GOVERNMENT OF WESTERN AUSTRALIA

PathWest LABORATORY MEDICINE WA

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Public Pathology AUSTRALIA

Snot Spot Snap

Rapid Molecular Diagnostics in Emergency Care

Dr. Jo Chua

PathWest Laboratory Medicine WA

PPA National Forum 2026, Innovations Plenary

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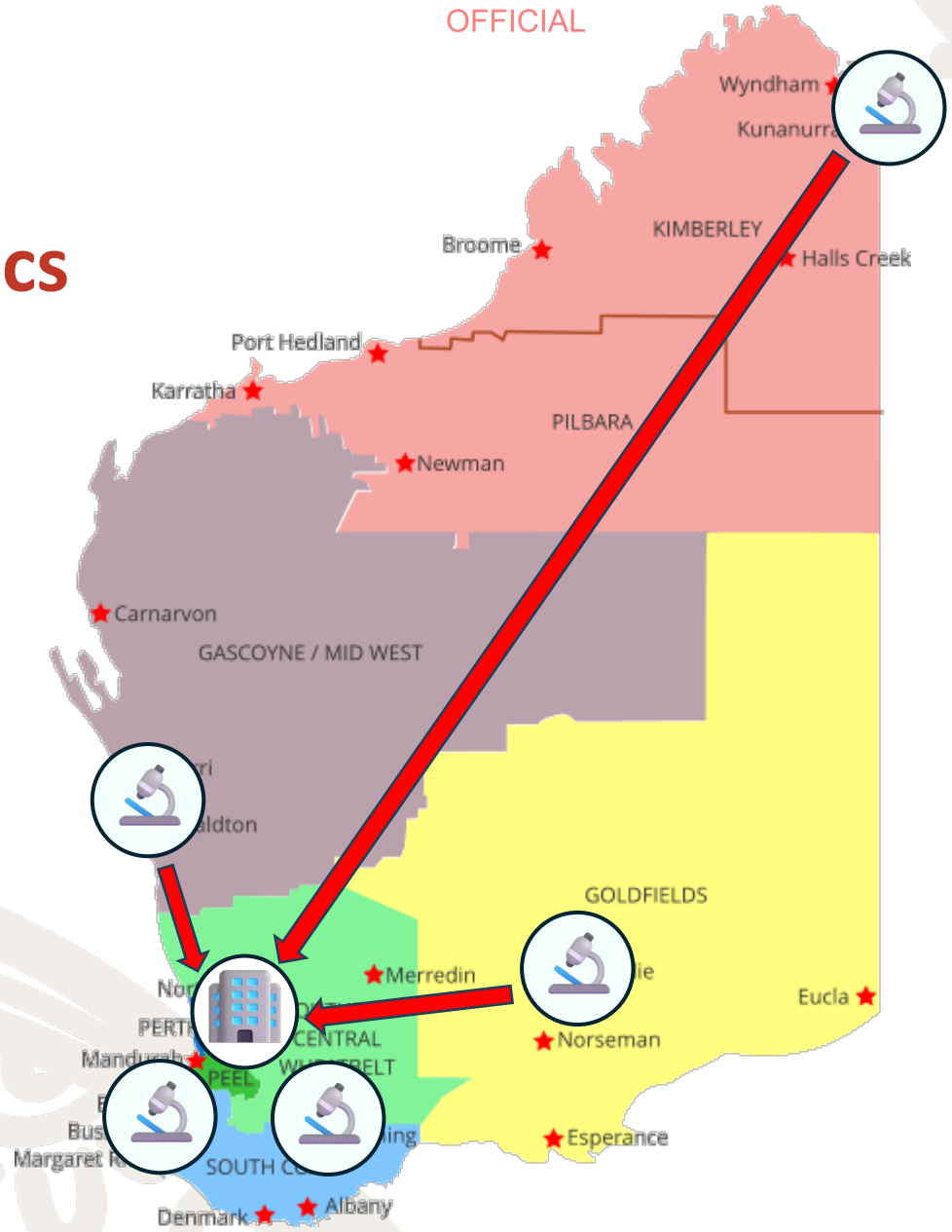
High Demand, Distant Diagnostics



Armadale

11993

1028 | 2407

5 | 17

Rockingham

10332

159 | 1650

7 | 20

Kununurra

1324

516 | 591

4 | 72

Kalgoorlie

3460

1058 | 1260

4 | 53

Geraldton

5005

2544 | 2778

2 | 53

Australian Institute of Health and Welfare, ED presentations 24-25
PathWest Winter Strategy Dashboard 24-25

When Everything Is On Demand, Why Not Diagnostics?

Accessible Diagnostics in Clinically Meaningful Time

Feature	BIOFIRE® SPOTFIRE®	QIAstat-Dx
Manufacturer	bioMérieux	QIAGEN
TGA listed	Point of Care	Laboratory use
Hands on time	~5 min (12 steps)	1-2 min
Analyser time	◔ 17 min	● ◔ 70 min
Specimen	Nasopharyngeal swab in UTM	
Targets	Influenza A & B Respiratory syncytial virus SARS-CoV-2 adenovirus, seasonal coronavirus, rhinovirus/enterovirus, human metapneumovirus, parainfluenza virus *Bordetella pertussis*, *Chlamydia pneumoniae*, *Mycoplasma pneumoniae*	
Interfaced to iCM	Yes	Yes

PathWest Governed ED Operated

Local implementation partners

- Regional support service laboratory
- ED Clinical lead
- ED Nurse manager
- Patient Support Service

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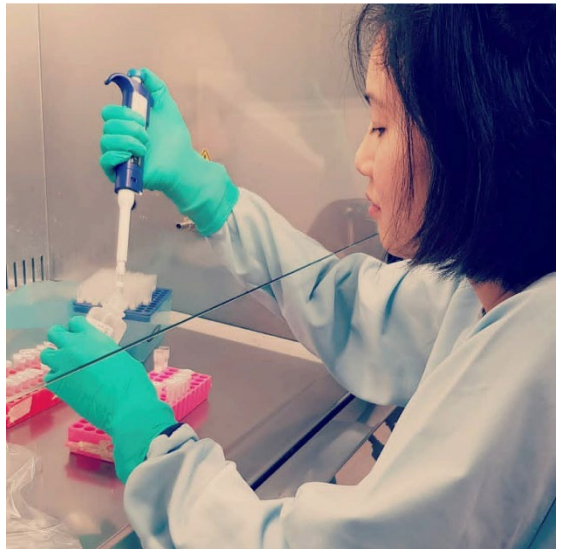
Controlled to Chaos

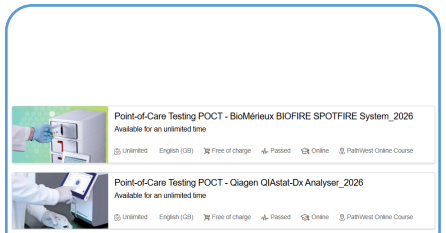


Controlled Environment
Clean Workflow
Competent Operators

SPOTFIRE platforms in Armadale & Rockingham ED

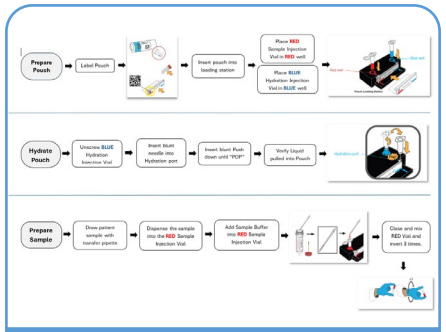
QIAstat-Dx platforms in Kununurra, Kalgoorlie and Geraldton ED

Do it Right

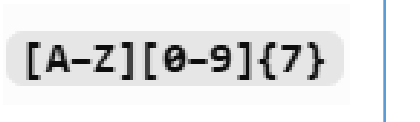


Structured training

Controlled operator access

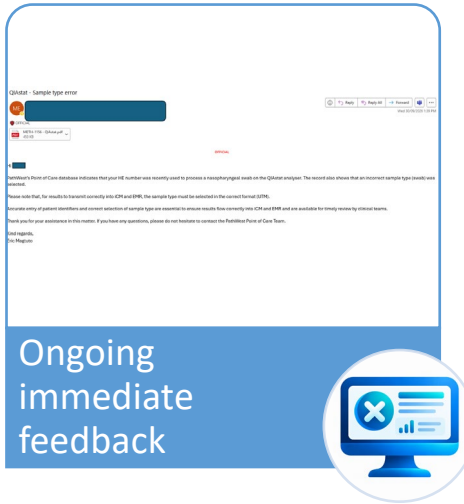


Quick- reference guide

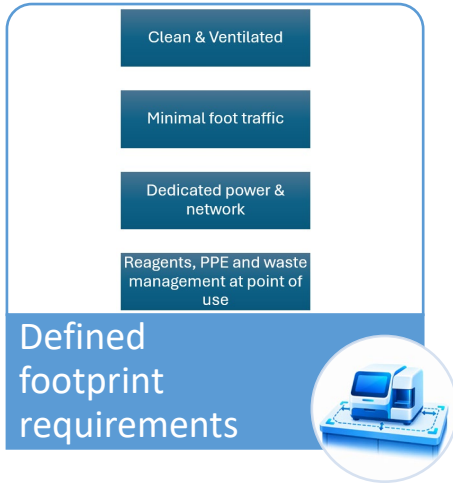


Safer patient identification

Specimen-type safeguards



Ongoing immediate feedback

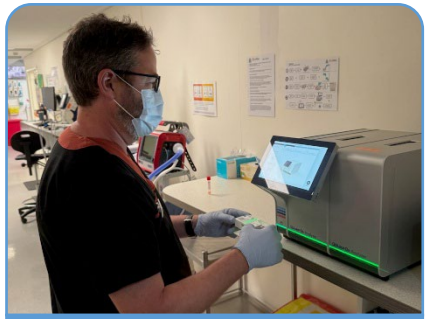


Defined footprint requirements

Cleaning between tests

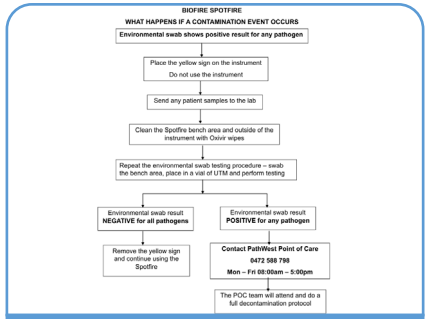
Enhanced cleaning

Keep it clean



PPE requirements

Environmental surveillance



Clear Contamination protocols

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Monitor Closely

Winter Strategy - Respiratory POCT Surveillance

Most Recent Data: 01-Oct-26

PWBI_10_0020

[POCT BIOFIRE and QIASTAT ONLY] Contains operational monitoring data extracted from AQURE middleware and are intended for internal use only. These pages provide monitoring of testing workload, percentage positivity, operational activity, and invalid/error rates for SPOTFIRE and QIAstat-Dx respiratory multiplex PCR platforms.

Date (Analysed): All | Date (Analysed) - Buckets: All | Date (Analysed) - From : To: 12/03/2026 30/09/2026 | Hospital: All | Sample Type: All

Targets: All | Device Type: All | Patient ID: All | Department Name: All

Results

6,744	3,101	46.0%
Total Observations	Positive Results	Positivity

Date Basis (Parameter): Calendar Year

Figure 1: Trend Test Activity with Result Surveillance

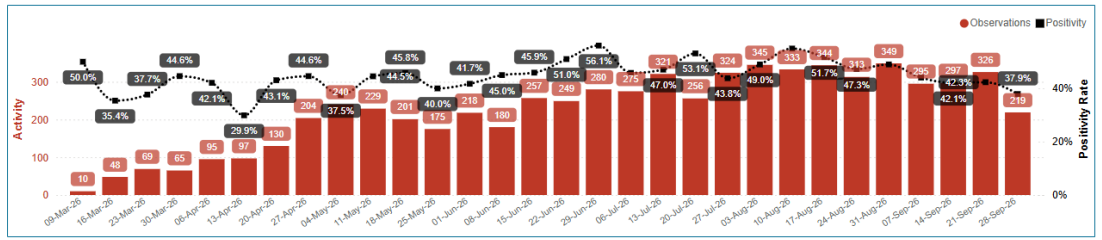


Figure 2: Positivity by Group and Target

Table 1: Count of Observations and Positivity Rate by Target Virus

Group	09-Mar-26	16-Mar-26	23-Mar-26	30-Mar-26	06-Apr-26	13-Apr-26	20-Apr-26	27-Apr-26	04-May-26	11-
Bacteria	1/10 (10.0%)	0/48 (0.0%)	2/69 (2.9%)	0/65 (0.0%)	0/95 (0.0%)	0/97 (0.0%)	2/130 (1.5%)	2/204 (1.0%)	0/240 (0.0%)	2/229
NA	0/10 (0.0%)	0/48 (0.0%)	0/69 (0.0%)	2/65 (3.1%)	0/95 (0.0%)	1/97 (1.0%)	0/130 (0.0%)	1/204 (0.5%)	3/240 (1.3%)	4/229
Other	4/10 (40.0%)	17/48 (35.4%)	21/69 (30.4%)	26/65 (40.0%)	38/95 (40.0%)	26/97 (26.8%)	50/130 (38.5%)	80/204 (39.2%)	83/240 (34.6%)	91/22
Quad	0/10 (0.0%)	1/48 (2.1%)	3/69 (4.3%)	4/65 (6.2%)	3/95 (3.2%)	5/97 (5.2%)	7/130 (5.4%)	10/204 (4.9%)	13/240 (5.4%)	9/229
Total	5/10 (50.0%)	17/48 (35.4%)	26/69 (37.7%)	29/65 (44.6%)	40/95 (42.1%)	29/97 (29.9%)	56/130 (43.1%)	91/204 (44.6%)	90/240 (37.5%)	102/2

Winter Strategy - Respiratory POCT Errors

Most Recent Data: 01-Oct-26

PWBI_10_0020

[POCT BIOFIRE and QIASTAT ONLY] Contains operational monitoring data extracted from AQURE middleware and are intended for internal use only. These pages provide monitoring of testing workload, percentage positivity, operational activity, and invalid/error rates for SPOTFIRE and QIAstat-Dx respiratory multiplex PCR platforms.

Date (Analysed): All | Date (Analysed) - Buckets: All | Date (Analysed) - From : To: 11/05/2026 02/10/2026 | Hospital: All

Test ID: All | Sample Type: All | User (HE Number): All | Device Type: All

Errors

6,023	263	4.4%	36
Analyses Attempted	Total Errors	Error Rate	Invalid Sample Types

Date Basis (Parameter): Calendar Year

Figure 1: Trended Observation Activity with Error Rates

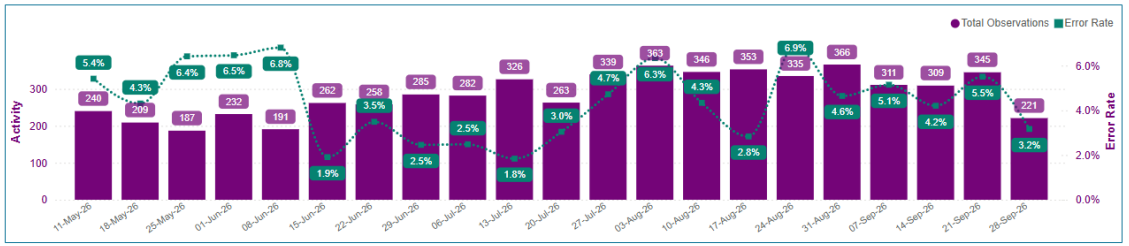


Figure 2: Summary of User Errors

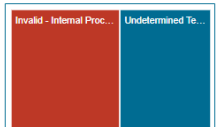


Table 1: Count of Observations and Error Rate by Hospital, Department and User (HE number)

HospitalName	11-May-26	18-May-26	25-May-26	01-Jun-26	08-Jun-26	15-Jun-26	22-Jun-26	29-Jun-26	06-Jul-26	13-Jul-26	2
ARMADALE	5/92 (5.4%)	4/76 (5.3%)	3/77 (3.9%)	8/96 (8.3%)	5/69 (7.2%)	0/98 (0.0%)	5/119 (4.2%)	4/114 (3.5%)	4/106 (3.8%)	2/114 (1.8%)	2/9
GERALDTON			4/12 (33.3%)	2/52 (3.8%)	6/32 (18.8%)	3/54 (5.6%)	1/50 (2.0%)	2/69 (2.9%)	2/79 (2.5%)	2/83 (2.4%)	0/7
KALGOORLIE	1/39 (2.6%)	3/45 (6.7%)	0/33 (0.0%)	1/37 (2.7%)	0/38 (0.0%)	0/44 (0.0%)	0/43 (0.0%)	1/58 (1.7%)	1/44 (2.3%)	1/51 (2.0%)	4/3
KUNUNURRA	1/15 (6.7%)	0/16 (0.0%)	3/23 (13.0%)	1/11 (9.1%)	1/28 (3.6%)	0/16 (0.0%)	3/24 (12.5%)	0/8 (0.0%)	0/20 (0.0%)	0/25 (0.0%)	0/1
ROCKINGHAM	3/39 (7.7%)	1/40 (2.5%)	2/42 (4.8%)	3/36 (8.3%)	1/24 (4.2%)	2/50 (4.0%)	0/22 (0.0%)	0/36 (0.0%)	0/33 (0.0%)	1/53 (1.9%)	2/4

MONITOR TESTING ACTIVITY

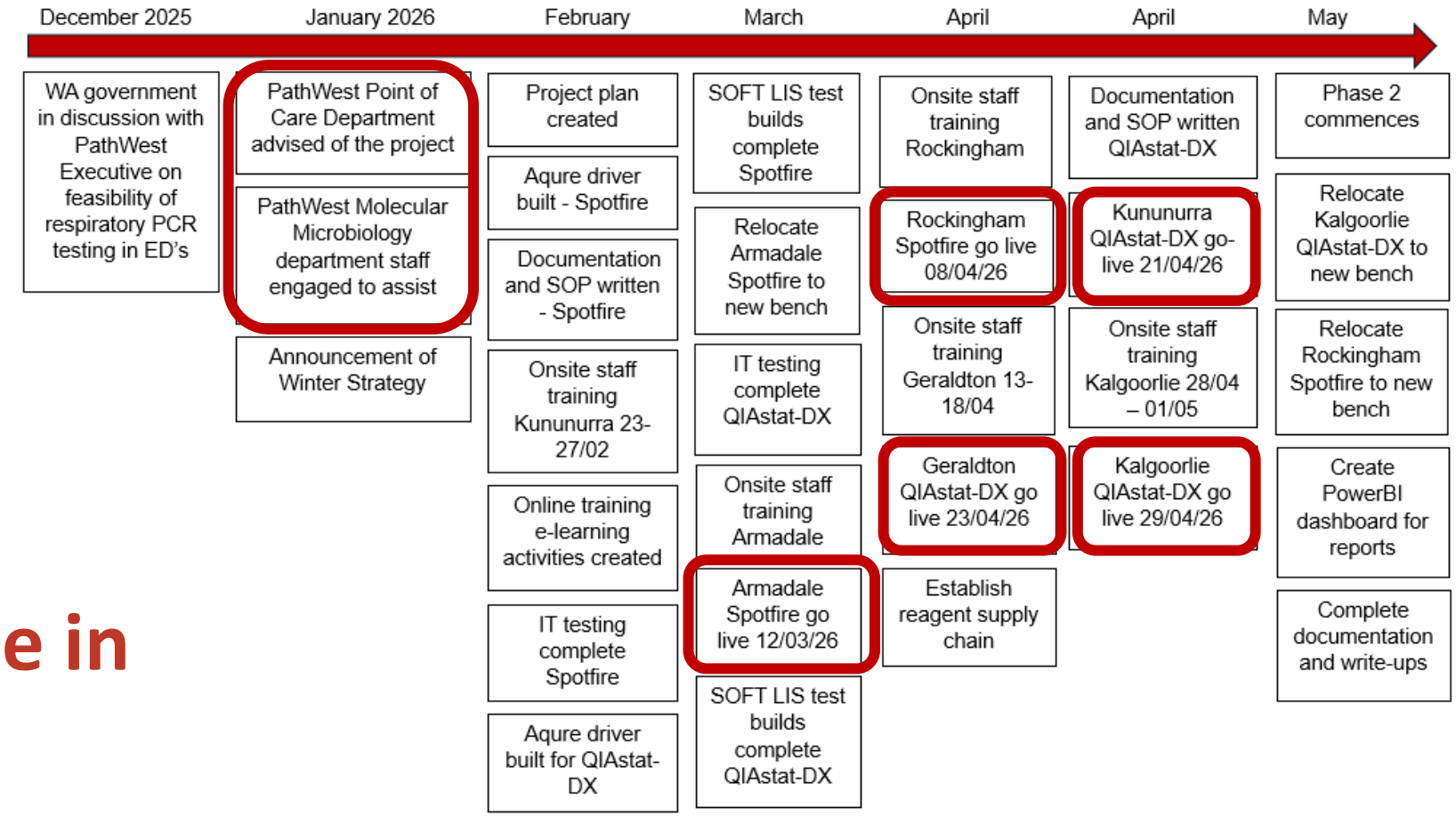
POSITIVITY TRENDS

TEST PERFORMANCE

OPERATOR PERFORMANCE

SPOT COMPARATIVE TESTING

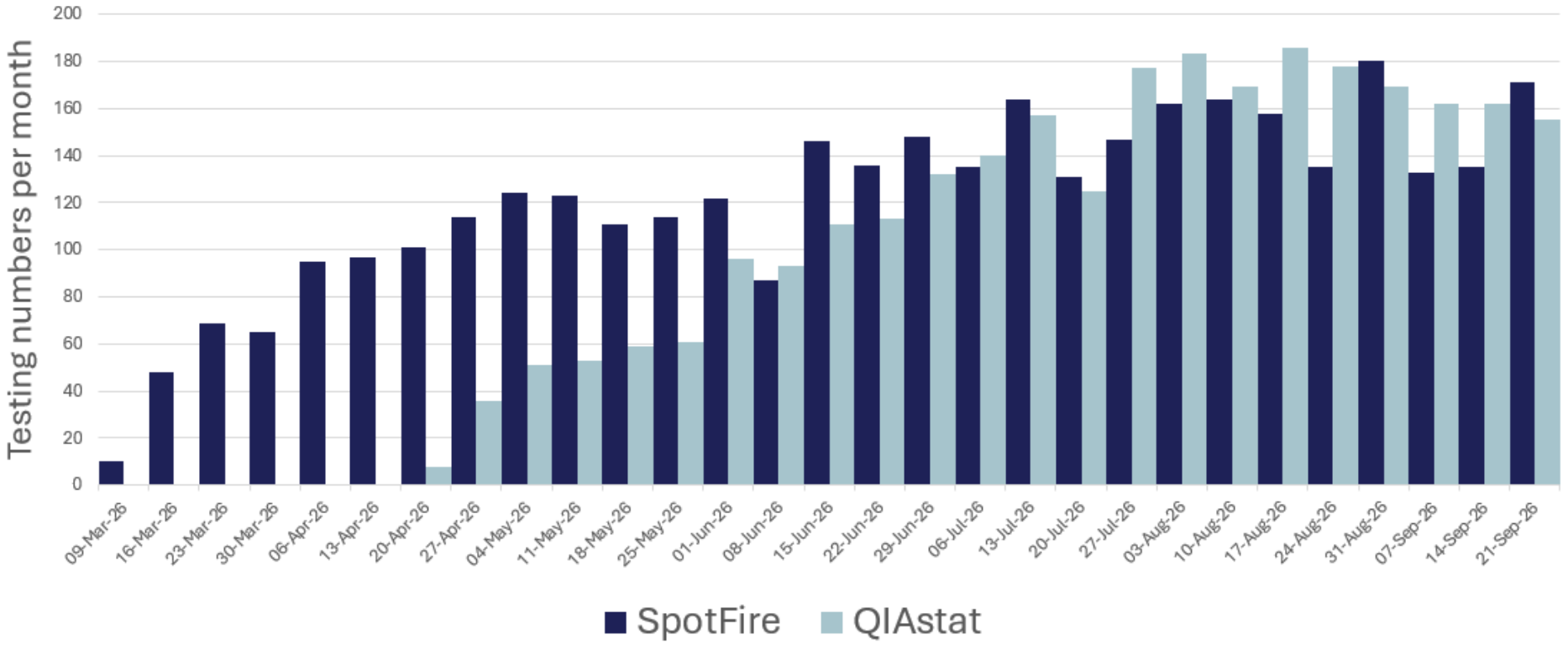
REPEAT TARGET ALERT



Strategy to Service in 4 Months

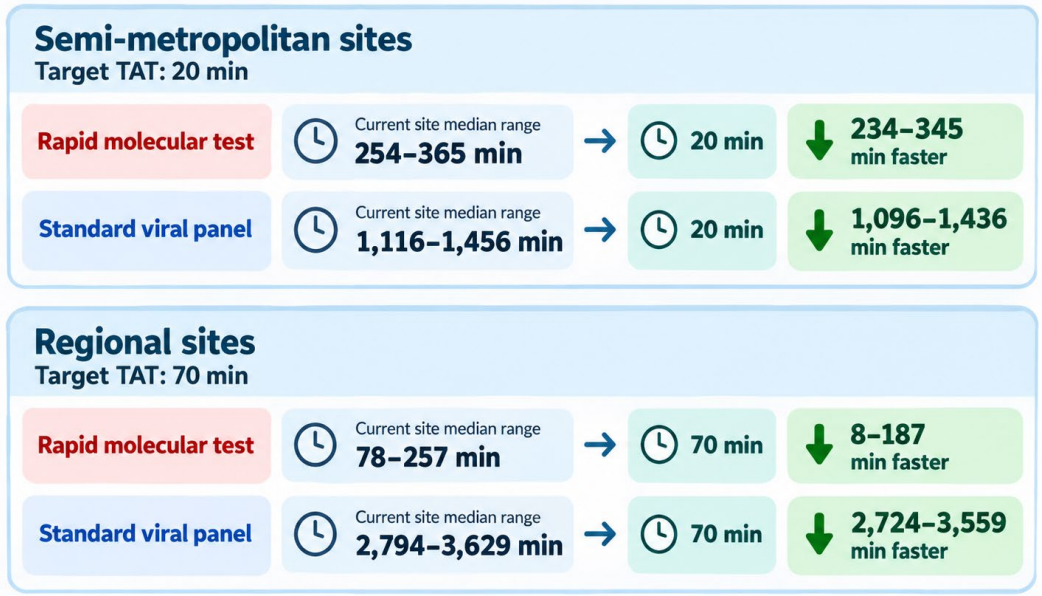
2 platforms | 5 sites | 190 staff trained | fully interfaced

5816 tests and counting

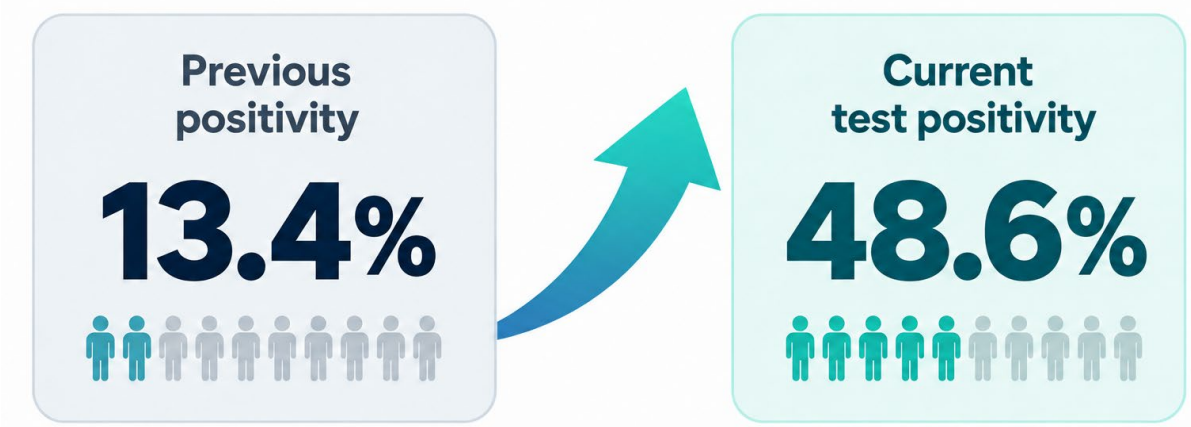


Diagnostic precision at clinically actionable times.

Significant Reduction in TAT

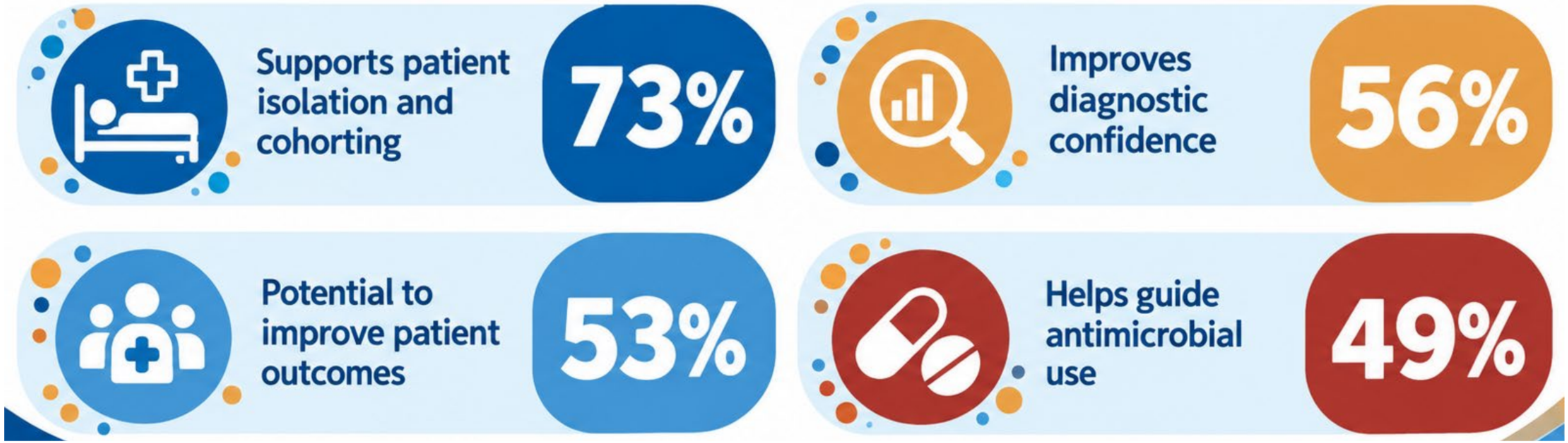


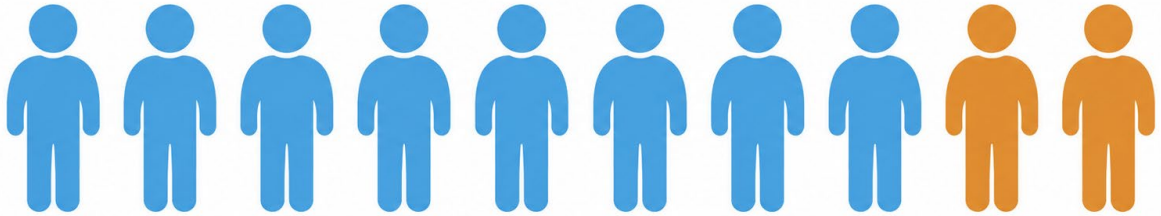
Greater Diagnostic Yield with a Broader Rapid Molecular Test



Customer Satisfaction (45 respondents)

Top 4 perceived benefits





78% say yes to continued use.

Snot

- High respiratory testing demand across geographically dispersed EDs

Spot

- **SPOTFIRE** and **QIAstat-Dx** deployed across **five EDs**.
- Moving molecular testing closer to patients required **clear governance, comprehensive training, contamination control and ongoing monitoring**.

Snap

- Strategy to service in 4 months
- **Significantly reduced TAT and greater diagnostic yield.**

GOVERNMENT OF WESTERN AUSTRALIA

PathWest LABORATORY MEDICINE WA

Thank you

PathWest

Executive Leadership

Point of Care Testing

Molecular Diagnostics

Laboratory Discipline Support

Regional Support Service

Business Operations Data

Data Analytics Service

Armadale ED

Rockingham ED

ICNET

Kununurra ED

Kalgoorlie ED

Geraldton ED

QIAGEN

BIOMÉRIEUX

Questions