

**Data Supplement:
Aboriginal and Torres Strait Islander
Acute Rheumatic Fever and
Rheumatic Heart Disease Care in Australia**

Current Status Data (2012 – 2014) Phase 1

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

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This supplement report is intended to be used in conjunction with the national "Priority Evidence-Practice Gaps in Aboriginal and Torres Strait Islander Acute Rheumatic Fever and Rheumatic Heart Disease Care 2008-2014 – Phase 2 ESP Project."

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Abbreviations

ABCD	Audit and Best practice for Chronic Disease
ARF	Acute rheumatic fever
ATSIHW	Aboriginal or Torres Strait Islander Health Worker
BPG	Benzathine penicillin G
CQI	Continuous Quality Improvement
INR	International Normalised Ratio
PHC	Primary Health Care
RHD	Rheumatic Heart Disease
RRF	Recurrent rheumatic fever
SAT	Systems Assessment Tool
WHO	World Health Organisation

1 Phase 1 data report – identifying priority evidence-practice gaps

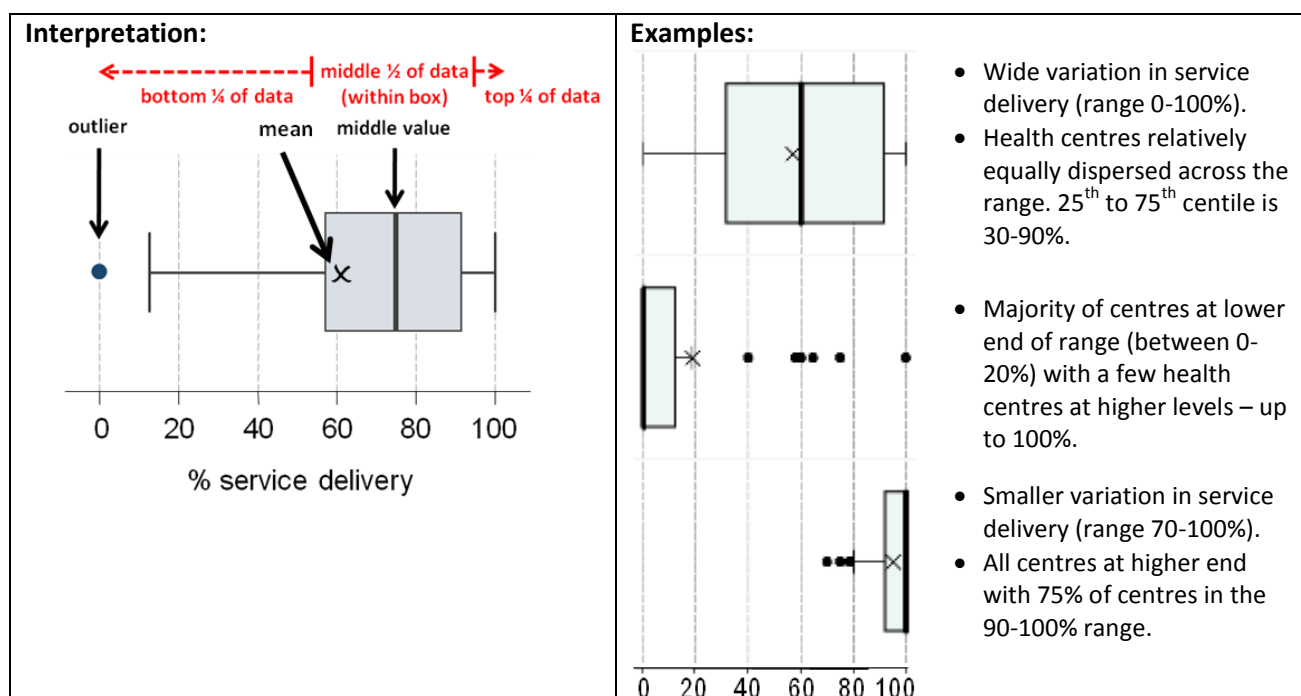
Presentation of audit data – horizontal box and whisker plots

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 (Figure 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, 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).

Figure 1. How to interpret box and whisker plots



2 Profile of health centres

Forty-four health centres last used the ARF/RHD audit tool in 2012, 2013 or 2014 (Table 1) and the health centres had used the audit tools for varying numbers of cycles (Table 2). The ARF/RHD audit tool had been used mostly by health centres in QLD and the NT where the disease is known to be prevalent. The data included in the analysis for this report were extracted in July 2014. A total of 897 records were audited at the 44 health centres. Nine health centres last used the ARF/RHD tool in 2012 (170 records audited), 26 health centres in 2013 (468 records audited) and 9 health centres in 2014 (259 records audited). To date, 22 of these health centres recorded a completed systems assessment in the One21seventy database.

Table 1. Most recent RHD 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	124	196	19	339
	#Centres	7	16	1	24
	#SATs	3	13	0	16
NT	#Records	46	272	240	558
	#Centres	2	10	8	20
	#SATs	1	4	1	6
Total	#Records	170	468	259	897
	#Centres	9	26	9	44
	#SATs	4	17	1	22

Table 2. Most recent AFR/RHD audit completed, by audit cycle in 2012, 2013 or 2014 (number of health centres)

	Last Audit Cycle Completed						Total
	1	2	3	4	5	6	
QLD	6	5	9	3	1	0	24
NT	9	6	1	0	2	2	20
Total	15	11	10	3	3	2	44

The majority of audited health centres are in remote communities (84%) and are government managed (87%). Half of the communities served by these health centres have a population greater than 1000 people while 29% have populations less than 500 (Table 3). Ninety-five percent of records audited were for Aboriginal or Torres Strait Islander clients. Nearly half of all records were for clients classified as Priority 3 (Mild RHD or ARF only and no RHD). Priority 1 (Severe RHD) and Priority 2 (Moderate RHD) client groups made up 20% each. Close to 100% of audited records showed a record of attendance at the health centre either within the previous 6 or 12 months depending on RHD classification and almost half of these attendances were to receive regular benzathine penicillin injections. National data shows that initial assessment at the health centre was most commonly conducted by a nurse, with General Practitioners 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 & %)

Primary Health Care Centres		QLD 24		NT 20		Total 44	
Location	Urban	1	4%	1	5%	2	7%
	Regional	3	13%	1	5%	4	9%
	Remote	20	83%	18	90%	38	84%
Governance	Government	24	100%	14	70%	38	87%
	Community Controlled			6	30%	6	13%
Size of population served	≤500	11	46%	2	10%	13	29%
	501-999	4	17%	5	25%	9	20%
	≥1000	9	37%	13	65%	22	51%
Completed RHD audit cycles	Baseline	6	25%	9	45%	15	33%
	1-2 cycles	14	58%	7	35%	21	49%
	≥3 cycles	4	17%	4	20%	8	18%
Number of audited records		339		558		897	
Age (mean & range)		24 (2-75)		30 (3-78)		28 (2-78)	
Gender	Males	132	39%	226	41%	358	40%
	Females	207	61%	332	59%	539	60%
Indigenous status	Indigenous	302	89%	554	99%	856	95%
	Non-indigenous	5	1%	4	1%	9	1%
	Not stated	32	9%			32	4%
Reason for last attendance	BPG Injection	195	58%	227	41%	422	47%
	Oral antibiotic prophylaxis	1	0.3%	8	1%	9	1%
	Acute care	78	23%	130	23%	208	23%
	Well person's check	4	1%	23	4%	27	3%
	Specialist review	14	4%	15	3%	29	3%
	Other	47	14%	155	28%	202	23%
Profession client first seen by	ATSIHW	27	8%	89	16%	116	13%
	Nurse	257	76%	362	65%	619	69%
	GP	45	13%	70	13%	115	13%
	Specialist	7	2%	14	3%	21	2%
	Allied Health	1	0.3%	6	1%	7	1%
	Other			17	3%	17	2%
	Not stated	2	0.6%			2	0.2%
RHD Classification	Priority 1: Severe	35	10%	142	25%	177	20%
	Priority 2: Moderate	64	19%	115	21%	179	20%
	Priority 3: Mild, ARF (no RHD)	194	57%	247	44%	441	49%
	Unable to determine	4	1%	13	2%	17	2%
	Not recorded	42	12%	41	7%	83	9%
Time since last attendance	Within past 6 months (priority 1 & 2)	95	96%	250	97%	345	97%
	Within past 12 months (priority 3)	190	98%	245	99%	435	99%

3 Key information in client records/health summaries

The figures in this section show mean health centre percentages of ARF/RHD clients who have a record of key information in medical records such as diagnosis and RHD classification, current management plans, risk factor status and relevant information about surgery history and medication prescriptions.

Figure 2. *Mean health centre percentages of ARF/ RHD clients with a record of diagnosis in health summaries or elsewhere in the medical record and documentation of RHD classification and current management plans.*

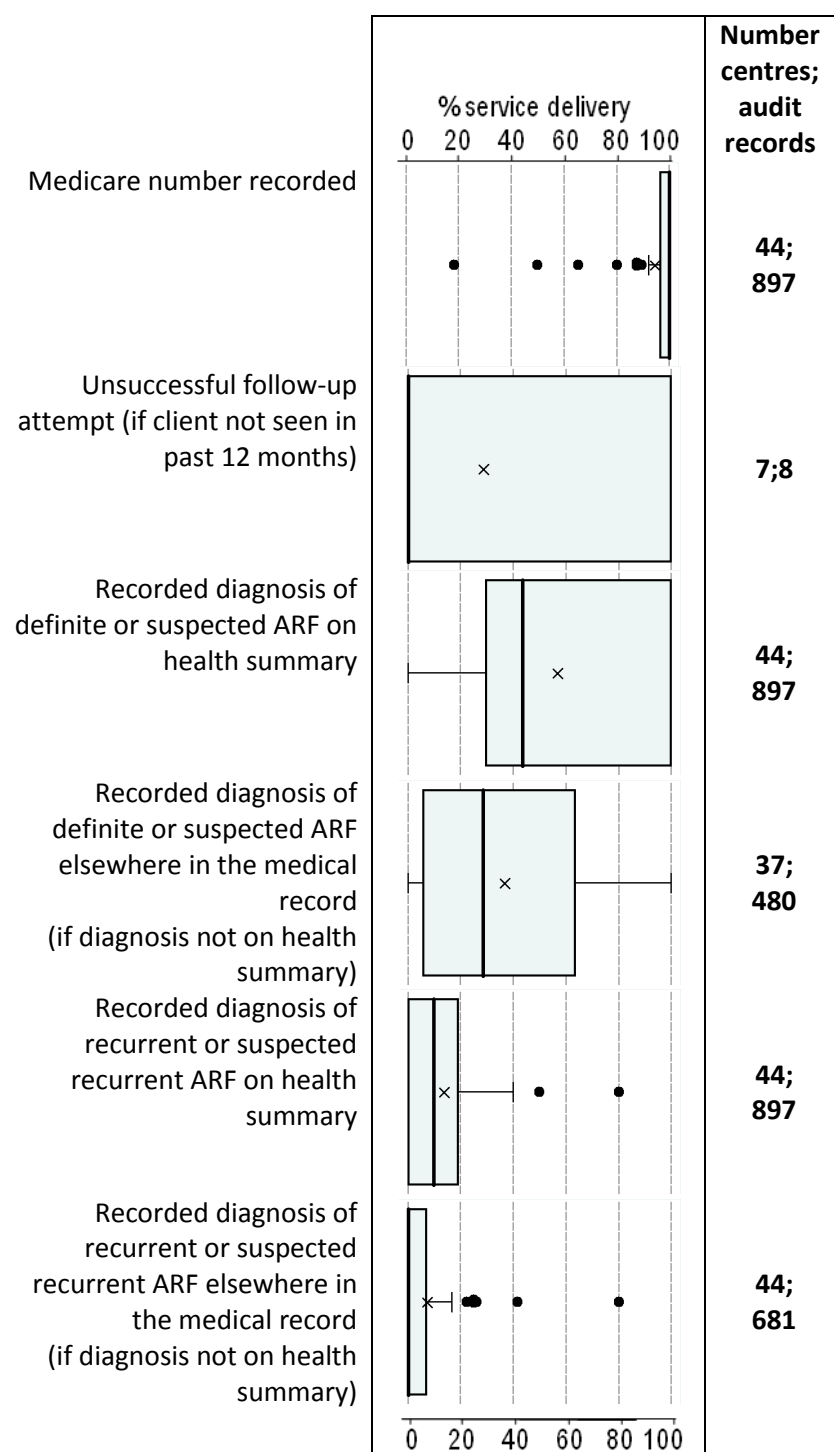


Figure 2 cont: Mean health centre percentages of ARF/ RHD clients with a record of diagnosis in health summaries or elsewhere in the medical record and documentation of RHD classification and current management plans.

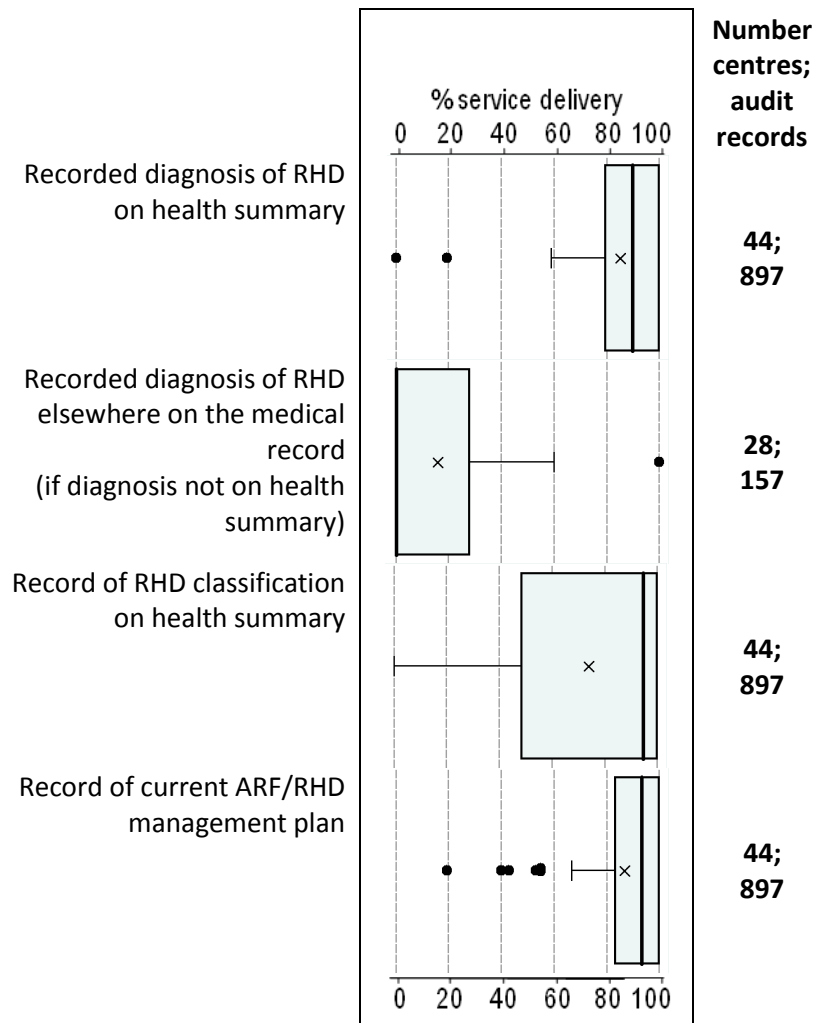
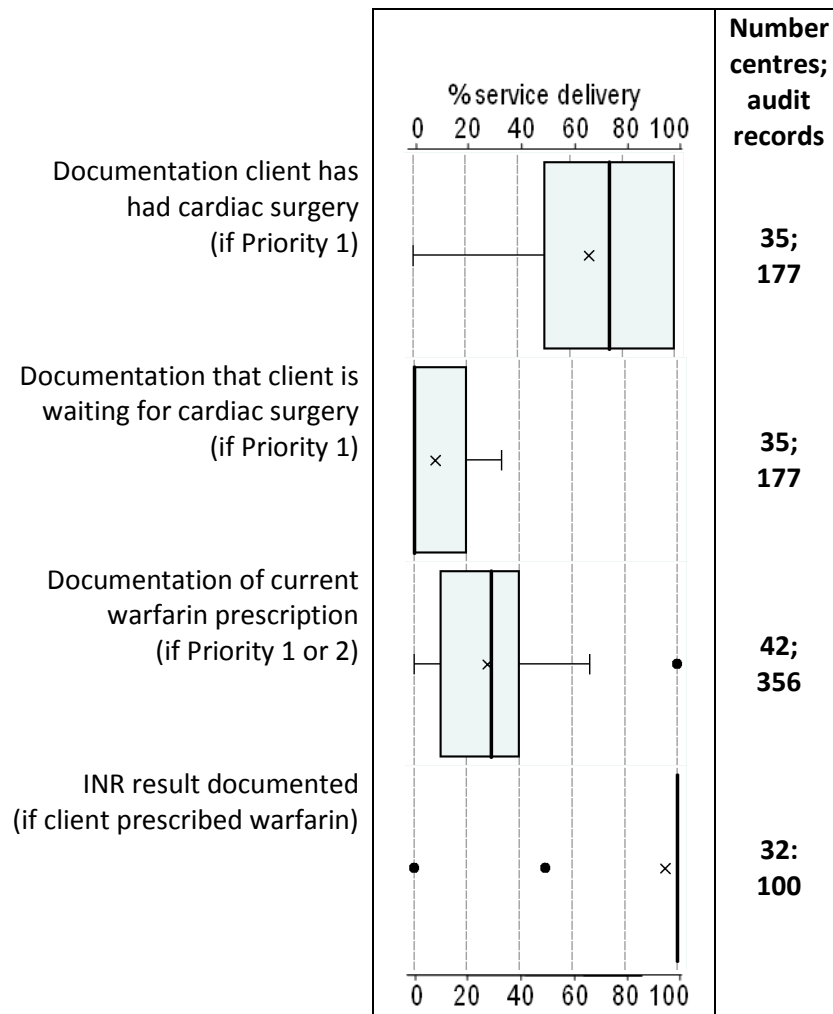


Figure 3. Mean health centre percentages of ARF/RHD clients with documentation of relevant information on surgical history and warfarin prescription in the medical record.



4 Penicillin use and recurrent rheumatic fever

The figures in this section show mean health centre percentages of ARF/RHD clients with a record of: prescription of benzathine penicillin (BPG) injections (or oral prophylaxis); planned frequency of injections; follow-up action if <80% of planned injections received; and follow-up action if one or more episodes of recurrent ARF were recorded within the last 12 months.

Figure 4. *Mean health centre percentages of ARF/RHD clients with a record of prescription for BPG injections or oral prophylaxis and record of planned frequency of BPG injections in the medical record and/or clinic master chart.*

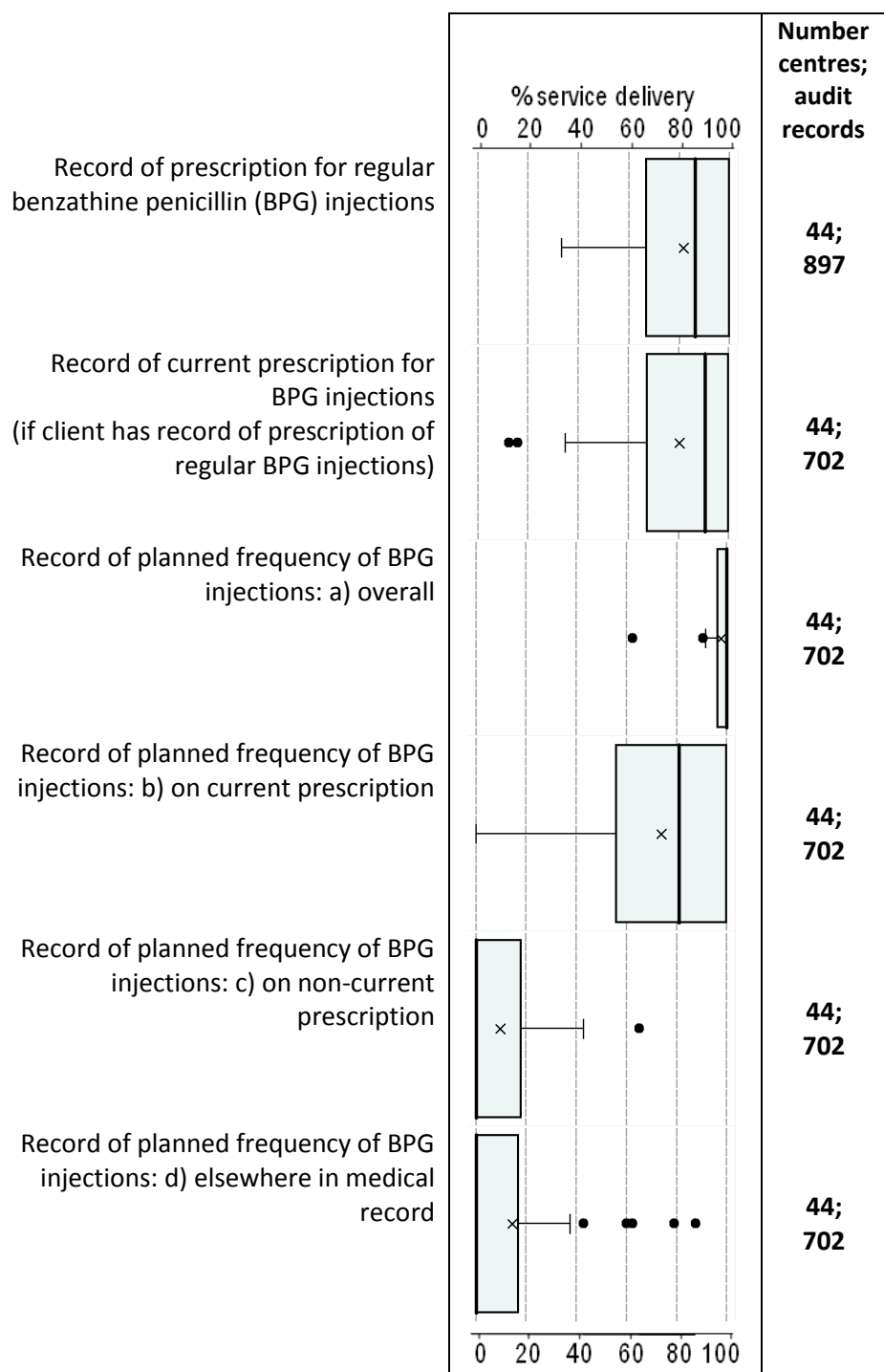


Figure 4 cont: Mean health centre percentages of ARF/RHD clients with a record of prescription for BPG injections or oral prophylaxis and record of planned frequency of BPG injections in the medical record and/or clinic master chart.

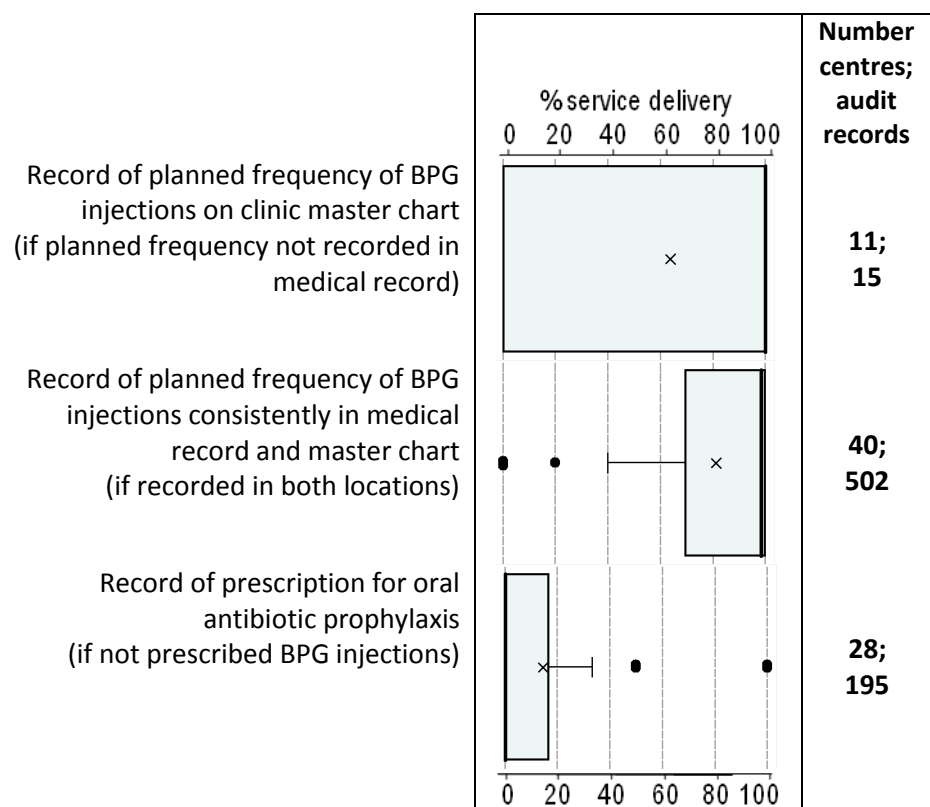


Figure 5. Mean health centre percentages of ARF/RHD clients with a record of follow-up if percent of planned BPG injections received was less than 80%.

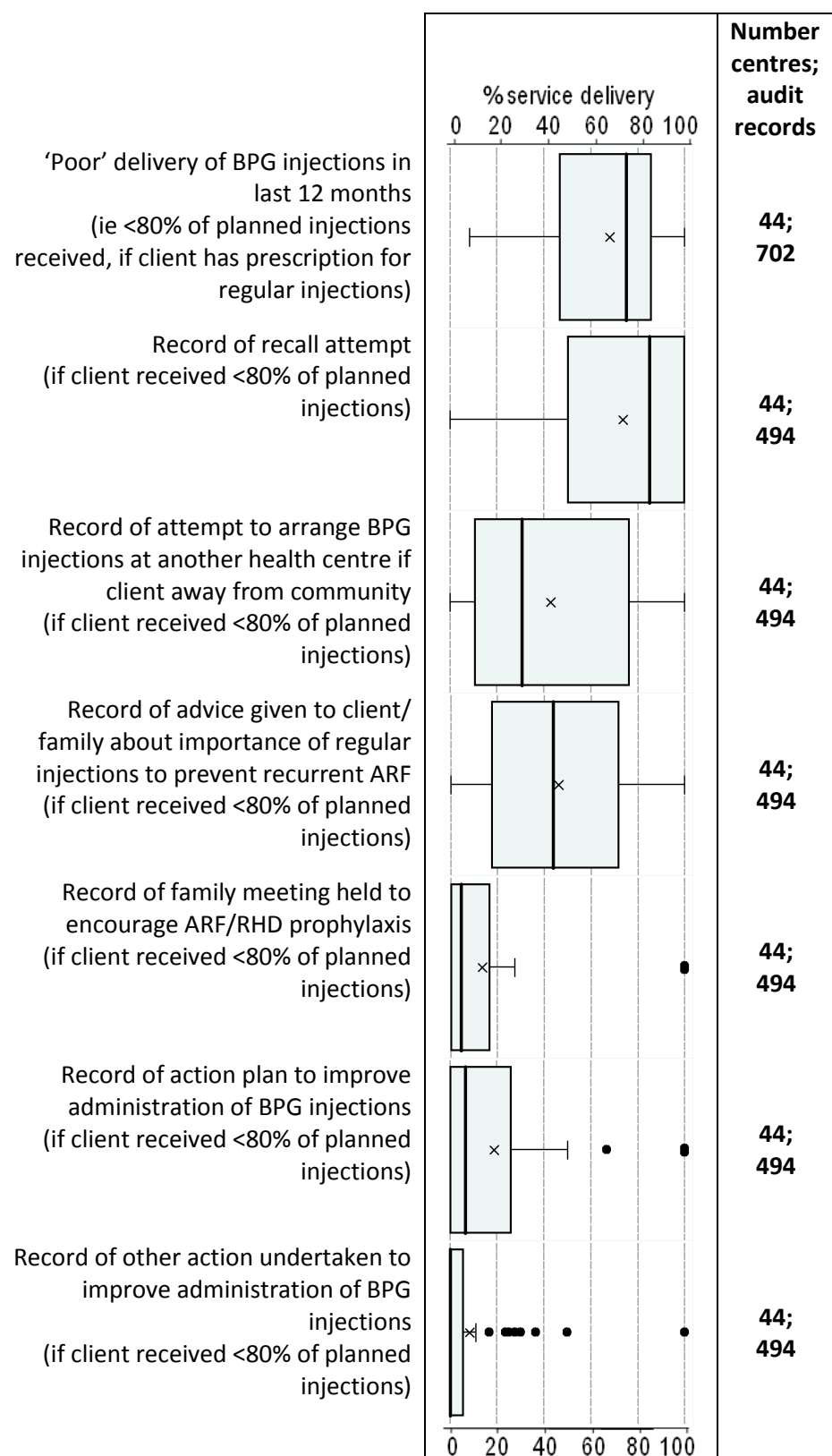
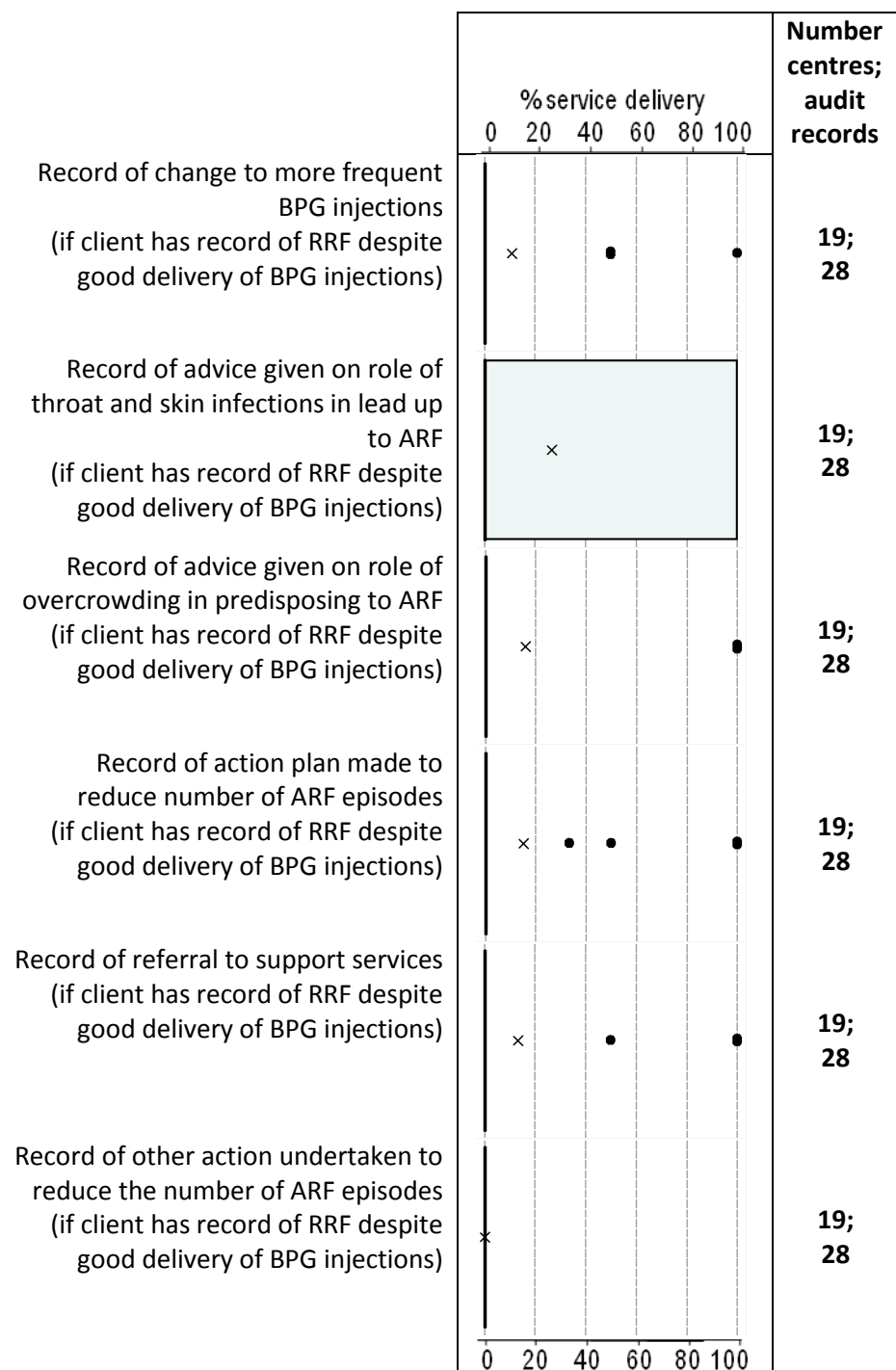


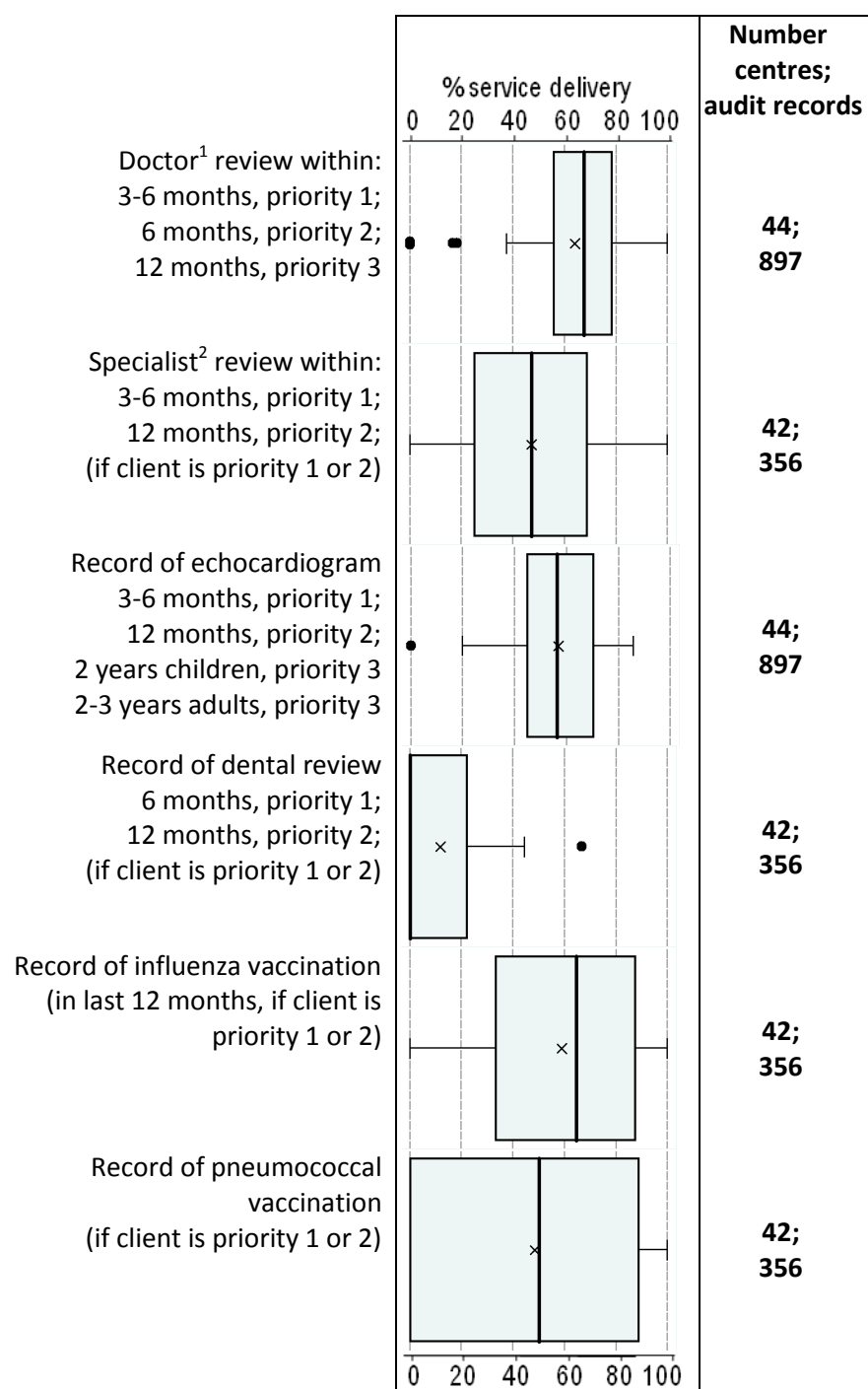
Figure 6. Mean health centre percentages of ARF/RHD clients with a record of follow-up if one or more episodes of recurrent rheumatic fever (RRF) were recorded, despite good delivery of BPG injections ($\geq 80\%$) in the last 12 months.



5 Scheduled Services

The figures in this section show mean health centre percentages of ARF/RHD clients with a record of scheduled services received (as indicated depending on priority level), documentation of risk factors and brief interventions where relevant within the last 12 months.

Figure 7. *Mean health centre percentages of ARF/RHD clients with a record of scheduled service received within the timeframe recommended for the RHD classification as indicated.*



¹ Doctor may include local GP, visiting DMO, GP registrar or junior doctor

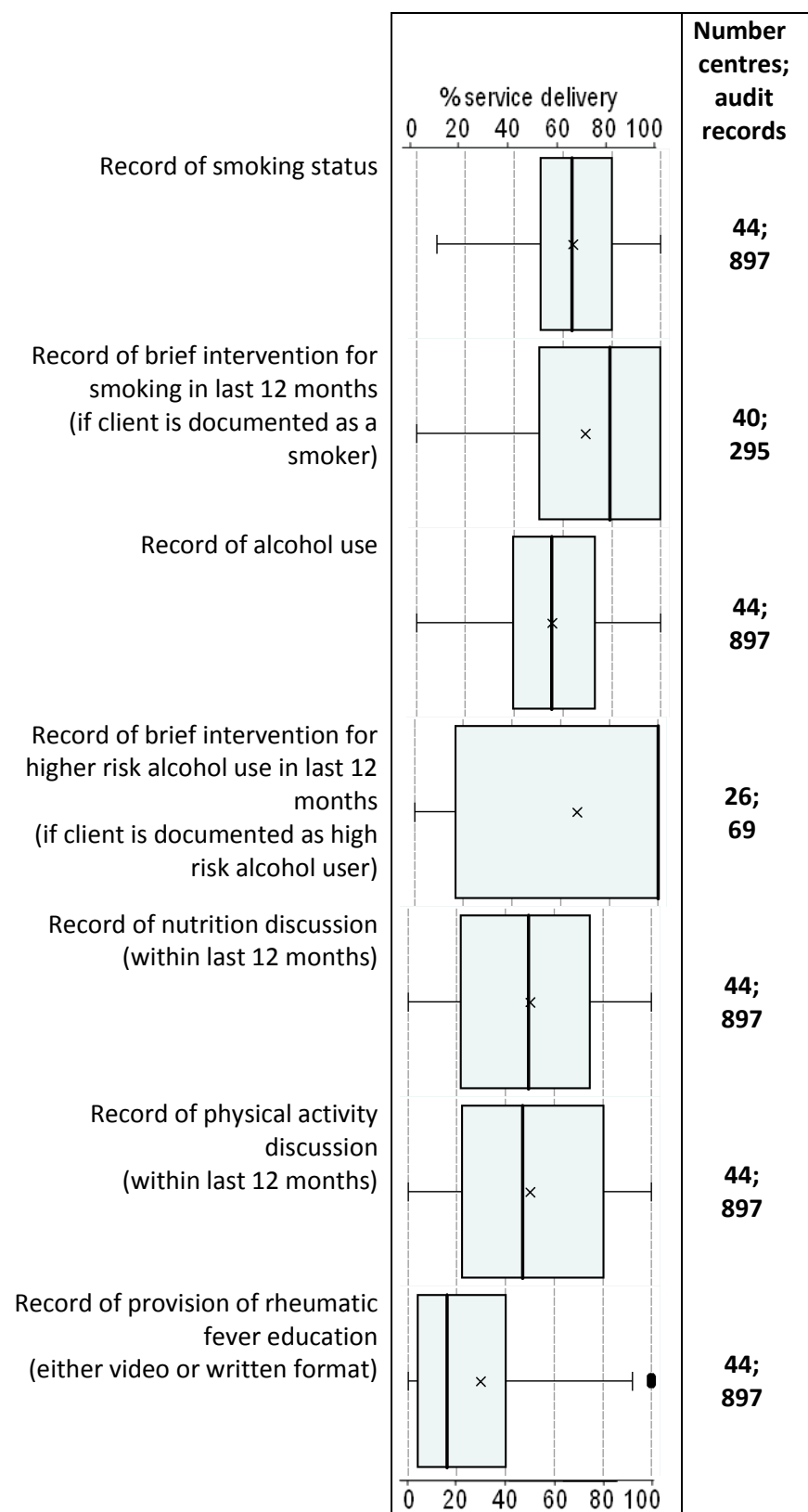
² Specialist may include cardiologist, physician, paediatrician or specialist registrar

6 Risk factors and interventions

Summary of audit findings

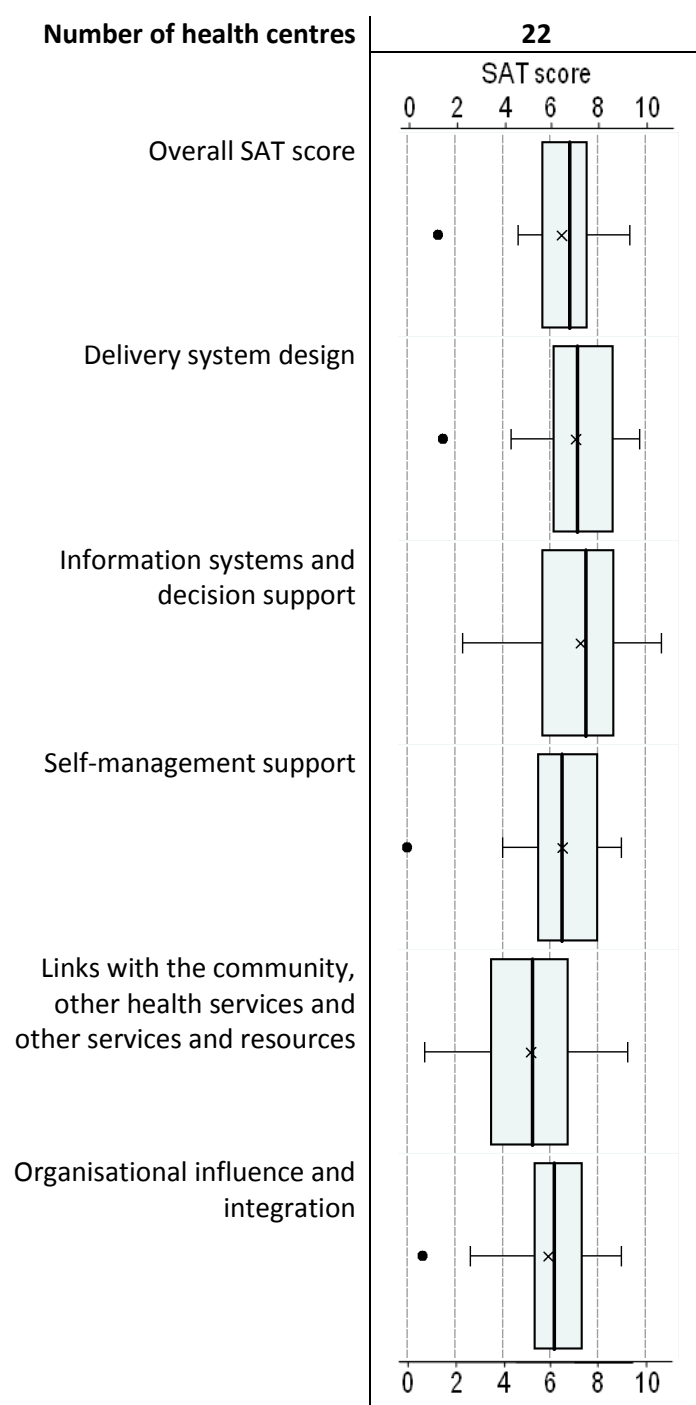
The figures in this section show mean health centre percentages of ARF/RHD clients with documentation and record of brief interventions.

Figure 8. Mean health centre percentages of ARF/RHD clients with documentation of risk factors and record of brief interventions provided where relevant.



7 Systems assessment data

Figure 9. 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 below.

Figure 10. *Delivery system design component scores as assessed by health centres.*

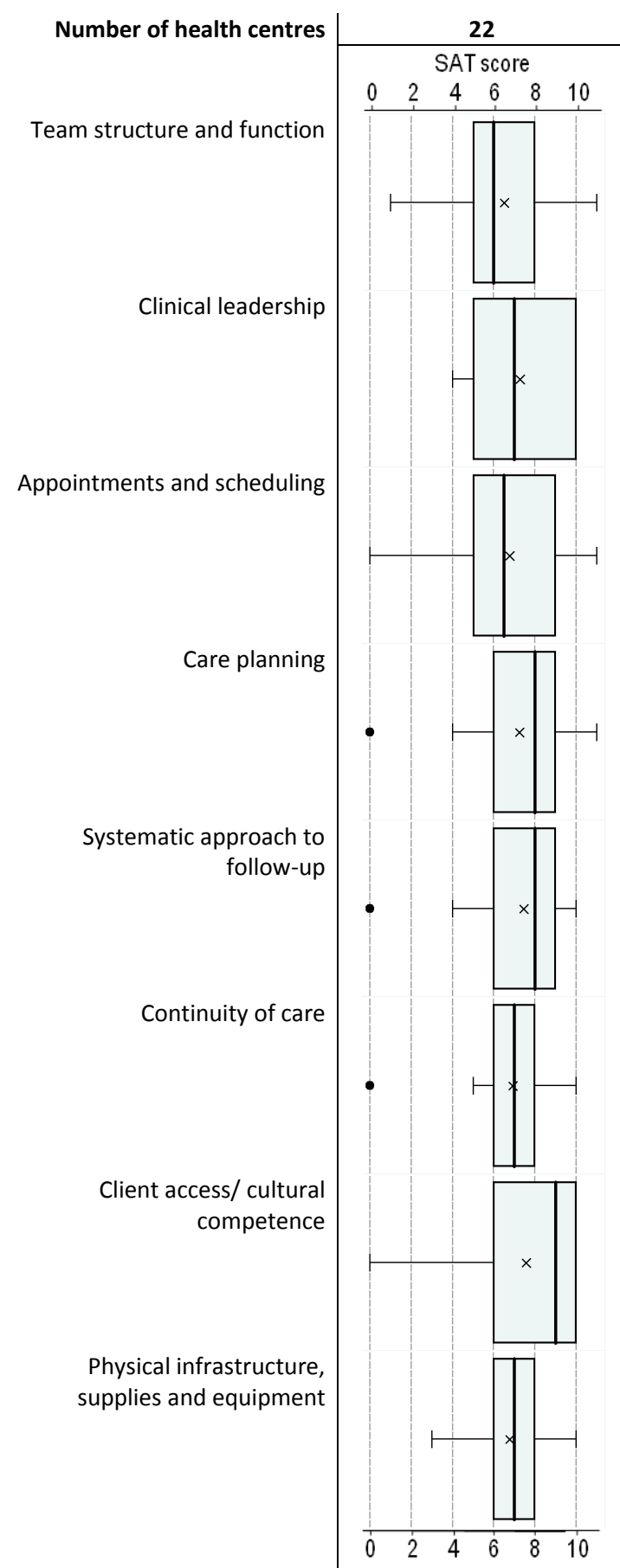


Figure 11. Information systems and decision support component scores as assessed by health centres.

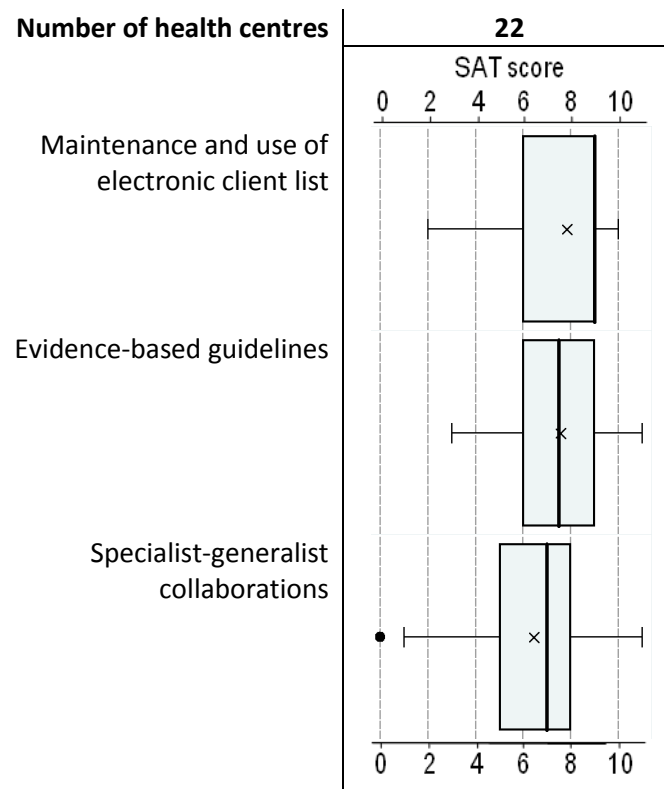


Figure 12. Self-management support component scores as assessed by health centres.

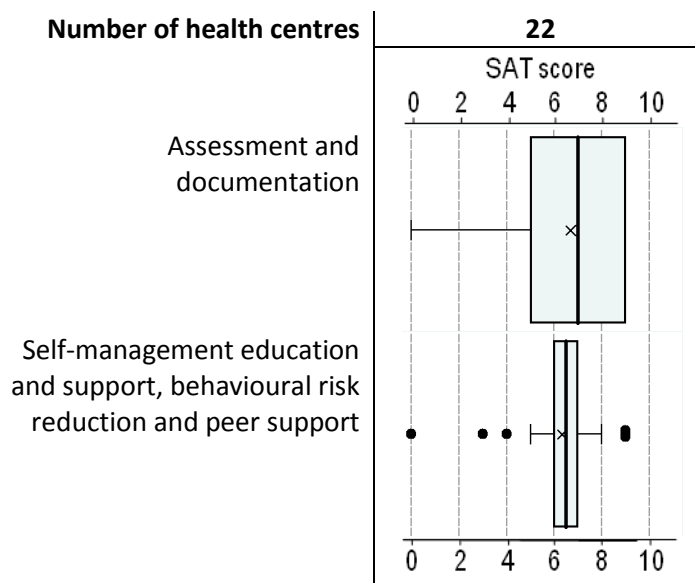


Figure 13. *Links with the community, other health services and other services and resources component scores as assessed by health centres.*

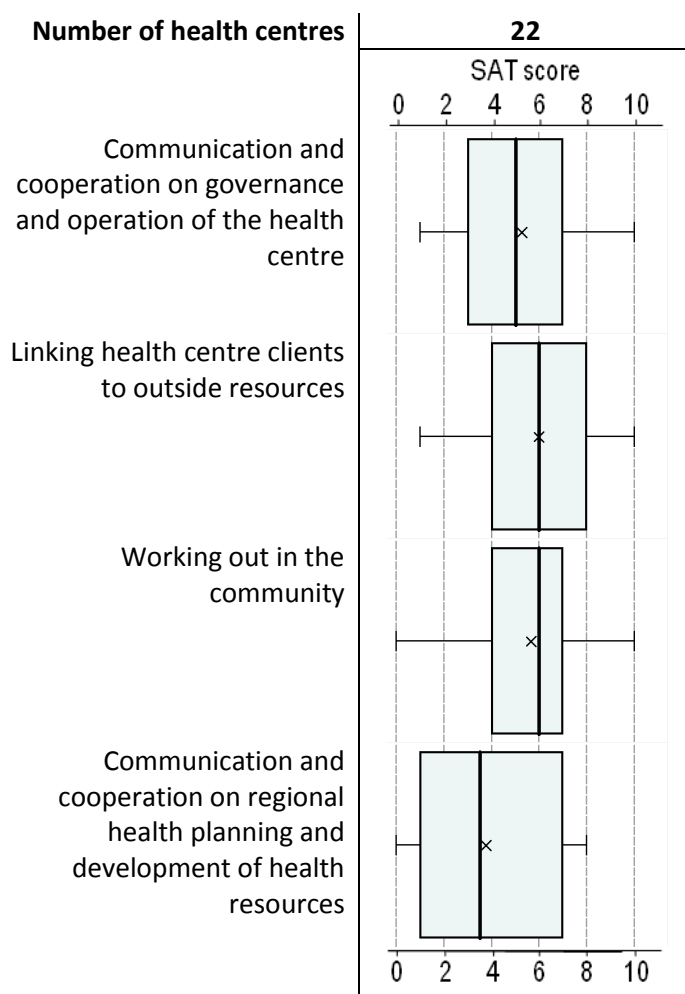


Figure 14. *Organisational influence and integration component scores as assessed by health centres.*

