Government of **Western Australia**
Department of **Health**

Healthcare Infection Surveillance Western Australia (HISWA)

Aggregate Report
Quarter 1, July – September 2025

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Abbreviations

AVF	Arteriovenous fistula
AVG	Arteriovenous graft
BSI	Blood stream infection
CAI	Community-associated infection
CC	Cuffed catheter
CDI	*Clostridioides difficile* infection
CI	Confidence interval
CI/PI	Centrally inserted or peripherally inserted central lines
CLABSI	Central line-associated bloodstream infection
CPO	Carbapenemase-producing organism
HAI	Healthcare-associated infection
HA-MRSA	Healthcare-associated methicillin-resistant *Staphylococcus aureus* infection
HA-SABSI	Healthcare-associated *Staphylococcus aureus* bloodstream infection
HCW	Health care worker
HD-BSI	Haemodialysis bloodstream infection
HI-CDI	Hospital-identified *Clostridioides difficile* infection
HISWA	Healthcare Infection Surveillance Western Australia
HSPR	Health Service Performance Report
ICU	Intensive care unit
IPPSU	Infection Prevention, Policy and Surveillance Unit
IVD	Intravascular device
Micro-alert B	Strains of MRSA with ciprofloxacin sensitivity
Micro-alert C	Strains of MRSA with ciprofloxacin resistance
MRSA	Methicillin-resistant *Staphylococcus aureus*
MSSA	Methicillin-sensitive *Staphylococcus aureus*
PCR	Polymerase chain reaction
PICC	Peripherally inserted central catheter
PIVC	Peripheral intravenous cannula
SABSI	*Staphylococcus aureus* bloodstream infection
SSI	Surgical site infection
VRE	Vancomycin-resistant Enterococci
WACHS	Western Australia Country Health Service

Overview

Healthcare Infection Surveillance Western Australia (HISWA) is an established program for monitoring and reporting healthcare-associated infections (HAIs). It is increasingly recognised that HAIs are preventable adverse events rather than an inevitable complication of medical care. The Infection Prevention and Policy Surveillance Unit (IPPSU) coordinates the HISWA program. Both private and public healthcare facilities contribute data to the HISWA.

Feedback of analysed data to key stakeholders is an important requirement of surveillance programs to drive change and improve patient outcomes and has been demonstrated to be effective in reducing infections when provided to clinicians. Surveillance results need to be communicated to appropriate committees and to the executive management who are accountable for patient safety and quality.

The *HISWA Quarterly Aggregate Report* contains de-identified aggregated data from all HISWA contributing sites, including contracted health entities and private hospitals. This aggregate report is an analysis of surveillance data reported for 1 July to 30 September 2025, with trends shown for the five-year period.

IPPSU news

Committees

Key infection prevention and control and HAI surveillance issues can be raised at the following committees:

- Healthcare Infection Council of Western Australia (HICWA)
- Infection Prevention and Control Advisory Group (IPCAG)
- Western Australia Multi Resistant Organism Expert Group (WAMRO)
- ICNet Advisory Group

Terms of reference and meeting dates are available on the IPPSU webpage.

IPPSU forum

The next IPPSU forum is scheduled for **10th December 2025**.

Reminders

Data quality is paramount to producing meaningful reports. Please ensure that data is **checked prior to finalising**, including date of birth, infection onset date, detection status for SSIs and that the 30-day and 90-day rule is applied to superficial and deep surgical site infections (SSIs) respectively. IPPSU staff made 176 corrections to numerator data this quarter. These occurred at multiple hospital sites, and all were simple data entry errors.

Methicillin-resistant *Staphylococcus aureus* (MRSA) isolates are no longer typed, and the micro-alert is based on ciprofloxacin susceptibility. Please enter MRSA strain data as micro-alert B (ciprofloxacin susceptible) or micro-alert C (ciprofloxacin resistant) prior to finalising your data.

Report notes

Data extracted: 2025-11-20; publication date: 2025-12-10.

Notable changes to data submission

- Hollywood Private Hospital discontinued submitting data to HISWA in April 2025, which has mainly impacted on the volume of hip and knee arthroplasty procedures reported.

- A further five haemodialysis units commenced reporting access-associated bloodstream infections (BSIs) this quarter. These included Karratha Health Campus, Newman Dialysis Centre and three Purple House units located in remote areas of Western Australia including Kiwirrkurra, Warburton and Wanarn.

Highlights

- The surgical site infection (SSI) rate following hip arthroplasty decreased for the second consecutive quarter and the rate is below the comparator rate.
- The total HA-SABSI rate is comparable to our benchmark and below the national benchmark.
- The haemodialysis cuffed catheter access-associated BSI rate decreased, and the rate is below than the comparator rate.
- There was a decrease in the haematology central line-associated BSI (CLABSI) rate for the third consecutive quarter.
- The total MRSA HAI rate remains below the comparator for the entire 5-year reporting period.

Concerns

- The superficial and deep SSI rates following caesarean section procedures were comparable to previous reporting quarter, however, there remains an overall upward trend in the total and superficial SSI rates for the five-year reporting period. This upward trend is still driven by SSIs developing in patients following emergency procedures.
- Of the 48 HA-SABSI reported, 56% (n=27) were attributed to intravascular devices (IVD) and classified as preventable adverse events. Peripheral intravenous cannulae (PIVC) contributed 38% (n=18) of all HA-SABSI reported.
- A large proportion of HA-SABSI associated with PIVC have a dwell time of less than 72 hours and the documentation of dwell time for PIVC remains sub-optimal. (Refer new Figure 12).
- There is an upward trend evident in the adult intensive care unit (ICU) central line BSI rate. All sites are encouraged to review their compliance with central line bundles of care.

Surgical site infection following hip arthroplasty

Key points

- There were 1,290 hip arthroplasty procedures performed this quarter (Table 1) (1,208 primary and 82 revision), with 688 procedures (53%) performed by private hospitals.
- Five SSIs following hip arthroplasty were reported, three from primary procedures and two from revision procedures. All five SSIs were deep or organ space infections. Four SSIs were identified on readmission to hospital.
- The total SSI rate following hip arthroplasty decreased to 0.39 from 0.69 infection per 100 procedures previous quarter and is now below the comparator rate (Figure 1).
- The deep SSI hip rate decreased to 0.39 from 0.62 infections per 100 procedures previous quarter (Table 3, Figure 3).

Table 1 - Hip arthroplasty SSI rate, by risk index, Quarter 1 2025-26

Risk index	Contributing hospitals	Number of procedures	Number of SSIs	Aggregate rate [95% CI]	Cumulative aggregate rate [95% CI]
Risk index 0	21	670	2	0.3 [0-0.71]	0.45 [0.35-0.55]
Risk index 1	21	557	1	0.18 [0-0.53]	0.9 [0.72-1.08]
Risk index 2	21	57	1	1.75 [0-5.15]	3.34 [2.31-4.37]
Risk index 3	21	6	1	16.67 [0-46.49]	13.79 [4.92-22.66]
Total hip arthroplasty	**21**	**1,290**	**5**	**0.39 [0.05-0.73]**	**0.77 [0.67-0.87]**

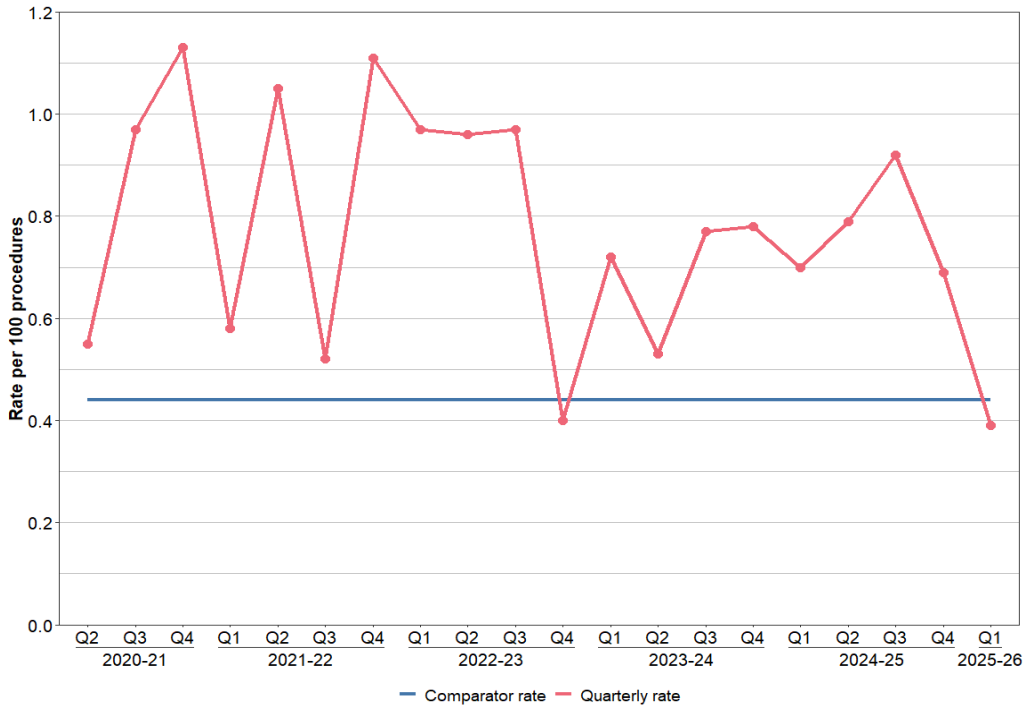


Figure 1 - Hip arthroplasty SSI rate, 2020-21 to 2025-26

Surgical site infection following knee arthroplasty

Key points

- There were 1,666 knee arthroplasty procedures performed this quarter (Table 2) (1,567 primary and 99 revision), with 1072 procedures (64%) performed by private hospitals.
- Four SSIs following primary knee arthroplasty were reported. Three SSIs were deep or organ space infections, all of which were identified on readmission to hospital.
- The total SSI rate following knee arthroplasty of 0.24 per 100 procedures was comparable to the previous reporting period.
- The deep SSI knee rate of 0.18 per 100 procedures was comparable to the previous reporting period (Table 3, Figure 4).

Table 2 - Knee arthroplasty SSI rate, by risk index, Quarter 1 2025-26

Risk index	Contributing hospitals	Number of procedures	Number of SSIs	Aggregate rate [95% CI]	Cumulative aggregate rate [95% CI]
Risk index 0	21	826	2	0.24 [0-0.57]	0.23 [0.17-0.29]
Risk index 1	21	704	2	0.28 [0-0.67]	0.3 [0.21-0.39]
Risk index 2	21	128	0	0 [0-0]	1.33 [0.86-1.8]
Risk index 3	21	8	0	0 [0-0]	0 [0-0]
Total knee arthroplasty	**21**	**1,666**	**4**	**0.24 [0.01-0.47]**	**0.32 [0.26-0.38]**

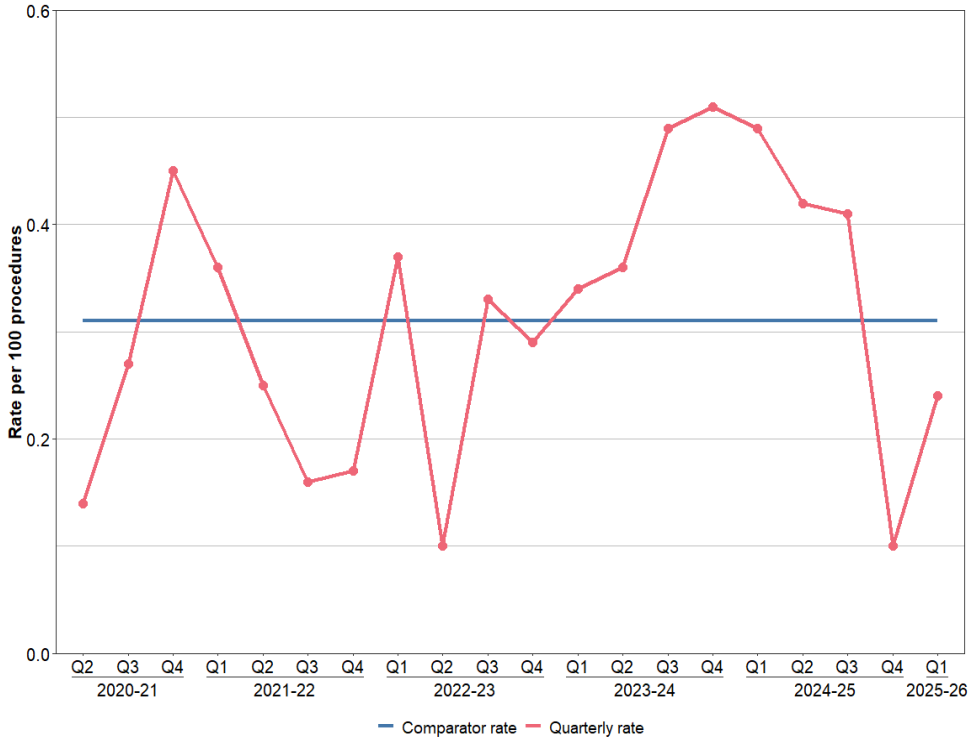


Figure 2 - Knee arthroplasty SSI rate, 2020-21 to 2025-26

Deep and superficial arthroplasty SSI

Table 3 - SSI rates, by superficial or deep/organ space infections, Quarter 1 2025-26

Type	Number of superficial SSI	Number of deep SSI	Total Number of SSIs	Number of procedures	Aggregate superficial SSI rate (95% CI)	Aggregate deep SSI rate (95% CI)
Hip arthroplasty	0	5	5	1,290	0.0 [0.00-0.00]	0.39 [0.05-0.73]
Knee arthroplasty	1	3	4	1,666	0.06 [0-0.18]	0.18 [0-0.38]
Total	**1**	**8**	**9**	**2,956**	**0.03 [0-0.09]**	**0.27 [0.08-0.46]**

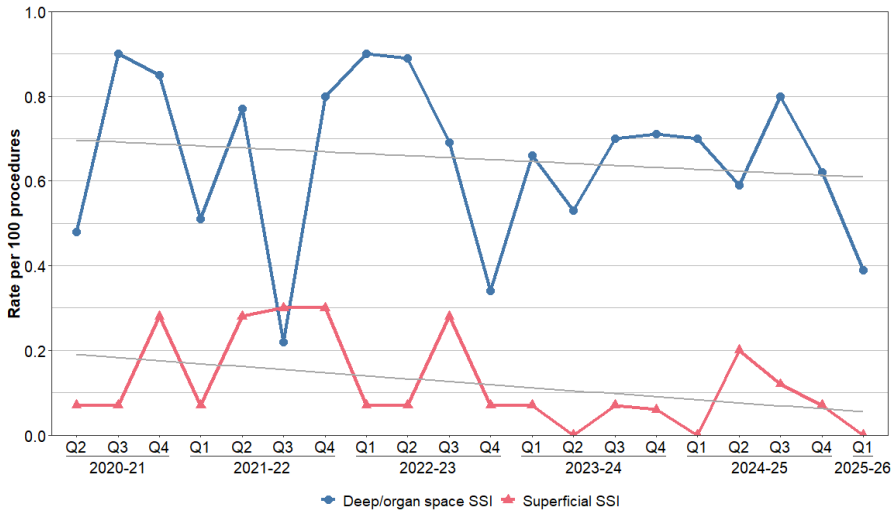


Figure 3 - Hip arthroplasty SSI rate by infection type, 2020-21 to 2025-26

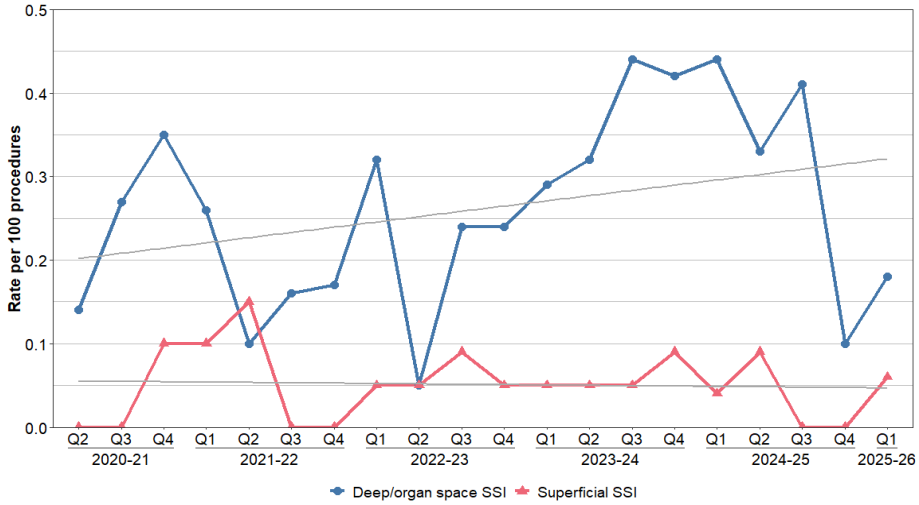


Figure 4 - Knee arthroplasty SSI rate by infection type, 2020-21 to 2025-26

Surgical site infection following caesarean section

Key points

- There were 3,304 caesarean section procedures reported this quarter (Table 4), of which 1,724 (52%) were emergency and 1580 (48%) were elective procedures.
- A total of 58 SSIs were reported, one of which was identified by post-discharge surveillance and is not included in further data analysis or in HISWA calculated rates.
- Of the remaining 57 SSIs, 47 were categorised as superficial infections and 10 as deep or organ space infections.
- The majority of SSIs (56%; n=32) were identified when the patient represented to an emergency or outpatient department and a further 22 (39%) were identified on readmission to hospital. Three SSIs were identified on initial hospital admission.
- The majority of SSIs (65%; n=37) were following emergency procedures, and included seven deep or organ space infections.
- The total SSI rate increased to 1.73 and was comparable to 1.24 infections per 100 procedures reported in the previous quarter. Both the superficial and deep or organ space SSI rates were comparable to the previous quarter (Figure 5).
- Both elective and emergency procedure SSI rates were comparable to the previous reporting period (Figure 6).

Table 4 - Caesarean section SSI rate per 100 procedures, by risk index, Quarter 1 2025-26

Item	Number of hospitals	Number of procedures	Number of superficial SSI	Number of deep SSI	Total number of SSIs	Total aggregate rate [95% CI]	Cumulative aggregate rate [95% CI]
Risk All	2	4	0	0	0	0 [0-0]	0.96 [0.12-1.8]
Risk index 0	24	1,433	10	4	14	0.98 [0.47-1.49]	0.57 [0.48-0.66]
Risk index 1	24	1,395	25	5	30	2.15 [1.39-2.91]	1.29 [1.14-1.44]
Risk index 2	24	423	10	0	10	2.36 [0.91-3.81]	2.15 [1.81-2.49]
Risk index 3	24	49	2	1	3	6.12 [0-12.83]	3.15 [1.85-4.45]
Total	24	3,304	47	10	57	1.73 [1.29-2.17]	1.09 [1-1.18]
Post-discharge	NA	0	1	0	1	NA	NA
Total	**26**	**3,304**	**48**	**10**	**58**	**NA**	**NA**

Note: The updated HISWA surveillance definition from 1 July 2024 (Qtr 1 2025-26), includes SSI identified on representation e.g. ED, OPC.

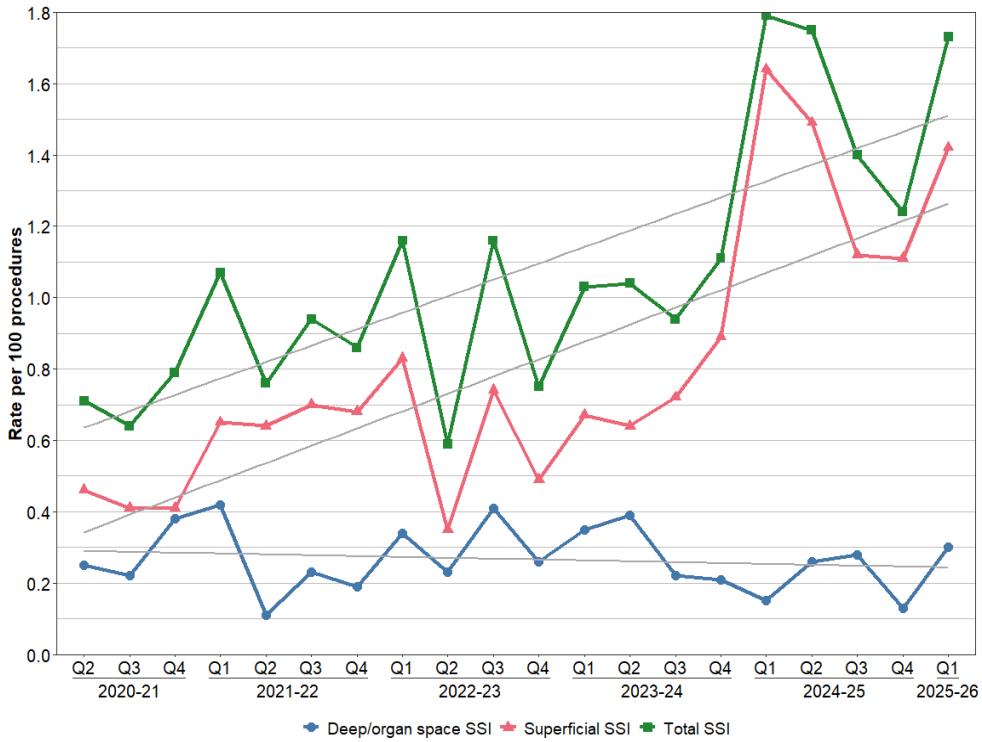


Figure 5 -Total caesarean section SSI rates and by infection type, 2020-21 to 2025-26

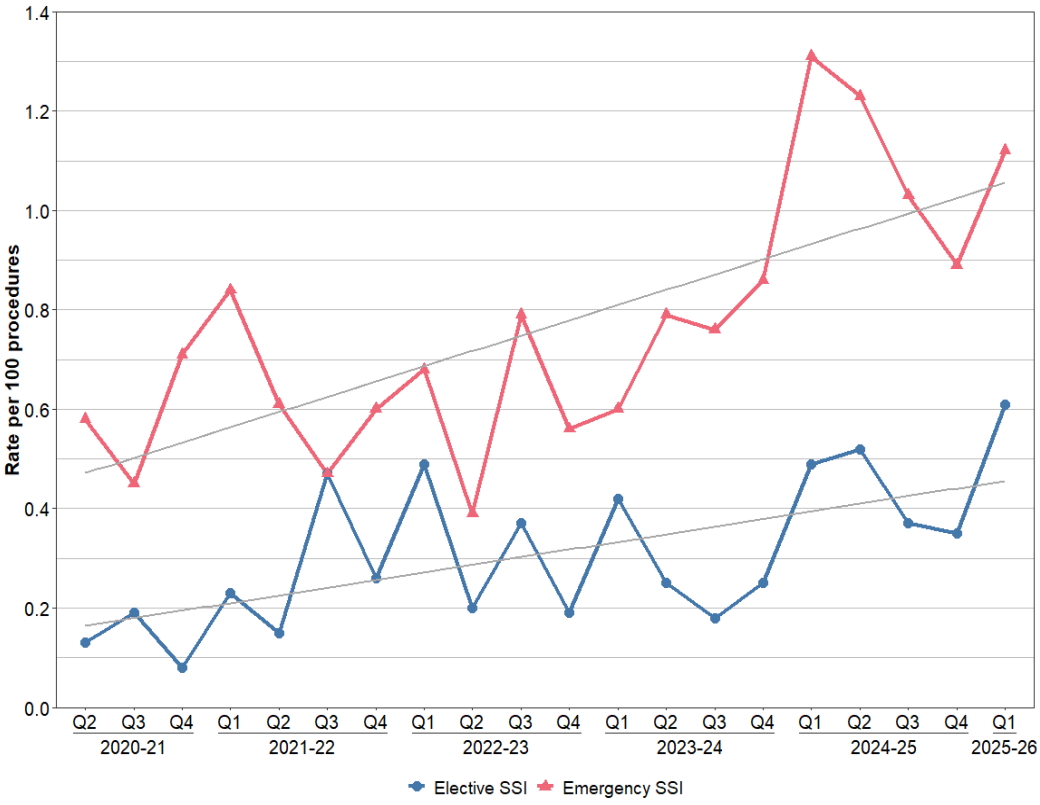


Figure 6 – Total caesarean section SSI rates by procedure type, 2020-21 to 2025-26

Healthcare-associated *Staphylococcus aureus* bloodstream infection

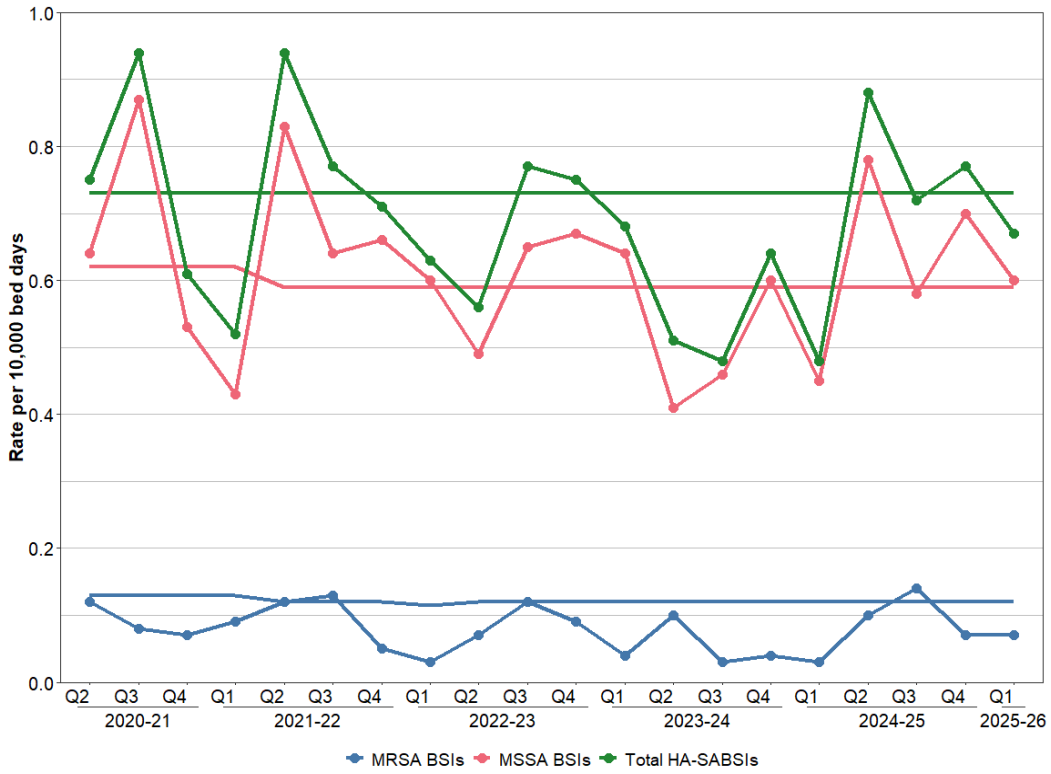
Key points

- There were 48 (43 MSSA; 5 MRSA) HA-SABSIs reported this quarter (Table 5).
- The total HA-SABSI rate of 0.67 per 10,000 bed days was comparable to the previous reporting period and is below the national comparator rate (Figure 7).
- The MSSA HA-SABSI rate of 0.60 per 10,000 bed days was comparable to the previous reporting period and is above the national comparator (Figure 7).
- The MRSA HA-SABSI rate of 0.07 per 10,000 bed-days was comparable to the previous reporting period and is below the comparator rate (Figure 7).
- Of the 48 HA-SABSIs reported, the majority (56%; n=27) were attributable to IVDs. A further 10 (21%) were procedure-related, six (12%) had an organ site focus, three (6%) were associated with neutropenia and one (2%) was non-IV device (urinary catheter) related. One HA-SABSI (2%) had an unknown focus (Figure 8).
- The majority (67%; n=18) of the IVD-related HA-SABSIs were associated with PIVC. The remaining IVD SABSI were associated with infusaport (n=4), cuffed catheter (n=2), peripherally inserted central line (n=2) and central venous catheters (n=1).
- Four tertiary hospitals reported 56% of all the IVD-related HA-SABSI (Figure 10).
- Of the 18 PIVC-related HA-SABSIs, 44% (n=8) had a documented dwell time of less than 72 hours. Seven were in situ for more than 72 hours and the dwell time for the remaining three PIVC HA-SABSI was unknown (Figure 12).

Table 5 - HA-SABSI rates per 10,000 bed-days, Quarter 1 2025-26

Organism name	Number of contributing hospitals	Number of bed-days	Number of HA-SABSIs	Aggregate rate [95% CI]	Cumulative aggregate rate [95% CI]
MSSA	47	715,995	43	0.60 [0.58-0.62]	0.17 [0.17-0.17]
MRSA	47	715,995	5	0.07 [0.06-0.08]	0.02 [0.02-0.02]
Total	**47**	**715,995**	**48**	**0.67 [0.65-0.69]**	**0.19 [0.19-0.19]**

Note: As of 1 July 2020 the National benchmark for HA-SABSI decreased to 1.0 per 10,000 patient days (previously a rate of 2.0) and this aligns with the existing WA benchmark utilised for health service performance reporting.



Note: The solid line is the comparator rate for the corresponding rate - which are the Australian Institute Health and Welfare (AIHW) National public hospital aggregate rates (refer to data notes for further information).

Figure 7- MRSA, MSSA and total HA-SABSI rates, 2020-21 to 2025-26

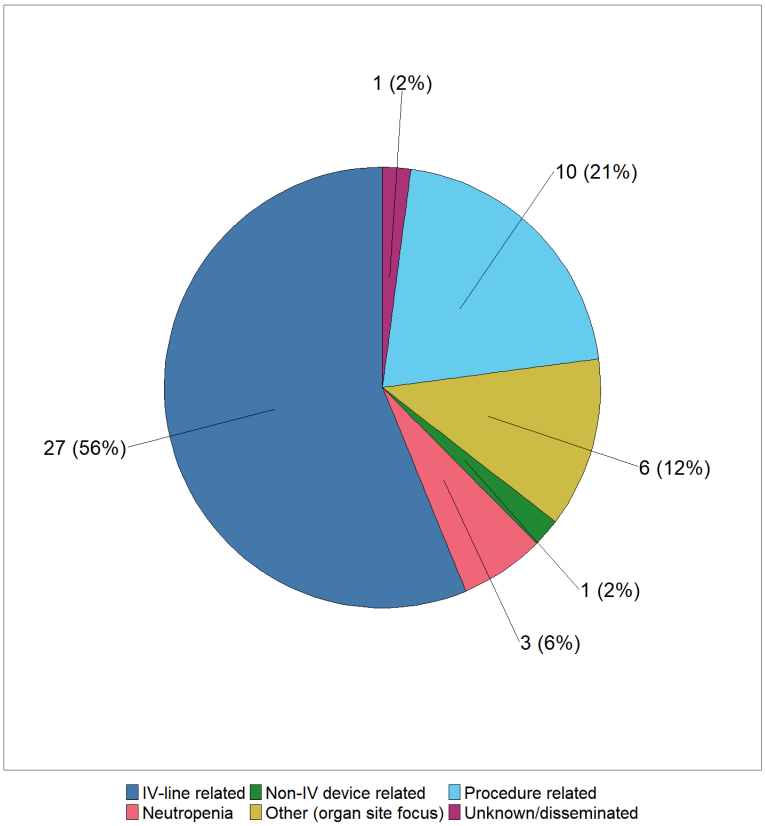


Figure 8 - Number of HA-SABSIs by attributable source, Quarter 1 2025-26

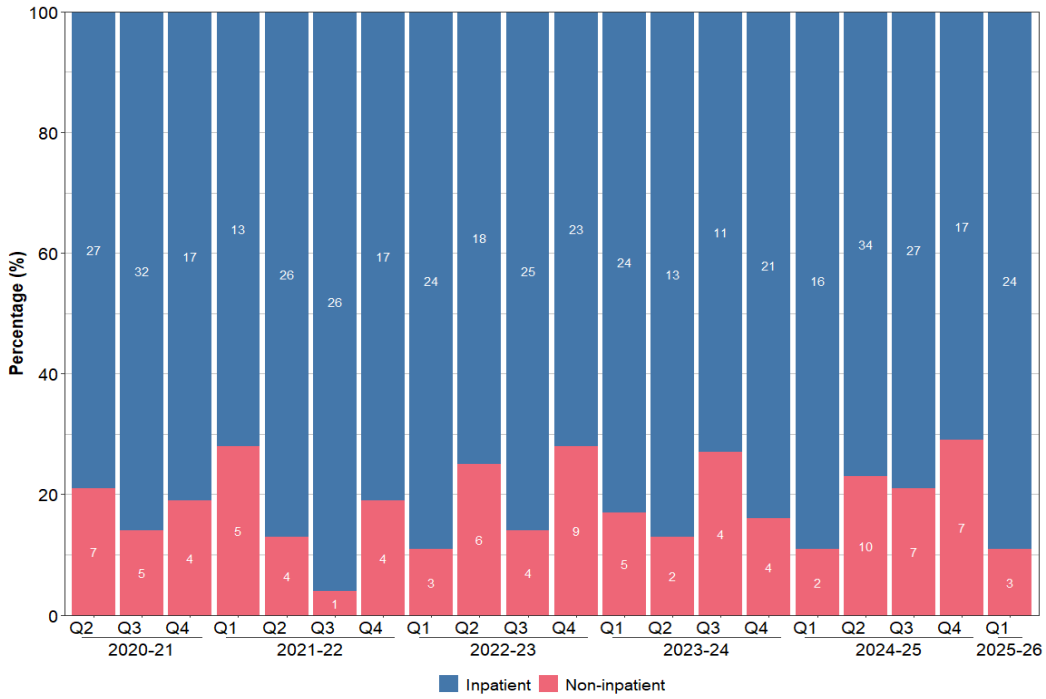


Figure 9 - Percentage and number of HA-SABSI attributed to intravascular devices by patient location, 2020-21 to 2025-26

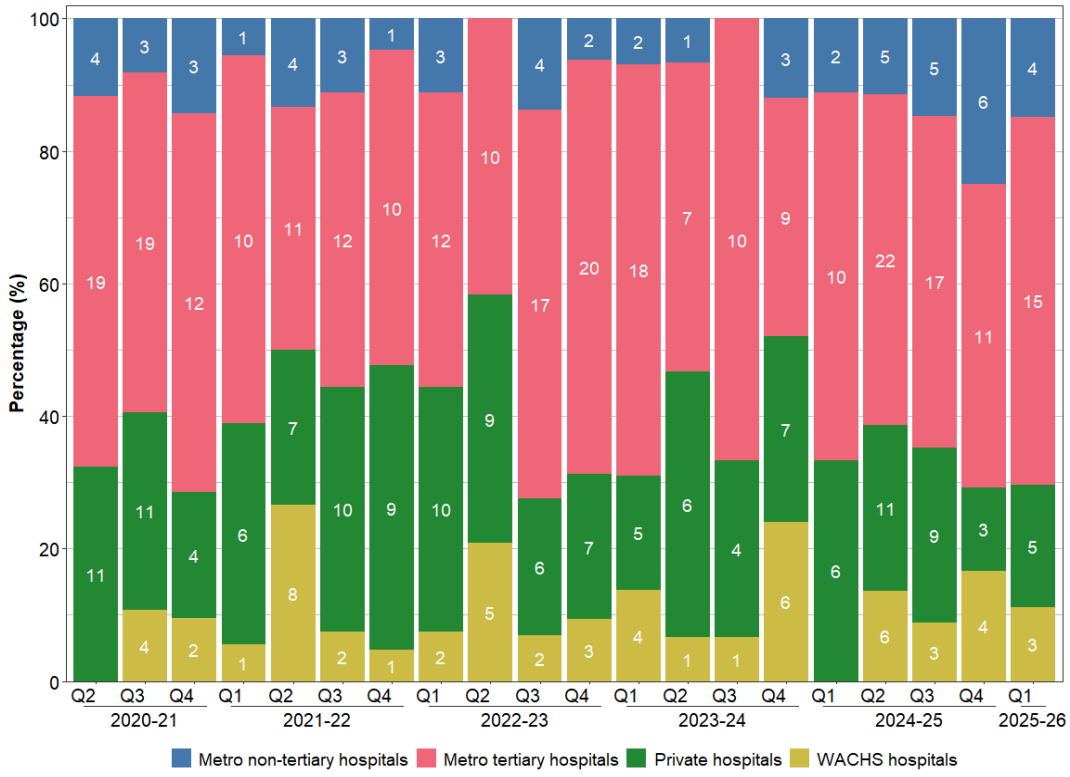


Figure 10 - Percentage and number of HA-SABSI attributed to intravascular devices, by hospital group, 2020-21 to 2025-26

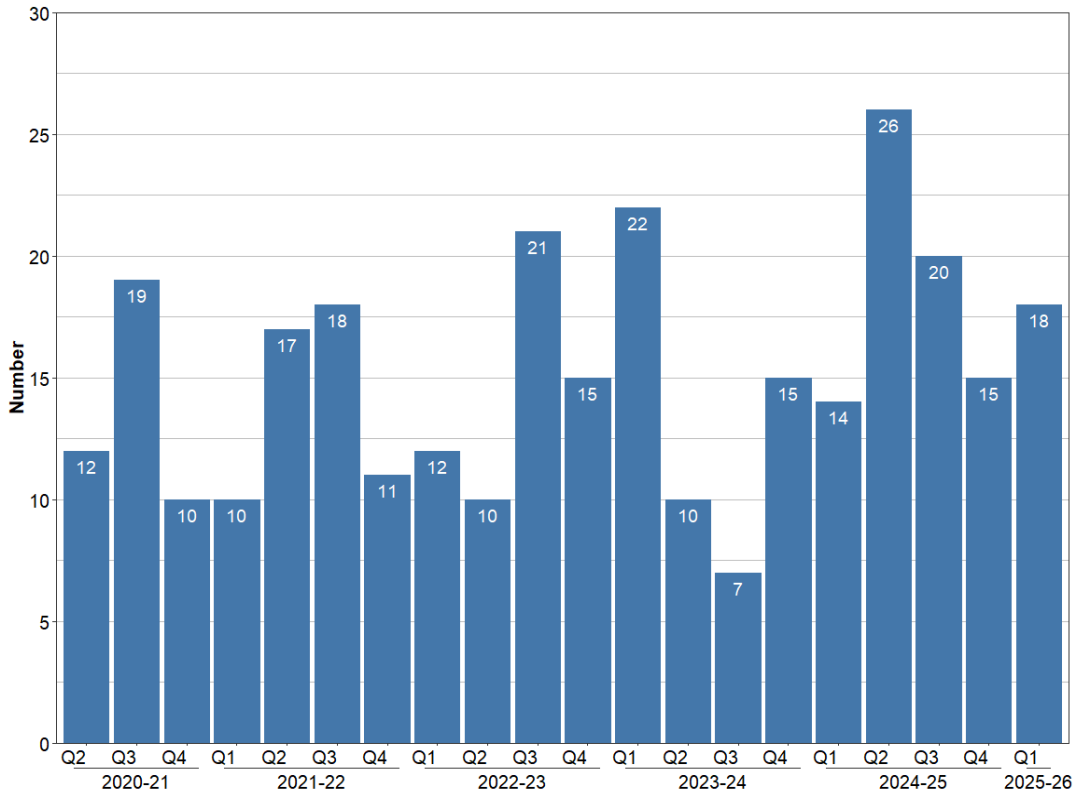


Figure 11- Number of HA-SABSIs attributed to PIVCs, 2020-21 to 2025-26

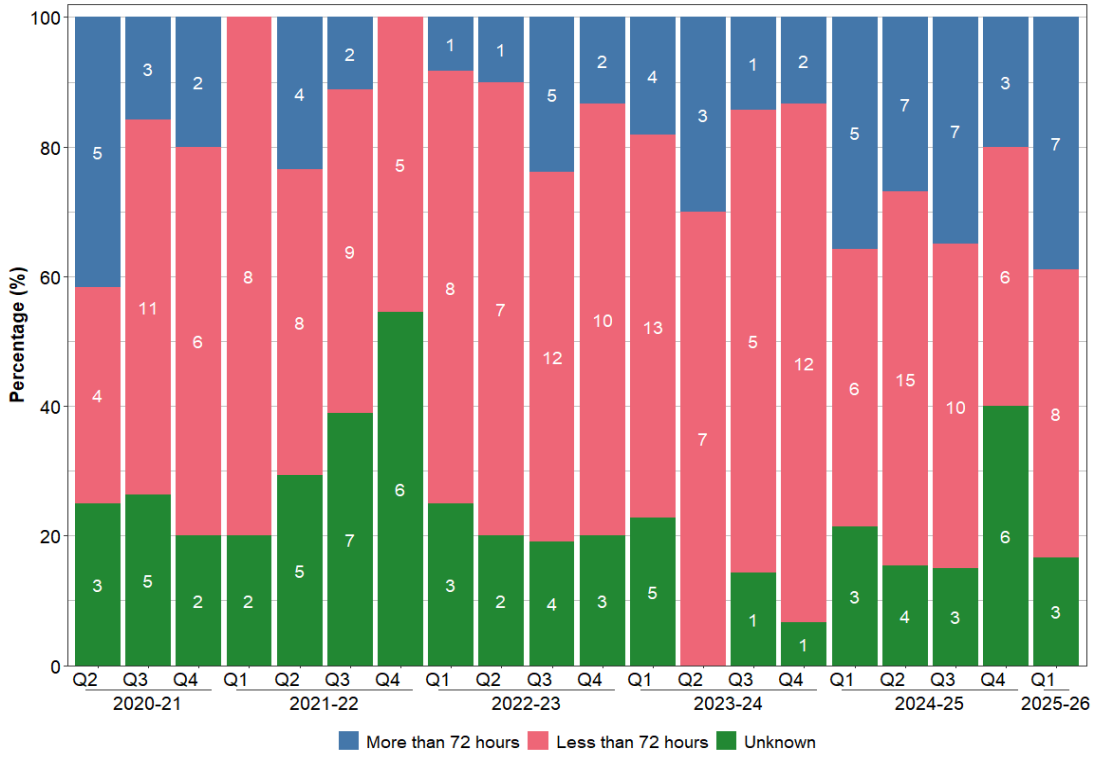


Figure 12 – Time in situ (hours) for HA-SABSI attributed to PIVC, 2019-20 to 2024-25

Haemodialysis access-associated bloodstream infections

Key points

- The majority (73%) of patients received haemodialysis via an arteriovenous fistula (AVF) (Table 6).
- Six cuffed catheter (CC) access-associated BSIs were reported. The CC BSI rate decreased to 0.52 from 0.94 infections per 100 patient-months reported in quarter 4, 2025-26 (Figure 13) and is now below the comparator rate.
- Two AVF access-associated BSIs were reported, and the rate remains above the comparator rate (Figure 13).
- One arteriovenous graft (AVG) access-associated BSI was reported.
- There were no BSIs associated with non-cuffed catheters this quarter.

Table 6 - HD-BSI rate, by type of access, Quarter 1 2025-26

Type of access	Number of units	Aggregate utilisation ratio (%)	Number of BSIs	Number of patient months	Aggregate rate [95% CI]	Cumulative aggregate rate [95% CI]
Arteriovenous fistula	30	72.67	2	3,257	0.06 [0-0.14]	0.06 [0.04-0.08]
Arteriovenous graft	30	1.29	1	58	1.72 [0-5.07]	0.52 [0.13-0.91]
Cuffed catheter	30	25.64	6	1,149	0.52 [0.1-0.94]	0.74 [0.62-0.86]
Non-cuffed catheter	3	0.40	0	18	0 [0-0]	1.45 [0.19-2.71]

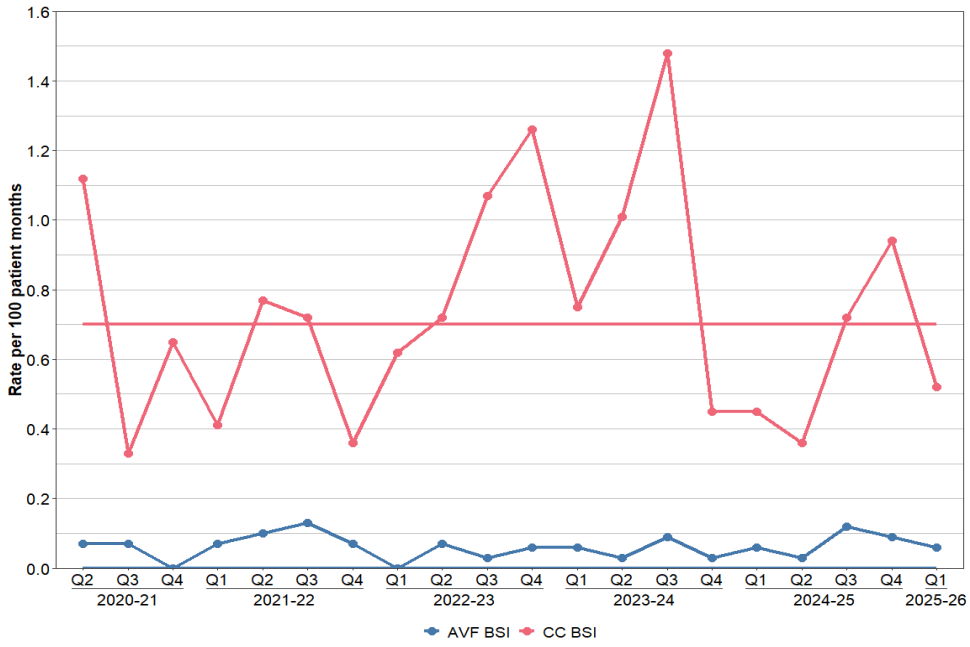


Figure 13 - AVF and cuffed catheter associated BSI rate, 2020-21 to 2025-26

Central line-associated bloodstream infection

Key points

- The majority (74%) of central lines in adult intensive care units (ICUs) were centrally inserted (Table 7).
- Five adult ICU CLABSIs were reported this quarter (Table 8) and the ICU CLABSI rate of 0.58 infections per 1,000 line-days was comparable to the previous quarter.
- Two haematology CLABSIs were reported this quarter and the rate decreased to 0.30 compared to 0.76 infections per 1,000 line days in the previous quarter (Figure 15).
- Two oncology CLABSIs were reported this quarter and the rate increased to 0.2 from 0.0 infections per 1,000 line days in the previous quarter.

Table 7 - Adult ICU central line utilisation ratio (CLUR), Quarter 1 2025-26

Central line insertion	Number of contributing hospitals	Number of line days	Number of bed-days	Tertiary aggregate CLUR (%)	Total aggregate CLUR (%)
Peripherally inserted	11	2,271	15,759	26.15	14.41
Centrally inserted	11	6,415	15,759	73.85	40.71

Table 8 - CLABSI by unit type, Quarter 1 2025-26

Unit Type	Number of contributing hospitals	Number of line days	Number of CLABSIs	Aggregate rate* [95% CI]	Cumulative aggregate rate [95% CI]
Adult ICU					
Centrally inserted	11	6415	3	0.47 [0.3-0.64]	0.59 [0.54-0.64]
Peripherally inserted	11	2271	2	0.88 [0.5-1.26]	0.5 [0.41-0.59]
Total adult ICU	**11**	**8686**	**5**	**0.58 [0.42-0.74]**	**0.57 0.53-0.61]**
Haematology unit					
Centrally inserted	1	2714	1	0.37 [0.14-0.6]	0.64 [0.56-0.72]
Peripherally inserted	1	4039	1	0.25 [0.1-0.4]	0.59 [0.54-0.64]
Total haematology	**1**	**6753**	**2**	**0.3 [0.17-0.43]**	**0.61 [0.57-0.65]**
Oncology unit					
Centrally inserted	5	82,540	2	0.02 [0.01-0.03]	0.02 [0.02-0.02]
Peripherally inserted	5	19,253	0	0 [0-0]	0.07 [0.06-0.08]
Total oncology	**5**	**101,793**	**2**	**0.02 [0.01-0.03]**	**0.03 [0.03-0.03]**

Note: *****All rates per 1,000 central line days.

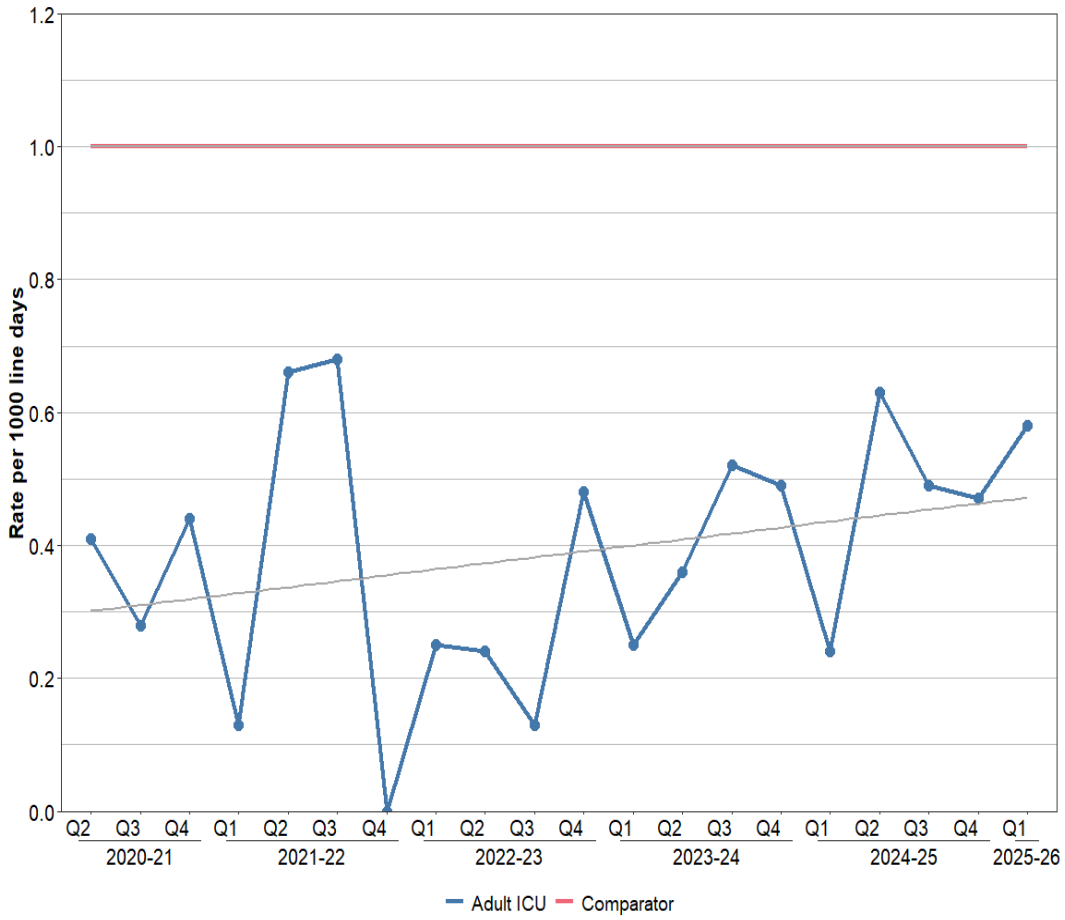


Figure 14 - Adult ICU CLABSI rate, 2020-21 to 2025-26

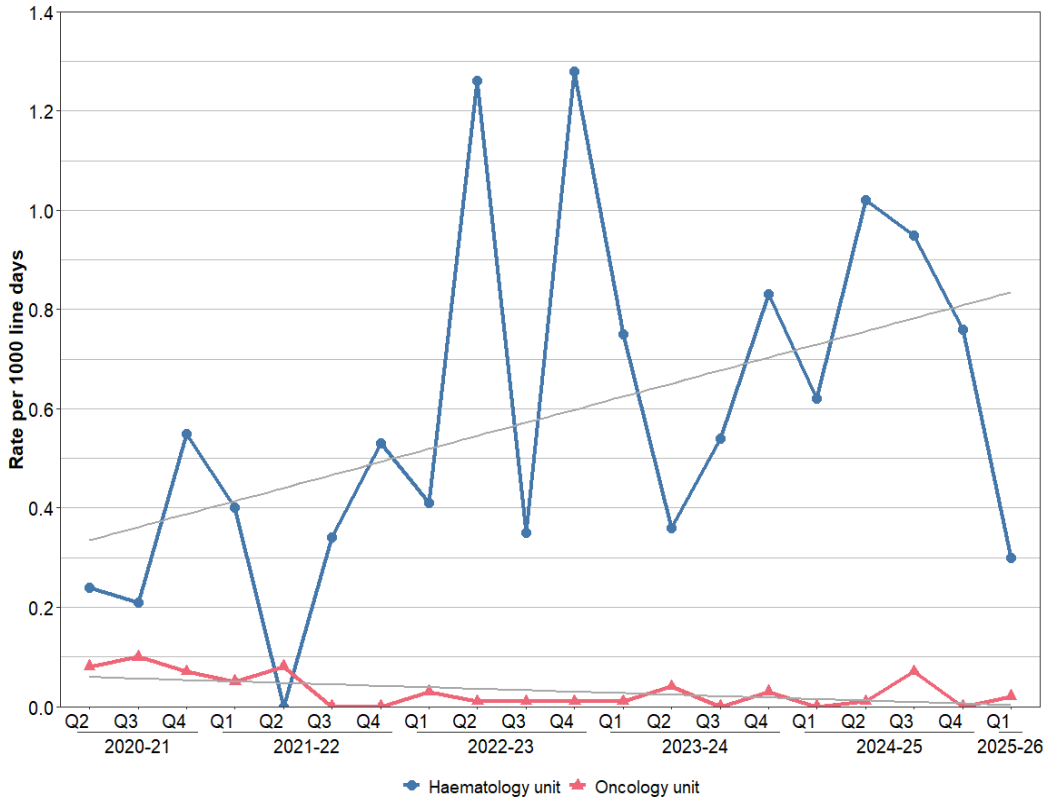


Figure 15 - Haematology and oncology unit CLABSI rates, 2020-21 to 2025-26

Methicillin-resistant *Staphylococcus aureus* healthcare associated infection

Key points

- A total of 47 MRSA HAIs were reported this quarter (Table 9).
- The total MRSA HAI rate of 0.73 infections per 10,000 bed-days was comparable to that reported in the previous quarter. The rate remains below the comparator for the entire 5-year period (Figure 16).
- The majority (70%; n=33) MRSA HAIs were reported from the metropolitan tertiary hospitals, with 12 of these infections attributed to one tertiary facility. The remaining MRSA HAIs were reported from metropolitan non-tertiary hospitals (n=7), private hospitals (n=4) and WACHS hospitals (n=3).
- Of the 47 MRSA HAIs, 43 were identified from the inpatient setting, with five of these infections reported from ICUs.
- A total of 16 patients (34%) were known to be colonised with MRSA prior to developing their MRSA infection.
- The majority (43%; n=20) of MRSA HAIs were related to surgical wounds, 18 were from non-surgical wounds and five patients acquired an MRSA BSI. The remaining MRSA HAIs were isolated from sputum, aseptic tissue or peritoneum samples (Figure 17).
- The majority of MRSA HAIs (85%) were caused by MRSA isolates classified as micro-alert B strains (Figure 19).

Table 9 - Inpatient and non-inpatient MRSA HAI rate per 10,000 bed-days, Quarter 1 2025-26

Setting	Contributing hospitals	Number of MRSA HAIs	Number of bed days	Aggregate rate * [95% CI]	Cumulative aggregate rate [95% CI]
ICU non-sterile site	47	5	20,990	2.38 [2.17-2.59]	0.49 [0.48-0.5]
ICU sterile site	47	0	20,990	0.00 [0.00-0.00]	0.09 [0.09-0.09]
Non-ICU non-sterile site	47	26	472,423	0.55 [0.53-0.57]	0.15 [0.15-0.15]
Non-ICU sterile site	47	12	472,423	0.25 [0.24-0.26]	0.05 [0.05-0.05]
Total inpatient MRSA HAI	**47**	**43**	**493,413**	**0.87 [0.84-0.9]**	**0.22 [0.22-0.22]**
Non-inpatient MRSA HAI	47	4			
Total MRSA HAI	**47**	**47**	**641,906**	**0.73 [0.71-0.75]**	**0.18 [0.18-0.18]**

Note: *Rates are per 10,000 multi and same-day bed-days.

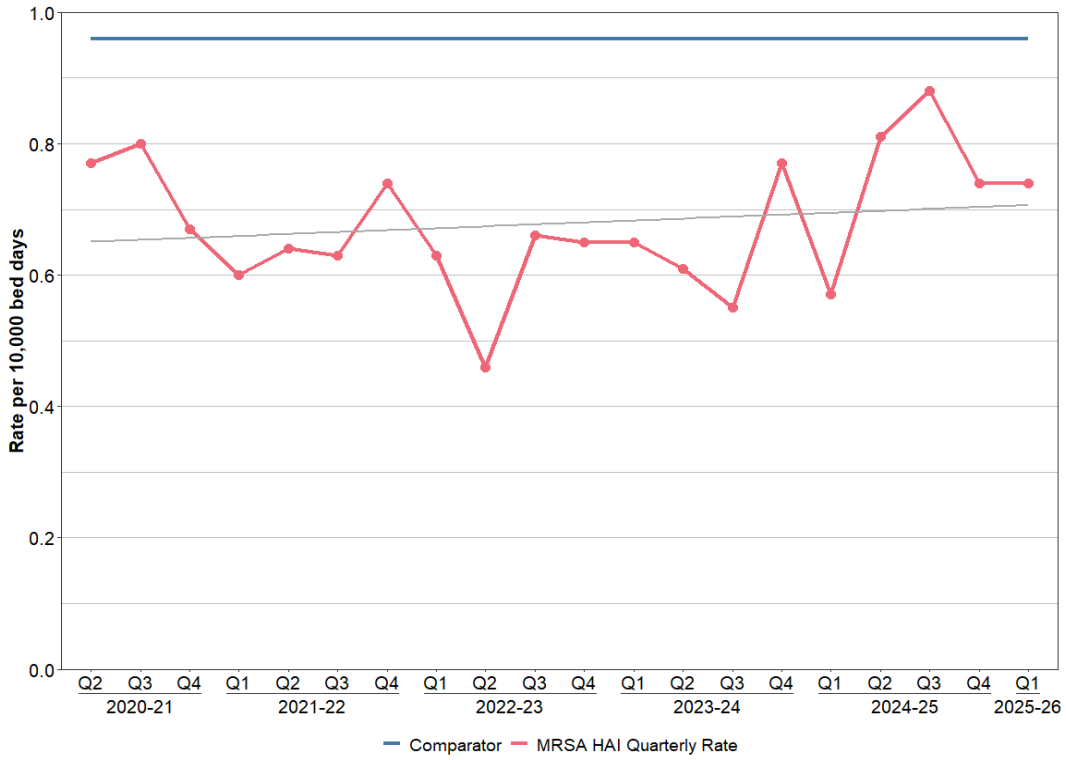


Figure 16 - Total (inpatient and non-inpatient) MRSA HAI rate per 10,000 multi and same day bed-days, 2020-21 to 2025-26

Table 10 - Inpatient MRSA HAI by strain group, site and place of acquisition, Quarter 1 2025-26

Setting	Micro-B MRSA	Micro-C MRSA	Not typed	Total
Non-ICU sterile site	11	1	0	12
Non-ICU non-sterile site	21	5	0	26
ICU sterile site	0	0	0	0
ICU non-sterile site	4	1	0	5
Proportion	84%	16%	0%	100%
Total MRSA HAI	**36**	**7**	**0**	**43**

Note: As of September 2024, routine MRSA strain typing has ceased, and MRSA isolates are classified as either micro-alert B or micro-alert C based on ciprofloxacin susceptibility.

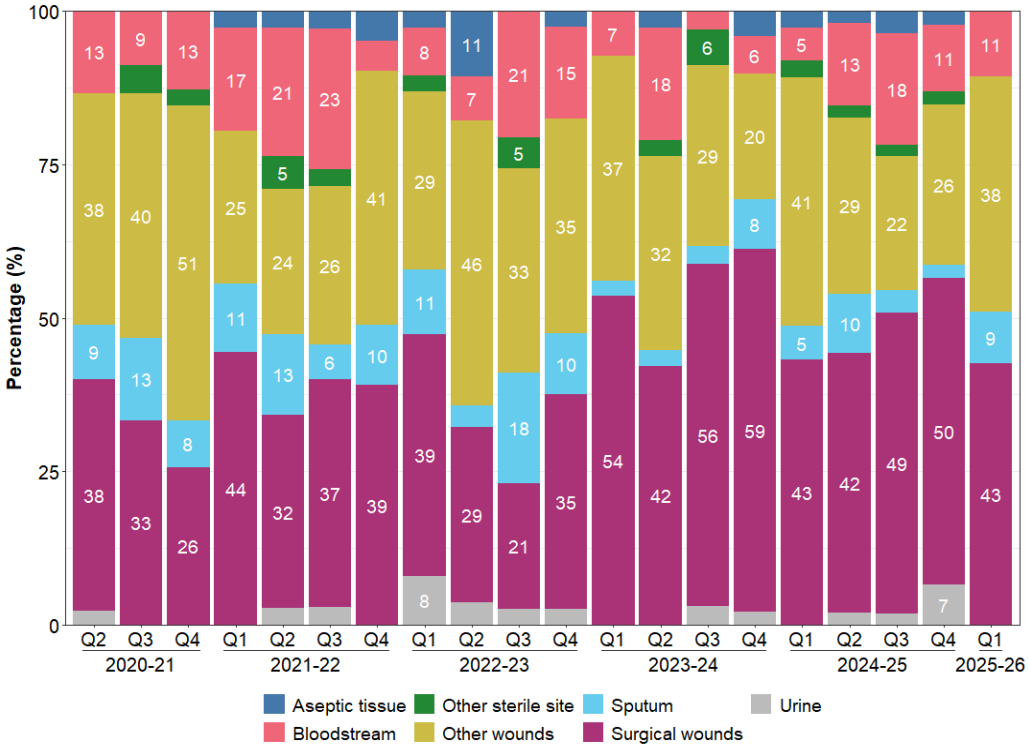


Figure 17 - Percentage of MRSA HAIs by specimen site, 2020-21 to 2025-26

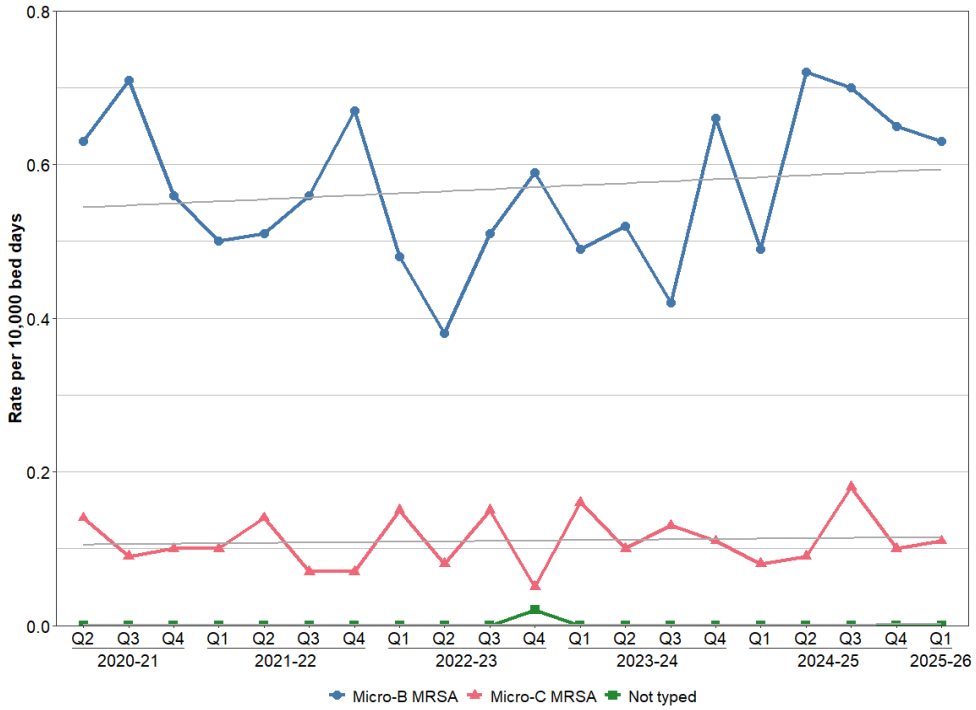


Figure 18 Rate of MRSA HAIs by strain group, 2020-21 to 2025-26

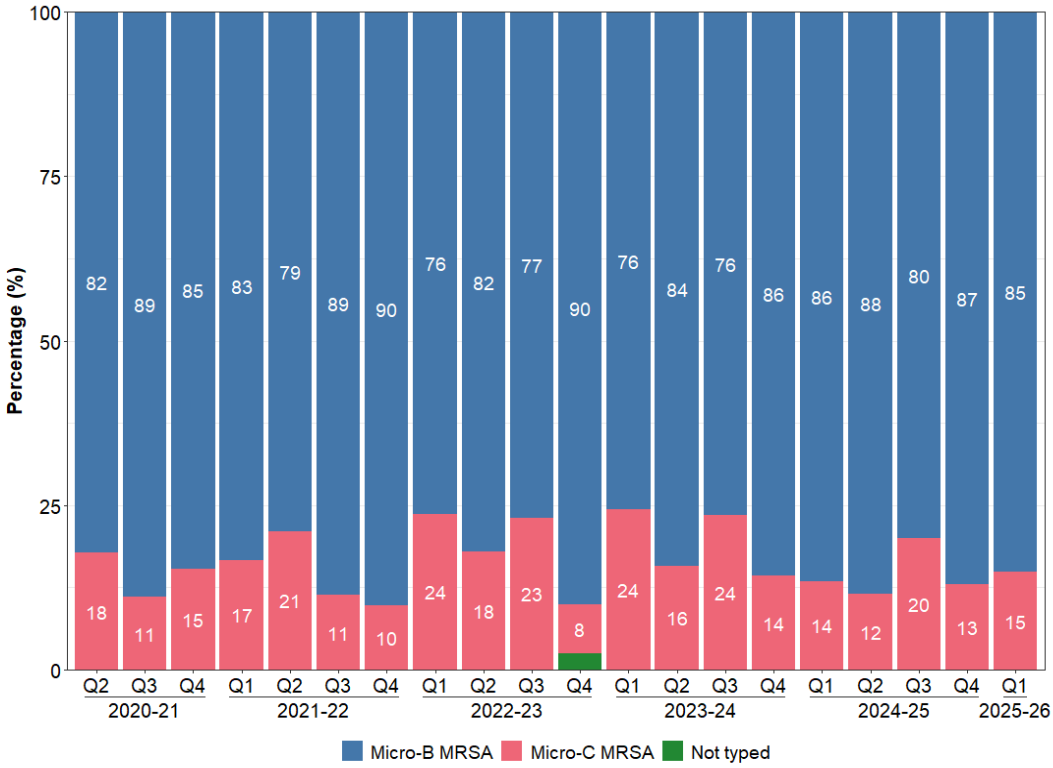


Figure 19 - Percentage and number of MRSA HAIs by strain group, 2020-21 to 2025-26

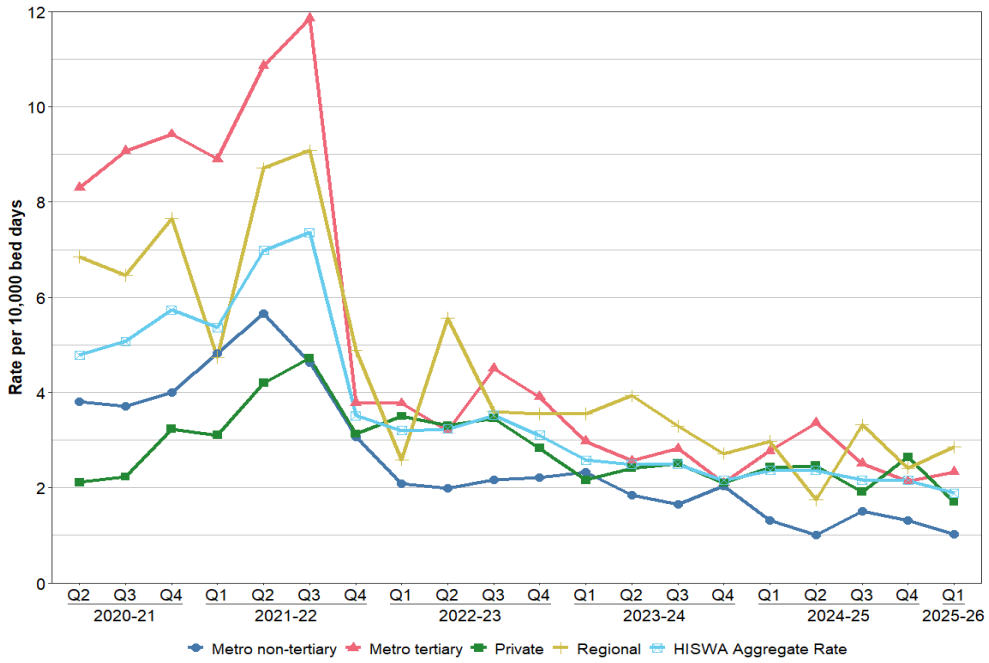
Hospital-identified *Clostridioides difficile* infection

Key points

- The HISWA aggregate hospital-identified *Clostridiodes difficile* infection (HI-CDI) rate of 1.89 per 10,000 bed-days was comparable to the previous quarter (Table 11).
- Metro non-tertiary and private hospitals reported small decrease in rates while metro tertiary and regional hospitals reported slight increases in rates (Figure 20).
- Thirty-seven cases (28%) were reported from private hospitals and may reflect ongoing testing variation at some private laboratories.

Table 11 - HI-CDI rates by hospital group, Quarter 1 2025-26

Hospital group	Contributing hospitals	Number of infections	Number of bed-days	Aggregate rate [95% CI]	Cumulative aggregate [95% CI]
Metropolitan tertiary hospitals	5	55	236,052	2.33 [2.27-2.39]	1.38 [1.37-1.39]
Metropolitan non-tertiary	9	16	157,536	1.02 [0.97-1.07]	0.68 [0.68-0.68]
Regional hospitals	21	22	77,328	2.85 [2.73-2.97]	1.29 [1.28-1.3]
Private hospitals	12	37	217,963	1.7 [1.65-1.75]	0.8 [0.8-0.8]
Total	**47**	**130**	**688,879**	**1.89 [1.86-1.92]**	**1.01 [1.01-1.01]**



Note: Public hospital groups report CDI based on a positive PCR for the toxin B gene followed by a positive enzyme immunoassay (EIA) for toxin in the faecal sample. The move to this 2-step algorithm in public hospitals began in Quarter 4 2021-22. Western Diagnostics (Ramsay hospitals) commenced EIA testing for faecal toxin following screening with PCR for the toxin B gene in November 2022. This change will impact the private hospital rate. ACL are still reporting CDI cases based on faecal PCR only.

Figure 20 - HI-CDI rates by hospital group, 2020-21 to 2025-26

Vancomycin-resistant Enterococci sterile-site infections

Key points

- There were 12 vancomycin-resistant Enterococci (VRE) sterile site infections reported this quarter.
- The VRE sterile site infections were reported from four separate facilities, including three metropolitan tertiary hospitals and one private hospital.
- Eleven infections were classified as HAI and one classified as community onset infection. Seven of the 12 patients were known to be colonised with VRE prior to the onset of their infection.
- Seven VRE HAIs were isolated from other sterile sites and five from blood cultures (Figure 21).
- All isolates were identified as *vanB E. faecium* .

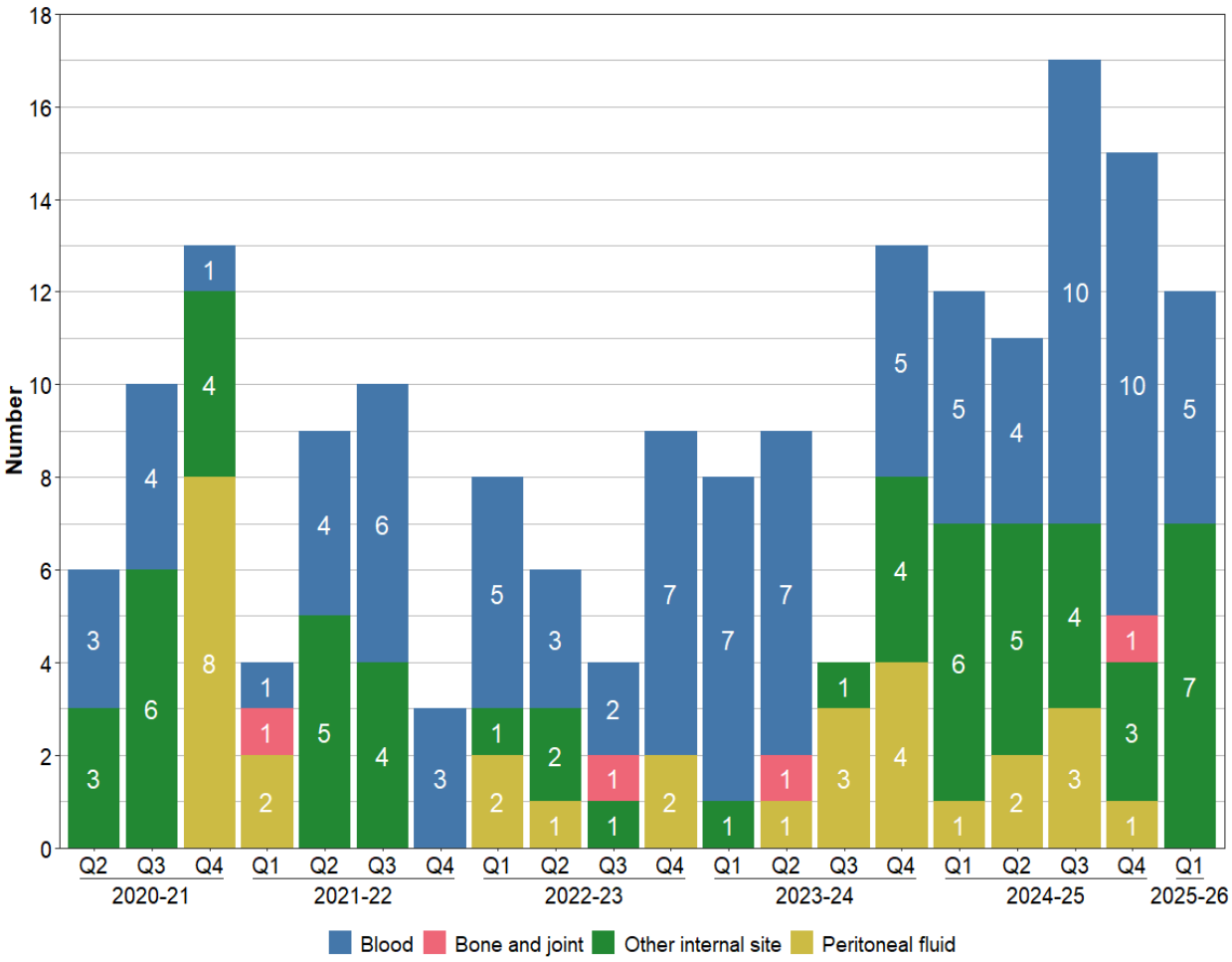


Figure 21 - Number of VRE infections by sterile body sites, 2020-21 to 2025-26

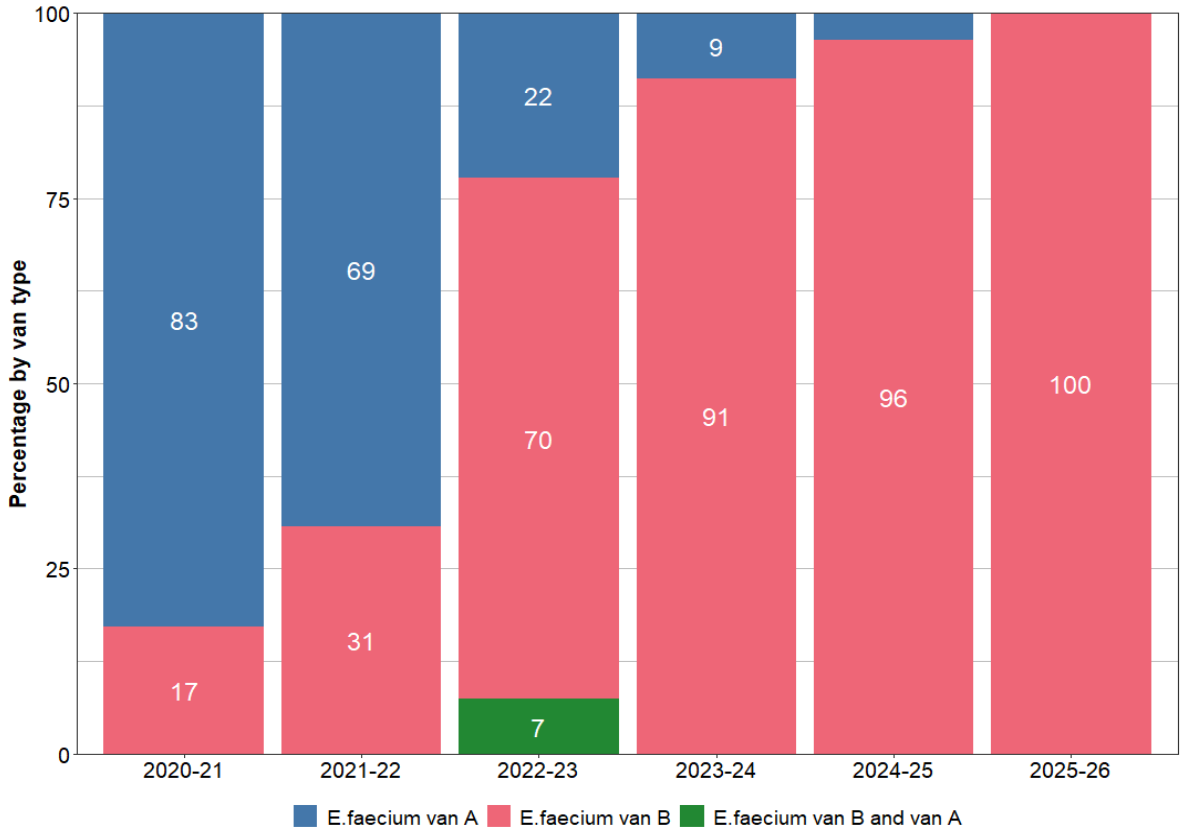
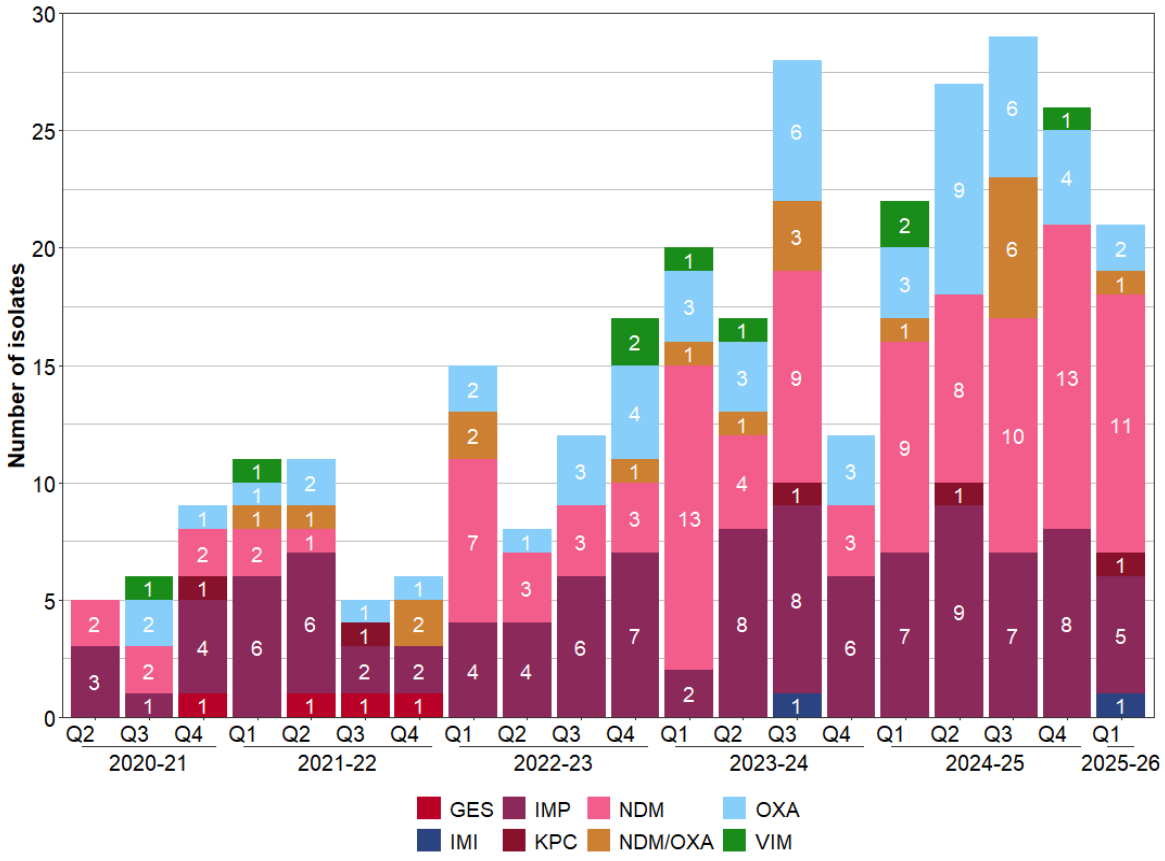


Figure 22 – Percentage and number of VRE sterile site infections by van type, 2020-21 to 2025-26

Carbapenemase-producing organisms

Key points

- Of the 88 referred patient isolates this quarter, 33 isolates were confirmed to be a CPO, of which 21 were unique CPO isolates.
- Of the 21 unique CPO isolates, six were identified from screening and 15 were clinical specimens.
- The carbapenemase enzymes identified from the 21 confirmed unique CPO isolates included eleven NDM, five IMP, one IMI, one KPC, one OXA-48-like, one OXA-23-like & OXA-51-like and one NDM & OXA-48-like carbapenemase (Figure 23).
- The majority (43%) of CPO positive samples were collected by private pathology this quarter (Figure 24).
- For the non-IMP CPOs (n=16), the majority (69%) of patients had a history of being hospitalised overseas, 25% had a history of travel only and one patient (6%) had no overseas exposure (Figure 25).



Note: *Unique isolates - if multiple isolates with the same organism and enzyme are identified for the one patient within a 12-month period, the most clinically important specimen type is to be referred to as the "unique isolate" for data reporting and visualisation purposes. If specimen types are also the same, then the earliest dated specimen is used.

Figure 23 - Number of unique CPO isolates by type, 2020-21 to 2025-26

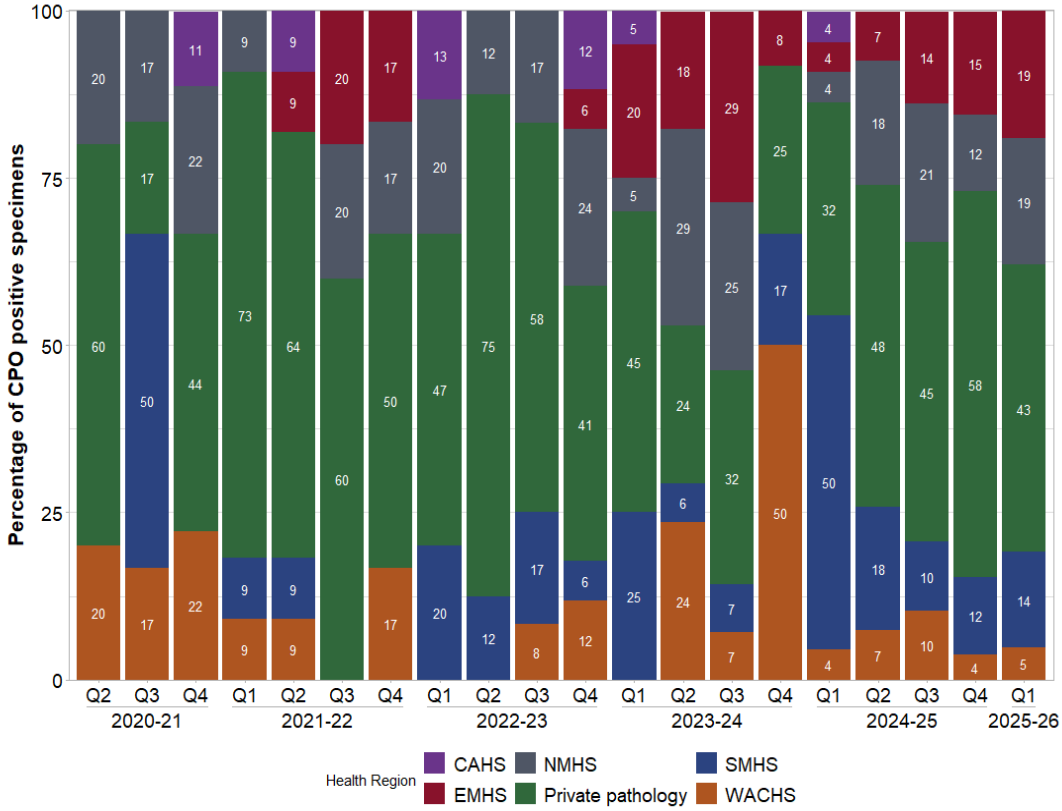


Figure 24 – Percentage of CPO by referring health service, 2020-21 to 2025-26

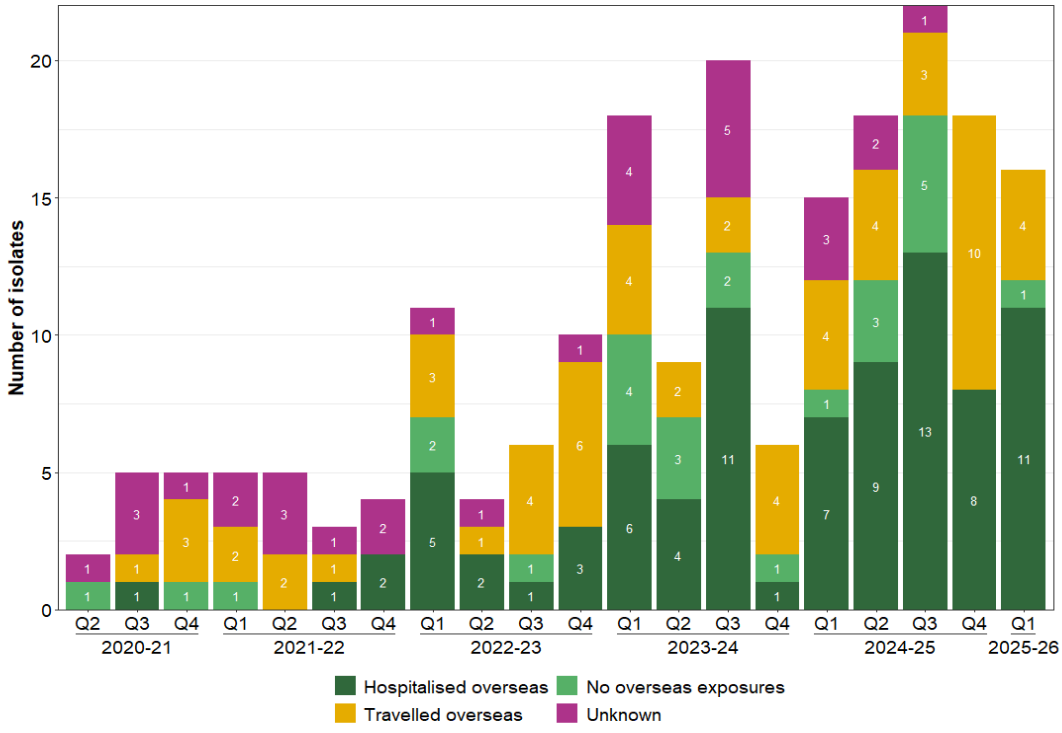


Figure 25 – Individual and household overseas travel history and hospital stay for non-IMP CPOs, 2020-21 to 2025-26

Occupational exposures

Key points

- A total of 366 occupational exposures were reported by healthcare workers (HCWs) this quarter.
- The total occupational exposure rate of 5.10 was comparable to 4.90 exposures per 10,000 bed-days previous quarter (Figure 26).
- The parenteral and non-parenteral occupational exposure rates were both comparable to data reported in the previous quarter (Figure 26).
- The majority of parenteral exposures (48%) and non-parenteral exposures (62%) were reported by nurses/midwives (Figure 27 and Figure 28).
- There were 16 parenteral exposures sustained by HCWs who were not considered the primary user of the sharp instrument.

Table 12 - Parenteral and non-parenteral occupational exposures, Quarter 1 2025-26

Exposure type	Number of contributing hospitals	Number of exposures	Number of bed-days	Aggregate rate [95% CI]	Cumulative aggregate rate [95% CI]
Parenteral exposures	48	284	717,188	3.96 [3.91-4.01]	1.05 [1.05-1.05]
Non-parenteral exposures	48	82	717,188	1.14 [1.12-1.16]	0.30 [0.3-0.3]
Total exposures	**48**	**366**	**717,188**	**5.10 [5.05-5.15]**	**1.35 [1.35-1.35]**

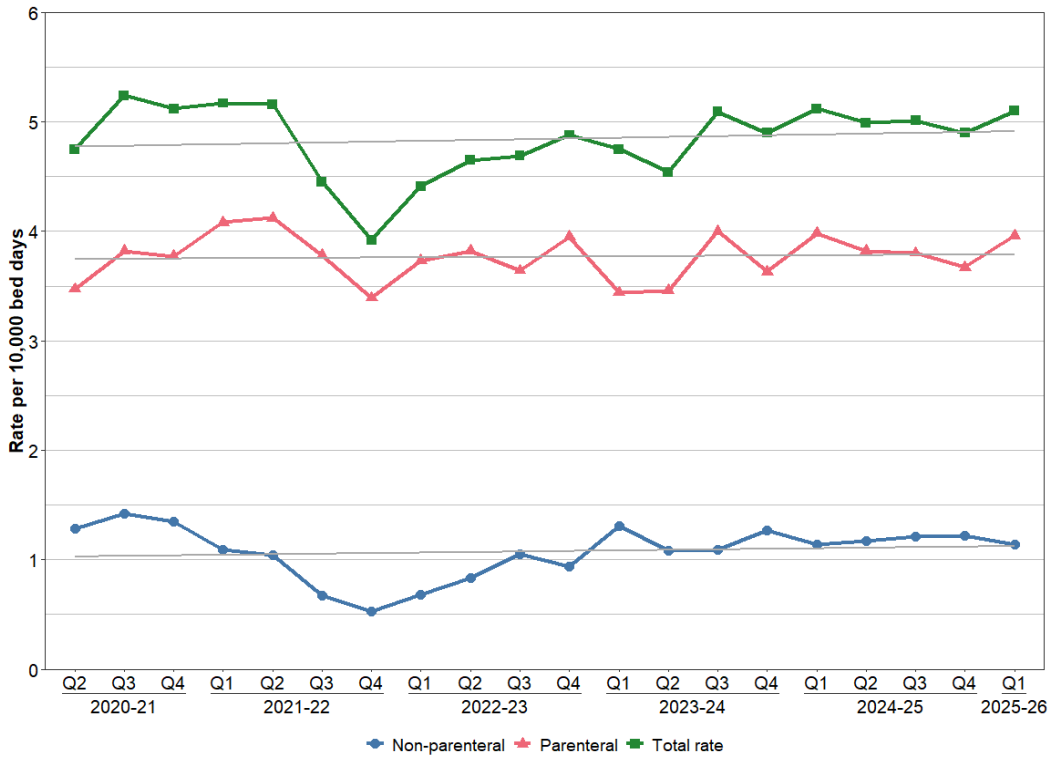


Figure 26 - Parenteral and non-parenteral occupational exposure rates, 2020-21 to 2025-26

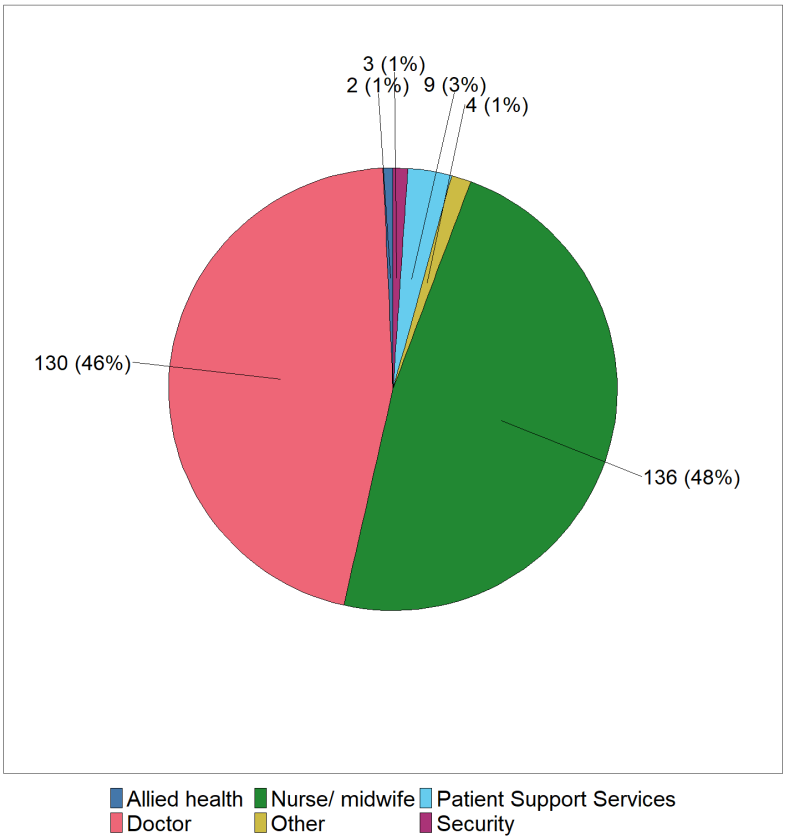


Figure 27 - Parenteral occupational exposures by HCW category, Quarter 1 2025-26

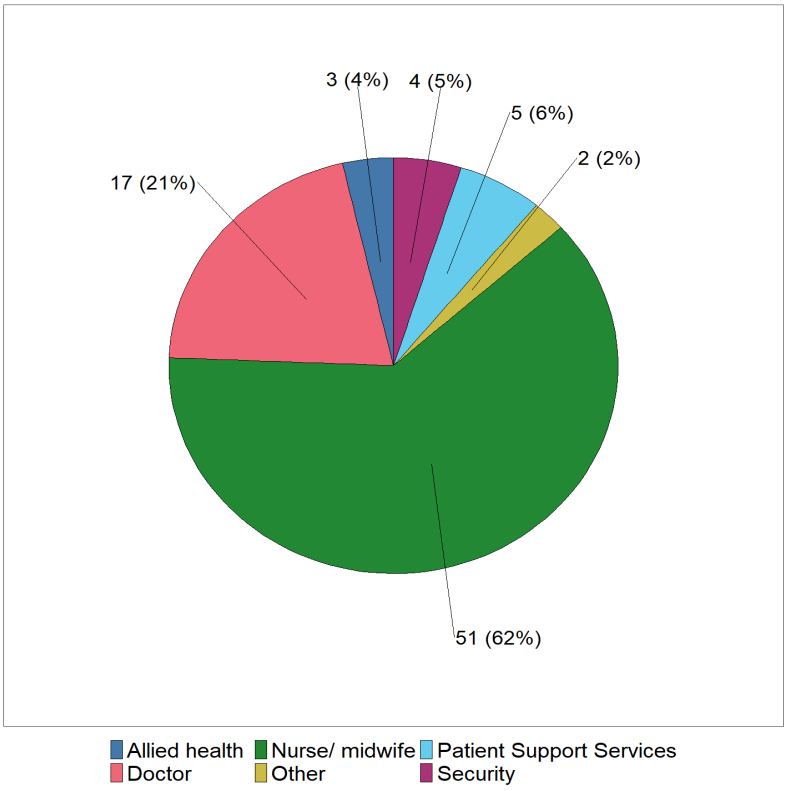


Figure 28 - Non-parenteral occupational exposures by HCW category, Quarter 1 2025-26

Appendix 1 - Data notes

Data quality statement

The following may impact on aggregated rates:

2025-26

July 2025: Karratha Health Campus started reporting HD-BSI.

July 2025: Kiwirrkurra Dialysis Room started reporting HD-BSI.

August 2025: Newman Dialysis Centre started reporting HD-BSI.

August 2025: Warburton Dialysis Room started reporting HD-BSI.

August 2025: Fitzroy Renal Health Centre is temporarily closed.

September 2025: Wanarn Dialysis Room started reporting HD-BSI.

Prior to 2025-26

Please refer to previous reports for more complete data prior to 2025-26. HISWA contributors should contact IPPSU if data needs to be updated.

Data finalisation

All HISWA contributors are to finalise data as soon as possible to meet prescribed data submission deadlines. If there are issues with finalising data please advise IPPSU as soon as possible.

Data refresh

All late submissions or data changes requested by HISWA contributors are refreshed each quarter when HISWA data are extracted for the reporting period. Therefore, data from previous reports may deviate from current data.

Data comparators

IPPSU continue to review suitable up-to-date comparators for surveillance indicators. Refer to specific indicator notes for information on available comparators.

Mandatory indicators

Mandatory indicators were introduced for public hospitals and those health entities who provide contracted services to public patients in 2007. Mandatory indicators are those marked with an asterisk (*).

Cumulative aggregate rates

Cumulative aggregate rates have historically been calculated using the full HISWA data set. This calculation has now been updated to use only the previous 5 years of data.

HISWA Indicators

Surgical site infections

Hip and knee arthroplasty*

- 21 hospitals (7 private and 14 public hospitals) submit data to HISWA. This represents 100% of all hospitals in WA that perform hip and knee arthroplasty procedures. Busselton commenced performing these procedures in July 2018.
- The comparator used is from Table 3 in the Public Health England *Surveillance of Surgical Site Infections in NHS hospitals in England, 2022-23 Report.* (https://assets.publishing.service.gov.uk/media/65805a711c0c2a001318cfb7/SSISS-annual-report-2022-to-2023.pdf).
- The follow up period for surveillance on implanted devices changed from 365 days to 90 days in July 2014.
- Risk stratification:
    - risk stratification is based on the CDC-NHSN (USA) risk index
    - risk 'All' applies to HISWA hospitals that perform fewer than 100 procedures annually and are not required to assign a risk index score
    - procedure type includes primary and revision procedures.
- The IPPSU commenced data submission to the WA Department of Health, Performance Reporting Branch in February 2019 for SSIs following primary hip and knee arthroplasty for inclusion in the Health Service Performance Report (HSPR).

Caesarean section

- 26 hospitals (7 private and 19 public hospitals) submit data to HISWA.
- Risk stratification:
    - risk stratification is based on the CDC-NHSN (USA) risk index
    - risk 'All' applies to HISWA hospitals that perform fewer than 100 procedures annually and are not required to assign a risk index score
    - procedure type includes elective and non-elective (emergency) procedures.
- Caesarean section SSIs are frequently superficial infections that are treated outside the hospital setting. Post-discharge surveillance methodology used in WA was updated on 1st July 2024 to capture those re-presenting for treatment at emergency departments or as outpatients. SSIs detected and treated post-discharge (i.e. by a primary care provider) are likely to be an under-estimation and are not included in HISWA rate calculations or used for benchmarking purposes.
- The update to the HISWA caesarean section SSI definition to include patients presenting to emergency or outpatient departments with a SSI in HISWA calculated rates has also had an impact on this indicator beginning 01/07/2024.This now provides a truer indication of the burden on the healthcare system.

Bloodstream infections

HA-SABSI*

- 47 hospitals (10 private and 37 public hospitals) submit data to HISWA. Data are included from North Metropolitan Mental Health Service since 2014-15.
- HA-SABSI data have been included as an indicator in National Healthcare Agreements since 2009 and are reported on the MyHospitals website. The IPPSU also submits HA-SABSI data to the Department of Health, Performance Reporting Branch on behalf of public hospitals and contracted health entities as they are included in the HSPR.
- Data collection is in accordance with the Australian national definition.

- From 1 July 2017, unqualified newborn bed-day data were excluded from denominator data to align with changes to National definitions. This was also retrospectively applied to reporting periods and therefore previously published data will not align with more recent reports.
- All public hospital HA-SABSI data are validated by the Infection Prevention, Policy and Surveillance Unit.
- The national benchmark for HA-SABSI is set at 1.0 cases per 10,000 patient days, as per the Australian Commission on Safety and Quality in Health Care.
- The comparator for HA-SABSI is the Australian national public hospital aggregate 2019-20 rate (0.71 per 10,000 patient days). The MSSA comparator rate is 0.59 and the MRSA comparator rate is 0.12 per 10,000 bed days. For further details see the Australian Institute of Health and Welfare report *Bloodstream infections associated with hospital care 2019–20* at www.aihw.gov.au/reports/health-care-quality-performance/bloodstream-infections-associated-with-hospital-care

Haemodialysis*

- 30 haemodialysis units (20 private and 10 public hospitals) submit data to HISWA, including two home-based dialysis units.
- The rate per 100 patient months can be interpreted as: the average percentage of dialysis patients acquiring an access-associated BSI per month.
- Synthetic and native vessel AVGs are combined in the data.
- The comparator is from VICNISS 2024 (personal communication).

Central line-associated BSI

- CLABSI definitions changed in July 2014. The new definitions identify BSIs that are likely to be related to mucosal barrier injury as a result of neutropenia or graft versus host disease and exclude them from CLABSI data.
- Eleven adult ICUs (five private and six public hospitals) submit data to HISWA.
- Data is risk adjusted to peripherally and centrally inserted central lines.
- Two public and three private oncology units submit data to HISWA.
- One public haematology CLABSI unit submits data to HISWA.

Multi-resistant organism surveillance

Methicillin-resistant *Staphylococcus aureus**

- 47 hospitals (10 private and 37 public hospitals) submit data to HISWA
- MRSA (infection and colonisation) is notifiable in WA under the *Public Health Act 2016* via laboratory reporting.
- Data are risk adjusted by ICU / non-ICU and inpatient / non-inpatient settings.
- Since 1 July 2014 there have been three MRSA strain reporting groups in WA:
    - micro-alert B PVL negative (strain not characterised)
    - micro-alert B PVL positive (strain characterised)
    - micro-alert C (strain characterised).
- As of September 2024, MRSA is routinely reported based on ciprofloxacin susceptibility:
    - micro-alert B (ciprofloxacin-sensitive)
    - micro-alert C (ciprofloxacin-resistant).
- The comparator is from SA Health, Infection Prevention and Control Service, 2018-19 (personal communication).

Vancomycin-resistant Enterococci*

- VRE (infection and colonisation) is notifiable in WA under the *Public Health Act 2016* via laboratory reporting.
- HISWA VRE data includes both community and healthcare-associated VRE isolates.
- HISWA currently only reports sterile site infections.
- The IPPSU receives VRE data from
    - VRE sterile site infections submitted by ICPs to HISWA
    - notification of all VRE clinical isolates referred to the PathWest Gram-positive Reference Laboratory.
- Categories for sterile site specimens:
    - blood
    - peritoneal: fluid and tissue from peritoneal space / peritoneum (includes abdominal fluid and ascites)
    - bone and joint: bone biopsy, synovial fluid
    - other internal sites: specimens from body sites that are normally sterile where a specimen has been obtained surgically or by aspirate e.g. deep soft tissue (muscle and fascia), pleura, liver, pancreas, kidney, spleen, vascular tissue, heart, brain, lymph node, ovarian tissue.

Carbapenemase-producing organisms*

- CPO (infection and colonisation) is notifiable in WA under the *Public Health Act 2016* via laboratory reporting.
- The IPPSU collates all CPO data submitted to the PathWest Gram-negative Reference Laboratory.

Hospital-identified *Clostridioides difficile* infection*

- 47 hospitals (13 private and 34 public hospitals) submit data to HISWA.
- Data collection is in accordance with the Australian national definition.
- The purpose of this indicator is to describe the burden of disease presenting at hospitals and includes both community and healthcare-associated infections. These data are not suitable for use as a performance measure or for benchmarking.
- Laboratory testing moved to PCR during mid-2010 leading to a doubling of identified cases.
- A second increase in identified cases in the second half of 2011 corresponded to the appearance of several “new” strains of *C. difficile*, possibly imported from the United States.
- *C. difficile* toxin A and B enzyme immunoassay (EIA) was implemented on the 6th March 2022.
- The metropolitan non-tertiary group includes North Metropolitan Mental Health Service data since July 2014 and Fremantle Hospital since January 2015.

Healthcare worker exposures

Occupational exposures*

- 48 hospitals (11 private and 37 public hospitals) voluntarily submit data on parenteral (percutaneous) and non-parenteral (mucous membrane or non-intact skin) exposures.
- Participation in this indicator includes mental health facilities in WA.
- Data is risk adjusted by healthcare worker category and type of exposure.

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