their strengths and enable workplace relevant problem solving. Secondly, several improvements in healthcare systems are required to advance the implementation of the AMCVR guideline. A distillation of the messages pertaining to healthcare team collaboration and collective solution finding includes:

- Well-prepared clinical leaders are needed to facilitate creative, context-specific solution finding by engaging teams in change processes, envisioning and implementing innovative models of primary healthcare delivery
- Health professionals who are aware of the interactions between their work activities and the culture and structure of their workplace are better able to develop effective cultures through “bottom-up” planning and decision making.

- Nurses are enthusiastic about their experience-based knowledge and, given opportunities for more effective networking, can exchange and review knowledge gained from practice.

A distillation of the messages pertaining to potential improvements in healthcare that would advance the implementation of the AMCVR guideline includes:

- Long term solutions are needed to address the problems of the current funding model of primary health care that will enable practitioners to provide evidence-based healthcare for populations and individuals.
- There is a need for active recruiting, support, education and retention of primary healthcare professionals across the board
- Evidence for how to implement the AMCVR guideline recommendations is needed from bodies of evidence other than the guideline itself.
- More effective capture, management and reporting of local data is needed that supports a population health approach
- Attention and investment is required to develop effective management and clinical leadership at all levels of primary health care governance and provision.

The messages are essentially that, firstly, it is vital that health professional teams work collectively to tease out the issues that limit their practice potential and to plan for and implement changes to build an effective workplace culture. Secondly, some of the issues identified cannot be solved in the immediate workplace but require change and leadership throughout the heath care system –policy, governance, funding and healthcare provision. Practice development offers an approach for influencing and elevating change at the workplace level and for the development of recommendations for change at the health care systems level.

Practice development is an appropriate approach to assisting teams to work collaboratively to generate relevant and insightful solutions to clinical problems (Walsh et al., 2008). Practice development also enables clinicians to give voice to changes required in the health system overall and to find ways to channel their suggestions to managers and policy makers. This study is situated at the everyday practice level of guideline implementation and is not geared to a 'big picture' view of the health system. However, the methods of practice development are well suited to supporting the involvement of frontline clinicians in change processes to be actioned at governance and management levels (McCormack et al., 2007b). Skilled practice development is clearly needed, not as a 'fix all now' solution but as a carefully planned approach to guideline implementation.

Conclusions and Recommendations

This work has brought out in the open the recesses of the black box of guideline implementation in primary health care clinical practice. The contents of the black box include not only what health professionals do and how they think about their work but also the fundamental impact of the workplace context on their practice and their ability to transform their practice.

This work contributes to the body of knowledge about guideline implementation in primary health care nursing in two significant ways consistent with the aims of the study. Firstly, the contents of the black box have been revealed, described and analysed to illuminate the complexities of primary health care nurses' everyday use of a guideline. Secondly, the PARiHS framework has been found to be comprehensive, at once broad-reaching and specific, and capable of accommodating the messiness of everyday practice associated with guideline implementation in primary health care nursing.

The contribution to the body of knowledge about guideline implementation in primary health care nursing is unique in two ways. Firstly, the closed black box metaphor is rejected. The contents are accessible when methods are used that reveal what clinicians do, the factors that influence their practice and how they make sense of the context in which they work. Secondly, the PARiHS framework has been found to be comprehensive, at once broad-reaching and specific, and capable of accommodating the complexities of everyday practice associated with guideline implementation in primary health care nursing.

Furthermore, the study supports the relevance of a recent development of the PARiHS framework as a tool to be used in two phase (Kitson, 2008). The first is an evaluative and diagnostic process using Evidence and Context to identify enablers and barriers to successful implementation. The second involves the design and delivery of Facilitation that is tailored to support the enablers and minimise the barriers identified in the first phase. In the absence of effective Facilitation, only the two phase approach makes sense. Further research is required to progress the development of diagnostic and evaluative instruments of measurement based on the PARiHS framework that Kitson et al (2008) suggest will follow from ongoing theoretical development of the framework.

Nursing potential in general practice is fundamentally limited by a culture of low expectations and an outdated model of healthcare delivery. Although the challenges of primary health care delivery are complex, multiple and demanding, the social structures of the busy world of practice operate to preserve traditional organisational structures and to restrain opportunities for creative alternatives. Consequently, health professionals are prevented from practicing in ways that improve clients' experience of health care, enhance nurses' job satisfaction, build high functioning interprofessional relationships and contribute to cost-effectiveness.

Successful implementation of the AMCVR guideline requires full expression of human agency in individuals and collectives. Working in this way involves constructive critique of current practice patterns, creative envisioning of alternatives to the status quo, access to resources and clout to enable change. This change would be enabled through practice development, an approach used successfully to enable teams to engage in creative problem solving for successful implementation of evidence into practice. This study strongly recommends sustained investment in skilfully guided practice development to maximise successful facilitation of the implementation of a guideline in primary health care.

The key requirements for successful practice development (see Table 8.1 above) clearly indicate an exit route from the black box. In essence, the following steps are required in the context of this study:

1. Primary health care clinicians, managers, planner/funders and employers are to engage in discussion about the perspectives, methods and potential of PD to facilitate the implementation of evidence into practice. This step concludes with the identification of a sponsor as nominal lead for the project.
2. A comprehensive proposal is prepared, based on the findings of this study, that anticipates the process and costs of planning, preparing, implementing and maintaining a programme of PD and agreement reached about the source of required funding.

3. A comprehensive review of the primary health care workforce follows in order to identify potential practice developers. PD should be incorporated into the role of people that have high clinical credibility and power to influence health care delivery. Initially, these practice developers are likely to have a senior nursing role.
4. Once identified, the practice developers engage in intensive preparation in the methodology of PD and ongoing support in its implementation.
5. Concurrently with the steps above, a Primary Health Care Nursing Practice Development Unit is developed as a university and PHO partnership to implement a research programme that evaluates the health outcomes of PD and generates new knowledge about PD.

In conclusion, the recommendations arising from the findings of this study contribute in a meaningful way to the body of knowledge about the implementation of evidence into nursing practice by exposing the inextricable links between the nature and patterns of healthcare practice and the social structures that shape and mould it. As primary health care services battle with the ever increasing impact of an ageing population, higher costs of healthcare, and a workforce shortage, the availability of flexible, multi-skilled, solution finding health professionals is pivotal to high quality health care. Practice development is essential for its propensity to encompass clinical leadership, the expression of human agency, a person-centred orientation, and evidence based practice in the provision of excellent healthcare.

APPENDIX 1

Information Sheet and Consent Form

UNIVERSITY OF
TECHNOLOGY SYDNEY

PARTICIPANT INFORMATION SHEET[31]

Researcher's Name: **Ann McKillop**
Contact details: [redacted] **, ph** [redacted] **ext** [redacted]

Invitation to Participate in Research: Use of Guidelines in Primary Health Care Nursing

You are invited to participate in a study about nurses' use of the "Assessment and Management of Cardiovascular Risk" guideline in primary health care.

There is a high level of awareness of the burden for New Zealanders of cardiovascular disease and diabetes and that, even though overall statistics for these conditions are improving somewhat, the disparities between Mäori and non-Mäori are widening. It is also well recognised internationally that the implementation of guidelines into practice is a complex process in healthcare and that the primary health care settings present unique challenges.

The aim of this study is to comprehensively describe and analyse primary health care nurses' use of a guideline in everyday practice in order to identify factors affecting guideline implementation. The aim will be achieved by using the example of the Assessment and Management of Cardiovascular Risk guideline to:

1. Uncover, explore and summarise the nature of primary health care nurses' implementation of a guideline to reveal the knowledge and expertise embedded in their everyday practice.
2. Apply the Promotion Action on Research Implementation in the Health Services (PARiHS) framework to an analysis of the realities of everyday practice in order to expose the enablers and inhibitors of the implementation of guideline.

It is important to uncover these complexities so that the real issues can be understood and strategies identified to support guideline implementation. The research will inform recommendations for optimising guideline production, local adaptation, dissemination and workforce development for the future.

In this study the perspectives of several groups are being sought; these are the perspectives of primary health care nurses employed in General Practice (focus group interviews) and by Mäori health providers (focus group interview), the perspectives of general practitioners (focus group interview), and the perspectives of Nurse Practitioners, primary health care managers and funder/planners (individual interviews).

This study will take place over an eight month period, and will be conducted by Ann McKillop who is undertaking the Doctor of Nursing programme at the University of Technology Sydney. There will be at

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least a two-week period for you to consider this invitation to participate before being asked if you would consent to be interviewed as a participant.

The study aims to recruit for focus group interviews of approximately 1 hour:

- Primary health care nurses from General Practices:
    - Area 1 (6-8)
    - Area 2 (6-8)
    - Area 3 (6-8)
    - Area 4 (6-8)
    - MPOs (5)
- Doctors from General Practice (6)
- Nurse Leaders (3)

Individual interviews of approximately 45 mins with:

- Primary Health Organization (PHO) managers (5).
- Primary Health Care funder/planners (2)

This study does not include participants' experience of using guidelines other than the "Assessment and Management of Cardiovascular Risk" guideline. Health professionals working in secondary care settings will not be eligible to participate in this study.

The focus groups and interviews aim to give an opportunity for the participants to discuss the real everyday clinical practice issues about implementing guidelines into practice. It will also be a chance to suggest opportunities and strategies for optimising guideline use.

All focus groups and interviews will be conducted at a time and venue convenient for the participants and will be audio-taped. You do not have to answer all the questions, and you may stop your contribution to the focus group at any time. Your anonymity in all research documents is assured. Participants will adopt or be given pseudonyms, notes taken from the audiotapes will be thematically coded. All data in each of the focus groups and interviews will be aggregated, coded and reported generally. All participants will be given an opportunity to read and comment on the draft report for accuracy before it is finalised.

Participants will be free to withdraw at any time during the research without penalty. The researcher will take utmost care to preserve the confidentiality of participants, and the focus group members will be invited to protect the identities of group members. No adverse effects from participation in the research are envisaged, and participation in the research will not advantage or disadvantage any staff member in their employment.

The results of the study will be reported in the researcher's doctoral thesis and a summary will be made available to participants. The researcher will offer to provide verbal presentations results to primary health care professionals. Additionally, academic papers will be presented at conferences and professional fora, and research papers will be submitted for publication to peer reviewed journals.

If you have any queries or concerns regarding your rights as a participant in this study, you may wish to contact your professional organisation and/or a Health and Disability Advocate, telephone 0800 555 050.

In the unlikely event of a physical injury as a result of your participation in this study, you may be covered by ACC under the Injury Prevention, Rehabilitation and Compensation Act. ACC cover is not automatic and your case will need to be assessed by ACC according to the provisions of the 2002 Injury Prevention Rehabilitation and Compensation Act. If your claim is accepted by ACC, you still might not get any compensation. This depends on a number of factors such as whether you are an earner or non-earner. ACC usually provides only partial reimbursement of costs and expenses and there may be no lump sum compensation payable. There is no cover for mental injury unless it is a result of physical injury. If you have ACC cover, generally this will affect your right to sue the investigators.
If you have any questions about ACC, contact your nearest ACC office or the investigator.

Further information may be obtained by contacting Ann McKillop, contact details above. If you have any concerns about the study you may also contact Ann's supervisors Professor Jackie Crisp, email jackie.crisp@uts.edu.au or Professor Ken Walsh, email walshk@waikatodhb.govt.nz .

This study has received ethical approval from the Northern X Regional Ethics Committee.
(reference NTX/06/07/087) and University of Technology Sydney Human Research Ethics Committee
(reference 2006-250)

NOTE[32]**:**
This study has been approved by the University of Technology, Sydney Human Research Ethics Committee. If you have any complaints or reservations about any aspect of your participation in this research which you cannot resolve with the researcher, you may contact the Ethics Committee through the Research Ethics Officer (ph: 02 9514 9615, Research.Ethics@uts.edu.au) and quote the UTS HREC reference number. Any complaint you make will be treated in confidence and investigated fully and you will be informed of the outcome.

UNIVERSITY OF
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Use of Guidelines in Primary Health Care Nursing[33]

Consent Form

Researcher: Ann McKillop, Doctor of Nursing candidate, University of Technology Sydney

Participant's Name____

(Please tick the relevant box)

I am working in primary health care and I am volunteering to participate in the project on the following basis:

I am a practice nurse

☐

I am a General Practitioner

☐

I am a primary health care nurse working for an iwi provider.

☐

I am a Nurse Practitoner

☐

I am a primary health care manager

☐

I am a primary health care funder/planner

☐

I have read and I understand the information sheet and I have had the opportunity to discuss this study, to ask questions and to have them answered to my satisfaction. The risks and benefits of the study have been explained to me, and I am satisfied with the basis of my participation in the study.

I understand that:

- I will be asked to contribute my insights and thoughts in relation to the implementation of a guideline for assessment and management of cardiovascular risk in primary health care practice.
- I will choose or be given a pseudonym
- Formal reporting of the study will be based on aggregated data

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- The published results will not use my name, and that no opinions will be attributed to me or in any way identify me
- I understand that the tape recording of interviews will be electronically wiped at the end of the project.
- I understand that taking part in this study is voluntary and that I am free to withdraw my participation from this research project at any time I wish, without consequences, and without giving a reason.

I undertake to:

- Use the group processes responsibly (strike out if not applicable)
- Minimise, wherever possible, reference to third parties in ways that may lead to their identity being known or becoming known to others (third parties may include, fellow staff members, patients or relatives)

Signed: ___________________________ Date _______________
Printed Name: ____
Address for results : ____

Researcher contact:

Ann McKillop, [redacted], ph [redacted], [redacted]

Research Supervisors:

Professor Jackie Crisp, email jackie.crisp@uts.edu.au or Professor Ken Walsh, email walshk@waikatodhb.govt.nz .

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APPENDIX 2

Interview guide

INTERVIEW GUIDE

<table>
<tr><th colspan="3">Focus Group Interviews</th><th colspan="3">Individual Interviews</th></tr>
<tr><th>Practice Nurses</th><th>Iwi Nurses</th><th>GPs</th><th>Nurse Practitioners</th><th>Funder/planners</th><th>PHO Managers</th></tr>
<tr><td colspan="6">Icebreaker – Unique nature of Primary Health Care</td></tr>
<tr><td colspan="2">Sources of clinical information used currently in primary health care for assessment and management of cardiovascular risk. Ease of access to information</td><td></td><td>Sources of clinical information used for assessment and management of cardiovascular risk. Ease of access</td><td colspan="2">Contribution to guideline dissemination and utilisation</td></tr>
<tr><td colspan="2">Usefulness of evidence-based guidelines in everyday Primary Health Care nursing practice for people with cardiovascular disease</td><td></td><td>Usefulness of evidence-based guidelines in everyday Primary Health Care nursing practice for people with cardiovascular disease</td><td></td><td></td></tr>
<tr><td colspan="6">Planning and adaptation for local implementation of guidelines</td></tr>
<tr><td colspan="6">Primary Health Care nurses' contribution to the multidisciplinary team in implementation</td></tr>
<tr><td colspan="6">Supports and challenges of guideline implementation in Northland</td></tr>
<tr><td colspan="6">Building community input into guideline implementation</td></tr>
<tr><td colspan="6">Role/s of nurses in guideline development, dissemination and utilisation in Primary Health Care</td></tr>
<tr><td colspan="6">Education/workforce development for nurses re guideline implementation in Primary Health Care</td></tr>
</table>

APPENDIX 3

Focus Group 5 – Codes with Line Numbers

FOCUS GROUP 5 - NURSES (N=3) 19.03.07/ 01.16.33 HRS

Codes and Line Numbers

Note	Line
Uniqueness mainly demography – high Mäori, poor health stats, comorbidities, diabetes prevalent problem	14 - 28
High health needs	45 – 55
Co morbidities require screening for a range of problems	61 - 66
Screening is usual practice eg diabetes fasting sugar do lipids as well	70 - 82
Opportunistic screening for target population	86 - 93
Nurse clinic gives protected time	94 - 101
Time to get involved	105 - 122
PREDICT resources useful but usually enter data later	125 - 140
Skills for Careplus good preparation for cv risk work	142 - 169
PREDICT not just for screening. Score risk for patients diagnosed with CV disease to check for optimum treatment	170 - 198
Pt responsibility for follow-up post screening for lipids	200 - 210
Follow-up easier if nurses have own patients but flow of information not yet organised	204 - 227
Funding for case-finding from OHML but not for interventions	230 - 245
What you gonna do when you've found them?	246 - 257
Follow-up from mass screening problematic – eg for those enrolled elsewhere	258 - 269
Cv risk programme happened quickly because drs on board "actually support the nurses"	276 - 280
Careplus funding big support but need experienced nurses	281 - 294
Don't always have nurse time where we would like it	301 - 307
CV risk assessment extra work with no extra income	308 - 317
Getting at the target population difficult "People who would benefit are at work"	318 - 328
Blood test problems re fasting and load on lab tech	329 - 346
Smoking cessation referral in-house	347 - 361
Heart foundation funding for BOI training	366 - 370
Referral to wider team for diet and exercise interventions	371 - 373
"Opportunistic [screening] works – grab them at the time" Mailout for diabetes worked	374 - 389
If patient initiated screening "They [may]come in out of fear" Need to explain risk for word of mouth to work	390 - 402
Community wide events usually PHO initiated rather than by community	418 - 425

Need professional development prior to roll out of new programmes	426 - 464
Miracle would produce “Lots of carrots. Lots of time” for screening only.	478 - 484
Overlap of Careplus, diabetes screening and cv risk makes it difficult to calculate cv risk population	485 - 495
Can’t do cv assessment in 6mins – “People would think you are rude!”	496 - 503
Workplace screening could work	509 - 529
Postgrad education leads to “You do get a bit more critical and don’t accept everything that comes along”	539 - 547
Community liaison person needed as a bridge between General Practice and their population – Not sure how to fit in with CHWs and iwi nurses	555 - 575
Role models can help - “Are you saying that such a person exists?”	576 - 593
How to reach population? Raising community awareness through tv shows and ads of dubious value	609 - 626
PREDICT lacks online information for users eg. re parameters, how to use diabetes and cv risk guidelines together	627 - 637

APPENDIX 4

Health Care Team – Codes and Categories

HIGH HEALTH NEEDS	Line No	Data source #
Low SES – high needs	20 - 25	1
High health needs	45 – 55	5
Co morbidities require screening for a range of problems	61 - 66	5
Appalling health disparities	32 - 38	7
It’s all about geography and demographics	39 - 47	7
Unique – Barriers to accessing health care for Mäori 30% population, 2/3 rural dwellers, 78% in 3 most deprived deciles of scale of 10	13 - 22	8
Big cv push – Mäori men dying 14 yrs younger than non-Mäori – Enough!	237 - 246	8
Travesty that 1:30 Mäori men live beyond 65	248 - 251	8
Unique – As iwi provider, we get lowest SES, dreadful stats, serious gaps in services	9- -17	9
Demography – large families with long histories of cyclic poverty – looks like the medical teams don’t give a toss	18 - 20	9
Unique feature – rurality, 70% Mäori, high deprivation, high morbidity, co-morbidities, high workload, resources stretched	16 - 26	10
High Mäori population is a challenge for mainstream to get right service to right people at right time	46 - 50	11
SIA funding to target high need Mäori	119 - 126	11
Culture of organization should include clear leadership re what and how to do things	191 - 193	11
Bulge in population at young and old ends	39 - 41	4
SYSTEMATISED APPROACH WORKS • **Impl g/line within a systematic programme**		
Mandatory programmes – Careplus & CMDHB CCM – had supports for successful implementation and paved the way for PREDICT	124 - 130	1
Miracle would involve standardized prescribed meds otherwise patients self-medicate	246 - 256	1
Miracle would involve whole practice team approach to systematic programme	257 - 267	1
Standardised care leads to standardized risk reduction	270 - 272	1
Potential of One Heart Many Lives to get consistent message out to get community grounds well. Let’s do this together because this is killing our community.	294 - 300	1
Systematic programmes for CVD improve access especially for rural, Mäori and low SES	691 - 705	1
Careplus enables nurse to know patient really well so can triage problems quickly	222 - 229	2
Successful CVD risk management needs programme approach with education, teamwork and information systems and stats can go through roof	331 - 343	2
Manaaki Manawa brings 12 wk programme post MI to help reduce risk factors	103 - 115	3
Manaaki Manawa based on guideline	144 - 148	3
Kaupapa Mäori manaaki Manawa model	461 - 470	3
Nurse clinic gives protected time	94 - 101	5

Standardised guideline based care plans informs whole team within wider whanau approach **[fits in 3 categories]**	82 - 94	6
Buddy system to manage patient flow through nursing clinic	199 - 216	9
People know what they should do and One Heart Many Lives can bring connection between science and clinical	661 - 670	1
Skills for Careplus good preparation for cv risk work	142 - 169	5
WORKFORCE DEVELOPMENT GAPS • **Suggested professional development gaps** • **Specific skill and knowledge gaps** • **Any training mentioned**		
Workforce development needed on interaction with patient in deciding the plan	168 - 170	1
Clinical training and IT training going on but need how to work with pts re CCM	174 - 182	1
Difficult to measure the effect of lifestyle interventions	205 - 214	1
Training needed for skills to foster lifestyle change	215 - 230	1
Need opportunities to link into to do things differently	333 - 335	1
New structures and ways of doing need support	547 - 554	1
BOI training doesn’t need 2 days	599 - 600	1
Organisations providing training are haphazard and need coordination and communication	602 - 618	1
Flinders BOI training helps with understanding of stages of change	636 - 640	1
PNs require wide knowledge and skill base – not suitable for new grad	276 - 281	2
Good and flexible access to ongoing training but at night and weekends	285 - 300	2
Scholarships for P/G study and conferences helps you think about your work, read more broadly	526 - 549	2
Professional Development needs to be broad across lifespan	26-29	4
Wellness model requires core competencies of Primary Health Care nursing – new specialty practice	160 - 171	4
Primary Health Care nurses need different skill set than hospital nurse	200 - 202	4
New grads may be more flexible than experienced hospital nurses but need support	216 - 223	4
Professional development important and need protected time but backfill difficult	225 - 239	4
“You can’t stand still”	240 - 244	4
Skill set at a distance from reactive care	267-270	4
Remote access to education for remote nurses	313 - 317	4
Numbers and patterns of workforce more suited to illness model	30-34	4
Competent cardiovascular assessment no just for specialist nurse	342 - 345	3
Unclear about study opportunities	356 - 359	3
Need workforce development in case management	385 - 390	3
No way to gauge competencies because it’s individual – nurses with different backgrounds	428 - 433	3
Need professional development prior to roll out of new programmes	426 - 464	3

Postgrad education leads to “You do get a bit more critical and don’t accept everything that comes along”	539 - 547	3
Training required for cv risk assessment and for PREDICT	172 - 183	9
Need practice to get it right	184 - 192	9
Need to learn interview techniques for self-management, care pathways, manage time	281 - 293	9
Guideline excellent resource but need training to use it	131 - 139	11
Software can be useful for training from a distance	208 - 213	11
PATIENT SATISFACTION • **Positive patient feedback** • **Mentions patient satisfaction, satisfied**		
Careplus increases patient satisfaction, knowledge, ownership of plan	183 - 196	1
Some things are nice for patients – eg pool – and they talk about it	273 - 276	1
Patients go to the doctor and expect to see the doctor and mostly satisfied to see the nurse	520 - 526	1
Patients like seeing nurse as on time and more time to give than docs	211 - 216	2
Patients know nurse will refer to doc as needed	215 - 217	2
Some patients prefer to see doc	218 - 221	2
Patients aware that nurses very busy so “won’t take too much of your time”	505 - 510	2
Standard service is that patients see the nurse before the doctor and they like it	374 - 396	9
NEW UNDERSTANDINGS • **Some health profs attitudes bad** • **Burnout perhaps**		
Ignorance and prejudice of some clinicians are barrier to effective lifestyle interventions	619 - 635	1
Staff with many years of experience may be cynical re lifestyle change interventions	641 - 648	1
Some people find it hard to care, don’t have the art	410 - 415	3
Naming and shaming for DNA shows lack of understanding about circumstances	58 - 68	9
GPs had more trouble changing than nurses	131 - 134	1
Whole approach needs to change to access target population – eg Mäori men aged 35	278 - 281	1
Big shift for docs to think health promotion – “I’m a doctor and I fix illness” – funding covers the extra costs of those that come to the doctor all the time	483 - -490	1
Big culture shift going on in Primary Health Care but still block to resolving disease/ illness focus in GP	491 - 498	1
Docs want to retain autonomy over scope, role and focus of their work – retain relationships with patients built up over years, not give any of their work to nurses, not be told to do things differently	499 - 512	1
Support and encouragement needed for docs to work differently	512 - 519	1
Some docs promote and support whole team approach but some prefer status quo (as do some admin staff)	527 - 540	1
Huge culture change required	85 - 92	4

USE AND USABILITY OF GUIDELINE AND ITS TOOLS • **How guideline was used** • **Issues, factors re usability**		
Guideline use as normal practice now - big penny drop with PREDICT tools	137 - 150	1
PREDICT is not for them to use – special trained staff will come in	140 - 144	2
Careplus and PREDICT both use same risk assessment	149 - 152	2
Computerised tools to graph risk are good to show pts comparison/progress	155 - 164	2
Use PREDICT on computers at work	217 -221	3
Guideline as an everyday tool	366 - 376	3
Tools to support implementation must be reliable	55-60	4
Tools help big picture view	69 - 75	4
PREDICT resources useful but usually enter data later	125 - 140	5
PREDICT not just for screening. Score risk for patients diagnosed with CV disease to check for optimum treatment	170 - 198	5
PREDICT lacks online information for users eg. re parameters, how to use diabetes and cv risk guidelines together	627 - 637	5
Don’t have hands on PREDICT. Use NHF Dpac access to guideline	48 - 52	6
Use guideline also to assess treatment regimens and justify prescribed treatment	53 - 61	6
CV risk guideline invaluable – need more, eg asthma	66 - 70	6
Especially useful for comorbidity of cv disease and diabetes. Assessing both all the time – 85% Mäori	73 - 76	6
Standardised guideline based care plans informs whole team within wider whanau approach	82 - 94	6
Guideline used to justify early aggressive prescribed meds	101 - 111	6
Little evidence for cardio-protective diet lowers cholesterol in Mäori patients so statin after 8 wks trial	113 - 120	6
Use guideline as tool but open to other evidence	123 - 131	6
Access to laptops and internet essential to use PREDICT	258 - 268	6
Use hard copy because PREDICT requires cellphone cover, NHI, takes too long, detracts from interview	259 - 270	9
Guideline excellent resource but need training to use it	131 - 139	11
IT mishmash of CCM, Careplus, PREDICT, Canary	261 - 273	11
Guideline is fantastic for clear pathway of treatment	571 - 577	1
Guideline used to justify early aggressive prescribed meds	101 - 111	6
Guideline seen as everyday tool – handbook not CD	197 - 211	3
Can locate guideline - shelf or computer	135 - 137	2

MULTIDISCIPLINARY TEAM COMMUNICATION • **Connections within team** • **Factors affecting**		
Making the right connections	148 - 15	4
Doctor referral of patient to nurse gives positive message	230 - 235	2
Nurses share info and gain advice from docs via patient notes	177 - 184	2
Doctor referral of patient to nurse gives positive message	230 - 235	2
Patient notes give doctors good information	252 - 254	2
Docs used to be threatened by changes but happy to refer to nurses now	566 - 572	2
Nses organize repeat Rx but for new drugs suggest to doctor	630 - 634	2
Follow-up easier if nurses have own patients but flow of information not yet organised	204 - 227	5
Sharing of health info between providers difficult re mobile population and different software	287 - 299	6
Client-centered approach would lead to closer collaboration among nurses and with docs	363 - 370	8
Devastated when dropped out of system for 2 x DNAs – fight hard to get apptmt for them	69 - 76	9
Nurse organizes clinic follow-up and sets priorities for seeing doctor and keeps them coming in – able to because no costs	432 - 464	9
Iwi nurses feel like second class citizens and that’s hard to take	501 - 507	9
Ill-feeling due to misinformation	508 - 520	9
Constructive criticism by staff should be part of quality improvement	192 - 199	11
Shared positions across PHOs good but organizations still need to do own stuff	214 - 220	11
Need expertise in community engagement and collaboration with other providers (non-clinical skills)	93 - 104	4
EFFECT ON HOW MULTIDISCIPLINARY TEAM FUNCTIONS • **Work organization** • **Roles**		
Careplus brings reduction of GPs workload so positive effect on working as a team	202 - 208	2
Doctor referral of patient to nurse gives positive message	230 - 235	2
Careplus lightens doctors’ workload	250 - 251	2
We are working harder, quicker and more as a team with the docs	556 - 565	2
Prior knowledge of patient helps to assesS need for doc appointment	593 - 599	2
Feedback from CCM programme good opportunity for discussion in team	636 - 643	2
Cv risk programme happened quickly because drs on board “actually support the nurses”	276 - 280	5
Referral to wider team for diet and exercise interventions	371 - 373	5
Standardised guideline based care plans informs whole team within wider whanau approach	82 - 94	6

Issues with continuity of care across GP-iwi provider interface	273 - 281	6
NP trailblazer re Whanau Ora scope, relationships with GPs and pharmacists	176 - 192	8
Nursing and medical input vastly increased	42 - 46	10
Regular CV clinics don’t work – nurse clinics run all the time	83 - 93	10
Also need dietitians, sports advisors	210 - 217	10
Nurse could do basic cv risk, education, smoking cessation because all you need for that is correct information	276 - 282	10
Nurses could be used hugely for ongoing management	286 - 290	10
Constructive criticism by staff should be part of quality improvement	192 - 199	11
Nurses need to be careful to stay within scope of practice	617 - 623	2
Community liaison person needed as a bridge between General Practice and their population – Not sure how to fit in with CHWs and iwi nurses	555 - 575	5
FOCUS ON VULNERABLE POPULATIONS/ HIGH HEALTH NEEDS		
Low SES – high needs	20 - 25	1
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SIA funding to target high need Mäori	119 - 126	11
Culture of organization should include clear leadership re what and how to do things	191 - 193	11
Bulge in population at young and old ends	39 - 41	4
Cheaper consult fees means patients come more often so rare to have gaps	578 - 583	2
Economic and social impact of premature death	251 - 262	8

APPENDIX 5

Table of Themes

THEME	CATEGORY	CRITERIA FOR INCLUSION – DATA REFERS TO:
Self-managing Client	Client empowerment	Benefits of, challenges to, what is required for self-management
	Client satisfaction	Client feedback positive, satisfied
Everyday Nursing Practice	Nurses relating to nurses	Issues, problems, solutions re relating nurse-to-nurse. Benchmarking
	Taking a whole person approach	Consider whole person, health determinants, comtinuum of care
	Gaining client buy-in	Strategies and factors affecting
	Building relationships	Factors affecting and strategies for relating with clients. Impact of effective relationships
	Engaging with community	Strategies to know community..Viewing community as a whole population. Wider view than care to individuals Accommodating orientation, needs, circumstances of community
	Brokering knowledge and resources	Meeting patient education needs. Accessing and referring to other resources. Enhancing community capacity
	Making the most of experience	Familiarity with and passion for this work
Developing New Relationships in Health Team	Focusing on health needs of population	High health needs in general, not just CV risk
	Using a systematized approach	Using/adapting established programmes or creating new ones
	Working together differently	Work and role (re)-organisation
	Communicating with the team	Multidisciplinary connections – factors affecting
	New understandings	Burnout, attitudes are barrier to successful implementation
	Using the guideline and its tools	Resources, tools, skills re how the guideline is used. Impact of use
	Accessing target population	Factors affecting problems and strategies re access/reach to target population,
Impact on Healthcare Delivery	Iwi providers work differently	Strengths, challenges, integration with mainstream
	Funding issues	Any referral to funding
	Difficulties, challenges	Health care organizational issues, barriers
	Changes in service delivery	Who, how of care delivery. From illness model to wellness one, changes in contracting
	Regional cohesion	Factors and effects of Working collaboratively across the region
	Challenges to workforce capacity	Stress due to lack of staff numbers, skills, resources, training

APPENDIX 6

Codes for Evidence, Context and Facilitation

CODES FOR EVIDENCE

CODE	LINE NO	TRANSCRIPT
Guideline give nurses confidence to give advice to GPs	135 - 136	1
Guideline is fantastic for clear pathway of treatment	571 - 577	1
Guideline use as normal practice now - big penny drop with PREDICT tools	137 - 150	1
It's about personalizing it like longevity and breakdown of family life	670 - 673	1
Need to apply guidelines in a community sense – not just scientific	302 - 305	1
Patients need education about the science behind their meds so they don't self-medicate	675 - 684	1
Some things are nice for patients – eg pool – and they talk about it	273 - 276	1
Standardised care leads to standardized risk reduction	270 - 272	1
Whare tapa wha model gets family included and history of CVD can encourage screening	322 - 332	1
Careplus and PREDICT both use same risk assessment	149 - 152	2
Co morbidities require screening for a range of problems	493 - 504	2
Computerised tools to graph risk are good to show pts comparison/progress	155 - 164	2
Heart itself is valued by patients so they respond well to CVD stuff	29-33	2
Need to take time for patient's agenda to unfold	489 - 492	2
Nurse not the big boss	111 - 116	2
Patient notes give doctors good information	252 - 254	2
Patients aware that nurses very busy so "won't take too much of your time"	505 - 510	2
Patients can tell straight away if you are not interested	319 - 321	2
Patients like seeing nurse as on time and more time to give than docs	211 - 216	2
Patients take programme on board and do recognize value of nurse	239 - 241	2
Prior knowledge of patient helps to assesS need for doc appointment	593 - 599	2
Relevance of risk assessment hard to grasp for well patients	74 - 80	2
Sometimes takes a wee while to click	375 - 382	2
Successful CVD risk management needs programme approach with education, teamwork and info systems and stats can go through roof	331 - 343	2
Trust grows and patients ask questions and for more info	446 - 451	2
Adapt guideline-based care according to environment	164 - 172	3
GPs prescribe not so much to guideline – more how patient will cope	500 - 505	3
Guideline as an everyday tool	366 - 376	3
Guideline seen as everyday tool – handbook not CD	197 - 211	3

Manaaki Manawa based on guideline	144 - 148	3
Nurses use guideline to back up suggestions re prescription changes	179 - 185	3
Seeking a partnership, involving the whanau, handing process/choice over to client	453 - 461	3
Sometimes it’s something you can’t learn but through experience, trial and error, need hook-in	398 - 408	3
Special feature of work – communication and interaction with patients	38 - 44	3
Supporting them to run with it	474 - 478	3
Use PREDICT on computers at work	217 -221	3
We’re being told talk,talk,talk but it’s about listening	433 - 440	3
Whanau focus	137 - 140	3
Whanau ora important	92 - 97	3
“Why do you want to keep fixing me?”	105 - 108	4
Biggest change is relationship and networking skills	276 - 282	4
Strong relationship with patient required so patient candid – “Got no shoes”	191-198	4
Take control of own health	184 - 190	4
Tools help big picture view	69 - 75	4
Can’t do cv assessment in 6mins – “People would think you are rude!”	496 - 503	5
PREDICT not just for screening. Score risk for patients diagnosed with CV disease to check for optimum treatment	170 - 198	5
CV risk guideline invaluable – need more, eg asthma	66 - 70	6
Especially useful for comorbidity of cv disease and diabetes. Assessing both all the time – 85% Mäori	73 - 76	6
Guideline used to justify early aggressive prescribed meds	101 - 111	6
Little evidence for cardio-protective diet lowers cholesterol in Mäori patients so statin after 8 wks trial	113 - 120	6
Standardised guideline based care plans informs whole team within wider whanau approach	82 - 94	6
Use guideline also to assess treatment regimens and justify prescribed treatment	53 - 61	6
Use guideline as tool but open to other evidence	123 - 131	6
Absolute value of kaupapa Mäori approach not captured in stats eg, no. of HB1Ac, but evident in rich narrative	112 - 129	8
Appeal to responsibility to keep healthy so will become kaumatua or else responsibility on 18yr olds!	262 - 270	8
Community based CV risk assessment can lead to whole range of issues and priorities – very different from GP clinic.	101- 111	8
Enticements for cv risk assessment based on healthy lifestyle – fishing and sports goods	305 - 314	8
Kaupapa Mäori nursing approach based on solid understanding of that family and how they connect with the outside world	158 - 170	8
Relationship with “hard to engage families” are built on trust	59 - 65	8
Require firm foundation of understanding family dynamics, circumstances and history	67 - 77	8
Social marketing to reach men 35+ and push message about behaviours	215 - 217	8

Success of OHML launch – appeal to families – traffic light approach	283 - 300	8
Travesty that 1:30 Mäori men live beyond 65	248 - 251	8
Visual effect of OHML launch – heart photo	321 - 329	8
Don't care about cv risk. Care about relationships. We are a community development tea	297 - 302	9
Let the client determine priorities. Get the relationship to where you want	325 - 346	9
Need to engage person before assessing risk % to use as starting point for change	276 - 281	9
Need to learn interview techniques for self-management, care pathways, manage time	281 - 293	9
Nurse more able to advocate when they've seen the patient first and understand	409 - 414	9
Patients open up to nurse more than doctor	397 - 406	9
Push the boundaries. Make sure treatment is ordered and follow-up	116 - 125	9
Risk assessment only one part, a tool, need to consider whole family and other problems	308 - 317	9
We care about them. We listen to them. Take the time	93 - 99	9

CODES FOR CONTEXT

CODE	LINE	TRANSCRIPT
2 big companies recognize investment in workforce and have occupational health nurses doing CVD risk assessment – costs of CVD risk in workers	364 - 376	1
All Primary Health Care nurses should be risk assessing every patient as part of overall health assessment	411 - 438	1
Big culture shift going on in Primary Health Care but still block to resolving disease/ illness focus in GP	491 - 498	1
Big leap for uptake of best practice guidelines with programme approach – CMDHB CCM & PREDICT – vs paper based approaches	114 - 119	1
Big shift for docs to think health promotion – "I'm a doctor and I fix illness" – funding covers the extra costs of those that come to the doctor all the time	483-490	1
BN online in Kaitaia will build workforce	67 - 71	1
Careplus increases patient satisfaction, knowledge, ownership of plan	183 - 196	1
Community outreach worked for immunization programme	310 - 319	1
Demographic of PNs 48+ reluctant for big change near end of career	544 - 548	1
Difficult to measure the effect of lifestyle interventions	205 - 214	1
Docs want toretain relationships with patients built up over years, not give any of their work to nurses, not be told to do things differently	499 - 512	1
Extra incentive needed for CVD screening even though should be funded through capitation	473 - 481	1
Getting together on regional projects	26 - 28	1
Good data via IT systems helps to know who and how our community is	392 - 402	1
GPs had more trouble changing than nurses	131 - 134	1
High risk Mäori men 35 and over potential appeal to living longer to grandfatherhood -. Kids also pressure parents re risk	378 - 390	1
How to change working hours of practice to get access to risk population	283 - 287	1
How to get the bible out to all in different circumstances	306 - 309	1
Iwi providers need internal coordination of multiple services to get continuity	558 - 571	1
Lots of cardio healthy education out there but not necessarily the target population.	406 - 409	1
Low SES – high needs	20 - 25	1
Mandatory programmes – Careplus & CMDHB CCM – had supports for successful implementation and paved the way for PREDICT	124 - 130	1
Miracle would involve standardized prescribed meds otherwise patients self-medicate	246 - 256	1
Miracle would involve whole practice team approach to systematic programme	257 - 267	1

Need opportunities to link into to do things differently	333 - 335	1
New structures and ways of doing need support	547 - 554	1
New ways of working needed – skills, time, technology requires prof dev	86 – 94	1
NILs able to foster collaboration with equitable funding of PHOs	29 - 34	1
NILs project bottom up from nurses	39 – 43	1
Nsg confidence built with Careplus as fits/legitimises nursing model	161 - 167	1
Nurses may know about EBP but not how to implement it	70 – 84	1
Nurses taking it and running with it more so than rest of team	197 - 203	1
Opportunistic screening hard to fit in with patient seeing doctor for health problem	439 - 448	1
Part of miracle already happening different ways of working & roles for nurses – eg chronic care specialist with own patients	348 - 358	1
Patients go to the doctor and expect to see the doctor and mostly satisfied to see the nurse	520 - 526	1
People know what they should do and One Heart Many Lives can bring connection between science and clinical	661 - 670	1
PHO collaboration allows region wide focus, leverage, collective numbers	707 - 710	1
Potential of One Heart Many Lives to get consistent message out to get community grounds well. Let's do this together because this is killing our community.	294 - 300	1
Protected and funded time and commitment of docs required for nurses to do screening in general prac	452 - 472	1
Regional cohesion a strength	15 - 19	1
Rural nurses high commitment/contribution as part of community	51 – 58	1
Scattered population in Far North causes difficult access	287 - 293	1
Some docs promote and support whole team approach but some prefer status quo (as do some admin staff)	527 - 540	1
Staff with many years of experience may be cynical re lifestyle change interventions	641 - 648	1
Support and encouragement needed for docs to work differently	512 - 519	1
Systematic programmes for CVD improve access especially for rual, Mäori and low SES	691 - 705	1
Whole approach needs to change to access target population – eg Mäori men aged 35	278 - 281	1
Workforce capacity limited by lack of nurses	59 – 66	1
Workforce development limited by problems of back-fill	95 - 99	1
6 PHOs with 100% population enrolled work collaboratively	44-47	2
Applied for and got funding for simple programme of weight loss and smoking cessation and it works	389 - 395	2
Can locate guideline - shelf or computer	135 - 137	2
Careplus brings reduction of GPs workload so positive effect on working as a team	202 - 208	2
Careplus enables nurse to know patient really well so can triage problems quickly	222 - 229	2
Careplus lightens doctors' workload	250 - 251	2

Careplus needs to be sold as an overall management plan	60 - 65	2
Diabetes not seen as important by pts– not connected to CVD	34 - 36	2
Docs used to be threatened by changes but happy to refer to nurses now	566 - 572	2
Doctor referral of patient to nurse gives positive message	230 - 235	2
Doctors happy about funding coming in for Careplus	612 - 614	2
Family input fosters realistic lifestyle interventions	453 - 477	2
Feedback from CCM programme good opportunity for discussion in team	636 - 643	2
Health promotion part of all consults	420 - 422	2
Important to start relationship with getting to know whole person	88 - 94	2
Lack of knowledge about food and budgeting rather than shortage of money	401 - 405	2
Most patients keen to check CVD progress even if in for another problem	167 – 173	2
Need time to develop rapport	96 - 103	2
Need to connect with where patients are at and support and encourage	364 - 374	2
Nses organize repeat Rx but for new drugs suggest to doctor	630 - 634	2
Nurses need to be careful to stay within scope of practice	617 - 623	2
Nurses share info and gain advice from docs via patient notes	177 - 184	2
Opportunistic screening as part of chronic care requires goals, structure, teamwork, protocols	346 - 363	2
Patients know nurse will refer to doc as needed	215 - 217	2
PHO structure, support and initiatives has lifted whole skill level	303 - 310	2
PNs require wide knowledge and skill base – not suitable for new grad	276 - 281	2
PREDICT is not for them to use – special trained staff will come in	140 - 144	2
Rarely do patients refuse to go on careplus	105 - 109	2
Rural patients usually travel to town frequently	24 - 27	2
SES important factor	41 - 44	2
Shortage of doctors and high turnover	513 - 521	2
Shortage of doctors causing stress, working when ill	255 - 267	2
Slow for new docs to get up to speed with patients so maintain caution	603 - 611	2
Social factors out of people’s control eg	423 - 427	2
Some patients operate on “rural time”	45 - 59	2
Some patients prefer to see doc	218 - 221	2
Too busy – too many patients	484 - 488	2
Too busy for food, toilet, drink – impacts on performance, make mistakes	493-504	2

Unclear about their practice vs others	13 - 20	2
Very knowledgeable patients can be a challenge	662 - 698	2
We are working harder, quicker and more as a team with the docs	556 - 565	2
Worth persevering with reluctant patients	70 - 72	2
Accessing risk population – pleasure, treasure, measure	289 - 299	3
Building trust through korero 1-to-1 through allegiance with Northland	50 - 61	3
Clients set goals and you guide them to that.	420 - 427	3
Competent cardiovascular assessment no just for specialist nurse	342 - 345	3
Heart foundation funding for BOI training	366 - 370	3
Home-based programme or wherever comfortable for discussion re lifestyle change	116 - 125	3
Kaupapa Mäori Manaaki Manawa model	461 - 470	3
Knowing who lives where, tidal access, whaka whanaungatanga	69 - 75	3
Manaaki Manawa brings 12 wk programme post MI to help reduce risk factors	103 - 115	3
Mass screening would triple nurses’ work load	324 - 329	3
Need to contact people in the community who are in the know especially when out of own area	281 - 286	3
No way to gauge competencies because it’s individual – nurses with different backgrounds	428 - 433	3
Northland is about isolated rural communities – 4wd transport problems and deprivation	62 - 68	3
Pts get hoha when too many nurses visiting home – chronic care nurse often go-between	79 - 87	3
Relationships with colleagues important	188 - 192	3
Rewards for screening	301 - 307	3
Some people find it hard to care, don’t have the art	410 - 415	3
“The future of Primary Health Care is definitely going to be nurse-led”	259 - 262	4
“You can’t stand still”	240 - 244	4
Ageing workforce requires succession planning and preparation	245 - 258	4
Bulge in population at young and old ends	39 - 41	4
Community development. Community action	284 - 288	4
Health issues are social issues	110 - 114	4
Huge culture change required	85 - 92	4
Huge structural constraints on extended role of the nurse	289 - 293	4
Integration into community easier when live there	126 - 131	4
Iwi nurses’ practice is broad with flexible priorities	175 - 182	4
Iwi providers strong	41-43	4

Knowledge of community required to give health advice	137 - 147	4
Lifestyle interventions included in whole person care	76 - 84	4
Making the right connections	148 - 15	4
Need access to services outside of health sector	133 - 136	4
Need expertise in community engagement and collaboration with other providers (non-clinical skills)	93 - 104	4
New grads may be more flexible than experienced hospital nurses but need support	216 - 223	4
Numbers and patterns of workforce more suited to illness model	30-34	4
Nurses need to link with other social agencies to improve patients access to help	121 - 125	4
Nurses readily take on opportunities and philosophy "Like I'm home"	62-68	4
Primary Health Care nurses need different skill set than hospital nurse	200 - 202	4
Remote access to education for remote nurses	313 - 317	4
Standing orders require development	295 - 297	4
Tools to support implementation must be reliable	55-60	4
Unique demography of Northlanders	14-17	4
Used to coping on own/may resist change	18-20	4
Blood test problems re fasting and load on lab tech	329 - 346	5
Careplus funding big support but need experienced nurses	281 - 294	5
Community liaison person needed as a bridge between General Practice and their population – Not sure how to fit in with CHWs and iwi nurses	555 - 575	5
Community wide events usually PHO initiated rather than by community	418 - 425	5
CV risk assessment extra work with no extra income	308 - 317	5
Cv risk programme happened quickly because drs on board "actually support the nurses"	276 - 280	5
Don't always have nurse time where we would like it	301 - 307	5
Follow-up easier if nurses have own patients but flow of information not yet organised	204 - 227	5
Follow-up from mass screening problematic – eg for those enrolled elsewhere	258 - 269	5
Funding for case-finding from OHML but not for interventions	230 - 245	5
Getting at the target population difficult "People who would benefit are at work"	318 - 328	5
High health needs	45 – 55	5
How to reach population? Raising community awareness through tv shows and ads of dubious value	609 - 626	5
If patient initiated screening "They [may]come in out of fear" Need to explain risk for word of mouth to work	390 - 402	5
Miracle would produce "Lots of carrots. Lots of time" for screening only.	478 - 484	5
Nurse clinic gives protected time	94 - 101	5

Overlap of Careplus, diabetes screening and cv risk makes it difficult to calculate cv risk population	485 - 495	5
PREDICT lacks online information for users eg. re parameters, how to use diabetes and cv risk guidelines together	627 - 637	5
PREDICT resources useful but usually enter data later	125 - 140	5
Referral to wider team for diet and exercise interventions	371 - 373	5
Role models can help - "Are you saying that such a person exists?"	576 - 593	5
Time to get involved	105 - 122	5
Uniqueness mainly demography – high Mäori, poor health stats, comorbidities, diabetes prevalent problem	14 - 28	5
What you gonna do when you've found them?	246 - 257	5
Workplace screening could work	509 - 529	5
Access to laptops and internet essential to use PREDICT	258 - 268	6
Clinical specialty NPs not addressing gaps in Primary Health Care	247 - 255	6
Don't have hands on PREDICT. Use NHF Dpac access to guideline	48 - 52	6
Issues with continuity of care across GP-iwi provider interface	273 - 281	6
Mäori Health organization adopts wider approach to whole population and health team approach	137 - 150	6
Mäori health workers essential. Unless you are Mäori, you can't whakapapa to tribal links	205 - 214	6
Meetings of health care workers disintegrate because lack of release eg back-fill	313 - 316	6
Rural Primary Health Care skills specialized – communication, behaviour, culture "all of it"	167 - 193	6
Sharing of health info between providers difficult re mobile population and different software	287 - 299	6
Size of Mäori health workforce abysmally inadequate to address cultural component	155 - 165	6
Unique – overall health stats improvement but still widening gap Mäori vs non-Mäori. What is working? What is not?	26 - 33	6
Appalling health disparities	32 - 38	7
Currently costs of planning, funding and delivery of health promotion and early risk detection disconnected from Primary Health Care contracts with PHOs – about to change	65 - 90	7
Fragmented funding streams lead to fragmentation of priorities in DHB strategic plan	116 - 133	7
Illness at younger age for Mäori so 50 yr old needs same treatment as 75yr old non-Mäori	47 - 55	7
It's all about geography and demographics	39 - 47	7
Loss of clinical director for Primary Health Care has created gap in liaison and advice between funder and provider	204 - 211	7
Pockets of funding used to fill gaps as they arise. Piecemeal funding and actions	157 - 169	7
Strategies developed in tight budget constraints – "zero money" no disinvestment so new actions for no more money	170 - 185	7
Unique – geography leads to remote, isolated communities difficult to deliver service, get skilled workforce there, cost of delivery	28 - 31	7
Advocacy role of nurse important to help people access other services	143 - 155	8

Big cv push – Mäori men dying 14 yrs younger than non-Mäori – Enough!	237 - 246	8
Changes coming to specifications for contracts for Mäori Health services – focus on chronic illness	431 - 439	8
Client-centered approach would lead to closer collaboration among nurses and with docs	363 - 370	8
Community development by supporting organizations that know their community	272 - 277	8
Cynicism about mainstream services built over time	83 - 93	8
Family pressure on men to have cv risk assessment	315 - 320	8
Funding pockets not barrier when collaboration brings overlaps and synergies	232 - 236	8
Harsh, hard environment so nurses need to tread carefully	93 - 98	8
Mäori health providers are innovative, mobile to get services out to address health and social issues associated with poverty	41 - 49	8
Mäori nurse with whakapapa link can help but not always – depends on history	77 - 82	8
Mäori providers have keen understanding of what impacts on whanau – many issues nurses can't deal with	132 - 139	8
Motivational speakers to encourage men to have cv check	330 - 333	8
NP trailblazer re Whanau Ora scope, relationships with GPs and pharmacists	176 - 192	8
Nurses as leaders in promoting health lifestyles	370 - 373	8
Nurses as primary point of contact for and to the family	373 - 380	8
Respected elder as role model for treatment and lifestyle change	278 - 284	8
Responsiveness involves getting services to remote areas by those who understand Mäori	23 - 30	8
Unique – Barriers to accessing health care for Mäori 30% population, 2/3 rural dwellers, 78% in 3 most deprived deciles of scale of 10	13 - 22	8
Work smarter – resilience and better relationships - no endless bucket of money –	402 - 428	8
Better opportunity to get big picture of risk as out in the community	364 - 373	9
Breaking through cultural barriers	84 - 92	9
Buddy system to manage patient flow through nursing clinic	199 - 216	9
Can't do it in a clinic. Takes too long. Others waiting	192 - 198	9
Community ownership leads to better connection, good following, access to resources	562 - 575	9
Community support and engagement lead by Kuia and Kaumata even though past mistakes	524 - 541	9
CV risk assessment for all patients regardless of what they've come in for	343 - 362	9
Demography – large families with long histories of cyclic poverty – looks like the medical teams don't give a toss	18 - 20	9
Devastated when dropped out of system for 2 x DNAs – fight hard to get apptmt for them	69 - 76	9
Do one thing wrong in a small community and that's what people remember	544 - 561	9
Drs contracted to nursing service	417	9
Health events bring in community organizations	584 - 590	9

If the patients not home when you ge there don’t get too disturbed	51 - 54	9
Ill-feeling due to misinformation	508 - 520	9
Iwi nurses feel like second class citizens and that’s hard to take	501 - 507	9
Lack of funding requires resourcefulness	576 - 584	9
Managing health risk as a whole	318 - 323	9
Medical Centre runs as a business and that’s more credible than a nursing service	613 - 626	9
Naming and shaming for DNA shows lack of understanding about circumstances	58 - 68	9
Need practice to get it right	184 - 192	9
Need to understand transport and other genuine reasons for DNA	76 - 83	9
Not just patient volume, also geographic distance means can’t reach all population	42 - 51	9
Nurse organizes clinic follow-up and sets priorities for seeing doctor and keeps them coming in – able to because no costs	432 - 464	9
People reluctant to access health services	20 - 23	9
Planning marae based event to align with Men’s Health Week	159 - 169	9
Seriously underresourced but can break through barriers	24 - 34	9
Standard service is that patients see the nurse before the doctor and they like it	374 - 396	9
Unique – As iwi provider, we get lowest SES, dreadful stats, serious gaps in services	9- -17	9
Use hard copy because PREDICT requires cellphone cover, NHI, takes too long, detracts from interview	259 - 270	9
We deliver care in a different way but nobody understands what a nursing service is!	591 - 601	9
Also need dietitians, sports advisors	210 - 217	10
Community involvement must be authentic and relevanT or else it is abusive	161 - 168	10
Cv risk assessment fairly straightforward but follow-up, lab tests, intervention huge	35 – 41	10
Difficult to access target population for early risk detection – don’t see the point – not sick	57 - 66	10
High deprivation means huge load to care for current pts without finding more through screening	140 - 145	10
Huge amount of follow-up when patient non-compliant, not interested	47 - 56	10
It’s crazy. Guideline is being pushed to save money at the other end but not being resources at this end	291 - 299	10
It’s frightening!! No extra funding for huge increase in work volume	327 - 335	10
Iwi providers hugely better funded but don’t deliver services near to medical centre nor communicate re work done	179 - 186	10
Lab services pressured now especially for fasting bloods	168 - 175	10
Lots of DNAs	94 - 98	10
Money given straight to patient is problematic – not always spent on healthcare	116 - 123	10
Need flexibility – patients may have transport for short distance but unreliable and not for long distance .	73 - 82	10
Need increased person power – can’t manufacture time	239 - 252	10

No doubt nurses can do 80% of AMCVR work but don’t have the numbers	206 - 209	10
No doubt that role of nurse in chronic care makes senses but not feasible – not enough nurses	132 - 139	10
Not aware of iwi services re health promotion	187 - 200	10
Nurse could do basic cv risk, education, smoking cessation because all you need for that is correct information	276 - 282	10
Nurses could be used hugely for ongoing management	286 - 290	10
Nursing and medical input vastly increased	42 - 46	10
Other screening programmes were poorly funded – way more nursing time required	313 - 326	10
Patients don’t know about entitlements to WINZ support for Rx and doctor costs	99 - 115	10
Proper risk profiling would cost a lot and create huge ongoing work	160 - 167	10
Regular CV clinics don’t work – nurse clinics run all the time to fit in with patients’ coming in when can	83 - 93	10
Services fragmented re iwi providers and medical centre so resources wasted	218 - 236	10
The more you get involved in chronic care the more it costs	308 - 312	10
Those who need the help can be hardest to reach	252 - 259	10
Unique feature – rurality, 70% Mäori, high deprivation, high morbidity, co-morbidities, high workload, resources stretched	16 - 26	10
We’re the experts but we haven’t the resources	269 - 270	10
Getting people here is difficult needs manpower and money	260 - 268	10
All good to go except for nurses and funding	249 - 256	11
Challenge to fight for ...	68 - 73	11
Constructive criticism by staff should be part of quality improvement	192 - 199	11
Coordination of nursing services essential via NILS leaders	55 - 59	11
CV risk is a feeding frenzy especially for IT companies	257 - 264	11
Difficult start but later success to fund ...	82 - 97	11
High Mäori population is a challenge for mainstream to get right service to right people at right time	46 - 50	11
IT mishmash of CCM, Careplus, PREDICT, Canary	261 - 273	11
Iwi providers innovative, creative because of different funding that includes health promotion	112 - 119	11
.... criticized as iwi only	101 - 105	11
Money not so much a problem as releasing staff and finding backfill	227 - 242	11
Shared positions across PHOs good but organizations still need to do own stuff	214 - 220	11
SIA funding to target high need Mäori	119 - 126	11
Software can be useful for training from a distance	208 - 213	11
Strong relationships phos with each other and with Treaty governance partners	41 - 45	11

CODES FOR FACILITATION

BOI training doesn’t need 2 days	599 - 600	1
Clinical training and IT training going on but need how to work with pts re CCM	174 - 182	1
Flinders BOI training helps with understanding of stages of change	636 - 640	1
Ignorance and prejudice of some clinicians are barrier to effective lifestyle interventions	619 - 635	1
Nurse training required for programmes – eg PREDICT, diabetes annual review	111 - 113	1
Organisations providing training are haphazard and need coordination and communication	602 - 618	1
Staff training programme needs planning, recall systems,	100 - 108	1
Training needed for skills to foster lifestyle change	215 - 230	1
Workforce development needed on interaction with patient in deciding the plan	168 - 170	1
Good and flexible access to ongoing training but at night and weekends	285 - 300	2
Scholarships for P/G study and conferences helps you think about your work, read more broadly	526 - 549	2
Need professional development prior to roll out of new programmes	426 - 464	3
Need workforce development in case management	385 - 390	3
Postgrad education leads to “You do get a bit more critical and don’t accept everything that comes along”	539 - 547	3
Unclear about study opportunities	356 - 359	3
Professional development important and need protected time but backfill difficult	225 - 239	4
Professional Development needs to be broad across lifespan	26-29	4
Skill set at a distance from reactive care	267-270	4
Wellness model requires core competencies of Primary Health Care nursing – new specialty practice	160 - 171	4
Gap between wanting the knowledge and making changes	233 - 237	9
Training required for cv risk assessment and for PREDICT	172 - 183	9
Culture of organization should include clear leadership re what and how to do things	191 - 193	11
Guideline excellent resource but need training to use it	131 - 139	11
PHO early lead in cv risk screening	25 - 35	11

APPENDIX 7

Codes for Evidence

EVIDENCE			**DESCRIPTOR**
CLIENT EXPERIENCE			
Some things are nice for patients – eg pool – and they talk about it	273 - 276	1	judged as relevant
Patients like seeing nurse as on time and more time to give than docs	211 - 216	2	judged as relevant
Some patients prefer to see doc	218 - 221	2	judged as relevant
Patients aware that nurses very busy so “won’t take too much of your time”	505 - 510	2	judged as relevant
Standard service is that patients see the nurse before the doctor and they like it	374 - 396	9	judged as relevant
Patients open up to nurse more than doctor	397 - 406	9	judged as relevant
Whare tapa wha model gets family included and history of CVD can encourage screening	322 - 332	1	Partnerships with health professionals
If the patients not home when you get there don’t get too disturbed	51 - 54	9	Partnerships with health professionals
Planning marae based event to align with Men’s Health Week	159 - 169	9	Partnerships with health professionals
Need flexibility – patients may have transport for short distance but unreliable and not for long distance	73 - 82	10	Partnerships with health professionals
It’s about personalizing it like longevity and breakdown of family life	670 - 673	1	Partnerships with health professionals
Patients need education about the science behind their meds so they don’t self-medicate	675 - 684	1	Partnerships with health professionals
Some patients operate on “rural time”	45 - 59	2	“
Relevance of careplus programme hard to grasp for well patients	74 - 80	2	“
Most patients keen to check CVD progress even if in for another problem	167 – 173	2	“
Lack of knowledge about food and budgeting rather than shortage of money	401 - 405	2	“
Strong relationship with patient required so patient candid – “Got no shoes”	191-198	4	Partnerships with health professionals
Economic and social impact of premature death	251 - 262	8	Partnerships with health professionals
Pt responsibility for follow-up post screening for lipids	200 - 210	5	“
Social factors out of people’s control eg	423 - 427	2	Valued as evidence
Family input fosters honesty about lifestyle interventions	453 - 477	2	Partnerships with health professionals
Need to take time for patient’s agenda to unfold	489 - 492	2	Partnerships with health professionals
Whanau ora important	92 - 97	3	Partnerships with health professionals
Used to coping on own/may resist change	18-20	4	Valued as evidence

Require firm foundation of understanding family dynamics, circumstances and history	67 - 77	8	Valued as evidence
Kaupapa Mäori nursing approach based on solid understanding of that family and how they connect with the outside world	158 - 170	8	Valued as evidence
Family pressure on men to have cv risk assessment	315 - 320	8	Importance weighted
Nurses as primary point of contact for and to the family	373 - 380	8	Partnerships with health professionals
Need to understand transport and other genuine reasons for DNA	76 - 83	9	Importance weighted
Breaking through cultural barriers	84 - 92	9	Partnerships with health professionals
Managing health risk as a whole	318 - 323	9	Partnerships with health professionals
Clients set goals and you guide them to that.	420 - 427	3	Partnerships with health professionals
Supporting them to run with it	474 - 478	3	“
Take control of own health	184 - 190	4	“
Appeal to responsibility to keep healthy so will become kaumatua or else responsibility on 18yr olds!	262 - 270	8	“
Let the client determine priorities. Get the relationship to where you want	325 - 346	9	“
Heart itself is valued by patients so they respond well to CVD stuff	29 – 33, 38 - 39	2	Judged as relevant
Diabetes not seen as important by pts– not connected to CVD	34 - 36	2	Judged as relevant
Worth persevering with reluctant patients	70 - 72	2	Judged as relevant
Rarely do patients refuse to go on careplus	105 - 109	2	Judged as relevant
Patients take programmed on board and do recognize value of nurse	239 - 241	2	Judged as relevant
Patients can tell straight away if you are not interested	319 - 321	2	Partnerships with health professionals
Home-based programme or wherever comfortable for discussion re lifestyle change	116 - 125	3	Judged as relevant
Whanau focus	137 - 140	3	Judged as relevant
Rewards for screening	301 - 307	3	Judged as relevant
“Why do you want to keep fixing me?”	105 - 108	4	Judged as relevant
If patient initiated screening “They [may]come in out of fear” Need to explain risk for word of mouth to work	390 - 402	5	
Appeal to responsibility to keep healthy so will become kaumatua or else responsibility on 18yr olds!	262 - 270	8	Judged as relevant
Success of OHML launch – appeal to families – traffic light approach	283 - 300	8	
Enticements for cv risk assessment based on healthy lifestyle – fishing and sports goods	305 - 314	8	

Family pressure on men to have cv risk assessment	315 - 320	8	
Visual effect of OHML launch – heart photo	321 - 329	8	
Motivational speakers to encourage men to have cv check	330 - 333	8	
Need to engage person before assessing risk % to use as starting point for change	276 - 281	9	Partnerships with health professionals
Important to start relationship with getting to know whole person	88 - 94	2	Partnerships with health professionals
Need time to develop rapport	96 - 103	2	“
Nurse not the big boss	111 - 116	2	“
Difficult to access target population for early risk detection – don’t see the point – no sick	57 - 66	10	Judged as relevant
LOCAL DATA			
Bulge in population at young and old ends	39 - 41	4	Valued as evidence
Knowledge of community required to give health advice	137 - 147	4	Valued as evidence
SES important factor	41 - 44	2	Valued as evidence
Gap between wanting the knowledge and making changes	233 - 237	9	Partnerships with health professionals
Money given straight to patient is problematic – not always spent on healthcare	116 - 123	10	Method of collection
Knowing who lives where, tidal access, whaka whanaungatanga	69 - 75	3	Valued as evidence
Health issues are social issues	110 - 114	4	Valued as evidence
CLINICAL EXPERIENCE			
Guideline give nurses confidence to give advice to GPs	135 - 136	1	Valued as evidence, judged as relevant
Nsg confidence built with Careplus as fits/legitimises nursing model	161 - 167	1	judged as relevant
Nurses use guideline to back up suggestions re prescription changes	179 - 185	3	judged as relevant
Sometimes it’s something you can’t learn but through experience, trial and error, need hook-in	398 - 408	3	Seen as one part of decision
Rural Primary Health Care skills specialized – communication, behaviour, culture “all of it”	167 - 193	6	Judged as relevant
Skills for Careplus good preparation for cv risk work	142 - 169	5	“
PREDICT not just for screening. Score risk for patients diagnosed with CV disease to check for optimum treatment	170 - 198	5	“
Careplus enables nurse to know patient really well so can triage problems quickly	222 - 229	2	“
Need to connect with where patients are at and support and encourage	364 - 374	2	“
Sometimes takes a wee while to click	375 - 382	2	“
Trust grows and patients ask questions and for more info	446 - 451	2	“

Family input fosters honesty about lifestyle interventions	453 - 477	2	“
Very knowledgeable patients can be a challenge	662 - 698	2	“
Special feature of work – communication and interaction with patients	38 - 44	3	“
Building trust through korero 1-to-1 through allegiance with Northland	50 - 61	3	“
We’re being told talk,talk,talk but it’s about listening	433 - 440	3	“
Seeking a partnership, involving the whanau, handing process/choice over to client	453 - 461	3	“
Strong relationship with patient required so patient candid – “Got no shoes”	191-198	4	“
Biggest change is relationship and networking skills	276 - 282	4	“
Time to get involved	105 - 122	5	“
Can’t do cv assessment in 6mins – “People would think you are rude!”	496 - 503	5	“
Rural Primary Health Care skills specialized – communication, behaviour, culture “all of it”	167 - 193	6	“
Relationship with “hard to engage families” are built on trust	59 - 65	8	“
Mäori nurse with whakapapa link can help but not always – depends on history	77 - 82	8	“
We care about them. We listen to them. Take the time	93 - 99	9	“
Need to engage person before assessing risk % to use as starting point for change	276 - 281	9	“
Let the client determine priorities. Get the relationship to where you want	325 - 346	9	“
Patients open up to nurse more than doctor	397 - 406	9	“
Nurse more able to advocate when they’ve seen the patient first and understand	409 - 414	9	“
RESEARCH			
Guideline is fantastic for clear pathway of treatment	571 - 577	1	Valued as evidence
Standardised guideline based care plans informs whole team within wider whanau approach	82 - 94	6	Valued as evidence
Guideline used to justify early aggressive prescribed meds	101 - 111	6	Valued as evidence
Health promotion part of all consults	420 - 422	2	Seen as one part of a decision
Lifestyle interventions included in whole person care	76 - 84	4	Seen as one part of a decision
CV risk assessment for all patients regardless of what they’ve come in for	343 - 362	9	Seen as one part of a decision
Risk assessment only one part, a tool, need to consider whole family and other problems	308 - 317	9	Seen as one part of decision

Can locate guideline - shelf or computer	135 - 137	2	Judged as relevant
Guideline seen as everyday tool – handbook not CD	197 - 211	3	“
Guideline use as normal practice now - big penny drop with PREDICT tools	126 - 150	1	“
Careplus and PREDICT both use same risk assessment	149 - 152	2	“
Computerised tools to graph risk are good to show pts comparison/progress	155 - 164	2	“
Use PREDICT on computers at work	217 -221	3	“
Guideline as an everyday tool	366 - 376	3	“
Tools to support implementation must be reliable	55-60	4	“
Tools help big picture view	69 - 75	4	“
PREDICT resources useful but usually enter data later	125 - 140	5	“
Adapt guideline-based care according to environment	164 - 172	3	Seen as one part of decision
Can locate guideline - shelf or computer	135 - 137	2	Judged as relevant
Use guideline also to assess treatment regimens and justify prescribed treatment	53 - 61	6	Judged as relevant
CV risk guideline invaluable – need more, eg asthma	66 - 70	6	Judged as relevant
Especially useful for comorbidity of cv disease and diabetes. Assessing both all the time – 85% Mäori	73 - 76	6	Judged as relevant
Guideline used to justify early aggressive prescribed meds	101 - 111	6	Judged as relevant
Little evidence for cardio-protective diet lowers cholesterol in Mäori patients so statin after 8 wks trial	113 - 120	6	Judged as relevant
Use guideline as tool but open to other evidence	123 - 131	6	Seen as one part of a decision
CV risk work is about disease management and prevention	151 - 158	9	Valued as evidence
Guideline excellent resource but need training to use it	131 - 139	11	Judged as relevant

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