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One21seventy
National Centre for Quality Improvement in Indigenous Primary Health Care

National Report on Aboriginal and Torres Strait Islander Preventive Health Care (2012 – 2014) (with comparative QLD data)

Phase 1 Report: **Engaging Stakeholders in Identifying Priority Evidence-Practice Gaps and Strategies for Improvement in Primary Health Care (ESP Project)**

Table of Contents

Abbreviations 4
Authorship 5
Acknowledgements 5
1 Executive summary 6
2 Background 8
3 Profile of health centres 10
4 Presentation of data 12
5 Identifying priority evidence-practice gaps 13
5.1 Criteria for determining priority evidence-practice gaps 13
5.2 Identified evidence-practice gaps for preventive care 13
6 Current status of preventive health service delivery 15
6.1 Key information in client records/health summaries 15
6.2 Risk factors and brief interventions 17
6.3 Scheduled Services 20
6.4 Scheduled services with assessment of follow-up of abnormal findings 22
6.5 Emotional wellbeing screening and care 25
7 Systems assessment data 28
8 Discussion and conclusions 35
Appendix A – Data collection and reporting 36
Appendix B - Sources 37
Appendix C – ESP Project processes 38
Appendix D: Preliminary priority evidence-practice gaps 39

List of Figures

Figure 1 ESP Project Phases 8

Figure 2 Use of aggregated CQI data for stakeholder identification of system wide evidence-practice gaps and strategies for improvement. 9

Figure 3 Mean health centre percentages of well clients with a record of key information in client records..... 16

Figure 4 Mean health centre percentages of well clients with a record of the following substance use risk factor and brief intervention discussions within the last 24 months. 18

Figure 5 Mean health centre percentages of well clients with a record of the following nutrition and lifestyle risk factors and brief intervention discussions within the last 24 months. 19

Figure 6 Mean health centre percentages of well clients with a record of the following risk factor and brief intervention discussions within the last 24 months..... 20

Figure 7 Mean health centre percentages of well clients with a record of sexual health checks received within the last 24 months..... 21

Figure 8 Mean health centre percentages of well clients with a record of scheduled services received within the last 24 months..... 22

Figure 9 Mean health centre percentages of well clients with a record of scheduled service within the last 24 months and follow-up action if abnormal finding..... 24

Figure 10 Mean health centre percentages of well clients with a record of emotional wellbeing screen and follow-up action if identified at risk..... 26

Figure 11 Mean system component scores as assessed by health centres. 30

Figure 12 Delivery system design component scores as assessed by health centres..... 31

Figure 13 Information systems and decision support component scores as assessed by health centres. 32

Figure 14 Self-management support component scores as assessed by health centres..... 32

Figure 15 Links with the community, other health services and other services and resources component scores as assessed by health centres..... 33

Figure 16 Organisational influence and integration component scores as assessed by health centres. 34

List of Tables

Table 1 Most recent preventive health audit and systems assessment completed in 2012, 2013 or 2014 (number of client records audited, number of health centres)..... 10

Table 2 Most recent preventive health audit completed, by audit cycle in 2012, 2013 or 2014 (number of health centres) 10

Table 3 Characteristics of health centres and clients whose records were last audited during 2012-2014 (number & (%)) 11

Table 4 ABCD/One21seventy systems assessment tool components and items 28

Abbreviations

ABCD	Audit and Best Practice in Chronic Disease
ATSIHW	Aboriginal and Torres Strait Islander Health Worker
BGL	Blood Glucose Level
BMI	Body Mass Index
CQI	Continuous Quality Improvement
GP	General Practitioner
MBS	Medicare Benefit Schedule
STI	Sexually Transmitted Infection

Authorship

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

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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 preventive health care. System-wide gaps are likely to be due to deficiencies in the broader primary health care (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 builds on the collective strengths within PHC services in order to continue improving the quality of care for Aboriginal and Torres Strait Islander communities.

Approach

Through three cyclical phases of reporting and feedback, we aim 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. Implementation research suggests that by using evidence to identify and link priority gaps to theoretical domains that are known to be system enablers or barriers, strategies can be developed that will most likely produce the desired change[1,2].

This report represents the first phase: identifying *current* evidence-practice gaps in preventive health care. The report uses de-identified data from 95 health centres participating in the ABCD National Research Partnership that last conducted audits of care for well adults over the period Jan 2012 – July 2014 (>3,500 client records). The data were used to identify a preliminary set of priority evidence-practice gaps, where the gap between current practice and best practice is particularly marked. The accompanying survey provides an opportunity for stakeholders to provide feedback on this preliminary set as identified by the ABCD project team in conjunction with an independent clinical expert.

Summary of findings

Although a proportion of health centres are doing well in many aspects of preventive care, the majority of health centres are not doing well in key areas.

The national CQI data presented in the report show that aspects of care in which there is relatively better recording include up-to-date health summaries and immunisation records, measurement of weight, BP, pulse rate and rhythm, delivery of brief interventions for clients identified as using alcohol at high risk levels, and recording of Medicare numbers. However, there is wide variation between health centres in almost all aspects of preventive care. A general priority should therefore be to strengthen delivery of preventive care in those health centres with relatively low levels of delivery, commencing with those aspects of preventive care that are identified as priorities at the local or regional level, as identified through local or regional CQI data.

A number of specific priorities for improvement are identified in this report in the areas of: 1) vascular and metabolic risks including absolute cardiovascular risk assessment, recording of BMI and lipid and urinalysis tests; 2) sensory functions and oral health including visual and hearing checks; 3) sexual and reproductive health including pap smears and mammography; 4) social and emotional wellbeing screening and follow-up; 5) completion of adult health checks with appropriate follow-up;

and 6) health centre systems to support best practice including community links, team function and continuity of care.

Next steps

This report is accompanied by a survey that is designed to assess key stakeholders' perceptions of the relative importance of various evidence-practice gaps, and to build consensus about which gaps are the most important and that warrant particular effort for achieving improvement. The results of the survey will be fed back to stakeholders in the second phase of the project. The second phase will be focussed on identifying barriers and enablers to improvement in the priority areas, and the third on identifying strategies for improvement.

To access the accompanying survey to this report, click on this link:

https://www.surveymonkey.com/s/PreventivePhase1

Feedback is due by **20 February 2015**

2 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 preventive health care. These tools have to date been used by more than 200 Aboriginal and Torres Strait Islander primary health care 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. Appendices A and B provide more information about the One21seventy data collection process and sources used to develop the audit tools.

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.

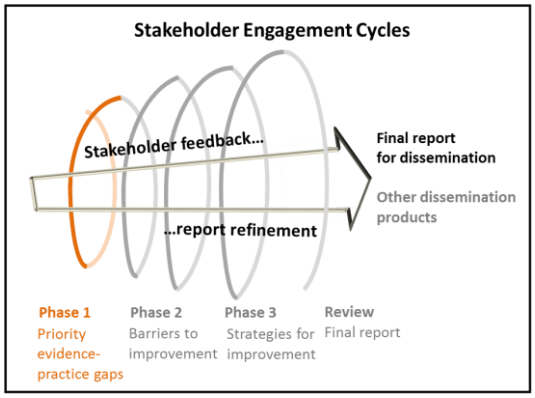
Large-scale health system strengthening

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 in a series of action-research cycles to: 1) identify evidence-practice gaps; 2) identify barriers and enablers to addressing these evidence-practice gaps; and 3) develop relevant system-wide strategies for improvement (Figure 1).

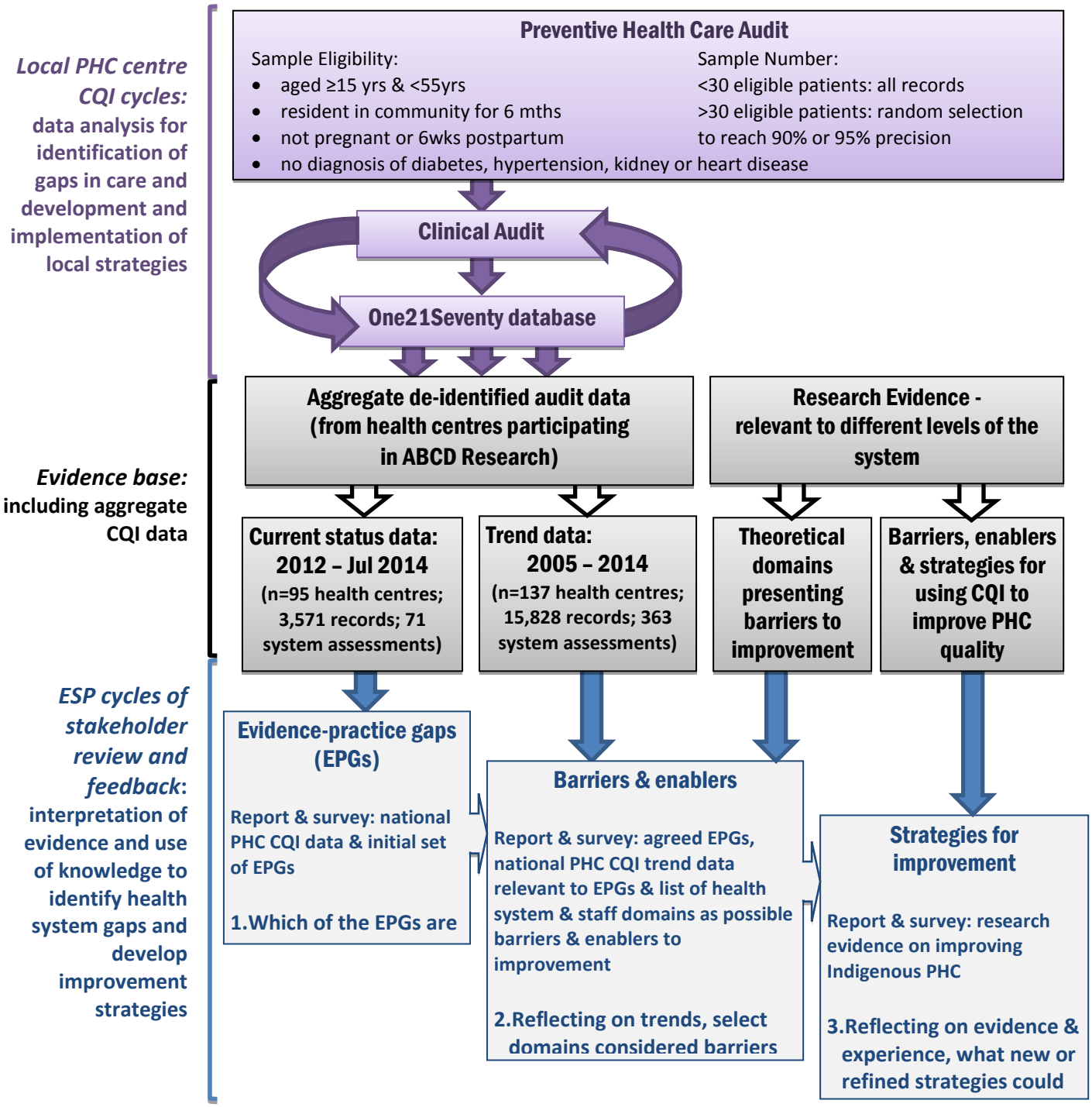
Figure 1 ESP Project Phases



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

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 professionals to identify barriers to be addressed as part of 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 extend the theoretical domain list beyond the practitioner level to include broader 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 C.

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



The ESP Project aims to encourage national and State/Territory level conversations about systemic barriers or enablers that could affect improvement in the delivery of PHC, and help inform system changes to direct resources and efforts where they can most improve the health of Aboriginal and Torres Strait Islander communities.

3 Profile of health centres

Ninety-five health centres last used the preventive health audit tool in 2012, 2013 or 2014 (Table 1). These health centres had used the audit tool for varying numbers of CQI cycles (Table 2). The preventive health audit tool had been used mostly by health centres in Qld and the NT. The data included in the analysis for this report were extracted in July 2014. A total of 3,571 records were audited in the 95 health centres. Twenty-one health centres last used the preventive tool in 2012 (758 records audited), 54 health centres in 2013 (2,128 records audited) and 20 health centres in 2014 (685 records audited). To date, 71 of these health centres recorded a completed systems assessment in the One21seventy database.

Table 1 **Most recent preventive health audit and systems assessment completed in 2012, 2013 or 2014 (number of client records audited, number of health centres)**

		2012	2013	2014	Total
QLD	#Records	392	1116	161	1669
	#Centres	12	29	4	45
	#SATs	12	27	1	40
NT	#Records	309	821	497	1627
	#Centres	7	22	15	44
	#SATs	6	15	7	28
SA	#Records	57	154	27	238
	#Centres	2	2	1	5
	#SATs	1		1	2
WA	#Records		37		37
	#Centres		1		1
	#SATs		1		1
Total	#Records	758	2128	685	3571
	#Centres	21	54	20	95
	#SATs	19	43	9	71

Table 2 **Most recent preventive health audit completed, by audit cycle in 2012, 2013 or 2014 (number of health centres)**

	Last Audit Cycle Completed								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**Total**
QLD	5	2	16	10	7	5			45
NT	10	8	6	6	11	1	2		44
SA	1	2	2						5
WA								1	1
Total	16	12	24	16	18	6	2	1	95

The majority of health centres are in remote communities and are government managed (Table 3). Eighty-nine percent of records audited were for Aboriginal or Torres Strait Islander clients. Ninety-five percent of audited records showed a record of attendance at the health centre within the previous 24 months and almost half of these attendances were for acute care. Less than 15% of attendances were for a well person's check. National data shows that initial assessment at the

health centre was most commonly conducted by a nurse, with general practitioners (GPs) and Aboriginal or Torres Strait Islander Health Workers (ATSIHWs) being the next most common professionals to do the initial assessment.

Table 3 Characteristics of health centres and clients whose records were last audited during 2012-2014 (number & (%))

		QLD	NT	SA	WA	Total
Primary Health Care Centres		**45**	**44**	**5**	**1**	**95**
Location	Urban	3 (7)	1(2)	2(40)	1(100)	6(6)
	Regional	5 (11)	2(5)	2(40)		10(11)
	Remote	37 (82)	41(93)	1(20)		79(83)
Governance	Government	44 (98)	36(82)	3(60)		83(87)
	Community Controlled	1 (2)	8(18)	2(40)	1(100)	12(13)
Size of population served	≤500	23 (51)	25(57)	2(40)		50(53)
	501-999	9 (20)	6(14)	2(40)		17(18)
	≥1000	13 (29)	13(29)	1(20)	1(100)	28(29)
Completed preventive audit cycles	Baseline	5 (11)	10(23)	1(20)		16(17)
	1-2 cycles	18 (40)	14(32)	4(80)		36(38)
	≥3 cycles	22 (49)	20(45)		1(100)	43(45)
Number of audited records		**1669**	**1627**	**238**	**37**	**3571**
Age (mean & range)		31 (15-55)	30 (15-55)	31 (15-55)	30 (16-51)	31 (15-55)
Gender	Males	842(50)	808 (50)	138(58)	20(54)	1808(51)
	Females	827(50)	819 (50)	100(42)	17(46)	1763(49)
Indigenous status	Indigenous	1344(81)	1568 (96)	236(99)	33(89)	3181(89)
	Non-indigenous	186(11)	52 (3)	2(1)	4(11)	244(7)
	Not stated	139(8)	7 (1)			146(4)
Reason for last attendance	Well person's check	140(8)	225 (14)	93(39)	7(19)	465(13)
	Acute care	882(53)	793 (49)	40(17)	28(76)	1743(49)
	Mental Illness	27(2)	52 (3)	1(0.5)		80(2)
	Immunisation	171(10)	122 (7)	9(4)		302(8)
	Antenatal	6(1)	12 (1)	1(0.5)		19(0.5)
	Sexual Health	161(10)	103 (6)	9(4)		273(8)
	Other	174(10)	292 (18)	56(23)	2(5)	524(15)
	N/A (did not attend last 24 months)	108(6)	28 (2)	29(12)		165(4.5)
Profession patient first seen by	ATSIHW	227(14)	172 (11)	127(53.5)	33(89)	559(16)
	Nurse	823(49)	1127 (69)	70(29)	1(3)	2021(56)
	GP	422(25)	216 (13)	2(1)	2(5)	642(18)
	Specialist	13(0.8)	27 (2)			40(1)
	Allied Health	21(1)	41 (2)	2(1)	1(3)	65(2)
	Other	4(0.2)	15 (0.9)	8(3.5)		27(1)
	Not stated	51(6)	1 (0.1)			52(1)
	N/A (did not attend last 24 months)	108(6)	28 (2)	29(12)		165(5)
Attended within past 24 months		1561(94)	1599 (98)	209(88)	37(100)	3406(95)

4 Presentation of data

The presentation of audit findings follows the structure of the preventive health audit tool, with sections on recording of key client information; risk factors and brief interventions, scheduled services, documentation of follow-up of abnormal results and emotional wellbeing screening and care.

Each section of the report includes:

- A summary of key findings from the national audit data;
- Preliminary priority evidence-practice gaps (preliminary priorities for improvement) based on the national data; and
- Box and whisker plots for each of the items in the audit tools, which show the level of adherence to best practice guidelines, and variation between health centres.

Box and whisker plots

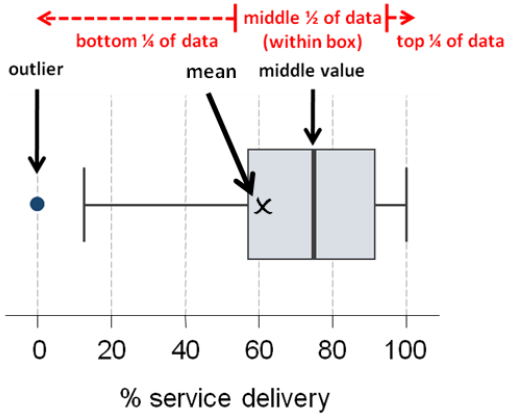
The mean percent delivery of each service item is calculated for each health centre and displayed within a 'box and whisker plot' to show the distribution (or variation) in delivery of that item across health centres.

Box and whisker plots show (Box 1):

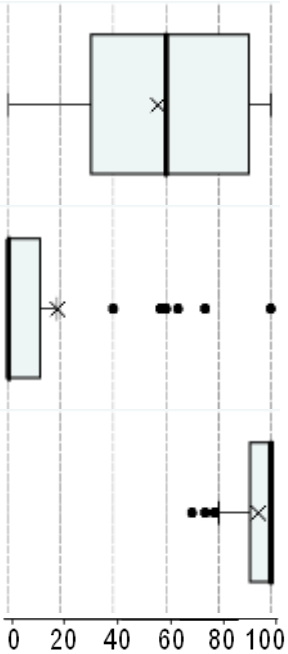
- the minimum and maximum values (ends of whiskers if no outliers);
- outliers which are values far away from most other values in the data set (or a distance that is greater than 1.5 times the length of the box);
- the range of service item delivery by dividing the dataset into quarters:
  - the box represents the middle 50% of the dataset (or interquartile range), 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 box plot, the greater the range (or variation).

Box 1: How to interpret box and whisker plots

Interpretation:



Examples:



- Wide variation in service delivery (range 0-100%).
- Health centres relatively equally dispersed across the range. 25th to 75th centile is 30-90%.
- Majority of centres at lower end of range (between 0-20%) with a few health centres at higher levels – up to 100%.
- Smaller variation in service delivery (range 70-100%).
- All centres at higher end with 75% of centres in the 90-100% range.

5 Identifying priority evidence-practice gaps

5.1 Criteria for determining priority evidence-practice gaps

The priorities for improvement, or priority evidence-practice gaps, reported here were determined by identifying items in the national clinical audit and systems assessment data that reflected:

a) basic aspects of clinical care that were being delivered and recorded at a high level of performance by the majority of services, but that were being delivered at a much lower level by a proportion of services;

b) aspects of care where there was more general wide variation in recorded delivery of care;

c) important aspects of comprehensive PHC that were generally recorded at low levels; and,

d) components of PHC centre systems that were relatively poorly developed.

These criteria were used by the ABCD Project team in conjunction with a clinical expert to identify a preliminary set of priorities. The preliminary priorities are presented in the body of the report, and are also presented below for summary purposes.

5.2 Identified evidence-practice gaps for preventive care

There is wide variation between health centres in almost all aspects of preventive care. Most health centres are delivering *some* recommended items of preventive care to *some* of their clients, a few are delivering preventive care to all (or almost all) of their clients and others are delivering preventive care to very few of their clients. This is evident in the wide interquartile range (generally between 30% and 60%) and the wide overall range (0-100%) for delivery of many items of preventive care.

A ***general priority*** should therefore be to strengthen delivery of preventive care in those health centres with relatively low levels of delivery, commencing with those aspects of preventive care that are identified as priorities at the local or regional level, as identified through local or regional CQI data.

Areas of relatively strong performance

Aspects of delivery and recording of care that are being done well by the majority of health centres:

- Recording of Medicare numbers
- Up to date health summary
- Up to date immunisation record
- Recording of weight, blood pressure (BP), pulse rate and rhythm
- Brief intervention for clients identified as using alcohol at high risk levels

Specific preliminary priorities for improvement

Although a proportion of health centres are doing well in many aspects of preventive care, the majority of health centres are not doing well in a number of key aspects of preventive care. The preliminary priorities identified are listed below under the headings of a) vascular and metabolic risks; b) sensory functions and oral health; c) sexual and reproductive health; d) social and emotional wellbeing; and e) completion of adult health checks with appropriate follow up.

Vascular and metabolic risks

- Absolute cardiovascular risk assessment (median level of delivery is zero)
- Plan for follow-up of abnormal BP, BGL and lipid profile (median level of delivery is <20%)
- Record of BMI, waist circumference, lipid profile (median level of delivery is 30-50%)

- Provision of advice on nutrition and physical activity (median level of delivery is 40-50%)
- Recording of alcohol use and of smoking status (median level of delivery is 50-60%)
- Record of urinalysis (median level of delivery is ~50%)

Sensory functions and oral health

- Record of visual acuity check (median level of delivery is <40%)
- Record of check of oral health, ears and hearing (median level of delivery is around 40%)

Sexual and reproductive health

- Pap smear (median level of delivery is < 50%) and mammography (median level of delivery is zero)
- Recording of discussion of sexual and reproductive health (median level of delivery is < 50%)
- Record of enquiry regarding continence (median level of delivery is zero)

Social and emotional wellbeing

- Emotional wellbeing screening (median level of delivery is <20%)
- Record of enquiry regarding environmental and living conditions, family relationships, substance use (median level of delivery is 35% or less)
- Improving capability to provide appropriate support and follow-up for clients identified as being at risk.

Completion of adult health Checks with appropriate follow-up

- MBS item 715 adult health checks (median level of delivery is approximately 20%)

Assessment of Health Centre Systems to support best practice

System components that were scored ***relatively high*** by most health centres were:

- *Information Systems and Decision Support* component referring to clinical and other information structures and processes to support the planning, delivery and coordination of care (in particular 'use of evidence-based guidelines' and 'maintenance and use of electronic client lists')
- 'Client access/cultural competence' and 'systematic approach to follow-up' within the *Delivery System Design* component referring to the extent to which the health centre's infrastructure, staffing profile, allocation of roles and responsibilities, client flow and care processes maximise the potential effectiveness of the centre
- 'Quality improvement strategies' within the *Organisational Influence and Integration* component referring to organisational culture and support structures and processes that promote safe, high quality care.

System components that were scored ***relatively low*** by most health centres were:

- *Links with the community, other health services and other services and resources* component to inform service and regional planning (in particular 'Communication and cooperation on regional health planning and development of health resources' and 'Communication and cooperation on governance and operation of the health centre')
- *Self-management support* component referring to structures and processes that support clients and families to play a major role in managing and maintaining their health and achieving safe and healthy environments
- 'Team structure and function' and 'Continuity of care' - within the *Delivery System Design* component.

Appendix D provides an alternative presentation of the preliminary priorities, under the headings i) clinical history and observations; ii) laboratory and radiology testing; iii) synthesis of information; vi) follow-up and clinical care; and v) health systems.

6 Current status of preventive health service delivery

6.1 Key information in client records/health summaries

Figure 3 shows mean health centre percentages of well clients who have a record of key information in medical records such as up to date health summaries, immunisation records and health checks.

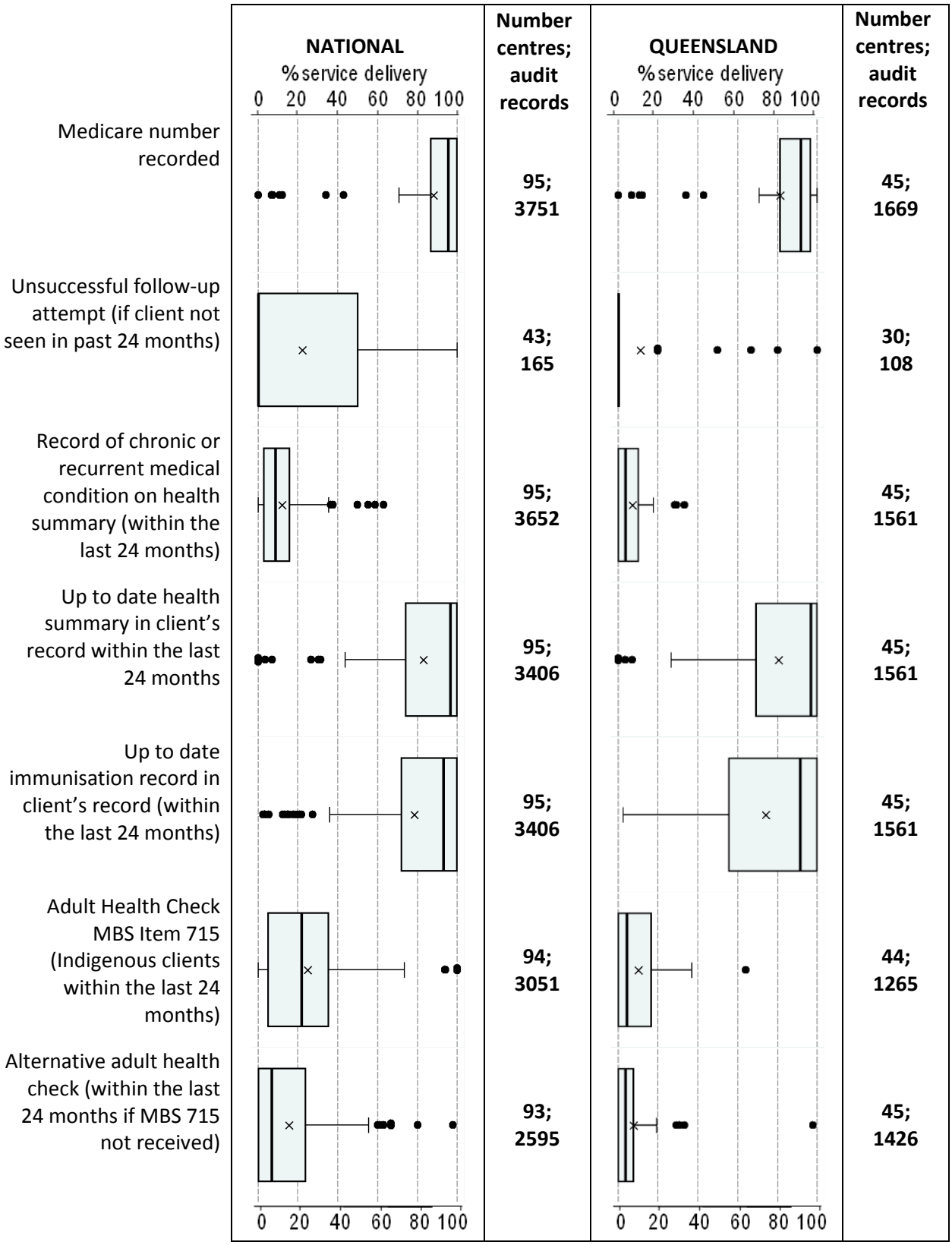
Summary of audit findings

Most health centres are recording Medicare numbers for the great majority of their clients, and have up-to-date health summaries and immunisation records for clients (Figure 3). Ninety-five percent of clients also have a record of attendance at the health centre within the 24 months preceding the audit (3406/3571; Table 3). For the small proportion who had not attended (165 clients in 43 health centres), the majority of health centres did not have a record of attempt to follow-up these clients. The majority are not conducting adult health checks for a significant proportion of their clients (Figure 3).

Priority evidence-practice gaps (or priorities for improvement)

Completion of adult health checks - through appropriate follow-up of identified health issues, health checks have the potential to result in earlier detection and better management of a range of conditions. They are also an important source of revenue from Medicare.

Figure 3 Mean health centre percentages of well clients with a record of key information in client records.



6.2 Risk factors and brief interventions

The figures in this section show mean health centre percentages of well clients with a record of a range of risk factor and brief intervention discussions.

Summary of audit findings

There was wide variation between health centres for almost all items relating to risk factors and brief interventions. Aspects of care with relatively higher levels of performance included recording of weight and brief interventions for clients identified as using alcohol at high-risk levels. However, there were low levels of referral to alcohol programs for these clients (Figure 4). The majority of health centres had no record of absolute cardiovascular risk assessment for most of their clients and low levels of referral for weight management advice or support where required (Figure 5).

Priority evidence-practice gaps (or priorities for improvement)

Priority areas for improvement relevant to risk factors and brief interventions include:

1. Absolute cardiovascular risk assessment (median level of delivery is zero)
2. Record of BMI, waist circumference (median level of delivery is 30-50%)
3. Provision of advice on nutrition and physical activity (median level of delivery is 40-50%)
4. Record of alcohol use and of smoking status (median level of delivery is 50-60%)
5. Record of enquiry regarding continence (median level of delivery is zero)
6. Record of enquiry regarding environmental and living conditions, family relationships, substance use (median level of delivery is 35% or less)

Figure 4 Mean health centre percentages of well clients with a record of the following substance use risk factor and brief intervention discussions within the last 24 months.

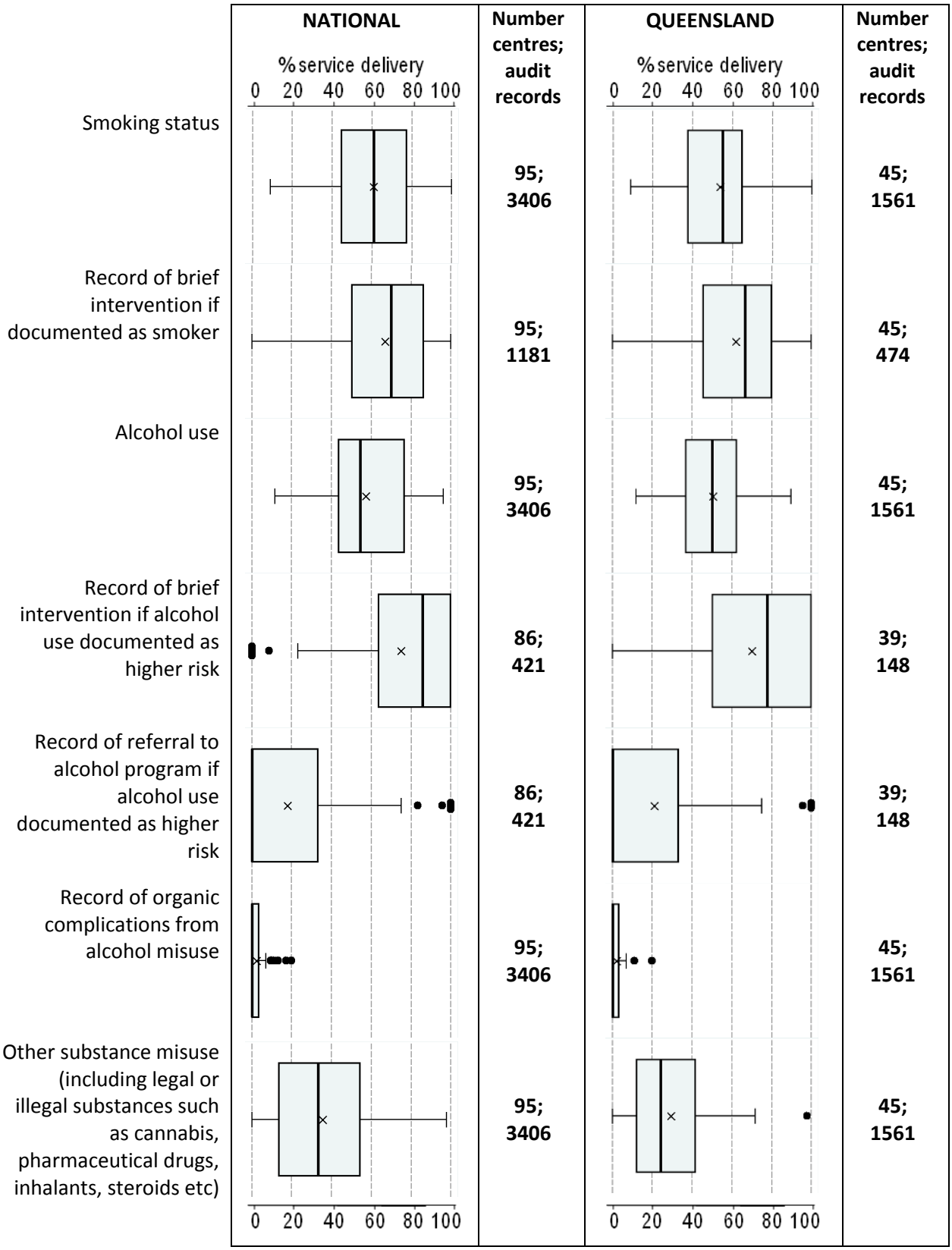


Figure 5 Mean health centre percentages of well clients with a record of the following nutrition and lifestyle risk factors and brief intervention discussions within the last 24 months.

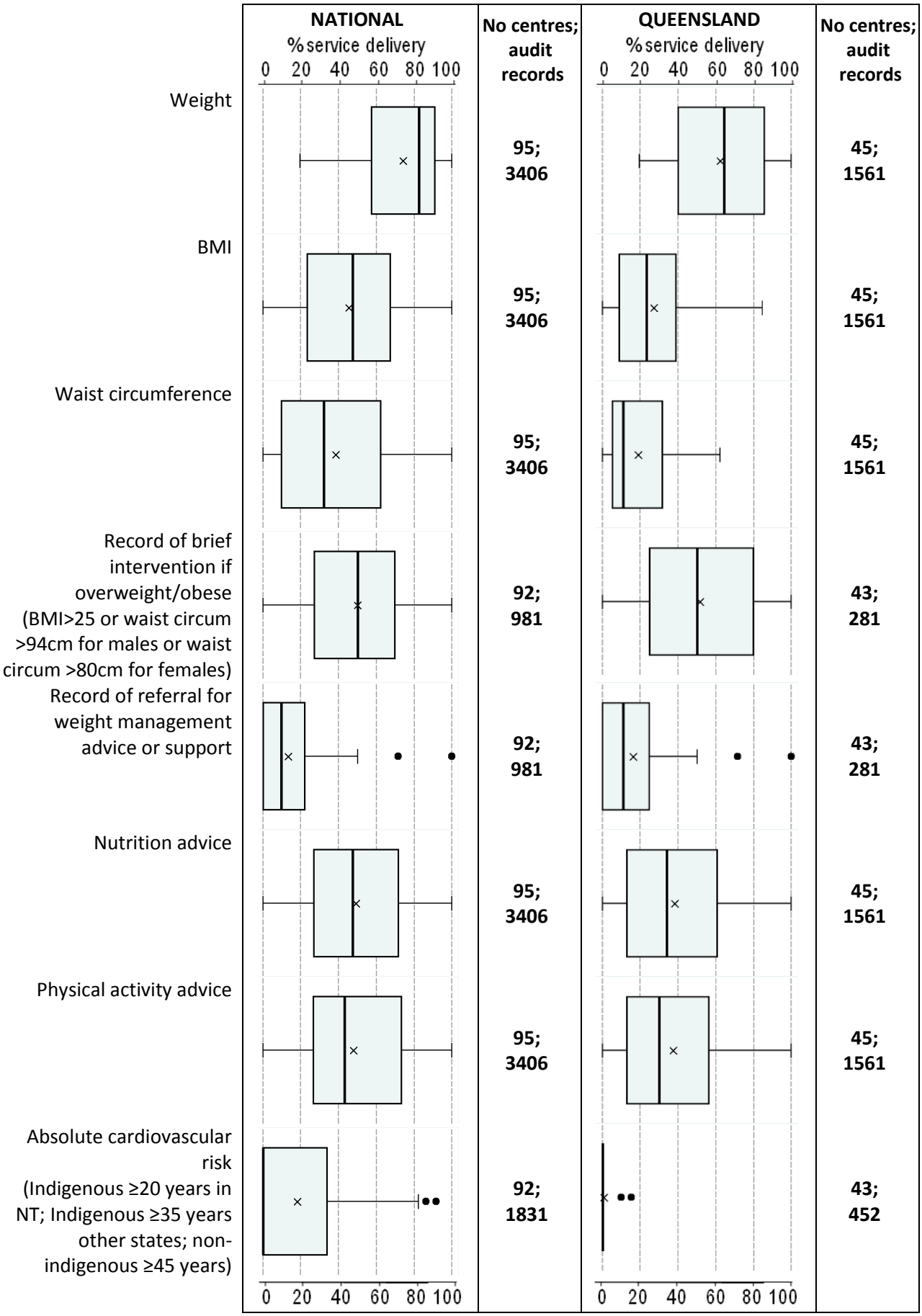
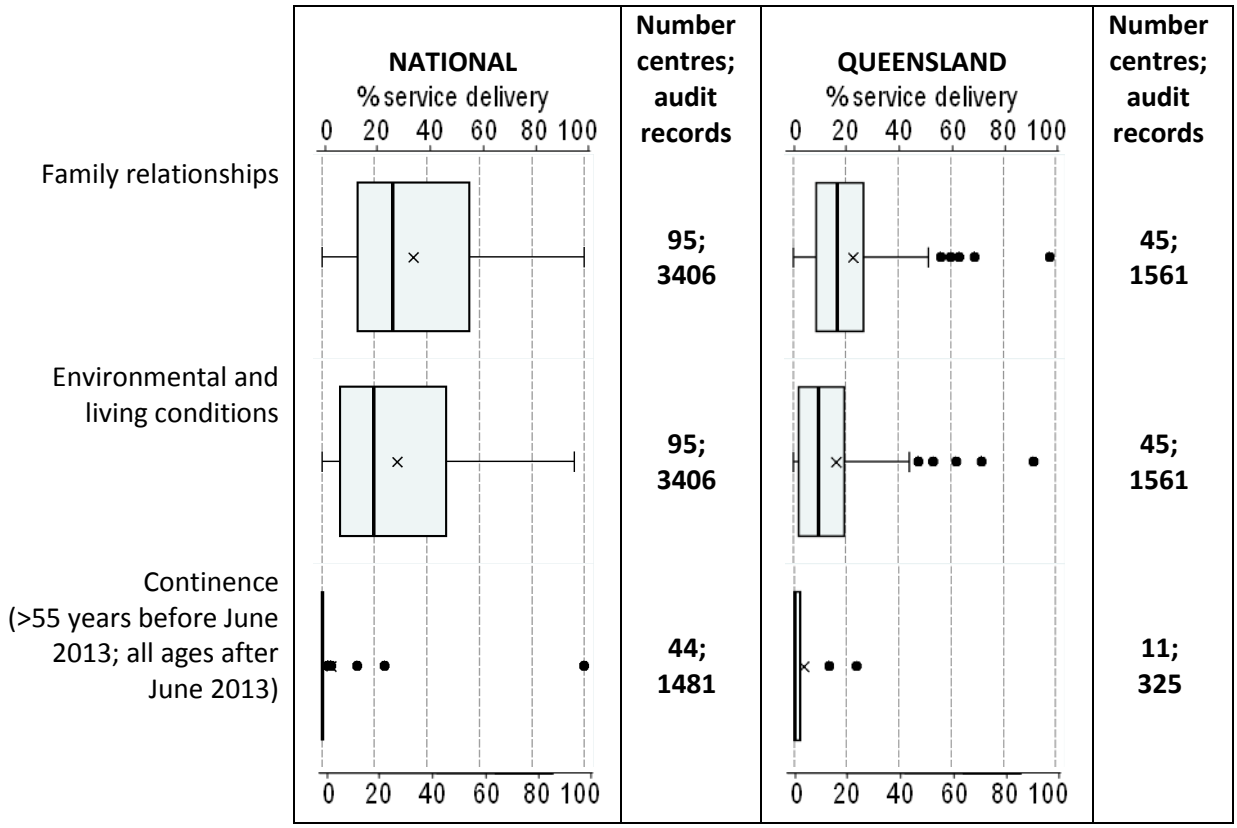


Figure 6 Mean health centre percentages of well clients with a record of the following risk factor and brief intervention discussions within the last 24 months.



6.3 Scheduled Services

The figures in this section show mean health centre percentages of well clients with a record of scheduled services received within the last 24 months.

Summary of audit findings

There is wide variation between health centres in delivery of all scheduled services. At least 50% of health centres do not have any records of mammograms having been done for women in the eligible age range (Figure 7). Pulse rate and rhythm is being done for 80% or more of clients in the majority of health centres (Figure 8). Checks for visual acuity and trichiasis are being done for a relatively small proportion of clients in the majority of health centres (Figure 8).

Priority evidence-practice gaps (or priorities for improvement)

Priority areas for improvement relevant to scheduled services include:

1. Pap smear (median level of delivery is <50%) and mammography (median level of delivery is zero)
2. Recording of discussion of sexual and reproductive health (median level of delivery is <50%)
3. Recording of visual acuity check (median level of delivery is <40%)
4. Recording of check of oral health, ears and hearing (median level of delivery is around 40%)

Figure 7 Mean health centre percentages of well clients with a record of sexual health checks received within the last 24 months.

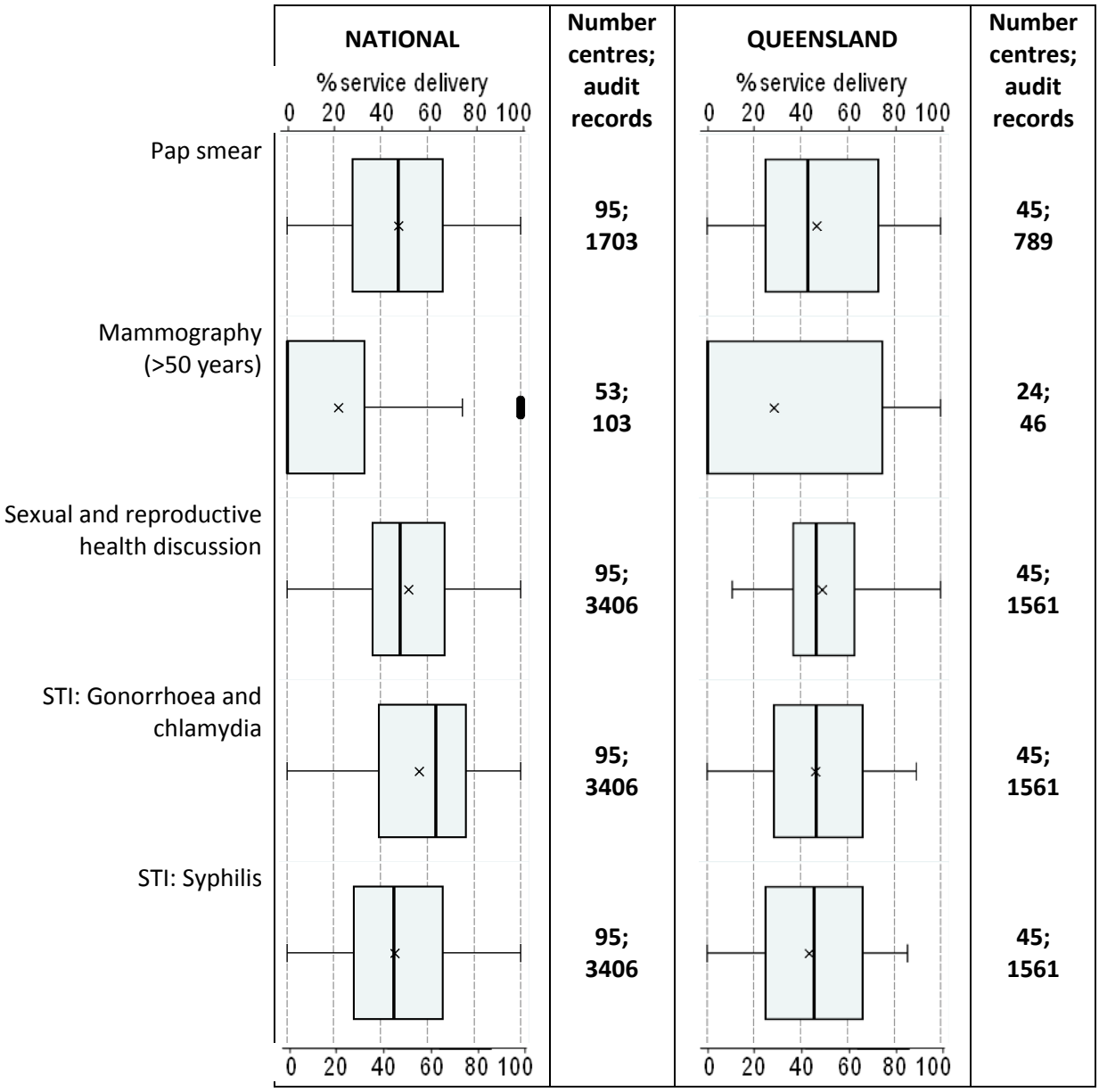
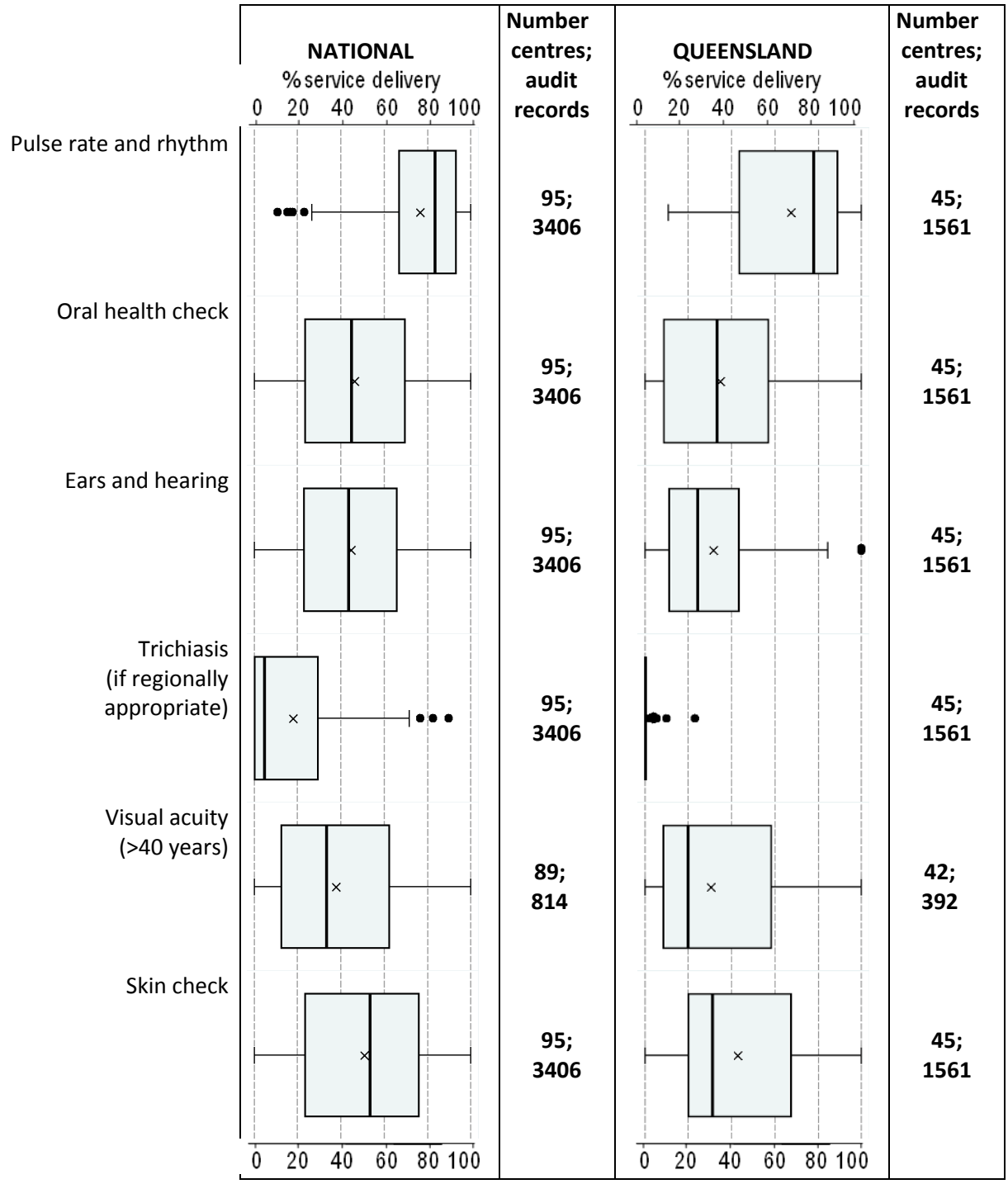


Figure 8 Mean health centre percentages of well clients with a record of scheduled services received within the last 24 months.



6.4 Scheduled services with assessment of follow-up of abnormal findings

The figures in this section show mean health centre percentages of well clients with a record of follow-up action if abnormal finding from scheduled service within the last 24 months.

Summary of audit findings

Monitoring of BP and BGL is being done relatively well in the majority of health centres, however regular checking of urinalysis and lipid profiles are being done at lower levels (Figure 9). There is

wide variation between health centres for these services, but less so for BP than for BGL, urinalysis and lipid profile.

There is wide variation between health centres in recording plans for follow up of BP, BGL or lipid profile for clients with abnormal results (Figure 9). The majority of health centres are recording plans for follow-up for only a small proportion (or none) of these clients. Follow-up urinalysis is being done at slightly higher levels than recording of plans for follow up of other tests.

Priority evidence-practice gaps (or priorities for improvement)

Priority areas for improvement relevant to follow-up of abnormal findings include:

1. Record of lipid profile (median level of delivery is 40%)
2. Record of urinalysis (median level of delivery is ~50%)
3. Plan for follow-up of abnormal BP, BGL and lipid profile (median level of delivery is <20%)

Figure 9 Mean health centre percentages of well clients with a record of scheduled service within the last 24 months and follow-up action if abnormal finding.

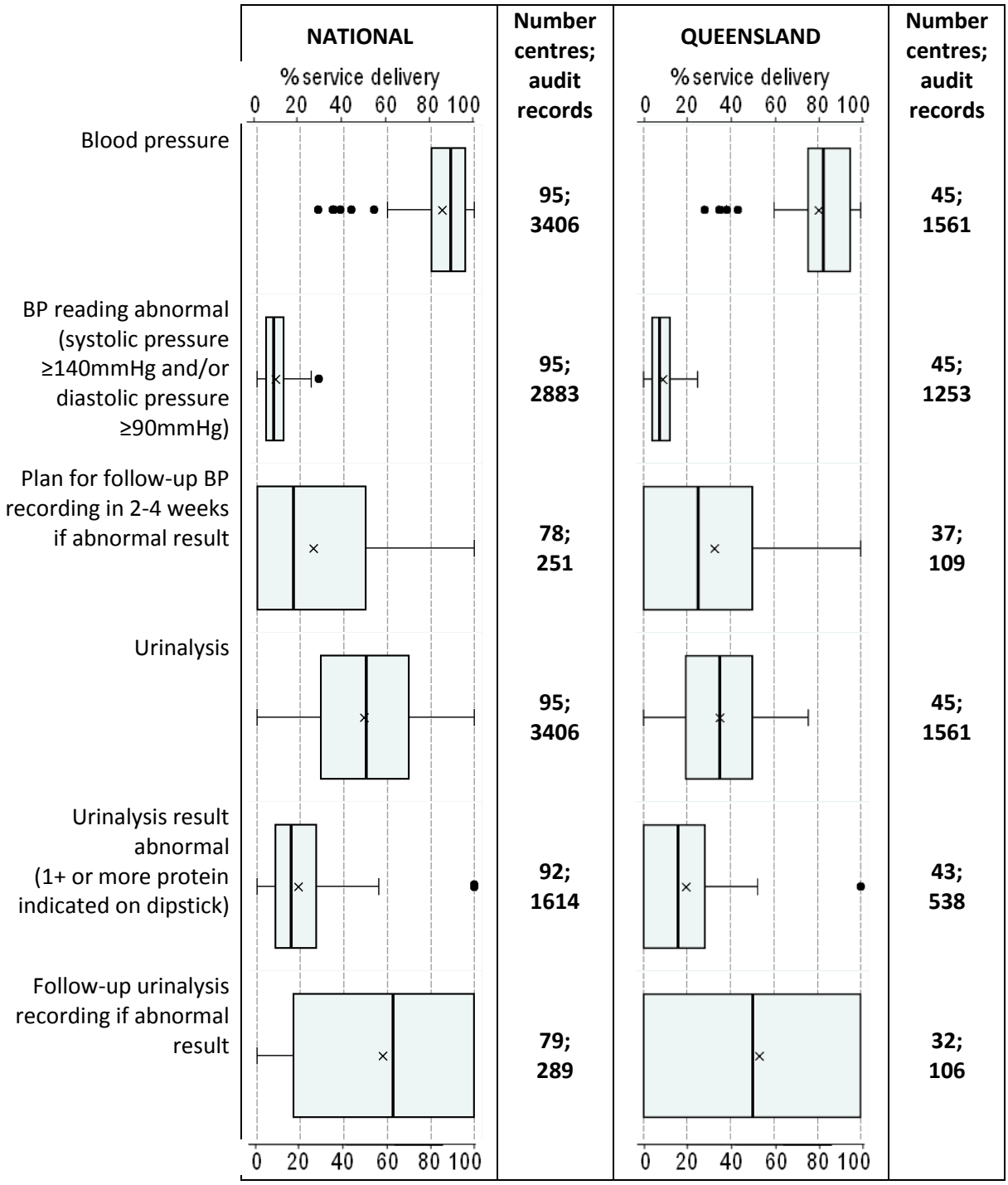
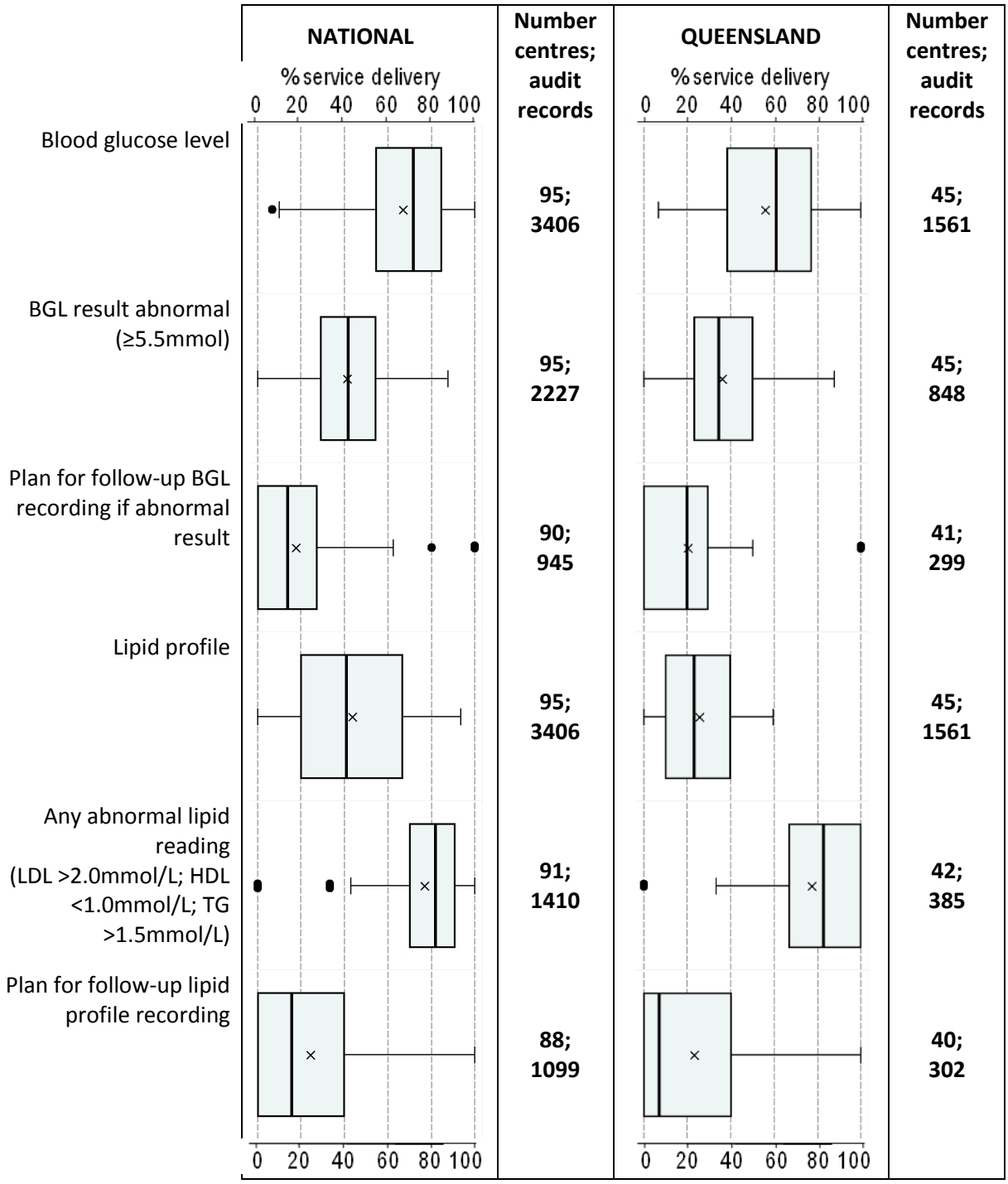


Figure 9 cont: Mean health centre percentages of well clients with a record of scheduled service and follow-up action if abnormal finding.



6.5 Emotional wellbeing screening and care

Figure 10 shows mean health centre percentages of well clients with a record of emotional wellbeing screen and follow-up action if identified at risk within the last 24 months.

Summary of audit findings

There is wide variation between health centres in the use of standard tools to assess emotional wellbeing. In the majority of health centres this is being done for less than 20% of clients (Figure 10).

A small proportion of clients – less than 10% in the majority of health centres – have a record of concern of being at risk regarding their emotional wellbeing, but this is as high as 40-60% in a few health centres. For clients assessed as being at risk, there is wide variation between health centres in referral or in provision of brief interventions, counselling or psychotropic medication. There is wide variation between health centres in recording a subsequent review of clients who have been identified at risk, and in having a report from an external service in follow-up to a referral.

Priority evidence-practice gaps (or priorities for improvement)

Priority areas for improvement relevant to emotional wellbeing screening and care include:

1. Emotional wellbeing screening (median level of delivery is <20%)
2. Improving capability to provide appropriate support and follow-up for clients identified as being at risk.

Figure 10 Mean health centre percentages of well clients with a record of emotional wellbeing screen and follow-up action if identified at risk.

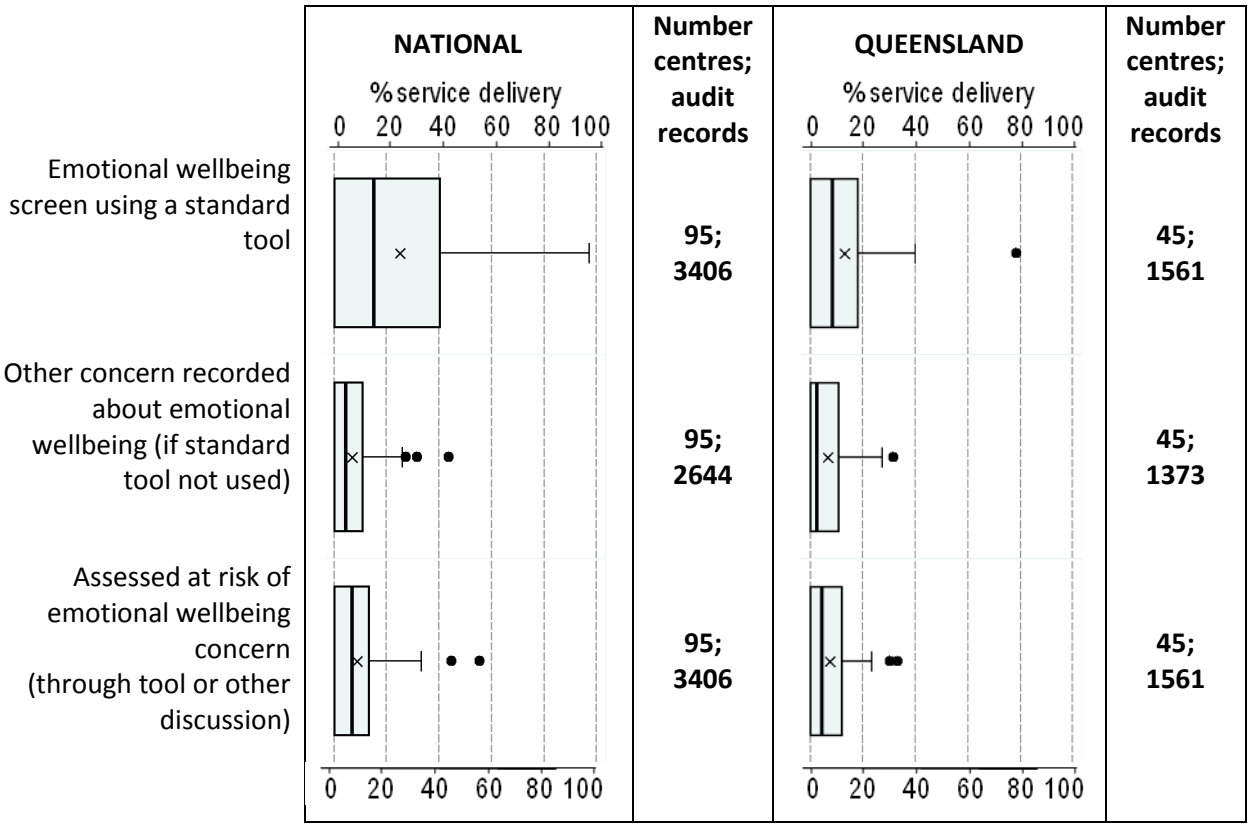
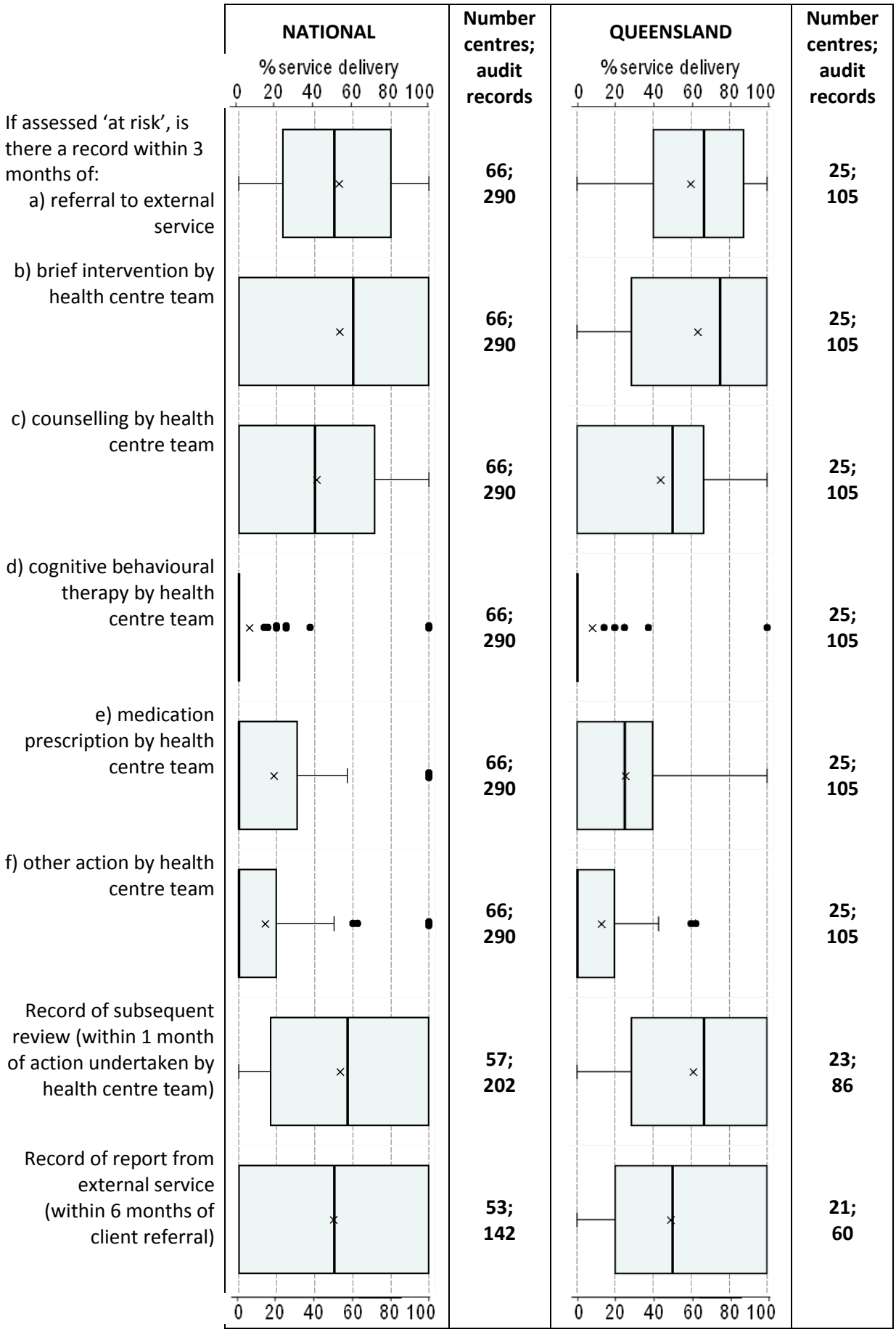


Figure 10 continued: Mean health centre percentages of well clients with a record of emotional wellbeing screen and follow-up action if identified at risk.



7 Systems assessment data

The ABCD/One21seventy Systems Assessment Tool (SAT) has been developed to enable providers of Aboriginal and Torres Strait Islander primary health care services to undertake a structured assessment of the strengths and weaknesses of their systems to support best practice care. The SAT evolved from the Chronic Care Model and the associated Assessment of Chronic Illness Care tool and from the World Health Organization's Innovative Care for Chronic Conditions Framework.

International experience has identified five key components of health systems to be effective across primary health care in improving the quality of care of clients with chronic illness (Table 4). These five components are incorporated into the SAT. Each component contains a number of items that health centre teams (managers and staff) discuss and come to a consensus about how well their systems are working.

Table 4 ABCD/One21seventy systems assessment tool components and items

Components of systems	Items for each component
Delivery system design This component refers to the extent to which the design of the health centre's infrastructure, staffing profile and allocation of roles and responsibilities, client flow and care processes maximise the potential effectiveness of the centre.	• Team structure and function • Clinical leadership • Appointments and scheduling • Care planning • Systematic approach to follow-up • Continuity of care • Client access/cultural competence • Physical infrastructure, supplies and equipment
Information systems and decision support This component refers to clinical and other information structures (including structures to support clinical decision making) and processes to support the planning, delivery and coordination of care.	• Maintenance and use of electronic client list • Evidence-based guidelines • Specialist–generalist collaborations
Self-management support This component refers to structures and processes that support clients and families to play a major role in maintaining their health, managing their health problems, and achieving safe and healthy environments.	• Assessment and documentation • Self-management education and support, behavioural risk reduction and peer support.
Links with the community, other health services and other services and resources This component refers to the extent to which the health centre uses external linkages to inform service planning, links clients to outside resources, works out in the community, and contributes to regional planning and resource development.	• Communication and cooperation on governance and operation of the health centre and other community-based organisations and programs • Linking health centre clients to outside resources • Working out in the community • Communication and cooperation on regional health planning and development of health resources.
Organisational influence and integration This component refers to the use of organisational influence to create a culture and support organisational structures and processes that promote safe, high quality care; and how well all the system components are integrated across the centre.	• Organisational commitment • Quality improvement strategies • Integration of health system components.

Each item is scored separately on a scale of 0-11. System component scores are derived from the average of the scores for each item within the system component. Higher scores reflect better function.

Scores for each system component from health centres that undertook a systems assessment in 2012, 2013 or 2014, are shown in Figure 11. Nationally, 71 of the 95 health centres that completed a preventive health audit undertook a systems assessment.

Priorities for health centre systems improvement to enable health centres to provide high quality preventive care

Below is an assessment of health centre systems to support best practice.

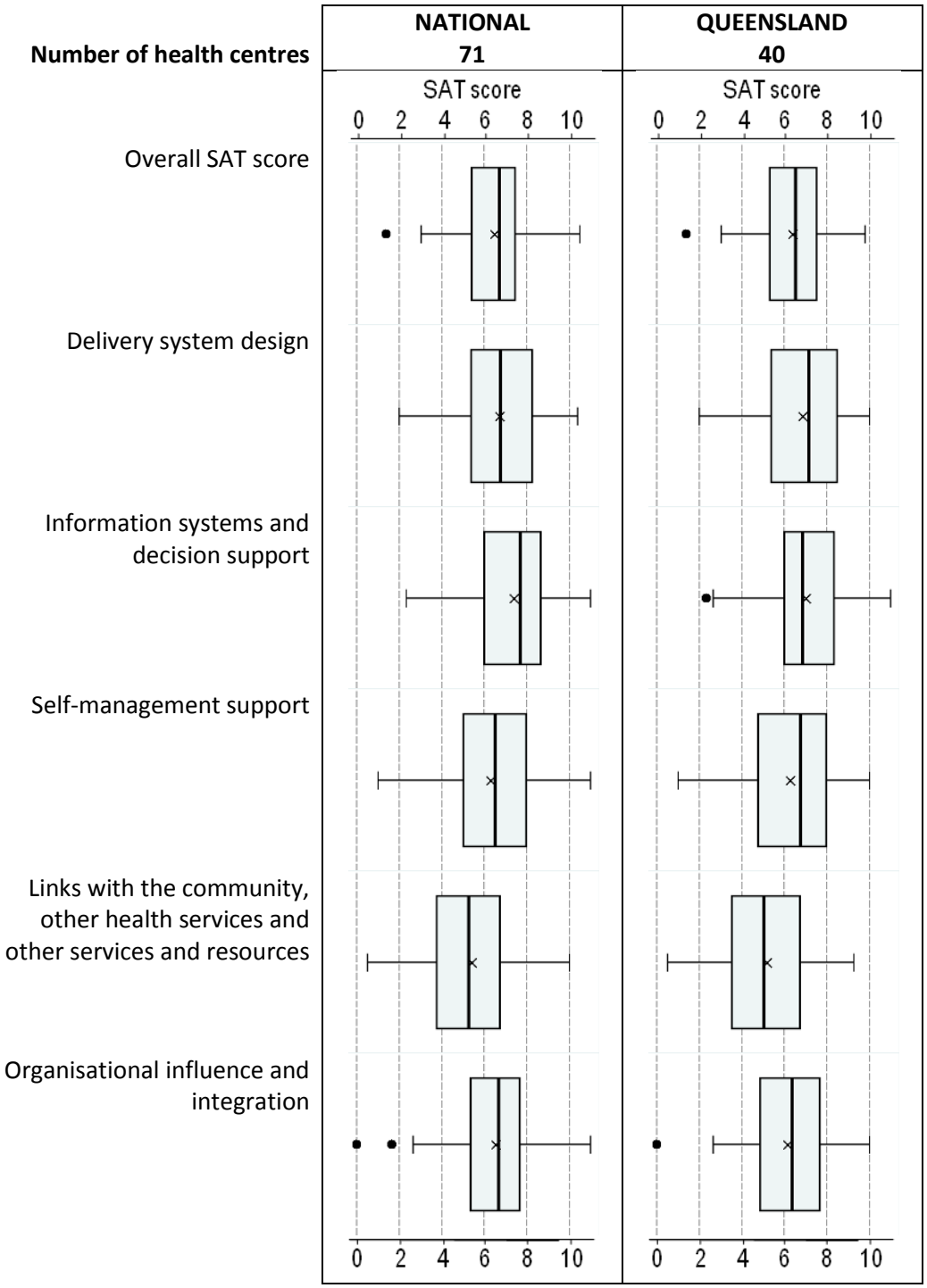
System components that were scored ***relatively high*** by most health centres were:

1. 'Information systems and decision support' (in particular 'Evidence-based guidelines' and 'Maintenance and use of electronic client lists') (Figures 11 & 13)
2. Within the Delivery system design component, 'Client access/cultural competence' and 'Systematic approach to follow-up' were scored relatively high (Figure 12)
3. Within the Organisational influence and integration component, 'Quality improvement strategies' was scored relatively high (Figure 16).

System components that were scored ***relatively low*** by most health centres were:

1. 'Links with the community, other health services and other services and resources' (in particular 'Communication and cooperation on regional health planning and development of health resources' and 'Communication and cooperation on governance and operation of the health centre') (Figure 15)
2. 'Self-Management Support' (Figure 14)
3. 'Team structure and function' and 'Continuity of care' - within the component 'Delivery system design' (Figure 12).

Figure 11 Mean system component scores as assessed by health centres.



Scores for the individual items within each system component, aggregated for all health centres nationally, are shown in the Figures 12-16 below.

Figure 12 Delivery system design component scores as assessed by health centres.

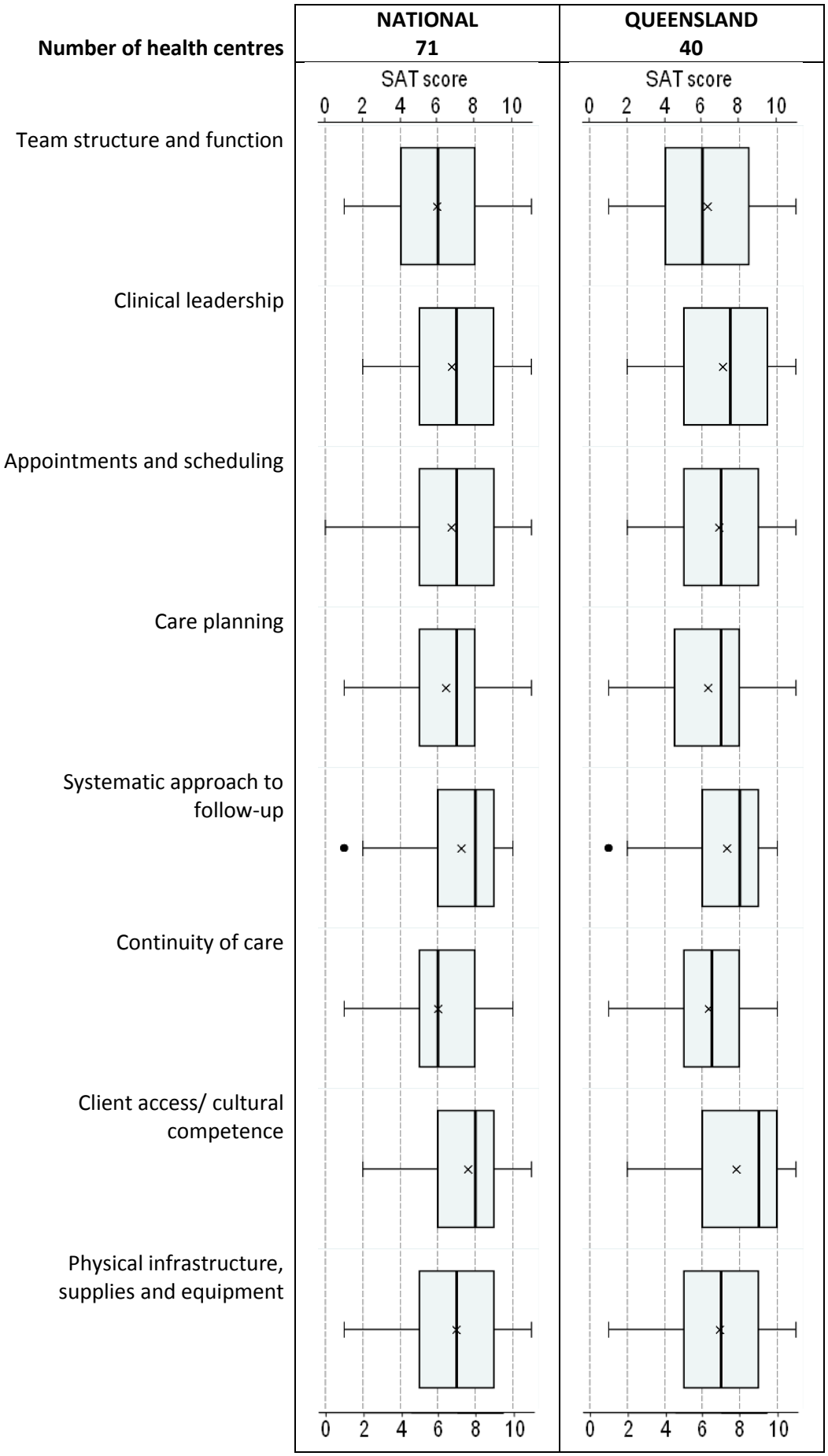


Figure 13 Information systems and decision support component scores as assessed by health centres.

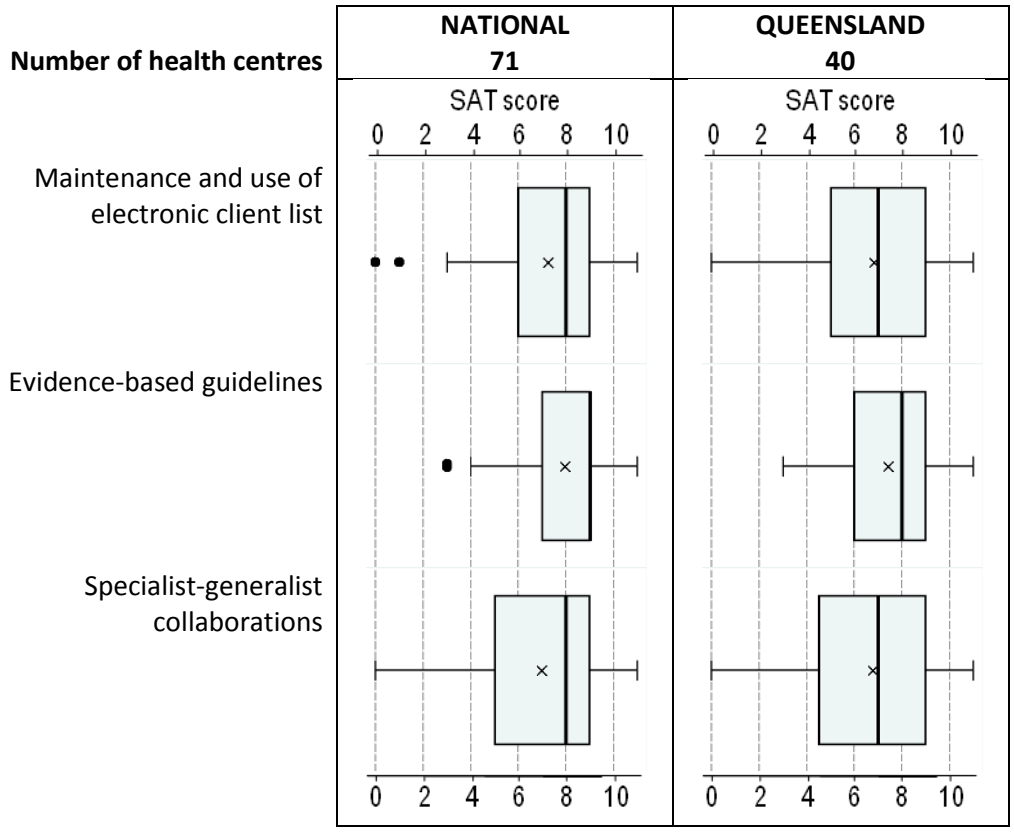


Figure 14 Self-management support component scores as assessed by health centres.

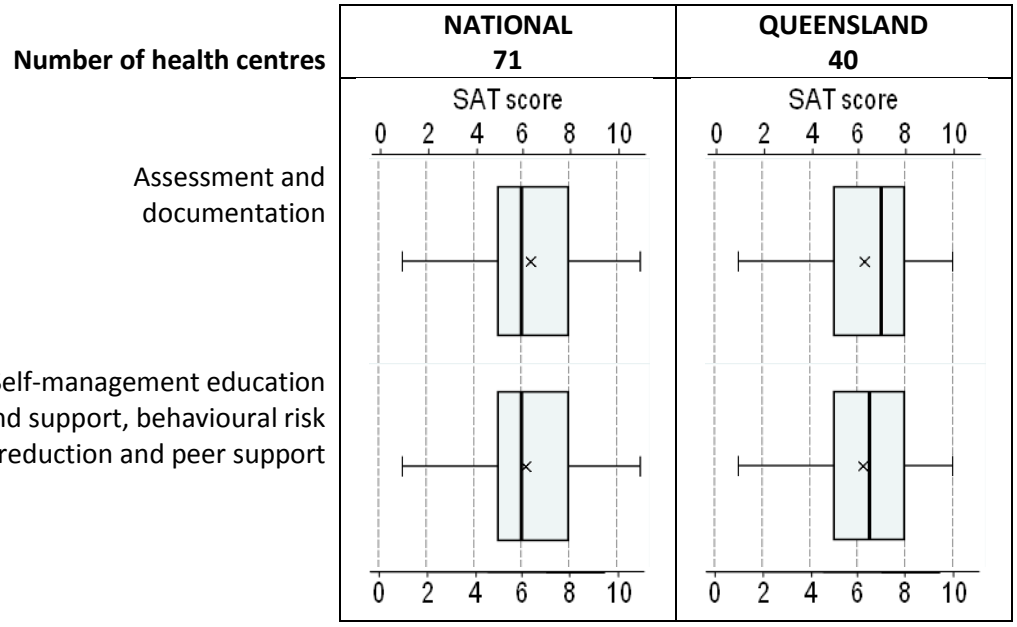


Figure 15 Links with the community, other health services and other services and resources component scores as assessed by health centres.

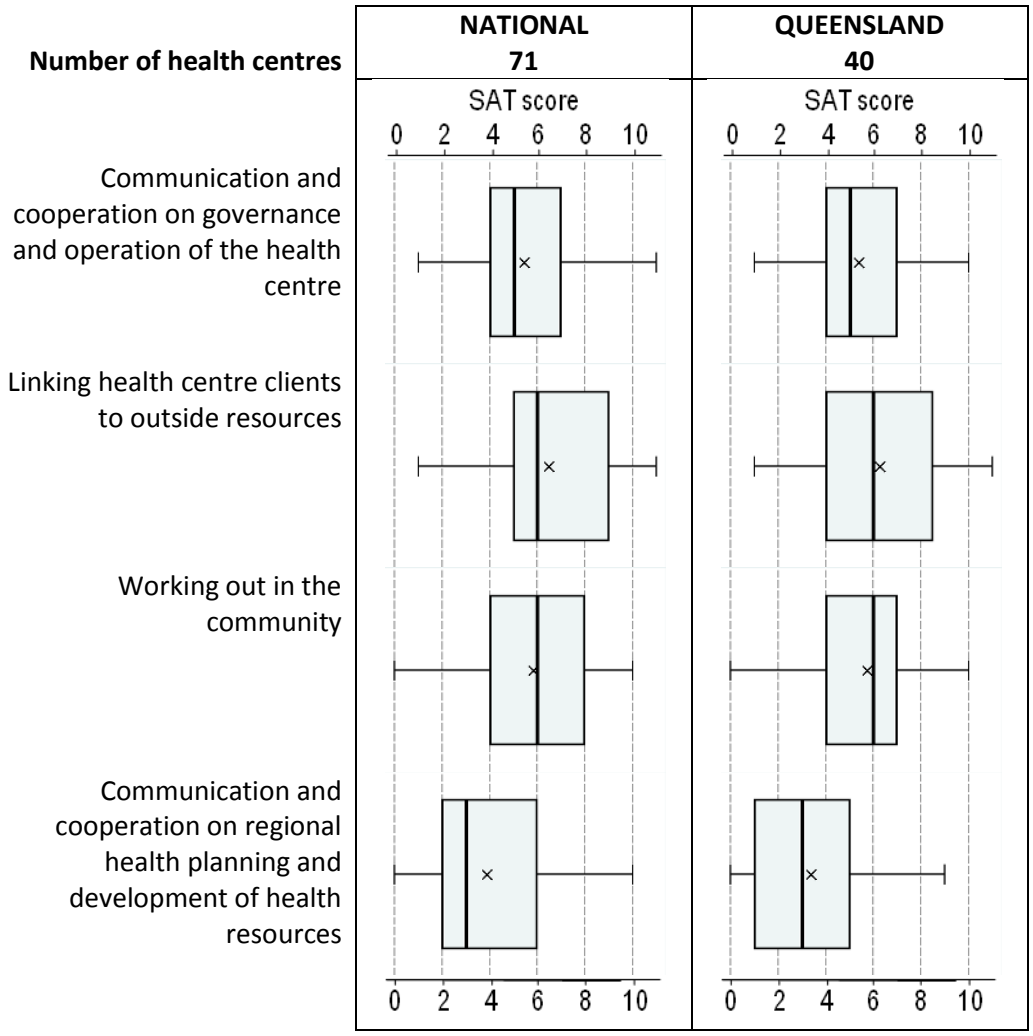
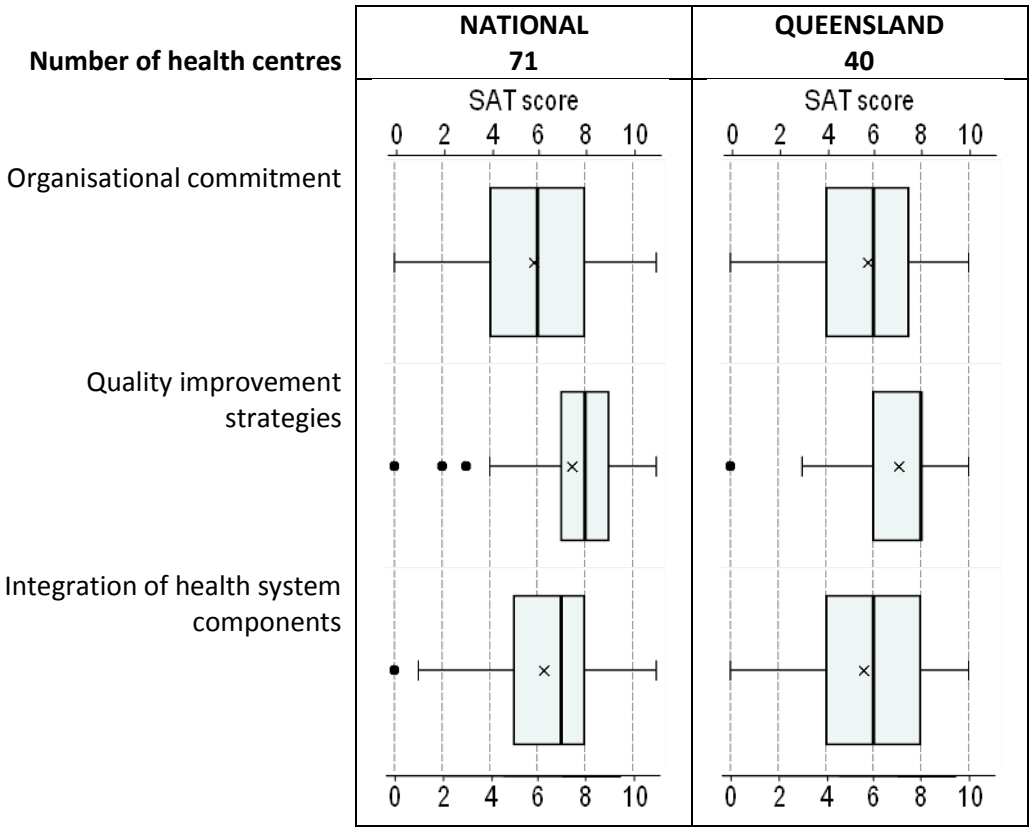


Figure 16 Organisational influence and integration component scores as assessed by health centres.



8 Discussion and conclusions

High quality primary health care is achievable and has been demonstrated in a number of services. There is however wide variation between health centres in almost all aspects of preventive care. A summary of the preliminary priorities for improvement is presented in Section 5.2 on pages 14-15. It is possible that improvements in key aspects of preventive care could be achieved through relatively simple interventions that address key barriers to delivery of these services.

The identification of barriers to provision of good quality care and development of strategies for improvement are the focus of upcoming phases of the ESP process.

Before moving on to these phases of the process, we aim to get input from a wide range of stakeholders on the priorities for improvement. This report is accompanied by a survey that is designed to assess key stakeholders' perceptions of the relative importance of various evidence-practice gaps identified in this report, and to build consensus about which gaps are the most important and that warrant particular effort for achieving improvement. The results of the survey will be fed back to stakeholders in the second phase of the project. The second phase will be focussed on identifying barriers and enablers to improvement in the priority areas, and the third on identifying strategies for improvement.

The analysis of the system assessment data shows the aspects of health centre systems that are identified by health centre staff as being generally relatively weak or strong across a large number of health centres. This information should help management and leadership to focus on areas that appear to be most in need of development, and thereby reduce systematic barriers to high quality care.

The key points from the analysis of the systems assessment data are also presented in Section 5.2 on page 15. An important point that emerges from this analysis is the contrast between the generally low levels of recording of follow-up action for patients with abnormal clinical or laboratory findings as reflected in the audit data, and the relatively positive assessment by health centre staff 'systematic approach to follow-up' as reflected in the systems assessment data. This is a good example of where comparison between the audit data and the data on health centre system development can be used to encourage reflective thinking and ideas for improvement among health centre teams, and among managers and clinical leaders. It is this sort of reflection that we aim to encourage through the next phases of the ESP project. The ESP project aims to capture and share the ideas that emerge from this sort of reflection, in order to encourage wider learning. Thus the ESP project aims to support the use of data in CQI processes to achieve system wide improvements.

Leadership at multiple levels of the system is vital to achieving wide engagement in CQI processes, and managers and clinical leaders have a key role in supporting the sort of reflective processes that are enabled by the ESP project.

Appendix A – 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 well adults who attend services that use One21seventy CQI tools AND participate in the ABCD National Research Partnership. The preventive health audit tool was developed by an expert working group, with participation of experts and health service staff. 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 reference list is included in Appendix B. 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 preventive health care delivery. Copies of the One21seventy Preventive Health 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 client 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 preventive health clinical audit, a client must: be between 15 and up to 55 years; have no diagnosis of diabetes, hypertension, coronary heart disease, chronic heart failure, rheumatic heart disease or chronic kidney disease; not be pregnant or less than 6 weeks postpartum; and have been resident in the community for 6 months or more in the last 12 months. 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 - Sources

The preventive health clinical audit protocol draws heavily on the following:

1. Australian Diabetes Council website, 2014. [ONLINE] viewed 11 Nov 2014 http://www.australiandiabetescouncil.com/diabetes-education/what-your-numbers-mean
2. AG (Australian Government), NHMRC (National Health and Medical Research Council), DoHA (Department of Health and Aging), 2013 *Australian Dietary Guidelines Summary [ONLINE]* viewed 11 Nov 2014 http://www.eatforhealth.gov.au/sites/default/files/files/the_guidelines/n55a_australian_dietary_guidelines_summary_131014.pdf
3. Australian Indigenous *HealthInfoNet*, (2011) Keyfacts – Social and emotional wellbeing [ONLINE] viewed 11 Nov 2014 http://www.healthinfonet.ecu.edu.au/other-health-conditions/sewbworkers/social-and-emotional-wellbeing/key-facts
4. AIHW (Australian Institute of Health and Welfare) (2009). *Measuring the social and emotional wellbeing of Aboriginal and Torres Strait Islander peoples*. AIHW, Canberra.
5. APA (American Psychological Association) (2011). *Patient health questionnaire (PHQ-9 and PHQ-2)* [ONLINE] viewed 11 Nov 2014 http://www.apa.org/pi/about/publications/caregivers/practice-settings/assessment/tools/patient-health.aspx
6. Cancer Council Australia. 2012. *screening programs*. [ONLINE] viewed 11 Nov 2014 http://www.cancer.org.au/about-cancer/early-detection/prostate-cancer-screening.html
7. CARPA (Central Australian Rural Practitioners Association Inc.) (2014). *Standard treatment manual*, 6th edn, CARPA, Alice Springs. [ONLINE] viewed 11 Nov 2014 http://www.remotephcmanuals.com.au/publications/website/pdf/STM_web/Standard%20Treatment%20Manual%20-%204%20Chronic%20diseases%20(web).pdf
8. CDNA (Communicable disease network Australia), 2014, National Guidelines for the Public Health Management of Trachoma [ONLINE] viewed 11 Nov 2014 http://www.health.gov.au/internet/main/publishing.nsf/Content/D02F0C1C2AB90509CA257C66001C089C/$File/trachoma-SoNG-Jan2014.pdf
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12. DoHA (Department of Health and Ageing) (2006, reviewed 2012). *Aged care Australia.* [ONLINE] viewed 11 Nov 2014http://www.myagedcare.gov.au/caring-someone]
13. DoHA (Department of Health and Ageing) (2010). Fact Sheet: *MBS primary care items — Medicare health assessment for Aboriginal and Torres Strait Islander people.* [ONLINE] viewed 11 Nov 14 www.health.gov.au/internet/main/publishing.nsf/Content/mbsprimarycare_ATSI_MBSitem715
14. DoHA (Department of Health and Ageing) (2010a). *BreastScreen Australia national policy.* [ONLINE] viewed 11 Nov 14 www.cancerscreening.gov.au/internet/screening/publishing.nsf/Content/national-policy
15. Kessler RC (1996). *Kessler's 10 psychological distress scale*. Harvard Medical School, Boston.
16. NACCHO/RACGP, National guide to a preventive health assessment for Aboriginal and Torres Strait Islander people. 2nd edn. South Melbourne: The RACGP, 2012 [ONLINE] viewed 11 Nov 14 http://www.racgp.org.au/download/documents/AHU/2ndednationalguide.pdf
17. NCHS (National Center of Health Statistics) (2007). *National health interview survey*. NCHS, Hyattsville.
18. NHMRC (National Health and Medical Research Council) (2009a). *Australian guidelines to reduce health risks from drinking alcohol,* NHMRC, Canberra. [ONLINE] viewed 11 Nov 14 http://www.nhmrc.gov.au/_files_nhmrc/publications/attachments/ds10-alcohol.pdf
19. Queensland Health (2010). *Chronic disease guidelines*. [ONLINE] viewed 11 Nov 14 www.health.qld.gov.au/cdg/docs/cdg_full_version.pdf
20. RACGP (Royal Australian College of General Practitioners) (2013). *Interpretive guide of the RACGP standards for general practices (4th edition) for Aboriginal and Torres Strait Islander health services,* Melbourne. [ONLINE] viewed 11 Nov 14 http://www.racgp.org.au/download/Documents/Standards/interpretiveguide.pdf [Accessed 9 September 2014]

Appendix C – ESP Project processes

Phase 1 – Evidence-practice gaps

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

Information provided to participants

1. aggregated CQI data (2012-2014) about the delivery of care presented in national and State/Territory reports
2. 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 best practice care. 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 best practice care identified in Phase 1.

Information provided to participants

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

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 report on strategies for improvement will be returned to participants for review. Comments from the review will be used to inform a final report on strategies for improvement in identified priority-evidence practice gaps. This 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 D: Preliminary priority evidence-practice gaps

Clinical history and observations	*History:* Hearing problems Discussion of sexual and reproductive healthcare Continence Alcohol use Tobacco status Other substance use Emotional well-being assessment Environmental and living conditions Family relationships	*Examination:* BMI, waist circumference Urinalysis Visual acuity Oral health Ear examination findings & hearing problems
Laboratory and radiology testing	Lipid profile Pap smear Mammography	
Synthesis of information	Absolute cardiovascular risk assessment Completion of a health check	
Follow-up and clinical care	Follow-up of abnormal BP, BGL and lipid profile Provision of advice on nutrition and physical activity Appropriate support and follow-up for clients at risk of social and emotional problems	
Health systems	Linkages to community and other health service Self-management support Team structure and function Continuity of care	