

Chronic Illness Care for Aboriginal and Torres Strait Islander people: Final Report

ESP Project: Priority Evidence-Practice Gaps
and Stakeholder Views on
Barriers and Strategies for Improvement

April 2015

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Abbreviations

ABCD	Audit and Best Practice for Chronic Disease
ABCD NRP	Audit and Best Practice for Chronic Disease National Research Partnership
ACR	Albumin/Creatinine Ratio
ATOD	Alcohol, tobacco and other drugs
AHW/ATSIHP	Aboriginal and Torres Strait Islander Health Worker/Health Practitioner
BMI	Body mass index
BP	Blood pressure
CHD	Coronary Heart Disease
CHF	Chronic Heart Failure
CKD	Chronic Kidney Disease
CQI	Continuous Quality Improvement
eGFR	Estimated Glomerular Filtration Rate
ESP	Engaging Stakeholders in Identifying Priority Evidence-Practice Gaps and Strategies for Improvement in Primary Health Care (ESP Project)
FWNSW	Far West New South Wales
GP	General Practitioner
HbA1c	Glycated Haemoglobin
HDL	High Density Lipoprotein
HT	Hypertension
IgA	Immunoglobulin A
IT	Information Technology
NSW	New South Wales
NT	Northern Territory
PHC	Primary Health Care
QLD	Queensland
SA	South Australia
SAT	Systems Assessment Tool
T2D	Type 2 Diabetes
V&M	Vascular and Metabolic
WA	Western Australia

Guide to reading this report

This Final Report presents the findings from each of the phases of the Engaging Stakeholders in Identifying Priority Evidence-Practice Gaps and Strategies for Improvement in Primary Health Care (ESP) Project.

The Final Report is presented along the lines of the 1:3:25 format:

- The '1' is a one-page statement of **key messages** – that is, the headline messages that should be of interest to policy makers and senior managers.
- The '3' is an **executive summary** that provides a brief background and description of the approach, findings and conclusions of the ESP chronic illness care processes. This executive summary is designed for people who want to know a little more about the project, beyond the key messages.
- The '25' is the **main report** that provides a more complete description of the project, suited to the needs of those with a more specific and detailed interest in the project.

The **appendices** contain further detail on specific aspects of the project.

The findings in this Final Report are presented for all participating health centres from all jurisdictions together. It collates analysis of aggregated CQI data and stakeholder views on priority evidence-practice gaps, barriers and enablers to addressing the priority evidence-practice gaps, and strategies for improvement.

This report is designed for people working in a range of roles including national and jurisdictional policy makers, managers, community-controlled organisations and government health authorities, peak bodies, clinical leaders, researchers, primary health care staff and continuous quality improvement (CQI) practitioners who may have an interest in the interpretation and use of aggregated CQI data to drive decision making.

The report is accompanied by a Data Supplement that contains the detailed analysis of the findings that were presented in the first two phases of the project which were the basis of the higher level findings presented in this Final Report. The Data Supplement is available by clicking [here](#) or emailing abcd@menzies.edu.au.

More detailed reports on each phase of the ESP Project are available on request.

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VM played a lead role in the development of the ESP Project process, and in management, analysis and presentation of the ABCD NRP and ESP data, and writing of this report. CC provided clinical expertise and contributions to the data analysis, interpretation and writing of this report, and to leadership and management of the ABCD NRP in general. AL contributed to development of the ESP Project process, data interpretation and report writing. JB played a lead role in the ESP Project design and management, report preparation and assisted with writing this report. RB provided overall leadership of ABCD NRP (including the ESP Project), and had a major role in project design, data analysis and interpretation, and drafting and reviewing of ESP reports.

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1. Key Messages

Over 380 responses were received from stakeholders in a phased process to analyse and interpret national continuous quality improvement (CQI) data from 160 primary health care (PHC) centres. The stakeholders worked across health centres and systems that deliver Aboriginal and Torres Strait Islander PHC.

We used a consensus process to identify priority evidence-practice gaps in chronic illness care, based on these data.

Stakeholders drew on their knowledge and experience working in Aboriginal and Torres Strait Islander PHC to identify barriers and enablers to addressing the priority evidence-practice gaps, and to suggest strategies to overcome barriers and strengthen enablers to addressing the priority evidence-practice gaps.

Important messages emerge from these findings.

Key message 1

Six priority evidence-practice gaps in chronic illness care were identified. They call for system-wide and local attention to (not in ranked order):

- Follow-up of abnormal findings and review of medication, including strengthening regular monitoring of HbA1c (for patients with Type 2 diabetes) and reviewing and adjusting medication for patients with a recent abnormal HbA1c, total cholesterol or blood pressure result;
- Adherence to evidence-based current treatment guidelines with particular support to health centres where prescribing patterns are outside the usual range of use of specific medications for patients with chronic illness;
- Assessment and support regarding emotional wellbeing for patients with chronic conditions;
- Recording of risk factors, in particular, cardiovascular risk assessment and healthy weight indicators, and recording of brief interventions and referrals (such as advice or referrals for physical activity and quit smoking programs), particularly for health centres with low levels of delivery;
- Improve coverage of adult vaccinations, especially for people with chronic kidney disease (CKD), coronary heart disease (CHD) and hypertension (HT); and
- Development of systems for more effective links between health centres and communities.

Key message 2

The most important barriers and enablers to addressing the above priorities, identified by stakeholders included:

- workforce recruitment and retention
- capacity to provide patient-centred care
- community engagement and participation in service delivery design
- training and development of health centre staff and management.

Current knowledge highlights the importance of targeting specific barriers and enablers to improvement, and engaging a range of stakeholders in developing interventions. Health centres and services can draw on the knowledge and experience of a range of PHC stakeholders when developing interventions to overcome these barriers and to strengthen enablers.

Key message 3

Stakeholders identified strategies and actions to overcome barriers and strengthen enablers to addressing the priority evidence-practice gaps. These strategies are likely to be relevant across health services and systems.

- Improve induction, training and mentoring programs and develop associated resources and guidelines to increase skills in all areas of chronic illness care
- Modify roles and career pathways of Aboriginal and Torres Strait Islander health workers (AHW/ATSIHPs) towards provision of comprehensive care for patients and communities
- Introduce workforce measures as key performance indicators, bringing a focus on strategies and actions to improve the stability of a qualified workforce. Key requirements for this included adequate community infrastructure (housing) and flexible systems of professional development such as inter- and intra-organisational approaches to building skills in holistic care
- Enhance community involvement such as in the development of service delivery frameworks that align with community needs
- Invest in strengthening health literacy and community leadership for quality improvement. A key identified requirement for this was building the cultural capability of PHC staff to develop effective links with communities
- Develop a CQI culture and practice at all levels, including by increasing management involvement in CQI training and processes to enhance collaborative working across all levels, and to implement best practice within organisations and jurisdictions and optimise use of knowledge, experience and resources.

Key message 4

The aggregated data and collated views and ideas presented in this report can be used to encourage an evidence-informed dialogue on achieving improvement in priority areas.

Collaborate across regions and jurisdictions to enhance knowledge, experience and resources as strategies relevant to local contexts are developed or adapted, implemented and evaluated.

1. Executive Summary

Purpose

The purpose of this project is to engage key stakeholders in the use of aggregate continuous quality improvement (CQI) data to identify and address system-wide evidence-practice gaps in Aboriginal and Torres Strait Islander chronic illness care. We aimed to engage a range of stakeholders across different levels of the primary health care (PHC) system, including service providers, management, policy-makers and researchers and capture their knowledge on the barriers and enablers to addressing the identified priority-evidence practice gaps and their suggestions on strategies for improvement.

Our research has highlighted the wide variation in performance between different aspects of care and between health centres. While many aspects of care are being done well in many health centres, there are important gaps between evidence and practice in some aspects of PHC. System-wide gaps are likely to be due to deficiencies in the broader (PHC) system, indicating that system-level action is required to improve performance. Such system-level action should be developed with a deep understanding of the holistic nature of Aboriginal and Torres Strait islander wellbeing beyond just physical health (including healthy connections to culture, community and country), of the impact of Australian colonist history on Aboriginal and Torres Strait Islander people, and of how social systems – including the health system - should be shaped to meet the needs of Aboriginal and Torres Strait Islander people.

This project aims to build on the collective strengths within PHC services in order to continue improving the quality of care for Aboriginal and Torres Strait Islander communities.

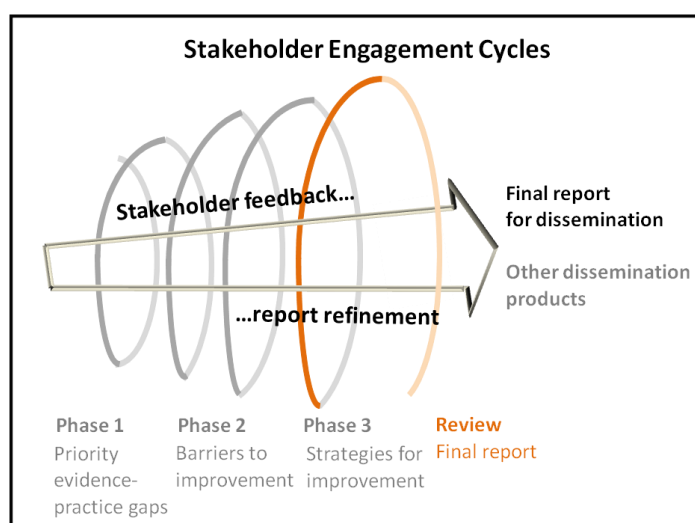
Approach

Almost 18,000 clinical records of patients with chronic illness were audited using One21seventy best practice CQI tools between 2005 and 2013 in 160 PHC centres in five States/Territories participating in the ABCD National Research Partnership. This national de-identified chronic illness audit dataset and the desire to maximise potential benefit in service delivery and in health outcomes formed the basis of the Engaging Stakeholders in Identifying Priority Evidence-Practice Gaps and Strategies for Improvement in Primary Health

Care (ESP) Project. Through three cyclical phases of reporting and feedback, we aimed to engage stakeholders in a theory- based process^{1,2} using aggregate CQI data to identify: 1) priority evidence - practice gaps; 2) barriers and enablers to high quality care; and 3) system-wide strategies for achieving improvement. The rationale for the ESP Project is that involving stakeholders in this phased approach should stimulate discussion and enhance ownership of the development of interventions to address system gaps.

Implementation research suggests that strategies to address gaps in care are more likely to be effective if they are designed to specifically address identified barriers and enablers to improvement^{1,2}. Development of strategies should therefore be based on best available evidence on barriers and enablers, including local knowledge, formal research evidence and theory.

Figure 1: ESP project phases



Summary of Findings

Phase 1 – identifying the evidence-practice gaps

CQI data for the last two years from 123 health centres (6,523 patient records) were used to identify a preliminary set of priority evidence-practice gaps. More than 200 stakeholders provided input on refining the preliminary set and to produce the set of six priority-evidence practice gaps in chronic illness care presented in Table 1.

Table 1: Priority evidence-practice gaps in chronic illness care as identified by stakeholders

1. Follow-up of abnormal findings and review of medication

Strengthen attention to:

- regular monitoring of HbA1c for patients with T2D;
- reviewing and adjusting medication for patients with a recent abnormal HbA1c result;
- documenting plans for follow-up and reviewing and adjusting medication for patients with abnormal total cholesterol/HDL results; and
- documenting plans for follow-up and reviewing and adjusting medication for patients with abnormal blood pressure readings.

2. Adherence to evidence-based current treatment guidelines

Strengthen adherence to evidence-based treatment guidelines with particular attention to:

- health centres where prescribing patterns are outside the usual range of use of specific medications, including basic medications for specific conditions (eg. metformin or insulin for patients with T2D); and
- patients with CKD, CHD, HT and CHF.

3. Emotional wellbeing assessment and support

Enhance capability and consistency across PHC centres in assessment and support regarding emotional wellbeing for patients with chronic conditions.

4. Recording of risk factors and provision of advice on risks to health

Strengthen efforts to:

- monitor and promote healthy weight including increasing attention to monitoring waist circumference and BMI;
- improve delivery and recording of brief interventions (for example physical activity) in health centres at lower end of the range
- increase use of absolute cardiovascular risk assessment for patients where relevant; and
- improve referral of smokers for support through quit programs.

5. Adult vaccinations

Improve coverage of adult vaccinations, especially for people with CKD, CHD and HT.

6. Health centre systems to support high quality care

Strengthen systems for more effective links between health centres and communities, and links with other health services and resources.

Phase 2- Barriers and enablers to addressing the evidence-practice gaps

In the second phase, we presented trend audit data (2005-2013: 17,879 patient records from 160 health centres) to examine variation over time in key indicators relevant to the priority evidence-practice gaps. Health centre and system and staff attributes relevant to implementation of change interventions^{2,4,5}, were provided as prompts for the identification of barriers and enablers. Sixty to seventy respondents rated the relative importance of these domains to each of the priority-evidence practice gaps. Table 2 lists the health centre, system and staff attributes considered to be the main barriers and enablers across all priority areas.

Table 2: Key barriers and enablers to improving chronic illness care across all priority areas

HEALTH CENTRE AND SYSTEMS	Community capacity, engagement and mobilisation Systems to: • increase the expectation of community members with regard to what is best practice care; • strengthen community leadership for quality improvement; • enhance the health literacy of community members; and • build capability and support PHC staff to develop effective links with the community. Staffing/workforce support, recruitment and retention Systems to: • ensure PHC staff have support from experienced staff, especially when health centres are affected by staff turnover and shortages; and • support recruitment and retention, particularly for ATSIHW/ATSIHPs, doctors, nurses, and allied health workers. Training and development Systems to support inter-organisational and intra-organisational learning, and development of staff knowledge and skills. Patient-centred care Systems to: • support all members of the PHC team to understand the needs and aspirations of Aboriginal and Torres Strait Islander communities; and • provide care that is respectful of and responsive to individual patient preferences, needs and values, so that the patient's values guide all clinical decisions. Management support for quality improvement systems Systems to support manager training in effective use of quality improvement tools and resources for monitoring and enhancing delivery of best practice care.
STAFF	Emotion/optimism PHC staff have strong intentions to provide best practice care, however they may feel unhappy, anxious or depressed about their work and may not be optimistic about the future. Comments from respondents suggested that staff anxiety is often due to workforce shortages and the burden of attending to acute presentations. Skills regarding provision of best practice chronic illness care • Capability of staff to work effectively in teams; • Staff ability to apply the principles of patient centred care; • Ability of practitioners to apply the principles of client self-management as relevant to chronic illness care; • Staff ability to apply the principles of population health.

Phase 3 – Strategies to address the evidence-practice gaps

In the third phase, we presented a brief synthesis of published evidence on improving the quality of Aboriginal and Torres Strait Islander PHC to stimulate feedback on strategies to overcome the identified barriers and enablers. Approximately 80 respondents provided input on new or refined strategies to address the most common barriers and enablers across all priority evidence-practice gaps. These key points from stakeholder feedback on strategies are summarised under four themes:

1. Enhance provision of holistic care through integration of services, increased resourcing and targeted staff recruitment, induction, training and mentoring programs.

The need for a stable qualified workforce prompted many suggestions on how to improve retention, such as introducing workforce turnover as a key performance indicator, mentoring programs and improving community infrastructure (housing). There is a lack of a comprehensive focus in the current system of care, with staff delivering on immediate needs, without consideration of the “bigger picture” of a patient’s health. Strategies to address this included: improving training and induction programs to increase skills in all areas of chronic illness care, developing comprehensive, clear jurisdictional guidelines for health professionals in provision of chronic illness care and improving integration across service providers.

2. Provide more resources to recruit and retain AHWs/ATSIHPs including development of career pathways in chronic disease management.

The need to provide targeted support and development for AHWs/ATSIHPs in the delivery of comprehensive care such as the establishment of career pathways for AHWs/ATSIHPs that shift their roles from acute to comprehensive care.

3. Develop systems to enhance community involvement.

There is a need for greater community involvement including participation in the development of a holistic service delivery framework (with key deliverables) that aligns with Closing the Gap and community needs.

4. Increase management involvement in CQI processes.

There is a need to address barriers at higher levels within the system. Specific suggestions included increasing management involvement in CQI processes to guide their decision-making and ensure consistent development of quality within the organisation. This would enhance the ability of management to work together with clinicians and staff to implement strategies.

Suggested actions by stakeholders to assist with implementation of these strategies focused on sharing information for broader system learning. This included sharing evidence from aggregated data to advocate and guide regional level CQI activity; work across other jurisdictions to share knowledge and experience; investigate opportunities to integrate findings with other quality improvement initiatives; and acting as mentors for other staff.

Many of the suggested strategies are relevant to a number of the identified barriers and enablers, rather than being specific to particular barriers or enablers. In developing strategies for overcoming the barriers it will be important to ensure the more general strategies do include a focus on overcoming the specific identified barriers and strengthening specific enablers, rather than being too diffuse.

Next steps

System-wide change is required to address the priority evidence-practice gaps in Aboriginal and Torres Strait Islander chronic illness care through targeted strategies. The ESP process has enabled key people working within the Aboriginal and Torres Strait Islander health sector to reflect on aggregate data reports and collated their views on priority evidence-practice gaps, barriers and enablers, and strategies for improvement. Further work is required to ensure the detailed design of strategies is based on published evidence and local expert knowledge of approaches that support effective interventions for improving the quality of chronic illness care for Aboriginal and Torres Strait Islander people.

The main purpose of the ESP Project was to engage a variety of stakeholders in the use of aggregate CQI data and to stimulate wide discussion on the key areas requiring improvement and how best to achieve that improvement. The suggested strategies could provide the basis for continuing dialogue to address the most common barriers across the agreed priority evidence-practice gaps in chronic illness care. Through such dialogue, policy makers, managers, community-controlled organisations and government health authorities, peak bodies, clinical leaders, researchers, PHC staff and CQI practitioners can ensure that the detailed design of strategies address local contextual and organisational considerations.

The aggregated data and collated views and ideas provide a basis for stakeholders to continue to work collaboratively across regions and jurisdictions to share knowledge and experience, as strategies are put into action and evaluated.

We encourage stakeholders to utilise this Final Report, along with the aggregate CQI data, to implement and advocate for change at local, organisational, regional and national levels.

2. Priority Evidence-Practice Gaps and Stakeholder Views on Barriers and Strategies for Improvement in Chronic Illness Care

Background

ABCD National Research Partnership/One21seventy

The ABCD National Research Partnership (the Partnership) and One21seventy, the National Centre for Quality Improvement on Indigenous Primary Health Care*, are founded on the premise that a holistic or comprehensive approach to primary health care (PHC) is fundamental to an effective health system. The One21seventy clinical audit and systems assessment tools are developed by expert reference groups and are based on widely accepted evidence-based guidelines that reflect best practice across the scope of chronic illness care. These tools have to date been used by more than 200 Aboriginal and Torres Strait Islander PHC centres across the country. Automated reports are provided routinely to health centres and managers comprising their service level audit data as well as relevant regional or state comparison data to support local and regional level CQI efforts. Appendix A provides more information about the One21seventy data collection process.

One hundred and seventy of these PHC centres have agreed to allow their data to be used to address the aims of the Partnership, including improving understanding of barriers and enablers to high quality care, and informing development of strategies for improvement. The 'Engaging Stakeholders in Identifying Priority Evidence-Practice Gaps and Strategies for Improvement' (ESP) Project contributes to this process, increasing understanding and use of national aggregate CQI data for achieving wider system change. The establishment of this growing dataset has been made possible by the active contributions of health centre staff, continuous quality improvement (CQI) facilitators, managers, policy makers, community-controlled organisations and government health authorities, researchers and clinical leaders. Their ongoing contributions are vital to making the most effective use of data for improving the quality of care for Aboriginal and Torres Strait Islander people across Australia.

Large-scale health system strengthening

Large-scale improvement in the delivery of PHC requires change at multiple levels of the health system, not only at the local health centre level. Where aspects of care are not being done well across a range of health centres, this is likely to be due to inadequacies in the broader PHC delivery system. These broader systems therefore directly impact health care and health outcomes for Aboriginal and Torres Strait Islander people. Improvements to systems should be based on evidence about what is working well and what service gaps need to be addressed. Aggregated CQI data can contribute to this evidence.

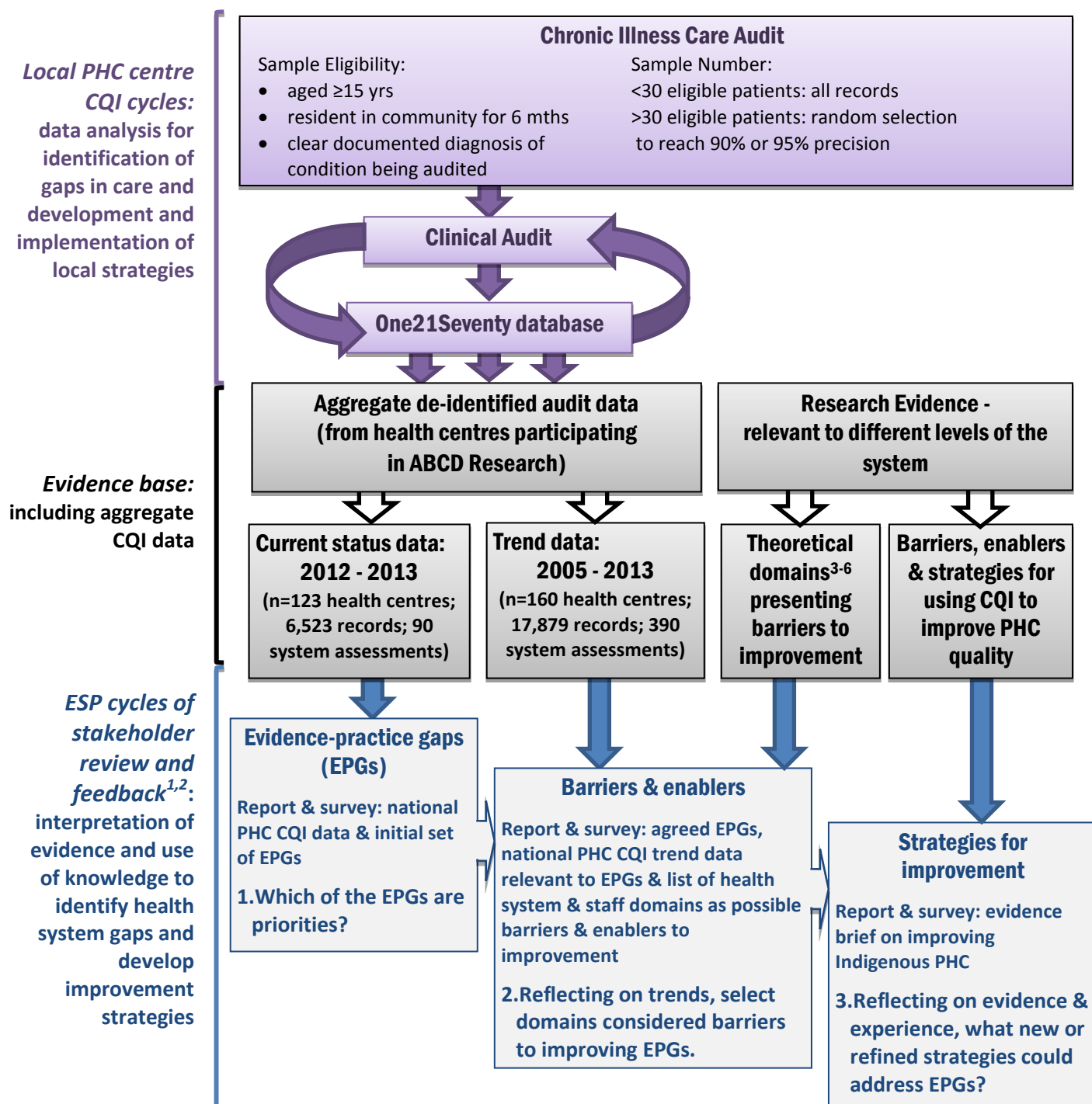
Engaging stakeholders in identifying priority evidence-practice gaps and strategies for improvement

The ESP Project is a major initiative of the Partnership, and is consistent with the purpose of supporting development of the health system to provide high quality comprehensive primary healthcare on a wide-scale. It explores how aggregated CQI data can be used across the broader health system to: 1) identify evidence-practice gaps; 2) identify barriers and enablers to addressing these evidence-practice gaps; and 3) support development of system-wide strategies for improvement. This phased approach has been adapted from systematic methods designed to link interventions to modifiable barriers to address evidence-practice gaps^{1,2}. As part of their approach, French and colleagues utilised previously tested theoretical domains relevant to behaviour change of healthcare

* For more information on the ABCD Partnership Project: <<http://www.menzies.edu.au/abcd>>. For more information about One21seventy: <<http://www.one21seventy.org.au/>>.

professionals to identify barriers that should be addressed by intervention strategies^{1,3,4}. In recognition that there are multiple barriers at different levels of the health system, the ESP Project has drawn on other research to include additional detail on system factors relevant to the Aboriginal and Torres Strait Islander PHC sector^{2,5,6} (Figure 2). For more information about the ESP process, see Appendix B.

Figure 2: Use of aggregated CQI data for stakeholder identification of system wide evidence-practice gaps and strategies for improvement.



Aboriginal and Torres Strait Islander Chronic Illness Care

From 2005 to 2013, 160 PHC centres in five States/Territories conducted One21seventy quality improvement audits for patients with chronic conditions. Almost 18,000 clinical records were audited over this period and 82% were those of Aboriginal or Torres Strait Islander patients. A patient's health record was eligible for inclusion if: there was a clear, documented diagnosis of Type 2 diabetes, coronary heart disease, chronic heart failure, chronic kidney disease or hypertension; they were 15 years or older; and were resident in the community for six months or more in the last twelve months. Appendix A provides further information on audit sampling methods.

Stakeholder engagement

The ESP process for Aboriginal and Torres Strait Islander chronic illness care began in March 2014. Our aim was to circulate reports as widely as possible to engage a variety of stakeholders in the use and interpretation of aggregate data on the quality of chronic illness care. We adopted a snowballing distribution technique, whereby key stakeholders were requested to forward reports on to other interested people. Our purpose was to draw on stakeholder knowledge and experience to identify priority evidence-practice gaps, barriers and enablers to improvement and gather views on strategies to address the gaps.

Over 350 responses were received through online surveys over the course of the project (Table 3). Organisations represented included community controlled and government sector PHC organisations, general practice and Medicare Locals, non-government and community organisations and research institutions. Respondents included practitioners, managers, policy-makers, researchers, Board and community members (Appendix C).

Table 3: Level of engagement in the chronic illness care ESP Project.

(N= Approximate number of stakeholder responses)		Phase 1 (n=201)		Phase 2 (n=60)		Phase 3 (n=73)		Review of draft final report (n=50)	
Number of survey responses		Individual	Group	Individual	Group	Individual	Group	Individual	Group
		45	10	11	4	15	3	17	6
Number of attendees per group:	Less than 5		1		1				3 (10)
	5 to 10		2		1		1 (8)		3 (23)
	11 to 20						1 (20)		
	More than 20		7		2		1 (30)		
Jurisdictions of interest for respondents#									
National		5		1		2		4	
NSW		1		1		0		0	
Queensland		22		3		4		6	
NT		25		10		8		12	
SA		5		1		4		6	
WA		0		0		0		1	

Numbers may not tally with total number of respondents, as respondents were able to select multiple answers and groups may have selected a jurisdiction collectively.

Phase 1: Identifying priority evidence-practice gaps

In the first phase, to assist stakeholders to identify priority evidence-practice gaps, we presented recent national audit data (2012-2013) for over 80 indicators of quality across the scope of clinical practice for Type 2 diabetes, chronic kidney disease (CKD), coronary heart disease (CHD), chronic heart failure (CHF) and hypertension (based on national and jurisdictional guidelines). Across all chronic conditions, a total of 6,523 records were included in this analysis from 123 health centres.

The national data showed some health centres were doing very well in various aspects of chronic illness care. However, a number of aspects of care were not being consistently recorded in some health centres. These gaps in recording of delivery of evidence-based care were summarised into a preliminary set of priorities using the following criteria:

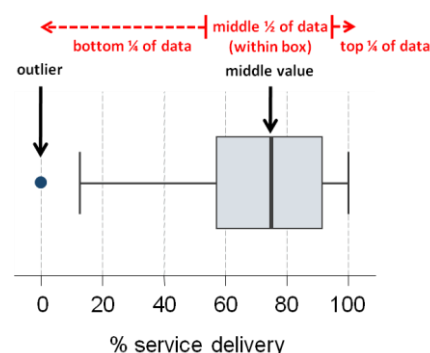
- a) important aspects of comprehensive PHC that were generally recorded at low levels;
- b) aspects of care in which there was wide variation in recorded delivery of care;
- c) basic aspects of clinical care that were being delivered and recorded at a high level of performance by the majority of services, but delivered and recorded at a much lower level by a proportion of services; and
- d) components of PHC centre systems that were relatively poorly developed.

The data and preliminary priorities were circulated to key stakeholders in a Phase 1 report (see Data Supplement to this report [here](#) or upon request from abcd@menzies.edu.au). The data were presented as boxplots to show distribution of performance across health centres (Figure 3).

Figure 3: How to read boxplots representing service delivery in 2012-2013

Box and whisker plots show:

- minimum and maximum values (ends of whiskers if no outliers);
- outliers which are values far away from most other values in the data set (or a distance that is greater than 1.5 times the length of the box);
- range of delivery by dividing the dataset into quarters:
 - the box represents the middle 50% of the dataset, and the line within the box represents the median (or middle value);
 - the right hand whisker (and outliers if present) represents the top 25% of the data
 - the left hand whisker (and outliers if present) represents the bottom 25% of the data; and
- the longer the boxplot, the greater the range (or variation).



The report was accompanied by an online survey that asked respondents to comment on the importance of each of the preliminary priorities; whether the number of priorities was about right, too many or too few; whether they aligned with priorities they were already aware of; and whether other priorities should be included. Approximately 200 people provided input into the identification of priority evidence-practice gaps. The priority evidence-practice gaps, as confirmed by respondents, are shown below with relevant indicators from the Phase 1 report.

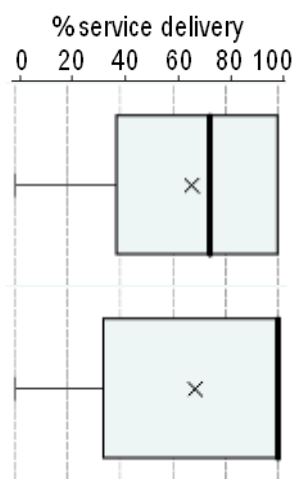
1. Follow-up of abnormal findings and review of medication (90% of survey respondents regarded this as a priority area)

- Strengthen attention to regular monitoring of HbA1c, with particular attention to improving monitoring in these health centres with relatively low levels of monitoring (T2D).
- Strengthen attention to review and appropriate adjustment of medication for patients with a recent abnormal HbA1c result.
- Strengthen attention to documenting plans for follow-up, and of review and appropriate adjustment of medication for patients with a recent abnormal total cholesterol/HDL result, for all patients with T2D, CKD, CHD, HT and CHF.
- Improve documentation and implementation of follow-up plans and review and adjustment of medications for people with recent high BP readings, especially for people with CKD, CHD, HT, and CHF.

Indicators from Phase 1 report (n=health centres; patient records)

If BP abnormal, record of follow-up plan for patients with hypertension (n=52; 696)

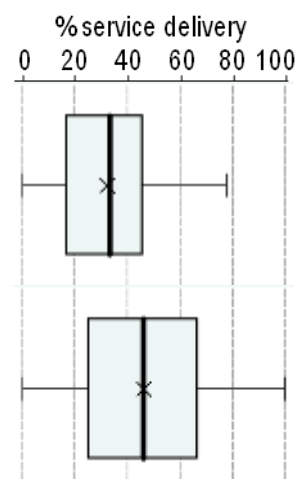
If abnormal cholesterol/HDL ratio, record of a plan for follow-up for patients with CHD (n=37; 142)



Indicators from Phase 1 report (n=health centres; patient records)

If abnormal HbA1c, record of medication adjustment for patients with T2D (n=122; 2,285)

If abnormal HbA1c, record of medication review but not adjusted for patients with T2D (n=122; 1,534)



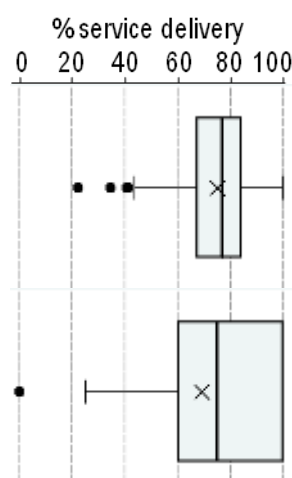
2. Adherence to evidence based current treatment guidelines (>85% of survey respondents regarded this as a priority area)

- Strengthen efforts to encourage practitioners to adhere to evidence-based treatment guidelines, with particular attention to health centres where prescribing patterns are outside the usual range of use of specific medications, and to 'cornerstone' medications for management of specific conditions (e.g. metformin or insulin for type 2 diabetes).
- Strengthen efforts to encourage adherence to evidence-based treatment guidelines for patients with CKD, CHD, HT and CHF.

Indicators from Phase 1 report (n=health centres; patient records)

Metformin for patients with T2D (n=122; 3,762)

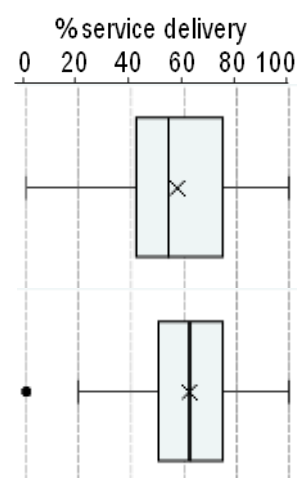
Lipid lowering drugs for patients with CHD (n=50; 626)



Indicators from Phase 1 report (n=health centres; patient records)

Angiotensin converting enzyme (ACE) inhibitor drugs for patients with hypertension (n=55; 1,180)

Angiotensin converting enzyme (ACE) inhibitor drugs for patients with CKD (n=55; 728)



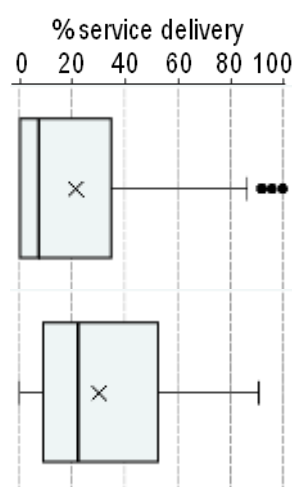
3. Emotional wellbeing assessment and provision of support (>85% of survey respondents regarded this as a priority area)

- Enhance capability and consistency across PHC services in assessment and support regarding emotional wellbeing for patients with chronic conditions.

Indicators from Phase 1 report (n=health centres; patient records)

Record of emotional wellbeing screening using standard tool for patients with T2D (n=122; 3,762)

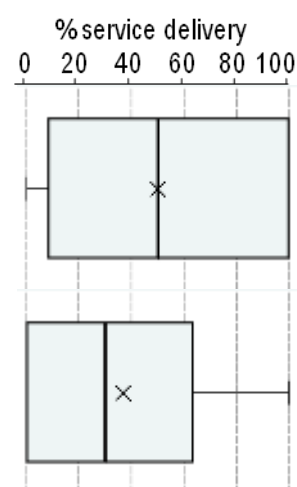
If standard tool not used, record of discussion about emotional wellbeing for patients with T2D (n=119; 2,951)



Indicators from Phase 1 report (n=health centres; patient records)

Record of referral to external service (within 3 months of recorded concern) for patients with T2D (n=76; 284)

Record of counselling (within 3 months of recorded concern) for patients with T2D (n=76; 284)



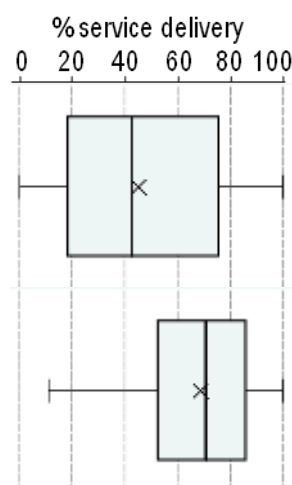
4. Recording of risk factors and provision of advice on risks to health (80% of respondents regarded this as a priority area)

- Strengthen efforts to monitor and promote healthy weight across the service population, including through increasing attention to monitoring waist circumference and BMI in all adults attending for care, especially those with chronic conditions.
- Increase use of absolute cardiovascular risk assessment.
- Improve delivery and recording of brief interventions in health centres at the lower end of the range in order to maximise coverage of good quality care in all communities.
- Improve referral of smokers for support through quit programs. In particular, address the relatively low levels of referral for patients with CKD, CHD, HT, and CHF compared to those with T2D. This is a relatively accessible and cost-effective intervention for this important risk factor.

Indicators from Phase 1 report (n=health centres; patient records)

Waist circumference (within 6 months) for patients with T2D (n=122; 3,553)

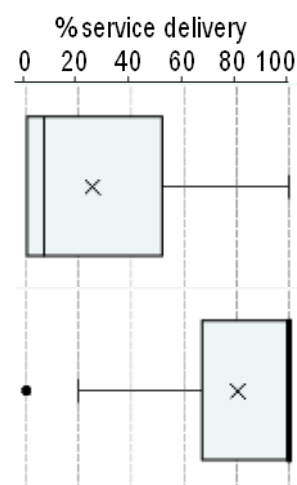
Physical activity brief intervention for patients with T2D (n=122; 3,762)



Indicators from Phase 1 report (n=health centres; patient records)

Absolute cardiovascular risk assessment for patients with T2D (n=122; 3,680)

Brief intervention for tobacco use for patients with hypertension (n=46; 262)

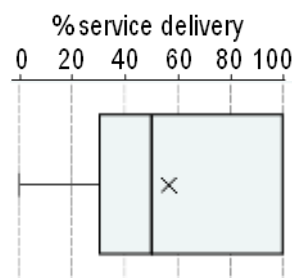


5. Adult vaccinations (around 70% regarded this as a priority area)

- Improve coverage of adult vaccinations, especially for people with CKD, CHD, and HT.

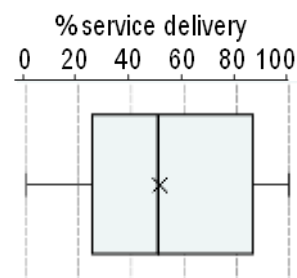
Indicators from Phase 1 report (n=health centres; patient records)

Influenza vaccination for patients with CHD (n=50; 626)



Indicators from Phase 1 report (n=health centres; patient records)

Pneumococcal vaccination for patients with CKD (n=55; 730)

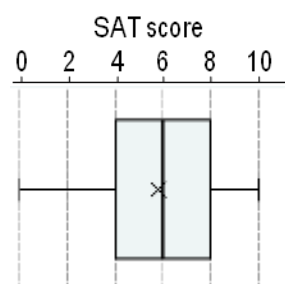


6. Health centre systems to support high quality care (85% regarded this as a priority area)

- Strengthen systems for more effective links between health centres and communities, other health services and other resources.

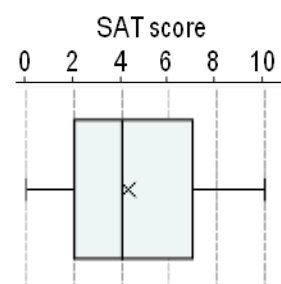
Indicators from Phase 1 report (n=health centres that completed systems assessment)

Working out in the community (n=90)



Indicators from Phase 1 report (n=health centres that completed systems assessment)

Communication and cooperation on regional health planning and development of health resources (n=90)

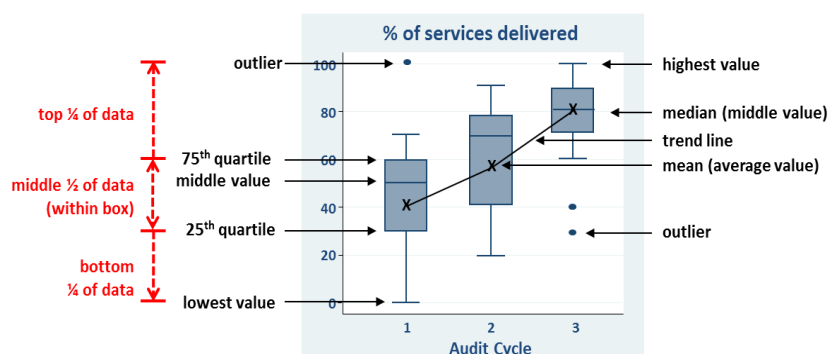


Around 95% of respondents stated that the evidence-practice gaps highlighted in Phase 1 were consistent with their views prior to reading the report. Most respondents (67%) indicated that the priority evidence-practice gaps for their State/Territory would be the same as those arising from the national data. Others suggested there would be different regional priorities due to the diversity of contexts across locations. For example, there would be differing priorities for local populations with higher rates of rheumatic heart disease or mental health issues and that local/regional data should be used to identify local priorities. Local and regional data are available for this important purpose through the One21seventy automated reporting processes. We emphasise that the focus of the ESP process is on broader system priorities – which may include the need to strengthen local and regional quality improvement systems.

Phase 2: Identifying barriers and enablers to addressing the priority evidence–practice gaps

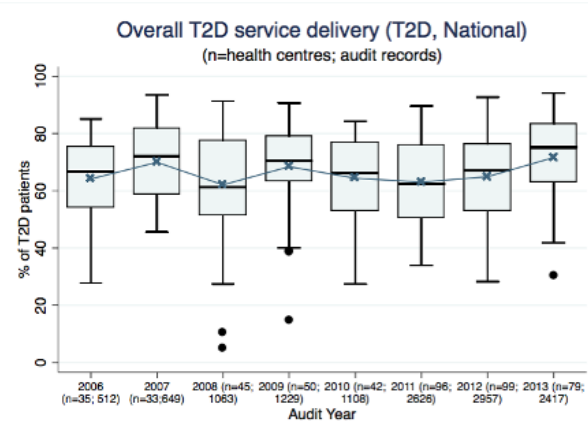
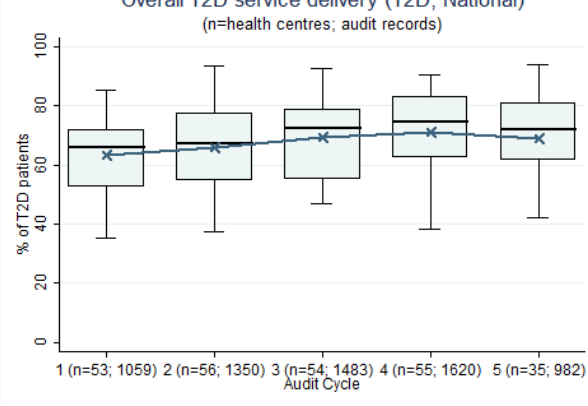
In the second phase, we presented trend audit data (2005-2013: 17,879 audited records of patients with chronic illness from 160 health centres) in boxplots to examine variation over time in key indicators relevant to the priority evidence-practice gaps (Figure 4). We asked

Figure 4: How to read trend boxplots over years and cycles



respondents to focus on the trends in general over time, particularly whether the variation between health centres was getting less, and whether there was improvement for health centres at the lower end of the range. Table 4 summarises the trend data presented in the Phase 2 report (see [Data Supplement](#)).

Table 4: Trends in key indicators of the priority evidence-practice gaps.

Over years 2005-2013 • Evidence of improvement for emotional wellbeing screening and documentation of follow-up plan for abnormal BP results. • Some but not consistent evidence of improvement in overall chronic illness care delivery, medication prescriptions and medication review following abnormal findings, and influenza and pneumococcal vaccinations. • No evidence of improvement for six monthly HbA1c checks, emotional wellbeing support, risk factor recording, provision of brief interventions and health centre systems supporting quality of care. • No clear reduction in variation for almost all indicators, with evidence that in some health centres a large proportion of patients with a chronic illness have minimal record of having received key aspects of best practice care.	Example indicator from Phase 2 report Overall T2D Care* 
Over at least three audit cycles • Consistent evidence of improvement over successive audit cycles for overall chronic illness care, follow-up of abnormal findings, emotional wellbeing screen, risk factor recording, brief interventions and health centre systems supporting quality of care. • No clear evidence of improvement over successive cycles for six monthly HbA1c checks, medication prescription, emotional wellbeing support and adult vaccinations. • Some evidence of reduction in variation for overall chronic illness care, medication prescriptions and medication review following abnormal findings, brief interventions and health centre systems. • No clear reduction in variation for most indicators, including six monthly HbA1c checks, documentation of follow-up plan for abnormal BP, emotional wellbeing screening and support, risk factor recording and adult vaccinations.	Overall T2D Care* 

We encouraged stakeholders to reflect on the influences underlying the data trends, and on their experience in PHC, to identify barriers and enablers to improvement. To assist this process, the Phase 2 report survey listed health centre, system and staff domains drawn from international and national research^{3,5,6} that could present potential obstacles to

* Composite indicators include up to 22 best practice indicators present in the T2D audit tool: current chronic disease management plan, chronic disease management/medication discussion, influenza and pneumococcal vaccination, weight and waist circumference (within 6 months), BMI, blood pressure (within 6 months), visual acuity, dilated eye check, feet check, nutrition and physical activity advice, HbA1c (within 6 months), ACR, eGFR, full lipid profile, total cholesterol, tobacco and alcohol use with brief intervention/s if required.

improvement. Respondents were asked to rate each domain according to its relative importance in improving each of the priority evidence-practice gaps. Approximately 60 to 70 stakeholders provided input, representing the community controlled and government health sectors, general practice and research organisations. Roles represented included nurses, doctors, public health physicians, policy officers, middle and senior management, researchers, Aboriginal and Torres Strait Islander health practitioners and CQI facilitators.

To achieve improvement in overall chronic illness care, health centre and system attributes were considered of greater (45% of respondents) or at least equal (33%) importance compared to staff attributes.

In relation to respondent assessment of current health centre systems, the areas with the greatest impact on quality of care are listed below.

Community capacity, engagement and mobilisation

Between 65 and 70% of respondents indicated that there are insufficient systems in place to:

- increase the expectation of community members with regard to best practice care;
- strengthen community leadership for quality;
- enhance the health literacy of community members; and
- build capability and support PHC staff to develop effective links to work in partnership with the community.

Staffing/workforce support, recruitment and retention

Around 67% of respondents indicated that there are insufficient systems in place to ensure PHC staff have support from experienced staff, especially when health centres are affected by staff turnover and shortages.

A similar level of respondents also disagreed that PHC centres generally have adequate staff numbers. In terms of staff roles, 79% strongly or partly disagreed that there were adequate numbers of AHW/ATSIHPs followed by allied health workers (60%), administration staff (60%) and doctors (53%). In terms of support systems for recruitment and retention, 67% of respondents indicated these were inadequate for AHW/ATSIHPs, doctors and nurses (60%) and allied health professionals (53%).

Respondents commented that lack of staffing and high turnover are considerable barriers to providing best practice care. Within the remote context, staff recruitment was seen by stakeholders to be focused on applicants having emergency/acute backgrounds, with limited attention to staff capability to deliver chronic illness care programs. Respondents also indicated that use of short term contracts do not facilitate long term engagement and commitment by staff and places additional burden on permanent staff to provide orientation and training. This in turn contributes to inadequate chronic illness care and staff burnout.

Training and development

A majority of respondents indicated that there are insufficient systems to support inter-organisational and intra-organisational learning (67%) and staff development, including the development of knowledge and skills (53%). Respondents identified the following priority areas for staff training: patient centred care (67%); how to work effectively in teams (60%); principles of client self-management as relevant to chronic illness care (60%); and principles of population health (53%).

Having good systems for staff development may improve retention and quality of care. However, respondents noted that high workloads and staff shortages mean staff have insufficient time to undergo training.

Patient-centred care

A majority of respondents indicated there are inadequate systems to support all members of the PHC team to:

- understand the needs and aspirations of Aboriginal and Torres Strait Islander communities (60%); and
- provide care that is respectful of and responsive to individual patient preferences, needs and values and that patient values guide all clinical decisions (53%).

Management support for quality improvement systems

Sixty-seven percent of respondents indicated that managers are insufficiently trained to support effective use of quality improvement tools and resources for monitoring and enhancing delivery of best practice care. In addition, 60% strongly or partly disagreed that managers provide clear and appropriate support for staff to use quality improvement tools and resources.

Attributes of staff considered the main barriers and enablers

In relation to respondent assessment of staff attributes, the areas with the greatest impact on quality of care are skills and knowledge, emotion/optimism and beliefs about consequences.

The majority of respondents indicated that PHC staff have the confidence and strong intentions to provide best practice care. However, close to 100% of respondents indicated that PHC staff occasionally or often feel unhappy, anxious or depressed about their work in providing chronic illness care for Aboriginal and Torres Strait Islander people and 53% disagreed that staff are optimistic about achieving desired goals. Qualitative comments suggest the anxiety of staff is due to workforce shortages and the requirement to prioritise acute presentations. There is, therefore, insufficient time available for provision of best practice chronic disease care. As stated by a survey respondent, resourcing uncertainty can lead to staff feeling *'always on edge about the future and this transfers into care provision'*.

Even though 87% of respondents indicated that PHC staff believe provision of best practice chronic illness care will have benefits for the general health of the Aboriginal and Torres Strait Islander population, 47% of respondents believe it will present some disadvantages for their relationships with Aboriginal and Torres Strait Islander people. A respondent offered some insight into this finding commenting that patient expectation can be a barrier to provision of best practice care, that is, patients attending for acute injury may not wish to discuss management of chronic conditions. If patients are not engaged, it can be 'a long drawn out process' to try to provide all components of best practice care.

Forty-three percent of respondents strongly or partly disagreed that PHC staff have the skills to provide best practice chronic illness care. This may be a consequence of the view of respondents regarding inadequacy of training and staff development systems.

For each priority evidence-practice gap, respondents were asked to identify up to three domains where lack of capability in health centres presents the greatest barriers and enablers to addressing the gaps. Table 5 lists the top three or four health centre and system attributes and staff attributes as nominated by respondents against each priority evidence-practice gap. Further detail on the Phase 2 survey findings are provided in Appendix D.

Table 5: Attributes most important to each priority evidence-practice gap (% of respondents)

Phase 1	Phase 2 Identification of main barriers and enablers	
Priority evidence-practice gaps	Health centre and system attributes	Staff attributes
Follow-up of abnormal findings and review of medication	• Staffing/workforce (85%) Adequate staff numbers • Teamwork (62%) Staff function effectively in teams & are clear about their roles • Staff/ workforce support, recruitment and retention (54%) Good system to recruit, retain & support staff. • Clinical information systems (54%) Clinical information systems function to support best practice care. Staff trained to effectively use systems.	• Knowledge (46%) Staff know how to provide best practice care. • Skills (38%) Staff have the skills to provide best practice care. • Beliefs about consequences (38%) Impact of provision of best practice care on population health and relationships with Aboriginal & Torres Strait Islander people.
Adherence to evidence-based current treatment guidelines in relation to medication prescriptions	• Training and development (69%) Good systems to support inter- & intra-organisational learning and staff development. • Staff/ workforce support, recruitment and retention (62%) • Staffing/workforce (54%) • Decision support (54%) Best practice guidelines & other decision support resources are available & staff trained to use them.	• Knowledge (85%) • Skills (46%) • Beliefs about capabilities (38%) Staff confident in ability to provide best practice care. • Social/professional role and identity (38%) Staff recognise it is their professional responsibility to provide best practice care.
Emotional wellbeing assessment and provision of support	• Staffing/workforce (54%) • Patient-centred care (54%) Staff providing care that is respectful & responsive to patient preferences. • Training and development (54%)	• Beliefs about capabilities (54%) • Knowledge (46%) • Skills (38%) • Emotion (38%) How staff feel about their work in providing best practice care.
Recording of risk factors and provision of advice on risks to health	• Training and development (46%) • Staff/ workforce support, recruitment and retention (46%) • Clinical information systems (38%)	• Skills (54%) • Beliefs about consequences (46%) • Knowledge (38%)
Adult vaccinations	• Staff/ workforce support, recruitment and retention (46%) • Training and development (31%)	• Knowledge (62%) • Beliefs about consequences (38%)
Health centre systems	• Financing and resources (77%) Sufficient financial support to support best practice in chronic illness care. • Staff/ workforce support, recruitment and retention (62%) • Staffing/workforce (54%) • Clinical information systems (54%) • Leadership and management (54%) Good clinical & management leadership for supporting best practice, including development of networks for regional coordination.	• Skills (54%) • Knowledge (46%) • Social/professional role and identity (46%) • Beliefs about capabilities (38%)

Phase 3: Strategies for addressing the priority evidence-practice gaps

In the third phase, we presented a brief synthesis of published evidence on improving the quality of Aboriginal and Torres Strait Islander PHC (Appendix E). The purpose of this 'evidence brief' was to stimulate feedback on strategies to overcome the identified barriers and enablers from Phase 2. Stakeholders considered the information and completed questions in the Phase 3 survey about how existing strategies could be refined, or new strategies developed, in order to build on current strengths and enablers in the system and overcome the main barriers to addressing the priority evidence-practice gaps.

Approximately 70 people responded to the phase 3 survey. The majority of respondents agreed that the health centre, systems and staff attributes identified in Phase 2 were a fair reflection of the main barriers and enablers.

Strategies for improvement relevant to all priority evidence-practice gaps in chronic illness care

Respondents proposed the following strategies to address the most common barriers and enablers identified from Phase 2 that apply to all priority evidence-practice gaps.

1. Enhance provision of holistic care through integration of services, increased resourcing and targeted staff recruitment, induction, training and mentoring programs.

The need for a stable qualified workforce was the focus of many comments from stakeholders, with one respondent commenting that staff turnover is a 'killer' for quality systems. There were many suggestions on how to improve retention, such as introducing workforce turnover as a key performance indicator, mentoring programs and improving community infrastructure. Many comments revolved around the lack of attention to comprehensive care in the current system, with staff reacting to immediate needs ("whatever pops up on the computer as prompts"), without consideration of the "bigger picture" of a patient's health. Strategies suggested include: improve training and induction programs to increase skills in all areas of chronic illness care, develop comprehensive, clear jurisdictional guidelines for health professionals in provision of chronic illness care and improve integration across service providers.

2. Provide more resources to recruit and retain AHWs/ATSIHPs including development of career pathways in chronic disease management.

Several respondents commented on the need to provide targeted support and development for AHWs/ATSIHPs in the delivery of comprehensive care. A respondent suggested the establishment of a career pathway for AHWs/ATSIHPs to shift their role from acute care to "preventive health checks, a team role in chronic conditions care (regular checks and adherence monitoring), care navigation through specialist review and a lead role in health coaching and culturally congruent self-management".

3. Develop systems to enhance community involvement.

Several respondents recognised the need for greater community involvement, including participation in the development of a holistic service delivery framework (with key deliverables) that aligns with Closing the Gap and community needs.

4. Increase management involvement in CQI processes.

Respondents recognised the need to address barriers at higher levels within the system. Suggestions were to increase management involvement in CQI processes and use of CQI data to guide their decision-making processes and ensure a more consistent development of quality within the organisation. This would enhance the ability of management to work together with clinicians and staff to address identified barriers and foster enablers of high quality care.

Many of the suggested strategies are relevant to a number of the identified barriers and enablers, rather than being specific to particular barriers or enablers. In developing strategies for overcoming the barriers it will be important to ensure the more general strategies include a focus on overcoming the specific identified barriers and strengthening specific enablers, rather than being too diffuse.

Strategies to address specific priority evidence-practice gaps are presented in Table 6 below.

Additional strategies to overcome barriers and enhance enablers specific to priority evidence-practice gaps

Respondents proposed the following new or refined strategies to build on enablers and overcome barriers to addressing each of the priority-evidence practice gaps in chronic illness care (Table 6).

Table 6: Summary of new or refined strategies and associated actions to address specific gaps in Aboriginal and Torres Strait Islander chronic illness care.

Phase 1 - Priority evidence-practice gaps / priorities for improvement	Phase 2 – Key barriers & enablers to improvement in priority areas		Phase 3 – New or refined strategies to overcome barriers & strengthen enablers
	<i>Health centre and system attributes</i>	<i>Staff attributes</i>	
Follow-up of abnormal findings & review of medication - Strengthen regular monitoring of HbA1c - Strengthen attention to review and appropriate adjustment of medication for patients with a recent abnormal HbA1c result, and documentation of review and adjustment of medication - Strengthen attention to documenting plans for follow-up, and of review and appropriate adjustment of medication for patients with a recent abnormal total cholesterol/HDL or BP result	- Staffing/workforce, support, recruitment & retention - Teamwork - Clinical information systems and communication technology	- Knowledge - Skills - Beliefs about consequences	- Appoint dedicated staff member to review charts and discuss and negotiate with clinical staff on the ground - Further development of decision support mechanisms within clinical information systems - Further development and use of data reporting systems (including, for example, dispensing of medications) and training of staff to make better use of functional reporting - Include in induction programs and implement 'shadowing' techniques where team members have the opportunity to buddy with others to become aware of what each other do and the impact of their work on others

Phase 1 - Priority evidence-practice gaps / priorities for improvement	Phase 2 – Key barriers & enablers to improvement in priority areas <i>Health centre and system attributes Staff attributes</i>		Phase 3 – New or refined strategies to overcome barriers & strengthen enablers
Adherence to evidence based current treatment (medication) guidelines Strengthen efforts to encourage practitioners to adhere to evidence-based treatment guidelines, with particular attention to health centres where prescribing patterns are outside the usual range of use of specific medications, and to ‘cornerstone’ medications for management of specific conditions (e.g. metformin or insulin for type 2 diabetes)	- Training and development - Staff / workforce support, recruitment and retention - Decision support	- Knowledge - Skills - Beliefs about capabilities - Social/professional role and identity	- Facilitate access to and promote use of evidence-based guidelines, regular updates and other available resources - Encourage staff and managers to review reports on patterns of prescription of medications in relation to evidence-based guidelines - Address speed of information technology systems so health professionals can easily access resources - Improve patient education and ‘compliance’ to medications
Emotional wellbeing assessment & support Enhance capability and consistency across PHC services in assessment and support regarding emotional wellbeing	- Staffing/workforce - Patient-centred care - Training and development	- Beliefs about capabilities - Knowledge - Skills - Emotion	- Management to support staff by agreeing a time allocation for emotional wellbeing assessment and monitor implementation of this approach - Increase available mental health support services, particularly in remote communities - Adapt emotional wellbeing programs to particular communities and involve community in delivery - Implement regular, ongoing patient feedback systems

Phase 1 - Priority evidence-practice gaps / priorities for improvement	Phase 2 – Key barriers & enablers to improvement in priority areas <i>Health centre and system attributes Staff attributes</i>		Phase 3 – New or refined strategies to overcome barriers & strengthen enablers
Recording of risk factors & provision of advice - Strengthen efforts to monitor and promote healthy weight across the service population, including through increasing attention to monitoring waist circumference and BMI - Increase use of absolute cardiovascular risk assessment - Explore appropriate approaches to identification and assessment of illicit drug use as a risk factor for vascular and metabolic conditions - Improve delivery and recording of brief interventions in health centres at the lower end of the range in order to maximise coverage of good quality care in all communities. - Improve referral of smokers for support through quit programs	- Training and development - Staff / workforce support, recruitment and retention - Clinical information systems and communication technology	- Skills - Beliefs about capabilities - Knowledge	- Undertake skills assessment, identification of training to meet gaps - Develop culturally appropriate consumer information on risks to health and use real life narratives/examples - Make risk factor discussions a key component of a 'revamped' AHW/ATSIHP role - Improve clinical information systems to facilitate risk factor assessments and integrate information systems across multiple service providers
Adult vaccinations Improve coverage of adult vaccinations, especially for people with CKD, CHD, and HT	- Staff / workforce support, recruitment and retention - Training and development	- Knowledge - Beliefs about consequences	- Ensure staff are accredited to conduct vaccinations - Improve access to training including short education sessions using different delivery techniques to improve staff knowledge - Increase decision support tools for vaccination - Improve integration of information systems for sharing vaccination records

Phase 1 - Priority evidence-practice gaps / priorities for improvement	Phase 2 – Key barriers & enablers to improvement in priority areas <i>Health centre and system attributes Staff attributes</i>		Phase 3 – New or refined strategies to overcome barriers & strengthen enablers
Health centre systems to support high quality care Strengthen systems for more effective links between health centres and communities, other health services and other resources	- Financing and resources - Staff / workforce support, recruitment and retention - Clinical information systems and communication technology - Leadership and management	- Skills - Knowledge - Social/professional role and identity - Beliefs about capabilities	- Improve human resource practices and workforce metrics using a CQI approach (data review) and increase accountability for performance outcomes - Facilitate and support inter-organisational placements as part of a staff mentoring system - Improve understanding of costs of remote service delivery - PHC service level planning of staff roles and responsibilities in chronic illness care to maximise efficient use of resources

Suggested actions by stakeholders to assist with implementation of these strategies focused on sharing information for broader system learning. This included sharing evidence from aggregated data to advocate and guide regional level CQI activity; work with other jurisdictions to share knowledge and experience; investigate opportunities to integrate findings with other quality improvement initiatives; and acting as mentors for other staff. Further information on strategies to address evidence-practice gaps is presented in Appendix F.

3. ESP Project strengths and limitations

The dataset used for the ESP Project is the most comprehensive and broad scale dataset relating to health centre performance available for Aboriginal and Torres Strait Islander chronic illness care. As stated, the aggregate CQI data are from around 18,000 clinical records of patients from multiple services across several jurisdictions, audited against best practice over multiple audit cycles. From this evidence base, stakeholders were able to identify current priority evidence-practice gaps. The majority of CQI data used in this report were drawn from two jurisdictions and most respondents over the three phases were responding on behalf of these two jurisdictions. However, in the first phase survey, 82% of respondents from the other jurisdictions indicated that the priority evidence-practice gaps for their State/Territory would be the same as those arising from the national data. Therefore, the priority evidence-practice gaps appear reasonably generalisable to a national level.

An open process was used to engage stakeholders, consistent with the principle that 'CQI is everybody's business'. Stakeholders could choose to participate in any or all project phases. However, the ESP project has relied, in part, on stakeholders sending reports to others, thus it has not been possible to accurately measure reach or response rates. Although the survey information from phases two and three may be of relatively limited generalisability, the data on barriers and enablers and on strategies for improvement are valuable in that they reflect tacit knowledge of front-line health workers and others working within the health system. In recognition that barriers exist across multiple levels of the health sector, we included questions on broader health centre and system determinants of performance^{5,6} into the Phase 2 survey. These additional questions on influences on quality of care have not been validated in the way that has been done for other questions covering the theoretical domains framework.

It will be important to ensure the detailed design of strategies is based on published evidence and local expert knowledge of approaches that support effective interventions for improving the quality of care for Aboriginal and Torres Strait Islander people with a chronic illness. It will also be important to evaluate the effectiveness of these strategies in a range of contexts. If intervention efforts are documented appropriately, use of this theory-based process will assist with developing the knowledge base of what works and in what contexts to improve chronic illness care for Aboriginal and Torres Strait Islander communities.

An iterative process was used to develop and refine reports through the project phases, with adjustments to content and presentation made over time in response to stakeholder feedback. A concurrent developmental evaluation is guiding ESP process improvements. Based on the evaluation, further refinements will be incorporated into future ESP Projects on other aspects of Aboriginal and Torres Strait Islander PHC, in an effort to improve engagement and use of reports.

4. Conclusions

To our knowledge, this is the first use of a large-scale aggregate CQI dataset beyond the regional level to enable a range of key stakeholders to identify priority gaps in delivery of best practice chronic illness care in Aboriginal and Torres Strait Islander communities. The main purpose of ESP was to engage a variety of stakeholders in the use of aggregate CQI data and to stimulate conversation on priority areas for improvement and how best to achieve improvement. Implementation research suggests that interventions to achieve improvement should be focussed on the key barriers and enablers of good performance, and that such interventions are more likely produce the desired change^{1,2}.

The major themes for improving Aboriginal and Torres Strait Islander chronic illness care focused on a re-orientation of the PHC system to enhance provision of holistic care. They included: appropriate resourcing for staff training, recruitment and retention; reorienting the roles of AHWs/ATSIHPs to chronic illness care; building systems to facilitate greater community involvement in PHC and increasing management involvement and ownership of local and regional CQI processes.

We encourage stakeholders to take on the key messages and utilise the report, along with the aggregate CQI data, to implement and advocate for change at the local, regional and national level.

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6. Wagner E, Austin B, Davis C, et al. A. (2001) Improving chronic illness care: translating evidence into action. *Health Affairs*. 20(6):64-78.

Appendix A: One21seventy data collection and reporting

Where do the data in this report come from? The report is based on analysis of audits of clinical records of clients with chronic illness who attend services that use One21seventy CQI tools AND participate in the ABCD National Research Partnership. The Vascular and Metabolic Syndrome Management (V&M) audit tool was developed by an expert working group, with participation of chronic illness experts and health service staff from a number of States and the Northern Territory. The tool is designed to enable services to assess their actual practice against best practice standards, and is accompanied by a protocol that includes reference to the guidelines and standards that form the basis of the tool. The audit data are supported by a summary of system performance as assessed by staff in health centres that completed a systems assessment tool (SAT) related to chronic illness service delivery. Copies of the One21seventy V&M Audit Tool and how the audits are conducted are available on request.

Who collects the audit and systems assessment data? The clinical audits are generally done by health centre staff, trained in the use of One21seventy tools and supported by quality improvement facilitators and One21seventy staff. In some centres where staff are not available or lack skills or confidence the audits are done by CQI facilitators. The Systems Assessment is completed by health centre staff in a process that is facilitated by a CQI facilitator.

How do health centres use the data? The data collected through One21seventy CQI tools and entered into the One21seventy web-based information system are analysed and made available to health centres in real time for use in quality improvement processes. Reports of aggregated data for clusters of health centres, by region or by state are also available through the One21seventy web-based information system in order to support regional or state/territory level CQI efforts. The ESP Project is intended to contribute to enhancing the quality of reporting and use of aggregated CQI data for the purpose of service improvement.

Restrictions and limitations on the data presented. The data in this report are not expected to be representative of all health centres nationally or for specific jurisdictions because participation of health centres is either through self-selection or through regional decision making processes. In jurisdictions where a high proportion of health centres are participating, the data may be more generalisable; for jurisdictions where there are relatively few health centres participating, the data are less generalisable.

The data reflect what has been documented in electronic and paper based patient records, depending on what record systems are used in each health centre. There has been a trend in recent years to increasing use of electronic records. Many health centres are still using paper-based systems, and some are using a mix of paper and electronic systems. The quality of recording of clinical care is variable in both paper and electronic systems, and the audit data may not provide a true reflection of actual care. We have no way of collecting data or reporting on services that are not recorded. Accurate and clear recording of care is an important aspect of quality of care and has important implications for continuity and coordination of care, for medico-legal purposes and for efficient use of resources.

Criteria for inclusion of records in the audit: To be eligible for inclusion in a V&M clinical audit, a client must: have a clear, documented diagnosis of the condition(s) being audited; be 15 years or older; and have been a resident in the community for six months or more in the last twelve months. If auditing for type 2 diabetes care, clients are excluded if they have type 1 diabetes, gestational diabetes or nephropathy (excluded from this tool because of its link to type 1 diabetes and immunoglobulin A (IgA) nephropathy). If auditing for chronic kidney disease care, clients on haemodialysis or peritoneal dialysis are excluded because the care they receive varies from the care audited in the CKD audit tool. In the majority of cases, care is provided by a specialised service, and not the primary health care service. Where the eligible population is 30 clients or less, the audit protocol recommends including all records. Where the eligible population is greater than 30, the protocol provides guidance on the *random* selection of a number of records, with the number depending on the precision of estimates required by health service staff.

Appendix B: Overview of the ESP Project

The 'Engaging Stakeholders in identifying Priority evidence-practice gaps and strategies for improvement' (ESP) Project draws on theory-informed behaviour change concepts.¹ It aims to explore how aggregated CQI data can be used across the broader health system to identify and address priority areas for improvement, where gaps between guideline recommended services and actual practice are relatively large, more common or more important. The project aims to:

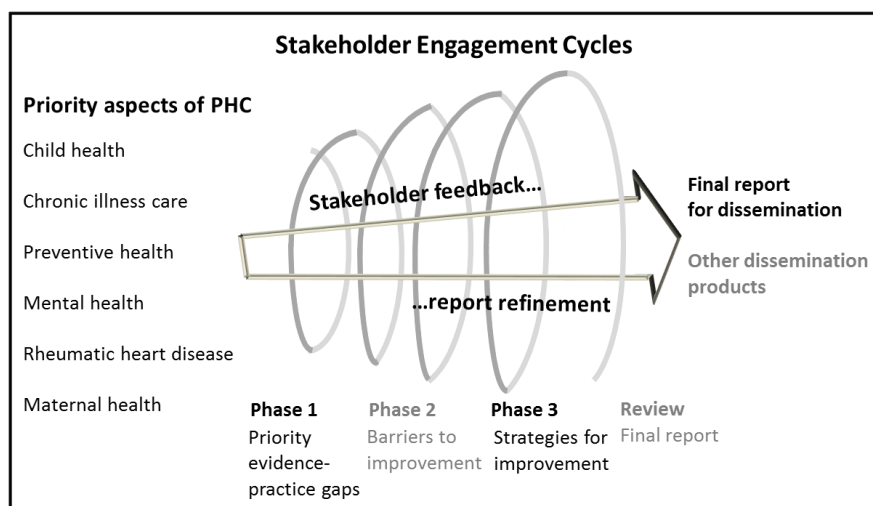
- Identify participant views on the priorities and strategies for improvement in PHC for Aboriginal and Torres Strait Islander people, in light of the CQI data presented.
- Provide opportunities for discussion and use of CQI data and evidence from research to inform improvement across all levels of the health system.
- Learn more about how CQI data can be presented and made available to leaders, managers and influencers across the health system.

Large-scale improvement in the delivery of PHC requires change at multiple levels of the health system, not only at the local health centre level. Where there are aspects of care that are not being done well across a range of health centres, this is likely to be due to inadequacies in the broader PHC system. These broader systems therefore directly impact health care and health outcomes for Aboriginal and Torres Strait Islander people. Improvements to systems should be based on evidence about what is working well and what service gaps need to be addressed. Quality CQI data can contribute to this evidence.

This project aims to engage key stakeholders in the interpretation and use of aggregated CQI data; specifically, to engage them in a process for determining priorities for improvement, identifying barriers and enablers to high quality care, and using the information from this process to inform development of system-wide strategies for improvement.

The aim of the project is to contribute to strengthening the system to provide high quality comprehensive healthcare on a wide scale.

Figure B1: ESP Project Phases



¹ French SD, Green SE, O'Connor DA, McKenzie JE, Francis JJ, Michie S, Buchbinder R, Schattner P, Spike N & Grimshaw JM. (2012) Developing theory-informed behaviour change interventions to implement evidence into practice: a systematic approach using the Theoretical Domains Framework. *Implementation Science* 7(1): 38.

Phases of the ESP Project

Phase 1 – Evidence-practice gaps

This phase focuses on the identification of priority areas for improvement (priority evidence-practice gaps) in the delivery of Aboriginal and Torres Strait Islander PHC.

Information provided to participants

- aggregated CQI data (2012-2013) about the delivery of PHC services presented in national and State/Territory reports
- preliminary priority areas for improvement, based on national data

Feedback/data collection

Online survey, workshop sessions and email responses.

Outputs

Draft report on preliminary priority evidence-practice gaps in PHC delivery. Refinements based on stakeholder feedback and survey data will be incorporated into Phase 2 report.

Phase 2 – Barriers and enablers

This phase focuses on trends in indicators relevant to the identified priority evidence-practice gaps, and on influences that may enable or hinder improvement at different points in the health system. In particular, it seeks to identify those factors that may be most important in addressing the identified priority evidence-practice gaps in chronic illness care identified in Phase 1.

Information provided to participants

Report on trends over time for key indicators relevant to priority evidence-practice gaps.

Feedback/data collection

Online survey, including questions about barriers and enablers to improvement based on international, national and Aboriginal and Torres Strait Islander-specific evidence and frameworks.

Outputs

Draft report on barriers and enablers to improvement in care relevant to identified priority evidence-practice gaps, based on responses to the online questionnaire. The draft report will be returned to participants for review in Phase 3.

Phase 3 – Strategies for improvement

This phase focuses on identifying new or existing strategies that could be introduced or strengthened to enable improvement in priority evidence-practice gaps.

Information provided to participants

- draft report on barriers and enablers to improvement in care relevant to the identified priority evidence-practice gaps (report from Phase 2)
- An evidence brief synthesising findings from research about barriers, enablers and strategies for improvement in the delivery of PHC, with particular attention to research in the Australian Aboriginal and Torres Strait Islander health context.

Feedback/data collection

Online survey. Participants will be encouraged to draw on their own experience, the evidence brief and the data presented throughout the project to identify strategies to address priority evidence-practice gaps.

Outputs

Draft report on strategies to address priority evidence-practice gaps. This report will be based on the Phase 2 report on barriers and enablers and on expert input on strategies for improvement provided through Phase 3.

Review and final report

A draft final report that includes the strategies for improvement will be returned to participants for review. Comments from the review will be used to inform a final report on evidence practice gaps and stakeholder views on strategies for improvement. The final report will be provided to key stakeholders in all participating jurisdictions. Project findings will be reported in academic journals and in conference presentations and workshops.

Appendix C: Survey respondents

	Phase 1		Phase 2		Phase 3		Review of final report	
	Individual responses	Group response s	Individual response s	Group response s	Individual response s	Group response s	Individual response s	Group response s
Number of responses	45	10	11	4	15	3	17	6
Number of attendees per group (recorded attendees in group)								
Less than 5		1		1		-		3(10)
5 to 10		2		1		1 (8)		3 (23)
11 to 20		-		-		1 (20)		-
More than 20		7		2		1 (30)		-
Jurisdictions of interest for respondents*								
National	5		1		2		4	
NSW	1		1		0		0	
Queensland	22		3		4		6	
NT	25		10		8		12	
SA	5		1		4		6	
WA	0		0		0		1	
Rurality of population group to which responses relate*								
Urban	15		4		9		8	
Regional	25		5		9		7	
Remote	41		13		13		17	
Number of group responses to question about Indigenous status								
All		2		-		-		1
Majority (more than half)		2		1		-		0
Minority (less than half)		2		2		2		1
None		4		1		1		4
Number of individual responses identified as Indigenous								
Indigenous	3		0		0		1	
Non Indigenous	47		11		14		16	
Not stated	5		4		1			
Position types								
Nurse	8	6	4	2	3	2	4	3
Middle Manager	2	5	0	2	0	1	1	2
Doctor	7	6	1	3	3	2	3	0
Public Health Physician	5	3	2	1	1	2	1	0
Other Medical Specialist	2	2	0	0	0	1	1	0
Senior Management/executive	3	4	0	2	3	2	2	1
CQI facilitator	7	5	1	0	2	1	1	3
Board member	0	2	0	0	0	1	0	0
Policy officer	0	1	2	1	1	1	1	2
Aboriginal and/or Torres Strait Islander practitioner	1	4	0	1	0	1	0	2
Research/Academic	6	3	1	1	0	2	3	0
Other	9	3	0	0	2	2	0	1
Organisation types								
Community controlled health centre	3	4	1	1	1	1	5	0
Community controlled peak body	2	1	1	0	2	1	1	0
Government health centre	11	2	1	0	3	0	4	2
Government health department	14	2	6	1	5	0	7	4
Medicare Local	2	0	0	0	0	0	0	0
General Practice	1	2	0	1	0	0	2	0
University/Research organisation	6	2	1	1	2	1	2	0
Other	11	5	1	0	2	2	0	0

*Numbers may not tally with total number of respondents as respondents were able to select multiple answers

Appendix D: Responses to Phase 2 survey on barriers and enablers to addressing priority evidence-practice gaps in chronic illness care

Table D1: Responses regarding the extent to which health centre and system attributes present barriers or enablers to addressing priority evidence-practice gaps

Data show percentage (number) of respondents in each response category.

		Strongly Disagree	Partly Disagree	Partly Agree	Strongly Agree	Don't know	No. of respondents
Within the socio-political context, there is sufficient financial support (e.g., from local/regional health authorities, government) to support best practice in chronic illness care as relevant to the priority evidence-practice gaps		33% (5)	7% (1)	27% (4)	27% (4)	7% (1)	15
PHC facilities are generally of adequate, size, design, and condition		33% (5)	13% (2)	53% (8)	0% (0)	0% (0)	15
PHC facilities generally have adequate equipment		7% (1)	13% (2)	60% (9)	13% (2)	7% (1)	15
PHC centres generally have adequate numbers of staff		40% (6)	27% (4)	33% (5)	0% (0)	0% (0)	15
PHC centres generally have appropriate numbers of each of the following categories of staff	Nurses	20% (3)	20% (3)	27% (4)	33% (5)	0% (0)	15
	Aboriginal or Torres Strait Islander Health Workers	43% (6)	36% (5)	14% (2)	7% (1)	0% (0)	14
	Doctors (GPs)	7% (1)	47% (7)	27% (4)	20% (3)	0% (0)	15
	Medical specialists	13% (2)	33% (5)	27% (4)	27% (4)	0% (0)	15
	Allied health workers	20% (3)	40% (6)	33% (5)	7% (1)	0% (0)	15
	Administrative staff	27% (4)	33% (5)	40% (6)	0% (0)	0% (0)	15
There are good systems in place to ensure PHC staff have support from experienced staff, especially when health centres are affected by turnover of staff and staff shortages		33% (5)	33% (5)	27% (4)	7% (1)	0% (0)	15
There are good systems in place to recruit, retain and support each of the following categories of staff (full time or visiting) as integral members of PHC teams.	Nurses	27% (4)	33% (5)	27% (4)	13% (2)	0% (0)	15
	Aboriginal or Torres Strait Islander Health Workers	53% (8)	13% (2)	33% (5)	0% (0)	0% (0)	15
	Doctors (GPs)	20% (3)	40% (6)	20% (3)	13% (2)	7% (1)	15
	Medical specialists	13% (2)	27% (4)	20% (3)	20% (3)	20% (3)	15
	Allied health workers	13% (2)	40% (6)	20% (3)	7% (1)	20% (3)	15

		Strongly Disagree	Partly Disagree	Partly Agree	Strongly Agree	Don't know	No. of respondents
	Administrative staff	27% (4)	27% (4)	33% (5)	0% (0)	13% (2)	15
PHC staff function effectively in teams		0% (0)	33% (5)	53% (8)	13% (2)	0% (0)	15
PHC staff are generally clear about their roles in relation to other members of the PHC team		13% (2)	33% (5)	47% (7)	7% (1)	0% (0)	15
PHC staff are trained to work effectively in teams		27% (4)	33% (5)	27% (4)	13% (2)	0% (0)	15
There are good systems in place to support staff development, including the development of knowledge and skills required		27% (4)	27% (4)	47% (7)	0% (0)	0% (0)	15
There are good systems in place to support inter-organisational and intra-organisational learning		53% (8)	13% (2)	27% (4)	0% (0)	7% (1)	15
Staff are well trained in the principles of client self-management as relevant to chronic illness care		27% (4)	33% (5)	40% (6)	0% (0)	0% (0)	15
There are good self-management resources that are relevant to chronic illness care available to PHC staff		13% (2)	20% (3)	60% (9)	7% (1)	0% (0)	15
There are good systems in place to support all members of PHC teams in understanding the needs and aspirations of people living in Aboriginal and Torres Strait Islander communities for the purpose of providing best practice chronic illness care		27% (4)	33% (5)	40% (6)	0% (0)	0% (0)	15
There are good systems in place to support all members of PHC teams to provide care that is respectful of and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions		27% (4)	27% (4)	33% (5)	13% (2)	0% (0)	15
There are good systems in place to train all members of PHC teams in providing patient-centred care for people living in Aboriginal and Torres Strait Islander communities		33% (5)	33% (5)	33% (5)	0% (0)	0% (0)	15
There are good systems in place to ensure PHC teams have a clear understanding of the size, diversity and other key features of their service populations and to apply this knowledge		13% (2)	20% (3)	60% (9)	7% (1)	0% (0)	15
There are good systems in place to ensure PHC teams are able to apply the principles of population health		20% (3)	47% (7)	20% (3)	13% (2)	0% (0)	15
There are good systems in place to ensure PHC teams staff are well trained in the principles of population health		33% (5)	20% (3)	40% (6)	0% (0)	7% (1)	15
Best practice guidelines and other decision support resources are available to PHC staff		0% (0)	13% (2)	20% (3)	67% (10)	0% (0)	15
PHC staff are adequately trained to use the available best practice guidelines and other decision support resources		0% (0)	13% (2)	67% (10)	20% (3)	0% (0)	15

	Strongly Disagree	Partly Disagree	Partly Agree	Strongly Agree	Don't know	No. of respondents
The clinical information systems and communication technology in place have the functionality to support provision of best practice care	20% (3)	7% (1)	33% (5)	40% (6)	0% (0)	15
PHC staff are trained and effectively supported to use clinical information systems and communication technology for supporting and providing best practice	27% (4)	13% (2)	33% (5)	27% (4)	0% (0)	15
There are good quality improvement tools available in health centres for supporting and improving delivery of best practice care	13% (2)	7% (1)	33% (5)	47% (7)	0% (0)	15
PHC staff are adequately trained to use quality improvement tools and resources for supporting and improving delivery of best practice care	13% (2)	33% (5)	27% (4)	13% (2)	13% (2)	15
Managers are adequately trained to support effective use of quality improvement tools and resources for monitoring and enhancing delivery of best practice care	13% (2)	53% (8)	20% (3)	7% (1)	7% (1)	15
There is good local ownership by PHC staff of CQI data and CQI processes for supporting and improving delivery of best practice care	33% (5)	7% (1)	40% (6)	20% (3)	0% (0)	15
Managers provide clear and appropriate support for effective use of quality improvement tools and resources by PHC staff for monitoring and enhancing delivery of best practice care	20% (3)	40% (6)	33% (5)	7% (1)	0% (0)	15
PHC staff generally believe that CQI data and CQI processes can be used for supporting and improving delivery of best practice	20% (3)	13% (2)	47% (7)	20% (3)	0% (0)	15
There are good systems in place to increase the expectation of community members with regard to best practice care	40% (6)	33% (5)	27% (4)	0% (0)	0% (0)	15
There are good systems in place to strengthen community leadership for quality with regard to best practice	53% (8)	20% (3)	20% (3)	0% (0)	7% (1)	15
There are good systems in place to enhance the health literacy of community members with regard to best practice care	53% (8)	20% (3)	27% (4)	0% (0)	0% (0)	15
There are good systems in place to build the capability and to support PHC staff to develop effective links to work in partnership with the communities they serve in providing best practice care	40% (6)	27% (4)	27% (4)	0% (0)	7% (1)	15
There is good clinical and management leadership at the regional, state, national level for supporting and providing best practice	13% (2)	33% (5)	40% (6)	13% (2)	0% (0)	15
There are good networks and regional coordination between parties involved in supporting and providing best practice	13% (2)	27% (4)	60% (9)	0% (0)	0% (0)	15
Managers actively support the development of partnerships across the health sector for the purpose of enhancing delivery of best practice care	13% (2)	40% (6)	33% (5)	13% (2)	0% (0)	15

Note: Primary health care (PHC)

Table D2: Responses regarding the extent to which primary health care staff attributes present barriers or enablers to addressing priority evidence-practice gaps

Data show percentage (number) of respondents in each response category.

	Strongly Disagree	Partly Disagree	Partly Agree	Strongly Agree	Don't know	No. of respondents
PHC staff know the content and objectives of best practice care	0% (0)	13% (2)	40% (6)	40% (6)	7% (1)	15
PHC staff are aware of how to provide best practice care for Aboriginal and Torres Strait Islander people with a chronic illness	13% (2)	13% (2)	33% (5)	40% (6)	0% (0)	15
PHC staff have the skills to provide best practice care for Aboriginal and Torres Strait Islander people with a chronic illness	7% (1)	27% (4)	40% (6)	27% (4)	0% (0)	15
PHC staff recognise that it is their professional responsibility to provide best practice care for Aboriginal and Torres Strait Islander people with a chronic illness	0% (0)	7% (1)	53% (8)	40% (6)	0% (0)	15
PHC staff are confident in their ability to provide best practice care for Aboriginal and Torres Strait Islander people with a chronic illness	7% (1)	20% (3)	60% (9)	13% (2)	0% (0)	15
With regard to providing best practice care for Aboriginal and Torres Strait Islander people with a chronic illness, PHC staff are optimistic about the future	20% (3)	33% (5)	40% (6)	0% (0)	7% (1)	15
PHC staff believe that if they provide best practice care for Aboriginal and Torres Strait Islander people with a chronic illness, it will have benefits for the health of Aboriginal and Torres Strait Islander people more generally at a population level	0% (0)	13% (2)	33% (5)	47% (7)	7% (1)	15
PHC staff believe that if they provide best practice care for Aboriginal and Torres Strait Islander people it will have disadvantages for their relationships with Aboriginal and Torres Strait Islander people	33% (5)	13% (2)	47% (7)	0% (0)	7% (1)	15
How strong is the intention of PHC staff to provide best practice care every day to Aboriginal and Torres Strait Islander people with a chronic illness attending their services <i>Note response options: Not strong at all; Quite strong; Mostly strong; Always very strong; Don't know</i>	0% (0)	27% (4)	40% (6)	33% (5)	0% (0)	15
How often do PHC staff remember to provide best practice care for Aboriginal and Torres Strait Islander people with a chronic illness <i>Note response options: Never; Occasionally; Often; Always; Don't know</i>	0% (0)	0% (0)	87% (13)	0% (0)	13% (2)	15
PHC staff believe that when they need to concentrate to provide best practice care for Aboriginal and Torres Strait Islander people with a chronic illness, they have no trouble focusing their attention	20% (3)	27% (4)	27% (4)	7% (1)	20% (3)	15
Most people of influence in Aboriginal and Torres Strait Islander PHC services are seen by primary health care staff to support the provision of best practice care for Aboriginal and Torres Strait Islander people	0% (0)	20% (3)	40% (6)	13% (2)	27% (4)	15
Are PHC staff who provide care for Aboriginal and Torres Strait Islander people with a chronic illness currently able to enjoy their normal day-to-day work activities? <i>Note response options: Never; Occasionally; Often; Always; Don't know</i>	0% (0)	33% (5)	53% (8)	0% (0)	13% (2)	15
Do PHC staff who currently provide care for Aboriginal and Torres Strait Islander people with a chronic illness feel unhappy, anxious or depressed about their work? <i>Note response options: Never; Occasionally; Often; Always; Don't know</i>	0% (0)	47% (7)	47% (7)	0% (0)	7% (1)	15

Note: Primary health care (PHC)

Table D3: Health centre and system attributes presenting the greatest barriers to improvement for each of the areas of priority evidence-practice gaps

Data show number of respondents who identified each attribute as a major barrier to improvement in each area.

Health Centre and System Attributes	Areas of priority evidence-practice gaps					
	Follow up of abnormal findings and review of medication	Adherence to evidence based current treatment guidelines (medication prescription)	Emotional wellbeing assessment and provision of support	Recording of risk factors and provision of advice on risks to health	Adult vaccinations	Health centre systems to support high quality care
Financing and resources	3	3	4	2	2	10
Facilities/equipment	3	2	3	1	2	4
Staffing / workforce	11	7	7	4	3	7
Staff /workforce support, recruitment, and retention	7	8	5	6	6	8
Teamwork	8	4	1	1	3	5
Training and development	4	9	7	6	4	5
Self-management	4	4	1	0	1	0
Patient-centred care	1	2	7	0	0	4
Population health	1	0	1	3	2	2
Decision support	3	7	0	1	1	3
Clinical information systems and communication technology	7	2	1	5	3	7
Quality Improvement	1	3	0	4	2	5
Community capacity, engagement, mobilisation	1	3	4	3	2	4
Leadership and management	2	1	2	3	3	7

Table D4: Staff attributes presenting the greatest barriers to improvement for each of the areas of priority evidence-practice gaps

Data show number of respondents who identified each attribute as a major barrier to improvement in each area.

Staff Attributes	Areas of priority evidence-practice gaps					
	Follow up of abnormal findings and review of medication	Adherence to evidence based current treatment guidelines (medication prescription)	Emotional wellbeing assessment and provision of support	Recording of risk factors and provision of advice on risks to health	Adult vaccinations	Health centre systems to support high quality care
Knowledge	6	11	6	5	8	6
Skills	5	6	5	7	4	7
Social/professional role and identity	3	5	4	0	1	6
Beliefs about capabilities	3	5	7	2	2	5
Optimism	4	4	1	1	0	4
Beliefs about consequences	5	1	3	6	5	0
Intentions	2	0	4	1	3	3
Memory, attention and decision processes	4	4	3	4	2	3
Social influences	1	3	4	3	2	3
Emotion	2	0	5	1	1	2

Appendix E: Evidence Brief

Improving the quality of Aboriginal and Torres Strait Islander primary health care

What the research shows

This draft evidence brief has been prepared for the 'Engaging Stakeholders in Identifying Evidence-Practice Gaps and Strategies for Improvement in Primary Health Care (ESP)' project. You are invited to provide feedback to refine the brief, using the online project questionnaire.

The Aboriginal and Torres Strait Islander primary health care (PHC) sector has embraced continuous quality improvement (CQI) as a way of improving the overall quality of care delivered to Aboriginal and Torres Strait Islander Australians, in order to **improve health outcomes**. This evidence brief presents an overview of findings from local and international research about **barriers, enablers and strategies** for using CQI to make improvements in PHC quality.

Local research has reflected the diversity and complexity of Aboriginal and Torres Strait Islander PHC delivery – geographic diversity, remote-rural-urban health care settings and community-controlled, government, non-government or private providers. Data have been gathered in settings in which political, cultural, social, educational, technological, emotional and ideological factors interact in complex ways. Despite this diversity and complexity, there are some common messages from the research findings, which are supported by international literature about CQI.

Who is this evidence brief for?

Primary health care policy makers, managers, clinical governance groups. The information will also interest providers and practitioners.

Key messages

- Don't wait for perfect data before commencing CQI. Even where good quality data on care processes are not consistently available at the start, the use of data in CQI cycles can act as a catalyst for improved data quality. Meanwhile, invest in developing good health centre systems and staff skills in using data.
- Emphasise use of CQI data for improving care for patients and populations. Practical use of CQI data helps to motivate clinicians and managers to participate in CQI.
- Design improvement strategies to suit local conditions – or adapt strategies that are working successfully in similar settings.
- Build on staff skills and strengths to implement improvement strategies. Share success stories and information about CQI between health centres to enable learning between peers.
- Work on developing a common vision and culture for CQI. Address any underlying organisational leadership and management issues that may detract from implementing CQI.
- Empower Aboriginal and Torres Strait Islander staff and managers to lead, participate in and promote CQI, to ensure improvement strategies match local population and community needs.
- Invest in developing leadership for CQI at each level of the system.
- Use system-wide approaches to integrate CQI across the whole system. Use CQI processes to achieve large-scale change.

Don't wait for perfect data before commencing CQI. Even where good quality data on care processes are not consistently available at the start, the use of data in CQI cycles can act as a catalyst for improved data quality. Meanwhile, invest in developing good health centre systems and staff skills in using data.

In PHC generally, clinical information systems are often poor and fragmented. Policy makers may therefore find it difficult to access consistent and broad scale data on relative need, priorities, performance and quality of care. In addition, there is limited focus and capability at various levels of the system to manage, interpret and use data for the purpose of improving system performance¹, and skills in the use of data to inform improvements in service delivery appear highly variable across all levels of the health system^{2,3}.

The quality of data is important. Technical advancements (electronic patient information and recall systems, tools, guides, practice standards) can make CQI processes easier and quicker, but if CQI data are perceived to be inaccurate it will not be credible^{4,5}. At the health centre level, there is evidence that the quality of health system data can be improved by staff carrying out audits of client records⁴.

Competing pressures and perceptions about unreasonable workloads, poor resources and support are often seen as barriers to CQI in Aboriginal and Torres Strait Islander health centres. Staffing constraints influence capacity to deliver guideline-scheduled care – or to make improvements in care. Health centres able to sustain performance in the face of high staff turnover tend to have strong regional support systems together with commitment to good health centre systems⁶.

Emphasise use of CQI data for improving care for patients and populations. Practical use of CQI data helps to motivate clinicians and managers to participate in CQI.

For CQI to work successfully, staff need to value the use of data for improvement purposes and believe they can influence change⁶. Local staff increase their support for CQI when they see demonstrated improvements in care and clinical outcomes for clients. Hands-on auditing and participation in feedback and planning sessions by nurses and Aboriginal and Torres Strait Islander practitioners also increases staff support^{2,4}.

Many staff in Aboriginal and Torres Strait Islander PHC have enthusiasm and a sense of urgency to improve health outcomes⁴. In remote areas in particular, staff may also have a sense of burden and hopelessness (due to long work hours and lack of apparent improvement in health and social determinants) that can lead to clinical inertia. Quality improvement initiatives have been demonstrated to boost morale in these contexts, because they can demonstrate that the hard work is producing results^{4,6}.

Design improvement strategies to suit local conditions – or adapt strategies that are working successfully in similar settings.

There is strong evidence that improving the quality of care requires a good match between the conditions or context for care delivery, and the strategies used to achieve improvement⁷. Decision makers need to consider **what works, for whom, under what conditions** when planning for improvement. A one-size-fits-all approach is unlikely to be successful. However, successful strategies for improvement may require taking on the core elements of a proven product or strategy and adapting the way it is presented or used locally⁸.

Adaptability is important in large-scale application of strategies for improvement; however the underpinning logic of a new product or strategy should be made explicit, so implementers understand the core that should not be compromised. In addition, problem-solving suggestions may help implementers make adaptations for the local context⁹. This approach may help policy makers and program managers to meet the dual challenges of supporting

large-scale implementation of best practice, while also enabling local decision making and tailoring to specific needs.

Build on staff skills and strengths to implement improvement strategies. Share success stories and information about CQI between health centres to enable learning between peers.

Strategies for improvement need to build on the skills and attributes of the existing Aboriginal and Torres Strait Islander PHC workforce. Staff need to be involved in completing the latter steps of CQI cycles in order to strengthen the interpretation of data, but also to go beyond focusing only on data or specific indicators to define and act on systemic problems, including through group interpretation and community consultation³. The ability to work and communicate effectively in cross- and inter-cultural settings is a critical component of the skills and attributes needed to achieve improvements^{10,11}.

CQI networks and training events are important opportunities to build relationships, share CQI knowledge and learn practical information about 'what works' from others^{2,3}. The remote location and geographic dispersion of many health centres serving Aboriginal and Torres Strait Islander populations mean that staff tend to value opportunities to connect through CQI and to form CQI networks⁶.

How evidence was identified

We drew evidence from the ABCD program of work and other publications on CQI in Aboriginal and Torres Strait Islander PHC, then extended our search to include relevant national and international literature about implementation of CQI and innovations in PHC.

Work on developing a common vision and culture for CQI. Address any underlying organisational leadership and management issues that may detract from implementing CQI.

Effective and sustained quality improvement needs a shared understanding of the purpose of CQI and a common vision shared by multiple stakeholders. CQI needs to be embedded into the day to day work of front-line health workers, clinical leaders and managers through routines and relationships that function across and between organisations⁴.

What helps to develop a culture of quality improvement?

- Top and middle managers aligned in their CQI vision and goals.
- Commitment to workforce development, with management and staff participation in CQI training at all levels of an organisation.
- Strong team orientation and 'no blame' culture.
- Active management of CQI (e.g., dedicated CQI facilitators, regular progress reviews)
- Use and promotion of small scale projects that demonstrate change is possible and which, if successful and appropriate, may be scaled up across the health system.
- Willingness to embrace change and initiative^{4,5,12,13}.

Organisations with a strong CQI culture treat barriers such as funding or staff shortages as motivators for CQI. Instead of being viewed as 'extra work', CQI is seen as 'a way of working smarter and making jobs easier'. Disruptions such as restructuring or disease outbreaks can slow CQI work, but can also be used as a platform to apply CQI approaches in responding to the issue¹³.

Where there is a culture of CQI, staff values are more likely to align with best practice in Aboriginal and Torres Strait Islander PHC¹.

Where there is poor management, uncertainty and confusion over roles, staff are discouraged and place less value on their data. Interventions to tackle unfavourable service delivery conditions need to be developed alongside CQI implementation⁶.

Poor support for collaboration for CQI can lead to competitiveness, fatigue, staff who feel disillusioned with CQI and lack of cooperation. Identifying health centres with similar conditions and working to build adequate trust for networking might help staff believe they can influence change⁶.

Empower Aboriginal and Torres Strait Islander staff and managers to lead, participate in and promote CQI, to ensure improvement strategies match local population and community needs.

Aboriginal and Torres Strait Islander leadership in CQI is most important^{4,5,14}, for example, through active involvement of community health boards or Aboriginal and Torres Strait Islander staff and managers committed to CQI. This leadership for CQI can help ensure the 'cultural, linguistic and practical relevance of health care and population health services'¹⁴.

When planning or implementing strategies for change, the risk of overlooking cultural and historical influences on Aboriginal and Torres Strait Islander health care contexts is reduced where Aboriginal and Torres Strait Islander health practitioners actively lead or are engaged in CQI initiatives. Aboriginal and Torres Strait Islander health practitioners' involvement in clinical care and CQI processes is important in influencing the extent to which CQI processes result in improvements in delivery of guideline-scheduled services¹⁵.

In Aboriginal and Torres Strait Islander settings the credibility of a strategy for improvement is likely to be influenced by who makes the decision to adopt a particular strategy, and how that decision is made^{10,16}.

Invest in developing leadership for CQI at each level of the system.

Leadership for improving the quality of care is needed at all levels of the health system to guide, support and facilitate CQI efforts^{4,5,7,13}. Leaders for CQI are not necessarily in management roles; 'distributed' leadership with leadership

functions vested in 'a set of people who can collectively perform them' is effective¹². Shared responsibility and control of CQI by local staff as well as area/regional and jurisdiction managers is important for successful and sustainable CQI in health systems^{5,17}.

The attitudes of leaders and managers within the health system towards CQI can influence how clinic staff respond^{4,13}. If management or reporting requirements are focused more on using data for accountability than to drive improvements in care, other managers and staff are likely to be suspicious of CQI and perceive it as 'checking up'³⁻⁵.

Use system-wide approaches to integrate CQI across the whole system. Use CQI processes to achieve large-scale change.

The Australian health system operates at three levels; the service and health centre level (individual organisations), the regional level (regional and state/territory health bodies, community-controlled peak bodies, general practice networks), and the national level (nationwide policies and programs, accreditation and regulatory regimes)¹⁸. At each level, multiple factors influence the context in which improvement might take place. What happens at each level is partly dependent on, and influences, what happens at other levels. So achieving large-scale improvement in the quality of care is likely to require specific attention at each level of the health system⁷.

Mechanisms needed to support improvement at the upper levels of the system are often overlooked. Large-scale change may require a package of interventions and long term 'institution-building' for regional and national level organisations to adapt to new ways of functioning¹⁹.

Building a system wide and sustainable approach to CQI across Aboriginal and Torres Strait Islander PHC centres requires certain and sustained funding^{3,5}. Dedicated funding has resulted in measurable improvement outcomes in service delivery, often achieved by allocating responsibility for CQI processes to a particular staff member and/or establishing regional quality systems^{5,6,15}. Resources invested in CQI facilitator roles enable health centres

to move to a higher level of capability and capacity in CQI³.

Applied system-wide, integrated CQI uses multi-site, multi-faceted approaches that reflect the enablers described by the evidence and aim to achieve change at various levels of the system. In successfully integrated CQI models, CQI programs are: part of core business (rather than an add-on or one-off project); engage front-line workers, clinical leaders, and managers in CQI processes; distribute leadership for CQI across the whole health system; use CQI processes and tools to address multiple enablers of good quality care, and; use data from different stakeholders at different levels of relevant organisations to understand and inform broader system level performance^{17,20,21}.

A Partnership Learning Model²⁰

illustrates how large-scale change can lead to improved Aboriginal and Torres Strait Islander population health outcomes, through the interaction of comprehensive PHC, integrated CQI, system-based research networks, and system-based participatory action research. In its development and application through the ABCD National Research Partnership (2010-2014), the model showed potential for achieving wide-scale engagement of researchers, practitioners, managers, and policy makers in efforts to scale-up and spread effective quality improvement programs. It provides mechanisms to build or strengthen the capacity of a health system to continually work towards improving its performance.

For more information

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Appendix F: New or refined general strategies and actions to improve priority evidence-practice gaps in chronic illness care

Respondents proposed the following new or refined strategies to build on enablers and overcome barriers to improving chronic illness care across all priority areas.

- Enhance provision of holistic care through integration of services.
- Increased resourcing and targeted staff recruitment, induction, training and mentoring programs.
- Provide more resources to recruit and retain AHWs/ATSIHPs including development of career pathways in chronic disease management.
- Develop systems to enhance community involvement.
- Increase management involvement in CQI processes.

With regard to the strategies identified above, respondents identified the following key supporting actions to address specific barriers and enablers to improve priority gaps in chronic illness care (Table F1).

Table F1: Actions proposed by respondents to improve priority gaps in chronic illness care

	<i>Barriers & enablers</i>	<i>Actions proposed to address each barrier and enabler</i>
Health centre and systems	Community capacity, engagement and mobilisation	• Raise awareness of management and clinicians on the benefits of community engagement to foster genuine involvement in development of local strategies • Increase management support and participation in real engagement with community through training in engagement skills and appropriate resourcing to allow staff to undertake this role • Identify and appoint community champions to facilitate engagement between the health service and community • Health service to use and develop appropriate health promotion resources • Engage with community-controlled peak bodies to identify appropriate health promotion tools and identification of successful strategies to engage communities • Work with other agencies such as councils and schools to foster health promotion in communities • Address workforce issues, adequate resourcing to focus on patient needs and invest in Aboriginal and Torres Strait Islander workforce from communities
	Staffing/workforce support, recruitment and retention	• Measuring workforce turnover as a key performance indicator in Aboriginal and Torres Strait Islander PHC, encourage management to document exit interviews to address reasons for turnover and examine options for retention incentives • Invest in AHW/ATSIHPs in key chronic illness management roles as above • For new staff (including locum staff) undertake site specific induction including advice on workflows, team roles and functions • Improve communication within teams, including middle management, to plan delivery of care, critical review cases and examine performance data • Enhance retention through compulsory professional clinical supervision for staff, mentoring programs and/or networking opportunities via regional videoconferences • Ensure adequate provision of staff housing in communities
	Training and development	• Develop better training structures through management monitoring and documenting of training needs and facilitating and supporting staff attendance at relevant courses, particularly AHW/ATSIHPs • Mix of training delivery models such as face to face, on-line learning, self-directed learning • Recognise staff achievements, encourage staff to do conference presentations or be involved in developing learning packages • Adapt competency frameworks to local settings • Ensure quality improvement processes and tools are integrated into workforce development

	<i>Barriers & enablers</i>	<i>Actions proposed to address each barrier and enabler</i>
		• Bring together lead clinicians from different sites to examine performance data and exchange ideas/learnings
	Patient-centred care	• Mandatory cultural awareness and competency training for all health professionals • Increase staff training in principles of 'patient-centred' care • Encourage use of interpreters for clients who prefer to speak Aboriginal languages • Promote development of an appropriate tool to assess client satisfaction • Introduce train the trainer courses in effective self-management interview techniques and invest in AHW/ATSIHP workforce in this area • Consider other models of care such as home visits or health checks in community hubs • Ensure clinic infrastructure is suitable for patient privacy
	Management support for quality improvement systems	• Include quality improvement competencies in management job descriptions and performance reviews • Encourage managers to lead quality improvement processes and take an active role in implementing agreed actions to address gaps • Provide managers with data appropriate to their needs – may include individual case reviews as well as population data • Encourage peak bodies to work with senior management and boards to develop CQI systems at that level and encourage inter-organisational sharing of ideas
<i>Staff</i>	Emotion (eg staff feelings towards providing best practice care)	• Improve management skills to identify staff morale and ability to address negative work environments • Institute regular staff recognition processes (from peers and community) to support staff morale toward provision of best practice • Promote/highlight positive outcomes from audit data • Increase opportunities for staff to: attend appropriate training; participate in 'buddy systems' including working closely with experienced chronic disease practitioners; and undertake inter-organisational placements
	Belief about consequences (eg views on the impact of provision of best practice on population health and relationships with Aboriginal and Torres Strait Islander people)	• Increase staff commitment to population health principles through ongoing training and development • Encourage regular meetings using clinical audit data as best practice discussion tool • 'Data driven' approaches to performance reviews as a possible way to overcome clinical inertia • Develop consistency between different practitioners - including visiting staff - so working on same team with same goals • Increase opportunities for staff mentoring and/or collaboration with external research teams to develop case studies, conference presentations etc
	Skills	• Increase management support for provision of appropriate training with consideration of staff time demands ie limited duration, onsite and with follow-up • Increase mentoring and peer network activity • Establish clear curriculum pathway for AHW/ATSIHPs and remote nurses, particularly in the care of chronic conditions

Type of support to facilitate development and implementation of proposed strategies/actions

Respondents indicated they need the following types of support from colleagues and managers, to successfully implement the proposed strategies.

- Greater commitment to and participation in quality improvement processes to identify current gaps and where improvements can be made.
- Greater commitment to patient centred care and reducing red tape.
- Leverage existing regional CQI committees to drive improvement strategies.

- Coordinate activity to ensure shared purpose.
- Increased opportunities to provide input into policy development.
- Increase funding and resources to support implementation of strategies.

Respondents offered the following types of support to assist others across the sector to implement proposed actions.

- Provision of evidence of what works in other jurisdictions (from senior manager/executive).
- Take the issues identified in ESP report to regional committee to develop comprehensive improvement approach. Share other's knowledge, stories and experiences and use these to guide regional level activity (from groups and or individuals consisting of researchers, health professionals, CQI facilitators and accreditation officers).
- Provide endorsement of evidence, advocacy and discussion with stakeholders, relationship building and facilitate access to information/resources (from groups/individuals consisting of health professionals, senior and middle management, CQI facilitators and board members).
- Work with health services to develop improved guidelines for chronic conditions management and support adoption of evidence based guidelines for assessment and management of Absolute Cardiovascular Risk (from senior manager/executive and policy officer)
- Investigate opportunities to integrate findings with other quality improvement initiatives such as the Australian Primary Care Collaboratives (from policy officer)
- Willingness to be mentors (from project officer).