Improving health promotion in Indigenous primary health care:
Is a continuous quality improvement approach feasible?

by

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A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

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Declaration

I hereby declare that the work herein, now submitted as a thesis for the degree of Doctor of Philosophy of the Charles Darwin University, is the result of my own investigations, and all references to ideas and work of other researchers have been specifically acknowledged. I hereby certify that the work embodied in this thesis has not already been accepted in substance for any degree, and is not being currently submitted in candidature for any other degree.

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……………………...................
Nicole Percival
Abstract

Indigenous primary health care (PHC) centres across Australia are achieving improvements in the quality of systems, processes and outcomes in clinical health care by applying a continuous quality improvement (CQI) approach known as Audit and Best Practice for Chronic Disease (ABCD). Using mixed methods and drawing on principles of participatory action research, this thesis investigates the feasibility of the ABCD CQI approach in health promotion.

This thesis addresses a series of incremental and interconnected research objectives to: (1) develop quality indicators and audit tools in health promotion; describe and assess (2) the scope and quality of health promotion activities; and (3) the status of health centre system support for health promotion; and (4) determine the impact of the CQI approach on health promotion over two years. Indicators were developed and used to determine adherence to evidence-based practice and level of health centre system support for health promotion. Baseline findings showed significant evidence-practice gaps in the quality of health promotion activities and sub-optimal systems development for supporting health promotion. Following the introduction of the CQI approach, there were improvements in some aspects of health centre systems and in the quality of health promotion activities. These findings demonstrate that the ABCD CQI approach is both acceptable and feasible in health promotion.

This study identified a number of constraints that may inhibit further improvements in health promotion. Sustained improvements in health promotion quality may be achieved by specifically addressing system barriers in organisational and policy environments and through more effective engagement of management, community people and other organisations in the quality improvement process. Future research should include an examination of how CQI in health promotion can be transferred to other settings and the requirements to support implementation in routine practice.
Statement of contribution of others, including financial and editorial assistance

This PhD was nested in a continuous quality improvement program known as the Audit and Best Practice for Chronic Disease, or ABCD, which was subsequently extended in 2006 and named ABCDE (ABCD Extension) project. In 2008 separate funding for the present study was sourced from the National Health and Medical Research Council (NHMRC) (Project Grant #490302). As a co-investigator (CIB), I played a lead role in the conceptualisation, study design, data collection and analysis for this research and for this thesis. I have written all thesis chapters. I hereby specifically acknowledge the following contributions of others.

- **Intellectual support:** Professor Ross Bailie was the lead chief investigator and, together with co-investigators, played a lead role in conceptualisation and study design of the more general ABCD quality improvement program on which this study builds.

  Ms Lynette O'Donoghue played a major role in assisting with the data collection, delivery of the quality improvement intervention, validating and disseminating the study findings, and facilitating engagement with health centre staff.

  Ms Paula Convery contributed to the development and testing of the health promotion audit tool and the delivery of the quality improvement intervention in the initial stages of this research.

  Mr Alistair Harvey conducted a review of the literature that contributed to the refinement of the ABCD systems assessment tool for health promotion.
Associate Professor Komla Tsey and Dr Beverly Sibthorpe were chief Investigators on NHMRC Project Grant #490302 and had input into the study design and project reporting.

- **Editorial support:** Cathy Edmonds (Accredited Editor) proofread and formatted the thesis in line with the Charles Darwin University guidelines for editing theses (CDU 2009).

- **Financial support:** I received a training scholarship for Indigenous Australian Health Research from the NHMRC (#490337).

Funds for the project were provided by the Cooperative Research Centre for Aboriginal Health (now the Lowitja Institute) and the NHMRC (Project Grant #490302).
Acknowledgements

The text that fills the pages of this thesis is but a small part of my PhD journey. So many people gave me guidance, personally and academically, and believed in me and my ability to see this through. I take great pleasure in acknowledging them, their contributions and, most importantly, their never-ending patience and support throughout this adventure.

It is appropriate to start by acknowledging my family. First, my dad. I thank him for being so proud of me and for nurturing such a strong belief in the importance of education. Without his love and guidance, I would not have been the person with the strength and courage to complete this PhD. To Annie – she has supported me in more ways than I can write (providing a helping hand, especially when I needed it most). I will always be indebted to her for so many reasons and in so many ways.

To my Mum and David, who brought me food so I wouldn’t ‘fade away’ and for taking my girls to fun ‘Pumpkin Festival’ and strawberry picking adventures that gave me uninterrupted time and space to write. To my brothers, sister, uncles, aunts, cousins and their families (too many to name individually!), I thank you for always being willing to help and for the ‘cyanide and happiness’ humour that only our family can understand and appreciate! It made me laugh when I needed it most.

It has been a privilege to work alongside so many clever and inspiring people with an unwavering enthusiasm and commitment to high-quality and meaningful research. My principal supervisor, Professor Ross Bailie, has nurtured me from the beginning of my research career. Under his guidance I have been able to grow from previous roles in government policy and practice into a stimulating and gratifying career in Indigenous health research. He reminded me not to lose sight of my ‘hands-on’ experience and the benefit this can bring in conducting more appropriate and meaningful research. His constructive ‘straight to the point’ advice throughout my
candidature has helped me to develop my skills in critical thought and academic writing. Ross has always been there when I have needed his support but he has also given me the space to independently develop my research skills.

My associate supervisors were Professor Vivian Lin and Associate Professor David Thomas. I thank them for the advice, support and insightful comments that they have contributed along the way. David took on the role of associate supervisor late in the first year of my candidature. From then on, he always gave me practical advice to complete this thesis. I am particularly grateful for his writing tips and on mastering the art of juggling a career and parenting young children. I knew Vivian before I embarked on a career in research. As a budding ‘health promoter’ I was (and still am) inspired by her work and her amazing ability to do so much. During my candidature, I would receive emails with a tag line ‘in transit in Doha’ or ‘on route to China’. There were always demands on her precious time, but somehow she was able to find time for me – via email, over dinner in her home town of Melbourne, or on the other side of the world in the Italian Dolomites or Geneva. And in moments of self-doubt, Vivian gave me timely reassurance that ‘it happens to everyone’ and that I would finish – she was right (of course).

It has been an absolute pleasure to have the collegiate support of so many others. Many people at Menzies School of Health Research and the broader ABCD family were most generous with their time and advice. Other PhD students (now mostly completed) Karen Gardner, Kim Johnstone, Megan Lawrence, Leisa McCarthy, Janya McCalman and Deborah Gleeson – all intelligent and supportive women who can raise children and balance a career at the same time.

I am also indebted to Lynette (Lynnie) O’Donoghue and Bernadette (Bernie) Shields who have and continue to mentor me since moving to the Northern Territory in 2001. I thank them for their ongoing friendship, support and guidance, and for making this a journey of amazing discovery. They generously shared their insights, views and cultural knowledge with me and never lost sight of the fact that we make a
phenomenal team. I also thank Paula Convery and Jodie Griffin. Paula was instrumental in making this research a reality in the early stages of its development. Jodie kindly read a (near) final draft of my thesis with an attention to detail that I admire. I give a special thank you to Chris Dixon who was wonderfully supportive during the preparation of this thesis. To Lynnie, Bernie, Paula, Jodie and Chris, I extend heartfelt thanks for your love and emotional support through a particularly difficult time in my life. The completion of my PhD is testament of this support.

I acknowledge and thank the four Indigenous primary health care centres and their staff who participated in this research for their time and honesty and for allowing me insight into the important work that they do. Their openness and willingness to share their stories provided ongoing motivation throughout my candidature.

I acknowledge the organisations that provided funding for this research. I received a training scholarship for Indigenous Australian Health Research from the NHMRC. Funds for the project were provided by the Cooperative Research Centre for Aboriginal Health (now the Lowitja Institute) and the NHMRC. Without this assistance the study would have been more difficult to pursue.

And, most importantly, to my beautiful daughters Bella and Charlie – if you two were all I had to call my own, I would be the richest woman on earth. You are my source of inspiration and a reminder of what is MOST important. Mummy has finished her book and I promise ‘in a minute’ will mean just that!
Dedication

To my daughters, Bella and Charlie, who have barely known life without this PhD.
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## Abbreviations

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<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ABCD</td>
<td>Audit and Best Practice for Chronic Disease</td>
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<td>ABCDE</td>
<td>ABCD Extension</td>
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<tr>
<td>ABS</td>
<td>Australian Bureau of Statistics</td>
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<td>AHW</td>
<td>Aboriginal Health Worker</td>
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<td>AIHW</td>
<td>Australian Institute of Health and Welfare</td>
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<tr>
<td>CCM</td>
<td>Chronic Care Model</td>
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<tr>
<td>COAG</td>
<td>Council of Australian Governments</td>
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<td>CQI</td>
<td>continuous quality improvement</td>
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<tr>
<td>DHCS</td>
<td>Northern Territory Department of Health and Community Services</td>
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<tr>
<td>EQUIHP</td>
<td>European Quality Instrument for Health Promotion</td>
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<tr>
<td>ESI</td>
<td>External Standards Inspection</td>
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<tr>
<td>HP</td>
<td>Health Promotion</td>
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<td>ICDP</td>
<td>Indigenous Chronic Disease Package</td>
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<tr>
<td>NHMRC</td>
<td>National Health and Medical Research Council</td>
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<td>NPHP</td>
<td>National Public Health Partnership</td>
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<tr>
<td>NT</td>
<td>Northern Territory</td>
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<tr>
<td>PDSA</td>
<td>Plan, Do, Study and Act</td>
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<tr>
<td>PHC</td>
<td>primary health care</td>
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<tr>
<td>Preffi</td>
<td>Health Promotion Effect Management Instrument</td>
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<tr>
<td>QA</td>
<td>quality assurance</td>
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<td>QI</td>
<td>quality improvement</td>
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<td>QIC</td>
<td>Quality Improvement Council</td>
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<td>QIPPS</td>
<td>Quality Improvement Program Planning System</td>
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<td>SAT</td>
<td>Systems Assessment Tool</td>
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<td>SNAP</td>
<td>Smoking Nutrition Alcohol and Physical Activity</td>
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<td>WHO</td>
<td>World Health Organisation</td>
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Introduction

My interest in exploring the concept of continuous quality improvement in health promotion commenced while I was working as a policy officer in the Northern Territory Department of Health and Community Services (now the Department of Health and Families, herein referred to as the ‘Department’). Following a departmental review in 2003, there were significant changes to the way health promotion was organised and administered within the Department. Health promotion was devolved from a separate program to being integrated as a core component in all departmental program areas. A small health promotion policy unit was created with the mandate of ensuring a coordinated and organised effort across the Department. As the newly appointed Health Promotion Strategy Unit Manager, my role was to oversee the development, implementation and monitoring of policies and strategic plans with the aim of improving health promotion through greater adherence to evidence-based practice focused on key chronic disease risk factors. In developing a strategic vision for health promotion, I discovered a growing body of literature highlighting the importance of organisational infrastructure and capacity for the delivery of effective practice. At the same time, the ABCD project was gaining popularity with executive and senior staff in the Department as a potential approach for improving the way health centre systems were organised to support best practice in the prevention and management of chronic disease. I was curious if this approach for organising health centre systems would be feasible for improving the organisational infrastructure and capacity for health promotion and the delivery of effective practice.

At the same time, there was also broader interest in the potential of the ABCD approach in health promotion. Primary health care centres participating in the ABCD project expressed their interest in the development and use of a health promotion audit tool as part of an extension phase – the ABCDE (Bailie, Si et al. 2008). It was
recognised that the inclusion of a health promotion audit tool in the available suite of audit tools for clinical services presented an opportunity to build on the established momentum for improving the quality of primary health care.

In late 2006, while working for the Department, I became involved in the ABCDE project as a co-investigator. Under the guidance of Professor Ross Bailie, principal investigator of the ABCD and ABCDE projects, I began exploratory work on the development of a health promotion audit tool to complement the existing suite of ABCD clinical audit tools. The development of a health promotion audit tool became the focus of a funding submission to the Cooperative Research Centre for Aboriginal Health. The submission was independently reviewed by researchers (from Canada and Australia) and by representatives from government, non-government and Aboriginal community-controlled health services across Australia. The submission was successful and project work commenced in April 2007.

The result of this exploratory work formed the basis of a successful funding submission to the NHMRC. The aim of the three-year project, commencing in 2008, was to explore, more broadly, the feasibility of a structured approach to improving quality in health promotion using an approach similar to the ABCD model.

The project chief investigators were Professor Ross Bailie (CIA), myself (CIB), Associate Professor Komla Tsey (CIC) and Professor Beverley Sibthorpe. The core research team comprised three researchers: I, a non-Indigenous researcher, played a lead role in the study from conceptualisation (including the development of the two successful grant proposals) to completion in 2011; a part-time non-Indigenous Research Officer (Paula Convery, 2007–2009) and an Indigenous Health Promotion Quality Improvement Facilitator (Lynette O’Donoghue, 2009–2011) who supported the research processes including health centre engagement, data collection, analysis and feedback to health centres.
After successfully obtaining a post graduate training scholarship for Indigenous Australian Health Research from the NHMRC, I commenced my PhD in 2008; taking on the dual role of Project Manager and PhD candidate.

The NHMRC study, and thus my PhD, was implemented within the established collaborative framework and the network of the broader ABCDE project. Two separate but complementary structures were developed specifically for this study: a project management committee and an Aboriginal and Torres Strait Islander Advisory Committee. The project management committee included the chief investigators, members of the research team and senior policy officers and managers from the Northern Territory Department of Health and Community Services (DHCS). This committee met at approximately quarterly intervals throughout the study and was responsible for guiding the research processes and maintaining academic rigour. The Aboriginal and Torres Strait Islander Advisory Committee acted as a reference group for the study, assisting in the development of the data collection tools and facilitating health service and community engagement. Representatives were predominately Aboriginal health promotion officers and policy staff from the DHCS. This advisory group was created for three purposes: (1) to ensure the research remained culturally appropriate and practical, (2) to disseminate research findings to key practitioners and policy makers, and (3) to provide opportunities to develop individual and collective workforce capacity for health promotion and continuous quality improvement (CQI).

The combined experience of the project management committee, Aboriginal and Torres Strait Islander Advisory Committee and the research team constituted significant sources of insight into the issues surrounding Aboriginal and Torres Strait Islander health and wellbeing, particularly in the Northern Territory, and has made a significant contribution to what I have learned about CQI in health promotion.
Section A:
Introducing a study of continuous quality improvement
Chapter 1: Setting the scene

Why is this research important?

Internationally, quality improvement techniques have been shown to be an effective method for improving processes, outcomes and systems of health care (Shojania and Grimshaw 2005). Methods for improving quality have been applied most extensively in hospital settings and there is growing momentum in the adoption of quality improvement techniques in primary health care (PHC) (Sollecito and Johansen 2013). Relative to these areas of health care, the study of quality improvement in health promotion has been limited. The challenge for this field, at least in part, is that health promotion activities are unique in terms of place, time and population group. They are dynamic processes and, therefore, are rarely repeated in the same way. Furthermore, health promotion activities are delivered through a range of organisational settings and are dependent on institutional frameworks for their delivery. This makes defining, measuring and improving health promotion quality complex.

In the Indigenous\(^1\) PHC context, a continuous quality improvement (CQI) approach, known as Audit and Best Practice for Chronic Disease (ABCD), is demonstrating that positive changes can be made to service systems, care delivery and intermediate client outcomes for the prevention and management of chronic disease. The ABCD approach is also proving to be an effective means of strengthening and reorienting PHC to an evidence-based chronic care model (Gardner et al. 2011). PHC centres also face increasing pressure to re-orientate towards a greater emphasis on health promotion (WHO 2008).

Health promotion is a broad concept. Philosophically, it deals with a positive concept of health and fundamental principles of social justice, equity and empowerment. Approaches range from healthy public policy and creating supportive environments to enhancing individual skills and knowledge for healthier lifestyles (WHO 1986). Health promotion

\(^1\) See ‘Key concepts and terms’ later in this chapter for the use of ‘Indigenous’ and ‘Aboriginal and Torres Strait Islanders’.
encompasses multi- and inter-sectoral collaboration; it also encompasses the development of strategies for sharing health information and educating for health (Department of Health and Community Services 2007). By international standards, health promotion has achieved much success in Australia, particularly in areas such as tobacco, HIV (Human Immunodeficiency Virus) and road injury (Lin and Fawkes 2007). However, it has taken more than 20 years of sustained investment in large-scale interventions, and the application of high levels of technical expertise and evidence and ongoing political commitment, to achieve these results (Wise 2008). Even with these successes, health promotion has not achieved the same effect among disadvantaged populations (Paul et al. 2010).

At a community level, health promotion is much less supported or evaluated. In Australia much of what occurs at this level is disparate, sporadic, undocumented and unevaluated (Clapham et al. 2007; Mikhailovich et al. 2007; McCalman et al. 2012), and as a result there is a significant lack of understanding about what is actually happening in community-based health promotion. The achievement of health improvement, at least theoretically, requires broad population reach and sustained intervention effect. Sustainability of this effect depends on the capacity of community, organisations and, more broadly, health systems (Swerissen and Crisp 2004). Improving health promotion in PHC, therefore, needs to consider organisational system support for health promotion, including the capacity of the workforce to design, implement and evaluate appropriate community-based health promotion activities. Little is known, however, about the quality of health promotion activities or the organisational systems for health promotion in PHC centres.

This study illuminates the potential of CQI as a technique for describing, assessing and improving health promotion quality and organisational systems to support health promotion with particular benefit for Australia’s Indigenous peoples, our most disadvantaged population.
Research aim and research questions

The aim of this research is to explore the feasibility of one CQI approach, known as ABCD, in health promotion in four PHC centres in the Northern Territory. The objectives for this research are:

1. To identify, develop and/or refine quality indicators and audit tools in health promotion.
2. To describe and assess the scope and quality of health promotion activities in participating PHC centres.
3. To describe and assess the status of PHC centre systems support for health promotion activities.
4. To determine the impact of the introduction of the ABCD approach on the quality of health promotion activities and health centre systems over the course of two consecutive CQI cycles.

An outline of the thesis

This thesis comprises eight chapters that are contained within four sections. A further two sections provide references and appendices.

Section A: Introducing a study of continuous quality improvement

The first section of this thesis establishes the gap in research evidence and explains why this research is important. In this first chapter, an outline of the rationale of this research is provided, the research aim and objectives are stated, key terms and concepts used throughout the thesis are described, including the ABCD approach. Chapter 2 summarises a survey of what is currently known about CQI and its application in health care, including in Indigenous PHC and health promotion. A description of the research context is provided.

Section B: Research settings and approach

In the second section the research settings are introduced and the way the research was undertaken is described. In Chapter 3 the study design, principal research methods and the
participatory approach to the research (drawing on 10 principles relevant to health research among Aboriginal and Torres Strait Islanders) are outlined.

Section C: Study findings

Findings of the study are presented in the third section of this thesis. Chapter 4 describes the development and refinement of indicators and tools for describing and assessing health promotion quality. Baseline findings on the scope and quality of health promotion activities and health centre systems for health promotion at participating PHC centres are presented in Chapters 5 and 6. In Chapter 7 an analysis of improvements in the quality of health promotion activities and system development associated with the introduction of two annual CQI cycles is described and the implications for policy and practice are discussed.

Section D: Discussion and conclusion

Chapter 8 represents the final section of the thesis. The chapter begins by reviewing the principal findings of this study against the four research objectives and summarises the key contributions this study makes to the broader research literature. I describe implications of the study findings for policy and practice and suggest further areas of research. A summary of the general strengths and limitations of this research is also provided.

Key concepts and terms

Aboriginal and Torres Strait Islander people

There are many different groups of Aboriginal and Torres Strait Islander peoples of Australia. In this thesis, the term ‘Indigenous’ is respectfully used to refer to Australia’s Aboriginal and Torres Strait Islander peoples, and acknowledges their rich diversity of culture.

Audit and Best Practice for Chronic Disease project

ABCD is a CQI approach designed to improve the quality of PHC services for the prevention and management of chronic disease among Indigenous Australians (Bailie et al. 2007c). The ABCD approach draws on key principles relating to values and ethics in Indigenous health (NHMRC 2003) and participatory action learning principles (Israel et al. 1998). The approach
is implemented through annual plan–do–study–act cycles that feature: an assessment of
clinical performance across the scope of best practice for chronic disease care; structured
assessments of health centre systems to support best practice; and a two-way dialogue
between external facilitators and health centre staff for interpreting results, determining
priorities, setting goals and planning action. This process enables health centres to
systematically review and improve the care they provide by focusing on the way they
organise and deliver services to better meet the needs of their population. Engagement of the
range of health centre staff (managers, clinicians, administration and other staff) in the CQI
cycle is considered a critical component of the change process (Gardner, Dowden et al.
2010). The ABCD approach is further described in Chapter 2.

**Health promotion**

The World Health Organisation (WHO) defines health promotion as ‘the process of enabling
people to increase control over and to improve their health’ (WHO, 1986). In this thesis, a
practical approach is taken and considers the ‘how to’ aspects of health promotion action.
Health promotion actions are guided by commonly recognised concepts, principles and
values of health promotion (Keleher and Murphy, 2007): (i) a determinants approach; (ii)
evidence-based decision making; (iii) collaborative partnerships; (iv) advocacy, engagement
and empowerment; and (v) leadership in health promotion. These five principles serve as a
guideline for the development of effective health promotion activities ‘to enable people to
increase control over and to improve their health’ (WHO, 1986). The term ‘activities’ is used
rather than ‘programs’, ‘services’, ‘interventions’ or ‘initiatives’ because PHC centre teams
prefer (and use) this terminology to describe their health promotion work. My focus is to gain
an understanding of the quality of activities designed to provide health information, support
and skill development with the community and to remove or minimise the social, economic
and environmental barriers to healthier lifestyles. A framework for health promotion
interventions developed by the Victorian Department of Human Services (2003) is used to
illustrate the main categories of health promotion activities described throughout this thesis
(see Figure 1).
Quality improvement

The literature on quality is replete with definitions and acronyms. The various approaches to quality have neither a single definition nor are universally understood. It also needs to be acknowledged that different approaches may be linked. The focus in this thesis is on CQI; however, a description of three main approaches (CQI, quality assurance and accreditation) in the quality area is also provided to illustrate CQI in context of these various approaches.

Continuous quality improvement (CQI) is a structured organisational process for involving staff in planning and executing a continuous flow of improvements to provide quality that meets or exceeds the expectations of customers. It involves designing and redesigning systems to meet customers’ needs by testing and implementing ideas from evidence-based strategies, frontline staff and customers (Sollecito and Johansen 2013). An organisation that is committed to CQI may have quality assurance or accreditation processes, but the predominant focus is on quality improvement.

Quality assurance (QA) is the systematic monitoring and evaluation of the performance of an organisation or its programs and services to ensure that standards of quality are being met. Most writers agree that QA refers to activities that monitor the quality of the service but not all consider that QA necessarily includes mechanisms to improve the service (Wise et al. 2013). This is primarily because QA is seen by some as assessing performance against a
predetermined standard. If the standard is met, there is no need for improvement (National Public Health Partnership 1998).

**Accreditation** is formal recognition through a process of external review that certain standards have been achieved by an organisation. This requires an accreditation system to have an approved set of standards, a regular review process that assesses the extent to which the standards have been achieved, and criteria against which accreditation is awarded (Wise et al. 2013). Accreditation may also apply to a specific service; for example, standards for breast screening services and programs. Accreditation is also applied at an individual practitioner level, and is often known as registration or certification (National Public Health Partnership 1998).

**Primary health care**

The Australian Primary Health Care Research Institute (APHCRI) define PHC as (as cited in Department of Health and Ageing 2009:22)

> socially appropriate, universally accessible, scientifically sound first level care provided by a suitably trained workforce supported by integrated referral systems and in a way that gives priority to those most in need, maximises community and individual self-reliance and participation and involves collaboration with other sectors. It includes health promotion, illness prevention, care of the sick, advocacy and community development.

In this thesis, unless otherwise specified, ‘participating PHC centres’ refers to the Aboriginal community-controlled and government health centres that agreed to participate in this study. In the Northern Territory, these PHC centres are described as having five core functions: clinical services; health promotion; corporate services and infrastructure; advocacy, knowledge and research, policy and planning; and community engagement, control and cultural safety (Tilton and Thomas 2011).

**Chapter summary and conclusion**

In this chapter I have introduced the study by outlining the rationale of the research and have stated the research aim and objectives to be addressed in this thesis. Key terms and concepts
used throughout the thesis have also been described and the ABCD approach briefly explained. In the next chapter these concepts are further explored to illustrate what is currently known about CQI, and specifically CQI in health promotion. I also introduce the context within which this research takes place.
Chapter 2: Continuous quality improvement and the research context

Introduction

The aim and objectives, intended benefits and the approach to this research are derived from the growing knowledge and experience in the health care sector of developing and applying CQI. Despite interest and the growing success for improving processes, outcomes and systems of health care, CQI in health promotion has received limited attention in the research literature. Studies of quality in health promotion first appeared in the literature in the 1990s and focused on retrospective methods for assuring quality of health promotion and education programs with less emphasis on approaches aligned with modern CQI techniques. However, many of the key features of CQI are compatible with health promotion and, as I will discuss in this chapter, tacit within good health promotion practice.

I begin the chapter by introducing CQI, its key concepts, origins and application as well as evidence of its success in health care, including the ABCD approach in Indigenous PHC. I then describe what is currently known about CQI in health promotion. I draw together the characteristics of CQI with relevant health promotion approaches to discuss the CQI-health promotion nexus. In the later part of this chapter, I outline the context of my research by providing an overview of the Northern Territory, the health care system and the population served. I conclude the chapter with a brief synthesis of the key issues as they relate to this study.

Continuous quality improvement

Conceptual and historical origins of CQI

CQI is the term applied in the health care sector to the use of total quality management (TQM) philosophy and techniques developed in manufacturing industries. The origins of CQI are often traced back to research done by Walter Shewhart in the 1930’s. Shewhart discovered that defects in product quality, and therefore opportunities to improve quality, are
built into the complex production processes (Berwick 1989). He adopted statistical techniques, an application known as ‘statistical quality control’ (SQC), to control variation in the production process. The purpose of SQC was to understand the process of manufacturing physical goods and to use this understanding to produce higher-quality products. Determining variation and analysing its causes in order to remove them (i.e. the faulty elements of the process), is considered one primary function of CQI (Sollecito and Johansen 2013).

Shewart’s research became the foundation of work by United States of America scholars Deming, Juran and Crosby. After World War II, W. Edwards Deming worked with industry in Japan to transform the philosophy of doing business from that of producing more, to producing higher quality products (Colton 2000). Deming drew on Shewart’s SQC methods and principles to develop a prospective process, known as systems engineering, to help companies select and analyse objective data to achieve improvements in the delivery of services. Deming implored organisations to work on the process, not the outcome of the process. As he explained, if the process is good, the product or service will take care of itself. Deming also believed that management has the final responsibility for quality. Employees work in the system, management deals with the system itself. He also felt that most quality problems are management controlled rather than worker controlled (McLaughlin and Kalunzy 2004). His emphasis on the work processes, on the ever-continuous cycle of improvement, and on the rigorous statistical analysis of objective data became the foundation for the theory of continuous improvement (Berwick 1989).

Joseph M. Juran, like Deming, was involved with the Japanese in the 1950’s and drew on Shewart’s statistical techniques for improving quality. However, Juran emphasised the importance of linking quality efforts back to the organisational goals or mission. He argued that in the quality improvement process, management must focus on two levels within the organisation: (1) the organisations’ mission and (2) the mission of the individual departments and units within the organisation. Juran emphasised the interdependency of all units in achieving the ultimate outcome. He argued that quality processes must be supported by an infrastructure of measurement systems, buyer-user-supplier relationships, education and training and information management (McLaughlin and Kalunzy 2004). Together, Deming
and Juran expanded Shewarts’ concept of ‘statistical quality control’ from a system for reducing variation in manufacturing processes, to a broader approach reflecting organisational transformation (Colton 2000)

Philip B. Crosby, working in the 1980’s, realised statistical methods alone were not enough to assure improvement. He departed from his predecessors’ focus on statistical control techniques and developed a different theoretical perspective based on changing organisational culture and attitudes. Crosby championed quality control through the concept of ‘zero defects’ (McLaughlin and Kalunzy 2004). He believed that products could be manufactured that were reliable and free of defects when industries established high standards and production values (Colton 2000). He also found that the management culture in many organisations was not conducive to implementing CQI endeavours (Colton 2000).

The pioneers of quality improvement - Shewhart, Juran, Deming and Crosby - have left a rich heritage of theory and techniques by which to analyse and improve complex processes. By the late 1980s, evidence of the success of CQI in increasing profitability, and improving workmanship and customer satisfaction led to exploration of the potential application of these techniques for addressing quality problems in other sectors, including health care (Colton 2000).

Around the mid-1980’s CQI was introduced to health care organisations by Berwick and other physicians, who wrote seminal papers on the topic, including the classic “bad apples” paper of 1989 (Berwick 1989). In this paper, Berwick emphasised that CQI is about understanding and revising production processes and systems as opposed to the traditional quality assurance emphasis on correcting after-the-fact errors of individuals (bad apples).

Whether the concepts and methods of TQM/CQI applied in the manufacturing industry can successfully be used in human service industries is a question that has yet to be resolved. Some have argued that while the component parts of a production process may be isolated and reduced, production in health care is less clearly defined and more relationship-dependent (Kahan and Goodstadt 1999). Not only are health goods and outcomes often intangible, efficiencies relate more to the interactions of people and processes, both within
the organisation and between the organisation and the broader system. In relation to healthcare quality, Ferlie and Shortell (2001) have pointed out that a broad range of human, economic, administrative and organisational factors that operate externally to the program (production process) influence the quality of care. Not only are these factors external to the process of production, they may not be amenable to direct control.

The quality approaches and systems that are now employed in the health sector have multiple origins: in systems engineering (as a way of defining production processes), in quantitative analysis (as a methodological approach for collecting and analysing data) and in organisational behaviour (as a way of understanding how quality improvement fits with an organisation’s structure and management philosophy) (Colton 2000). Replacing earlier quality methods that involved retrospective review of processes and outcomes, known as quality assurance, CQI is a forward looking approach that aims to facilitate improvement in patient care and outcomes by using objective information to analyse and improve systems and service delivery (Graham 1995). While various definitions have been proposed and despite differences in individual programs, the defining features of CQI are the ongoing and proactive approach to improvement and the underlying quest for understanding and addressing problems in services delivery in terms of the systems that support it (Shojania and Grimshaw 2005). Bailie et al (2007c) describe the common features of modern CQI approaches as follows:

- A systems view – CQI is distinguished by its emphasis on systems and avoiding individual blame. The focus is on managerial and professional processes associated with a specific outcome – the systemic errors that are the root causes of the great majority of quality problems.
- A customer focus – CQI regards the end user, or customer, as the ultimate judge and definer of quality. Some health professionals prefer the terms ‘client’ or ‘patient’ or, as is the case in health promotion, ‘community’. Emphasis on meeting customer requirements is important for prevention, management of illness and for promoting health. In this way, health care providers value customer preferences, expectations and perceived
experiences in the context of daily living and develop collaborative plans for improving health with them.

- A focus on data-driven analysis and fact-based decision making – CQI emphasises gathering and use of data, both qualitative and quantitative, to see what is actually happening and why. However, the primary purpose of data and measurement in CQI is learning. Measurement is not intended to be used for selection, reward or punishment.

- Recognition of multiple causation and solution identification – in CQI multiple causation is assumed and the search for answers starts with trying to identify the full set of factors contributing to less-than-optimal systems performance. Involvement of all personnel in the study of the root causes is imperative in gathering all the relevant information and in becoming part of the solution.

- An emphasis on continuous improvement – CQI focuses on continuing the systems analysis even when a satisfactory solution to the presenting problem is obtained. Efforts are focused on an ongoing and proactive approach, utilising continuous cycles of data collection, analysis and review to address areas of highlighted concern.

- A commitment to organisational learning – CQI requires an organisational commitment to learning so that the capacity of the organisation to generate improvement and foster personal growth is enhanced. A learning organisation is skilled at creating, acquiring and transferring knowledge and modifying its behaviour to reflect new knowledge and insights.

Since its introduction, CQI has evolved to encompass multiple levels and segments of health care delivery, and has taken many forms and names, encompassing and subsuming quality control, quality assurance, quality management and quality improvement. Research suggests it is now the primary approach for improving outcomes and measuring performance (Colton 2000).

The evolution of CQI in health care represents a fundamental change in how organisations have come to recognise the importance of ensuring that changes are improvements and that
the improvement processes are ongoing, requiring learning and involvement in the process at all levels, from the individual to the organisational level.

**CQI use in health care**

As CQI philosophies and processes have evolved within health care, a series of broad-based approaches have been developed, including those as diverse as evidence based disease management guidelines, risk management and error reporting, academic detailing, support for team work, audit and feedback, collaborative, financial incentives, accreditation and performance reporting (Grimshaw, Thomas et al. 2004). It is not the intention of this thesis to conduct an extensive review of the vast literature on the use of quality improvement techniques in health care but to synthesise those that are of most relevance to this thesis. There are three broad based approaches that have demonstrated to be particularly successful in primary health care. These are audit and feedback programs, quality improvement collaboratives and PDSA (plan-do-study-act) cycles.

**Audit and feedback programs**

Essentially, the purpose of audit and feedback programs is to improve the quality of healthcare services by systematically reviewing care provided against set criteria. The gap between the criteria and the assessed performance provides guidance for priority improvement strategies. The audit and feedback process is often a cycle or spiral of activities which can be repeated as required.

In a recent Cochrane review (Jamtvedt, Young et al. 2006) audit is defined as:

> the provision of any summary of clinical performance over a specified period of time. The summary may include data on processes of care (e.g. number of diagnostic tests ordered), clinical endpoints (e.g. blood pressure readings), and clinical practice recommendations (proportion of patients managed in line with a recommendation). (Jamtvedt, Young et al. 2006:2)

A similar definition is described by the National Institute for Health and Clinical Excellence (NICE). It suggested that
Quality improvement processes seek to improve patient care and outcomes through systematic review of care against explicit criteria and implementation of change. By using different strategies to implement changes at individual, team, or service level, and monitoring these to assess improvements, services seek to shift underlying patterns of behaviour and adapt primary health care delivery systems to support best practice care. (National Institute for Health and Clinical Excellence 2002:1)

Audit and feedback programs focus primarily on changing individual practitioner behaviour. In theory, health professionals are prompted to modify their practice if given feedback that their current practice is inconsistent with recognised best practice. With repeated cycles, the effectiveness of strategies on improving the quality of health care can be monitored (Gardner, Whittington et al 2010).

However, the effectiveness of changing health professionals practice, and thus the quality of health care, by providing data about their performance, varies considerably. A systematic Cochrane review of evidence for the effectiveness of audit and feedback was first conducted in 2003 and later updated by the same authors in 2006 (Jamtvedt, Young et al. 2006). In the most recent review, the authors found that:

Audit and feedback can be effective in improving professional practice. When it is effective, the effects are generally small to moderate. The relative effectiveness of audit and feedback is likely to be greater when baseline adherence to recommended practice is low. (Jamtvedt, Young et al. 2006:2).

Furthermore, the authors concluded that variation in outcomes between studies may reflect different methods of providing feedback (i.e. effectiveness is likely to be greater when feedback is delivered more intensively) or other factors, such as which behaviours are targeted or which professional group provides feedback.

**Quality Improvement Collaborative**

Introduced initially in the United States, and now used in many other countries including Australia (Sollecito and Johansen 2013), quality improvement collaboratives (QICs) consist of multidisciplinary teams from various health care departments or organisations that
collaborate for several months to work in a structured way to improve their provision of care.

Ovretveit described Collaboratives in the following way:

A collaborative brings together groups of practitioners from different health care organisations, to work in a structured way to improve one aspect of quality of their service. It involves them in a series of meetings to learn about best practice in the area chosen, about quality methods and change ideas, and to share experiences of making changes in their local setting. (Ovretveit, Bate et al. 2002:345)

QICs have been described as temporary learning organisations with the goal of facilitating the ‘spread of ideas’ (Ovretveit et al. 2002; Greenhalgh et al 2004). In their comprehensive review of innovations in health service organisations, Greenhalgh et al (2004), draw on Rogers’ diffusion of innovation theory to explain how QICs work:

Participants in a quality collaborative work together over a number of months, sharing ideas and knowledge, setting specific goals, measuring progress, sharing techniques for organisational change and implementing rapid-cycle, iterative tests of change. Learning sessions are the major events of a Collaborative; these 2-day events where members of the multi-disciplinary project teams from each healthcare organisation gather to share experiences and learn from clinical and change experts and their colleagues. The time between learning sessions is called an action period in which participants work within their own organisation towards major, “breakthrough” improvement, focusing on their internal organisational agenda and priorities for changes and improvements whilst remaining in continuous contact with other Collaborative participants.(p163)

QICs were initially developed in primary care and have since been widely adopted in a broader number of settings. One notable contributor to the growth in use of QICs is the widespread application known as the Breakthrough Series developed by the Institute for Healthcare Improvement (Institute for Healthcare Improvement 2003). The Breakthrough Series is designed to help organisations close the gap of ‘what we know and what we do’ by creating a structure in which interested organisations can easily learn from each other and from recognised experts in topic areas where they want to make improvements (Institute for Healthcare Improvement 2003). QICs have been demonstrated to be successful and popular ways of implementing improvements in health service delivery (Greenhalgh et al 2004).
success and widespread adoption of QICs appear to be related to the exchange and application of best practices by experts and peers to carry out improvement initiatives (Sollecito and Johnson 2013). Ovretveit et al. (2002) attribute the success of QICs to (1) topics chosen for improvement; (2) participant and team characteristics; (3) skills of facilitator and expert advisers; and (4) maximising the spread of ideas. A key feature of the collaborative methodology is the PDSA cycle.

*The PDSA cycle*

The PDSA cycle was first advocated by Walter Shewhart, a pioneer in the history of CQI development, to illustrate the idea of ongoing improvement (Colton 2000). PDSA applies a cyclical process of testing and learning from data whether the change being made is an improvement and what improvements are needed in the future. The PDSA cycle contains four continuous steps: (1) Plan – develop a plan for making a change in a process in order to improve the quality; (2) Do – execute the change, preferably on a small scale; (3) Study – evaluate the effects of the change; and (4) Act – if the change is working, implement it on a larger scale. If the change is not working, refine it or reject it. After that, a new cycle will start. In its broadest sense, PDSA focuses on the answers given to the following questions: (1) what are we trying to accomplish? (2) How will we know when that change is an improvement? (3) What changes can we predict will make an improvement? (4) How shall we pilot test the predicted improvements? (5) What do we expect to learn from the test run? (6) As the data come in, what have we learned? (7) If we get positive results, how do we hold on to the gains? (8) If we get negative results, what needs to be done next? (9) When we review the experience, what can we learn about doing a better job in the future?

Careful study and reflection are points of emphasis made by Berwick (1989), who describes this model as inductive learning – the growth of knowledge through making changes and then reflecting on the consequences of those changes. The wide use of this approach has been attributed to the simplicity of the PDSA cycle.
CQI success in health care

Internationally, the positive effect of contemporary CQI approaches is growing (Shojania and Grimshaw 2005) and has achieved success in hospitals, primary care and primary health care (Sollecito and Johansen 2013). Systematic reviews have demonstrated that quality programs can be effective in changing professional practice (Jamtvedt et al. 2006) and in improving the quality of care (Foy et al. 2005) and patient outcomes for some conditions (Solberg, Reger et al. 1997) but have had limited success in improving patient outcomes for other conditions (Solberg et al. 2000).

Ferlie and Shortell (2001) argue that different strategies are designed to address factors that operate at different levels of the healthcare system, from efforts targeted at changing individual behaviours of health professionals (education, data feedback and guideline use), to those more focused on groups of providers (audit, team development, collaborative), organisations (CQI, organisational development, opinion leaders) or on changing the environment or system context (public disclosure of performance information, national quality bodies). According to Grol and others (2007) most initiatives are targeted at factors related to changing the individual behaviours of health professionals, particularly their knowledge, routines and attitudes or on narrow single level programmatic strategies rather than at elements of the system more broadly. Strategies focusing on individual behaviours fail to recognise the complexity of health care delivery. Multisite and multifaceted CQI programs, such as the ABCD approach described below, recognise that to achieve change, strategies need to operate at various levels of the system.

In Australia, there is growing appreciation of both the need for, and benefits of, using CQI to improve the quality of health services, particularly among the Indigenous PHC sector. Since 2002, the Australian Government has funded and implemented a number of CQI initiatives including the Continuous Improvement Projects, the Healthy for Life Program and the National Primary Care Collaboratives (Wise et al 2013). The Continuous Improvement Projects and Healthy for Life Program supported Indigenous PHC centres to use CQI – assisting with access to guides and tools for clinical audits, systems assessments and process
mapping, and templates for data collection, evaluation and reporting, together with access to trained quality improvement facilitators (Bailie, Sibthorpe et al 2008). Drawing on the Breakthrough Series Collaborative methodology described above, the Australian Government provided funding to support a partnership between the Improvement Foundation and the Royal Australian College of General Practice (RACGP) to deliver the National Primary Care Collaboratives. The goal of the program is to assist practices to develop their capability to deliver rapid, sustainable and systematic improvements in the care they provide to patients and their communities, through a sound understanding and application of quality improvement methods and skills (Wise et al 2013). In addition to the uptake of CQI by individual services, organisations such as the Improvement Foundation and the National Centre for Quality Improvement in Indigenous PHC (One21seventy) have been established to provide technical resources and support to PHC centres including training, audit tools, and technical support (Wise et al 2013).

In a recent national appraisal of CQI initiatives in Indigenous PHC, Wise et al (2013) found evidence that the use of CQI can lead to positive improvements in one or more domains of quality in Indigenous primary health including (1) the quality of clinical care and service data being collected; (2) the routine inclusion of preventive health practices in clients’ treatment regimes; (3) screening and patient management (including recall and referral); (iv) the outcome of care; (4) the prescribing of medicines; (iv) the organisation of PHC systems including capacity building; (5) the training and engagement of staff in programs; and (6) the redesign of work processes to ensure they are locally appropriate and meaningful. Furthermore, the evidence also confirmed that CQI is acceptable and useful to Indigenous PHC service providers and managers. The authors also note that research to evaluate the impact and outcomes of CQI in Indigenous PHC has been relatively recent. A major contributor to the growing body of knowledge and experience in the use and benefit of CQI in Indigenous PHC is through the uptake and implementation of the ABCD project.

**CQI success in Indigenous PHC – ABCD project**

Drawing on the three broad based approaches to CQI (described above), ABCD is an approach to CQI that features annual cycles of audits of clinical records and system
assessment to review quality of care; feedback workshops; goal setting and action planning; and implementation of system changes (Bailie et al. 2007c) (see Figure 2). Facilitated quality improvement cycles supports engagement of health centre staff in assessment, interpretation of data, priority setting, planning and implementation.

Figure 2: ABCD approach to continuous quality improvement (Bailie, Si et al. 2007c)

The ABCD approach draws on two distinguishable but overlapping categories of literature for improving clinical practice. The first, found predominately in the health service management and quality improvement literature, is based on the systems approach. Within this literature is evidence that identifies the appropriate organisation and effective functioning of the health centre environment as the key to achieving consistent delivery of health care services (Berwick 1989; Leatherman et al. 2010). The health centre environment is recognised as both the main source of quality of care problems and as providing the best potential to improve the delivery of services (Solberg, Kottke et al. 1997).
The second category of literature deals with more specific interventions within existing systems, such as those that influence practitioner behaviour. ABCD draws on audit and feedback approaches, as described above, as a way of changing professional practice and promoting the implementation of research findings (Foy et al. 2005; Jamtvedt et al. 2006; Gardner, Whittington et al. 2010).

**Origins of ABCD**

In 1998 the NT was the site of two Coordinated Care Trials, which sought to achieve three main objectives: (1) to significantly increase funding available to health services; (2) to implement a system of clinical best practice; and (3) to improve Aboriginal participation in health service delivery through the establishment of Aboriginal community health boards to act as funds managers and providers of health services to the trial populations (Robinson et al. 2003).

As part of the ‘care coordination system’, a computerised information system was developed and trialled in the two Coordinated Care Trial sites. The system was based on locally developed clinical protocols for primary and secondary prevention in the form of care plans. The computerised information system generated recall lists and reminders of delivery of services based on these care plans for all individuals on the health centre population lists. During 1999–2000 a standardised paper-based recall system was introduced into PHC centres in the Top End of the NT, which was not covered by the computerised Coordinated Care Trials information system. The NT health department employed project officers to help PHC centre staff to compile population lists, audit client charts, set up recall systems, utilise locally developed protocols for screening and management of chronic disease, and analyse and feedback health data to health centre staff (Weeramanthri et al. 2002).

In the late 1990s an evaluation of the Coordinated Care Trials in the NT provided evidence of the effectiveness of a coordinated care system. However, there was limited understanding about the general nature, use and impact of systems on quality of health care. It was against this backdrop that the ABCD approach was developed.
Early success and evolution of ABCD

The ABCD project commenced in 2002. The initial focus of the project was on the prevention and management of chronic disease in 12 PHC centres in the Top End of NT (2002–05) (Bailie, Si et al. 2007a). The project subsequently broadened its scope to include maternal and child health care, and has developed prototype audit tools for primary mental health care and for prevention and management of rheumatic heart disease. Work on developing tools to support quality improvement in food supply, the community environment and health promotion (described in detail in Chapter 4) are also underway (Bailie, Si et al. 2008).

Expanding on the previous ABCD research, the research aim of the extension project (ABCDE) was to inform the operational and policy requirements of applying the ABCD approach in a variety of Indigenous PHC service settings (Bailie, Sibthorpe et al. 2008).

By the end of 2009 the ABCDE project was supporting the participation of more than 60 PHC centres from four States/Territories (2005–09) and the tools had been used by at least another 60 PHC services (Bailie et al. 2010).

The original ABCD research demonstrated that (1) systems to support the delivery of chronic illness care can be improved (Si et al. 2007; Si et al. 2008); (ii) participating health centres achieved improvements in processes of health care in accordance with best practice (e.g. testing of blood sugar levels (HbA1c) at least once every six months improved from 41% to 74%, and overall delivery of guideline-scheduled diabetes services improved from 31% to 54%) (Bailie, Si et al. 2007b); and (3) improvements in quality indicators for diabetes care and patient outcomes can be achieved through improvements in systems development (Bailie, Si et al. 2007b; Si et al. 2008). The ABCDE project showed these improvements could be achieved on a wider scale (Gardner, Dowden et al. 2010).

CQI in health promotion

Although the research literature is replete with studies of quality in clinical health care, writings on health promotion quality only started appearing in the published literature in the
late 1990s; about a decade after Donald Berwick introduced CQI into health care organisations more generally (see ‘Conceptual and historical origins of CQI’ above). Two books specifically focusing on issues of health promotion quality and effectiveness were published in 1998 (Davies et al. 1998) and 1999 (Norheim and Waller 1999). Additionally, a 1997 issue of Promotion and Education (now Global Health Promotion, a leading international journal in health promotion and education) was almost entirely devoted to issues of effectiveness and quality in health promotion (Macdonald 1997). The 1990s was also a time when the evidence-based medicine paradigm was gaining momentum (Haynes 2002). Both the competition for health resources and the difficulty of arguing the case for health promotion meant there was increasing pressure to ‘prove’ and ‘justify’ health promotion. Quality techniques were being adopted in other areas of health care, and this appeared to stimulate interest in applying these approaches in health promotion.

Across the globe, there were various attempts to integrate quality concepts into health promotion and, as part of these attempts, to grapple with the uncertainties of the relevance and feasibility of applying quality techniques in health promotion. There were concerns that the quality paradigm may not be compatible with health promotion principles, values and beliefs and the extent to which key quality concepts and methodology were applicable to health promotion was questioned (Kahan and Goodstadt, 1999). However, early experimentation suggested that quality improvement techniques could be applied in health promotion. For example, Van den Broucke and Lenders (1997) describe their experience of evaluating quality and effectiveness in health promotion in Belgium. The authors attempt to answer questions of whether quality assurance methods are sufficient and suitable for operationalising the concepts of evaluation, effectiveness and quality in health promotion and, in particular, whether the External Standards Inspection (ESI) approach is appropriate. The authors describe ESI as a process involving the establishment of criteria of quality, evaluating them and improving whatever needs improvement. The authors argue that ESI is suitable for health promotion and health education if the prescribed criteria were adapted for context.
In the United Kingdom there were also examples of applying quality concepts in health promotion. Ader et al. (2001) developed quality criteria based on common characteristics of successful health promotion programs. These criteria were operationalised into a ‘question pro-forma’, providing a framework for assessing health promotion activities. Similarly, Speller et al. (1997) offer an alternative framework that is strongly based on meeting criteria and standards of professional practice. This approach required evidence that essential standards relevant to the health promotion profession had been met. The process also had the potential to provide a feedback mechanism for individual staff and the program, on performance and assistance in clarifying roles and responsibilities. Authors of both studies argued the potential for structured quality assessments in health promotion.

In the Netherlands, quality in health promotion has had a particular focus on the development and application of ‘Preffi’ – the Health Promotion Effect Management Instrument (Molleman, Ploeg et al. 2006). Preffi is a quality assessment instrument for health promotion interventions, and is based on research findings about program and project aspects affecting effectiveness and quality. It allows users, mostly health promotion practitioners, to assess the degree to which a program incorporates conditions and aspects that are generally acknowledged to contribute to effectiveness and to suggest improvements (Molleman, Peters et al. 2005). Preffi was first developed in the mid-1990s and, following thorough testing in the early 2000s, was revised and updated into a new version, Preffi 2.0 (Molleman, Ploeg et al. 2006). At the time, Preffi was considered the most elaborate quality assessment instrument in health promotion and received considerable attention in both the Netherlands and internationally (Davies et al. 1998).

There has not been the same level of interest in the application of quality concepts by the Canadian or Australian health promotion communities. It was in 1996, following a symposium on the effectiveness of health promotion, when the University of Toronto established a working group on continuous quality improvement and subsequently held the first meeting to discuss issues of quality in health promotion (Rootman 1997). The objectives of this working group were to (1) discuss issues of CQI in relation to health promotion; (2) to be informed about related issues; (3) to produce a plan for CQI for health promotion in
Ontario; and (4) to share the plan at a workshop (Rootman 1997). While there appears to be no Canadian studies of applying CQI in health promotion in the literature, a paper summarising the findings of the working group and outlining the potential of CQI in health promotion was later published in 1999 (Kahan and Goodstadt 1999).

In Australia, very little appears to have been written specifically about quality in health promotion. In the late 1990s a generic core set of quality standards was developed, alongside specific standards for service types including PHC services by the Quality Improvement Council (QIC) (Skok et al. 2000). QIC is a non-profit independent body promoting continuous quality improvement in health and community services organisations. QIC identified four specific standards and a number of performance indicators that relate to health promotion. These standards were (1) an environment for health promotion, (2) a comprehensive approach to health promotion, (3) a coordinated approach to health promotion and (4) capacity building for health promotion. An additional standard on resource production and merchandising was optional. The process of a QIC review involved four stages: educational and internal assessment, collaborative assessment, a feedback phase and a taking action phase. The aim was to provide the organisation with a comprehensive and detailed assessment of its operation as a whole, to assess attainment of standards and make to recommendations for improvements.

The National Public Health Partnership recognised the need for a national approach to quality in public health in Australia. Operating between 1996 and 2006 the National Public Health Partnership was responsible for identifying and developing strategic and integrated response to public health priorities in Australia. In early 1999, an ‘ideas paper’ for coordinating quality in public health was prepared for the Commonwealth Department of Health and Aged Care (now Department of Health and Ageing) (National Public Health Partnership 1999). In framing the approach, the paper reviewed the key issues and challenges facing public health. These issues included the lack of coordination, competition for funding, consumer issues, a

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2 See www.nphp.gov.au for information about the National Public Health Partnership’s program of work.
lack of focus on outcomes, a lack of information about workforce skills and an inconsistent approach to quality. The National Public Health Partnership proposed a model for achieving a cohesive approach to quality within public health based on principles derived from existing quality initiatives. These initiatives included the Australian Council on Healthcare Standards, the Evaluation and Quality Improvement Program, the Community Health Accreditation and Standards Program, General Practice Accreditation, occupational rehabilitation provider accreditation, International Standards Association Certification and the Australian Quality Awards (National Public Health Partnership 1999). The intention of the model was not to replace existing quality and accreditation programs or to develop a new quality/accreditation program; rather, it was to be used as an overarching national framework for quality in public health. As such, it did not prescribe the specific quality or accreditation programs that must be used, allowing an organisation to choose a quality program that best suited its needs. To date, there appears to be no evidence of the national model being adopted or applied.

In summary, compared to other areas of health care, relatively little research has been done on the development and use of CQI in health promotion. Explorations of quality in health promotion have focused on grappling with uncertainties of applying CQI in health promotion and the development and use of standards, quality indicators and instruments for quality assessment of health promotion activities and professional practice. It appears the main purpose of these quality initiatives is to determine the existence of discrepancies between actual practice and identified best-practice standards. In most cases, once identified, it was assumed that some actions will occur to correct the ‘quality gaps’. This differs from modern CQI, which features continuous and systematic assessment processes and incorporates structured and participatory approaches to remedy the root causes of quality problems. Consequently, although the term ‘quality’ had entered the language of health promotion, the focus has been on developing meaningful, valid and reliable standards or criteria of practice and applying these at a practitioner or program level, rather than the use of participatory processes in identifying the root causes of quality problems and actions for improving elements of the system more broadly.
The CQI – health promotion nexus

Despite this earlier focus on assuring quality in health promotion, there is potential for using modern CQI approaches in health promotion. Maycock and Hall (2003) suggest that the utilisation of quality practices is part of health promotion processes and, in many cases, is tacit within good practice. Thus, without making CQI characteristics explicit, they may be unrecognised by those in the health promotion field.

A number of philosophical elements and features of modern CQI are compatible with, and encourage the use of, strategies developed in the health promotion field. These include a focus on participation; a systems approach for strengthening health promotion practice; the use of planning and theoretical frameworks to inform program development; the use of process, impact and outcome evaluations; and the move towards evidence-based activities.

Health promotion is fundamentally a participatory process and has long recognised the need to engage and work in partnership with communities and organisations to ensure health promotion success. For CQI in health promotion, this means the ‘customer’ could include health promotion activity participants, the broader ‘community’, funders, other organisations and people within the organisations, such as staff, management and board members (Kahan and Goodstadt 1999). Furthermore, the premise of CQI is that teams are better able than individuals to analyse processes fully (Solberg, Reger et al. 1997). The main features of the CQI team approach are support from management, worker involvement and the removal of artificial work boundaries. For health promotion, this would mean different people from different departments, external organisations and community members becoming involved in the CQI process.

A systems approach is compatible with health promotion, and emphasises the interconnectedness of different factors and recognises the need for an ecological approach (Richard et al. 1996). In the health promotion literature, capacity building has become a major focus of efforts to improve health system performance (Stachenko 1996; Crisp, Swerissen et al. 2000; Mittlemark et al. 2005). Developing the capacity of organisations and communities is also increasingly seen as an important strategy for improving and sustaining
health promotion practice (Hawe et al. 1997; Hawe et al. 1998; Taylor et al. 1998; Yeatman and Nove 2002; Riley et al. 2003; Swerissen and Crisp 2004). Indicators and methodologies for evaluating capacity development in health promotion have also been developed (Baker and Teaser-Polk 1998; New South Wales Health Department 2000; New South Wales Health Department 2001; Ebbesen et al. 2004; Hanusaik et al. 2007).

CQI requires an organisational commitment to learning so that the capacity of the organisation to generate improvement and foster personal growth is enhanced. Capacity building efforts in health promotion recognise that organisational capacity is inextricably linked with individual capacity (McLean et al. 2005). In this way, the ability of practitioners to effectively design, implement and evaluate health promotion is influenced by the organisational context within which they work. Developing the capacity of individual practitioners is essential but is not sufficient on its own. Effective health promotion practice also requires organisational development and environmental changes to foster and support such practice, as is the case in CQI, which recognises the importance of appropriate organisation and effective functioning of the health centre environment for achieving consistent high quality and effective service delivery (Leatherman, Ferris et al. 2010).

With an emphasis on data-driven decision making, the CQI approach encourages the identification of processes and measures that reflect health-promoting organisational and professional values and practices. Maycock and Hall (2003) argue that it is in the health promotion work process area that there is greatest potential for applying quality improvement techniques. Many authors have identified the need to use guidelines of best practice such as planning frameworks to guide the selection of intervention strategies (Macdonald et al. 1996; Kok et al. 1997; Kahan and Goodstadt 2001). Health promotion must also be informed by established theory and evidence of best practice, and attention needs to be given to create the necessary conditions for successful program implementation (Bartholomew et al. 1998).

Kahan and Goodstadt (1999) offer further examples of the potential of CQI in health promotion, including through the use of decision making and planning frameworks such as the PDSA cycle. This cycle complements existing health promotion planning and evaluation
models and can be used at both the activity level and at an organisational level (such as
during strategic planning).

Integral to existing health promotion practice are process, impact and outcome evaluation
methodologies (Nutbeam 1998). CQI can assist by providing a useful framework for
assessing health promotion quality and effectiveness, adding to the ‘tool box’ of evaluation
models and frameworks. Quality in health care is often assessed according to three domains:
structures, processes and outcomes (Donabedian 1988). For health promotion, structural
quality assesses the organisational characteristics and resources of organisations (or the
broader health system). Process quality assesses what organisations do in health promotion or
assesses the actions of health promotion. Outcome quality assesses the influence of these
actions on the broader health and wellbeing of populations.

In summary, many features of modern CQI approaches are compatible with good practice in
health promotion. Although there is potential for CQI in health promotion, there is limited
evidence of its application (Kahan and Goodstadt 1999). Clearly, more work is needed to
demonstrate CQI feasibility and contribution to improving health promotion quality.

In the next section I describe the context where this research is undertaken - health centres
delivering primary health care to Indigenous people in the Northern Territory of Australia.

Research context

Australia’s Northern Territory

Australia has six states – New South Wales, Queensland, South Australia, Tasmania, Victoria
and Western Australia—and two major mainland territories—the Australian Capital Territory
and the Northern Territory (NT). The NT shares borders with Western Australia to the west,
South Australia to the south, and Queensland to the east. The NT spans 1.3 million square
kilometres making it the third largest Australian federal division—however, it is sparsely
populated (Department of Health and Families 2009a). The NT, with an estimated population
of 229,711, is the least populous of Australia's eight major states and territories (ABS 2008).
The NT Indigenous population is estimated at 64,005 (or 27.8% of the total NT population),
of whom, 81% live in remote or very remote areas (that is, outside the capital city of Darwin and metropolitan Alice Springs) (ABS 2006). This is different to the national picture where the majority of Indigenous people live in major cities and regional areas (ABS 2006). More than 50% of the Indigenous population is aged 25 years or younger (Department of Health and Families 2008).

**The health and wellbeing of Northern Territory people**

It is well known and widely reported that Indigenous Australians have the poorest health outcomes of any identifiable group in Australia (ABS 2008). However, the burden of disease and injury is not uniformly distributed. One study estimated that for the 26% of Indigenous Australians living in remote areas, their burden of disease and injury accounted for 40% of the total health gap between Indigenous and non-Indigenous Australians (Vos et al. 2009:473). Across all jurisdictions, however, non-communicable disease contributes to 70% of the health gap between Indigenous and non-Indigenous Australians (Vos et al. 2009:472).

In 2005-2007, the NT had the lowest estimated life expectancy of Indigenous Australians of all jurisdictions; with NT Indigenous males living 14.2 years shorter than NT non-Indigenous males (61.5 years in comparison to 75.7 years) and NT Indigenous females living 11.9 years shorter than NT non-Indigenous females (69.2 years in comparison to 81.2 years) (AIHW 2011:6). Nationally, the difference between non-Indigenous and Indigenous life expectancy for males is 11.5 years and for females 9.7 years (AIHW 2011:7). The NT burden of disease is 1.7 times that of the national rate (Department of Health and Families 2009a:15).

During the period spanning 1999–2003, almost 50% of the disease burden in the NT was related to mental health conditions (16%), cardiovascular disease (12%), diabetes (10%) and cancer (9%) (ABS and AIHW 2005). Obesity and being overweight, physical inactivity, tobacco and alcohol each contributed between 5% and 11% of the total disease burden (Department of Health and Families 2009a:16).
Tobacco continues to be a major cause of preventable death and illness in the NT, with nearly 20% of adult deaths (Thomas et al. 2006:148) and 3% of hospital admissions attributable to smoking (Department of Health and Families 2009a:18).

The NT’s Department of Health and Families (2009a) reported that Indigenous and non-Indigenous Territorians consume approximately 50% more alcohol than the average Australian (15 litres per year compared to 10 litres per year) (Department of Health and Families 2009a:18). The alcohol-attributable death rate of Indigenous people in the NT is more than eight times that of the national average. The social cost of alcohol in the NT is estimated at $642 million per year, or $4197 per adult, compared to the national level of $943 per adult (Department of Health and Families 2009a:18).

Very poor dietary quality continues to be a characteristic of remote Indigenous community nutrition profiles. In a recent study of nutritional quality, Brimblecombe et al. (2013:382) reported that one-quarter of food expenditure was on non-alcoholic beverages (24.8%) and 15.6% was on sugar-sweetened drinks. A mere 2.2% was spent on fruit and 5.4% on vegetables (Brimblecombe et al 2013:381). Low intake of fruit and vegetables is estimated to contribute 5% of the health gap between Indigenous and non-Indigenous peoples (Vos et al. 2009:474). This disproportionately affects remote Indigenous communities because of the greater expense and the logistical constraints in accessing fresh produce.

Income and social status, education and housing are internationally recognised determinants of health (Commission on Social Determinants of Health 2008). By most social indicators, Australia’s Indigenous people experience the greatest social disadvantage within an otherwise prosperous nation. The NT has been reported as having the lowest proportion of Indigenous residents completing school (10%) and the highest proportion of youth who are not working or studying (42.1%); and 65.9% of the Indigenous population live in overcrowded conditions (ABS 2008). Overcrowding places enormous pressure on infrastructure and the health hardware necessary for healthy living practices (Baille and Wayte 2006). In the NT the leading determinant of health is socioeconomic status, which has a 27% attribution of the total burden of disease and injury (Department of Health and Families 2009a:16).
The Northern Territory health care system

The unique demographics, population distribution, and significant burden of disease and injury present particular challenges in meeting the health care needs of the NT’s population.

The Department of Health and Families is the predominant health service provider in the NT. The NT is divided into five health regions. Each region has a public hospital and a number of PHC centres. The hospitals provide inpatient, outpatient and emergency services. In total, there are 80 remote PHC centres in the NT (Department of Health and Families 2009a).

In the NT, the administration of PHC centres and the provision of PHC services for Indigenous people is complex, with three main service provider sectors: the Indigenous community-controlled health service sector, State and Territory government-funded and/or operated services, and general practitioners in private practice (Bailie, Si et al. 2007b) With the majority of NT Indigenous people living in remote communities, access to PHC is predominately through these PHC centres, and not through private general practice.

In remote Indigenous communities, PHC is often delivered by multidisciplinary PHC teams consisting of salaried general practitioners, remote area nurses and Aboriginal Health Workers (AHWs). In addition to acute and clinical care services, PHC teams also undertake a broad range of population health and health promotion programs and logistical arrangements for patient travel, and provide onsite coordination of visiting specialist care.

Tilton and Thomas (2011) define a set of core functions for PHC centres in the NT. The framework uses a comprehensive model of PHC, which includes all the functions necessary for effective comprehensive PHC services. The framework includes five core functions or domains (see Figure 3): (1) clinical services; (2) health promotion; (3) corporate services and infrastructure; (4) advocacy, knowledge and research, policy and planning; and (5) community engagement, control and cultural safety.
Figure 3: Structure of the core functions of primary health care for the NT (Tilton and Thomas 2011:ii)
Health promotion in the NT

Health promotion is a core function of PHC and a key strategy of the Department of Health and Families. From the early 1990s to the early 2000s the Health Promotion Program had a clear policy mandate with a dedicated policy team and two operational teams that worked across the NT in geographically defined areas known as the ‘Top End’ and ‘Central’. Operational teams predominately comprised Aboriginal Health Promotion Officers. At the time, the Health Promotion Program was seen as the major employer of Indigenous staff in the Department. During this time, the focus of the Health Promotion Program was on building workforce capacity. This was achieved through delivering a range of accredited and non-accredited training programs, providing broader workforce support through health promotion specialists, and providing access to resources through small incentive grants and best practice guidelines (Department of Health and Community Services 2007). Earlier efforts to evaluate and monitor progress found this strategy was consistent with international evidence and was touted as being an innovative approach for administrating health promotion (King and Ritchie 1999).

In 2003 a review of the Department found that, overall, health promotion and public health was ‘well done’ but suggested major reforms to its administration structure, including the devolution of the Health Promotion Program (Banscott Health Consulting 2003:108). In 2004 a Health Promotion Strategy Unit was created and included a relatively small number of policy officers whose mandate was to ensure health promotion was evidence-based, measureable and focused on key chronic disease risk factors. Operational staff employed by the Health Promotion Program were transferred to program areas of Preventable Chronic Disease, Maternal and Child Health, Alcohol and Other Drugs, and Mental Health.

At the time of the present study, health promotion continues to be a key feature in the Department; however, rather than a separate program with designated responsibility for health promotion, health promotion is considered a core component and integrated within all departmental programs and services (Department of Health and Families 2009a).
What is known about health promotion in Indigenous primary health care?

NT Indigenous PHC centres are overwhelmed by providing ‘sickness care’ for people who are acutely unwell. These high demands for acute services are the result of the high burden of disease and injury in the populations they serve (see ‘The health and wellbeing of Northern Territory people’ above). Other major challenges include inadequate staff numbers and high staff turnover, geographic isolation, lack of resident (and frequent visits by) general and specialist medical staff, and inadequate funding (Bailie, Si et al. 2007b).

In the NT the Coordinated Care Trials and subsequent ABCD research projects have significantly improved the understanding of systems and processes on the quality of PHC. Despite health promotion being a core component of PHC centres, little is known about the structure and function of systems for health promotion in the PHC context.

There is also a significant lack of understanding about the quality of health promotion in the PHC context. Some promising programs do not appear in published literature, particularly if the activity has been initiated and regarded as successful by the community, and often are undervalued or not recognised. This is reflected in an unpublished study (Judd 2005:6) of health promotion capacity in an NT urban community health centre:

*Practitioners stated they did health promotion all the time… There was some recognition by the PHC workers that there were excellent examples of practice that had not been documented and that such data about ‘real world’ practice had not been collected before. As a result of this lack of documentation, no-one could argue for more resources because they had no evidence of what they were doing, or any systematic way of documenting what they did.*

The NT PHC context poses particular challenges to the effective design and delivery of health promotion activities. In remote Indigenous communities there is seldom more than one PHC provider. Ideally, these PHC centres provide the range of comprehensive PHC services, including health promotion. However, PHC practitioners are challenged to change the ways they deliver health care and engage communities, and at the same time provide needed acute and clinical care. Although changing work practices is a complex and difficult task, there is
interest and motivation among staff and management of NT PHC centres to understand more about improving the quality of health promotion (Bailie et al 2008).

**Chapter summary and implications**

There is growing evidence that CQI techniques can achieve positive change in PHC centre systems, care delivery and intermediate client outcomes and is proving to be an effective means of strengthening and reorienting PHC to an evidence-based chronic care model. Although CQI has been used most extensively in hospital settings, increasingly the techniques are being adopted in PHC settings and, more recently, success has been demonstrated in the Indigenous PHC context.

Less is known about CQI in health promotion. Earlier work focused on development of standards, quality indicators and quality assessment tools for use in comparatively well-resourced environments and by health promotion practitioners. These methods were applied primarily to assess health promotion activities and, to some extent, worker competencies, but there was much less emphasis on describing and assessing systems for supporting health promotion. There has been limited attention paid to quality improvement techniques for health promotion in Australia.

Although health promotion has achieved much success in Australia, health promotion for Indigenous Australians has generally had limited efficacy and poor sustainability (Demaio et al. 2012). Much of what occurs in Indigenous health promotion is disparate, sporadic, undocumented and unevaluated. International research has found that health promotion is more likely to be sustained when organisational infrastructure and planning processes are supportive, coordinated and integrated. The development and use of CQI techniques has not been explored as an approach to describe, assess and improve organisational systems and quality of health promotion in the PHC context. This research aims to address this gap.
Section B:
Research settings and approach
Chapter 3: How was this research conducted?

Introduction

In this chapter I introduce the research settings and explain how this study was conducted. To achieve this, the chapter is organised into three parts. The first provides the rationale for using a participatory approach to the research and discusses the ethical considerations and principles that guide research in the Australian Indigenous context. The second part introduces the four PHC centres and how they were selected to participate in the study. The third part provides details of the methods used and the overall approach to data collection, management and analysis.

Research approach

As outlined in Chapter 2, little is known about the use of CQI techniques in health promotion. A flexible approach that enabled the research team to respond to emerging opportunities and to follow up findings in subsequent phases of the research was needed to advance an understanding of CQI techniques in health promotion. Thus, the nature of this research is exploratory (Miles and Huberman 1994). Undertaken in an Indigenous context, it is imperative that research and the research processes are meaningful for everyone involved, particularly participating health centre staff and management. To this point, the research approach was participatory.

Participatory approaches to health research

Increasingly, participatory approaches to research are being recognised as a means for achieving positive transformation in society and are being applied to guide health research processes. The strength of participatory research is the joining of knowledge and action for addressing issues at the local level. This is achieved by researchers working together with people most affected by the issues, and focusing on their strengths in order to find new forms of knowledge and collective action to effect positive change.
The International Collaboration for Participatory Health Research (ICPHR) describes participatory health research as a paradigm for guiding research processes rather than a research method (ICPHR 2013). ICPHR argue that participation as a research method means that people are involved in health research in specific ways in order to improve the quality of the research. As a research paradigm, participation is the defining principle throughout the research process. For participatory health research the primary underlying assumption is that participation on the part of those whose lives or work is the subject of study fundamentally affects all aspects of the research. The engagement of these people in the study is an end in itself and is the hallmark of participatory approaches to health research, recognising the value of each person’s contribution to the co-creation of knowledge in the process that is not only practical, but also collaborative and empowering (ICPHR 2013).

**Distinguishing features of participatory approaches to health research**

Although there is great diversity among participatory research approaches, the following principles and characteristics are common to many participatory approaches to health research (ICPHR).

- **Participatory** – participation is the core and defining principle. Research is not done ‘on’ people as passive subjects providing ‘data’ but ‘with’ them to provide relevant information for improving their lives and work. The entire research process is viewed as a partnership between stakeholders that may include academic researchers; professionals in the fields of health care, education and welfare; members of the community; policy makers and others.

- **Locally situated** – the issue being researched must be located in the social system which is likely to adopt the changes that results from the research process. The emphasis is placed on local level of knowledge and experience.

- **Collective research process** – the research process is conducted by a group representing various stakeholders taking part in the study. Through the group process the participants become co-owners of the research and experience self-efficacy through their influence on the process.
• **Transformation is achieved by promoting critical reflexivity** – People are better able to act on their own behalf when they can systematically learn more about a topic of common interest and when they have become empowered to take action based on that knowledge. This learning is achieved through critical reflexivity which enables participants to recognise their current situation and how to be involved in finding solutions. The actions to produce change may also directly follow the completion of the research based on an agenda for action formulated as an outcome of the study.

• **Produces knowledge which is local, collective, co-created, dialogical and diverse** – the collective research process is conducted in such a way that knowledge is produced in an ongoing dialogue among researchers and participants. This process provides a unique opportunity to acquire new, unexpected and different types of knowledge about community-building processes and collective action which cannot be gained by academic researchers who are separate from the lives or work place they are studying. The co-creative, collective process of knowledge generation requires facilitation so that trust can be built and maintained.

• **Facilitation is important** – a vital role to any participatory approach is that of the facilitator; the person or people who act as intermediaries in the participatory research process between the various stakeholders. An explicit goal of the facilitation is to empower all members to engage actively in the research process. Facilitation is a complex and difficult task and one that requires more than a collection of technical skills and techniques. For this reason, it has emerged as one of the many analytic ‘black boxes’ in the study of participatory approaches.

• **Dialectical process characterised by messiness** – The dialectic process in participatory research means research projects are characterised as iterative and recursive rather than linear. A ‘spiral pattern’ of investigation often unfolds, in which participants reflect, plan, act and observe in several repeating cycles. The actions are in a dialectical relationship with the generation of new knowledge, resulting in an ongoing development of both action and knowledge.
Ethical research among Indigenous Australians

Research in Indigenous Australian communities requires sensitive research designs. Poor design has stigmatised research with Australian Indigenous communities. Historically, Indigenous people have perceived benefit from research as flowing mainly to researchers and research institutions (NHMRC 2003). Researchers have been criticised for ‘taking’ knowledge and being unable to share findings in ways that enable Indigenous people to take control of their lives (Marmot 2011). The dissatisfaction with research approaches has informed the development of a number of ethical guidelines for research among Indigenous people (AIATSIS 2000; National Public Health Partnership 2002; NHMRC 2003; NHMRC 2005b). The underpinning principles reflected in these documents have been compiled by Jamieson et al. (2012) into 10 best practice principles regarding research among Australian Indigenous populations.

These 10 principles can be considered complementary with key features of modern CQI approaches (e.g. the participatory nature and ‘customer’ orientation) (Sollecito and Johansen 2013), Indigenous health promotion principles and values (New South Wales Health Department 2002; McCalman et al. 2009), and principles of participatory approaches to research (as described above). In light of the previous discussion about participatory approaches to health research, I illustrate how the 10 best practice principles for research among Australian Indigenous populations have been applied to this research and the research processes. The diagram and associated symbols in Figure 4 pictorially illustrate these principles and characteristics of participatory research in our approach for conducting this research.
The message stick is a form of communication traditionally used by Indigenous Australians. The etchings on the message stick depict:

- The research and health centre teams talking about the research story
- Information sharing between the research and health centre teams
- The meeting place at the health centre
- The journey and systematic approach taken throughout the research

**Figure 4:** Research approach: ‘Together we walked and talked. We were listening and understanding, doing and learning throughout the research project’ (graphic design by Joseph Fitz)
Applying 10 best practice principles to the research process

Addressing a priority health issue as determined by the community

Systematic reviews of Indigenous health research in Australia found that there is an over reliance on descriptive research (Sanson-Fisher et al. 2006). No group is more aware of the health inequalities between Indigenous and non-Indigenous Australians than Indigenous people themselves. Researchers need to work in close partnership with the community to identify priority issues and determine how they can be addressed. Participatory approaches to research have been used as an effective method for researching community-based health promotion. Participatory approaches are also being touted as promising for supporting quality improvement and translational research (Schmittdiel, Grumbach et al. 2010). Furthermore, Indigenous principles and values, as expressed in recent national statements on research and cultural respect, correspond with the participatory and capacity-building approaches. The ABCD experience of using a participatory action learning model is further evidence of the acceptability of this approach in Indigenous settings.

This study was developed in direct response to interest among health services participating in the ABCD project. Indigenous staff members and Indigenous members of governance bodies, including community councils and health boards, were fully consulted in negotiating an agreement to participate in the study. The CQI approach, in and of itself, facilitates the collection and use of data for local decision making and ensuring quality ‘gaps’ are identified and solutions are driven by health centre staff.

Conduct research within a mutually respectful partnership framework

Respectful research relationships acknowledge and affirm the rights of people to have different values, norms and aspirations. Israel et al (1998:177) explains: ‘partners contribute unique strengths and shared responsibilities to enhance understanding of a given phenomenon and the social and cultural dynamics of the community, and integrate the knowledge gained with action to improve the health and wellbeing of community members’. The value of reciprocity requires the researcher to demonstrate benefit to the community (NHMRC 2003).
Benefits can stem from both the research processes and the outcomes of research. Some of the direct benefits include employment on the research project, skills development, and increased knowledge and awareness of health conditions.

This research combines the production of knowledge with the process of improving systems and health promotion activities in a two-way dialogue between researchers and research participants. This was achieved by sharing findings throughout the study process, which in turn informed subsequent stages in the research. Research activities were designed to gain a better understanding from the perspectives of researchers and research participants of the quality of health promotion activities, the systems in place to support good practice, and the process of developing and implementing a CQI intervention. Research activities also facilitated learning. The development and application of the tools and information feedback in cycles of continuous improvement was an educative process, designed to support PHC management and staff to better understand, embrace and implement health promotion activities.

In the spirit of reciprocity, workshops and presentations of the research aims, methods and findings were conducted at national and international conferences throughout the study. At the start of each presentation, an acknowledgement was made of the important role of participating health centres and staff in the study. Presentations are listed at Appendix 10.

**Capacity building is a key focus of the research partnership with sufficient budget to support this**

Capacity development is inherent in modern health promotion approaches and CQI methods. The participatory approach used in the conduct of audits, systems assessments, feedback and planning contributes directly to developing quality improvement, health promotion and change management skills within participating centres and their individual staff members. By its nature the study developed the skills of people at a range of levels in contributing to development and use of research evidence.
A core component of research projects of benefit to Indigenous peoples must be a commitment to employ Indigenous staff and provide opportunities for their career development. This may require different models of employment, and partnerships with Aboriginal community-controlled health services can be critical. This provides a two-way learning opportunity between Indigenous and non-Indigenous personnel.

The study offered an opportunity to build on a mutually beneficial peer relationship between Indigenous colleagues, Lyn O’Donoghue (LO’D) and Bernadette Shields (BS), and myself. LO’D and BS were my mentors throughout the research and together we presented at a number of conferences nationally and internationally. LO’D and BS, together with other Indigenous health promotion officers and Indigenous staff of participating PHC centres, provided support, expertise and cultural guidance throughout my candidature. LO’D was also employed for two-thirds (2009–2011) of the study as a co-researcher.

**Flexibility in study implementation while maintaining scientific rigour**

In keeping with the other research principles of respect and community ownership, sometimes researchers need to adjust research implementation to respond to emerging issues such as changing geographic locations or revising study protocols based on community feedback. Furthermore, researchers have an obligation to the spirit and integrity of communities, not just to individuals (NHMRC 2003). Both the behaviour of the researcher/s and the research processes need to have integrity. In community negotiations, researchers need to show credibility in what is intended and how things will be done and that the research will generate meaningful results and change in health outcomes.

Research projects do not always progress according to plan and can be costly. Personnel costs are high and there is often staff turnover. Community engagement processes require time and often take longer than anticipated. At times health centre visits need to be rescheduled, sometimes at short notice due to unforeseen cultural circumstances. This incurs additional costs if travel has been organised and particularly when bookings are non-refundable. One reason for choosing a participatory approach to the research was to enable implementation flexibility within a research framework to maintain scientific rigour. On a practical level,
health centre visits were conducted to ‘fit in’ with daily routines of health centres and community life and to minimise disrupting the cultural and social commitments and other obligations that people had.

**Respecting communities’ past and present experiences of research**

Past experience and involvement of Indigenous people in research needs to be understood and respected in conducting research. This is fundamental in fostering support and establishing and maintaining trust with the community.

As a non-Indigenous person, I was cognisant of ensuring that Indigenous perspectives were incorporated into the design and analysis process and that there were direct benefits from being involved. This was achieved through employment of an Indigenous co-researcher, through ongoing consultation and discussion with Indigenous colleagues (for example, through the Aboriginal and Torres Strait Islander Advisory Group Advisory Group) and staff of PHC centres, and through workshops conducted throughout the study.

**Recognising the diversity of Indigenous Australian populations**

Researchers need to take into account the diversity of people and communities, and acknowledge individual and collective contribution. This research recognises the diversity of health centres and their communities: each health centre has its own system for organising and delivering health promotion activities, and health promotion activities are developed and implemented according to local need. However, this research does not cover the diversity of Indigenous experiences and perspectives from other areas (for example, urban communities) beyond those health centres that participated in this study.

**Ensuring extended timeframes do not jeopardise projects**

Extended timeframes for conducting qualitative research are often inevitable. In this study some potential delays were mitigated through the selection of a smaller number of participating health centres. Implementing the study within the governance structure of ABCD also facilitated continuity in research staff, thereby reducing the timeframe for
recruitment processes. Prior relationships between health centres and the research team meant a level of trust existed before the study commenced.

However, there were factors outside our control that impacted on the study progress; these included community cultural obligations and events and restricted access to communities due to the monsoonal season and subsequent flooding. In most cases we were able to negotiate alternative times with health centres to complete data collection and feedback processes within study timeframes. Disruptions related to changes in management and staffing prevented one health centre from completing the final CQI cycle.

*Preparing for Indigenous leadership turnover*

There is enormous, often unreasonable, expectations and pressure placed on many Indigenous Australians, both from within communities and from ‘mainstream’ structures. Researchers often rely on a small number of key Indigenous leaders to promote and advocate their studies.

This study was implemented within the governance structure of the ABCDE project. This minimised demands on the time of senior stakeholders, including key Indigenous leaders. As described above, the participatory and inclusive process builds capacity and skills of individuals. This has the potential to increase the number of Indigenous people with a range of skills and experience relevant to health promotion and CQI who can advocate and take on leadership roles in the field.

*Supporting community ownership*

The nature of this study requires direct, sustained involvement of staff of each participating health centre. Involvement of local Indigenous staff that have an important role in health promotion acted as key informants for the research and as champions for the quality improvement process. For example, through the participation in data collection, interpretation of findings, defining goals and developing locally relevant strategies for improvement.

Although local community members were not directly involved in the study, many were engaged through various governance bodies in negotiating and signing the participation agreements for the study (a copy of the participation agreement is at Appendix 1).
Additionally, local community members were involved in the design, implementation and evaluation of local health promotion activities and this was captured through the quality assessment process.

**Developing systems to facilitate partnership management in multicentre studies**

Increasingly, Indigenous Australian health research is being undertaken in more than one geographic location. Workshops and presentations were key mechanisms for facilitating partnerships and dissemination of research methods and findings. Two workshops were included as part of the annual ABCD meetings. Through this study, we funded two representatives from each health centre to attend this event. This supported the sharing of ideas and strategies for overcoming challenges in CQI. In 2009, at the annual Chronic Disease Network Conference in Darwin, we held a workshop titled ‘a tool for assessing and guiding improvements in health promotion: application in practice’. Approximately 60 conference delegates from across Australia, including staff from participating health centres, participated in the workshop.

In summary, participatory research approaches and ethical principles for research among Indigenous Australians underpinned this study, and guided the research and research processes. In the next section, I describe the selection of sites and provide a brief description of the participating health centre characteristics and their location in Northern Territory.

**Research sites and study context**

**Selection and engagement of participating health centres**

Four PHC centres were selected from an area referred to as the ‘Top End’ of the Northern Territory. The Top End area occupies the northern one-third of the NT and there are a total of 53 health centres located throughout this area. Health centres were selected using a purposeful sampling approach. Purposeful sampling focuses on selecting ‘information rich cases whose study will illuminate the questions under study’ (Patton 2002:46). Information-rich cases are those cases where a great deal can be learned about issues of central importance to the inquiry, yielding in-depth understanding rather than empirical generalisations. Three
principles guided the selection of health centres for this study: (1) to reflect diversity in Top End PHC centres; (2) previous/current involvement in CQI (i.e. ABCD); and (3) pragmatic feasibility to manage research work. The process for selecting the health centre is described below.

A table listing the 21 Top End ABCDE participating health services was generated. This included background information and key characteristics of each health service a) governance structure; b) population size; c) distance from nearest urban centre; and d) transport access. These data were drawn from the ABCD Health Service and Population Surveys and Bushtel; an online database developed and maintained by the Northern Territory Government to enhance community information management and access (Northern Territory Government 2013).

Individual health centre’s were assessed and ranked based on a combination of factors including previous expressions of interest to participate, availability of additional funding and/or resources (eg. Healthy For Life, dedicated health promotion staff or positions), health centre scores on the ABCD Systems Assessment Tool (specifically related to systems supporting health promotion and community based activities), relevant actions expressed in ABCD and/or Healthy For Life Action Plans and the health centre’s capacity to progress the ABCD CQI cycles.

In line with these criteria, and on the advice from the Project Management Committee, four sites were subsequently selected and invited to participate in the study. Participation agreements were drafted and negotiated with health centre management and where relevant, Health Centre Boards (comprising representatives of the Indigenous community). Health centres participating in this study did so voluntarily. A copy of the participation agreement is at Appendix 1.

**Location and characteristics of participating health centres**

Figure 5 shows the locations of the four participating PHC centres in respect to Darwin, the capital of the NT. One participating health centre is managed and operated by the Northern
Territory Department of Health and is located in the Oenpelli (Kunbarllanjnja or Gunbalunya) Aboriginal community, west Arnhem Land. Oenpelli is located 300km north-east of Darwin (taking approximately 3 hours by car) and 60km north of the nearest urban centre, Jabiru, a small township surrounded by Kakadu National park. The community has a sealed all weather airstrip and is also accessible by four wheel drive, however the river crossing causeway is closed by flooding during the wet/rainy season (November to April) and at high tides (see Figure 6).

A second health centre is located in Galiwin’ku, an Aboriginal community on Elcho Island in North-East Arnhem Land. It is approximately 550km north-east of Darwin and 150km north-
west of Nhulunbuy, the nearest urban centre. Galiwin’ku is accessed primarily by air and has an all weather airstrip. Air travel time to Galiwin’ku is approximately 1.5hrs from Darwin. 312km south-east of Darwin (taking approximately 3 to 3.5 hours by car) is Katherine, the fourth largest town in the Northern Territory and the location of the third health centre. Katherine is accessible from Darwin all year by road and air. The fourth health centre is located in the small Aboriginal community of Barunga; 80km south-east of Katherine (driving time is approximately 4 to 4.5hrs from Darwin).

Figure 6: A causeway crossing restricts access to one participating health centre

Table 1 summarises key characteristics of participating PHC centres. Three out of four participating health centres are governed by a board of elected Indigenous community members who provide guidance on the provision of health services to people in their respective communities (community controlled). One health centre is managed and operated by the Northern Territory Department of Health (government service). Each health service employs multidisciplinary teams of 5 to more than 50 staff including nurses, allied health workers, doctors and Aboriginal Health Workers. Two health centres deliver PHC services to populations of more than 1,000 people (but less than 5000), one health centre delivers PHC services to more than 5000 people and one delivers PHC services to a population of less than 500 people.
As described in Chapter 2, the PHC centres and their communities participating in this research, have many of the contextual constraints typical of PHC service provision in Indigenous communities in the NT, including high burden of disease and injury, understaffing and high staff turnover, geographic isolation, lack of resident (and frequent visits by) general and specialist medical staff. However, as participants in the ABCD project, PHC centres in this study are familiar with the ABCD CQI approach and have been selected based on their expressed interest in the potential application in health promotion.

Table 1: Characteristics of participating health centres

<table>
<thead>
<tr>
<th>Health centre governance</th>
<th>Population size(^a)</th>
<th>Remoteness(^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>1486</td>
<td>i) part year by road</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii) 301–600 km by road</td>
</tr>
<tr>
<td>Community controlled</td>
<td>2156</td>
<td>i) all year by air or sea</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii) by air</td>
</tr>
<tr>
<td>Community controlled</td>
<td>9022</td>
<td>i) all year by road</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii) &lt; 20 km by road</td>
</tr>
<tr>
<td>Regional health board</td>
<td>319</td>
<td>i) all year by road</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii) 20–100 km by road</td>
</tr>
</tbody>
</table>

\(^a\) **Total population**: estimates only (Northern Territory Government 2013);

\(^b\) **Remoteness** (AIHW 2004) i) access to community: All year by road; part year by road; all year by air or sea (islands). ii) distance to urban centre: <20km by road; 20-100km by road; 101-300km by road; 301-600 by road; by air (islands)

In the next part of this chapter, I provide a description of the research design and the principal methods that were used in the study and how these relate to the research objectives. Furthermore, the data collection process, the analytic approach that guided the study and strategies to enhance rigor are described. More detailed descriptions about the methods used and analysis processes are described in the relevant chapters (Chapters 4, 5, 6 and 7).
Research design

In choosing a research design, I first considered the purpose and objectives of my research. Patton (2002:213) argues that ‘decisions about design, measurement, analysis and reporting all flow from purpose.’ The purpose of this research is to explore the feasibility of a CQI approach in health promotion, and to answer the research objectives I needed different types of data that required different data collection methods. Table 2 illustrates the combination of both qualitative and quantitative methods that were necessary to address the research objectives. Data sources included qualitative data derived from interviews and observations with health centre staff, data gained from participation in project management team meetings and health centre feedback workshops, and reviews of research documents and literature searches. Quantitative data were derived through audits of health promotion records and assessments of health centre system development. Research that combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study is referred to as mixed methods research (Johnson and Onwuegbuzie 2004).
<table>
<thead>
<tr>
<th>Research objective</th>
<th>Data needs</th>
<th>Data sources and methods</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 To identify, develop and/or refine quality indicators and audit tools in health promotion</td>
<td>Identification and/or development of indicators of the quality of health promotion activities Identification and/or development of indicators of the quality of health centre systems for supporting health promotion</td>
<td>Review of the literature, best practice guidelines and tools. Observations and interviews with health centre staff. Research reports and documentation</td>
<td>Chapter 4</td>
</tr>
<tr>
<td>2 To describe and assess the scope and quality of health promotion activities in participating PHC centres</td>
<td>Description of health promotion activities and the extent to which current practice aligns with indicators of quality</td>
<td>Audits of health centre records of health promotion. Observations and interviews with health centre staff. Research reports and documentation</td>
<td>Chapter 5</td>
</tr>
<tr>
<td>3 To describe and assess the status of PHC centre systems support for health promotion activities</td>
<td>Description of the strengths and weaknesses of health centre systems and extent to which systems are aligned with key components of health centre systems necessary for supporting health promotion</td>
<td>Observations and interviews with health centre staff. Assessment of health centre system development Research reports and documentation</td>
<td>Chapter 6</td>
</tr>
<tr>
<td>4 To describe the impact of the introduction of the ABCD approach on the quality of health promotion activities and health centre systems over the course of two consecutive CQI cycles</td>
<td>Description of the changes in indicators of health promotion quality and systems development Description of any other (potentially unintended) changes at the health centres</td>
<td>Audits of health centre records of health promotion Assessment of health centre system development Observations and interviews with health centre staff Research reports and documentation</td>
<td>Chapter 7</td>
</tr>
</tbody>
</table>
Why mixed methods?

Using mixed methods can be a powerful approach as they: ‘suggest, discover, and test hypotheses; they give rise to new insights on complex phenomena; they allow the investigator to address practice and policy issues from the point of both numbers and narratives; they add rigor’ (Bryman 2006:110). Furthermore, a mixed methods research design has the potential to offer a more comprehensive picture of the research phenomena than single method design. A key principle of mixed methods design is to identify the reasons for mixing quantitative and qualitative methods within a study (Bryman 2006). The reasons for combining quantitative and qualitative research methods for this study include:

1. To address the research objectives. For example, the second and third objectives – ‘to describe and assess the scope and quality of health promotion activities in participating PHC centres’ and ‘to describe and assess the status of PHC centre systems support for health promotion activities’ – are exploratory questions. The aim is to discover and describe the state of health promotion in PHC centres using mainly qualitative methods. The fourth objective – ‘to describe the impact of the introduction of the ABCD approach on the quality of health promotion activities and health centre systems over the course of two consecutive CQI cycles’ – is an evaluative question involving a systematic assessment of the same or similar quantitative measures within and across health centres over time to describe change. Qualitative data are also needed to expand our understanding of the change in these measures.

2. Instrument development. The first objective of this study relates to the development of quality indicators and audit tools using a combination of qualitative data sources (literature and stakeholder perceptions). This qualitative exploration laid the groundwork for the six key success factors (quality indicators) and audit tools that are later introduced in structured quality improvement cycles to describe and assess health promotion quality in participating PHC centres.

3. There was a need to explain and illustrate quantitative findings. The third objective of this study was to describe the impact of the introduction of the ABCD approach on the quality of health promotion and health centre systems. Simple frequency tables, charts
and spider plots summarised quantifiable data, and descriptive data were used to further explain these results.

4 There was a need to enhance initial interpretations with other sources of data. To describe health promotion quality in PHC centres, and address objectives two and three, required a combination of qualitative and quantitative data. Health centre staff were interviewed as another source of data on health promotion quality, and to supplement available health centre records of health promotion activity. Additionally, the health centre staff narratives recorded from the systems assessments (described in point 3 above) were used to refine the descriptions and prompts for components in the systems assessment, enhancing the relevance of the audit tools for this context.

5 There was a need for both quantitative and qualitative approaches to provide a more comprehensive account of the feasibility of CQI in health promotion. Modern CQI techniques emphasise the systematic gathering of data on system operation and health centre system performance, using these to identify factors contributing to suboptimal system performance and to drive system changes (Sollecito and Johansen 2013). A combination of data sources and approaches to data collection, such as observations, interviews and record audits, provide a more comprehensive picture of quality than one technique alone (Donabedian 1988).

**When, where and how quantitative and qualitative research methods are combined**

In undertaking mixed methods research, Johnson and Onwuegbuzie (2004) argue that researchers should consider when each approach (i.e. qualitative or quantitative) is most helpful and when and how they should be mixed or combined in their research study. By doing so, researchers are able to mix and match design components that offer the best chance of answering their specific research questions. Figure 7 illustrates the combination and timing (sequential and/or concurrent) of the qualitative and quantitative research methods implemented over the course of this study. The design starts with the collection and analysis of qualitative data to develop audit tools in health promotion (see Chapter 4). This phase is followed by (sequential timing) the subsequent collection and analysis of both qualitative and quantitative data (concurrent timing) at three points in time (sequential timing). Fieldwork is
conducted as a parallel process and involves the continuous and integrated collection of qualitative data (a combination of both sequential and concurrent timing) to provide context, assist in refining the audit tools and in the interpretation of the study findings. This ‘multiphase’ approach allows each phase to contribute to the overall program of inquiry and build upon what has been learned in previous phases (Creswell and Plano Clark 2007).

Figure 7: Mixed method study design illustrating linkage and order in which the qualitative and quantitative approaches were implemented over the course of the study

As depicted in Figure 7, there are multiple points throughout the study where qualitative and quantitative approaches are combined and integrated. Creswell and Plano Clark (2007:66) refer to four possible ‘points of interface’ where mixing occurs: design, data collection, data analysis, and interpretation.

- Mixing at the level of design occurs when the quantitative and qualitative approaches are mixed during the design stage of the research process. In order to explore feasibility of the ABCD approach in health promotion, a set of incremental and interconnected qualitative and quantitative research questions were developed at the outset of the research (see ‘Why mixed methods?’). Each question can be considered as individual (smaller) studies (or different phases of the research study) that evolve and build on what is learned previously to address a larger research objective.
- Mixing during data collection occurs when results of one phase builds and/or shapes subsequent phases of data collection. For this study, qualitative data were gathered and interpreted in a continuous fieldwork phase. The connected results were then used to inform the quantitative data collected in subsequent phases (Year 1 and Year 2). The process of interpreting the qualitative data then informed the quantitative data collection in each phase, creating a seamless integration of the two methods.
analysed to develop indicators and audit tools in health promotion. These audit tools were used to collect quantitative data in subsequent phases of the research. Additionally, the qualitative data collected during field work were used to refine the audit tools and develop data collection protocols over the study period (see Figure 8: Chapter 4).

- Mixing during data analysis occurs when the results of the quantitative and qualitative approaches are brought together through a combined analysis. In this study, matrices were used to display and facilitate comparisons of the system assessment scores and staff narratives, within and across participating PHC centres over three points in time. Mixing also occurred during analysis of the health promotion audit data. The audit tool was used to collect quantitative data from documentary evidence of health promotion activities and interviews with health centre staff. The qualitative data were transformed (reduced) to numbers and further analysed (using simple frequency counts for dichotomous and categorical variables) to report against six key success factors of health promotion quality.

- Mixing during interpretation occurs at the point after both sets of data (qualitative and quantitative) are collected and analysed; when the researcher is drawing their conclusions or inferences on what was learned from combining the results from the study. In this study, the interpretation of the results from both sets of data occurred during Steps 4 and 5 of the CQI cycle (see Figure 11; Chapter 7) and at three points in time: at baseline, Year 1 and Year 2. For each CQI cycle, reports on audit and SAT results were prepared for each participating health centre. These reports were discussed and interpreted during facilitated workshops with health centre staff and with project investigators at quarterly project management meetings. Further and final interpretations and reflections on what was learned from the overall study are described in Chapter 8.

**Data collection**

Data collection began in 2008 and was completed in 2010. Data were collected over an average of 10 visits of one to three days duration to each PHC centre over the study period (for each health centre this included three visits per year; plus an additional visit in the first year as an orientation to the research study). The research team travelled by air and/or by
four-wheel drive vehicles to each health centre. Data collection and discussions took place at the health centre or off-site at targeted workshops. We (the research team) conducted four orientation/training workshops, 11 group interviews (one health centre declined to participate in the final round of data collection given changes to management and workforce disruptions), and audits of 51 health promotion activities. Results from the quality assessments were presented and discussed at 11 feedback workshops. We hosted two workshops with key stakeholders during the first year of the study to discuss and explore the development and refinement of the indicators and audit tools.

Multiple observations were conducted through a variety of different mechanisms. As Project Manager, I attended the quarterly project management meetings, participated in annual ABCD stakeholder meetings and fed back results from the research project over the study period at these meetings and as presentations at several conferences (see Appendix 10). In addition, observations were made on-site during visits at each of the participating health centres. Extensive notes were taken in relation to the CQI tools and processes, staff reactions to the processes as well as any issues, tensions or difficulties I observed in the conduct of each of the steps in the CQI cycle. I was able to observe the communities in which health centres were located and to meet and talk with staff. This enabled me to see first hand, the variety of administrative arrangements of the PHC centres and the communities served. Observations were recorded as field notes and summarised in contact summary sheets for further analysis (adapted from Miles and Huberman 1994) (see Appendix 3).

**Data analysis**

The point at which data collection finished and analysis began is indistinguishable because of the emergent and iterative nature of this study. The process can be described as continuously moving among collecting data; selecting, sorting and assembling data; and drawing and testing interpretations (Liamputtong and Ezzy 2005). Thus, the analytic approach was iterative, integrative and synergistic. Iterative because I continually reflected on the data and interpretations as they emerged; integrative because new insights were added to the data collection and analysis process with subsequent health centre visits, peer debriefing processes
and broader literature; and synergistic as I made connections with other things I knew and with other observations I had made (Patton 2002).

Some researchers describe the process of qualitative analysis and interpretation as an ‘art’ involving both creativity and rigour (Bazeley 2009). Creativity is needed to present information in an engaging and insightful way. Rigour relies on a systematic approach, thoroughness and a clear description of the process. There is guidance but no recipe to qualitative analysis and interpretation; each study is unique so each analytical approach will be unique (Patton 2002).

To analyse the qualitative data, I drew on Miles and Hubermans’ (1994) approach to content analysis. According Miles and Huberman (1994), the practice of content analysis requires the use of predetermined categories to examine textual data to check for patterns and trends of words used, their frequency and relationships in a systematic and replicable manner. I used the items in the audit tools as ‘categories’ to examine and code the qualitative data. Six categories were used to examine the scope and quality of health promotion activities:

- Comprehensive planning
- Systematic targeting
- Community participation
- Partnerships
- Workforce involvement
- Evaluation

Five categories were used to examine the quality of health centre systems for health promotion:

- Delivery system design
- Information systems and decision support
- Organisational environment
- Policy and community environment
- Adaptability and integration of system components
I examined and coded the data according to these categories, then re-read the data in each category, noting patterns and trends in the strengths and weaknesses of health centre systems and the extent to which activities reflected key areas of best practice in health promotion. This initial analysis produced reports for each participating health centre describing the scope and quality of health promotion activities and the extent to which health centre systems supported health promotion (at baseline). Data from the individual health centre reports were subsequently combined using cross-case and time-ordered matrices (see Chapter 7) at Year 1 and at Year 2. From here, I was able to further develop an understanding of health centre system development and quality of health promotion activities by comparing within and between participating health centres over time, again, by noting patterns and trends in the strengths and weaknesses of health centre systems and the extent to which activities reflected key areas of best practice in health promotion. As the qualitative data contained health centre staff comments on the main successes/difficulties regarding the quality of their health promotion activities and their health centre systems’ development, I extracted examples from these comments to illustrate patterns and divergence for any given category. I also sought to identify connections and relationships between categories. For example, the lack of infrastructure and systems for planning and monitoring health promotion activities (i.e. information systems and decision support) was used to explain, at least in part, limitations in planning and evaluating health promotion activities (i.e comprehensive planning and evaluation).

There were three levels to the interpretation process. First, to identify issues in the emerging data and be able to link concepts to the research aim and objectives data interpretations were recorded using contact summary sheets (see Appendix 3). The purpose of the contact summary sheet is to help focus and bound the interpretation of data around the research objectives (Miles and Huberman 1994). Prompt questions were developed to stimulate thinking about the main concepts, themes, issues and questions that were raised during health centre visits. Data write-ups were completed after each health centre visit as a way of recording research team observations and discussions. Second, there was a crucial ‘sense-making’ process where I used my general knowledge about the context of information to
place my interpretations in a wider understanding of the study (Rogers and Williams 2006). Third, there was a need to ensure a theoretical and methodological understanding, where my interpretations were compared and contrasted in the broader literature (Liamputtong and Ezzy 2005).

**Rigour and strategies to strengthen study validity**

Rigour refers to the quality of the inquiry and can be used as a way of evaluating qualitative research (Liamputtong and Ezzy 2005). Throughout the study a number of strategies were used to ensure rigour and strengthen the validity or trustworthiness of the research and of the findings. These can be categorised according to strategies involving the research and design process, and strategies involving the research participants, peer researchers and outsiders (Liamputtong and Ezzy 2005). Strategies involving the research design and process included: (1) the methodological choice of a mixed methods study design and participatory research approach; (2) prolonged engagement and fieldwork to allow a trusting relationship to develop between researchers and PHC centre staff; (3) the use of descriptions of health promotion activity quality and systems recorded by PHC centre staff to support researcher interpretations; (4) making explicit my and other researcher contributions to the study, including a statement declaring the background and the perspectives I bring to the research (see ‘Introduction’); and the convergence of multiple methods and sources through (5) methodological triangulation (a combination of qualitative and quantitative data collection methods), data source triangulation (a combination of health centre records, health centre staff perceptions and researcher observations), and researcher triangulation (involvement of more than one researcher observing and analysing the data and bringing different perspectives to the interpretation). In addition, there was an element of interdisciplinary triangulation where the input of other researchers, policy makers and practitioners was sought through the project governance structures. Strategies involving research participants, peer researchers and outsiders included: (1) checking and validating interpretations and findings through feedback workshops with PHC centre staff; and (2) a manuscript has been submitted for publication and numerous presentations at national and international conferences have subjected our research process and findings to peer and external review (see Appendix 10).
The following examples are included to further illustrate the strategies used to strengthen research rigour.

- I prepared reports for the quarterly project management committee meetings and for the annual project management and chief investigator workshop. These reports summarised the emerging findings related to the research objectives and made reference to implementation challenges. These findings were discussed and input was sought to guide subsequent research phases.

- Individual reports for participating health centres were prepared to present the findings at baseline, Year 1 and Year 2 analyses. Results were presented pictorially and included graphs and tables. Descriptions that highlighted changes in health promotion quality and health centre system development were provided in simple quantitative terms with qualitative commentary.

- Periodical reporting to funders, my PhD supervisors and the project management committee, and regular opportunities to present our research, forced me to progressively synthesise the heterogeneous data set and construct coherent and plausible accounts of the research process and emerging findings.

- A core component of the CQI process is the feedback workshop, where findings are presented and discussed among staff from participating health centres. Additionally, annual workshops were held with key stakeholders, reports and discussion papers were prepared for the project management committee, and regular research team meetings were conducted – all of which provided opportunities to present, discuss and defend or negotiate my findings and interpretations. In the final year of my research, I was invited to discuss my findings with health service providers in New Zealand and to test the potential applicability of the findings in this context.

- The participatory research approach facilitated my search for disconfirming or alternate explanations of findings. Following health centre visits, the research team would meet to discuss and debrief on the issues and challenges we encountered, and how we would explore these at subsequent health centre visits.
I regularly wrote reflections in a research diary and in progress updates to my supervisors. I continuously tested any emerging findings in the national and international literature and with members of the research team and project management committee. A manuscript for publication has been submitted and constructive feedback from reviewers has been received which has been incorporated in the preparation of this thesis (see Appendix 10).

**Ethical clearance of the study**

All research procedures related to this study were approved by the Human Research Ethics Committee of the NT Department of Health and Families and Menzies School of Health Research, and by Menzies Indigenous health research subcommittee (see Appendix 2). Formal participation agreements (see Appendix 1) setting out the roles and responsibilities of the research team and those of health centres and staff (including issues relating to data collection and storage, confidentiality, intellectual property and research dissemination) were negotiated and signed by health centre management and, where appropriate, by health boards. Prior to each site visit, clearance was provided by the relevant community council and health centre.

**Chapter summary and conclusion**

As a non-Indigenous Australian conducting health research among Indigenous Australians, I was acutely aware of the need for this study to benefit participating health centres, their staff, and the Aboriginal health workforce and community more broadly. I chose a participatory approach and use mixed methods for three reasons: (1) to capture the complexity of the research objectives; (2) to provide direction of subsequent data collection and inquiry; and (3) to respond to and be sensitive to two-way sharing of knowledge and views between researchers and research participants. The success of this study relied on a considered and reflective approach in keeping with best practice principles for health research among Indigenous Australians.

In the following four chapters of this thesis the findings from study are presented.
Section C:
Study findings

‘It starts with a vision of what could be. Iterative experimentation, informed by quantitative and qualitative measurement and integrated learning, builds a better reality over time. No process is ever perfect; so it is always possible to conceive and test changes that could make it better.’ (McLaughlin and Kaluzny 2004: xxiii)
Chapter 4: Developing tools to describe and assess health promotion quality in Indigenous primary health care centres

Introduction

Data driven analysis and fact based decision making are central elements of CQI efforts. As presented in Chapter 2, the ABCD clinical audit and systems assessment tools are designed to support the collection of data on the extent to which services comply with providing health care in relation to best practice and in achieving health outcomes, and how well a health centre’s organisational systems are functioning to support the care it provides. In this chapter, I describe the development of audit and system assessment tools to support the collection of data to assist health centres describe and assess health promotion in relation to recommended best practice. Drawing on a review of best practice guidelines, tools and the literature and data derived through stakeholder consultations and, using Donabedian’s (1988) dimensions of quality, I describe key indicators for assessing process and structure quality in health promotion. In the context of CQI, quality indicators are used to describe, measure, compare and improve quality of systems, processes and outcomes of care (Kotter et al. 2012). The purpose of quality indicators is not to provide definitive answers but to indicate potential areas of strength and opportunities for improvement in key areas of importance (Campbell et al. 2003).

I begin the chapter with a description of the ABCD approach to quality assessment before moving to a discussion on the issues that guided the development and refinement of the health promotion audit and system assessment tools. This description provides the context for the approach taken and the purpose for assessing quality of health promotion in PHC. This is followed by a description of the indicators for process quality and structure quality for health promotion and how these were developed into health promotion audit and system assessment tools.
At the heart of ABCD is a set of audit tools that assist health centres gather data on the quality of their health centre systems, processes and outcomes of health care in relation to recommended best practice. The approach to quality assessment in health promotion is based on the ABCD model, with a view of developing indicators and tools to assist health centres describe and assess the quality of health promotion activities and the state and level of health centre systems development support for health promotion. In Chapter 2, I described the ABCD approach to CQI in Indigenous PHC (see ‘CQI success in Indigenous PHC – ABCD project’). A core component of the ABCD approach is the objective and systematic assessment of systems, processes and outcomes of primary health care. ABCD audit tools are used to support data collection in two areas: the state of health centre systems and the quality of PHC services. Clinical audit tools are available to assess the quality of PHC services in relation to processes of care and intermediate patient outcomes. Indicators and measures of quality are developed using widely recognised clinical practice guidelines and previous research. The audit tool allows standardised information related to quality indicators to be gathered from patient medical records. The process of transferring clinical record information into data for research or administration purposes is known as a medical record audit, or chart review, and is a popular technique for evaluating the quality of clinical care (Donabedian 2005).

The state and level of health centre systems development is assessed by interviewing health centre staff and managers using the ABCD Systems Assessment Tool (SAT), a scaled assessment tool based on the Chronic Care Model (CCM) (Wagner 1998) and the Innovative Care for Chronic Conditions (ICCC) Framework (WHO 2002). The CCM describes the interacting system components that are required for providing high-quality chronic illness care. It was developed on the basis of an examination of literature that reported successful practice and system changes leading to improved chronic illness care, and on a consensus among experts from medicine, nursing, health services research, patient education, quality improvement and accreditation (Wagner, Austin et al. 2001). The CCM has been adopted and expanded by the World Health Organisation to develop an Innovative Care for Chronic
Conditions framework, which serves as a basis for policy development and system redesign in global contexts (WHO 2002).

When the results of the SAT discussion are brought together with the clinical audit data in the feedback session, health centre staff examine the state of their health centre systems development alongside the quality of clinical practice. This assists health centre teams develop a locally relevant and practical understanding of what needs to be done to create improvements.

Below I describe the process for establishing indicators for assessing health promotion quality and the issues that guided the development of the audit and systems assessment tool.

**How to establish indicators of health promotion quality**

For this study, the quality indicators for health promotion were identified and developed into audit tools through an iterative process drawing on (1) a review of existing tools, frameworks and best practice literature; (2) consultations with key Indigenous and non-Indigenous stakeholders representing primary health care and health promotion practitioners in the NT; and (3) through field testing at participating health centres. An overview of the indicator and tool development process is illustrated in Figure 8.
Three issues guided my decisions throughout the development and ultimately, the choice of quality indicators for health promotion. The first aspect was defining the areas of health promotion that would be the object of quality assessment. In order to describe and assess health promotion quality, the range of health promotion ‘services, activities, programs and functions’ to be included in quality assessments needed to be defined (Handler, Issel et al. 2001). Within the quality improvement field, Donabedian’s ‘triad’ of structure, process and outcome dimensions of quality has been a useful organising framework for evaluating the quality of medical care (Donabedian, 2005). Donabedian (1988) divides quality into three dimensions: 1. structure quality (e.g. staffing, resources, information systems, access to evidence etc); 2. process quality (e.g. specific actions in relation to the planning and delivery of program and services; and 3. outcome quality (i.e. the influence of programs and services on population health). In this study, my focus has been on assessing structure and process quality in health promotion. Indicators of process quality are used to assess the health promotion activities being delivered by PHC centre teams and point the way to what a health
centre team can do to achieve improvement in planning, implementing and evaluating their activities. Indicators of structural quality are used to assess the organisational infrastructure, systems and administration processes that are required by health services to support high-quality and effective health promotion activities (Derose, Schuster et al. 2002). The structural aspects of quality are necessary but not always sufficient to facilitate quality processes that then lead to effective health promotion. For example, systems to support the evaluation of health promotion activities are necessary but not sufficient to determine activity effectiveness.

Second, a number of authors have suggested that the development and use of quality assessment can contribute to improving the effectiveness of health promotion (Ader, Berensson et al. 2001; Aro, Van den et al. 2005). Therefore, an important consideration for the development of indicators was the availability of evidence of factors that lead to improvements in health promotion quality and effectiveness. Campbell et al. (2003) describe three methods used in developing quality indicators: non-systematic research methods; systematic, evidence-based methods; and systematic methods combining evidence and expert opinion. While ideally, scientific evidence, such as rigorously conducted empirical studies, should be used for developing quality indicators, it is recognised that many areas of health care have a limited or methodologically weak evidence base (Kotter et al. 2012), as is the case for Indigenous health promotion (Mikhailovich et al. 2007). Quality indicators therefore are often developed using other evidence, such as best practice guidelines and principles, alongside expert opinion (Freeman 2002). Guideline-based development of quality indicators is consistent with the approach used in the development of the ABCD audit tools (Bailie, Si et al. 2008) and has also been advocated and used by various authors in primary health care (Mainz 2004; Marshall et al. 2006; Hearnshaw et al. 2002; Kotter et al. 2012), public health (Derose et al. 2002; Nelson et al. 2007) and health promotion (Ader et al. 2001; Bauer et al. 2003).

Thirdly, I considered the information needs of participating PHC centre staff. A focus on outcomes is an important aspect of performance reporting and is of particular interest to
stakeholders such as funders and policy makers (Wimbush and Watson 2000). However, those involved in planning and delivering health promotion, such as staff of primary health care services, require different information to make changes in their work. Therefore, the focus has been to develop indicators with a view that assessment in these areas will guide primary health care teams to achieve locally relevant, timely, measurable, and important changes in health promotion quality.

**Process quality - establishing indicators for assessing the quality of health promotion activities**

The published literature was reviewed to identify (1) existing quality assessment tools and quality indicators for health promotion; and (2) evidence based and best practice guidelines in Indigenous health promotion. Search strategies were employed to identify relevant published works in the broad areas of health promotion, quality improvement, quality indicators, or tools or instruments. Searches of electronic databases available through Ebscohost (Medline, PsycINFO, CINAHL) and Informit (Health Collection and Indigenous collection), as well as the World Wide Web through the Google Scholar search engine were conducted. Titles of the results were scanned to identify relevant and appropriate articles.

A number of tools and indicators for assessing health promotion quality were identified and are summarised in table form in Appendix 4. These included the Dutch quality assessment instrument for health promotion, Preffi (Molleman et al. 2005; Molleman, Ploeg et al. 2006); Analys, an instrument for reporting and analysing research (van Driel and Keijsers 1997; Keijsers et al. 1998); the European Quality Instrument for Health Promotion (EQUIHP) (Netherlands Institute of Health Promotion and Disease Prevention and Flemish Institute for Health Promotion 2005; Cianciara 2006); a German system for health promotion quality assurance (Kliche et al. 2004); a tool for assessing the quality of health education programs (Baron-Epel et al. 2004); and the Interactive Domain Model of Best Practices in Health Promotion (Kahan and Goodstadt 2001). Furthermore, a range of standards and indicators related to health promotion were identified (Speller et al. 1997; Bakes-Martin et al. 2005;
Clarke and Maben 1999; Ader et al. 2001). No tools or indicators for assessing the quality of health promotion in the Indigenous PHC context were identified.

Evidence-based guidelines, principles of best practice and evidence of effective health promotion interventions for Indigenous communities were also identified and reviewed for best practice approaches in Indigenous health promotion. Best practice guidelines and materials for Indigenous health promotion included the Principles for Better Practice in Aboriginal Health Promotion (New South Wales Health Department 2002), Indigenous Health Promotion Models (Department of Health Western Australia 2000; Howie 2004; Australian Indigenous Health Promotion Network 2006), and case studies and principles of good practice in Aboriginal and Torres Strait Islander communities (NHMRC 1996b; Demaio et al. 2012). The guiding principles and best practice approaches in Indigenous health promotion outlined in these key documents are summarised in table form in Appendix 5.

Reviews of effective health promotion interventions for the widely accepted modifiable risk factors for chronic disease – exposure to tobacco smoke; nutrition; the detrimental effects of alcohol; and participation in physical activity (Department of Health and Community 2005) and for mental health promotion (Clelland 2004; Clelland et al. 2007)3 were examined for the key factors that contributed to intervention success. These reviews, identifying ‘what works’ in Indigenous health promotion, alongside The Public Health Bush Book (Department of Health and Community Services 2007), a guide developed specifically for health promotion practice in Northern Territory Indigenous communities, were being used to inform the future direction of health promotion policy and practice in the Northern Territory. From this perspective, it was important that this evidence base was reflected in the development of indicators for describing and assessing health promotion quality in the NT.

The identified tools, indicators, best practice guidelines and evidence of effective interventions were further examined to identify common elements and characteristics that are

3 This review was published under my previous name, Clelland.
necessary and important for health promotion activity success. This comparative process revealed six aspects of successful health promotion activities or ‘key success factors’ that could be regarded as important for an assessment of the quality of health promotion activities. These six success factors are: (1) comprehensive planning; (2) systematic targeting; (3) community participation; (4) partnerships and intersectoral collaboration; (5) workforce involvement; and (6) evaluation. These success factors reflect the key phases in developing, implementing and evaluating health promotion activities, as described in current health promotion planning models.

Quality indicators, or measurable elements of health promotion practice, were developed for each key success factor. The indicators are designed to provide an indication of the extent to which the key success factors have been undertaken in planning, implementing and evaluating health promotion activities. Indicators were operationalised into a number of closed ended questions. The questions were used to develop the content of the health promotion audit tool (see Appendix 7).

Additionally, an auditing protocol was developed to explain the rationale behind the questions in the audit tool and how they relate to best practice or current guidelines and a step-by-step guide to completing the audit tool including an explanation of the questions and options for selection (see Appendix 8).

**Key success factors, indicators and supporting evidence for assessing quality of health promotion activities**

The result of the literature review, consultations and field testing are synthesised below, describing the contribution of each success factor and relevance for improving the quality of health promotion activities. The resultant audit tool contains a range of questions to illicit information about the quality of health promotion activities related to the indicators for the six key success factors. Responses to questions include categorical (yes/no) and numerical (quantification, values and dates) options. Box 1 and Box 2 (below) provide examples of the questions for assessing health promotion quality related to the key success factors of
‘comprehensive planning’ and ‘community participation’. Tables 3-9 include a description of the indicators developed for each of the six key success factors.

**Assessment for comprehensive planning**

There is broad consensus regarding the importance of comprehensive planning for health promotion success. A key to successful planning is a clear and specific problem definition, articulated strategies for addressing the problem, and methods for assessing the extent to which the problem has been addressed or change has been achieved. An assessment for comprehensive planning of health promotion activities would therefore require information on these areas, and the extent to which evidence and the nature of this evidence has informed or guided decisions in the planning of activities (see Box 1 and Table 3).

For example, *The Public Health Bush Book* (Department of Health and Community Services 2007) outlines a series of steps for planning and evaluating a health promotion project, including forming a project team, conducting a community profile and determining priorities, and developing project goals, strategies and plans for evaluating the project. It is recommended that these planning processes are documented or recorded as a project plan.

A clear problem analysis, target group identification, and the development of aims, objectives, strategies and evaluation methods were also included as assessment items in the Preffi and EQUIHP instruments and the Interactive Domain Model of best practices in health promotion (see Appendix 4).

**Box 1: Health Promotion Audit Tool – an example of the questions for assessing comprehensive planning**

<table>
<thead>
<tr>
<th>Question</th>
<th>Circle</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is there a documented plan for this activity?</td>
<td>Circle</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>If yes, does the plan include a clear statement of:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) the aim or goal of the activity</td>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>b) the specific strategies that make up this activity</td>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>c) the people responsible for conducting each specific strategy</td>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
Additional indicators were developed to assess the quality of planning with regard to the sources of information (i.e. evidence) used to determine (a) the need or issue to be addressed; (b) the strategies used to address the issue; and (c) the type of evaluation strategies (see Table 3). There were three reasons for the inclusion of these indicators. First, stakeholders reported that they used different forms of evidence, not only what is published, to develop their health promotion activities. These included community stories and ‘word-of-mouth’ programs and activities delivered in other communities. Furthermore, because a substantial proportion of Indigenous health promotion is unpublished and unevaluated (Clapham et al. 2007), other forms of gathering evidence becomes imperative for guiding planning decisions.

Second, in taking a systems view, different infrastructure, systems and processes are required by health centres to support practitioners to gather evidence for health promotion activities. For example, health centres require different mechanisms for gathering community stories, making available and accessible the data on the health of the community, and ensuring appropriate evidence-based tools and guidelines are available and accessible to practitioners. Additionally, health centres need to support practitioners by ensuring they have the time, resources, knowledge and skills to gather a variety of evidence and to use it effectively. Therefore, when provided with information about the sources of evidence, health centre teams can explore their understanding of the different dimensions of evidence and its use in practice in strengthening aspects of their health centre systems.

Third, is the need to make explicit an assessment of the sources of information that guide decisions on the strategies for health promotion implementation and evaluation, in addition to the information used in determining the need or issue to be addressed. The literature highlighted a common pitfall of introducing programs and activities without first ensuring the strategies actually work. Strategies can fail because they often reflect the values and culture...
of the decision-makers and others who design them and thereby are not relevant or appropriate for local communities (National Public Health Partnership 2002). Greater recognition and understanding of Indigenous culture, spirituality and the holistic view of health, and how these can be met, is essential in establishing culturally appropriate and more effective approaches to health promotion activities. For example, McLennan and Khavarpour (2004) suggest a practical approach to the integration and connection of spirituality, culture and health could be the utilisation of traditional oral history techniques and ceremonies to deliver up-to-date health information and education to the community.

During field testing it became evident that health promotion activities were poorly documented and evidence of health promotion planning was difficult to assess (see Chapter 5). Nonetheless, stakeholders with whom we consulted recognised that a documented health promotion plan was important for avoiding duplication of effort, was fundamental for enabling monitoring and evaluation, and was important for continuity – especially in circumstances of health centre staff turnover. A health promotion activity plan also assists communicating or advocating the work being conducted and is particularly important for partnerships and team work.
Table 3: Quality indicators for assessing key success factor – comprehensive planning

<table>
<thead>
<tr>
<th>Quality indicators for planning health promotion activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recorded plans for health promotion</td>
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<tr>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Recorded use of evidence to inform activity development</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
</tr>
</tbody>
</table>

Assessment for systematic targeting

Targeting of the activity was found to be a key contributor to activity success. In a meta-analyses of effective studies, Kok et al. (1997) claim that, while a systematic approach does not automatically produce effective activities, those cases in which health education and health promotion activities were found effective involved careful planning and targeting. Knowing precisely the parts of the population affected by the issue enables practitioners to tailor the activity and provides opportunities for follow-up to determine if the activity has been effective (Ader et al. 2001; Lin et al. 2005; Department of Health and Community Services 2007). The planning frameworks, guidelines and quality assessment tools that were reviewed included information or assessment items related to ‘target groups’ (see Appendix 4: van Driel and Keijsers 1997; Haglund et al. 1998; Keijsers et al. 1998; Ader et al. 2001; Netherlands Institute of Health Promotion and Disease Prevention and Flemish Institute for Health Promotion 2005; Molleman, Ploeg et al. 2006).
Most health promotion activities tend to be thematic: dealing with specific health or disease problems (such as smoking, physical activity, mental health), populations (such as young people or men) and settings (such as workplaces, community centres and schools). An assessment for systematic targeting would therefore require information about the people the activity is intended to benefit, including gender, the setting, and health or disease problem addressed.

Although there is generic value in garnering information about the population group, setting and health issues, there are particular aspects related to targeting that were identified as important in the context of Indigenous health promotion activities. Our consultations strongly suggest the importance of distinguishing gender-specific activities and ensuring activities are delivered where people feel most comfortable and in places and ways that are respectful of cultural norms and preferences. For example, men work with men, women with women, and activities take place in appropriate locations such as Men’s Sheds, Women’s Resource Centres or places of cultural importance.

The indicators for assessing targeting of health promotion activities are outlined in Table 4 and include indicators for target group, delivery settings and chronic disease related risk behaviours.
Table 4: Quality indicators for assessing key success factor – systematic targeting

<table>
<thead>
<tr>
<th>Quality indicators for targeting of health promotion activities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recording of Target Group</strong></td>
<td></td>
</tr>
<tr>
<td>No. and percentage of activities that recorded the target group</td>
<td></td>
</tr>
<tr>
<td>No. and percentage of activities that were gender specific</td>
<td></td>
</tr>
<tr>
<td>Males only</td>
<td></td>
</tr>
<tr>
<td>Females only</td>
<td></td>
</tr>
<tr>
<td>General (both males and females)</td>
<td></td>
</tr>
<tr>
<td><strong>Recording of delivery settings</strong></td>
<td></td>
</tr>
<tr>
<td>No. and percentage of activities that recorded the delivery setting</td>
<td></td>
</tr>
<tr>
<td>No. and percentage delivered at the health centre</td>
<td></td>
</tr>
<tr>
<td>No. and percentage delivered in a community meeting place (or place of significance)</td>
<td></td>
</tr>
<tr>
<td>No. and percentage delivered at outstations or homelands</td>
<td></td>
</tr>
<tr>
<td>No. and percentage delivered at bush camps</td>
<td></td>
</tr>
<tr>
<td>No. and percentage delivered at school</td>
<td></td>
</tr>
<tr>
<td><strong>Recording of chronic disease related behaviours (targeted by health promotion activity)</strong></td>
<td></td>
</tr>
<tr>
<td>No. and percentage of activities that recorded attempts to address chronic disease related behaviours</td>
<td></td>
</tr>
<tr>
<td>No. and percentage targeting smoking</td>
<td></td>
</tr>
<tr>
<td>No. and percentage targeting nutrition</td>
<td></td>
</tr>
<tr>
<td>No. and percentage targeting alcohol</td>
<td></td>
</tr>
<tr>
<td>No. and percentage targeting physical activity</td>
<td></td>
</tr>
<tr>
<td>No. and percentage targeting emotional and social wellbeing</td>
<td></td>
</tr>
</tbody>
</table>

Assessment for community participation

Community participation is a key component of the PHC approach and there is broad consensus of the importance of community participation in decision-making during all phases of health promotion activities (National Public Health Partnership 2002; Mikhailovich et al. 2007; Jolley et al. 2008). An assessment for community participation would therefore require information about the scope of community involvement throughout the development, implementation and evaluation of the activity (see Box 2 and Table 5).
Box 2: Health Promotion Audit Tool – an example of the questions for assessing community participation

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Were community people involved in the development and/or implementation of this activity?</td>
<td>Circle</td>
<td></td>
</tr>
<tr>
<td>If yes, the involvement of community people in this activity included (please circle as appropriate):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) identifying the problem or issue</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>b) deciding what to do about the problem or issue</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>c) Implementing the activity or doing the work together</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>d) evaluating the results of the work</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>e) Other, please specify</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Table 5: Quality indicators for assessing key success factor – community participation

<table>
<thead>
<tr>
<th>Quality indicators for community participation in health promotion activities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Recording of community participation</td>
<td>No. and percentage of activities that recorded community participation</td>
</tr>
<tr>
<td></td>
<td>No. and percentage community participation in identifying issues</td>
</tr>
<tr>
<td></td>
<td>No. and percentage community participation in how to address</td>
</tr>
<tr>
<td></td>
<td>No. and percentage community participation in doing/delivering</td>
</tr>
<tr>
<td></td>
<td>No. and percentage community participation in evaluating</td>
</tr>
</tbody>
</table>

Involving community in decision making has many potential benefits, including improving service quality, responsiveness and health outcomes, and is also important for building individual and community capacity to take control over decisions affecting health, as well as for building skills that can be applied in work, family and community settings (Parker et al. 1998; Potvin et al. 2003). Mikhailovich et al. (2007) noted in their examination of health promotion evaluation studies and guidelines for ethical research and evaluation with Aboriginal and Torres Strait Islander communities the importance of community Elders and widespread community support as key to the success of Indigenous health promotion initiatives. In many cases, community participation has become an expectation of funding
bodies (Jolley et al. 2008). Participation of the community or members of the target group is a fundamental health promotion principle and therefore, not surprisingly, is included as quality criteria or indicators in the health promotion assessment instruments and tools identified (see Appendix 4).

Assessment for partnerships

There is widespread support for partnerships in health promotion, primary health care and specifically for improving Indigenous health. Partnership was identified as an essential element in Australian Indigenous health promotion models (see Appendix 5: Department of Health Western Australia 2000; McCalman et al. 2009). Partnerships are also fundamental in PHC. The Alma Ata declaration states that PHC ‘involves in addition to the health sector, all related sectors… and demands the coordinated effect of all those sectors’ (WHO 1978:VII4). An assessment for partnerships would require information on the involvement of other health agencies and, importantly, sectors beyond health in health promotion activities.

Table 6: Quality indicators for assessing key success factor – partnerships

<table>
<thead>
<tr>
<th>Quality indicators for partnerships of health promotion activities</th>
<th>No. and percentage of activities that recorded partnerships with outside agencies and organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recorded links with individuals or organisations outside the health centre</td>
<td>Partnership with an Aboriginal Community Controlled Health Organisation (ACCHO)</td>
</tr>
<tr>
<td></td>
<td>Partnership with a govt. health service</td>
</tr>
<tr>
<td></td>
<td>Partnership with NT/State Public Sector</td>
</tr>
<tr>
<td></td>
<td>Partnership with Charity or Community Organisation</td>
</tr>
<tr>
<td></td>
<td>Partnership with Non-Government Organisation</td>
</tr>
<tr>
<td></td>
<td>Partnership with local council</td>
</tr>
<tr>
<td></td>
<td>Partnership with Commonwealth Public Sector</td>
</tr>
</tbody>
</table>

Participants in our consultations noted that good partnerships are important for the successful implementation of health promotion activities. They highlighted many benefits of partnerships, including increasing the knowledge and skills of partners and awareness of their activities, thereby minimising duplication of effort. It was suggested that partners can
contribute additional resources to allow a more comprehensive activity with potentially greater reach than if only one service or organisation was involved. However, an important issue raised in our consultations is the challenges practitioners face in developing good collaborative relationships to plan, implement and evaluate joint health promotion activities, as well as for sharing information. The difficulty in developing and assessing partnerships is also highlighted in the literature (Whiteside 2004; Jolley et al. 2008). Nevertheless, partnerships or the ability to work collaboratively across disciplines, sectors and partners to enhance the impact and sustainability of health promotion programs and policies is a recognised global health promotion core competency (Allegrante et al. 2009) and is included as a quality criteria or indicator in other health promotion activity assessment instruments (see for example, Clark and Maben 1999; Phair et al. 1999; Ader et al. 2001; Netherlands Institute of Health Promotion and Disease Prevention and Flemish Institute for Health Promotion 2005; Molleman, Ploeg et al. 2006).

Assessment for workforce involvement

There is broad international consensus that health promotion knowledge, skills and experience of individual workers is essential for health promotion success (Hawe et al. 1998; Yeatman and Nove 2002; Lin et al. 2005). Indicators regarding project leadership and management are included in existing quality assessment instruments (see Appendix 4: Ader et al. 2001; Netherlands Institute of Health Promotion and Disease Prevention and Flemish Institute for Health Promotion 2005; Molleman, Ploeg et al. 2006). However, there is a lack of consensus regarding who constitutes the health promotion workforce, which is often understood to be ‘everybody’s business’ (Heward et al. 2007:177).

PHC centres employ multidisciplinary teams, including AHWs, nurses, doctors and allied health professionals, many of whom are educated and trained to work in systems that emphasise clinical treatment; some staff have no or limited skills and experience as health promotion practitioners (Lloyd et al. 2008). AHWs are recognised as critical to meeting the health promotion needs of Indigenous communities, but addressing the complexity of these needs requires a high level of professional skills and knowledge (Jackson Pulver and Rose
A central objective of the Aboriginal and Torres Strait Islander Health Workforce National Strategic Framework is to ‘improve the clarity of roles, regulation and recognition of Aboriginal and Torres Strait Islander health workers as a key component of the workforce’ (as cited in Jackson Pulver and Rose 2004:240). To achieve this objective and, more broadly, to understand the involvement of PHC teams in health promotion, an assessment of workforce involvement would require information on the health centre staff involved in the planning, implementation and evaluation of health promotion activities (see Table 7).

**Table 7: Quality indicators for assessing key success factor – workforce involvement**

<table>
<thead>
<tr>
<th>Quality indicators for workforce involvement in health promotion activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recorded workforce involvement</td>
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<tr>
<td></td>
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<td></td>
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</tbody>
</table>

With knowledge of worker involvement, health centres can assist in making available the training and professional development for staff most likely to benefit, which in turn will ensure health promotion is delivered by skilled workers and in accordance with best practice. This is particularly important for providing AHWs with opportunities to pursue professional qualifications, if they choose to be qualified, to match their health promotion roles (Jackson Pulver and Rose 2004).

**Assessment for evaluation**

Evaluation is broadly accepted as a fundamental component of health promotion practice and is included as a quality indicator in other quality assessment tools (see Appendix 4). There is much room for improvement in evaluations of Indigenous health promotion activities. In a recent review, Mikhailovich et al. (2007) revealed significant limitations in evaluation designs, noting that many studies were unable to report conclusively the impact and health outcomes of Indigenous health promotion activities. An assessment for evaluation requires
information on whether an evaluation has been conducted and to what extent the activity achieved its intended goal.

**Table 8: Quality indicators for assessing key success factor – evaluation**

<table>
<thead>
<tr>
<th>Quality indicators for evaluating health promotion activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recorded evaluation and results</td>
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<tr>
<td></td>
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</tbody>
</table>

An assessment for evaluation covers more than assessing whether the activities have been successful (and to what extent) in achieving certain objectives. Many aspects of evaluation take place throughout the development and implementation of a health promotion activity. This is why some items relating to evaluation are included in other quality indicators, not just in this assessment for evaluation. For example, an assessment of the success of an activity requires a clear and measurable goal, consideration of the evidence that informed the approach to evaluation (see ‘Assessment for comprehensive planning’ above) and a clear understanding of the target group (see ‘Assessment for systematic targeting’ above). Another example is the involvement and participation of community members in the evaluation process (see ‘Assessment for community participation’ above).

In addition to assisting practitioners to learn and improve the quality of health promotion activities (and thus increase the effectiveness of health promotion activities), an assessment for evaluation can also help to legitimise and justify continuation of health promotion activities. Furthermore, evaluation data builds the evidence base for effective health promotion for Indigenous communities.
**Assessment for scope and frequency**

Reviewing the literature highlighted that different types of health promotion activities were more effective at achieving population change than others. For example, health education activities that merely focus on the dissemination of information (e.g. posters and pamphlets promoting healthy lifestyles) and fail to take into account the social and economic circumstances of communities did not achieve the results that had been expected in terms of behaviour change (Nutbeam 2000). An ecological approach to health promotion (i.e. activities that target multiple settings and use multiple intervention strategies) that takes account of Indigenous models of health and social determinants, and the wider context within which health behaviours takes place, were also found to be more effective (McDonald et al. 2010; Tsey et al. 2010; Reilly et al. 2011).

To assess the scope of health promotion activities, information on the types of health promotion activities is required (see Table 9). Four categories of health promotion interventions are frequently described and used in the literature (Victorian Department of Human Services 2003; Mikhailovich et al. 2007). Through our consultations, the framework for health promotion interventions (see Chapter 1; Figure 1) was found to be a useful way of describing the range of health promotion activities. In describing and assessing the quality of health promotion, with a view to achieving a more ecological approach, it was also considered important to illustrate improvements in the scope of health promotion activities undertaken over time.
Table 9: Quality indicators for an assessment of the scope of health promotion activities

<table>
<thead>
<tr>
<th>Quality indicators for determining the scope of health promotion activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range of health promotion activities and frequency of their delivery</td>
</tr>
<tr>
<td>No. and percentage of activities using health education approaches</td>
</tr>
<tr>
<td>No. and percentage of activities using health information and social marketing approaches</td>
</tr>
<tr>
<td>No. and percentage of activities using community action approaches</td>
</tr>
<tr>
<td>No. and percentage of activities creating supportive environments and settings</td>
</tr>
<tr>
<td>No. and percentage of activities that used two or more health promotion approaches</td>
</tr>
<tr>
<td>No. and percentage of activities delivered once in past 12 months (one-off)</td>
</tr>
<tr>
<td>No. and percentage of activities that are ongoing</td>
</tr>
<tr>
<td>No. and percentage of activities that are delivered annually</td>
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</table>

As well as providing an overview of health promotion delivery, the number, frequency and types of health promotion activities are useful measures of a health centre’s engagement in health promotion. Identifying the categories of interventions used in health promotion activities indicates whether there is a mix of strategies, or a preference for particular types of activities. This could be a useful measure of the health centre team’s health promotion knowledge, and of staff experience in using various health promotion approaches and the sustainability of health promotion activities over time.

**Structure quality - establishing indicators for assessing health centre systems support for health promotion**

Modifications to the existing ABCD SAT were made to describe and assess health centre system support for health promotion. This was because the ABCD SAT was familiar to staff of participating PHC centres, and because the tool is designed for, and has demonstrated success in, describing and assessing systems of PHC centres (Si et al. 2005; Bailie, Si et al. 2007b; Si et al. 2008). Furthermore, Glasgow et al. (2001) suggest that there are numerous
advantages to having a single model for the organisation of health care for both disease prevention and management.

Drawing on the Chronic Care Model (CCM) and the associated Assessment of Chronic Illness Care tool (ACIC) from the Innovative Care for Chronic Conditions (ICCC) Framework (World Health Organisation 2005), the ABCD SAT articulates the key components of PHC centre systems that have been identified in these frameworks as important for supporting best practice chronic illness care. The tool consists of 34 items across six system components, with an additional domain that denotes the level integration of the six components (Si et al. 2008) – health care organisation (three items); community linkages (four items); self-management (four items); clinical decision support (three items); clinical delivery system (nine items); clinical information system (six items); and integration (five items).

To ensure the ABCD SAT reflected the system requirements necessary for supporting health promotion, the six system components of the ABCD SAT were compared with key elements of health promotion organisational capacity. Existing tools and frameworks for assessing health promotion organisational capacity were identified through a review of the health promotion capacity building literature and included: the New South Wales framework for capacity building to promote health (New South Wales Health Department 2001), Tool 2: Health Promoting Health Services: Organisational and Activities/Practice Assessment Tool (Johnson 2007b), the Health Promoting Health Services Framework (cited in Whitelaw et al 2001), and a ‘Health Promotion Capacity Checklist’ from Saskatchewan, Canada (Prairie Region Health Promotion Research Centre 2004). The key elements of organisational health promotion capacity were examined and are summarised in table form in Appendix 6.

Through this comparative process, five system components were identified that could be used to describe and assess health centre systems support for health promotion. The five system components are: (1) delivery system design, (2) information systems and decision support, (3) organisational environment, (4) policy and community environment, and (5) adaptability and integration. Compared with the original ABCD SAT, two components (clinical
information systems and clinical decision support) were combined into ‘information systems and decision support’. The ‘policy and community environment’ component included and expanded on the ‘community linkages’ component in the ABCD SAT.

**Components and structure indicators (component items) for assessing system support for health promotion**

An overview of the five system components for supporting health promotion in PHC is provided in Table 10. The rationale for the system components and associated component items (structure indicators) for assessing system support for health promotion is described in more detail in the following sections. Table 11 and Table 12 illustrate the content of the tool, including descriptions for the scale. A full version of the modified ABCD SAT is at Appendix 9.
Table 10: Health promotion system components and items

<table>
<thead>
<tr>
<th>System component</th>
<th>Component items</th>
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<tbody>
<tr>
<td><strong>Delivery System Design</strong></td>
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<tr>
<td>Refers to the extent to which the design of the health centre’s infrastructure, staffing and processes maximise the potential effectiveness of the organisation to support health promotion.</td>
<td>1.1 Team Structure and Function</td>
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<tr>
<td><strong>Information Systems and Decision Support</strong></td>
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<tr>
<td>Refers to the information structures and processes required to support planning, implementation and monitoring of health promotion</td>
<td>2.1 Maintenance and use of health information systems</td>
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<tr>
<td><strong>Organisational Environment</strong></td>
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<tr>
<td>Refers to the use of organisational influence to create a supportive culture and environment that promotes a proactive approach to the provision of high-quality and comprehensive approaches to health promotion</td>
<td>3.1 Organisational Commitment</td>
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<tr>
<td><strong>Policy and Community Environment</strong></td>
<td></td>
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<tr>
<td>Relates to the health system, or the broader environment within which the organisation operates. This category recognises that factors extrinsic to the organisation may impact on its capacity to support health promotion</td>
<td>4.1 Supportive Organisations</td>
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<tr>
<td><strong>Adaptability and Integration of Health System Domains</strong></td>
<td></td>
</tr>
<tr>
<td>Refers to the system robustness or state of preparedness to respond effectively to emerging issues and how well the system functions as a whole to support health promotion.</td>
<td>5.1 System Adaptability</td>
</tr>
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</table>

Assessment for the design of the delivery system for health promotion

Assessment for the delivery system design requires information on the way staffing and team approaches and program planning processes are organised and designed to support health promotion (see Table 11 below). This requires more than simply adding health promotion activities or programs to existing systems focused on acute care. Designing a health promoting delivery system includes elements of team structure and function, technical or |
professional leadership, programs and services, community access to initiatives and staff
cultural competence.

Organisations administer and organise health promotion differently and for this reason it is
often a source of contention for decision makers as to where health promotion sits within the
structure of health services. Health services may determine that health promotion is the
responsibility of a person, department, unit or another part of the service. Other health
services may look at a range of structures to support health promotion activity at different
levels and ensure aspects of health promotion are integrated into the work of all staff. For
staff to be clear about the potential for their contribution to health promotion, they need
direction and support. This includes technical or professional leadership (i.e. leadership by
people who know about health promotion and have an appropriate level of formal authority in
the health service) and ensuring there is conformity between the requirements of the person’s
job, role and responsibilities and the knowledge, skills and abilities of the person holding the
job (Johnson 2007a).

Consideration of Indigenous cultures, knowledge traditions and historical issues cannot be
overstated in the process of developing and implementing appropriate health promotion
activities for Indigenous communities. Culturally appropriate ways of working are recognised
as critical for guiding and developing culturally competent and effective health promotion
programs and services (NHMRC 2005a; Kreuter et al. 2003; McLennan and Khavarpour

**Assessment for information systems and decision support structures for health promotion**

Assessment for information systems and decision support requires information on the
organisational structures and processes that support planning, implementation and monitoring
of health promotion activities. These structures and processes include the maintenance and
use of information systems, organisational planning and monitoring, and organisational
knowledge management.
The use of information systems and systems for planning and monitoring are critical components of the infrastructure for effective health promotion (National Public Health Partnership 2000; James and Huska 2005). Access to ideas and resources are important in supporting decision making for health promotion. Useful ideas and resources about how to engage in health promotion take a variety of forms, including principles to guide practice, tools, frameworks, program planning material and program kits. The Public Health Bush Book (Department of Health and Community Services 2007) and the Chronic Disease Story Board (as cited in Laycock et al. 2011:252) are two relevant examples of resources to guide local decision making for health promotion.

Knowledge management refers to a range of practices and techniques used by organisations in developing robust systems for identifying and storing information, converting the information into relevant knowledge and then to use this knowledge to achieve their aim (Hovland 2003). Examples include data available through the Australian Bureau of Statistics, community health profile data and patient-level information through health service clinical information systems. Direct person-to-person contact also enhances opportunities for sharing and further developing knowledge.

Assessment for the organisational environment for health promotion

There is broad international consensus of the importance of creating supportive organisational conditions to strengthen health promotion and its impact (Bensberg 2000; New South Wales Health Department 2001; Yeatman and Nove 2002; Joffres, Heath et al. 2004b; Sahay 2004; McLean et al. 2005; Heward et al. 2007; Johnson and Paton 2007).

An assessment of organisational environment for health promotion requires information on how an organisation structures patterns of relationships between people, both within and external to the organisation, and how well these structures are functioning to that make certain actions more or less likely. This in turn creates the supportive environment necessary to foster and support effective health promotion.
Three elements were identified as important for creating a supportive organisational environment: organisational commitment; leadership and management; and partnerships (see Table 12 below).

- **Commitment:** commitment is about valuing health promotion as an integral and core function at all levels of a PHC service. Commitment for health promotion may manifest in an organisation’s vision, mission statement, strategic plan, and policies and procedures. Employing enough people with the necessary skills and expertise, providing ongoing funding for these positions, including salaries and infrastructure costs (e.g. office space, equipment and materials), and making the necessary funds available to effectively engage and deliver health promotion activities also illustrate that health promotion is integral and tied to the core functions of the health service.

- **Leadership and management:** leadership is about providing direction; having a vision and desire for change, an ability to use one’s intuition, influence, persuasive and presentation skills; and rewarding people via personal praise and providing opportunities to learn new skills. Leadership can come from people at different levels in the organisation such as the Board, Chief Executive Officer, a middle manager, clinician or specialist position. Johnson and Paton (2007) describe two types of health promotion leaders: people who have influence and are able to make things happen at strategic and operational levels, thereby providing ‘political’ leadership, and people who know about health promotion and can inform the ‘political’ leaders and influence strategic direction, thereby providing ‘technical’ leadership. The extent to which the organisation has ‘political’ leadership is assessed as part of the ‘organisational commitment’ component. Technical leadership is an element of ‘delivery system design’ (see ‘Assessment for the design of the delivery system for health promotion’ above).

Management is about role, task accomplishments, setting objectives, using the organisation’s resources efficiently and effectively, and rewarding people via extrinsic factors such as money, titles and promotions (Johnson 2007a).
Leaders and managers of PHC centres would need to have a strong commitment to a comprehensive PHC philosophy and foresee how that philosophy can be integrated into the decision making and core business of the health service. Thus, leadership and management are important in creating an organisational environment to foster and support effective health promotion.

• **Partnerships:** the PHC model depends on partnerships between PHC practitioners and the communities they serve and also between the PHC sector and secondary and tertiary service providers and various other community-based organisations. In Australia PHC centres generally have strong community support, particularly for Aboriginal community-controlled health services; however, the strength of their partnerships with other health service providers and government agencies is variable (National Public Health Partnership 2002). Partnerships between health services and non-health sector organisations, often referred to as ‘inter-sectoral’ or collaborative partnerships, are important for facilitating action on determinants of health (Clapham et al. 2007; Baum et al. 2009). There is broad consensus that collaborative partnerships are a necessity for health improvement and the empirical evidence for the effectiveness of partnerships in improving population health is growing (Roussos and Fawcett 2000; Fawcett et al. 2010).
Table 11: SAT Component: Delivery system design; Component item: Team structure and function

**Domain description:** Effective delivery of health promotion activities requires service delivery infrastructure, staffing and processes designed to meet the needs of the community and specific population groups. This involves more than simply adding additional interventions or programs to an existing system focused on acute care. It often necessitates significant changes to the organisation of services.

**Team structure and function**

**Fully developed support:**

1. There is a fully established **team approach** to health promotion, with secure and ongoing availability of all the practitioners required.
2. Team leadership is clearly defined and recognised, and the leader has an **appropriate level of formal authority** within the practice team.
3. There is very good definition of team members’ roles and responsibilities and lines of reporting, and these are integrated into delivery system design.
4. There is **good communication and cohesion** within the team; it meets regularly and has established processes for **effective decision making**.
5. There is an ongoing **strategic approach to developing team members’ skills and roles**.

<table>
<thead>
<tr>
<th>Limited or no support</th>
<th>Basic support</th>
<th>Good support</th>
<th>Fully developed support</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>No team approach; practitioners needed for team approach not available</td>
<td>Some efforts to establish a team approach; practitioners needed for team approach sometimes available, but not secure or ongoing</td>
<td>Team approach becoming well established; practitioners needed for team approach usually available, becoming more secure and ongoing</td>
</tr>
<tr>
<td>2</td>
<td>Team leadership not clearly defined</td>
<td>Team leadership becoming defined and recognised, leader acquiring formal authority</td>
<td>Team leadership clearly defined and recognised, leader has formal authority</td>
</tr>
<tr>
<td>3</td>
<td>Definition of team roles, lines of reporting and integration in system design are fair</td>
<td>Definition of team roles, lines of reporting and integration in system design are good</td>
<td>Definition of team roles, lines of reporting and integration in system design are very good</td>
</tr>
<tr>
<td>4</td>
<td>Fair communication and cohesion within the team; team meets irregularly; decision-making is fair</td>
<td>Good communication and cohesion within the team; team meetings becoming regular; decision-making is good</td>
<td>Very good communication and cohesion within the team; team meetings regular; decision-making is very good</td>
</tr>
<tr>
<td>5</td>
<td>Development of team members’ skills and roles is fair</td>
<td>Development of team members’ skills and roles is good</td>
<td>Development of team members’ skills and roles is very good</td>
</tr>
</tbody>
</table>
**Table 12: SAT Component: Organisational environment; Component item: Organisational commitment**

**Domain description:** Effective community-based health promotion is more likely when organisational and environmental settings provide the necessary infrastructure, support and resources for such practice to occur.

### 1.1 Organisational commitment

**Fully developed support:**

1. The strategic and business plans reflect commitment and mandate for community-based health promotion – i.e. vision statements, policies; and prevention/population thinking is valued within the organisation
2. The financing system assures adequate funding for community-based health promotion and enables medium- to long-term planning for health promotion
3. The organisation is able to recruit staff with skills and expertise and staffing is at levels that meet the established need; relevant roles are defined and reflected in job descriptions
4. There are very good relationships and regular, clear communication among staff for community-based health promotion; staff morale is high and there is a feeling among frontline staff that senior staff understand their work and needs
5. There is a very good range of training and in-service opportunities for community-based health promotion for all staff
6. There is a good balance across the range of service delivery strategies, including clinical, group and community-based activities.

<table>
<thead>
<tr>
<th>Limited or no support</th>
<th>Basic support</th>
<th>Good support</th>
<th>Fully developed support</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1 No plans; little or no interest in a plan</td>
<td>Plans in place; level of commitment is fair</td>
<td>Plans in place; level of commitment is good</td>
<td>Plans in place; level of commitment is very good</td>
</tr>
<tr>
<td>2 No specific funding</td>
<td>Specific funding, level is fair and/or short term</td>
<td>Specific funding, level is good and/or medium term</td>
<td>Specific funding, level is very good and/or long term</td>
</tr>
<tr>
<td>3 Minimal staffing; no specific roles</td>
<td>Level of staffing is fair; some roles defined</td>
<td>Level of staffing is good; most roles defined and reflected in job descriptions</td>
<td>Level of staffing is very good; all roles defined and reflected in job descriptions</td>
</tr>
<tr>
<td>4 Poor relationships and little or no communication</td>
<td>Relationships and communication are fair</td>
<td>Relationships and communication are good</td>
<td>Relationships and communication are very good</td>
</tr>
<tr>
<td>Morale is low</td>
<td>Morale is fair</td>
<td>Morale is good</td>
<td>Morale is very good</td>
</tr>
<tr>
<td>5 Range of training and in-service opportunities poor</td>
<td>Range of training and in-service opportunities fair</td>
<td>Range of training and in-service opportunities is good</td>
<td>Range of training and in-service opportunities is very good</td>
</tr>
<tr>
<td>6 Balance across service delivery strategies is poor</td>
<td>Balance across service delivery strategies is fair</td>
<td>Balance across service delivery strategies is good</td>
<td>Balance across service delivery strategies is very good</td>
</tr>
</tbody>
</table>
Assessment for the policy and community environment

Health promotion activities and programs operate within certain policy and legislative contexts at the State/Territory and national levels. These may be policies of the health sector, or other sectors, such as education, environment or housing. The policy and community environment are therefore important influences on the health promotion capacity of individuals and organisations. Key features of a supportive environment would include a coherent and authoritative policy narrative for health promotion or healthy public policies; the existence of supportive organisations (both within and outside the health sector) taking action on the determinants of health; supportive public opinion and community infrastructure; and leadership and knowledge management at the macro-system level (i.e. governments and agencies responsible for national and/or State/Territory level policy, funding strategy and enabling infrastructure).

At the macro-system level, the concept of ‘custodianship’ is considered in the context of leadership and knowledge management for health promotion (see National Public Health Partnership 2000). Custodians are responsible for pooling, analysing and reviewing information for action through a portfolio process (see National Public Health Partnership 2002 for a select review of national public health strategies covering ‘health topics’ relevant to Aboriginal and Torres Strait Islander peoples). They are responsible for the commissioning of research and analysis, identification and dissemination of effective interventions, and monitoring the overall performance, quality and outcomes. While they are not responsible for program delivery at the local level, the activities derived from the research on specific topics or issues are advised by custodians.

Environments both constrain and nurture opportunities for health promotion and are often beyond the direct control of individual practitioners or the health centres. However, environments may also be shaped in order to better support the organisations and practice of health promotion. McLean et al. (2005) suggest five ways in which individuals and organisations may influence the policy and community environment:
• advocacy: influences the development of policies and programs by governments and other organisations
• political action: influences public opinion and political will
• engagement with social movements: influences underlying structures behind some of the major sociocultural and environmental determinants of health
• capacity building: strengthening the abilities of other organisations and communities to support action on the social determinants of health
• research and dissemination of evidence regarding health promotion: influence the availability of ideas and other resources for subsequent practice.

In a study to build health promotion organisational capacity, Yeatman and Nove (2002) highlighted the importance of linking consideration of local and State priorities within the one organisational process. In this example, local-level practitioners played an important role in advocating for local health promotion priorities. These issues were given legitimacy by the health service through consideration of a new structure for health promotion priority setting and budget allocation. In a study of municipal public health planning, Bagley et al. (2007) found that a legislative mandate both nurtured and constrained local planning processes. For example, the mandate increased the visibility of public health by ‘making a case for public health’; but the mandate was also considered as another imposition by State government and created tension over priorities.

Assessment for the adaptability and integration of systems for health promotion

Numerous authors have advocated the need for, and developed frameworks for, integrated and flexible systems for supporting and strengthening local public health and health promotion action (National Public Health Partnership 2000; Victorian Department of Human Services 2003; Lin et al. 2007).

Assessment for adaptability requires information on the way systems are organised to respond to emerging health and organisation issues without compromising other short- and long-term health promotion strategies. For example, it involves the ability to revise health
promotion plans, shift resources and/or adapt staff roles to meet changing health promotion priorities.

Assessment for integration requires information on the way the system is organised and functions as a whole to support health promotion. For example, this involves integrating and linking different elements such as comprehensive planning using available data and tools, funding and human resources, complementary work inside and outside the health centre, and ongoing professional development of staff to support health promotion activities.

**Discussion**

The complexity of health promotion, aspects of the research and the local service delivery context have shaped definitions, the choice of indicators and their operationalisation into audit tools for collecting data on the quality of health promotion. This study identified, developed and refined indicators for structure and process quality in health promotion. Indicators related to six key success factors for successful health promotion activities were developed. The key success factors are (1) comprehensive planning, (2) systematic targeting, (3) community participation, (4) partnerships, (5) workforce involvement and (6) evaluation. An additional item was included to describe the scope and frequency of health promotion activity delivery. For describing and assessing the status of health centre system development, five system components that are important for supporting high-quality and effective health promotion activities were identified. These are (1) delivery system design, (2) information systems and decision support, (3) organisational environment, (4) policy and community environment, and (5) system adaptability and integration.

The six key success factors identified for assessing the quality of health promotion activities reflect the key phases of planning, implementing and evaluating health promotion activities, making explicit the importance of partnerships, community participation and skilful delivery throughout these phases. Using a planning and evaluation model as the basis for assessing quality of health promotion activities is consistent with quality assessment instruments developed in a number of European countries (Keijsers et al. 1998; Ader et al. 2001; Netherlands Institute of Health Promotion and Disease Prevention and Flemish Institute for...
Health Promotion 2005; Molleman, Ploeg et al. 2006) and reflect important aspects of successful health promotion in Indigenous communities (see Appendix 5). The use of quality improvement tools has been shown to improve the quality of planning and effectiveness of health promotion activities (Kok et al. 1997; Brug et al. 2010). On this point, the indicators and tools could provide an opportunity to improve activity planning processes, which have been identified as a source of implementation failure and a contributor to the variable success of health promotion activities for Indigenous communities (NHMRC 1996a; National Public Health Partnership 2002; Ivers 2004).

Health promotion in Indigenous communities has been criticised for emphasising narrowly defined diseases and risk factors without efforts to address social determinants of health (Lin and Fawkes 2007) and for being disparate, sporadic, undocumented and unevaluated (Clapham et al. 2007). An additional item to assess the type and frequency of health promotion activities was considered a potential indicator of an ecological approach to health promotion and the extent to which health promotion activities are sustained over time.

Improving health promotion in PHC needs to consider organisational capacity for health promotion, including capacity of the workforce to design, implement and evaluate culturally appropriate health promotion activities. Many elements of the ABCD SAT were found to be consistent with the literature, existing frameworks and indicators for organisational capacity for health promotion (New South Wales Health Department 2000; Joffres, Heath et al. 2004a; McLean et al. 2005; Ziglio and Apfel 2009). In a review of the literature on the links between health promotion capacity building and enhanced quality of health promotion programs and services, Sahay (2004) found that there is empirical support for the relationship between capacity, focused on workforce development, internal organisational processes and partnerships, and effective health promotion interventions. Other areas of organisational capacity, such as commitment, partnerships, and health promotion leadership and management, have also been identified as necessary for supporting effective health promotion (Bensberg 2000; Yeatman and Nove 2002; Riley et al. 2003; Heward et al. 2007).
While several indicators could be considered Eurocentric, a number of modifications and adjustments have been made specifically for use in this research context. Distinguishing gender-specific activities and consideration of cultural norms and preferences are two such examples. Another example is the assessment of systems for supporting culturally appropriate health promotion (see ‘Assessment for the design of the delivery system for health promotion’ above). Furthermore, we have made significant adjustments to the language used in the tools and the associated protocol to enhance understanding of health promotion concepts in the PHC context.

The two tools developed to collect information on health promotion quality – health promotion audit and the modified ABCD SAT – are not intended to be used in isolation. Their use in combination emphasises the collection and use of data to identify factors contributing to suboptimal system performance. This systems perspective is consistent with the ABCD approach to quality assessment – outlined at the introduction of this chapter (see ‘ABCD approach to quality assessment’). In comparison to a program perspective, as is the emphasis of the instruments identified through the literature review, the strength in taking a systems view for assessing health promotion quality is (1) developing opportunities for system efficiencies by building on investments, and also avoiding duplication of administration or support systems of single purpose programs and activities (National Public Health Partnership 2000), (2) developing organisational structures that are flexible and able to sustain and upscale successful health promotion activities (Lin et al. 2005; McCalman et al. 2012), and (3) making health promotion visible by formally articulating work and creating a shared vision and understanding of health promotion across the health service (Hawe et al. 1998).

The iterative and participatory approach for combining literary evidence and practitioner input was found to be an appropriate method for developing the indicators and tools and had benefits for both researchers and participants. For example, the process has contributed to a greater understanding of the broader context of health promotion quality in Indigenous PHC. In particular, it provided some insight into the tensions facing Indigenous PHC staff with regard to the factors that reflect successful health promotion identified in the literature and
practice in real world settings. There are many guiding frameworks and principles for health promotion, including the Ottawa Charter for health promotion (WHO 1986), but PHC centre staff found them particularly challenging to operationalise in terms of tangible actions for purposes of quality assessment. The iterative process enabled the discovery of emerging issues and allowed us to respond to these in order to develop quality indicators and tool that would be well grounded in theoretical and empirical concepts but also relevant for practice use. Such a participatory approach is in line with principles of culturally appropriate health promotion for Indigenous Australians (Mikhailovich et al. 2007; McCalman et al. 2009; Reilly et al. 2011; Demaio et al. 2012).

However, using an iterative and participatory approach was also time consuming and required more intensive effort by the research team than originally anticipated. Not only did we engage stakeholders throughout the development and refinement process, but additional effort was required to communicate an understanding of what is ‘health promotion’, an important step for defining quality for assessment purposes. Despite the intensity, the process has provided a greater understanding of what might be required to support the implementation of the tools as quality improvement instruments.

**Limitations of this study**

A level of judgement is required for assessing the quality of health promotion activities. For example, the assessment for community participation involves a yes/no response to items (see Box 2 above). The quality of participation, involvement of community or the extent to which participation is meaningful cannot be fully assessed through an audit of health promotion records or without input from community members themselves. The types of variables used to operationalise the success factors (dichotomous (yes/no), numerical (quantification, values or dates and free text) are intended to standardise data collection and minimise judgements by auditors, and their use is consistent with the ABCD approach to quality assessment and other indicators of health care quality, including health promotion. The audit results also are intended to provide a basis for dialogue about health promotion quality rather than definitive answers. To assist data collection, we have developed an auditing protocol (see Appendix 8)
that provides detailed explanations of each question in the audit tool and examples of information that may be found documented in health promotion records.

Outcome indicators were not developed as part of this study. This is because changes in outcomes are not realised for many years after activity implementation, and are not expected to experience marked changes over the course of a quality improvement intervention. Furthermore, the outcomes of health promotion activities often are influenced by factors outside the control of health centres, whereas process and structure indicators are influenced more directly (and are therefore amenable to change) at the PHC centre level. Also, while community capacity is a key dimension and important consideration for health promotion (Goodman et al. 1998), it is beyond the scope of this study to address this topic.

Chapter summary and conclusion

This study represents the beginning of a process for describing and assessing health promotion quality in health promotion in PHC centres. Information gathered from the indicators and tools developed in this study can potentially provide insight on the extent to which health promotion activities and systems align with best practice, and may assist health centre staff to identify strengths and areas for improvement. As evident from ABCD and other CQI initiatives, providing PHC centre staff with data about the quality of their work and the health centre systems that support them does lead to improvements in PHC service delivery (Jamtvedt et al. 2006; Bailie, Si et al. 2007b). Furthermore, aggregating information from the tools has the potential to compare quality of health promotion activities and of health centre system development within and across health centres over time.

In the following chapters, the audit tools are used to describe the scope and quality of health promotion activities (Chapter 5) and the state of system development for health promotion (Chapter 6) in participating Indigenous PHC centres. In Chapter 7 the audit tools are introduced as part of a CQI intervention and assess changes in the quality indicators for health promotion over two annual CQI cycles.
Chapter 5: Describing and assessing the quality of health promotion activities in Indigenous primary health care centres

Introduction

In this chapter I report on an assessment of the scope and quality of health promotion activities delivered by participating PHC centres. I draw on audit data to examine the extent to which these activities reflect key areas of best practice in health promotion. In chapter 4, I reported on the development of a health promotion audit tool. A health promotion audit introduces the concept of obtaining standardised information about key areas of best practice by reviewing available data on health promotion activities. When compared with other instruments for examining the quality of health promotion (see Appendix 4, for example, Molleman et al. 2005; Cianciara 2006; Baron-Epel et al. 2004; Ader et al. 2001), the approach used in this study requires a shift in thinking from a focus on evaluating an individual activity to an assessment of health promotion quality at the health centre (organisational) level. The intention of the audit data is to encourage health centre staff to examine and reflect on patterns of health promotion quality against key areas of best practice and to define priorities for action to improve health centre systems to support these key areas of best practice.

The chapter begins with a description of the process for identifying health promotion activities for audit, how data were obtained using the health promotion audit tool and how this information was analysed. The findings are presented before moving to a discussion about the scope and quality of health promotion activities which appear to be influenced by (limitations in) practitioner and organisational capacity in participating PHC centres. This is of particular relevance for a CQI intervention in that by taking a systems perspective, the health centre environment is recognised as a significant contributor and source of quality gaps. Although the focus of this chapter is on describing and assessing health promotion
quality, what is also of interest is the role the audit process played in improving participating health centre staff’s awareness and understanding of best practice in health promotion.

**Methods**

**Process for identifying and selecting health promotion activities**

To be included in the audit, health promotion activities were defined as being exemplars of one or more of the following categories of health promotion interventions (Victorian Department of Human Services 2003): (a) healthy public policy, settings and supportive environments; (b) community action for social and environmental change; (c) health education and skill development; and/or (d) social marketing or health information. The sample was drawn from the health promotion activities delivered by staff at the four participating health centres. Health centre staff, in collaboration with the research team, were responsible for identifying and selecting health promotion activities for audit. Eight health promotion activities, across the four participating health centres, were considered eligible for inclusion in this audit.

**Data sources and audit process**

A standardised health promotion audit tool (see Appendix 7) was developed and used to collect information on health promotion quality related to: (1) comprehensive planning, (2) systematic targeting, (3) community participation, (4) partnerships, (5) workforce involvement and (6) evaluation. To improve the quality and consistency of the information gathered, an auditing protocol was used to guide data collection (see Appendix 8).

Data on the scope and quality of health promotion activities were collected on-site from two sources: health centre records and staff interviews. Health centre records of health promotion activities included project plans, staff reports and presentations, and minutes of meetings. These documents were read and checked for documentation of items specified in the audit tool; and described using dichotomous (yes/no) and categorical variables. The audit tool was designed using ‘parent-child’ questions where the need for information was dependent on the response to another question. For example, if there is a positive response to the ‘parent’
question ‘Is there a documented plan for this activity?’ the ‘child’ questions regarding further details about the activity plan (e.g. aim, strategies, timeframe, evaluation) are to be answered. An example is given to demonstrate the data collection process: the activity is a health information session to raise community awareness about smoking and the effects on health. If the available health centre documentation includes details about the activity plan, the item for ‘comprehensive planning’ is labelled as delivered (dichotomous variable). The records are further checked for documentation of the activity aim or objective, how and when the activity was delivered, health centre staff involvement and activity evaluation (see Box 2 in Chapter 4). If descriptions of any one of the above elements were located in the records, the relevant items are labelled as implemented, or otherwise as not implemented (dichotomous variable). Categorical variables were designed as a list containing two or more possible options. Categorical variables were not mutually exclusive. For example, to gather information on the health centre staff involved in health promotion activities, there are numerous options related to staff positions in PHC centres (see Chapter 4; Table 7).

While on-site, we found that written descriptions of health promotion activities were lacking and often inadequate to gather information about activity quality. Therefore, an interview-administered audit was used to elicit new information and supplement data derived from the review of health promotion records. The research team (one as interviewer and one as scribe/observer) conducted the interviews with up to two members of staff at each participating PHC centre. Staff members were nominated by their health centre management and had some involvement or responsibility for the provision of health promotion at the health centre.

The questions in the audit tool were used as an interview guide. This ensured there was some consistency with the audit data across participating sites, despite using different data sources and collection methods. The interviews proceeded in three sections. First, a general description of the health centre details, names of auditor and audit participants, and audit date were recorded. Second, we asked questions to obtain information on the types of health promotion activities that the health centre had delivered and the health issues these activities were intending to address. In the third section, we asked the staff member to provide details
about the activity in terms of the duration (e.g. was it an ongoing or one-off activity), delivery setting, targeted population, involvement of others in the design and delivery (e.g. community members and partners) and how the activity had been evaluated (or plans for evaluation). This process was repeated for each activity in each health centre (n = 8). Interview responses were recorded on audit tools (one for each activity) and additional notes were recorded on both the audit tool and in a research diary at the time of the interview. The duration of the combined audit and interview process was approximately one to two hours.

**Data analysis**

After each health centre visit the research team met to share and discuss the data collected. Questions in the audit tool provided the framework for discussing, organising, analysing the data and for reporting the findings. For each audit item, we used simple frequency counts for the dichotomous and categorical variables. Qualitative data were used descriptively to give further explanation of the audit items and quantitative findings.

A written report summarising the findings from the audit of health promotion activities was prepared. The findings were presented back to, and their interpretation discussed with, health centre staff and managers at feedback workshops. The purpose of the workshops was to explore the local relevance of the findings and to explore the acceptability of using the findings as a basis for identifying priorities for improvement. The findings were also discussed at project management committee meetings. These processes provided a mechanism to test and seek validation of our data analysis, findings and interpretation and to refine the health promotion audit tool.

**Findings**

I describe the findings in two parts. First, I use examples of activities from the audit sample to illustrate how the spectrum of interventions (Victorian Department of Human Services 2003) was applied to categorise the types of health promotion activities in this study. Second, the scope and quality of health promotion activities are assessed and described using the six key success factors of health promotion quality.
Categorising health promotion activities

Different types of health promotion activities are being delivered by health centres. The spectrum of health promotion interventions framework (see Figure 9) is used to illustrate the types of health promotion activities according to four categories of: (1) health information and social marketing; (2) health education and skill development; (3) community action strategies; and (4) settings and supportive environments. Activities related to individual screening, risk assessment and immunisations were not included in the scope of this study.

![Spectrum of Health Promotion Interventions](image)

**Figure 9:** Examples of health promotion activities delivered by Indigenous PHC centres according to the spectrum of health promotion interventions framework

*Health information and social marketing*

Participating health centres were involved in health information and social marketing activities. The primary purpose of these initiatives was to raise awareness about a particular (health) issue in the general community. Group sizes ranged from small sessions for individual families to large whole-of-community events.

For staff at one health centre, the high rates of smoking in their community were of particular concern. To raise community awareness of the health consequences of smoking, staff ran
regular ‘theme days’ or small group information sessions. They used posters and pamphlets to communicate messages about smoking and its impact on health.

In another health centre, staff organised a mega health concert as part of activities during Drug Action Week. The aim of the concert was to ‘promote health messages around alcohol and other drugs through songs, words and interaction with the community’ (as cited in participating PHC centre record). Posters, pamphlets, media releases and a DVD of the concert were obtained or developed to further communicate and reinforce the Drug Action Week health messages.

**Health education and skill development**

PHC centres conducted small group activities designed to enhance understanding and develop life skills for adopting and maintaining healthy lifestyle choices. One health centre was implementing a ‘Diabetes Day’ program, one day a week (Thursday) for 12 weeks. The aim of this program was to promote self-management among people with diabetes through education and best practice care. The Diabetes Day begins with participants recording their blood sugar levels, blood pressure and waist circumference in a personal diary. A one-hour education session is delivered on a range of topics including ‘what is diabetes’, ‘the consequences of alcohol’, ‘reading food labels’ and ‘social and emotional wellbeing’. These sessions are presented by health centre staff and representatives of local community organisations. Demonstrations on how to prepare healthy food are done by local community people with an emphasis on the use of traditional foods and cooking methods. The day culminates with staff and participants sharing a healthy lunch. A diabetes educator and general practitioner are available throughout the day for individual appointments.

**Community action strategies**

Active community participation and involvement is important for supporting and building community capacity to decide their own needs and how these needs are best addressed. An example of a community action activity is the use of an interactive communication tool known as the Chronic Disease Story Board (see Laycock et al. 2011:252). Based on Indigenous traditional ways of storytelling, the aim of the Story Board is to raise awareness
and understanding and to develop strategies for detecting and preventing the onset of chronic
disease in a community. Trained Aboriginal facilitators engage community members in a
story about the health of their community. Using coloured felt pieces that represent
individuals (e.g. adults, children, pregnant woman) and chronic disease risk factors and
behaviours (e.g. smoking, alcohol, sugar consumption, high blood pressure, drug use),
community people develop a visual picture of the likely causes and consequences of chronic
disease, first in their own families and then more broadly in their community. From this
picture, community members discuss and determine priority issues and potential ways to
address areas of concern. This information can be used to develop a community action plan.

**Settings and supportive environments**

Removing or minimising barriers and creating incentives for people to adopt healthier
lifestyles may be best achieved by developing or making changes to policies, legislation, laws
and regulations. These types of activities create the environments that support people in
making healthier choices.

Smoke-free workplace policies are an example of a supportive environment initiative. This
legislation has been developed at the jurisdictional level and covers workplaces in the NT,
including participating PHC centres. One health centre had also developed a workplace food
and nutrition policy as an indication of the health service’s commitment to the prevention of
chronic disease. The aim was ‘to assist staff make appropriate food and drink choices when
offering food as part of health education activities, workshops, meetings and other events
involving clients, staff and Council members’ (as cited in a participating PHC centre record).
The policy stipulates ingredient choices for different food groups (e.g. breads and cereals,
dairy products, drinks) and age appropriate choices (e.g. foods to avoid for children less than
five years old), and provides a compilation of menu ideas for morning and afternoon tea and
lunches. The policy received endorsement by the governing board of the health centre.

**Scope and quality of health promotion activities**

In this second part of the findings, I use the six key success factors (as outlined in Chapter 4)
to describe the scope and quality of the eight health promotion activities. The analysis reveals
that in participating PHC centres the scope and quality of health promotion activities is varied. This study also found that given the lack of health promotion documentation, gathering the information necessary to undertake audits of activities was particularly challenging.

Table 13 summarises the types of health promotion activities according to the four categories described in the spectrum of health promotion interventions. The findings highlight that participating PHC centres delivered predominately activities focused on health education and information sessions to raise awareness of health issues among individuals and/or small groups, with less emphasis on approaches to support community action and empowerment or create supportive environments. Information gathered through interview with staff and reviews of available health centre records, confirmed that many of these activities were delivered in response to pre-designed initiatives and/or event materials that health centres received through the mail, such as national health week campaigns or awareness days (for example, Australia’s Healthy Weight Week, Drug Action Week, World No Tobacco Day, Chronic Obstructive Pulmonary Disease day).

**Table 13: Types of health promotion activities implemented by participating Indigenous primary health care centres**

<table>
<thead>
<tr>
<th>Types of activitya</th>
<th>Baseline (n = 8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health education and skill development</td>
<td>3</td>
</tr>
<tr>
<td>Social marketing and health information provision</td>
<td>6</td>
</tr>
<tr>
<td>Community action (for social and environmental change)</td>
<td>1</td>
</tr>
<tr>
<td>Creating settings and supportive environments</td>
<td>1</td>
</tr>
</tbody>
</table>

aThe types of activities are based on categories of health promotion interventions developed by the Victorian Department of Human Services 2003:44.

Note: because health promotion may include more than one type of activity, the total frequency exceeds the number of activities.
Comprehensive planning (including systematic targeting)

Comprehensive planning was difficult to assess as most health promotion activities (n = 6) had no written plan or documentation about the activity. For the purpose of the audit, information about health promotion activities relied on health centre staff recollection of the activity. Documentation was often done retrospectively and summarised aspects of what was done and not necessarily what was planned. For example, in response to a request for records of health promotion activities to be included in a health centre audit, the following information was provided by a staff member via email:

*Foot check day – pretty poor response – only three sets of feet done as they said there was no-one else there – but there were photos at the conference presentation done by the trainees. Gave talk re: promoting health checks and SNAP [Smoking, Nutrition and Physical Activity] – distributed sheet to people at meeting and used that as topic of discussion about looking after ourselves. Forgot the months.* (Health Centre D)

It was difficult to determine if health promotion activities were indeed ‘planned’ because details about the planning of activities were not adequately recorded. Any evidence of a strategic or systematic priority setting process was limited and therefore health promotion activities were considered opportunistic or ad hoc. For example, the process for identifying the issue to be addressed or the aim of the health promotion activity was not always driven by local community need. In one health centre, it was noted that:

*Most health promotion activities and health issues are guided by [staff] capacity (eg. knowledge, skills and time), not local data.* (Health Centre C)

However, some health centre staff commented about their access to, and had utilised, local population health data to inform the development of their health promotion activity. As participants in quality improvement initiatives, such as ABCD and Healthy for Life initiatives (Bailie, Sibthorpe et al. 2008), participating health centres have access to information about health issues affecting their communities. In one health centre, the results of a clinical audit
highlighted a number of their clients with type 2 diabetes with elevated levels of HbA1c. In response, the Aboriginal Health Workers used the Chronic Disease Story Board (see ‘Community action strategies’ above) as a tool for raising community awareness and understanding of sugar consumption and its impact on the development and management of diabetes.

All health centres had delivered activities to raise awareness about the risks of smoking in their communities. Other health issues that were commonly targeted included chronic diseases and related factors (for example, diabetes, chronic obstructive pulmonary disease, HbA1c (glycated haemoglobin) and hypertension). Health promotion activities also targeted issues of women’s and men’s health, human papillomavirus and mental health.

Health promotion activities took place in a range of community settings such as schools, art centres and other community meeting places. Other activities were delivered in available space in the health centre buildings or on health centre grounds.

Community participation

The importance of community involvement in health promotion activities was widely acknowledged by health centre staff. However, in reality, engaging community people in health promotion activities (beyond consultations between a client and the health care provider at the health centre) was seldom done. Of the eight health promotion activities, there was no or limited community involvement in planning, implementing or evaluating health promotion activities. The records for one health promotion activity described community engagement and how community members were involved in the delivery of education sessions about diabetes (see ‘Health education and skill development’ above). During interviews, staff spoke about locally established health committees as examples of community involvement. In one health centre, the local health committee was used as an opportunity to communicate and discuss health centre initiatives with representatives of the

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4 Glycated haemoglobin, or HbA1c, is used as an indicator for monitoring blood glucose levels and is particularly important in the management of diabetes.
community. However, there appeared to be less emphasis placed on garnering issues of community interest in the design and implementation of community-identified health promotion activities.

**Partnerships and intersectoral collaboration**

Involvement of other organisations and agencies in health centre health promotion activities varied. This ranged from no external collaboration to the involvement of five or more organisations or community groups. For those activities delivered in collaboration, partnerships were predominately with other health organisations and agencies. The most common were partnerships with visiting health professionals from the NT Department of Health and Families. Collaboration also occurred with academic and research institutions (e.g. Menzies School of Health Research and James Cook University) and non-government organisations (e.g. National Heart Foundation, Fred Hollows Foundation). Two activities involved or developed links with non-health sector organisations. These were with the local school and arts centre.

**Workforce involvement**

There was a broad range of health centre staff involved in and taking on different roles for health promotion. Staff members across a variety of professional disciplines (doctors, nurses, allied health, AHWs and trainees, clinic managers) were involved in aspects of planning, implementation and evaluation of health promotion activities. All eight health promotion activities involved AHWs or Indigenous staff. Interviews with staff also highlighted the integral role of the AHW, often as community broker, in the design and delivery of health promotion activities. The second most common health professionals actively involved in health promotion were nurses and allied health professionals (for example, nutritionists).

Our interviews also provided some insight into the tensions facing health centre staff with regard to ‘best practice’ as reflected by the quality indicators and the reality of practice in their health service. It was clear that there were different perspectives of ‘health promotion’ and how it is done. Health centre staff commented that the language or ‘jargon’ of health
promotion was a major obstacle in understanding and applying the principles and concepts in practice:

*It’s just this health promotion thing, jargon – it’s this abstract thinking for lots of people who work in the clinic. This is the first wall that we have to deal with to make this [health promotion] technically correct for everyone. Go beyond the event calendar and talk about the tools and processes. But these words are very foreign for people, all so new.* (Health Centre D)

*Health promotion is a fairly new field of practice, continuously developing and the jargon is sometimes not understood or used by all so the challenge is to continue exposing all staff in a meaningful way with the aim of bringing everyone to understand the applicability in their workplace.* (Health Centre D)

*It’s a really ‘out there’ process!* (Health Centre B)

**Evaluation: intervention coverage and target group reach**

Attempts to evaluate health promotion activities were limited to a record of the number of people attending an activity. Poor planning processes, such as a lack of clearly defined activity aims or objectives (see ‘Comprehensive planning (including systematic targeting)’ above), together with the limited availability and quality of health centre records, meant it was not feasible to determine the extent to which health promotion activities had been evaluated, or whether they had reached specific population groups or made any intended or unintended changes in Indigenous community knowledge, skills, behaviours, or health and social outcomes.

**Discussion**

In this chapter, an audit of health promotion activities was conducted and identified evidence–practice gaps in health promotion quality. With regards to the scope and quality of health promotion this study found (1) an emphasis on health information and education type activities with a particular focus on smoking and other chronic disease-related factors; (2) a lack of recorded information about activity planning, such as a clear goal or aim of the activity or community participation; and (3) limited evidence of attempts at activity
evaluation. These principal findings are consistent with other studies of Indigenous health promotion (Clapham et al. 2007; Clelland et al. 2007; Mikhailovich et al. 2007). However, health promotion activities examined in other quality assessment studies had greater adherence to some quality indicators (Ader et al. 2001; Molleman and Bouwens 2005; Brug et al. 2010). For example, evidence of activity design, involvement of external partners and target group participation were greater than in the present study (Ader et al. 2001; Brug et al. 2010). A key difference in these studies, appears to be the participation of experienced health promotion practitioners in the health promotion activities under assessment.

Another key finding in the present study is the small number of health promotion activities identified for the audit. Possible reasons for the low numbers include (1) health promotion activities were not delivered by participating PHC centres during the audit time period (previous 12 months); (2) PHC practitioners are delivering health promotion activities but do not identify them as such; and/or (3) a lack of documentary evidence of the delivery of health promotion activities at these PHC centres. The latter two reasons are supported by findings from an unpublished study (health science doctorate) of health promotion capacity that involved gathering evidence of health promotion practice in one urban community health service in the NT: Judd (2005:6) noted, ‘practitioners state that they did health promotion all the time, but there was little evidence to support these claims, nor was there any real idea what these practitioners believed health promotion to be’. Issues of documenting health promotion practice have also been reported in other studies. For example, Hawe et al.’s (1998) study of health promotion workers’ activity in ‘capacity-building’ demonstrated that many practitioners were not able to formally articulate their work. This suggests that the low number of activities in the present study may more likely be a reflection of a lack of understanding of what is health promotion and documentation of activities rather than no health promotion activity during the audit period.

This study also confirms the critical role of AHWs in the delivery of health promotion. AHWs play a pivotal role as community brokers, cultural mentors and advocates for their communities (Jackson Pulver and Rose 2004). However, it has been reported that this role diversity, together with a widely held perception that AHWs are willing, skilled and
supported to take on these responsibilities, including health promotion (directly or indirectly) in the health service, stretches the capacity of many AHWs (Abbott et al. 2008). Increasing educational opportunities, appropriate career pathways and remuneration together with the recognition of AHWs as core health professionals and equal members of the PHC team is vital for improving health promotion in PHC settings.

As has been highlighted in this study and other health promotion quality assessment studies (Ader et al. 2001; Molleman, Peters et al. 2006; Brug et al. 2010), practitioner health promotion capacity appears to be a significant contributor to health promotion activity quality. Key elements of practitioner capacity are knowledge of health promotion, skills to initiate, design, deliver and evaluate health promotion, including the skills to tailor and adapt resources for effective implementation at the local level, and a commitment to the core values of comprehensive PHC (Judd 2005; Lloyd et al. 2009). A key implication for the PHC centres participating in this study is the importance of good systems of decision support and systems for planning and monitoring health promotion (see Chapter 4 ‘Assessment for information systems and decision support structures for health promotion’). These systems are needed to improve practitioner access to professional development, evidence based guidelines, and resources and processes to formally articulate and document health promotion practice. Moreover, engaging people with health promotion skills from other organisations and agencies plays an important role in providing the additional resources, expertise and support to health service staff in effective health promotion practice. Without attending to these system requirements, gaps in health promotion quality may continue.

Additionally, the activities delivered in this study appeared to be influenced by NT or national health campaigns and/or priorities (for example, Drug Action Week and Diabetes Day). The organisation and delivery of programs by single health issues, as is often defined by State/Territory and national strategies, has important implications for PHC centres. In part, because of the scarce resources, local health services have to make choices regarding their participation. The choice becomes a question of breadth or depth: participate in many programs only briefly, or fewer programs in greater depth? The ad hoc and opportunistic nature of health promotion activities included in this study, and the lack of engagement with
other organisations and community, suggests that some PHC centres struggle to organise and administer health promotion in a way that will sustain practice (Heward et al. 2007).

While the potential of an audit approach in health promotion has been recognised (Catford 1993), few studies have developed and applied the technique (Ader et al. 2001; Molleman et al. 2005). Despite the challenges in obtaining documentary evidence of health promotion activities, this study has demonstrated that an audit approach is an acceptable and useful technique for describing and assessing the quality of health promotion activities. Audit data, as presented in this chapter, provide an indication of adherence to best practice health promotion. The data collated provides an estimate of health promotion quality at the health centre level that is not otherwise available through individual activity audits or evaluations (see for example, Ader et al. 2001; Molleman et al. 2005).

PHC practitioners reported their participation in the audit as a valuable process for raising their awareness and understanding of best practice health promotion. The audit evolved in practice to play a role in providing a structure for guiding dialogue and creating knowledge that would underpin a shared language for health promotion and health promotion quality. This shared understanding was particularly important in stimulating individuals to think about their involvement in health promotion activities and improved the collection of relevant information for audit purposes.

**Limitations**

The findings were based on a small number of health promotion activities (n = 8). The activities identified for the audit were a self-selected sample by staff at participating health centres. The picture of health promotion quality among health centres may not be indicative of the health promotion activities delivered by other PHC centres or other organisations. Thus, the findings may have limited generalisability.

Several biases are possible in clinical record auditing that also applies to a health promotion audit. These include the experience and skill of the auditor/s; and the type of data abstracted (Donabedian 2005). Auditors were staff members of participating health centres and were
variably involved in different aspects of the health promotion activities under assessment. PHC practitioners in this study also possessed different levels of experience in health promotion, which may influence the reproducibility of the indicator and/or the type of data abstracted. A number of aspects of our approach have contributed to the reliability of our results: (1) members of the research team, as co-auditors, were familiar with the audit tool and facilitated data collection at each health centre; (2) two sources of data were combined (i.e. health promotion records and interviews with staff); (3) the audit protocol and tool were pre-piloted and refined to improve acceptability and validity of the items; (4) during data analysis the research team reviewed the completed audit forms against the health promotion documents provided by the health centres and interview data to ensure accurate and consistent information was reported; and (4) audit findings were summarised, reported and discussed with project chief investigators and workshopped with staff at participating PHC centres to validate our interpretations.

Chapter summary and conclusion

In summary, participating PHC centres are engaged in a variety of health promotion activities, however what health promotion is done is often not recorded and when documented, the information is scarce and not comprehensive. As such, the level of engagement in health promotion activity by participating PHC centres may well be underestimated.

The limitations in information quantity and quality created challenges for conducting audits of health promotion and have flow on effects for health promotion practice, including the ability to monitor and evaluate the impact of health promotion activities. The lack of documentation of health promotion activities (success or otherwise), further perpetuates the lack of evidence of effective health promotion, duplication of effort and repeat of activities with little to no effect, and an inability to ‘scale up’ of effective interventions.

The findings presented in this chapter showed significant quality gaps and provides evidence of the scope and quality of health promotion activities identified by participating Indigenous PHC centres at one point in time. Of particular importance is the potential benefit of the audit
process in identifying (limitations in) health promotion capacity at practitioner and organisational levels.

The significant evidence–practice gaps in health promotion quality also raise several implications for a CQI intervention that are explored in subsequent chapters of this thesis. First, to what extent are PHC systems organised and how do they function to support high quality health promotion activities (Chapter 6)? Second, the ABCD approach (Bailie, Si et al. 2007c) and other facilitated quality improvement interventions (Hysong et al. 2006) have demonstrated improvements in systems and delivery of PHC services based on a participatory audit and feedback system. In Chapter 7, a CQI intervention similar to the ABCD approach is introduced to explore the impacts on the quality of health promotion activities and health centre systems over two annual cycles.
Chapter 6:
Quality of health centre systems for health promotion in Indigenous primary health care centres

Introduction

As presented in earlier chapters, a core feature of ABCD, and other quality improvement programs, is an emphasis on a systems approach. A systems perspective recognises the health centre environment as a significant contributor and source of quality of care problems. As such, the appropriate organisation and effective functioning of the health centre environment is key to achieving consistent delivery of health care services (Berwick 1989; Leatherman et al. 2010). In this chapter I examine the state of systems development and how participating PHC centres are organised to support health promotion. I explore staff perceptions on how well their health centre’s organisational environment is functioning to support them to plan, implement and evaluate health promotion activities. I draw on data that were gathered from four facilitated group processes (one at each participating PHC centre) using a modified version of the ABCD Systems Assessment Tool (SAT). The ABCD SAT was adapted specifically so it could be used to describe and assess health centre system support for health promotion. In chapter 4, I reported on the process for modifying the ABCD SAT and described the key components of health centre systems which were identified as being important for supporting best practice health promotion.

I begin this chapter by describing the data collection and analysis processes before presenting the findings and then reflecting on the state of health centre systems development for health promotion and the implications for best practice. By comparing the results of the systems assessment process across participating PHC centres, we were able to develop a picture of the similarities and differences in the way participating PHC centres are organised and the varying levels of health centre system development for supporting health promotion. The SAT was also subject to further modifications over this period as its value as an approach for
assessing systems for health promotion was observed in action. For example, to improve the practical application of the tool, ‘real world’ examples were subsequently included in to the descriptions of the key components of health centre systems. Although initially designed as a measurement tool, the value of the SAT (and associated assessment process) appears to be in providing a framework for a structured dialogue about best practice systems for health promotion and in assisting staff debate and arrive at a shared understanding of the strengths and weaknesses of their health centre systems.

**Methods**

**Collecting data on health centre systems**

The systems assessment approach for health promotion is similar to the approach that has been used successfully in describing and assessing the quality of clinical systems for the prevention and management of chronic disease (Si et al. 2005; Bailie, Si et al. 2007b). Data on strengths and weaknesses of health centre systems for health promotion were gathered by interviewing health service teams using the modified ABCD SAT. A copy of the instrument is at Appendix 9. These group interviews were attended by clinic managers, nurses, AHWs and general practitioners (when available).

The modified ABCD SAT consists of 17 items covering five system components: (1) delivery system design (four items); (2) information systems and decision support (three items); (3) organisational environment (three items); (4) policy and community environment (five items); and (5) adaptability and integration of health system domains (two items) (see Chapter 4, Table 10.) The SAT measures the development for each item in the five components, using a scoring range from 0-11: the higher the score, the better the systems. The scores are sub-divided into four categories defined as “limited support” (0-2), “basic support” (3–5), “good support” (6–8) and “fully developed support” (9–11). The tool includes a description of each component and the related items. The brief descriptors are designed to assist health centre staff decide what level of support and score within that level they think best represents the systems in their health centre. Assigning the score was not intended as a
statistical exercise but, rather, a means for comparing perceptions and moving towards a more consensus-based, health centre team agreement.

Component and item scores along with a summary of their justification were recorded on a scoring sheet. Health centre teams nominated one person to record the main points of discussion and their justification for component scores. Additionally, members of the research team made notes on a separate scoring sheet. Information recorded by the health centre teams and the research team were later combined for data analysis.

**Description of data analysis**

For each health centre, records of staff discussions and their perceptions of the strengths and weaknesses were organised and reported in a table using the components and items in the SAT. We used matrix displays as a way of organising and visualising these qualitative data in a systematic way and to compare results across participating health centres (Miles and Huberman 1994). The matrix rows related to the 17 items across five components in the tool and four columns were used to illustrate the points of discussion for these items at each participating health centre. The research team met to identify and discuss patterns and themes in the descriptions of systems and the strengths and weaknesses of systems for supporting health promotion at participating PHC centres. The research team extracted examples from health centre staff comments on main successes/difficulties regarding their systems and classified them as a strength (system working well) or weakness (system not working so well) for a given component of health centre systems.

At the health centre level, mean scores were used to summarise levels of systems development. The mean was calculated from individual item scores to create a component score, and the mean of the component scores forms the overall system score for the health centre. Across health centres, median scores were calculated for each system component and for overall scores. Median scores were calculated by first ranking scores from lowest to highest, and then taking the average of the middle two scores for even numbers. The quantified system scores are summarised in table format.
Findings

Status of system development for health promotion

Table 14 shows the overall system assessment scores for health centres ranged from 5.2 to 6.4, indicating basic to good system support for health promotion. No health centre reported a system component as being fully developed (a score in the range of 9-11). However, there was wide variation in health centre systems demonstrated by the range in scores for each component. For example, health centres scored ‘Policy and community environment’ from 2.5 to 6.0 and for ‘Organisational environment’ scores ranged from 4.0 to 8.0.

Table 14: Status of health centre systems development for health promotion at baseline

<table>
<thead>
<tr>
<th>SAT component</th>
<th>Examples of items measured for each domain</th>
<th>Range (median score)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery system design</td>
<td>Team functioning and approach to service delivery, dedicated health promotion staff &amp;/or staff time, comprehensive culturally appropriate services</td>
<td>5.6 – 7.2 (7.0)</td>
</tr>
<tr>
<td>Information systems and decision support</td>
<td>Information systems to capture health promotion activity, availability and use of evidence-based guidelines, systematic planning</td>
<td>5.0 – 6.0 (5.6)</td>
</tr>
<tr>
<td>Organisational environment</td>
<td>Strategic plans reflect health promotion vision, dedicated resource allocation; management support</td>
<td>4.0 – 8.0 (5.8)</td>
</tr>
<tr>
<td>Policy and community environment</td>
<td>Partnerships across sectors; networks, community infrastructure supportive environments</td>
<td>2.5 – 6.0 (4.0)</td>
</tr>
<tr>
<td>Adaptability and integration</td>
<td>System responsiveness to emerging priorities; linkages across system components</td>
<td>5.0 – 7.0 (6.0)</td>
</tr>
<tr>
<td>Overall scores</td>
<td></td>
<td>5.2 – 6.4 (5.6)</td>
</tr>
</tbody>
</table>

Strengths and weaknesses of health centre systems for supporting health promotion

Delivery system design

Delivery system design refers to the extent to which the design of the health centre’s infrastructure, staffing and processes maximise the potential effectiveness of the organisation
to support health promotion (see Chapter 4, ‘Assessment for the design of the delivery system for health promotion’). Scores for this system component ranged from 5.6 to 7.2, with a median score of 7.0, indicating basic to good system support for health promotion.

Health centres participating in this study organise health promotion in different ways. Health promotion was organised as a discrete area of program service delivery, as a part of all service delivery or based on individual members of staff. For example, health promotion was described as a role for one or two AHWs in the team or for any staff ‘available on the day’. Across all health centres, staff identified one or two colleagues who they felt had specialist knowledge and understanding of health promotion. Two health centres had portfolios for health promotion defined as a dedicated team or as a position. In both cases, these staff also had shared responsibility for clinical services and patient care. Where there was no identified person, team or specific health promotion position, the clinic manager was identified as responsible for health promotion.

Staff reported a range of strengths and weaknesses in the design of their health centre’s delivery system (Table 15). All participating health centres indicated a shared or ‘team approach’ to the delivery of health promotion activities. Some health service staff described visiting and external services as part of their delivery team for health promotion. However, roles and responsibilities (including reporting and communication) were not always clearly defined.
Table 15: Examples of staff comments on what is working well (and not so well) for supporting health promotion in relation to the design of their health centre’s delivery system

<table>
<thead>
<tr>
<th>Delivery system design</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths (systems working well)</strong></td>
<td><strong>Weaknesses (systems not working so well)</strong></td>
</tr>
<tr>
<td>The way we do health promotion is considerate and mindful of how the health centre operates in the community. There is respect for Indigenous knowledge and experience in the community.</td>
<td>There is no clear leader for health promotion, not sure who to report to (other than Manager) or how to report on health promotion.</td>
</tr>
<tr>
<td>Our Aboriginal Health Workers have a good understanding and knowledge about health promotion and how to work in our community.</td>
<td>Communication between visiting services and the health centre could be improved.</td>
</tr>
<tr>
<td>We have a health promotion coordinator and there is a good team approach and leadership.</td>
<td>Practitioners are not always available.</td>
</tr>
<tr>
<td>Defined leadership with authority (Manager) and good team communication and cohesion. Defining roles for the team in health promotion is fair.</td>
<td>People have some trouble engaging [in health promotion] because the workloads are already daunting and we feel swamped.</td>
</tr>
<tr>
<td>Most health promotion activities are culturally appropriate or done in a traditional way.</td>
<td>No systematic approach to cultural training</td>
</tr>
<tr>
<td></td>
<td>Some materials and information are not always culturally appropriate</td>
</tr>
</tbody>
</table>

Health promotion activities were organised according to health issues, population groups or ‘body parts’; for example, chronic disease activities, men’s and/or women’s health or eye health programs. Health centre systems support for health promotion and prevention appeared to be more supportive of individually oriented activities, with limited to no support for more comprehensive, population-based strategies. Staff also acknowledged that many programs are being delivered by services other than the health centre. For example, health promotion programs and services were also being implemented within their communities by the NT health department and the National Heart Foundation.
Arrangements for linking health centre clients to health promotion activities were generally ad hoc and dependent upon the knowledge and expertise of individual health professionals. For example, at one health centre this was described as referring a client identified as a smoker to a QUIT smoking course or referring individuals to a doctor after participating in the diabetes education program and being identified at risk of developing diabetes.

However, systems to support these arrangements were lacking or underutilised.

*Underuse of system for linking [clients] outside due to lack of services for referral.*
(Health Centre C)

*System has capacity for referring clients to outside resources but this isn’t practiced.*
(Health Centre A)

Health centres were working towards addressing access barriers for delivery of clinical services (for example, having separate entries to consultation rooms for males and females), with varying attention to improving community access to health promotion activities. Some examples included providing staff with cultural competence training and having AHW involvement in the delivery of health promotion activities.

**Information systems and decision support**

In assessing information systems and decision support, health centre teams discussed existing information structures and processes and the extent to which these mechanisms support planning, implementation and monitoring of health promotion activities at their health centre (see Chapter 4, ‘Assessment for information systems and decision support structures for health promotion’). Scores for this system component ranged from 5.0 to 6.0, with a median score of 5.6, indicating basic to good system support for health promotion. However, the qualitative justification suggests that information systems and decision support are lacking or limited for supporting health promotion (see Table 16).

There was limited evidence of well-functioning health information systems (or alternative processes) that could be used to collate, report and monitor health promotion activities.
Table 16: Examples of staff comments on what is working well (and not so well) for supporting health promotion in relation to their information and decision support systems

<table>
<thead>
<tr>
<th>Information systems and decision support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengths (systems working well)</td>
</tr>
<tr>
<td>We have good access to data about health of community through existing quality improvement &amp; reporting processes. We can monitor this data and use this to identify emerging issues for health promotion.</td>
</tr>
<tr>
<td>We have a good resource library and have used the Public Health Bush Book to help plan specific programs, but possibly not used routinely. We also have access to regular training.</td>
</tr>
<tr>
<td>Good availability and use of resources and access to information through training, professional development and feedback to team.</td>
</tr>
<tr>
<td>Staff have attended forums where evidence has been presented and then used to plan local health promotion activities.</td>
</tr>
<tr>
<td>We have no health system available to collect health promotion information but we can use clinical audit data for planning but not for evaluation purposes.</td>
</tr>
<tr>
<td>Have a system in place (Communicare) but not able to identify full range of health promotion activities (e.g can generate information on screening and brief interventions but not community or population based activities).</td>
</tr>
<tr>
<td>Information system is unable to look at trends</td>
</tr>
<tr>
<td>Systems that exist for service planning focus more on clinical service delivery and do not reflect/or are not supportive of health promotion.</td>
</tr>
<tr>
<td>We don’t have a lot of evidence based resources or best practice health promotion guides. We just share our knowledge within the team.</td>
</tr>
</tbody>
</table>

Existing service planning and monitoring systems did not reflect, or are only partially supportive of, health promotion. For example, information systems (either paper-based or electronic) have been established for the purpose of providing clinical services and health care to individuals (not groups or populations) and therefore have limited capacity for supporting the design, implementation and evaluation of health promotion activities.

*In our men’s health program...we’ve been doing lots of small group education about lifestyle changes and that. Two of our men have been taken off the hypertensive list, no
There was also little evidence of systematic processes for planning (including access and use of evidence, based on need) and monitoring health promotion at an organisational level. At one health centre, a whiteboard was used to document planning discussions at staff meetings (see Figure 10):

A local health centre vision plan is set out on a whiteboard for everyone to see and is reviewed in regular staff meetings, 6 monthly and 12 monthly reviews. These discussions are linked to clinical data and health promotion activities are planned [accordingly]. (Health Centre A)

Figure 10: An example of how one health centre documents their plans for health promotion activities as part of their overall vision for health service delivery.

Across all health centres, staff felt that community participation and engagement in health promotion service delivery could be improved.

A health committee exists but they are not formally engaged in planning, implementing and monitoring health promotion. (Health Centre A)

Community participation in health promotion exists & staff commitment for community participation high; however no formal policy exists that provides consistent guidance to staff on good practice for community participation. (Health Centre B)
Community input is directed by the board. Informal approach, good intention. (Health Centre D)

Availability and access to evidence, resources and data required for designing health promotion activities was generally good for all health centres. For example, across all health centres, staff felt they had good access to resources (such as story boards, DVDs, posters/pamphlets) and equipment (laptop computers, cameras, televisions); however, ‘some resources maybe out of date or not appropriate for our community’. Staff also reported that using this information was often ad hoc and not part of routine practice (see Table 16).

A common strategy across all health centres for sharing information and knowledge was through staff meetings. All health centres had established regular team meetings (daily or weekly). Teams discussed the work for the day, who was going where and visitors (who was coming and why). The meeting discussions were predominately directed at aspects of clinical service delivery; health promotion was not often discussed.

Mechanisms to share information, evidence & data and plan for health promotion done informally, ad hoc & opportunistically. E.g. Meetings are organized but clinic service delivery discussed not health promotion. (Health Centre A)

Organisational environment

The extent to which the organisational environment was supportive of health promotion was assessed based on health service teams’ perceptions of their health centres’ organisational commitment, leadership and management, and partnerships for health promotion (see Chapter 4, ‘Assessment for the organisational environment for health promotion’). There was wide variation in scores for this system component, ranging from 4.0 (indicating basic support) to 8.0 (indicating good support for health promotion), with a median score 5.8.

Health promotion is reflected in some, but not all, health centre strategic plans and/or mission statements, and strategic plans to support local health promotion action were lacking (see Table 17).
Table 17: Examples of staff comments on what is working well (and not so well) for supporting health promotion in relation to their organisational environment

<table>
<thead>
<tr>
<th>Organisational environment</th>
<th>Strengths (systems working well)</th>
<th>Weaknesses (systems not working so well)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Health promotion is acknowledged in our strategic plan and commitment at the higher level is good. Funding is available but is only short term. Staffing is dependent on clinical workload.</td>
<td>Our business plan does not reflect health promotion as a priority, there is no specific funding and it’s just expected to be done as part of our program work.</td>
</tr>
<tr>
<td></td>
<td>Good knowledge [about health promotion], but limited commitment for action at the community level.</td>
<td>Staffing does not meet established need. The low morale amongst staff for health promotion is probably because they there’s no time or resources to help them do it even though they want to.</td>
</tr>
<tr>
<td></td>
<td>No plans exist for health promotion but interest is good.</td>
<td>Specific funding is short term. Service delivery is skewed to the clinic.</td>
</tr>
</tbody>
</table>

There was general consensus from staff across PHC centres that there were inadequate staffing levels to support the design and implementation of health promotion activities. Health centre staff reported that pressures in the clinic took priority over health promotion because health promotion work was more difficult.

*This [health promotion] stuff is in the too hard basket. It takes a lot of work to go from acute to preventive.* (Health Centre A)

Funding for health promotion ranged from no identifiable source to short-term project funding. Funding was mainly used to resource the operational costs of activities with limited funding for existing staff or additional personnel to support health promotion planning and delivery. With the exception of one service with a dedicated health promotion position, whose role was to provide on-site support, there was limited availability of in-service and training opportunities for health promotion. Health promotion training was described in one health centre as training ‘on the job’. However, there was good support from some...
management for staff to attend external training and professional development, including conferences and specific health promotion workshops.

There was general consensus that partnerships or collaboration with other organisations for community-based health promotion service delivery occurred informally and/or in an ad hoc way. Personal relationships between health centre staff and staff at the external organisation were used as an opportunity for establishing partnerships.

**Policy and community environment**

The system component ‘Policy and community environment’ relates to the broader environment within which the health centre operates (see Chapter 4, ‘Assessment for the policy and community environment’). This system component recognises that factors extrinsic to the health service may impact on its capacity to support health promotion. Assessment for this system component indicated basic to good support for health promotion, with scores ranging from 2.5 to 6.0, with a median score of 4.0.

A common theme arising was a general lack of understanding by health centre staff of the role of the governing body (board and/or government), its relationship with the health centre and, more specifically, the support (or otherwise) for health promotion. Some staff felt that there was a lack of understanding about health promotion by senior management.

> I think there’s an organisational aim towards health promotion but possibly not a lot of understanding about what it [health promotion] is actually about. It [health promotion] is starting to appear in our business planning. (Health Centre D)

A staff member commented that the difference in health promotion understanding created tension for her role by saying she felt ‘torn between doing health promotion the way they expect and what I know is best practice’. In another example, a health centre manager commented ‘they just leave us alone. We’ve had to take the lead with a bottom-up approach.’
Table 18: Examples of staff comments on what is working well (and not so well) for supporting health promotion in relation to the policy and community environments

<table>
<thead>
<tr>
<th>Broader policy and community environments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths (systems working well)</strong></td>
</tr>
<tr>
<td>Policies guiding much of the HP work are Healthy for Life and the Government Intervention. In some cases, a policy has led to increased staffing, some resourcing and this has helped us to do some health promotion. There are changes at the community level, for example, staff have observed chronic alcoholics reduce their drinking. Commonwealth funding mandates community based health promotion through Healthy for Life. No mandate exists at the NT level.</td>
</tr>
<tr>
<td>We’ve got really good arrangements and partnerships with other organisations and visiting services to help us do health promotion.</td>
</tr>
</tbody>
</table>

Two policy initiatives that were discussed during the SAT were the Australian Government’s Healthy for Life program and the Northern Territory Emergency Response. Staff commented that these policies were in some way supportive of health promotion because they provided specific funding for positions and some aspects of service delivery, and gave them a ‘mandate’ to do health promotion (see Table 18). However, staff at one health centre commented that ‘having funding doesn’t solve all issues; we also need people with skills. Even when there is funding and motivation to do health promotion there is no capacity to relieve staff time.’ (Health Centre C)

Two health centres indicated that the Healthy for Life program gave them the mandate to do community-based health promotion.
There was a lack of awareness or understanding about other organisations and the extent to which health centres were working collaboratively on health promotion.

... partnerships between [governing body] and other organisations do exist however, it is difficult to judge how well these partnerships are functioning for health promotion. In some cases, there has been staff of other organisations visit [our community] without the knowledge of the clinic. Understanding of how well partnerships are functioning at this level isn’t really of high priority. (Health Centre A)

In some health centres, staff felt there was a strong indication from their community that the clinic plays an important role in health promotion and is ‘more than place for treating sick [people]’. Staff also commented on examples of the community taking effective action on local issues.

Traditional Owners [TOs] are very pro-active in community. If issues arise, they’re dealt with quickly before they become overwhelming. Eg. Petrol sniffing or violence issues are resolved quickly through meetings. TO’s and carers taken petrol sniffers out bush for week for traditional bush hunting etc. [Health Centre A]

**Adaptability and integration of health system component**

Consideration of the system robustness or state of preparedness to respond effectively to emerging issues and how well the system, as a whole, functions was assessed based on ‘Adaptability and integration’ (see Chapter 4, ‘Assessment for the adaptability and integration of systems for health promotion’). Scores for this area ranged from 5.0 to 7.0 (good support), with a median score of 6.0, indicating that participating health centres’ systems were flexible and responsive for supporting health promotion.

The perception across all health centres was that their existing health centre systems were flexible, adaptable and able to respond effectively to emerging issues.

*We have good level of adaptability. This was evident in our ability to respond effectively to ‘outbreak’ of petrol sniffing. We worked closely with Traditional Officers to support sniffers. The clinic used flipcharts to do education sessions. We were also able to continue with existing priorities e.g. smoking.* (Health Centre A)
Levels of system integration varied across health centres and for different parts of the system. Staff reported that levels of system integration was fair to good, noting that some parts of the system, particularly those internal to the organisation, were better integrated than others. One centre highlighted that their information system was administered centrally and this gave them little control over information that could be recorded electronically. This, along with limitations in workforce development (e.g. training), staffing levels and health promotion plans, were identified as areas in their systems that were impeding their ability to do health promotion.

*We have lots of good local systems developing for health promotion, especially for individual approaches. The integration in some areas is out of direct control of the clinic. For example, information system to help record activities electronically; also workforce development e.g. brief intervention training is supported and run by [management].* (Health Centre A)

*Fair level of integration; our vision and commitment for health promotion is high however limited or no formal policies, procedures and infrastructure exists to support health promotion practice.* (Health Centre B)

*Integration quite good overall but capacity limited by reduced staffing levels.* (Health Centre C)

**Discussion**

In this chapter the modified ABCD SAT was found to be a constructive framework for guiding discussion and for describing the status of health centre systems support for health promotion. With regards to the state of system development for health promotion, this study found (1) assessment scores indicated basic to good system development overall; (2) staff reported significant perceived weaknesses in systems development and functioning for health promotion across system components; and (3) variability in system component scores across health centres.
Consistent with findings of organisational health promotion capacity studies internationally (Riley et al. 2003; Joffres, Heath et al. 2004b; Van den Broucke et al. 2010), nationally (NHMRC 1996a; Bensberg 2000; Yeatman and Nove 2002; Baum et al. 2006; Heward et al. 2007) and in the NT (Judd 2005; Lloyd et al. 2008), this study found common strengths and weaknesses related to health centres’ infrastructure and systems for supporting health promotion. Similarities included the absence of appropriately committed and/or skilled people (Judd 2005; Baum et al. 2006; Lloyd et al. 2008), limited availability of funds and/or material resources (NHMRC 1996a), variable interest and/or support from senior leadership (Yeatman and Nove 2002; Joffres, Heath et al. 2004b; Judd 2005) and policies and/or strategic plans inclusive of health promotion (Bensberg 2000; Baum et al. 2006; Van den Broucke et al. 2010).

There are several implications of these findings regarding the state of system development in participating PHC centres. Consistent with other studies, our findings indicate that infrastructure and systems for planning and monitoring health promotion are lacking (NHMRC 1996a; National Public Health Partnership 2000). This infrastructure is a necessary and significant contributor to the quality of health promotion activity planning and evaluation (Kok et al. 1997; National Public Health Partnership 2002). This may explain, at least in part, the lack of activity documentation and planning details identified through our audits of health promotion activities (see ‘Findings’ in Chapter 5). Despite staff reports of the availability of tools and resources to guide health promotion practice, clinical information data (including ABCD audit reports) and the existence of community committees (including governing health boards), it was clear that these mechanisms were not used or applied to support health promotion planning, implementation and evaluation at the health centre level. As such, the further development and functioning of information systems and decision support mechanisms to support health promotion are a clear and necessary area for improvement for participating health centres.

Other key findings were the way health promotion was organised into discrete areas of activity that often lacked integration or linking with other activities, a lack of clearly defined roles and responsibilities for health promotion for individuals and among teams, and varying
levels of individual practitioner health promotion capacity. Organisational and individual capacity are inextricably linked (McLean et al. 2005). Practitioner capacity (that is, individuals’ health promotion knowledge, skills and commitment to core values of health promotion) is a significant contributor to the effective delivery of health promotion activities. The extent to which practitioner capacity can be realised is, in turn, influenced by the organisational and environmental settings that foster and support such practice. This has been illustrated in a study exploring the role of the health workforce in the implementation of the NT Preventable Chronic Disease Strategy. Lloyd et al. (2008) found the implementation of the NT Preventable Chronic Disease Strategy varied depending on the professional training, the roles, and the self-defined strengths and weaknesses of the health workforce, and the extent of the organisational support received for implementation. Primary prevention was a major approach of the policy but was given limited emphasis, noting that the workforce implemented those aspects of the policy that most closely matched its existing knowledge and skills. In the context of the present study, the health centre environment, including the workforce health promotion capacity, appears to be a major contributor to the evidence-practice gaps in health promotion activities identified and described in Chapter 5. Improving systems for delivery system design and creating supportive organisational environments are key areas for future development for health centres participating in this study.

Our findings also suggest that health promotion is not a central concern of participating health centres and this finding is consistent with other studies of health promotion in primary health care settings (Johnson and Baum 2001; Baum et al. 2006; Johnson and Paton 2007). This is despite the fact that Australian Indigenous PHC centres have been described as exemplary models of comprehensive PHC (Wakerman et al. 2008) and that health promotion is a recognised core component and function of NT PHC centres and also a key aspect of relevant NT policies (as described in Chapter 2). Notwithstanding health centre agreements to participate in this study, and with the exception of a few staff directly involved in health promotion activities, overwhelmingly health centre staff were more concerned with issues of patient care and delivery of clinical services. This was evident from SAT data but also expressed by the lack of attendance of some health centre managers and senior staff in the
systems assessment process. The disparate availability and/or allocation of resources, including staffing, available time and funding, further suggests that health promotion is not an integral component of PHC service delivery. Even with the NT’s reputation for progressive health promotion in Indigenous communities and commitment to health promotion in key policies and strategic plans, including that of health centres, the transformational change required to support and sustain health promotion will be difficult to achieve in such complex and challenging environments.

For participating health centres, another important consideration for future system development is the integration of system components. This is because isolating improvements in one component without integrating with another may lead to reduced system effectiveness and efficiencies (National Public Health Partnership 2000). For example, the organisation of health promotion based on disease or risk factor basis makes coordinated action on the underlying determinants of health or addressing community priorities more difficult. Health promotion activities that seek to only address one health issue or ‘disease’, as in those identified through our health promotion audit (see ‘Findings’ in Chapter 5) and supported by the organisation and design of health promotion in health centres, have been criticised because they lack recognition of Indigenous and ecological concepts of health (Pyett et al. 2008; McDonald et al. 2010; Reilly et al. 2011). Additionally, individual activities may independently establish systems to collect information for planning and evaluation without consideration for efficiencies. Developing a number of health promotion activities for the same target group without coordination is one such example. Another example is the documentation of individual health promotion activity plans without a standardised planning template or format.

The study findings showed significant variation in system development scores across health centres. In relation to the quantified scores, reasons for variation could include (1) differences in the way health promotion is organised and administered across health centres; (2) levels of staff understanding of the system component and scoring prompts and perceived applicability and purpose; (3) availability of data; and (4) skills and experience in facilitating data collection. It is clear from findings of the qualitative data that health centres organise and
administer health promotion differently and, as such, variations in SAT component scores would be expected. However, consistent with findings of one previous study validating a tool for describing public health systems (Driscoll et al. 2006), participating PHC centre teams did not comprehend the intent of some system components or were unsure about the usage of terms in describing the components. This may have led to either an underestimation or overestimation of scores in system development and functioning for a particular item. Furthermore, inaccurate or no responses were recorded for those components that staff found unfamiliar. Thus, the variation in scores appeared to be influenced by health centre team understanding of systems for health promotion and subsequent data availability.

Skills and experience of the facilitator may also be an important contributor to data reliability. The important role and function of the facilitator in the success of quality improvement interventions has been described elsewhere (Harvey et al. 2002; Parker et al. 2009), including for the ABCD approach in Indigenous PHC centres (Gardner, Dowden et al. 2010). Harvey et al. (2002) suggest that the effective facilitation requires a tool kit of skills and personal attributes that can be used depending on the context and purpose. Parker et al (2009) takes this further by emphasising the importance of creating a quality improvement dialogue that utilises knowledge from frontline staff, managers and external facilitators to foster quality improvement in health care. On this point, the system assessment process, in and of itself, appears to contribute to an important opportunity for systems development by creating new knowledge about systems and how they are functioning to support best practice. Participation in the SAT requires quarantining staff time, suggestive of a commitment and motivation by the organisation and attending staff to improving health promotion. The facilitated discussions supported a process of self reflection and learning and helped staff to recognise the need for change, identify areas for improvement and find plausible options for changing the status quo. This is consistent with a growing literature on mapping system capacity to engage in health promotion, using measurement tools (Lin and Fawkes 2005; Mittlemark et al. 2005). Although questions remain about the suitability of quantitative tools for this purpose, studies have highlighted that the collaborative process of mapping capacity is seen to be developmental in itself (Mittlemark et al. 2005).
**Strengths and limitations of this study**

A more comprehensive understanding of health centre systems development for health promotion was made possible using mixed methods than what could be achieved by using a single method alone. Through concurrent quantitative and qualitative data collection, we obtained different but complementary data about the status of health centre system support for health promotion. The qualitative justifications not only added to the meaning of the scores assigned for systems development but were also used to explain variation in the scores. Additionally, observational data from the research team and the qualitative justifications describing the state of systems development were used to modify the SAT, providing ‘real world’ descriptions of key components of health centre systems.

Furthermore, the use of qualitative data in addition to quantitative data in this study was intended to enhance our ability to describe and assess the status of system development. These data were subjective and staff may be inclined to place their health centre systems in a more favourable or critical light than warranted by actual conditions. This was somewhat ameliorated by the inclusion of observational data from the research team. Moreover, although the modified ABCD SAT was a constructive tool for describing systems and was useful for gaining a greater understanding of health centre systems, the reproducibility of the scaled scores was not tested. More research is needed to formally examine the reproducibility of the scale as a reliable measurement of system development.

A number of aspects of our approach have contributed to the reliability of findings, including (1) the pre-piloting and refinement of the instrument to improve acceptability and validity; (2) as facilitator and through my role in the tools’ development, I was familiar with the instrument and led the collection and analysis of data at each health centre; (3) other members of the research team participated and/or observed the SAT process and assisted with data analysis and interpretations; and (4) findings were reported and discussed with project chief investigators and workshopped with staff at participating centres to validate our interpretations.
Chapter summary and conclusions

In this chapter, the ABCD SAT with refinement for health promotion and the local context, was found to be a useful tool for describing and assessing systems for health promotion. The study findings also highlight that health centres have basic levels of system development for each component, with few examples of good systems, to support health promotion practice. The status of health centre system development reflects a general lack of health promotion system capacity and presents considerable opportunities for improvement. The extent to which a facilitated and structured continuous quality improvement intervention is feasible for guiding these improvements is explored in the next chapter.
Chapter 7: Introducing a continuous quality improvement intervention for health promotion in Indigenous primary health care centres

Introduction

This chapter explores the feasibility of facilitated quality improvement cycles for improving systems and quality of health promotion activities in participating PHC centres. The positive effect of contemporary CQI interventions has been documented internationally (Shojania and Grimshaw 2005) and more recently in the context of Indigenous PHC (Gardner et al. 2010). As described in Chapter 2, the ABCD projects (2002–09) supported more than 130 PHC centres nationally to assess and improve their systems for the delivery of best practice care to Indigenous Australians. Through facilitated CQI cycles, health centre staff are supported in assessment, interpretation of data, priority setting, planning and implementation. The original ABCD project, conducted in the NT (2002–05), demonstrated feasibility, with significant improvements in systems development, processes of diabetes care and patient outcomes (Bailie, Si et al. 2007b; Si et al. 2008). The ABCD Extension (ABCDE) project showed these improvements could be achieved on a wider scale across four States/Territories (Gardner, Dowden et al. 2010). In this chapter, I report on the improvements in health centre systems support for health promotion and the quality of health promotion activities following the introduction of a CQI intervention based on the ABCD approach.

The chapter begins by describing the CQI intervention and data collection processes. As described in earlier chapters, audit tools are used to support data collection and assist health centres assess the level of development of their health centre systems and health promotion activity quality in relation to best practice. Drawing on this audit data, I describe improvements in the scope and quality of health promotion activities and in systems development following two consecutive CQI cycles.
CQI intervention and data collection

Description of the CQI intervention

Our CQI approach comprised annual cycles of (1) organisational systems assessments and audits of health promotion activities; (2) data analyses and interpretation; (3) feedback and local interpretation of results with participating health centre staff; (4) goal setting by health centre staff to achieve system improvement; and (5) action planning and strategy implementation. As shown in Figure 11 below, the collection and analysis of data happens during steps 3 and 4 of the annual cycle and is followed in Step 5 and 6 by an action planning and goal setting workshop, and an implementation phase. Implementation is the responsibility of the participating health centres and was not directly supported by the research team. All other parts of the cycle were supported by the research team.

Figure 11: The continuous quality improvement intervention (adapted from Bailie, Si et al. 2007c)
The CQI intervention was implemented through an orientation and training session followed by three site visits (completed within a three-month period). For each of the site visits (two to four hours each), we worked with three to 25 health centre staff members (depending on the size of the health service). Over the course of the study, predominately AHWs and nurses participated in the intervention, with doctors, health centre managers and other members of staff (e.g. allied health) attending when available. The key features of the CQI intervention are described below.

**Site visit 1: site and study familiarisation**

Orientation and training sessions were held at each health centre in the first year of the study (2008). The purpose of these sessions was two-fold: first, to introduce the research to health centre staff and, second, for our research team to gain an understanding of the local service environment. These sessions included a presentation on health promotion and an overview of the CQI intervention, including the tools and data collection processes.

**Site visit 2: assessment, data collection and analysis**

As outlined in Figure 11, step 3 in the cycle is the quality assessment or data collection stage. The assessment stage gathers local data on the scope of health promotion (i.e. the types of health promotion activities), the quality of these activities (i.e. the extent to which current practice adheres to indicators of quality) and on the status of health centre system development to support best practice. These data are compiled and analysed by the research team (see ‘Data analysis’ below). These data form the basis on which health service staff identify strengths and weaknesses in practice and systems and subsequently make decisions on areas for improvement.

**Site visit 3: feedback, local interpretation and goal setting**

Feedback workshops were held at each participating health centre approximately one to three months after the collection of data. The workshop provides an opportunity for health centre staff to discuss the findings from the quality assessment processes and to reflect on the relevance and importance of these data. When the results of the SAT discussion are brought together with the health promotion audit data in the feedback workshop, consideration is
given to the relationship between health centre systems and the delivery of health promotion activities. This helps teams to identify and develop locally relevant and practical understanding of what needs to be done to create improvements. The intention is to encourage staff to examine their system development results and patterns of health promotion practice in order to define priorities for action and to document goals and strategies that will be used for system improvement. The documentation of action plans enables health centres to review their achievements at the beginning of subsequent CQI cycles.

**Data collection**

The CQI intervention was introduced between 2008 and 2010. Data were collected at three points in time. Baseline data for each health centre were gathered between March and June of 2008. These findings are presented in Chapter 5 and Chapter 6. Approximately 12 months later, the Year 1 data collection was carried out (2009), as was the Year 2 data collection following another 12 months (2010).

Data on the scope and quality of health promotion activities were collected through a review of health centre records and documentation of health promotion activities. We used the same audit process as described in Chapter 5 (see ‘Methods’). However, improvements in the availability and quality of health centre records of health promotion activities at Year 1 and Year 2 meant an interview-administered audit was not necessary (as was required at baseline). Eight health promotion activities were included in the study at baseline, 24 were included in Year 1, and 19 were included in Year 2.

The modified ABCD SAT was used to assess and score the status of health service system development for supporting health promotion. Further refinements were made to the tool based on feedback at baseline. Compared with baseline (see Chapter 6), the SAT used at Year 1 and Year 2 included 12 items across four system components: delivery system design (three items); information systems and decision support (four items); organisational environment (three items); and adaptability and integration (two items). The system component for ‘policy and community environment’ was excluded, and some items in the ‘delivery system design’ and ‘information systems and decision support’ were combined and simplified. Items in
‘organisational environment’ and ‘adaptability and integration’ remained unchanged. Additionally, a number of prompting questions for each component were developed and the language in the scale descriptions was modified to assist health centres in ranking their status of system development.

We used the same methods, as described in Chapter 6, for describing and assessing system development. Over the study period, we conducted 11 system assessments across the four participating health centres. In Year 2, the final round of data collection, one health centre was unable to participate in the SAT process because of changes in management and staffing at the time. As a requirement of our ethics approval, participation agreements with health centres stipulated the right to withdraw at any time during the study (see Appendix 1, ‘Site Participation Agreement’).

As described in Chapter 3, data were collected in a real world quality improvement effort, using a participatory approach and, as such, PHC teams were not pressured to complete system component scores during the group interview or to complete formal action plans at the time of feedback workshops. The research team endeavoured to contact PHC centre staff to gather the necessary information but this was not always forthcoming. In situations where PHC centres did not reach consensus and/or record system component scores in the scoring sheet, the research team independently assigned scores during analysis based on qualitative justifications (see Table 22).

**Data management and analysis**

Data were recorded on copies of the health promotion audit tool and SAT scoring sheets. In some cases, participating PHC centres provided the research team with copies of their health promotion activity records. We retained these (in paper and/or electronic format) so we could review audit results (in case of discrepancies and/or for clarification) and aid further data analysis. Data from handwritten notes were later transcribed onto electronic copies of the audit tool and SAT scoring sheet. Write ups for all data were completed within one to four days of each health centre visit.
The process of analysing quantitative data from the health promotion audits and systems assessments is described in more detail in Chapters 5 and 6. Changes in health centre system development for health promotion (as represented by the SAT scores) and in quality of health promotion activities (as represented by indicators of health promotion quality) over the study period were assessed by comparing the Year 1 data (collected after one annual cycle) and Year 2 data (collected after two annual cycles) with baseline data.

Matrix displays were used to assemble and visualise qualitative data collected using the SAT. Miles and Huberman (1994:91) argue for the value of displaying data to develop understanding and for drawing interpretations from the data: ‘you know what you display’. Two types of matrices were developed: cross-case and time ordered matrices. Three cross-case displays were developed for each round of data collection (baseline, Year 1 and Year 2). Matrix columns represented each participating PHC centre and rows corresponded to each system component and items in the tool. Qualitative responses from the SAT scoring sheet at each participating PHC centre were transferred into the matrices. From these matrices it was possible to compare patterns in strengths and weaknesses of system development and functioning across participating health centres at each round of data collection. For example, at baseline it was evident that there were limited systems for recording and documenting health promotion activities across health centres. We also noted the different ways that health promotion was organised across health centres (see Chapter 6).

Time-ordered matrices were used to display data and compare changes in system development over time. Matrix columns represented each year of data collection (baseline, Year 1 and Year 2) and rows corresponded to the system component and items in the tool. For each participating PHC centre, qualitative responses from the system assessment scoring sheets for each year of data collection were transferred into the time-ordered matrices. Table 19 shows an example of a time-ordered matrix display for one systems component at a participating health centre. From these displays, we were able to identify examples of system developments at each PHC centre and note emerging patterns and themes in the strengths and weaknesses in systems for supporting health promotion across health centres. For example, we noted greater clarity in team roles and responsibilities for health promotion across health
centres over time. We were also able to identify different strategies health centres developed for improving documentation and recording of health promotion across health centres (e.g. electronic systems and paper-based templates). Importantly, through the PHC centre staff qualitative responses we were able to note improvements in the way teams understood and described health centre systems and their support for health promotion.

For each CQI cycle, reports on audit and SAT results were prepared for each participating health centre. These were subsequently presented, reviewed and discussed by participating health centre staff to test and seek validation of the analysis (or revised where appropriate) and the findings. The study findings and our interpretations were also presented and discussed with project investigators at quarterly project management meetings and at annual workshops (see Chapter 3, ‘Rigour and strategies to strengthen study validity’).
### Table 19: Example of the time-ordered matrix display for the system component ‘Organisational environment’ at one participating health centre

<table>
<thead>
<tr>
<th>Items</th>
<th>Baseline</th>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisational commitment</td>
<td>Specific funding that is short term Service delivery skewed to the clinic</td>
<td>Knowledge of Strategic/Business Plan in place, no knowledge of Health Promotion content. Organisation is reactive/clinical not proactive/preventive.</td>
<td>Business Plan does not reflect outcomes for HP – focus for reporting is against clinical service key performance indicators Different management levels across the organisation not present at SAT. Limited participation from Executive staff due to other organisational priorities and commitment. Executive did not know much about HP projects Nutrition Policy Endorsed Smoke Free Policy very challenging to be endorsed – area outside of the Staff Room is where all staff smoke – does not meet with Smoking Policy/Legislation HP Coordinator has driven HP agenda in the organization – need female/male team for HP program</td>
</tr>
<tr>
<td>Organisational leadership and management</td>
<td>Management may not provide feedback. Good direction and support</td>
<td>We all do Health Promotion [HP] on the run (lot of clinical demand). Funds – HP budget line within programs except Ear Health and Health Promotion budget. But HP program in place to plan, develop and complement Health Promotion service/activities. Chronic Disease program focuses on individual care versus health promotion. [program name] program focuses on healthy lifestyle and education centre – not all staff know about the program</td>
<td>At the moment there is health promotion support – our health service has gone through three (3) management changes which has been hard</td>
</tr>
<tr>
<td>Organisational culture</td>
<td>Informal and formal links exist collaboration appears ad hoc</td>
<td>Training – more needed. Health Promotion is confusing/abstract. Three (3) community liaison officers are in place. Decisions by senior staff passed onto Aboriginal Health Workers without involvement.</td>
<td>Support for HP initiatives &amp; opportunities for training Everyone gets confused with HP, but is getting better depending what agenda is going on? Staff are positive, want to improve the health status of the community</td>
</tr>
</tbody>
</table>
Findings

Improvements in scope and quality of health promotion activities

In this section, findings from baseline, Year 1 and Year 2 health promotion audits are described to determine the impact of the CQI intervention on health promotion quality related to the key success factors of (1) comprehensive planning, (2) systematic targeting, (3) community participation, (4) workforce involvement, (5) partnerships and (6) evaluation.

Scope of health promotion activities at each audit period

Table 20 presents the range of health promotion activities included in the audits at baseline, Year 1 and Year 2. In general, health promotion activities delivered by participating health centres were categorised as health education and skill development, and activities that provided information and awareness about health issues. The apparent increase in health promotion activities categorised as ‘community action’ and ‘creating settings and supportive environments’ at Year 1 appears to be influenced by staff understanding of categories of health promotion activities, and the skills and experience of health centre staff in abstracting data from health promotion records.

Table 20: Number of health promotion activities according to intervention categories at baseline, Year 1 and Year 2 across participating health centres

<table>
<thead>
<tr>
<th>Health promotion intervention category</th>
<th>Baseline (n = 8)</th>
<th>Year 1 (n = 24)</th>
<th>Year 2 (n = 19)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Health education and skill development</td>
<td>3</td>
<td>19</td>
<td>17</td>
</tr>
<tr>
<td>2. Social marketing and health information provision</td>
<td>6</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>3. Community action (for social and environmental change)</td>
<td>1</td>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>4. Creating settings and supportive environments</td>
<td>1</td>
<td>12</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: health promotion activities included more than one category, and therefore the total number exceeds the number of activities at each audit period.
**Improvements in health promotion quality over time**

There were significant improvements across indicators of health promotion quality from baseline to Year 1, and further improvements in several indicators at Year 2 (see Table 21). Noticeably, recorded plans for health promotion activities increased from 2/8 (25%) at baseline to 17/19 (89%) at Year 2.

**Table 21**: Indicators of health promotion quality based on audits of health promotion activities at baseline, Year 1 and Year 2 across participating health centres (figures are numbers and percentage (%) of activities with a record of indicator delivery)

<table>
<thead>
<tr>
<th>Indicators of health promotion quality</th>
<th>Baseline (n = 8)</th>
<th>Year 1 (n = 24)</th>
<th>Year 2 (n = 19)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Comprehensive Planning</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. and percentage of activities that had documented health promotion plans</td>
<td>2/8 (25%)</td>
<td>19/24 (79%)</td>
<td>17/19 (89%)</td>
</tr>
<tr>
<td><strong>Systematic Targeting</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. and percentage of activities that recorded the target group</td>
<td>1/8 (13%)</td>
<td>19/24 (79%)</td>
<td>15/19 (79%)</td>
</tr>
<tr>
<td>No. and percentage of activities that recorded the delivery setting</td>
<td>1/8 (13%)</td>
<td>18/24 (75%)</td>
<td>12/19 (63%)</td>
</tr>
<tr>
<td>No. and percentage of activities that recorded attempts to address chronic disease-related behaviours</td>
<td>2/8 (25%)</td>
<td>21/24 (88%)</td>
<td>10/19 (53%)</td>
</tr>
<tr>
<td><strong>Community Participation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. and percentage of activities that recorded community participation</td>
<td>1/8 (13%)</td>
<td>9/24 (37%)</td>
<td>7/19 (37%)</td>
</tr>
<tr>
<td><strong>Workforce Involvement</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. and percentage of activities that recorded health centre staff involvement</td>
<td>1/8 (13%)</td>
<td>21/24 (88%)</td>
<td>15/19 (79%)</td>
</tr>
<tr>
<td><strong>Partnerships</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. and percentage of activities that recorded partnerships with outside agencies and organisations</td>
<td>1/8 (13%)</td>
<td>13/24 (54%)</td>
<td>12/19 (63%)</td>
</tr>
<tr>
<td><strong>Evaluation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. and percentage of activities evaluated</td>
<td>3/8 (38%)</td>
<td>11/24 (46%)</td>
<td>11/19 (58%)</td>
</tr>
</tbody>
</table>
Over the study period, improvements in the quality of planning and evaluation were also found. At Year 2, 14/19 (74%) health promotion activities had recorded an activity goal; 15/19 (79%) had recorded the activity target group; 16/19 (84%) recorded strategies for implementing the activity, and for 11/19 (58%) health promotion activities there was evidence of activity evaluation. It appears improvements in several indicators related to planning, targeting and evaluation were achieved through actions to improve information systems at participating health centres (see Table 25 below).

Prior to the CQI intervention, recorded participation of community people in health promotion activities was low (1/8; 13%). At Year 1, approximately 12 months after the introduction of the CQI intervention, improvements in community involvement was noted with a record of community participation in 9/24 (37%) activities. There was no further change in recorded community participation in health promotion activities at Year 2 (7/19; 37%). On further analysis, there were some changes in how community people were involved. Of the four areas used to capture community involvement in health promotion activities (identifying need, deciding on type of activity, implementation and evaluation), it was involvement in aspects of evaluating activities that showed most improvement over the study period (from no recorded participation at baseline, to 4/7 (57%) at Year 2). Over the study period, the most commonly recorded indicator for community participation was in implementing activities, with 1/8 (13%) at baseline; 9/24 (38%) at Year 1; and 7/19 (37%) at Year 2.

As reported at baseline (see Chapter 5), the integral role of AHWs in health promotion activities continued over the study period. This was evident by the recorded involvement of AHWs at Year 1 (9/24; 38%) and Year 2 (8/19; 42%). Over the study period, the most commonly recorded staff positions involved in health promotion were nurses, at Year 2 (10/19; 53%).

Our findings also highlight the extent to which health centre teams worked with other organisations. At baseline, of the eight health promotion activities, only one recorded involvement of other organisations (13%). Of the 24 activities in Year 1 and 19 activities in
Year 2, partners were involved in just over half (54%) of the activities in Year 1 and slightly more activities (63%) in Year 2. Partnerships were with organisations from the health sector (for example, State and national government and non-government health services, health-related aid organisations). During feedback workshops, health centre staff acknowledged the importance of engaging local community organisations, such as schools, stores, and child care and art centres; however, they noted that the time and effort needed to establish and maintain these links were difficult to achieve. Staff reported that, with ‘clinic demand’, they had little time to make contact with other organisations to plan and implement activities in their community. In discussing local partnerships for health promotion, staff made reference to previous work colleagues, family members and friends as points of contact in other organisations and how these formed the foundations for working together. It was also acknowledged that poor relationships, often based on past experiences, could inhibit their collaboration.

**Improvements in health centre system development**

Table 22 presents scores for each system component of the health centre systems at baseline, Year 1 and Year 2. There was wide variability in system component scores within each year and over the study period. Generally, the median scores at baseline ranged from 4.0 (policy and community environment) to 7.0 (delivery system design), with an overall system score of 5.6. Thus, in general, median scores across health centres indicate basic systems for supporting health promotion, with some more developed systems related to delivery system design prior to the CQI intervention. One year after the intervention, higher median scores were observed for all system components and for the overall score relative to baseline (7.2 in Year 1 compared with 5.6 at baseline). However, scores for systems improvements were not sustained from Year 1 to Year 2, with the median scores for three out of four systems components and the overall system score declining at Year 2. The lack of sustained system improvement between Year 1 and Year 2 maybe explained, in part, by the sequence of actions taken by health centre staff for improving aspects of their health centre systems to support the design, implementation and evaluation of health promotion activities. Generally, actions focused on making improvements in systems for documenting and recording health
promotion activities and on increasing understanding of health promotion among health centre staff and management including roles and responsibilities of individual staff (see ‘Actions for improving health centre systems support for health promotion’ below).

**Table 22:** System component scores based on perceived system development for health promotion at baseline, Year 1 and Year 2 across participating health centres

<table>
<thead>
<tr>
<th>System component</th>
<th>Baseline</th>
<th>Year 1</th>
<th>Year 2a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery system design</td>
<td>5.6–7.2 (7.0)</td>
<td>6.6–9.6 (8.0)</td>
<td>7.3–7.6 (7.0)</td>
</tr>
<tr>
<td>Information systems and decision support</td>
<td>5.1–6.0 (5.6)</td>
<td>4.5–7.0 (6.7)</td>
<td>4.3–6.0 (6.0)</td>
</tr>
<tr>
<td>Organisational environment</td>
<td>4.0–8.0 (5.8)</td>
<td>6.0–7.6 (6.5)</td>
<td>2.6–7.3 (7.0)</td>
</tr>
<tr>
<td>Policy and community environmentb</td>
<td>2.5–5.6 (4.0)</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Adaptability and integration</td>
<td>5.0–7.0 (6.0)</td>
<td>6.0–7.5 (7.0)</td>
<td>3.5–6.0 (4.5)</td>
</tr>
</tbody>
</table>

Overall (Total)                          | 5.2–6.3 (5.6)    | 6.2–7.5 (7.2)   | 4.9–6.5 (6.5)   |

a based on results from three of the four participating health centres.

b System component ‘policy and community environment’ was removed from the modified ABCD SAT tool following feedback at baseline (see Chapter 6).
Table 23: Examples of staff comments across participating health centres illustrating improvements in team structure and function (delivery system design) for supporting health promotion from baseline to Year 2.

<table>
<thead>
<tr>
<th>Component 1 Delivery system design – Item 1 Team structure and function</th>
<th>Baseline</th>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no clear leader for health promotion, not sure who to report to (other than Manager) or how to report on health promotion</td>
<td>Identified staff members to lead Portfolio areas, e.g. diabetes, men’s, children and women health. Roles and responsibilities identified for planning, delivering and evaluating programs.</td>
<td>Planning portfolios. Team roles are clear. Shared responsibilities. Meetings are convened to do planning, delivery and evaluation.</td>
<td></td>
</tr>
<tr>
<td>Defined leadership with authority (i.e. Manager) and good team communication and cohesion. Defining roles for the team in health promotion is fair.</td>
<td>AHW take a lead role in health promotion. There is a good understanding by the rest of the team, the community and the [board] to do health promotion.</td>
<td>[did not participate at Year 2]</td>
<td></td>
</tr>
<tr>
<td>Good team leadership although no regular approach to planning processes</td>
<td>The Healthy for Life coordinator position is seen to be the driver for health promotion and the resource to support the health team. Most staff take an interest in health promotion planning, delivery and evaluation which are related to their clinical program areas. They are clear about their roles, tasks and responsibilities required.</td>
<td>A team effort – each program comes up with ideas and acted on by a whole group, share the ideas and get external support too. Everyone knows and is quite clear on their roles.</td>
<td></td>
</tr>
<tr>
<td>We have a health promotion coordinator and there is a good team approach and leadership. However, practitioners are not always available.</td>
<td>Some staff members have responsibility for implementation; no involvement in evaluation; little communication about plans. It is happening in pockets but there is a need to standardise across all program areas.</td>
<td>HP coordinator has a leadership role. Across programs individual staff and HP coordinator identify needs for HP activity and implement HP.</td>
<td></td>
</tr>
</tbody>
</table>
Table 24: Examples of staff comments across participating health centres illustrating improvements in systems for documenting health promotion (information systems and decision support) from baseline to Year 2.

<table>
<thead>
<tr>
<th>Component 2 Information systems and decision support – Item 1 maintenance and use of health information systems</th>
<th>Baseline</th>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have system in place (communicare), but not able to identify full range of health promotion activities (eg. can generate info on screening &amp; brief intervention but not population / community wide activities).</td>
<td>Good health information systems to support proper planning. Identifying data not efficient but possible and accurate. Able to generate reports to analyse data. There are capabilities on the system to capture group based health promotion activities but not enabled without communicare administrator support. Therefore Health Centre Manager has developed paper-based templates to record health promotion activities which are driven by local clinical information data.</td>
<td>Standardised approaches with community engagement and delivery. Systems in place to gather data and interpretation. Documentation (particularly) evaluation needs further development</td>
<td></td>
</tr>
<tr>
<td>Our information system [Communicare] can capture some CBHP activity but not extensive or well utilised.</td>
<td>Communicare is the computerised information system that tells the story about the health of the community. We have information on who we need to target. We know who has chronic disease and who hasn’t. We know who has high blood pressure etc. Most health promotion recorded in AHW diary and in minutes of team meetings. Trying to get function in Communicare for recording group education but not there yet.</td>
<td>[did not participate at Year 2]</td>
<td></td>
</tr>
<tr>
<td>No health information system available to collect health promotion information but audit data used for planning but not for evaluation purposes</td>
<td>Recording of health promotion activities is limited to paper based systems, there is some adhoc recording for individuals on progress notes and some areas of our information system [PCIS], teams need to investigate further. PCIS is very user-friendly and potentially could capture health promotion work/activities.</td>
<td>Reporting and documenting – [started using] QIPPS. Some training has been provided but we all don’t have access to it. We have paper records around evaluation; happening adhoc way not systematic – no central place of where recorded. We were better.</td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>Year 1</td>
<td>Year 2</td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>--------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>Ad hoc surveillance. Data not used. Health information system unable to look at trends.</td>
<td>No electronic recording system for health promotion, only paper-based to record activities. Record health promotion in client notes – limited to brief intervention documentation. Soon changing from Medical Director and Ferret to Communicare. Time taken to input data in clinic notes. Keeping “roll” for Men’s Clinic.</td>
<td>Information systems going through major change processes – transitioning from Ferret to Communicare – lots of staff pre-occupied with these changes. Looking at how health promotion can be captured in communicare. HP Planning template based on Bush Book – not good uptake. QIPPS is in the pipeline. No knowledge where HP information is stored centrally.</td>
<td></td>
</tr>
</tbody>
</table>
Actions for improving health centre systems support for health promotion

When the results of the SAT discussions are brought together with the health promotion audit data for interpretation during step 4 of the CQI cycle, a story generally emerges that articulates how systems function to support the design and delivery of health promotion and which of these systems need most attention for development. Priorities for action during the coming year are agreed upon and plans developed to improve health centre systems and develop actions that can foster improvements in practice. Throughout the study, health centre staff initiated and implemented a range of actions to improve their systems for health promotion (see Table 25). Some health centres were more proactive in developing and implementing action plans than others. Most actions related to improving ‘information systems and decision support’, which was the least developed system component at baseline (see Table 22) (the component for ‘community and policy environment’ was removed from the modified ABCD SAT and therefore was not assessed after baseline). Most system improvements did not require engagement of senior staff and management in order to implement actions successfully (for example, improving storage of documents and records of health promotion activities and including health promotion as an agenda item at staff meetings). Other actions for improving systems that required management or senior staff support had variable success. For example, one health service trialled the Quality Improvement Program Planning System (QIPPS) – an electronic information system – to improve health promotion planning and documentation. At another health centre, staff identified ways to improve the documentation of health promotion through existing clinical information systems. However, these changes were met with resistance from some clinical staff and management.

Improvements in ‘delivery system design’ were also noted across health centres from baseline (5.6–7.2; median score of 7.0) to Year 1 (6.6–9.6; with median score of 8.0); however, system improvements were not sustained at Year 2 (7.3–7.6; with median score of 7.0). Health centre actions for improving systems for delivery design emphasised greater
clarity of individual roles and responsibilities in health promotion and improving communication about health promotion across health centres.

Actions to improve the organisational environment for health promotion were focused on improving the understanding of health promotion across the organisation, such as increasing awareness and knowledge of health promotion among health board members and establishing partnerships with external providers. Actions taken to improve health promotion awareness of members of the health board appeared to contribute to better support for health promotion (see ‘Organisational environment’ Table 25).

Actions necessary to improve the organisational commitment for health promotion, more broadly, such as increasing funding or staffing levels to support health promotion activities, required the engagement of senior staff and management. However, this level of commitment was not observed at participating health centres over the course of the study.
Table 25: Examples of actions implemented by health centre teams to improve health centre systems support for health promotion

**Delivery system design**
- Included ‘health promotion’ as an agenda item at weekly staff meetings
- Arranged health promotion portfolios for all staff
- Identified two Aboriginal Health Workers to form a health promotion team
- Senior Aboriginal Health Worker designated as ‘broker’ between the local community and health service
- Appointed the health promotion coordinator as the person responsible for coordinating training and professional development of staff in health promotion

**Information systems and decision support**
- Created arch lever folders for storing documents and records for health promotion
- Centralised electronic folder for health promotion plans and documents, accessible by all staff
- Developed standardised planning templates and trialled QIPPS (Quality Improvement Program Planning System)
- Creating a referral option between individual client and community-based activity in clinical information system
- Used the Health Promotion Audit Tool as a ‘check list’ for documenting practice
- Community Board representatives attend feedback sessions
- Seeking advice from the research team and health promotion officers on planning and evaluating health promotion activities
- Purchased *The Public Health Bush Book* (Department of Health and Community Services 2007) (best practice guidelines)

**Organisational environment**
- Workshops/training in health promotion made available to staff
- Results of health promotion audit presented to health board
- Quarantine time for staff to participate in health promotion CQI processes (e.g. close health service for three hours, one afternoon/week, to conduct audits/feedback workshop; attendance at annual workshop)
- Health Board Chair invited and participated in CQI feedback workshop
- Chair of Health Board identified health promotion as area for action in staff newsletter
- Involvement of external practitioners in health promotion audits (e.g. health promotion officers and senior staff from central office)

**Adaptability and integration of health system components**
- Create referral pathway in existing clinical information systems to capture group health education sessions
- Sharing ‘good practice’ health promotion plans across health centre teams
- Health promotion officers from NT Department of Health support health service staff to access and use the QIPPS (Quality Improvement Program Planning System) to plan health promotion activities
- Using clinical indicator data to develop health promotion project (e.g. story board for HbA1c)
Understanding and using data to create knowledge for action

Despite their origins as measurement tools, the health promotion audit and systems assessment tools evolved in practice to play a role in supporting the creation of knowledge about health promotion and systems that could underpin the identification of priorities for action. Although findings showed improvements in scores for system development from baseline to Year 1, no further improvements in these scores was observed at the final cycle. It is plausible that health centre teams provide lower scores as they learn more about what constitutes a ‘good’ health promotion system. Staff valued the dialogue based assessment, interpretation and feedback processes. They spoke of the role that the audits played in familiarising them with health promotion best practice:

*I now see the importance of this recording to try and see results from my work* (Health Centre C)

*This teaches people about what health promotion actually is. It’s the first time I’ve seen it [HP] set out in a structured way* (Health Centre C)

*I’ve used the audit tool as a check list for planning my health promotion activities* (Health Centre D)

*I didn’t think we’d have any documentation to audit! But it went much better than I expected* (Health Centre A)

*It’s better to do one health promotion activity right than seven half right* (Health Centre B)

With the development of knowledge about health promotion over time, teams were better able to accurately and critically reflect on the extent to which their health centre systems support practice, as has been suggested by the qualitative justifications for their scores. This suggests that system development scores at baseline may have been relatively overestimated.

The process for interpreting the systems and health promotion audit data (Step 4) was complex. The tools identified the different forms of data to be collected. Health promotion audit data provided a measure of adherence to best practice. The systems assessment helped health centre teams transform local tacit knowledge about their health centre systems into
data that was used to rank the level of system development. When brought together with the audit results, the SAT data also provided the contextual information that was used by health centres to interpret their health promotion audit results. A combination of local and external facilitator knowledge was essential for interpreting these results and exploring the relationship between systems and practice. Various forms of knowledge were important in achieving this. Technical health promotion knowledge was required to interpret the audit data and how it relates to the best practice health promotion. This knowledge was generally drawn from members of the research team who are experienced health promotion practitioners. Knowledge about how the health centre operates was also important for interpreting the context in which audit results were produced. The systems assessment was a particularly important component of the CQI cycle because it familiarised staff with their health centre systems and with the concept of how they support health promotion. The structured and facilitated interpretation and feedback sessions focused team discussions on examining the extent to which health centre systems were operating to support health promotion and this assisted staff to discuss, identify and agree on underlying issues that may be impeding the delivery of health promotion.

Discussion

The findings described in this chapter demonstrate the feasibility of facilitated quality improvement cycles for improving systems and health promotion quality in participating health centres. With regards to the impact of the CQI intervention over two annual cycles, this study found (1) a significant increase in the number of recorded health promotion activities from baseline, (2) an increasing trend of improvements in several indicators related to key success factors of health promotion quality over time and (3) improvements in scores across system components after Year 1. At Year 2, a slight decline in component scores was observed, however scores remained higher than at baseline.

These findings highlight important implications with regards to CQI in health promotion for these health centres. First, the CQI intervention appears to be a useful strategy for identifying and subsequently closing the evidence–practice gap for several key indicators of health
promotion quality – which have been found to be significant contributors to the varying success of health promotion activities (NHMRC 1996a; Kok et al. 1997; National Public Health Partnership 2002). Second, a number of contextual constraints may influence further improvements in health promotion quality.

This study highlights an increase in the number of health promotion activities conducted by PHC centres demonstrated by their identification for inclusion in the annual health promotion audits. This suggests the CQI intervention may have contributed to the increase in health promotion activities by improving practitioner health promotion capacity and system development and functioning; for example, through (1) PHC practitioners better able to articulate their health promotion work and subsequently identify and document health promotion activities; (2) improved systems for recording health promotion activities, thereby enhancing availability of data; and, subsequently, (3) improved workforce capacity to deliver health promotion activities over the study period.

While previous studies of health promotion quality have described quality of individual health promotion activities at one point in time (Phair et al. 1999; Molleman, Peters et al. 2006), this study reports on improvements in quality of health promotion at an organisational level over multiple points in time. This study found a greater number of health promotion activities (1) with a recorded plan that included details of the activity goal; (2) with a record of the target group and health issue to be addressed; and (3) that were evaluated. Generally, areas of health promotion more likely to be recorded were those related to technical aspects of health promotion quality. Staff made reference to the health promotion audit as a ‘checklist’ for planning and documenting their activities. The health promotion audit tool is based on health promotion planning and evaluation frameworks and, as such, appears to have assisted practitioners to reflect upon the extent to which they incorporate and subsequently document these concepts and principles into health promotion activities.

Limited attention to areas of system development that support aspects related to the ‘process’ of health promotion may provide some explanation for limitations in delivery and recording of other indicators of health promotion activity quality. For example, records of community
participation in health promotion activities improved from baseline to Year 1, but no further improvements were achieved in Year 2. Although it may be desirable to improve the ecological approach of health promotion activities (McDonald, Bailie et al. 2010; Reilly, Cincotta et al. 2011), the health promotion skills and expertise and the time required to effectively and meaningfully engage community people and partners in this process is likely to be well beyond currently available capacity in the PHC centres. Thus, the importance of a coordinated and partnered approach to health promotion in these communities becomes even more critical if health promotion is to be effective and action on the social determinants of health is to be realised. A potential approach for coordinating health promotion activities is through the inclusion of relevant stakeholders such as representatives of the governing health board, other organisations and agencies in the community, and visiting services throughout the CQI intervention. This would help to avoid duplication of effort and improve local planning processes for health promotion (National Public Health Partnership 2000).

Another key findings of this study is that participating health centres focused actions for systems improvement on transactional system change; that is, the day-to-day operations of the organisation (Burke 2002, as cited in Johnson and Paton 2007:77). Improvements were most seen in areas of delivery system design and information and decision support such as through the introduction of standard templates for recording health promotion activities, purchase of resources to guide practice and creation of team portfolios for health promotion. While these are necessary and important system improvements for supporting health promotion activities, broader transformational changes that are more closely linked with leadership, vision, organisational culture and external environments are necessary if health promotion is to be a core component of PHC service delivery (Johnson 2007a). Organisational change of this nature is possible as has been demonstrated for diabetes care (Bailie, Si et al. 2007b) and for health promotion (Riley et al. 2003; Heward et al. 2007). As reported in Chapter 6, health promotion does not appear to be a central concern of health centres. For these health centres to become more health promoting, actions to improve systems related to the organisational environment are an important area of influence and for future consideration.
A strength of the system assessment tool is that the most advanced level of system development (fully developed support) describes what would be considered best practice. In assessing health promotion capacity, Labonte and Laverack (2001) argue that the inclusion of prompting questions and descriptors for different values, such as those included in our modified SAT, helps define the context in which participants can reflect on their ranking. Thus, teams have guidance as to what comprises the best system support for health promotion. Feedback workshops further assist health service teams to translate evidence into real world practice and to identify areas of system improvement. In this study, we achieved this by creating a quality improvement dialogue, drawing on the various data sources, and combining the knowledge and experience of local health centre staff and external facilitators. With a better understanding of what constitutes good practice and knowledge of health systems that support optimal practice, health centre teams are not only able to develop new systems but can also identify the potential of existing infrastructure and mechanisms. Consistent with our findings, health promotion capacity mapping studies have found that collaborative assessment processes are critically educational, as well as being sources of information for evaluating change (Hawe et al. 1997; Labonte and Laverack 2001; Mittlemark et al. 2005).

The involvement of the research team in developing and implementing the CQI intervention and the intensity of our sustained engagement with PHC centres is likely to have been a significant factor in the observed improvements in closing the evidence–practice gap in health promotion capacity of PHC staff and related system development. This may illustrate the necessary health promotion expertise and support required to achieve improvements in health promotion quality in such complex and challenging environments.

**Study strengths and limitations**

Despite our attempts, we did not have complete systems data from all health centres to more fully depict system improvements across health centres. This was further complicated by staff turnover and participation in the data collection process. This was ameliorated by
documenting justifications for scores, through the independent assignment of scores by the research team and feedback to health service teams to discuss and validate interpretations.

Auditing health promotion is potentially problematic because health promotion activities (1) often have a defined end point and may not be active over subsequent CQI cycles; and (2) are evolving in nature and vary according to their stage of development. As such, some indicators may be more relevant than others at different points in time. In future, it would be useful to differentiate between one-off activities and ongoing activities in order to explore system improvements and impact on sustainability of health promotion activities. Further testing of intra and inter-rater reliability should also be conducted and reported to strengthen confidence in audit data quality.

Several aspects of our approach further contributed to reliable results: (1) the research team members were involved in the development of the quality assessment instruments and data collection at each health service throughout the study, which brought both familiarity and consistency to data collection and analyses; (2) data analyses were conducted collaboratively (where data were unclear and unambiguous or required judgement, the research team met to reach consensus and, where appropriate, we made attempts to clarify with staff at PHC centres); and (3) findings were reported and discussed with project chief investigators and workshoped with staff at participating PHC centres to validate our interpretations.

**Chapter summary and conclusion**

This chapter provides evidence that the introduction of health promotion quality assessment tools in structured and facilitated quality improvement cycles improves health centre systems and quality of health promotion activities in participating PHC centres. Thus, our study demonstrates the feasibility of the ABCD approach for improving health promotion.

The findings have contributed to the growing pool of knowledge of health promotion activities for Indigenous Australians, specifically providing a description of improvements in indicators of health promotion quality and related systems development.
Section D:
Discussion and conclusion
Chapter 8: Discussion

The objectives of this concluding chapter are to:

• summarise the principal findings related to my research questions
• summarise the key contributions of my work to the research literature
• summarise the general strengths and weaknesses of my study components
• discuss the implications of my findings for policy and practice
• suggest further areas for research arising from my findings.

Principal findings related to my research questions

The findings of this study demonstrate that the ABCD approach is both acceptable and feasible in health promotion in Indigenous PHC centres and that, through facilitated quality improvement cycles, health centre systems and health promotion quality can be improved.

To reach this conclusion, this study addressed four broad objectives, outlined in my introductory chapter (Chapter 1). Against each of these research objectives, the principal findings and the key contributions of these findings to the research literature are outlined (below).

Objective 1: To identify, develop and/or refine quality indicators and tools in health promotion

To address this objective a combination of evidence sources, including existing indicators and tools, evidence-based guidelines, and interventions and stakeholder perceptions, was used to identify, develop and refine indicators of health promotion quality (Chapter 5). The research approach was iterative and participatory to ensure the resultant indicators were evidence-based and applicable for use in real world settings (see Figure 8 in Chapter 4).
**Principal findings**

Health promotion quality was defined against two key dimensions of quality – process and structure. Process indicators were designed to assess key areas of planning, implementation and evaluation of health promotion activities. Structure indicators were designed to assess the organisational infrastructure, systems and administration processes that are required by health centres to support high-quality and effective health promotion activities.

Drawing on multiple sources of evidence, indicators related to six key success factors related to the quality of health promotion activities and five system components integral for supporting high-quality and effective health promotion activities were identified.

The six key success factors for assessing the quality of health promotion activities in Indigenous PHC centres reflect key phases in the planning cycle for health promotion. These are (1) comprehensive planning, (2) systematic targeting, (3) community participation, (4) workforce involvement, (5) partnerships and (6) evaluation. Additional indicators that take account of gender, cultural norms and practices are included as they were considered particularly important in this research context.

Seventeen items across five system components were identified as being integral for supporting health promotion activities in Indigenous PHC centres. The five system components are (1) delivery system design (four items); (2) information systems and decision support (three items); (3) organisational environment (three items); and (4) policy and community environment (five items). An additional component, (5) ‘adaptability and integration’ (two items), was included to assess the system as a whole.

Following field testing, the component ‘policy and community environment’ was excluded from the systems assessment as the component was not considered applicable for staff in day-to-day operations of the health centre.

Quality assessment tools and a data collection protocol were subsequently developed to collect information on the identified quality indicators. This included a paper-based audit tool – Health Promotion Audit Tool – and an associated protocol. The ABCD SAT was modified
to reflect specific systems relevant for supporting health promotion in participating PHC centres.

For both the indictors and tools, particular attention was made to avoid the use of health promotion ‘jargon’ and instead use clear and plain language to explain health promotion concepts.

**Contribution to the research literature**

Although indicators have been developed and used to measure, compare and improve quality in other areas of health care (Campbell et al. 2003), indicator development in health promotion has not been extensively studied. This study appears to be the first attempt at (1) defining quality, (2) developing indicators of quality and (3) developing tools for collecting data on quality specifically for health promotion in Indigenous PHC centres.

The resultant indicators are comparable with those developed for similar purposes in the United Kingdom (Clark and Maben 1999), Europe (Ader et al. 2001; Molleman, Peters et al. 2006) and Canada (Elliott et al. 1998; Joffres, Heath et al. 2004a; Barrett et al. 2005), and to some extent with those developed for public health in the United States (Derose et al. 2002; Dilley et al. 2012). Encouragingly, this suggests that the quality indicators developed in this study may have broader applicability for assessing health promotion quality than for participating PHC centres.

The ABCD SAT is drawn from the internationally recognised CCM (Wagner 1998) and has been successfully modified and applied in the Australian Indigenous PHC context (Si et al. 2005; Bailie, Si et al. 2007b; Si et al. 2008). The potential of the CCM for describing systems in health promotion has also been recognised (Glasgow et al. 2001; Barr et al. 2003). Other related research has applied the CCM with a focus on individual preventive approaches, such as risk assessments (Hung et al. 2007) and tobacco cessation (Carlini et al. 2010) in primary care settings. However, this study appears to be the first attempt at modifying the core components of the CCM to describe and assess systems support for health promotion in Indigenous PHC centres.
Objective 2: To describe and assess the scope and quality of health promotion activities in Indigenous PHC centres

To address this objective, audits of health centre records and interview-administered audits were used to describe and assess the quality of health promotion activities (see Chapter 5).

Principal findings

An audit of health promotion activities identified significant evidence–practice gaps in health promotion. These included (1) an emphasis on health information and education type activities; (2) a lack of recorded information about activity planning, such as a clear goal or aim of the activity or community participation; and (3) limited evidence of attempts at activity evaluation.

Furthermore, this study found that in participating PHC centres, (1) involvement in health promotion activities was seemingly low, as indicated by the number of activities identified for the audit (n = 8); (2) AHWs played an integral role in the delivery of health promotion activities; (3) the delivery of health promotion activities was influenced by external factors such as State/Territory and nationally driven health campaigns and initiatives; and (4) practitioner capacity appeared to be a significant contributor to health promotion activity quality.

The audit approach in health promotion was found to be acceptable and feasible in participating PHC centres. This was demonstrated by (1) the identification of quality gaps in health promotion activities; (2) the tool was found useful for providing a structure for quality health promotion practice; and (3) the use of the tool generated dialogue that fostered a shared understanding of health promotion quality.

Contribution to the research literature

At the community level, little is known about the quality of health promotion activities. In part, this is due to traditional approaches in health promotion evaluation and research. Much of the emphasis and available evidence for Indigenous health promotion has been focused on effectiveness of individual or single programs and on identifying ‘what works’ (Paul et al. 172
These studies have generally poor or weak activity evaluation designs and hence are unable to report conclusively their impact (Mikhailovich et al. 2007). While these evaluation approaches can highlight areas of need, they do not systematically explore the sources of either implementation failure nor the factors that contribute to the variable success of health promotion activities (Mikhailovich et al. 2007; Paul et al. 2010).

This study adds new knowledge by (1) providing a systematic approach to assessing the key contributors of health promotion quality, and (2) describing the scope and quality of community-level health promotion activities delivered by PHC centres. There is further evidence of the impact of the audit in identifying potential limitations in practitioner health promotion capacity and areas of suboptimal systems development, such as mechanisms for recording and documenting health promotion.

**Objective 3: To describe and assess the status of PHC centre systems support for health promotion activities**

To address this objective, we conducted group interviews using the modified ABCD SAT to (1) quantify the status of health centre systems development in relation to health promotion, and (2) identify and describe the strengths and weaknesses in health centre systems for supporting health promotion (see Chapter 6).

**Principal findings**

This study established that PHC centre systems (1) were in the basic to mid-range of system development, indicated by median scores of between 4.0 and 7.0 on a scale of 0–11 (from ‘limited or no support’ to ‘fully developed support’); and (2) had distinct areas of strengths and weaknesses in systems development and functioning for health promotion across five system components.

At baseline, the system components ‘delivery system design’ and ‘organisational environment’ had the highest median scores (7.0 and 5.8 respectively). The ‘policy and community environment’ system component had the lowest median score (4.0). The state of systems development varied considerably across health centres. For example, median scores
for the organisational environment component ranged from 4.0 to 8.0, and the policy and community environment component had median scores of 2.5 to 5.6. No health centre had assessed a system component as being fully developed (i.e. scores of greater than 8.0). The findings reflect a general lack of health promotion system capacity and present considerable opportunities for improvement.

In describing systems for health promotion, this study found (1) differences in the way health promotion was organised and administered across health centres; (2) significant gaps in systems for supporting planning and evaluation of health promotion activities; (3) varying levels of individual practitioner health promotion capacity; and (4) that health promotion was not supported as an integral component of PHC service delivery.

With regards to the modified ABCD SAT, the instrument was found to be acceptable and feasible for describing and assessing systems for health promotion in Indigenous PHC centres. The modified SAT was found to be (1) a constructive framework for guiding discussion of health centre systems support for health promotion; (2) useful for describing strengths and weaknesses in health centre systems; and (3) can be used as a quantitative tool to identify variation in health centre systems development.

**Contribution to the research literature**

Previous research of organisational health promotion capacity internationally (Riley et al. 2003; Joffres, Heath et al. 2004b; Van den Broucke et al. 2010), nationally (NHMRC 1996a; Bensberg 2000; Yeatman and Nove 2002; Baum et al. 2006; Heward et al. 2007) and in the NT (Judd 2005; Lloyd et al. 2008) have found strengths and weaknesses related to health centres’ infrastructure and systems for supporting health promotion. In addressing this objective, the findings of this study have contributed to the literature in several ways. First, infrastructure and systems for planning and monitoring health promotion were underdeveloped in PHC centres. Second, despite availability of tools and resources, the mechanisms to support their use in health promotion are lacking. Third, the study identified that PHC centres organise and administer health promotion in different ways. Finally, the health centre environment and workforce health promotion capacity appear to be a major
contributor to evidence–practice gaps in health promotion quality. A key implication of these findings is that further consideration should be given to the organisational environment and delivery system design for health promotion in order for there to be progress in improving health promotion quality in Indigenous communities.

**Objective 4: To determine the impact of the introduction of the ABCD approach on the quality of health promotion activities and health centre systems over the course of two consecutive CQI cycles**

To address this objective we facilitated two annual cycles of assessment, feedback, action planning and implementation using the ABCD approach. Data were collected at three points in time, at intervals of approximately 12 months (baseline, Year 1 and Year 2). Assessments included structured group interviews to review status of health centre systems and audits of health centre records of health promotion activities. Improvements in health promotion quality and systems development were assessed by comparing Year 1 data and Year 2 data with baseline data (see Chapter 7).

**Principal findings**

This study provides evidence that the introduction of structured and facilitated quality improvement cycles can improve health centre systems and quality of health promotion activities. The impact of the CQI intervention over two annual cycles included (1) a significant increase in the number of recorded health activities from baseline; (2) an increasing trend of improvement in several indicators related to key success factors of health promotion activity quality over time; and (3) improvements in aspects of health centre systems.

Generally, indicators of health promotion that were more likely to be recorded were related to technical aspects of health promotion, such as target group and health issue, and less on process aspects of health promotion such as community participation. This appears to be a reflection of the actions taken to improve specific components in health centre systems and not others.
Actions to improve information systems have resulted in improvements (1) in the quantity of health promotion records (2/8 (25%) at baseline to 17/19 (89%) at Year 2); (2) in the quality of health promotion records, indicated by documentation of several indicators of health promotion quality; and, subsequently, (3) in the availability of data for quality improvement purposes. Actions to improve delivery system design have resulted in improvements in (1) clarity of roles and responsibilities for health promotion; (2) improved communication about health promotion in health centres; and, subsequently, (3) a greater and shared understanding of health promotion in health centres. Limited attention to areas of system development and functioning, such as those required to support community participation and inter-sectoral partnerships, may provide some explanation for the lower adherence to related indicators of health promotion activity quality.

Staff reported the educative and practical nature of the CQI process in developing their capacity to describe and understand health promotion and the health systems that are designed to support health promotion. The quality improvement dialogue, created by drawing on various data sources and combining this with the knowledge and experience of local health centre staff and external facilitators, appeared an important function for translating evidence into real world practice.

There has not been a shift in focus towards a more ecological approach to health promotion that is required to address the social, economic and environmental barriers to healthier lifestyles. This study highlights the difficult reality of enabling this approach at the local level. Greater improvements may be achieved by specifically addressing system barriers in organisational and policy environments through more effective engagement of management, community people and other organisations (including beyond the health sector) in quality improvement processes. However, these improvements will need time to take effect.

**Contribution to the research literature**

Action to understand and transform health centre systems to achieve their potential in health promotion is lacking (Wise and Nutbeam 2007). This is because the reorientation required is difficult to achieve in environments dominated by a biomedical paradigm with a bias towards
curative medicine (Baum et al. 2009). Previous research has reported that improvements in health promotion can be achieved through enhanced organisational and workforce capacity. There has been one previous NT study reporting improvements in health promotion capacity using participatory processes in a relatively well-resourced urban setting (Judd 2005). However, how these improvements are achieved from the perspective of Indigenous PHC centres has not been systematically investigated more broadly. Furthermore, although there is recognition of the potential of quality improvement in health promotion, studies that develop and apply these techniques have been limited. Thus, this exploratory research contributes several significant and new findings to the research literature. First, a structured systems approach for describing and assessing health promotion quality in Indigenous PHC centres has been developed. Second, facilitated quality improvement cycles can improve systems and quality of health promotion. Third, the study findings contribute to the growing pool of knowledge of health promotion activities and systems for supporting good practice in complex and challenging environments.

**General strengths and limitations of the study**

General strengths of this study include (1) the iterative and collaborative participatory research approach (ICPHR 2013; Israel et al. 1998; Potvin et al. 2003; Jamieson et al. 2012); (2) the systematic and facilitated approach to improving health promotion quality with a focus on health centre systems (Bailie, Sibthorpe et al. 2008); (3) the combination of evidence sources in defining and developing indicators of health promotion process and structure quality (Campbell et al. 2003); (4) exploration of structured quality assessments in the identification of health promotion quality gaps to guide systems improvement over time (Hysong et al. 2006); (5) the combination of data sources and methods for obtaining information on health promotion quality (Donabedian 2005); and (6) an assessment of the contribution of CQI in improving health promotion in multiple, complex and challenging environments and with particular benefit for Australia’s most disadvantaged population.

Health centre record audits were used to obtain data on the scope and quality of health promotion activities. We implemented a number of strategies to enhance the accuracy and
reliability of the data abstracted, including (1) comprehensive development and refinement of an audit tool and data abstraction protocol; (2) supplementing information obtained from reviews of health centre records with interview-administered audits; (3) the involvement of experienced and trained research team members in obtaining information at each PHC centre; (4) participatory data analyses and interpretation, including feedback workshops to discuss audit findings. Data reliability could be further improved through testing between-auditor and within-auditor agreement (Donabedian 2005).

The use of both quantitative and qualitative data enhanced our ability to describe and assess the status of health promotion system development. Quantitative scores provided a simple indicator about the level of health centre system development compared with fully developed or ideal systems. The qualitative data provided rich information describing the current state of system development from the perspective of those within the system and highlighted opportunities for improvement. We adopted a number of strategies to enhance the reliability of information obtained about the state of systems development for health promotion. These strategies related to the design of the modified SAT tool and the collaborative assessment process. In regards to the tool design, we included descriptors of the most advanced level of system development (fully developed) and prompting questions and descriptors for scoring values. This helped to define the context in which PHC centre teams can reflect their scores (Labonte and Laverack 2001). In regards to the assessment process, (1) experienced and trained research team members facilitated data collection at each PHC centre; (2) a broad range of perceptions were gathered from multidisciplinary PHC centre teams comprising individual practitioners with varying levels of health promotion capacity; and (3) a quality improvement dialogue was created, drawing on various data sources and combining the knowledge and experience of local staff and external facilitators (Parker et al. 2009).

Although questions remain about the suitability of quantitative tools for the purpose of assessing complex systems, studies have highlighted that a collaborative assessment process is seen as developmental in itself (Labonte and Laverack 2001; Mittlemark et al. 2005). The inclusion of observer/facilitator scores alongside rankings made by health centre teams could enhance the reliability of the scale as an indicator of systems development and functioning.
Other strategies for improving the rigor and reliability of the study findings are outlined in Chapter 3.

The extent to which these findings are generalisable is influenced by (1) health centre engagement (prior or current) in the ABCD approach; (2) ways that health centres organise and administer health promotion; (3) how health centres define health promotion quality; and (4) external factors, such as the extent to which policy and community environments are supportive of health promotion. The extent to which improvements in health centre systems are linked to adherence to quality indicators for health promotion activities could not be determined, and it is likely that our involvement in the development and implementation of the CQI intervention has influenced improvements in closing the evidence-practice gap, in improving health promotion capacity of PHC staff and related system developments. The intensity of the research activities and engagement processes may constitute a limitation in the generalisability of these findings. Alternatively, our involvement may illustrate the necessary health promotion expertise and support required to achieve improvement in health promotion quality.

The generalizability of these findings is also influenced by the mixed methods study design. The strength that a multiphase mixed method design brought to this study included (1) the flexibility to address a set of incremental and interconnected research objectives that required both qualitative and quantitative approaches; (2) the ability to build and/or shape subsequent phases of the research based on previous findings; (3) the ability to use qualitative results to explain and illustrate quantitative findings; and (4) the ability to use a combination of concurrent and/or sequential timing of the qualitative and quantitative approaches within one study design. Collectively, these design features enabled a more comprehensive understanding of the feasibility of the ABCD approach in health promotion to develop. While the multifaceted nature and flexibility of this design are the main strengths, they also represent some challenges. Sufficient resources, time and effort were required to successfully implement study over multiple years which may limit reproducibility. Furthermore, decisions on how to meaningfully connect subsequent phases of research in addition to mixing the
quantitative and qualitative approaches within phases, including during interpretations, were made iteratively and collaboratively between the research team and staff of participating PHC services. These decisions influenced the direction and focus of the study which must be taken into account in evaluating the findings and conclusions.

Other limitations that apply to each study component are discussed in relevant chapters (see Chapters 4 to 7).

**Implications for policy and practice**

Clearly defined team structure and function, including leadership and management, is important in organising and planning effective health promotion (Johnson 2007a). Prior to the CQI intervention, this study found there was no clear understanding among PHC centre teams of role or responsibilities for health promotion in their health centres. AHWs, in particular, play an important role in health promotion, but there are questions as to whether this role is expected from other members of the health centre team or is a role that individual workers are motivated and have the necessary skills to undertake (Jackson Pulver and Rose 2004). Given the multidisciplinary nature of PHC centre teams, CQI offers a way of creating a shared understanding of health promotion in health centres, and this can assist to clearly define and coordinate roles and responsibilities for health promotion among PHC team members. Furthermore, other organisations and visiting services are responsible for delivering health promotion in remote communities. Their involvement and, importantly, the involvement of community people in local CQI processes could enhance a coordinated and partnered approach, improve planning and monitoring processes, and avoid duplication of effort in planning and implementing local health promotion activities.

As evident from this study, CQI can be used to enhance the quality of data systems, the quality of data, and making data acceptable and useable for CQI processes. This has important implications for future health promotion practice, particularly in Indigenous communities. Health promotion has been criticised for being disparate, sporadic, undocumented and unevaluated (Clapham et al. 2007; Mikhailovich et al. 2007; McCalman et al. 2012). Improved data systems and subsequent availability of information would assist
both local service providers and policy makers to assess, monitor and refine health promotion activity and, importantly, contribute to a growing evidence base of high-quality and effective Indigenous health promotion activities.

The modified ABCD SAT used in this study mainly focused on the development of internal organisational systems, but paid limited attention to the broader policy and community environments for supporting health promotion. The neglect of the policy and community context within which health centres operate will substantially limit the health promotion capacity of individuals and organisations. In sustaining health promotion in PHC, a paradigm shift in health policy and administration is required to reorient PHC delivery from reactive acute care to integrated and coordinated delivery of comprehensive PHC services. The rhetoric for this policy agenda is well developed (WHO 2008), but the uptake and implementation has been painfully slow (Wise and Nutbeam 2007). Previous research carried out in the NT found that dominant and powerful system values of acute care exist, making health promotion approaches more difficult to implement (Lloyd et al. 2009). This study uncovered similar themes and reinforces these findings. While an assessment of the external ‘policy and community environment’ was originally included in the modified ABCD SAT (see Chapter 4), this component was subsequently excluded from the systems assessment because health centre teams were challenged to relate this area to their daily practice. To strengthen policy and community environments for health promotion, it would be useful to introduce an assessment of systems at a jurisdictional and/or national level. Studies mapping national capacity to engage in health promotion have been undertaken internationally (Lin and Fawkes 2005; Mittlemark et al. 2005; Nam and Engelhardt 2007). In Australia a review of infrastructure support was undertaken specifically for Aboriginal and Torres Strait Islander health advancement in 1996 (NHMRC 1996a). With the exception of one Victorian study (Bensberg 2000), information on system support for health promotion at a jurisdictional level appears to be lacking. Furthermore, a more recent assessment of national infrastructure support for health promotion is warranted, given recent investment under the national Indigenous reform strategy – known as ‘Closing the Gap’(Donato and Segal 2013).
Regarding ‘Closing the Gap’, in 2008 the Council of Australian Governments signed a national partnership agreement involving a $4.6 billion package, which committed both tiers of government to enhancing Indigenous health and wellbeing (COAG 2008). The Indigenous Chronic Disease Package (ICDP) represents the Commonwealth Department of Health and Ageing’s contribution of $805.5 million to the partnership. Initiatives under the ICDP focus on improving the capacity of primary health care services to more effectively prevent and manage chronic disease among Aboriginal and Torres Strait Islander Australians (Department of Health and Ageing 2010). One of the three priority areas of the ICDP is to ‘tackle chronic disease risk factors’. This component includes significant new funding for preventative health (Department of Health and Ageing 2010). The findings of this study have important implications for the effective implementation of this component of the ICDP package. Our findings suggest that even with generous funding and the establishment of a dedicated workforce, as has been provided under ICDP, improvement in quality, effectiveness and sustainability of health promotion at a local level is unlikely to be achieved without supportive organisational environments. This is particularly imperative for integrating a non-clinical workforce into a predominately clinical environment. Strong organisational leadership, coupled with effective management, including the ability to establish structures and processes, is necessary to facilitate workforce health promotion capacity. To address this, policy options include (1) encouraging health centres to adopt CQI approaches in health promotion; (2) providing resources to assist health centres in strengthening systems for health promotion; (3) providing support to establish and strengthen health-promoting workplace environments and team structures; (4) providing resources and support to meet workforce health promotion training needs, such as those outlined in a recent review of the health workforce (see Chapter 5 in Department of Health and Ageing 2013); and (5) strengthening systems to support greater integration of the core functions of primary health care (Australian National Preventive Health Agency 2012).
Theoretical Implications

Contribution of CQI theory to health promotion

Modern CQI programs are a mix of traditional system-based approaches inherited from engineering and more health specific approaches that adopt a focus on addressing problems located at different levels of the health system, within and outside the immediate ‘production process’ of healthcare. The more structured programs aim to facilitate improvements in health care by using objective information to analyse systems and service delivery against explicit criteria, drawing on different strategies to implement changes at an individual, team, or service level and monitoring these to assess improvements on a range of measures. To date, most programs have focused attention at the practitioner level but there is growing interest in using broader, more systematic and continuous approaches. Audit and feedback programs, quality improvement collaboratives and PDSA cycles are primary examples described in the literature (see Chapter 2).

To investigate the feasibility of the ABCD approach in health promotion, this study drew on and brought together two distinguishable but overlapping theories for improving practice. The first is designed to improve practice by influencing practitioner behaviour through an ‘audit and feedback’ approach (A&F). A&F is based on the assumption that health professionals will modify their practice if given feedback that their current practice is inconsistent with recognised best practice. The second theory for improving practice is based on the assumption that the key to improving and achieving consistent delivery of health care services is through the appropriate and effective functioning of the health centre environment (Berwick 1989; Leatherman et al. 2010). In taking a systems approach, inadequate performance is seen not as an individual practitioner problem but as a failure of the system, so real change can only be achieved by changing the system (Berwick 1989).

This thesis showed that the audit tools provided health centre teams with a structure and procedure on which data to collect and how. The feedback process facilitated the bringing together of ideas, promoted dialogue and created a shared language for health promotion. The A&F approach also connected health centre staff in ways that led to the development and
clarification of roles and responsibilities in health promotion and ways of seeing and using data to evaluate and improve health promotion practice. It was also clear that while the tools provided the means by which to identify, collect and analyse data for CQI, they did not provide a means for prioritising actions or translating actions into new practices for improvement (See Figure 10: Steps 5 and 6). This required additional, supplementary intervention techniques, such as presenting staff with information on what to do with their data to achieve improvements in health promotion, how their health centre systems related to health promotion practice and supporting the development of action plans, which relied on the research team and more broadly, the capacity of individuals and their organisation.

The contribution of health promotion theory to CQI

As discussed in Chapter 2, a number of philosophical elements and features of modern CQI are compatible with, and encourage the use of, approaches utilised in the health promotion field. In the health promotion literature, capacity building has become a major focus of efforts to improve health system performance (Stachenko 1996; Crisp, Swerissen et al. 2000; Mittlemark et al. 2005). In simple terms, capacity refers to those qualities or characteristics that enable people to do something. Building capacity, therefore, means developing the qualities and characteristics of the individual worker, and shaping the organisational and social environment within which that individual will act (McLean et al. 2005).

This thesis showed that individual and organisational capacity to engage in health promotion are interrelated, and are influenced by a range of factors. The connections between the capacity of health centre staff and that of participating PHC centres was particularly evident when we examined changes in practice and system support over time. For health centre staff, capacity involves elements of knowledge, skills, commitment and resources. Individual practitioners need to understand, firstly, what health promotion is, and subsequently how the CQI data and processes relate to their health promotion practice. They need to possess the necessary skills and personal commitment to act on this knowledge in order to make improvements in their practice. Health centre staff apply their knowledge and skills in the context of the organisation and communities within which they work. In turn, the capacity of
the participating PHC centres is determined in part by the knowledge, skills and commitment of the health centre staff at all levels of the organisation. At the organisational level, capacity also entails elements of organisational culture, structure, commitment and resources. The capacity of individual practitioners to improve practice is enabled, constrained and mediated by their organisation and environmental settings. Our findings suggest that health promotion is not a central concern of participating PHC centres. The disparate availability and/or allocation of resources, including staffing, available time and funding, further suggests that health promotion is not an integral component of PHC service delivery. Although considered important in the context of supporting and sustaining health promotion, in this study, limited attention was given to the broader policy and community environments.

Research and planning for change need to recognise the interaction between the innovation (CQI intervention) and its components and the complex setting in which it is introduced. By drawing on the different bodies of work presented here, this thesis has enhanced our understanding of both the theoretical and practical implications of applying CQI in health promotion in PHC.

Implications for research

In the Australian Indigenous health literature, there is little published research on the resources required to implement successful initiatives beyond feasibility and small pilot projects (Sanson-Fisher et al. 2006; Ong et al. 2012). Further research and evaluation of more systematic and wider application of CQI in health promotion is necessary to determine the generalisability of our approach in other environments. The potential for application in mainstream settings, such as Medical Locals, to support recent reforms should also be explored (Australian National Preventive Health Agency 2012). Studies to more definitively ‘connect the dots’ between CQI effort, resulting improvements in health centre systems and health promotion quality, and describing these associations in diverse organisational systems are also needed (Dilley et al. 2012).
To this point, and based on the findings of this study, I have developed a theoretical framework for health promotion quality assessment that could be used to explore and explain change and to ‘connect the dots’ in health promotion quality. The framework is based on Donabedian’s (1988) three dimensions of quality and draws on indicators developed through this study and that of previous work on health promotion outcomes (Nutbeam 1996). Figure 12 illustrates how structure, process and outcome indicators are related. In the columns, under each dimension of quality assessment – structure, process and outcomes – boxes point to different aspects of health promotion that can be assessed using indicators of quality. Theoretically, improvements in structural indicators enable improved processes, and processes, in turn, lead to better outcomes in (1) health promotion actions (i.e. direct impact of activities assessed by changes in health-related knowledge, social norms, resource allocation and organisational practices), (2) modifiable determinants of health (such as changes in tobacco use, levels of physical activity, changes in food supply or improved access to health services), and (3) ultimately population health and social outcomes (for example, measurable changes in equity, avoidable mortality and morbidity) (Nutbeam 1996). Recent developments in monitoring systems for tobacco consumption (Thomas et al. 2009) and for nutritional quality of community-level diets (Brimblecombe et al. 2013) in Indigenous communities could be useful indicators for monitoring of health promotion actions.

**Figure 12:** Framework for health promotion quality assessment. Dimensions of quality (structure, process and outcomes) and indicators for assessment (boxes) are depicted.
Future research should also include an examination of how CQI in health promotion can effectively be taken up and the system requirements to support CQI in routine practice. Little is currently known about the process of transfer and implementation of health innovations in Indigenous communities (McCalman et al. 2012). Our findings suggest that organisational characteristics that are likely to influence implementation include leadership, high level/senior management support and an organisational culture for health promotion. Intervention characteristics include structured and facilitated quality improvement cycles and the engagement and sustained support of external facilitators. Assessing the degree of ‘fit’ between context and innovation during planning for implementation is likely to enhance the quality of implementation. The role of facilitation in this process remains a research gap and one that requires further investigation (Kitson et al. 2008; Seers et al. 2012).

In a recent systematic review of quality improvement interventions in public health systems, Dilley et al. (2012) found no studies that incorporated economic evaluations. Given that well-developed and functioning systems can avoid unnecessary duplication and move towards sustainable practice, CQI offers efficiency opportunities. It is important to determine the most effective and efficient methods of supporting quality improvement processes, and this requires further investigation. Additionally, clearly describing such information could be helpful for communicating with policy makers on the benefit of CQI in health promotion.
Section E:
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Section F:
Appendices
Appendix 1: Site participation agreement

Improving Health Promotion Practice for Chronic Disease Prevention Project

Participation Agreement

between

Menzies School of Health Research

and

[insert name of Health Centre, Health Service, Health Board]
Background

The Improving Health Promotion Practice for Chronic Disease Prevention Project is a three year project being undertaken to support health and community based services develop an organised program of continuous quality improvement (CQI) to improve their systems for providing and supporting health promotion practice. The project builds on the success of the CQI model and approach developed for the Audit and Best Practice for Chronic Disease (ABCD) project. The ABCD project is focused on systems and delivery of clinical services for chronic illness care and prevention. Health promotion has been identified as an important aspect in the extension of the ABCD project and a number of participating services have expressed interest in the development of a health promotion audit tool. This project will extend the ABCD approach to community based health promotion practice for chronic disease prevention. Up to six Top End communities currently participating in the ABCD project will take part in this action research project. The project will be implementing and evaluating the impact of a continuous quality improvement model using tools and strategies developed specifically for health promotion practice in Indigenous communities.

This project will improve health promotion practice for chronic disease prevention through a focus on the quality of service delivery and organisational systems. It will also contribute directly to the evidence base on best practice health promotion for chronic disease prevention and the impact of CQI approaches on health promotion practice in the rural and remote Indigenous community context. Furthermore, by building on the success of the ABCD project for improving systems of clinical care and extending this to health promotion; the project will contribute to strengthening approaches for comprehensive primary health care in Indigenous communities.

Research Questions:

On the basis of implementing the Continuous Quality Improvement (CQI) cycles using the ABCD approach:

- What are the scope and characteristics of health promotion practice for chronic disease prevention in a purposive sample of Indigenous communities in the Top End of the Northern Territory?
- What are the impacts of the introduction of the CQI process on health promotion practice for chronic disease prevention in these communities over time?
- To what extent do organisation and community factors mediate the observed impacts?
- To what extent is the ABCD approach relevant to health promotion and how might it be further adapted or developed to enhance its feasibility and impact for improving health promotion practice for chronic disease prevention in remote Indigenous communities?
• What are the wider implications of the findings for sustainable health promotion practice in remote Indigenous communities?

**Project Methods**

The processes used for this project are based on those in the ABCD project. There will be two annual CQI cycles and each annual CQI process consists of:

- Health promotion audits of community based chronic disease prevention initiatives against best practice guidelines;
- Assessment of the health centre systems in relation to the strengths and weaknesses of these systems to provide and support health promotion practice;
- Data entry into a web-based information system;
- Data analysis and commentary from the project team;
- Feedback and goal-setting exercise with the health centre.

Participating services will be supported by the project staff (Project Leader, Project Manager, Project Officer). Additional support may, where appropriate, be provided by the ABCD project team including at the regional level, the ABCD Top End Hub Coordinator and through the ABCD Project Coordinating Centre in Darwin (project leader, project manager, quality improvement coordinator and education and training officer).

**Project Team Responsibilities**

- Develop and provide health promotion audit and system assessment tools;
- Provide training in the use of health promotion audit and system assessment tools;
- Provide orientation to and training to use the web-based information system;
- Analyse data and provide commentary;
- Monitor trends over time and report on subsequent improvement;
- Ongoing support and communication with the participating services through a nominated primary contact;
- Facilitate and support feedback of data and goal setting;
- Conduct system assessment in collaboration with health centre staff.

**Health Centre Responsibilities**

- [insert health centre name] will participate in the *Improving Health Promotion Practice for Chronic Disease Prevention Project* for a minimum of two quality improvement cycles,
conducted at yearly intervals. Should any concerns or difficulties arise at any time that could influence the Services’ participation in the project, or interrupt the schedule of events, the Service will contact the Project Manager to discuss ways to minimise disruption.

- [insert health centre name] will retain the right to withdraw from participation at any time;
- [insert health centre name] will nominate a person to attend the training course for conducting the health promotion audit and assist in undertaking the audits according to the protocols developed for use in the project.
- [insert health centre name] will participate in learning sessions which may require attendance at a yearly face-to-face workshop.

Data Storage and Confidentiality of Client Information

The maintenance of confidentiality of information derived from the data collection processes is the responsibility of all members of the research team. The data arising from this project will be a mix of quantitative and qualitative information relating to health promotion programs, activities, performance, workforce and other resources and the systems to support health promotion practice. This data will be collected through audit and interview processes with service and policy staff of participating organisations as described above.

All data will be de-identified and stored under lock and key. Individual services will not be named, but identified by a code; each service will be informed of the code for their own centre. Individual service names will not be included in reports for general circulation and all Investigators will be bound by a confidentiality agreement.

All project data will be kept for 5 years. After completion of the project, primary project documentation will be catalogued and stored in the MSHR archives.

Intellectual Property Rights and Research Material

- [insert health centre name] will retain ownership of all data derived from the service.;
- [insert health centre name] will grant Menzies School of Health Research licence to use the intellectual property in the material collected for the purposes stated in the project proposal (and ethical application) to further the aims of the Improving Health Promotion Practice for Chronic Disease Prevention Project and for further research and teaching purposes.
- Any research material pertaining to [insert health centre name] will be forwarded to the Service for comment prior to publication.
• Information pertaining to [insert health centre name] that is deemed useful to other Services will not be shared without prior consent of the Service.
• All Services will be sent copies of Project research reports for general comment prior to publication.

Timeframe
April 2007 – March 2010. Each participating service will complete at least 2 annual CQI cycles.

Research Dissemination
Research outcomes will be disseminated by a variety of means including, participation in learning sessions (or collaboratives), presentations at conferences and workshops, training sessions for participating organisations, and publications. All research findings will be de-identified and confidentiality will be maintained.

Ethics Committee
The Improving Health Promotion Practice for Chronic Disease Prevention Project has the approval of the Human Research Ethics Committee of NT Department of Health and Community Services and Menzies School of Health Research. To talk to an independent person at the Ethics Committee about this project, or to lodge a complaint, phone the secretary on 08 8922 7922 or e-mail ethics@menzies.edu.au

Contacts
Project Staff located at Menzies School of Health Research, Darwin.
Project Leader: Prof Ross Bailie
Project Manager: Nikki Clelland
Phone: 08 8922 8196
E-mail:
Ross.Bailie@menzies.edu.au
Nikki.clelland@menzies.edu.au

Chief Investigators
Ross Bailie Menzies School of Health Research (MSHR), Darwin
Nikki Clelland Menzies School of Health Research (MSHR), Darwin
Komla Tsey James Cook University (JCU), Cairns
Agreement

The parties nominated below hereby agree to the responsibilities and intent outlined in this document.

**SIGNED:**

For [insert health centre / health board / council name]  
Name: ________________________
Signature: ______________________
Title: __________________________
Date: __________________________

For [insert health centre / health board / council name]  
Name: ________________________
Signature: ______________________
Title: __________________________
Date: __________________________

For Menzies School of Health Research  
Name: ________________________
Signature: ______________________
Title: Project Leader
Date: __________________________
Appendix 2: Ethics approval

02 May 2007

Professor Ross Bailie
NHMRC Senior Research Fellow
Menzies School of Health Research
PO Box 41096
Casuarina NT 0811

Dear Professor Bailie,

Re: 07/01 - Promoting Healthy Communities: a structured systems approach to improving health promotion and chronic disease prevention programs in and with remote Indigenous communities

The Human Research Ethics Committee (HREC) Chair has considered and approved your application which responded to the issues of concern identified by the committee at the meeting held on 15/02/2007. Ethical approval is now granted for project activity to commence. Please note that HREC approval applies only to research conducted after this date. It is noted that:

- Data will be collected through audit and interview processes with service and policy staff of participating organisations;
- It may not be possible to obtain approval for access to some documents;
- The data collected will be a mix of qualitative and quantitative information relating to health promotion programs, activities, performance, workforce and other resources and
- All data collect will be de-identified;

The safe and ethical conduct of this project is entirely the responsibility of the investigators and their institution(s). As a condition of ethical approval you should report immediately anything which might affect continuing ethical acceptance of the project, including adverse effects of the project on subjects and the steps taken to deal with these, other unforeseen events, or new information that may invalidate the ethical integrity of the study.

This approval is for twelve months; a progress report is required by 18/04/2008. Approval for a further twelve months will be granted if the HREC is satisfied that the conduct of the project has been consistent with the original protocol.

The Committee must be notified and approve in advance any significant changes to the protocol. The Committee must also be notified at the completion of the project.

Yours sincerely

Dr Michael Nixon
Chair

Human Research Ethics Committee
of NT Dept of Health & Community Services and Menzies School of Health Research
Appendix 3: Contact summary sheet

CONTACT SUMMARY FORM: CQI in HP Research Project

Contact Type: Site
Visit
Phone
(with whom)
Contact Date:
Today’s Date:
Written By:

1. What were the main issues or themes that struck you in this contact?

2. Summarise the information you got (or failed to get) on each of the target questions you had for this contact

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Scope &amp; Quality of HP</td>
<td></td>
</tr>
<tr>
<td>2. System Functioning</td>
<td></td>
</tr>
<tr>
<td>3. Changes associated with CQI intervention</td>
<td></td>
</tr>
<tr>
<td>4. CQI feasibility in HP</td>
<td></td>
</tr>
<tr>
<td>5. Other</td>
<td></td>
</tr>
</tbody>
</table>
3. Anything else that struck you as relevant, interesting, illuminating or important in this contact?

4. What new (or remaining) target questions do you have in considering the next contact with this site?
## Appendix 4: Selection of tools and the indicators used to assess health promotion activity quality

<table>
<thead>
<tr>
<th>Instrument/Tool and Author</th>
<th>Key indicators for assessing health promotion quality</th>
</tr>
</thead>
</table>
| **Preffi – Health Promotion Effect Management Instrument (2.0)** | - Contextual conditions – support/commitment, capacity, leadership  
- Problem analysis - nature, severity and scale of the problem, distribution of the problem, problem perception by stakeholders.  
- Determinants of problems, behaviour and environment – theoretical model, contribution of determinants, amenability of factors to change, priorities and selection.  
- Selection and development of interventions  
  - Target group  
  - Objectives  
  - Intervention development  
  - Implementation  
  - Evaluation |
| Molleman et al. (2005)     |                                                       |
| Molleman, Ploeg et al. (2006) |                                                       |
| **Analys: an instrument for reporting and analysing research** | - Problem – size and severity  
- Target group – mean age, number of men/women; level of education, income  
- Behaviour target – casual relations, determinants of behaviour, type of behaviour  
- Intervention – development and execution of the intervention, use of theories, type of intervention, specific content of the intervention, phase of the intervention, place of execution of the intervention, previous experience with the execution of the intervention, participation in the intervention  
- Implementation – anticipation to broader use of the intervention  
- Process evaluation – type of research methods, types of data, satisfaction with the intervention, type of recommendations based on the process evaluation  
- Effect evaluation – size of the research population, selection of the research population, comparability of research groups, method of effect evaluation, measurements, percentage drop outs, reach of intervention, effect parameters, fit between effects found and targets stated. |
<p>| Van Driel and Keijsers (1997) |                                                       |
| Keijsers and Saans (1998)    |                                                       |</p>
<table>
<thead>
<tr>
<th>Instrument/Tool and Author</th>
<th>Key indicators for assessing health promotion quality</th>
</tr>
</thead>
</table>
| **EQUIHP – European Quality Instrument for Health Promotion**                               | • Framework of health promotion principles  
• Project development and implementation  
  • Analysis  
  • Aims and objectives  
  • Target group  
  • Intervention  
  • Implementation strategy  
  • Evaluation  
• Project Management  
  • Leadership  
  • Planning and documentation  
  • Capacity and resources  
  • Participation and commitment  
  • Communication  
• Sustainability                                                                                                                                  |
| Netherlands Institute of Health Promotion and Disease Prevention and Flemish Institute for Health Promotion (2005) |                                                                                                                                                                                                                                                      |
| Cianciara (2006)                                                                              |                                                                                                                                                                                                                                                      |
| **Standards for quality assurance of health education programs**                             | • Planning  
  • Target population needs assessment  
  • Assessment of factors important to planning programs  
  • Resource assessment  
  • Decision making and goal formation  
  • Organisational and marketing aspects  
• Implementation  
  • Implementation of the program  
• Sustainability  
• Evaluation  
  • Process evaluation  
  • Outcome evaluation                                                                                                                                  |
| Baron-Epel et al. (2004)                                                                      |                                                                                                                                                                                                                                                      |
| **Interactive domain model of best practices in health promotion**                           | • Underpinnings  
  • Values and goals  
  • Theories and beliefs  
  • Evidence  
• Understanding of the environment  
  • Environmental visions  
  • Analysis of health related issues  
  • Analysis of organisational and work related issues  
  • A perquisite for meaningful change  
• Practice  
  • Processes  
  • Actions  
  • Response to health-related issues  
  • Response to organisational and work related issues  
  • Research and evaluation                                                                                                                                                               |
<p>| Kahan and Goodstadt (2001)                                                                     |                                                                                                                                                                                                                                                      |</p>
<table>
<thead>
<tr>
<th>Instrument/Tool and Author</th>
<th>Key indicators for assessing health promotion quality</th>
</tr>
</thead>
</table>
| **Quality indicators for health promotion programs** | • Indicators for program structure  
• Goals  
• Target groups  
• Design  
• Responsibility  
• Resources  
• Organisation  
• Indicators of program process  
• Process evaluation  
• Network  
• Program exposure  
• Commitment  
• Participation  
• Indicators of program outcomes  
• Knowledge and behaviour changes  
• Environmental changes  
• Epidemiological changes  
• Maintenance |
| Ader et al. (2001) | |
| **Quality assurance standards for health promotion practice** | • Strategic planning  
• Program management  
• Monitoring and evaluation  
• Education and training  
• Resources and information  
• Advice and consultancy |
| Speller et al. (1997) | |
Appendix 5: Principles and best practice guidelines in Indigenous health promotion

<table>
<thead>
<tr>
<th>Author</th>
<th>Principles and best practice in Indigenous health promotion</th>
</tr>
</thead>
<tbody>
<tr>
<td>New South Wales Health Department (2002)</td>
<td>Indigenous health promotion should:</td>
</tr>
<tr>
<td></td>
<td>• Acknowledge Indigenous cultural influences and the historical,</td>
</tr>
<tr>
<td></td>
<td>social and cultural context of communities</td>
</tr>
<tr>
<td></td>
<td>• Be based on best available evidence</td>
</tr>
<tr>
<td></td>
<td>• Build capacity of the community, government, service systems,</td>
</tr>
<tr>
<td></td>
<td>organisations and the workforce, ensuring equitable resource</td>
</tr>
<tr>
<td></td>
<td>allocation, cultural security and respect in the workplace</td>
</tr>
<tr>
<td></td>
<td>• Ensure ongoing community involvement and consultation</td>
</tr>
<tr>
<td></td>
<td>• Ensure the practical application of Aboriginal self-determination</td>
</tr>
<tr>
<td></td>
<td>principles in health promotion planning</td>
</tr>
<tr>
<td></td>
<td>• Adhere to the holistic definition of health and acknowledge that</td>
</tr>
<tr>
<td></td>
<td>primary health care in Indigenous communities incorporates</td>
</tr>
<tr>
<td></td>
<td>Indigenous health promotion</td>
</tr>
<tr>
<td></td>
<td>• Establish effective partnerships to address many of the</td>
</tr>
<tr>
<td></td>
<td>determinants of health</td>
</tr>
<tr>
<td></td>
<td>• aim to be sustainable and transferable</td>
</tr>
<tr>
<td></td>
<td>• demonstrate transparency of operations and accountability</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Department of Health Western Australia (2000) Howie (2004)</th>
<th>Development principles include:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• community support and address issues of community concern;</td>
</tr>
<tr>
<td></td>
<td>based on equitable partnerships, trust and support innovation.</td>
</tr>
<tr>
<td>Program characteristics:</td>
<td></td>
</tr>
<tr>
<td>• community based; flexible; strong design; well resourced; follow-up; fun; advocacy; build on existing skills/programs</td>
<td></td>
</tr>
</tbody>
</table>

Indigenous programs should:

• be holistic and culturally appropriate; combine both western and tradition methods; use believable communication methods; promote traditional activities; address underlying social issues; take an interest in treating issues of drug and alcohol abuse and family violence; recognise history including the contribution of colonisation, disruption to traditional lifestyle and dispossession; be planned and implemented over realistic timeframes; understand community constraints

Key health promotion strategies and support include:

• environment change, healthy public policy, enforcement, education, skill development, peer support, role modelling, group activities, expectancy of success, public commitment to goals, access to health services, networking, use of media

Characteristics of management and individual personnel include:

• Good human resource practices; community consultation in staff

230
<table>
<thead>
<tr>
<th>Author</th>
<th>Principles and best practice in Indigenous health promotion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>selection; appropriate recognition and staff status; adequate and appropriate training; staff support; regular reporting; staff commitment; availability outside working hours</td>
</tr>
<tr>
<td>National Health and Medical Research Council (1996)</td>
<td><strong>Factor that contributed to program success:</strong></td>
</tr>
<tr>
<td></td>
<td>• Better health strategies</td>
</tr>
<tr>
<td></td>
<td>• Recognise community needs</td>
</tr>
<tr>
<td></td>
<td>• Aboriginal health worker involvement and partnerships with community</td>
</tr>
<tr>
<td></td>
<td><strong>Principles of good practice:</strong></td>
</tr>
<tr>
<td></td>
<td>• Needs identified by communities</td>
</tr>
<tr>
<td></td>
<td>• Partnerships between Indigenous health workers, communities and non-Indigenous health workers</td>
</tr>
<tr>
<td></td>
<td>• Resources and organisational support</td>
</tr>
<tr>
<td></td>
<td>• Implementation in the control of communities and Indigenous health workers</td>
</tr>
<tr>
<td></td>
<td>• Outcomes</td>
</tr>
<tr>
<td></td>
<td>• Sustainability</td>
</tr>
<tr>
<td>Demaio et al. (2012)</td>
<td><strong>Principles of culturally appropriate health promotion are:</strong></td>
</tr>
<tr>
<td></td>
<td>• Community involvement, consultation and empowerment</td>
</tr>
<tr>
<td></td>
<td>• Socio-culturally tailored health promotion techniques</td>
</tr>
<tr>
<td></td>
<td>• Community evaluation and feedback in real time</td>
</tr>
<tr>
<td></td>
<td>• Utilisation of local communication techniques</td>
</tr>
<tr>
<td></td>
<td>• Maximisation of both the spoken word and local tongue</td>
</tr>
<tr>
<td></td>
<td>• Sustainable health development and community health autonomy</td>
</tr>
<tr>
<td></td>
<td>• Holistic in nature, addressing the needs of the whole person</td>
</tr>
<tr>
<td></td>
<td>• Spirituality and social connectedness as health determinants</td>
</tr>
<tr>
<td>Australian Indigenous Health Promotion Network (2006)</td>
<td><strong>Essential elements of an Indigenous model of health promotion are:</strong></td>
</tr>
<tr>
<td></td>
<td>• Community ownership and leadership</td>
</tr>
<tr>
<td></td>
<td>• Empowerment</td>
</tr>
<tr>
<td></td>
<td>• Consultation</td>
</tr>
<tr>
<td></td>
<td>• partnerships</td>
</tr>
</tbody>
</table>
## Appendix 6: Organisational health promotion capacity tools and frameworks

<table>
<thead>
<tr>
<th>Author</th>
<th>Elements for organisational health promotion capacity</th>
</tr>
</thead>
</table>
| Hawe et al. (2000) | Three components of organisational capacity:  
- Organisational commitment  
- Skills  
- Structures |
| NSW Health Department (2001) | Key action areas for organisational development:  
- Policies and procedures  
- Strategic directions  
- Organisational structures  
- Management support  
- Recognition and reward systems  
- Information systems  
- Quality improvement systems  
- Informal culture |
| Prairie Region Health Promotion Research Centre (2004) | Organisational health promotion capacity checklist:  
- Commitment  
- Culture  
- Structures  
- Resources  

Environmental health promotion capacity checklist:  
- Political will  
- Public opinion  
- Supportive organisations  
- Ideas and other resources |
<table>
<thead>
<tr>
<th>Author</th>
<th>Elements for organisational health promotion capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Johnson (2007b)</td>
<td>Organisational assessment:</td>
</tr>
<tr>
<td></td>
<td>- Reorientation goal</td>
</tr>
<tr>
<td></td>
<td>Organisational health promotion program</td>
</tr>
<tr>
<td></td>
<td>- External environment</td>
</tr>
<tr>
<td></td>
<td>- Leadership</td>
</tr>
<tr>
<td></td>
<td>- Mission and strategy</td>
</tr>
<tr>
<td></td>
<td>- Culture</td>
</tr>
<tr>
<td></td>
<td>- Structure</td>
</tr>
<tr>
<td></td>
<td>- Management practices</td>
</tr>
<tr>
<td></td>
<td>- Systems</td>
</tr>
<tr>
<td></td>
<td>- Climate</td>
</tr>
<tr>
<td></td>
<td>- Task requirements and individual skills/abilities and individual needs and values</td>
</tr>
<tr>
<td></td>
<td>- Motivation</td>
</tr>
<tr>
<td></td>
<td>- Individual, group and organisational performance</td>
</tr>
<tr>
<td>Whitelaw et al (2001)</td>
<td>Health promoting health services framework:</td>
</tr>
<tr>
<td></td>
<td>- Context</td>
</tr>
<tr>
<td></td>
<td>- Organisational commitment</td>
</tr>
<tr>
<td></td>
<td>- Responsiveness to broad health improvement policy agenda</td>
</tr>
<tr>
<td></td>
<td>- Mechanisms</td>
</tr>
<tr>
<td></td>
<td>- Developing health promotion competencies</td>
</tr>
<tr>
<td></td>
<td>- Providing access to skilled health promotion support</td>
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<tr>
<td></td>
<td>- Fostering leadership and advocacy</td>
</tr>
<tr>
<td></td>
<td>- Establishing a practical context</td>
</tr>
<tr>
<td></td>
<td>- Nurturing a critical mass of people within the organisation</td>
</tr>
<tr>
<td></td>
<td>- Providing access to a ‘tool’/framework</td>
</tr>
</tbody>
</table>
Appendix 7: Health promotion audit tool

IMPROVING HEALTH PROMOTION THROUGH CONTINUOUS QUALITY IMPROVEMENT

HEALTH PROMOTION AND COMMUNITY BASED ACTIVITY AUDIT TOOL

Version 4.0
May 2009

This Health Promotion Audit Tool & the associated Protocol are being trialed as part of a continuous quality improvement intervention (the ‘Improving Health Promotion through Continuous Quality Improvement’ Project). This Audit Tool is designed to help health services compare health promotion activity against elements and principles (key success factors) of best practice. When audits are done repeatedly over time and in a consistent way, they can provide information on changes in the quality of health promotion practice.

We are continually refining the audit tool to ensure its applicability in practice. Any feedback that you are able to give us would be valuable and we are particularly interested in your opinion regarding:

- Ease/difficulty in completing the tool
- Parts of the tool that are particularly difficult to complete or understand
- What words or questions need to be made clearer for better understanding
- Key elements and principles of practice that have not been included but should be
- Elements and principles of practice that are included but should be omitted (please give a reason for removing item eg. duplication, not relevant etc)

If you would like more information about the Audit Tool, to discuss the contents or provide feedback, please contact:

Nikki Clelland
Project Manager/PhD Student
nikki.clelland@menzies.edu.au
Ph: 08 8943 5011

Lynette O’Donoghue
Health Promotion Quality Improvement Facilitator
lynette.o’donoghue@menzies.edu.au
Ph: 08 8943 5000
## General Information

1.1 Health Service Name

1.2 Audit Date dd/mm/yyyy

1.3 Auditor Initial & Surname

1.4 Other Audit participants

<table>
<thead>
<tr>
<th>Initial &amp; Surname</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.5 This audit includes activities delivered during the 12month period:

___/___ to ___/___

1.6 Name or title of this activity:

1.7 Please describe the information or documentary evidence that will be used to complete this audit

## Key Success Factor One: Comprehensive Planning

2.1 Is there a **documented plan** for this activity?

Circle **Yes** **No**

If yes, does the plan include a clear statement of:

2.1.1 the aim or goal of the activity

2.1.2 the specific strategies that make up this activity

2.1.3 the people responsible for conducting each specific strategy

2.1.4 a timeframe for completion of different strategies

2.1.5 criteria or indicators to measure progress or achievement of the activity

Yes

No
**Health Promotion and Community Based Activity Audit Tool**

2.2 Is there a documentation of the sources of information that have been used to determine the issue or problem to be addressed by this activity?

<table>
<thead>
<tr>
<th>Circle</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

If yes please circle as appropriate:

- 2.2.1 Community stories
- 2.2.2 Other programs or activities
- 2.2.3 Literature / books / reports
- 2.2.4 National, regional and/or local data
- 2.2.5 Conferences, seminars, meetings, training
- 2.2.6 Other, please specify ________________________________

2.3 Is there a documentation of the sources of information that have been used to determine what will be done (strategies) to address this issue or problem?

<table>
<thead>
<tr>
<th>Circle</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

If yes please circle as appropriate:

- 2.2.1 Community stories
- 2.2.2 Other programs or activities
- 2.2.3 Literature / books / reports
- 2.2.4 Conferences, seminars, meetings, training
- 2.2.5 Other, please specify ________________________________

2.4 Is there a documentation of the sources of information that have been used to determine how the activity will be evaluated?

<table>
<thead>
<tr>
<th>Circle</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

If yes please circle as appropriate:

- 2.2.1 Community stories
- 2.2.2 Other programs or activities
- 2.2.3 Literature / books / reports
- 2.2.4 National, regional and/or local data
- 2.2.5 Conferences, seminars, meetings, training
- 2.2.6 Other, please specify ________________________________

---

Version 4.0
Last updated 18 May 2009
Key Success Factor Two: Systematic Targeting

3.1 Is there documentation of the group of people that this activity is intended to benefit?
Circle Yes No
If yes, please specify__________________________________________________________

3.2 Is there documentation indicating that this activity is for:
   3.2.1 Males only Yes No
   3.2.2 Females only Yes No
   3.2.3 Both males and females Yes No

3.3 Is there documentation of where or in what setting(s) this activity has been delivered?
Circle Yes No
If yes, please specify__________________________________________________________

3.4 Is there documentation of attempts to address chronic disease related behaviours in this activity?
Circle Yes No
If yes, please circle as appropriate:
   3.4.1 Tobacco smoking Yes No
   3.4.2 Nutrition/diet Yes No
   3.4.3 Alcohol/drinking Yes No
   3.4.4 Physical Activity/exercise Yes No
   3.4.5 Mental Health/social and emotional wellbeing Yes No

Key Success Factor Three: Community Participation

4.1 Were community people involved in the development and/or implementation of this activity?
Circle Yes No
If yes, the involvement of community people in this activity included (please circle as appropriate):
   4.1.1 Identifying the problem or issue Yes No
   4.1.2 Deciding what to do about the problem or issue Yes No
   4.1.3 Implementing the activity or doing the work together Yes No
   4.1.4 Evaluating the results of the work Yes No
   4.1.5 Other, please specify__________________________________________________ Yes No
Key Success Factor Four: Skilled Delivery

5.1 Were health centre staff involved in the development and/or implementation of this activity?

Circle Yes No

If yes please circle the position/role and the number of staff, as appropriate:

<table>
<thead>
<tr>
<th>Position / role</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1.1 Aboriginal Health Worker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1.2 Registered Nurse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1.3 Allied Health Professional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1.4 Health Promotion Officer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1.5 Doctor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1.6 Student</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1.7 Health Clinic Manager</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1.8 Other, please specify</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1.9 Other, please specify</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Number

Key Success Factor Five: External Partnerships

6.1 Were individuals and/or organisations external to the health centre involved in the development &/or implementation of this activity?

Circle Yes No

If yes, please specify the organisation or agency and if appropriate, the position.

<table>
<thead>
<tr>
<th>Organisation / Agency</th>
<th>Position Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1.1</td>
<td></td>
</tr>
<tr>
<td>6.1.2</td>
<td></td>
</tr>
<tr>
<td>6.1.3</td>
<td></td>
</tr>
<tr>
<td>6.1.4</td>
<td></td>
</tr>
<tr>
<td>6.1.5</td>
<td></td>
</tr>
</tbody>
</table>
### Key Success Factor Six: Coverage / Reach

7.1 Please indicate how often this activity was delivered over the past 12 months (tick as appropriate)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7.1.1</td>
<td>Once-off (delivered only once &amp; not expected to be done again)</td>
<td></td>
</tr>
<tr>
<td>7.1.2</td>
<td>Ongoing / continuous (delivered on a regular basis throughout the year eg. monthly or weekly)</td>
<td></td>
</tr>
<tr>
<td>7.1.3</td>
<td>Intermittent ongoing (delivered once a year, each year eg. World No Tobacco Day; Healthy Lifestyle Festival)</td>
<td></td>
</tr>
<tr>
<td>7.1.4</td>
<td>Other, please specify</td>
<td></td>
</tr>
</tbody>
</table>

7.2 Please indicate the type’s of health promotion strategies that have been used in this activity

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7.2.1</td>
<td>Health education and/or skill development</td>
<td>Yes</td>
</tr>
<tr>
<td>7.2.2</td>
<td>Health information and/or social marketing</td>
<td>Yes</td>
</tr>
<tr>
<td>7.2.3</td>
<td>Community action or development</td>
<td>Yes</td>
</tr>
<tr>
<td>7.2.4</td>
<td>Supportive environments and settings</td>
<td>Yes</td>
</tr>
</tbody>
</table>

7.3 Has this activity been evaluated?

Circle Yes or No

If yes, please circle the extent to which the results indicate achievement of the aim or goal of this activity

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7.3.1</td>
<td>fully achieved</td>
<td>partially achieved</td>
</tr>
</tbody>
</table>
Health Promotion and Community Based Activity Audit Protocol

The Health Promotion Audit Tool & this Protocol are being trialled as part of a continuous quality improvement intervention (the 'Improving Health Promotion through Continuous Quality Improvement' Project). The Tool is designed to allow health services compare health promotion activity against elements and principles of best practice. The purpose of this Protocol is to guide the data collection process in order to complete the Health Promotion Audit. It is designed to:

- help guide the auditor;
- give clear instructions of what information to collect; and
- ensure data collection is in accordance to best practice.

We are continually refining the audit tool & protocol to ensure its applicability in practice. Any feedback that you are able to give us would be valuable and we are particularly interested in your opinion regarding:

- Ease/difficulty in completing the audit
- Parts of the protocol that are particularly difficult to understand
- What words or examples need to be made clearer for better understanding
- Any suggestions for how we can improve the language used and structure of the protocol.

If you would like more information about the Audit Tool, to discuss the contents or provide feedback, please contact:

Nikki Clelland
Project Manager/PhD Student
nikki.clelland@menzies.edu.au
Ph: 08 8943 5011
Fax: 08 8943 5010

Lynette O'Donoghue
Health Promotion Quality Improvement Facilitator
lynette.o'donoghue@menzies.edu.au
Ph: 08 8943 5000
Fax 08 8943 5010

Version 2.0
May 2009
Overview of Health Promotion and Community Based Activity Audits

Audit and feedback is a popular approach for assessing and improving health care service delivery. Clinical audits collect information, often by review of patient records, allowing comparison of care delivered against specific criteria, usually best practice guidelines. When done repeatedly over time in a consistent way, audits can provide information on changes in quality of care that may have occurred associated with developments in the health centre.

Performance assessment of health promotion in community health centres using the audit and feedback process is a relatively new field. The purpose of the Health Promotion and Community Based Activity Audit Tool is to determine how well health promotion and community based activities align with best practice and to support health services assess and improve their practice. This is done by collecting information at regular intervals to compare service delivery against specific criteria. This information can then be used to improve practice after the health centre team sets their goals.

The Health Promotion and Community Based Activity Audit Tool has been developed using best practice guidelines, informed by both mainstream and Aboriginal principles, key policy documents and through consultation with key stakeholders. As there is no universal consensus on what constitutes best practice in health promotion, this audit aims to cover the most commonly agreed elements and principles of good practice. We believe that this tool will serve as an educative and practical tool for assisting services align their service delivery efforts with these elements and for improving our understanding of effective health promotion in Aboriginal and Torres Strait Islander settings.

About Health Promotion

The Victorian Department of Human Services [Department of Human Services 2003 4166 /ld]:44 has developed five categories of health promotion interventions spanning 3 approaches to promote health. Figure 1 shows the relationship between these categories and illustrates how they relate to an individual and the whole population.

![Diagram showing the relationship between Health Promotion Strategy Categories and Approaches](image)

Fig 1. Health Promotion Strategy Categories and Approaches [Department of Human Services 2003 4166 /ld]:44

This Health Promotion and Community Based Activity Audit Tool collects information on a range of items that are relevant for each health promotion strategy and reflect the factors which are important for effective practice. These include:

- **Planning Framework.** Good quality planning brings together the elements required for successful program implementation, monitoring and evaluation. A comprehensive plan will include a clear goal and a range of strategies and approaches across the categories of health promotion.
- **Targeting.** Populations affected by a health issue need to be described and quantified. A distinction between a general population approach and targeting specific groups in higher risk categories is important. An alternative or complementary approach is to target settings associated with the groups at higher risk in order to change the environmental conditions in which choices are made and develop relevant personal skills. Useful settings would include schools, workplaces and marketplaces.

Version 2.0
Last updated 9 September 2009
Health Promotion and Community Based Activity Audit Protocol

- Community participation. Research has demonstrated that "the stronger the representation of the community and the greater the community involvement in the practical activities of health promotion, the greater the impact and the more sustainable the gains." 26
- Partnerships. Programs should be linked to broader systems (especially education and health) as well as community-based organizations to be able to draw in necessary expertise and resources and link programs to other initiatives.
- Skilled Actions. A program can only achieve intended outcomes if it is developed and implemented by adequately trained and experienced health workers, communities and partner organizations and in ways that are consistent with the evidence about what makes a program work.
- Sufficient coverage (intervention reach). Attention also needs to be given to achieving adequate coverage of the program, that is, ensuring access by the target groups in sufficiently large numbers to achieve an impact. Efforts needs to focus on scaling-up, or broadening the coverage, of health promotion programs so that more people can access the intervention.

Providing feedback to health centre staff on these factors can be useful in helping teams understand areas of strength and areas where they may need to focus more attention. The information can therefore be useful in helping teams set specific goals for improvement in delivery of services.

What to Audit?

Eligibility
To be eligible for inclusion in the Health Promotion and Community Based Activity Audit, the activity must have
- Involved at least one member of the health centre staff;
- been implemented within the past 12 months; and
- Involved groups comprising of two or more people in the community.

One-to-one health promotion activities conducted in the health centre eg. brief interventions, immunisations and health advice are not within the scope of this audit.

Health promotion and community based activities are also implemented by organisations and groups other than the health centre. It is important that the health centre is seen by the community as a resource centre which has strong links to other programs and services. The resident health centre staff are a valuable resource to the community and visiting teams in providing local information, expertise and community links. Even if the provision of some activities is the responsibility of other organisations or groups, it is important that there is a good record of these programs and services at the health centre. Remember, we are not trying to collect data to catch the service out, we are trying to get an assessment of how well the whole system works.

How to work through the Audit Tool

The audit tool is divided into 2 sections:
- Section 1: General information
- Section 2: Items relating to six key factors for successful health promotion practice.

Most questions have yes/no response options. For questions where more than one option can be chosen, circle the relevant response option. Other audit items require the entry of free text information. Please be as succinct as possible.

It would be beneficial if the auditor is familiar with local and national health promotion guidelines and principles or has a basic level of health promotion knowledge.
Health Promotion and Community Based Activity Audit Protocol

questions do include definitions of terms to assist the process. Although this audit tool can be completed by an experienced individual, it is best completed by two or more people, from the same organisation following discussion.

Information Sources

Health promotion practice is often poorly documented, posing significant challenges for collecting evidence for the purposes of quality improvement. Common methods of recording project activities and progress including field notes and reports; minutes of meetings, posters and banners, spreadsheets, tape and video recordings, photos and paintings. Other documentary evidence such as annual reports, program and action plans and evaluation reports may also be useful sources of information on community based health promotion. Health centres may have other ways for recording community based activities and should provide these if they feel they are relevant for assessing health promotion practice in their service.
2.1.1 Aim or goal
Circle yes if there is a clear statement of what this activity hopes to achieve. This is the planned, longer term outcome of the activity and should describe what will be different at the end of the activity. If there is no record of a goal or aim, then circle no.

2.1.2 Strategies for this activity
Circle yes if there is a clear description of how the activity will be implemented. These are the actions that will be taken or what people will do, to try and make the changes described in the aim or goal set out above. If there is no record of the strategies for this activity, then circle no.

2.1.3 Responsibility for strategies
Circle yes if there is a clear statement of who will take responsibility for implementing each of the strategies. Responsibility could be staff from the health centre, members of the community, visiting health workers or other agencies/organisations or community groups. If there is no record of who will take responsibility for implementing strategies, then circle no.

2.1.4 Timeframe
Circle yes if there is a clear statement of when the strategies are expected to be completed. If there is no record of a timeframe, then circle no.

2.1.5 Indicators of progress or achievement
Circle yes if there is a description of any criteria, indicators or measures that will be used to see whether the activity is on track or has been a success. The information collected from these measures can be used to demonstrate how the activity is going and what it has achieved. See the table below for examples of some measures. If there is no record of the measures that will be used to monitor or evaluate the activity, then circle no.

<table>
<thead>
<tr>
<th>Focus</th>
<th>Possible Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes in health outcomes</td>
<td>How many and who have diabetes; how many and who has died from heart disease; how many babies are not growing well;</td>
</tr>
<tr>
<td>Changes in healthy lifestyles</td>
<td>How many people smoke tobacco (males, females, ages); how many people drink alcohol unsafely (males, females, ages)</td>
</tr>
<tr>
<td>Changes in service delivery</td>
<td>(provision of preventive services, access &amp; appropriateness of services)</td>
</tr>
<tr>
<td>Changes in environments</td>
<td>What people buy from the store? What proportion of the population have a safe and functional home? Access to recreational facilities. Restricted access to tobacco &amp; alcohol, improved food supply</td>
</tr>
<tr>
<td>Changes in knowledge, skills and attitudes</td>
<td>Which foods are low in sugar; what smoking does to the body; how alcohol affects diabetes; what people feel about others who drink a lot of alcohol</td>
</tr>
<tr>
<td>Changes in community participation and empowerment</td>
<td>People participating in community meetings, people talking about their community and planning together, who and how many are participating in cultural and sporting activities; who and how many are working together on a health promotion activity</td>
</tr>
<tr>
<td>Changes in policy, legislation, resource allocation and organisational practice</td>
<td>No smoking policies;</td>
</tr>
</tbody>
</table>

Version 2.0
Last updated 9 September 2009
2.2 Recorded use of information to determine the issue or problem

Circle yes if information sources have been used to determine the issue or problem that will be addressed by this activity. If there is no documented use of information to determine the issue or problem, then circle no and go to Question 2.3.

If yes, which of the following sources of information were used to determine the issue or problem?

2.2.1 Community stories
Circle yes if there is documentation of information obtained from the community to determine the issue or problem to be addressed by this activity. Local people know what the issues and problems are and how to solve them. If there is no documentation of community stories, then circle no.

2.2.2 Other programs or activities
Circle yes if there is documentation of information obtained from other activities and programs to determine the issue or problem. Results or outcomes of previous efforts in the community could be important in justifying the issue or problem to be addressed by this activity. If there is no documentation of other programs or activities, then circle no.

2.2.3 Literature, books or reports
Circle yes if there is documentation of information obtained from literature and reports (eg. Best practice guidelines, government publications, project evaluations) to determine the issue or problem to be addressed by this activity. This information can describe the background details, causes and factors that contribute to the problem or issue. If there is no documentation of the use of literature, books or reports, then circle no.

2.2.4 National, regional or local data
Circle yes if there is documentation of information obtained from data or statistics about community or population health status. This includes, for example, how many people live in the community and ages, how many people have jobs, how many and who the issue or problem affects, how many and who have the factors that cause the issue or problem. Information can be obtained from, for example, the Australian Bureau of Statistics, Australian Institute for Health and Welfare, State and Territory Government Departments, health service/community population registration lists, or information systems (eg. Ferret, communicate, medical director). If there is no documentation of the use of data, then circle no.

2.2.5 Conferences, seminars, meetings, training or expert/professional advice
Circle yes if there is documentation of information obtained by talking with or hearing from other people about the issue or problem to be addressed by this activity. This could occur at conferences, seminars, meetings, and training sessions or in conversations with experts or professionals in the field. If there is no documentation of the use of this source of information, then circle no.

2.2.6 Other
Circle yes, if other sources of information have been used to determine the issue or problem, please specify in the space provided.

2.3 Recorded use of information to determine what will be done (strategies)
Health Promotion and Community Based Activity Audit Protocol

Circle yes if information sources have been used to determine how the activity will be implemented (the strategies). If there is no documented use of information to determine the activity strategies, then record as no and go to Question 2.4.

If yes, which of the following sources of information have been used to determine the strategies of this activity?

2.2.1 Community stories
Circle yes if there is documentation of information that has been obtained by talking with community people about services or strategies that have been implemented or by finding out from people in the community about how they want the issue or problem to be addressed. Community stories may also describe the relationships people have in the community and who the most appropriate people are, to implement these strategies. If there is no documentation of community stories to determine what will be done, circle no.

2.2.2 Other programs or activities
Circle yes if there is documentation of information obtained from reports or talking to people about other activities, programs or research to determine the strategies to be used in this activity. Other programs or activities can provide information on what have been the most useful and appropriate strategies, what has worked well in this community or similar communities and population groups. If there is no documentation of the use of other programs or activities to determine the strategies, then circle no.

2.2.3 Literature, books or reports
Circle yes if there is documentation of information obtained from literature and reports (e.g. best practice guidelines, government publications, project evaluations) to determine the strategies to be used in this activity. These reports can provide information on activities that have worked previously in similar population groups, background information for use of strategies, theoretical frameworks, evaluation methods and other contextual information to help inform the development and design of health promotion activities. If there is no documentation of the use of literature, books or reports, then circle no.

2.2.4 Conferences, seminars, meetings, training or expert/professional advice
Circle yes if there is documentation of information obtained by talking with or hearing from other people about strategies that have been used to address the problem or issue. This could occur at conferences, seminars, meetings, and training sessions or in conversations with experts or professionals in the field. If there is no documentation of the use of this source of information, then circle no.

2.2.5 Other
Circle yes, if other sources of information have been used to determine strategies for this activity, please specify in the space provided.

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2.4 Recorded use of information to determine evaluation methods
Circle yes if information sources have been used to decide how this activity will be evaluated. If there is no documented use of information to determine evaluation methods, then circle no and go to Question 3.1.

If yes, which of the following sources of information have been used to determine the evaluation methods for this activity?

2.2.1 Community stories
Circle yes if there is documentation of information that has been obtained by talking with community people about what, how and when to evaluate this activity. Local people can help to decide what information could be collected and the best way for this to be done in their community. If there is no documentation of community stories used to determine how this activity will be evaluated, then circle no.

2.2.2 Other programs or activities
Circle yes if there is documentation of information that has been obtained from reports or talking to people about other activities, programs or research which has been used to determine how this activity will be evaluated. Knowing what and how other program or activity evaluations have been done, what information gathering tools were developed and used is very useful in planning how to evaluate other health promotion activities. If there is no documentation of the use of other programs or activities to determine evaluation methods for this activity, then circle no.

2.2.3 Literature, books or reports
Circle yes if there is documentation of information that has been obtained from literature and reports (e.g. best practice guidelines, government publications, project evaluations) to determine the evaluation methods to be used in this activity. These reports can provide information on activities that have worked in similar population groups and the evaluation methods and information gathering tools that were used to determine the success of these activities. If there is no documentation of the use of literature, books or reports, then circle no.

2.2.4 National, regional or local data
Circle yes if there is documentation of information that has been obtained from data on the health status of individuals and the community. This data can be useful in developing the indicators, criteria or measures that could be used in order to show the change that has come about by implementing this activity. This could include, for example, how many people live in the community and ages, how many people have jobs, how many and who the issue or problem affects, how many and who have the factors that cause the issue or problem. This information can be obtained from, for example, the Australian Bureau of Statistics, Australian Institute for Health and Welfare, State and Territory Government Departments, health service/community population registration lists, or information systems (e.g. Ferret, communicare, medical director). If there is no documentation of the use of data in determining how this activity will be evaluated, then circle no.

2.2.5 Conferences, seminars, meetings or training
Circle yes if there is documentation of information obtained by talking with or hearing from other people about how health promotion activities have been evaluated. This could occur at conferences, seminars, meetings, and training sessions or in conversations with experts or professionals in the field. If there is no documentation of the use of this source of information, then circle no.

2.2.6 Other
Circle yes, if other sources of information have been used to determine how this activity will be evaluated, please specify in the space provided.
Health Promotion and Community Based Activity Audit Protocol

Key Success Factor Two: Systematic Targeting

3.1 Recorded target group
Circle yes if there is a record of the group of people that the activity is intended to benefit or make a change in. If there is no record of the target group for this activity, then circle no.

If yes, please specify this group in the space provided.
Examples of a target group could include:
- Infants
- Young adults
- Diabetic clients
- Pre-school children
- Parents
- Clients with rheumatic heart disease
- Adolescents
- Elderly people

3.2 Recorded gender
Is this activity for males only or females only or for both males and females? Please indicate by circling the appropriate response.

3.3 Recorded delivery setting
Circle yes if there is a record of where or in what setting(s) the activity has been delivered or implemented. If there is no record of the delivery setting for this activity, then record as no. If yes, please specify the setting in the space provided.
Examples of settings or places where health promotion can be delivered could include:
- Skin / clan or family groups
- Women's or Men's Groups
- Health centre/clinic
- Community meeting place
- Bush Camps
- Outstations / Homelands
- Workplaces
- Child Care Centres, Schools

3.4 Recorded attempts to address chronic disease related behaviours
Refer to the list and circle yes if there is a record of attempts to address these risk factors, or no if there is no record that these risk factors are being addressed. Circle as appropriate.

Evidence tells us that more Aboriginal and Torres Strait Islander peoples have chronic conditions, like diabetes and cardiovascular disease, than the general population. Addressing the commonly known causes of chronic disease, such as smoking and poor nutrition, is important to reduce the numbers of people developing chronic conditions.
Health Promotion and Community Based Activity Audit Protocol

Key Success Factor Three: Community Participation

4.1 Evidence of community participation
Circle yes if there is documentation of individuals or groups in the community that have participated in this activity. If there is no record of community participation in this activity, then circle no.

If yes, the involvement of community people in this activity included which of the following:

4.1.1 Identifying the problem or issue
Circle yes if there is documentation of community participation in determining the issue or problem that this activity will address. If there is no documentation of community involvement, then circle no.

4.1.2 Deciding what to do about the problem or issue
Circle yes if there is documentation of community participation in deciding the strategies or what to do about the problem or issue. If there is no documentation of community involvement, then circle no.

4.1.3 Implementing the activity or doing the work together
Circle yes if there is documentation of individuals or groups in the community involved in implementing the activity. This could also include individual or group involvement in managing certain parts of the activity such as collecting information, taking notes, organising meetings, artwork design etc. If there is no documentation of community involvement in doing the activity, then circle no.

4.1.4 Evaluating the results of the work
Circle yes if there is documentation of community involvement in how, what and when to evaluate in this activity. This could include providing feedback on the benefit of their involvement, collecting stories from others, analysing information, preparing reports and feedback to community. If there is no documentation of community involvement in the evaluation, then circle no.

4.1.5 Other
Circle yes if there is documentation of community people involved in this activity that is different to the categories above. In the space provided, please specify how community have been involved in this activity.

Community participation is central to 'bottom up' health promotion approaches that enable people to identify their issues, solutions and actions and to determine the program design, implementation and evaluation. This leads to people having greater control over the social and environmental determinants of health.

Community participation is a process that enables individuals and groups in the community to contribute to debate and decision-making. There are a range of opportunities for community members to participate and contribute to programs and services. These could include, for example, community meetings, Health Boards, committees, community people employed by the health centre or other community based organisations.
# Health Promotion and Community Based Activity Audit Protocol

## Key Success Factor Five: Skilled Delivery

**5.1 Health Centre staff involvement**

Circle yes if there is a record of health centre staff involved in the development or implementation of this activity. If there is no record of health centre staff involvement, then circle no.

If yes, please specify each staff members' position/role and the number of people in these positions using the table provided.

These staff members will have key responsibility in ensuring that the right things are done the right way. The information from this audit item will show the range of health centre staff who need to develop specific knowledge and skills in order to deliver effective health promotion practice.

## Key Success Factor Six: External Partnerships

**6.1 External partner involvement**

Circle yes if there is a record of individuals or organisations other than those at the local health centre involved in the development or implementation of this activity. If there is no record of external involvement, then circle no.

If yes, use the table to specify the title of the organisation or agency and the position or role of each individual involved in this activity. Please do not use individual peoples' names.

Partnerships with other organisations and community based organisations are important for drawing in necessary expertise and resources and links to other activities and initiatives.

## Key Success Factor Seven: Coverage / Reach

**7.1 How often was the activity delivered?**

Using the descriptions provided in the table, indicate the frequency of activity delivery over the past 12 months (tick as appropriate). Was it once off or delivered weekly, monthly or annually? If different to these categories, please specify the pattern of delivery over the past 12 months.

**7.2 Type of health promotion strategies**

Using the descriptions of health promotion strategies provided below, indicate what best describes the strategies used in this activity (circle as many as appropriate).

- **7.2.1 Health education and/or skill development**
  
  Circle yes if this activity uses health education and/or training to change people’s behaviours and/or develops their skills enabling them to adopt healthier lifestyles.

- **7.2.2 Health information or social marketing**
  
  Circle yes if this activity uses health information or mass media (or community wide) to raise people's awareness and increase knowledge about the issue or problem.
7.2.3 Community Action
Circle yes if this activity actively involves and develops community people’s capacity to enable them to decide their own needs and how these needs can be best met.

7.2.4 Creating settings and supportive environments
Circle yes if this activity makes changes to the environments where people live, work and play to support them in making healthy choices. This also includes activities that involve developing or making changes to local or regional policies, laws and regulations.

7.3 Has this activity been evaluated?
Circle yes if this activity has been evaluated. If there is no record of monitoring progress or evaluating achievements of this activity, then circle no.

If yes, do the evaluation results indicate whether this activity’s aim or goal has been fully, partially or not achieved (circle as appropriate).

Refer to Question 2.1.1 for the aim or goal of this activity.

An evaluation could be any information that has been collected in order to demonstrate how the activity is going or what has been achieved. This information could be used to answer:
- Did the activity reach the target group?
- Where people happy with the activity?
- Did the activity go according to plan?
- Were the resources and materials appropriate and of good quality?
- How are people behaving?
- What do people know?
- How many people are healthy or unwell?
- What do people believe and feel about themselves, an issue or other people?
- How have people participated in this activity and in other community activities?
- How do people live, work and play?

See also Question 2.1.5 for examples of measures or indicators of progress or achievement.
# List of Key Literature & Contributions in the Development of the Audit Tool & Protocol

## Acknowledgements
The Health Promotion Audit Tool and Protocol has been made possible through the contributions of many people. We would like to acknowledge and thank those involved. Every effort has been made to ensure correct spelling of names. We apologise for any error. Key contributors appear in **bold**.

ABCDE staff and family, Ross Ballie, Jason Bonson, Julie Bramblecombe, Nikkil Clelland, Christine Connors, Paula Convery, Barbara Cox, Joseph Daby, Stephanie Dhamarrandji, Michelle Dowden, Rosalie Gaie, Wamamula Gondarra, Kirsten Green, Jonathon Jauncy, Heather Keighley, Megan Lawrence, Marlene Liddle, Vivian Lin, Janya McCaiman, Leisa McCarthy, Elizabeth McDonald, Dorothy Morrison, Lynette O’Donohue, Dagmar Schmitt, Bernadette Shields, Beverly Stiborhoe, David Thomas, Toni Thomson, Komi Tse, Alexandra Walker, Lynette Windsor, Peter Wordsworth, Mary Wynne. Health centre staff and management from NT government and community controlled organisations have also made important contributions through their active involvement in the research project. A range of people also assisted in the conceptualisation and early development of the tool through their participation in a series of workshops and seminars.

## Literature
- *A Best Practice Model for Health Promotion Programs in Aboriginal Communities*. Based on the Formative Evaluation of the Kuwinyuwardu Aboriginal Resource Unit, Gascoyne Healthy Lifestyle Program written by Royden James Howie, 2004.
- *Principles for Better Practice in Aboriginal Health Promotion*. The Sydney Consensus Statement as Agree at the National Consultation Workshop, Developed by NSW Health, 2002.
- *Promoting the Health of Indigenous Australians – A review of infrastructure support for Aboriginal and Torres Strait Islander Health Advancement and Case Studies and Principles of Good Practice*. National Health and Medical Research Council, 1996
- *Achievements in Aboriginal and Torres Strait Islander Health – Summary Report*. Cooperative Research Centre for Aboriginal Health (CRAH) on behalf of Standing Committee on Aboriginal and Torres Strait Islander Health, written by Cindy Shannon, John Wakeman, Peter Hill, Tony Barnes, Robert Grew, with assistance from Ann Ritchie, Nov 2003.
- *National Strategic Framework for Aboriginal and Torres Strait Islander Health*
- *Galiwinku Activity Implementation Form.*
- *Quality Improvement Program Planning System*. Online planning and evaluation tool for health promotion and community development managed by the Victorian Community Health Association. [www.qipps.com](http://www.qipps.com)
- *European Quality Instrument for Health Promotion (EQUIHP) and User Manual*. Developed by Flemish Institute for Health Promotion (VIG) and the Netherlands Institute for Health Promotion and Disease Prevention (NIGZ) for the Getting Evidence Into Practice Project, September 2005.

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Promotion and Disease Prevention, Woerden 2003.

- An instrument for reviewing the effectiveness of health education and health promotion. Wilma G. Van Driel and Jolanda F.E.M. Keijzers, Patient Education and Counselling, 1997: 30, 7-17


- Health Promoting Health Services: Organisational and Activities Practice Assessment Tool. Developed by Anne Johnson, In Anne Johnson and Kevin Paton Health Promotion and Health Services: Management for Change, Oxford University Press, Melbourne, 2006


- Health promoting health services: Guidance for a Health Promoting Health Service. Developed and published by the National Health Service, Health Scotland, 2005.

Appendix 9: Modified ABCD Systems Assessment Tool

Systems Assessment Tool

Generic – Community Based Health Promotion

Version 1.0
A tool for assessment of health centre systems to support community based health promotion

It is widely recognised that the major contributors to the persistently poor state of health among Indigenous people generally include the way social systems and structures are set up and operate to the disadvantage of Indigenous people, the physical and social environment, the health-related behaviour and the way these factors interact.

Health promotion strategies have the potential to significantly improve health and reduce health inequities within and between population groups. However, primary health care and health promotion programs that have been implemented in Indigenous communities have had varying success. Research suggests that implementation failure is largely attributed to planning processes, resources, infrastructure and capacity.

This SAT builds on our experience of using earlier specific tools for clinical services and on existing capacity mapping tools for health promotion and public health. References to resources that were used in the development of this tool are provided at the end of the document.

The intended purpose of the tool is to support ongoing quality improvement initiatives through systematic assessment of a range of elements of health centre systems that have been demonstrated to be important. The tool provides for:
- an assessment of the state of development of health centre systems;
- guidance on next steps in planning improvements; and
- assessment of progress in achieving system improvement.

The prompts provided in the tool are intended only as a guide to some of the sorts of system issues that one might consider for scoring each item of the tool. They are not intended to cover all relevant issues for all health centres.

Use of the tool provides a score for the state of development of different aspects of health centre systems. The scores may be used as a guide for where improvement efforts might be focussed, but centres should base their priorities on the full range of information available to them and the opportunities they have for improvement in different areas.

Whilst any feedback that you are able to give would be most valuable, we are particularly interested in your opinions regarding:
- Degree of ease/difficulty completing the tool
- Areas that were particularly difficult to complete or understand
- Areas where the meaning (what was being asked) was ambiguous
- Critical areas that have not, but should be, included
- Areas that are included, but should be omitted (please provide rationale for removing item eg. duplication, relevance etc.)
Tool Components

The model that we use for mapping system capacity for community based health promotion has four domains (plus an integration and adaptability domain), and each domain is made up of a number of items (shown on the next page). The four domains of the model are:

1. Delivery System Design. Refers to the extent to which the design of the health centres infrastructure, staffing and processes maximise the potential effectiveness of your organisation to support community based health promotion.

2. Information systems and decision support. Refers to the information structures and processes to support planning, implementation and monitoring of community based health promotion.

3. Organisational Environment. Refers to the use of organisational influence to create a supportive culture and environment that promotes a proactive approach to the provision of high quality and comprehensive approaches to community based health promotion.

4. Policy Environment. Relates to the health system, or the broader environment within which your organisation operates. This category recognises that factors extrinsic to your organisation may impact on its capacity to support community based health promotion.

5. Adaptability and Integration of Health System Domains. Refers to the system robustness or state of preparedness to respond effectively to emerging issues and how well the system functions as a whole to support community based health promotion.

For more information about the scale, or to discuss the contents, please contact:
Nikki Clelland, Paula Convery or Ross Baille, Menzies School of Health Research - Ph: 08 8922 8196; Fax: 08 8927 5187
Component Items

1. Delivery System Design
   1.1 Team Structure and Function
   1.2 Technical or Professional Leadership
   1.3 Programs and Services
   1.4 Access and Cultural Competence
   1.5 Physical Infrastructure, Materials and Equipment

2. Information Systems and Decision Support
   2.1 Maintenance and use of health information systems
   2.2 Organisational Planning and Monitoring
   2.3 Organisational Knowledge Management

3. Organisational Environment
   3.1 Organisational Commitment
   3.2 Organisational Leadership and Management
   3.3 Organisational Partnerships

4. Policy & Community Environments
   4.1 Supportive Organisations
   4.2 Leadership at the System Level
   4.3 Healthy Public Policy
   4.4 Knowledge Management at the System Level
   4.5 Public Opinion and Community Infrastructure

5. Adaptability and Integration of Health System Domains
   5.1 System Adaptability
   5.2 System Integration
1 **Delivery System Design**

Effective delivery of community based initiatives requires that service delivery infrastructure, staffing and processes are designed to meet the needs of the community and specific population groups. This involves more than simply adding additional interventions or programs to an existing system focused on acute care. It often necessitates significant changes to the organisation of services.

1.1 **Team structure and function**

**Fully developed support:**

1. There is a fully established *team approach* to community based health promotion, with secure and ongoing availability of all the practitioners required.
2. Team leadership is clearly defined and recognised, and the leader has an *appropriate level of formal authority* within the practice team.
3. There is very good definition of team members' roles and responsibilities and lines of reporting, and these are integrated into delivery system design.
4. There is *good communication and cohesion* within the team; it meets regularly and has established processes for *effective decision making*.
5. There is an on-going *strategic approach* to developing team members' skills and roles.

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<tr>
<th>1 No team approach; practitioners needed for team approach not available</th>
<th>Some efforts to establish a team approach; practitioners needed for team approach sometimes available, but not secure or ongoing</th>
<th>Team approach becoming well established; practitioners needed for team approach usually available, becoming more secure and ongoing</th>
<th>Fully established team approach; secure, ongoing availability of practitioners needed for team approach</th>
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<td>2 Team leadership not clearly defined</td>
<td>Team leadership becoming defined and recognised, leader acquiring formal authority</td>
<td>Team leadership clearly defined and recognised, leader has formal authority</td>
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<td>3 Definition of team roles, lines of reporting and integration in system design are fair</td>
<td>Definition of team roles, lines of reporting and integration in system design are good</td>
<td>Definition of team roles, lines of reporting and integration in system design are very good</td>
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<td>4 Fair communication and cohesion within the team; team meets irregularly, decision-making is fair</td>
<td>Good communication and cohesion within the team; team meetings becoming regular, decision-making is good</td>
<td>Very good communication and cohesion within the team; team meetings regular; decision-making is very good</td>
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<td>5 Development of team members' skills and roles is fair</td>
<td>Development of team members' skills and roles is good</td>
<td>Development of team members' skills and roles is very good</td>
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1.2 Technical or Professional Leadership
Fully developed support:
1. Technical or professional leadership for community based health promotion is fully established and recognised.
2. The leader's make contributions to the centre's vision for high quality, comprehensive approaches to community based initiatives.
3. Technical or professional leadership helps to ensure that the centre remains knowledgeable about research evidence and that the evidence is interpreted and appropriately applied to the centre's community based programs and services.

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<td>1 No or minimal technical or professional leadership</td>
<td>Technical or professional leadership emerging</td>
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<td>Technical or professional leadership fully established and recognised</td>
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<td>Contribution of technical or professional leadership to centre's vision for high quality, comprehensive approaches is fair</td>
<td>Contribution of technical or professional leadership to centre's vision for high quality, comprehensive approaches is good</td>
<td>Contribution of technical or professional leadership to centre's vision for high quality, comprehensive approaches is very good</td>
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<td>Contribution of technical or professional leadership to knowledge and application is good</td>
<td>Contribution of technical or professional leadership to knowledge and application is very good</td>
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1.3 Programs and Services
Fully developed support:
1. Health Promotion Plans - comprehensive plan which outlines strategic intent/direction and coherence with current regional, state and national policies and plans
2. Linking health centre clients to community based initiatives – System has the flexibility to identify and link health centre clients to appropriate community based initiatives and monitor their progress.
3. Working across the spectrum – The range of programs and services that promote health are diverse multiple, across settings/sectors and engage diverse range of organisations
4. Cultural appropriateness – Promotion and use of traditional activities that are health promoting and build local capacity

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<tr>
<td>1 No plans or little or no interest in a plan for community based health promotion &amp; there is no or little alignment with current regional, state and national policies &amp; plans</td>
<td>Plans in place, level of commitment is fair &amp; alignment of activities with current regional, state and national policies &amp; plans fair</td>
<td>Plans in place, level of commitment is good &amp; alignment of activities with current regional, state and national policies &amp; plans good</td>
<td>Plans in place, level of commitment is very good &amp; alignment of activities with current regional, state and national policies &amp; plans very good</td>
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1.4 Access / Cultural Competence

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1. No or minimal attention given to barriers. Barriers beginning to be addressed but many remain. Barriers addressed quite well but some remain. Barriers addressed very well and few or none remain.

2. No or minimal attention given to cultural competence; not included in orientation and training. Level of attention to cultural competence is fair; sometimes included in orientation and training. Level of attention to cultural competence is good; usually included in orientation and training. Level of attention to cultural competence is very good; always included in orientation and training.

3. No or minimal respect for gender-related issues. Respect for gender-related issues is fair. Respect for gender-related issues is good. Respect for gender-related issues is very good.

4. No or minimal respect for Indigenous knowledge or experience. Respect for Indigenous knowledge and experience is fair. Respect for Indigenous knowledge and experience is good. Respect for Indigenous knowledge and experience is very good.
1.5 Materials and equipment

Fully developed support:

1. All the appropriate equipment and materials for community based health promotion is available and is of very good quality, very well maintained and culturally appropriate (e.g. does not need to be shared between or borrowed from other areas due to limited availability or poor maintenance).

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<td>Appropriateness and availability of materials &amp; equipment quality and maintenance is poor</td>
<td>Appropriateness and availability of materials &amp; equipment appropriateness, quality and maintenance are fair</td>
<td>Appropriateness and availability of materials &amp; equipment quality and maintenance are good</td>
<td>Appropriateness and availability of materials &amp; equipment quality and maintenance are very good</td>
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Last Updated 4 June 2008
2. Information Systems and Decision Support

Effective health centres ensure that information systems produce and disseminate the breadth of data and information needed to plan, implement and monitor community based health promotion.

2.1 Maintenance and use of health information systems

Fully developed support:

1. Health information system accurately identifies the amount and type of health promotion action undertaken by the service.
2. System gathers data about the health of the community (e.g., health status, health behaviours, health determinants, evaluation outcomes of health promotion actions) and these are periodically tracked and reported on.
3. Comprehensive health surveillance activities are undertaken systematically to identify emerging issues for health promotion action.
4. Data is used for planning and monitoring, tracking trends over time.

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- There is no health information system.
- The health information system for identifying health promotion action is partially developed.
- The health information system for identifying health promotion action is developed.
- A comprehensive & integrated health information system for identifying health promotion action exists.
- Data about the health of the community is sometimes available.
- Data about the health of the community is available.
- Data about the health of the community is available and regularly reported on.
- Surveillance activities are undertaken on an ad hoc basis.
- Surveillance activities are undertaken regularly.
- Surveillance activities are undertaken comprehensively and systematically.
- Data is rarely used.
- Data is occasionally used.
- Data use is part of routine practice.

2.2 Organisational Planning and Monitoring

Opportunities exist for all staff and departments to contribute to and participate in planning exercises, and feedback loops about the priorities and outcomes for community based health promotion. Varied evidence sources are called on to determine priorities.

Fully developed support:

1. The organisation has a systematic approach to assessment, documentation and planning of community based health promotion.
2. Community based initiatives are based on the best available evidence and/or theoretical frameworks, including traditional or cultural concepts and respond to or are consistent with community identified needs and interests.
3. The organisation has a systematic approach to involving community and population groups in planning and monitoring community based health promotion.

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### Systems Assessment Tool for Community Based Initiatives – Version 1.0

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<td>No or limited systems to support planning and monitoring</td>
<td>Systems to support planning and monitoring are partially developed</td>
<td>Systems to support planning and monitoring are good</td>
<td>Systems to support planning and monitoring are comprehensive and integrated</td>
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<tr>
<td>2</td>
<td>No or limited evidence used; programs do not reflect community needs or interests</td>
<td>Some evidence used; some aspects of community needs or interests addressed</td>
<td>Evidence used and becoming part of routine practice, respond to and are consistent with community identified needs and interests</td>
<td>Evidence use is part of routine practice; programs reflect and respond to community identified needs and interests.</td>
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<td>3</td>
<td>No policy or plan for community participation exists</td>
<td>Informal policy for community participation exists, level of commitment is fair</td>
<td>A policy for community participation exists, level of commitment is good</td>
<td>A policy for community participation exists, level of commitment is very good.</td>
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#### 2.3 Organisational Knowledge Management

**Fully developed support:**

1. Evidence based guidelines and other resources are available and accessible and are used as part of routine practice
2. Health service can access the data, information and research based knowledge they require for planning, implementing and evaluation health promotion
3. There are structures and organisational practices that encourage and facilitate sharing of knowledge

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<tr>
<td>1 No or minimal availability and use of evidence based resources</td>
<td>Availability of evidence based resources is fair and use is ad hoc</td>
<td>Availability of evidence based resources is good and becoming part of routine practice</td>
<td>Availability of evidence based resources is good and used as part of routine practice</td>
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<tr>
<td>2 No or minimal access to data, information and research</td>
<td>Availability and access to data, information and research fair</td>
<td>Availability and access to data, information and research good</td>
<td>Availability and access to data, information and research very good</td>
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<tr>
<td>3 No or minimal mechanisms in place to share knowledge</td>
<td>Informal mechanisms in place to facilitate sharing of knowledge</td>
<td>Mechanisms are in place to facilitate sharing of knowledge and becoming part of routine practice</td>
<td>Mechanisms are in place to facilitate sharing of knowledge and are part of routine practice</td>
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3. Organisational Environment

Effective community based health promotion is more likely when organisational and environmental settings provide the necessary infrastructure, support and resources for such practice to occur.

3.1 Organisational Commitment

Health promotion principles can be integrated into primary, secondary and tertiary (acute) services, as well as other services. Are all services of the organisation espousing and practicing health promotion? Is your organisation’s mission/strategy focused on healthy individuals, healthy lifestyles, healthy living conditions and healthy communities? Health promotion is also an essential part of workplace health for employees. Do organisations policies and programs support your health promotion vision including ones about respectful and empowering interactions between clients, communities and staff? Organisations can foster positive relationships through leadership and modeling, celebrating accomplishments. Providing clear direction and behaving in ways that are consistent with organisational values, vision and mission are important.

Fully developed support:
1. The strategic and business plans reflect commitment and mandate for community based health promotion – i.e. vision statements, policies, and prevention/health thinking is valued within the organisation.
2. The financing system assures adequate funding for community based health promotion and enables medium to long term planning for health promotion.
3. The organisation is able to recruit staff with skills and expertise and staffing is at levels that meet the established need; relevant roles are defined and reflected in job descriptions.
4. There is very good relationships and regular, clear communication among staff for community based health promotion; staff morale is high and there is a feeling among frontline staff that senior staff understand their work and needs.
5. There is a very good range of training and in-service opportunities for community based health promotion for all staff.
6. There is a good balance across the range of service delivery strategies including clinical, group and community based activities.

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<tr>
<td>No plans; little or no interest in a plan</td>
<td>Plans in place, level of commitment is fair</td>
<td>Plans in place, level of commitment is good</td>
<td>Plans in place, level of commitment is very good</td>
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<tr>
<td>Specific funding</td>
<td>Specific funding, level is fair and/or short term</td>
<td>Specific funding, level is good and/or medium term</td>
<td>Specific funding, level is very good and/or long term</td>
</tr>
<tr>
<td>Minimal staffing, no specific roles</td>
<td>Level of staffing is fair; some roles defined</td>
<td>Level of staffing is good; most roles defined and reflected in job descriptions</td>
<td>Level of staffing is very good; all roles defined and reflected in job descriptions</td>
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<tr>
<td>Poor relationships and little or no communication</td>
<td>Relationships and communication are fair</td>
<td>Relationships and communication are good</td>
<td>Relationships and communication are very good</td>
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<td>Morale is low</td>
<td>Morale is fair</td>
<td>Morale is good</td>
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<td>Range of training and in-service opportunities poor</td>
<td>Range of training and in-service opportunities fair</td>
<td>Range of training and in-service opportunities is good</td>
<td>Range of training and in-service opportunities is very good</td>
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<td>Balance across service delivery strategies is poor</td>
<td>Balance across service delivery strategies is fair</td>
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3.2 Organisational Leadership and Management

Leaders of organisations have important responsibilities for facilitating an organisational culture within which health promotion practice may flourish. Leadership means being a champion for the health promotion cause, and being able to mobilise people to want to contribute to shared health promotion goals.

Fully developed support:
1. The organisation's leadership/management provide visible and convincing strategic direction and support for community based health promotion
2. The organisation's leadership/management clearly communicates the vision and strategic direction for community based health promotion to all staff and the broader community

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<tr>
<td>1 leadership/management rarely provides visible and convincing strategic direction and support</td>
<td>leadership/management sometimes provide visible and convincing strategic direction and support</td>
<td>leadership/management mostly provides visible and convincing strategic direction and support</td>
<td>leadership/management always provides visible and convincing strategic direction and support</td>
</tr>
<tr>
<td>2 leadership/management does not communicate the vision and strategic direction</td>
<td>leadership/management partially communicates the vision and strategic direction</td>
<td>leadership/management mostly communicates the vision and strategic direction</td>
<td>leadership/management extensively communicates the vision and strategic direction</td>
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3.3 Organisational Partnerships

Partnerships with other health organisations, community agencies or groups can extend and enhance health promotion's reach and impact. It can also serve to bring needed human and financial resources to those experiencing greatest health inequities.

Fully developed support:
1. There are formal and collaborative partnerships between units/departments within the organisation
2. There are formal and collaborative partnerships with relevant public sector organisations for planning and program delivery
3. There are formal and collaborative partnerships with relevant community and private sector organisations for planning and program delivery

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<tr>
<td>1 No intra-organisational links or partnerships</td>
<td>Informal intra-organisational links or partnerships exist, collaboration is ad hoc</td>
<td>Formal intra-organisational links or partnerships exist, collaboration is good</td>
<td>Formal intra-organisational links or partnerships exist, collaboration is very good</td>
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<tr>
<td>2 No public sector organisational links or partnerships</td>
<td>Informal public sector organisational links or partnerships exist, collaboration is ad hoc</td>
<td>Formal public sector organisational links or partnerships exist, collaboration is good</td>
<td>Formal public sector organisational links or partnerships exist, collaboration is very good</td>
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<tr>
<td>3 No community and private sector organisational links or partnerships</td>
<td>Informal community and private sector organisational links or partnerships exist, collaboration is ad hoc</td>
<td>Formal community and private sector organisational links or partnerships exist, collaboration is good</td>
<td>Formal community and private sector organisational links or partnerships exist, collaboration is very good</td>
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4. Policy and Community Environment

There is an accumulating evidence base indicating that the macro environment of political, public, social and economic factors has an impact on effective community based health promotion. It is recognised that the capacity of local organisations may be enhanced or constrained by the broader policy and community environments within which they operate.

4.1 Supportive Organisations

Just as no one department within the health system has sole responsibility for health promotion, no one organisation in the community is responsible for acting on improving health determinants. How robust are these organisations / groups in your community? Health organisations need to identify and learn to work with the many diverse organisations who share a mandate for a healthy community. How broad are the sectors working on these issues? Do they include non-traditional ones such as the business community, clubs, community groups? Supportive organisations are actively engaged in influencing public support and political will for effective community based health promotion and initiatives through their collective action and individual voices. What sort of community wide umbrella group or mechanisms exist to bring organisations together?

Fully developed support:

1. There are a diverse range of organisations and agencies who work to address determinants of health in the community
2. There are well functioning partnerships with other sectors whose work is relevant to, or impacts on, the health of the community and the partnerships is maintained by a role/position within the organisation (rather than an individual).
3. There are well functioning partnerships with NGO’s and the private sector organisations whose work is relevant to, or impacts on, the health of the community and the partnerships is maintained by a role/position within the organisation (rather than an individual).
4. There are informal and formal networks where a diverse range of organisations advocate to enhance the credibility of community based health promotion.

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<tr>
<td>1 There are no organisations that work to address determinants of health in the community</td>
<td>Few organisations work to address determinants of health in the community</td>
<td>Most organisations work to address determinants of health in the community</td>
<td>All organisations work to address determinants of health in the community</td>
</tr>
<tr>
<td>2 No or limited partnerships with other sectors;</td>
<td>Informal partnerships with few relevant sectors exist</td>
<td>Good functioning partnerships with most of the relevant sectors exist and are institutionally embedded</td>
<td>Well functioning partnerships with most of the relevant sectors exist, and are institutionally embedded</td>
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<tr>
<td>3 No or limited partnerships with NGO’s and private sector organisations;</td>
<td>Informal partnerships with few relevant NGO’s and private sector organisations exist</td>
<td>Good functioning partnerships with most of the relevant NGOs and private sector organisations exist and most are institutionally embedded</td>
<td>Well functioning partnerships with most of the relevant NGOs and private sector organisations exist, and are institutionally embedded</td>
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<tr>
<td>4 No networks exist for advocacy</td>
<td>Some networks exist between few organisations, limited or no advocacy occurs</td>
<td>Networks exist between most organisations, some advocacy occurs</td>
<td>Networks exist between all organisations, with strong advocacy</td>
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4.2 Leadership at the System Level
Of necessity, investments in health promotion are long term and take considerable time to realise effects. Therefore, visionary leadership translated into public policy is needed for health promotion to thrive.

Fully developed support:
1. Governing boards or State/Territory Health Departments value and support community based health promotion as a core mandate for their organisation.
2. There are clear, identifiable and credible advocates who set the agenda on issues relating to community based health promotion.
3. There is technical or professional leadership (i.e. individuals with in-depth knowledge/understanding) for community based health promotion.
4. There is political will for community based health promotion.

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<td>1</td>
<td>Some support</td>
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<td>Community based health promotion is a core mandate of the organisation</td>
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<td>2</td>
<td>Advocates for community based health promotion</td>
<td>Advocates for community based health promotion on most issues</td>
<td>Advocates for community based health promotion on all issues</td>
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<tr>
<td>3</td>
<td>Technical or professional leadership on some issues</td>
<td>Technical or professional leadership on most issues</td>
<td>Technical or professional leadership on all issues</td>
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<tr>
<td>4</td>
<td>Political commitment for some issues</td>
<td>Political commitment on most issues</td>
<td>Strong political commitment for community based health promotion</td>
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4.3 Healthy Public Policy
Public statements of support and celebration, allocation of dollars and insistence on organisational structures that value community based health promotion are all visible ways Governments can demonstrate support. Examination of health services mandate from governments and the community should include clear statements about investing in community based health promotion. These statements should be linked to budget allocations.

Fully developed support:
1. Commonwealth, State/Territory Governments policy and strategic plans reflect contemporary health promotion philosophy and practice.
2. Commonwealth, State/Territory Governments provide adequate financial resources for comprehensive primary health care services, including community based health promotion.
3. Health centres/Primary health care services are mandated to invest core funding to community based health promotion.

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<tr>
<td>1 Policies and/or strategic plans do not reflect health promotion philosophy</td>
<td>Policies and/or strategic plans partially developed and partially reflect health</td>
<td>Policies and/or strategic plans exist and sometimes reflect health promotion</td>
<td>Policies and/or strategic plans exist and these reflect health promotion</td>
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### Systems Assessment Tool for Community Based Initiatives – Version 1.0

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<td>Financial resourcing for comprehensive services limited</td>
<td>Some financial resourcing for comprehensive services</td>
<td>Good financial resourcing for comprehensive services</td>
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<td>3</td>
<td>No mandate to fund community based health promotion</td>
<td>No mandate, investment is at discretion of health service</td>
<td>Mandate exists, not linked to budget allocation</td>
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#### 4.4 Knowledge Management at the System Level

Research, case examples and community stories utilising a rigorous approach and sound practices are made available and are used by decision makers, leaders and managers. There is a free exchange/sharing of resources for promoting health. Materials developed in or with assistance from government bodies using public monies are freely available. Professional associations, health promotion research centres, universities, departments of health and local/regional health agencies all support formal and informal networks for learning and exchange of ideas.

**Fully developed support:**

1. High quality data and evidence of effectiveness of community based health promotion is available and is systematically used to set policy and program direction.
2. Resource materials and conceptual tools are made available for a wide range of community based health promotion strategies, initiatives and processes.
3. Networks of researchers and specialist expertise are available and access is facilitated where required.

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<tr>
<td>1 Data &amp;/or evidence is rarely available or used in policy and program development</td>
<td>Data &amp;/or evidence is sometimes available and used in policy and program development</td>
<td>Data &amp;/or evidence is available and use in policy and program development is becoming routine practice</td>
<td>Data &amp;/or evidence is available and used in policy and program development and is systematically appraised</td>
</tr>
<tr>
<td>2 Resource materials and conceptual tools are rarely made available</td>
<td>Resource materials and conceptual tools are sometimes made available</td>
<td>Resource materials and conceptual tools are mostly made available</td>
<td>Resource materials and conceptual tools are always made available</td>
</tr>
<tr>
<td>3 Specialist expertise is not available</td>
<td>Specialist expertise is sometimes available and access is facilitated on some occasions</td>
<td>Specialist expertise is available and access is facilitated on most occasions</td>
<td>Specialist expertise is available and access is facilitated when required</td>
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#### 4.5 Community Opinion and Infrastructure

Environments that are supportive of healthy communities enable individuals to make healthy choices. There is broad public understanding that individual choices and actions can have an impact on one’s health. This includes lifestyle modifications such as non-smoking, active living and healthy eating as well as developing supportive social networks. Are there community groups or organisations mobilised around taking action on sports, cultural activities, health issues and environmental issues? Generally, when the health care systems support work in health determinants and in community based health promotion, community support rises for the health care system as a whole.

**Fully developed support:**

1. The physical infrastructure and environments that support healthy communities is available and is of very good quality, well maintained and culturally appropriate.
2. Community take ownership of and responsibility for their own health and wellbeing.

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3. Community members take collective action to foster community wellbeing.
4. Community believe the health centre has a mandate for community based health promotion.

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<tr>
<td>1 Quality of physical infrastructure and environments is poor</td>
<td>Quality of physical infrastructure and environments is fair</td>
<td>Quality of physical infrastructure and environments is good</td>
<td>Quality of physical infrastructure and environments is very good</td>
</tr>
<tr>
<td>2 Little or no ownership of &amp; responsibility for health &amp; wellbeing</td>
<td>Some ownership of &amp; responsibility for health &amp; wellbeing</td>
<td>Good ownership of &amp; responsibility for health &amp; wellbeing</td>
<td>Very good ownership of &amp; responsibility for health &amp; wellbeing</td>
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<tr>
<td>3 Limited or no community action</td>
<td>Some collective community action</td>
<td>Good collective community action</td>
<td>Very good collective community action</td>
</tr>
<tr>
<td>4 Community consider health centre role has no or limited role in community based health promotion</td>
<td>Community consider health centre has some role in community based health promotion</td>
<td>Community consider health centre has large role in community based health promotion</td>
<td>Community consider health centre has a mandate for community based health promotion</td>
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5. **Adaptability and Integration of health system domains**

Fully developed support:
1. There is clear recognition of the need for and importance of the ability of the system to adapt its capacity to respond effectively to emerging issues – for example, how well the organisation can shift resources to address emerging health challenges or how well the organisation can make adjustments across the domains of capacity to respond to emerging health problems but not compromise other short and long term strategies.

2. There is clear recognition of the need for and importance of integration across the health centre for high quality and comprehensive approaches to community based health promotion - for example, how well the information system supports comprehensive planning (by making available data on the health of the community), how well the funding and human resources arrangements support community based health promotion, how well work within and outside the health centre complement each other, and how well staff training supports integrated and cohesive approaches to community based initiatives.

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<tr>
<td>1 No or minimal adaptability</td>
<td>Fair level of adaptability</td>
<td>Good level of adaptability</td>
<td>Very good level of adaptability</td>
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<tr>
<td>2 No or minimal integration</td>
<td>Fair level of integration</td>
<td>Good level of integration</td>
<td>Very good level of integration</td>
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</table>
Key resources used in the development of this Systems Assessment Tool

- **Rapid Assessment of National Health Promotion Capacity: A dialogue based tool for use in countries in the Western Pacific Region (Version 3).** Developed by Sally Fawkes and Vivian Lin, Department of Public Health Practice, School of Public Health, La Trobe University, Australia, 2007.

- **Draft Self-Assessment Tool for Public Health Infrastructure and Capacity.** Developed by Prue Bagley and Vivian Lin, School of Public Health, La Trobe University, Melbourne, Australia: 2007.


- **Health promoting health services: Guidance for a Health Promoting Health Service.** Developed and published by the National Health Service, Health Scotland, 2005.


- **Health Promoting Health Services: Organisational and Activities Practice Assessment Tool.** Developed by Anne Johnson, In Anne Johnson and Kevin Paton Health Promotion and Health Services: Management for Change, Oxford University Press, Melbourne, 2006.

Appendix 10: Thesis-related research transfer

Findings and knowledge gained from the study were disseminated proactively to various audiences, including at national and international conference presentations. Research transfer activities have resulted in the health promotion quality improvement tools being published and incorporated into the suite of tools available via One21Seventy: the National Centre for Quality Improvement in Indigenous Primary Health Care*. One21seventy was established to provide ABCD/E CQI tools and support services to Indigenous PHC. The support includes training for health service staff, regularly updates clinical audit tools and maintains a web-based information system. This system provides automated analysis and reporting, and enabling immediate access for health service staff to a wide range of performance data (e.g. trends and regional comparisons). Through One21Seventy a web based data entry and automated reporting function has been developed which allows for the scope and quality of health promotion activities and system development to be generated automatically, and in user friendly Microsoft Word format.

The study has contributed to the development of similar tools and processes for use in primary care organisations in New Zealand. After hearing of the development of the health promotion CQI tools at an international conference, I was invited to present to staff at ProCare in Auckland, New Zealand and to provide input into a process for evaluating primary care systems for health promotion. Furthermore, the content of the tools and the evaluation processes have been adapted for use in the Sentinel Sites Evaluation of the Indigenous Chronic Disease Package (ICDP); the Commonwealth Governments’ commitment under the National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes.

* See www.one21seventy.org.au for information about the National Centre for Quality Improvement in Indigenous Primary Health Care
Based on an expressed interest from a number of Aboriginal Health Services, we are currently investigating the utility of a range of tools, resources and training in strengthening health promotion capacity of the workforce (funded by the Lowitja Institute: Australia’s National Institute for Aboriginal and Torres Strait Islander Health Research).

As this PhD was being completed, interest in the health promotion CQI tools and processes was gaining momentum, particularly through services engaged in One21seventy. A team of researchers from Menzies School of Health Research, James Cook University, La Trobe University and the Centre of Excellence in Intervention and Prevention Science submitted a NHMRC research grant to investigate the wide-scale adoption and uptake of the CQI approach in health promotion. This will include an investigation of the resource implications and system requirements for the adoption and sustainability of CQI in health promotion.

Other research transfer activities related to my thesis included a number of conference presentations and workshops*. These are listed below. Several manuscripts are currently being prepared, including one for re-submission, and will be pursued following submission of the thesis.

**Conference presentations**


* Previously, I used the name Clelland
Continuous Quality Improvement in Aboriginal and Torres Strait Islander primary health care. Alice Springs NT, 14-15 May 2012. Awarded Best Poster.


**Workshops**


Awards arising from this research

1. Awarded Best Poster at the National Conference on Continuous Quality Improvement in Aboriginal and Torres Strait Islander primary health care. Alice Springs NT, 14-15 May 2012. The Lowitja Institute.


Publications (under review or in preparation)


