Providence Health Care

Infection Prevention & Control

IPAC Annual Report 2024/25

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Executive Summary

Infection Prevention and Control (IPAC) at Providence Health Care (PHC) strives to provide the highest-quality care to the patients we serve by preventing hospital-associated infections.

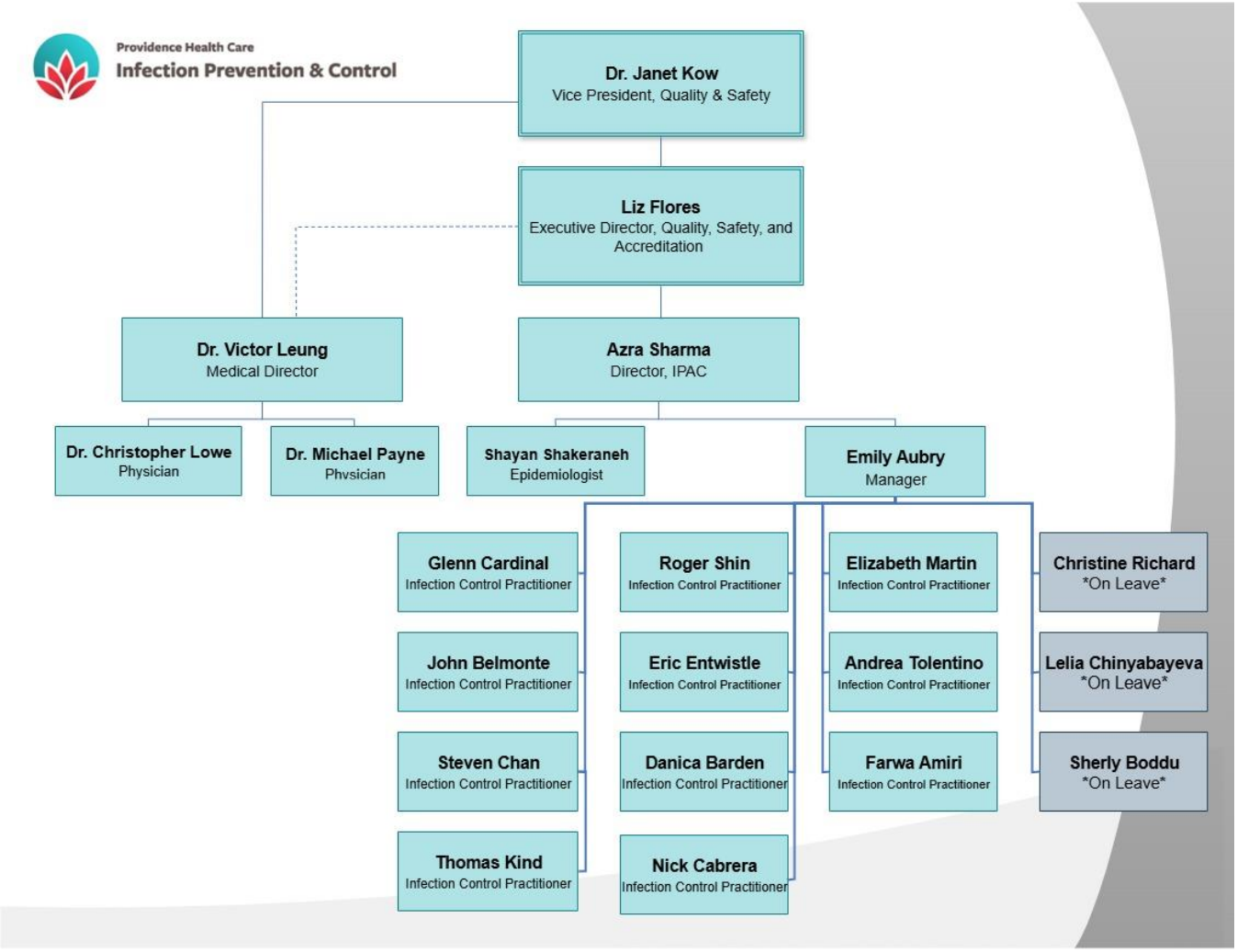
IPAC is actively involved in preventing infection by developing and maintaining surveillance systems, responding to outbreaks, providing infection-prevention expertise and guidelines to the PHC community, and using a continuous quality improvement approach to practical IPAC challenges.

We would like to thank our clinical and operations team and all the front-line staff members at Providence Health Care for doing their part in reducing health care associated infections.

Highlights

- Achieved a **statistically significantly lower** PHC-associated incidence rate of Vancomycin Resistant Enterococcus (VRE) infection as compared to previous year (14.3 vs. 17.9).
- Achieved the lowest PHC-associated incidence rate of renal transplant surgical site infection in the last 5 fiscal years (1.4 per 100 procedures).
- Achieved the lowest PHC-associated CLABSI incidence rate at SPH ICU in the last 9 fiscal years (1.0 cases per 1,000 central line days).
- Transitioned to automated reporting of CLABSI central line days from Cerner to enhance timely reporting, eliminate the need for extensive manual chart reviews, and establish a foundation for future expansion of CLABSI surveillance beyond the ICU.
- Successfully de-labelled 9 patients at HFH Rehab and SPH 9CD of their MRSA status as part of the pilot project for discontinuation of additional precautions for patients with documented clearance of previous MRSA colonization/infection.
- Launched a knowledge translation (KT) challenge project on medicine units of St. Paul's Hospital (SPH) to reduce the incidence of peripheral intravenous catheters (PIV) associated with hospital-associated bloodstream infections. Project decreased significantly the percentage of PIVs that were identified as idle from 28% to 14%; increased the daily assessment documentation compliance in Cerner from 38% to 73%; and increased the proportion of patients reported receiving education from their nurse about PIV complications and when to report to staff from 50% to 59%.

Who We Are



IPAC is a team of 20 people primarily located at 1190 Hornby Street in Vancouver. We serve all 18 PHC sites.

What We Do

Preventing infections is a shared goal of all PHC staff. Working collaboratively, IPAC is responsible for developing and implementing strategies to reduce or prevent the spread of healthcare-associated infections (HAIs) in patients, residents, visitors, and staff, through:

- Surveillance
- Hand hygiene audits
- Education and training
- Outbreak management
- Construction, renovation, maintenance and design (CRMD) consulting
- Policy and procedure development
- Case management
- Environmental hygiene and engineering
- Disinfection and sterilization

The Infection Prevention and Control Standards Committee and its members are advocates and role models for the IPAC program at PHC. The Committee is responsible for:

- Endorsing standards and guidelines
- Reviewing IPAC surveillance data and developing improvement action plans
- Reviewing and addressing the results of outbreak management, audits, and investigations
- Endorsing annual goals and objectives of IPAC
- Enabling compliance or progress to achieve Accreditation Canada standards

IPAC Website

On the IPAC section on PHC Connect, staff can find the latest updates, links to SHOP documents and other educational tools. The Organisms and Diseases page contains links to over 20 disease-specific guidelines. It also includes a 300-page catalogue of infectious conditions with essential information on preventing transmission.

https://connect.phcnet.ca/clinical/ipac

IPAC Metrics on Quality & Safety and Flow Dashboard

This dashboard displays key IPAC metrics and performance over time and is accessible by anyone connected to PHC Connect.

http://spdbsdss001/Reports/report/Indicators/DashBoard

Surveillance

Surveillance is the systematic and consistent collection, analyses, and interpretation of data with timely dissemination of actionable results.

Surveillance identifies potential risks of infection and reinforces the need for good practices. Regular reporting of data is important for awareness and action by the front-line staff and by organizational leaders.

The main objectives of surveillance of hospital-associated infections and/or antibiotic-resistant organism colonization are:

- Early detection of clusters and outbreaks
- Identification of risks for infections, implementation of infection prevention measures and evaluation of risk-reducing interventions
- Monitoring of infection rates over time and evaluation of trends

PHC's current surveillance systems include:

- Antibiotic-resistant organisms (ARO): Methicillin Resistant *Staphylococcus aureus* (MRSA), Vancomycin Resistant Enterococci (VRE), Carbapenemase-producing Organisms (CPO), and *Candida auris*
- *Clostridioides difficile* infection (CDI)
- *Mycobacterium tuberculosis* (TB) – Active infections
- Surgical Site Infections in Cardiac Surgery and Renal Transplant
- Central line-associated bloodstream infection (CLABSI) in the Intensive Care Unit
- Healthcare-associated *Staphylococcus aureus* bloodstream (HA-SAB) infection
- COVID-19 infection

Methicillin Resistant *Staphylococcus aureus* (MRSA)

Background

- MRSA is transmissible in hospital, long-term care and community settings. MRSA has the potential to cause serious infections for which treatment options are limited.
- MRSA infections are associated with increased length of stay, higher mortality and increased costs. Early identification of patients colonized with MRSA through admission screening and prompt implementation of infection control measures can prevent transmission. Admission screening at St. Paul's Hospital (SPH) and Mount Saint Joseph Hospital (MSJ) is based on risk-factor assessment. In the ICU, patients are screened on admission for MRSA and subsequently at weekly intervals.

Outcome

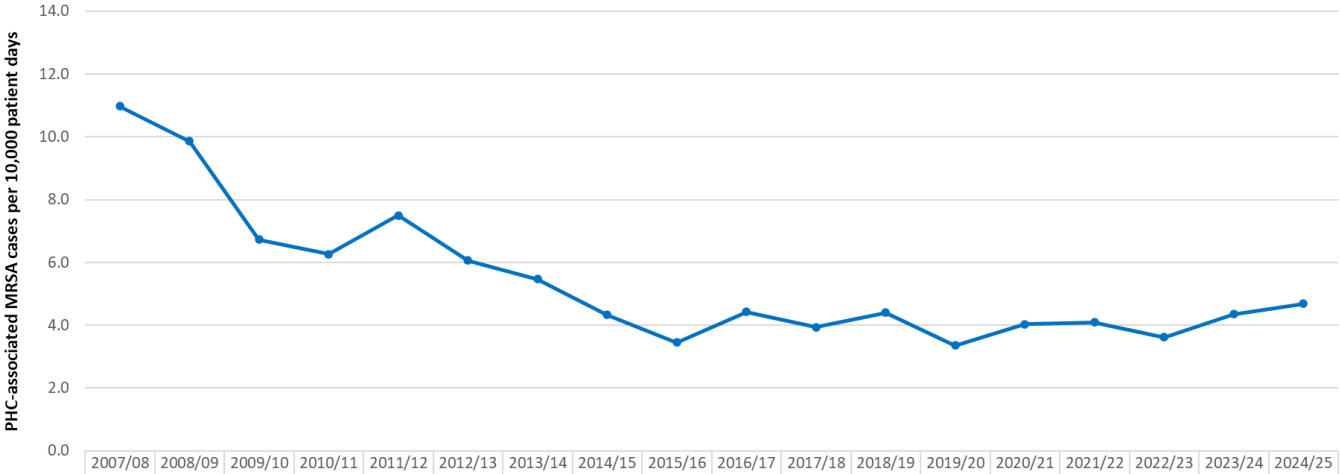
There were 639 new cases of MRSA identified at PHC in 2024/25.

- In 2024/25, 93 (15%) were classified as PHC-associated cases. Of these, 76 (82%) were from acute-care facilities (Figure 1).
- The PHC-associated incidence rate in 2024/25 was 4.7 cases /10,000 patient days (95% CI: 3.7-5.9). This rate was similar to last fiscal year (4.4 cases/10,000 patient days, 95% CI: 3.4-5.5, p=0.66).
- The MRSA incidence rate at SPH in 2024/25 was 5.3 cases/10,000 patient days (95% CI: 4.1-6.7). This rate was similar to last fiscal year (4.8 cases/10,000 patient days, 95% CI: 3.7-6.2, p=0.62).
- The MRSA incidence rate at MSJ in 2024/25 was 1.8 cases/10,000 patient days (95% CI: 0.58-4.2). This rate was similar to last fiscal year (1.9 cases/10,000 patient days, 95% CI: 0.61-4.4, p=0.95).
- In 2024/25, 47% of PHC-associated cases were identified through hospital admission screening programs, while remaining cases were identified from clinical specimens.

Working on

IPAC is working on a pilot project for discontinuation of additional precautions for patients with documented clearance of previous MRSA colonization/infection for HFH Rehabilitation Units 1&2 and SPH 9CD.

Figure 1: PHC-associated MRSA incidence rate in acute care facilities, 2007/08 to 2024/25

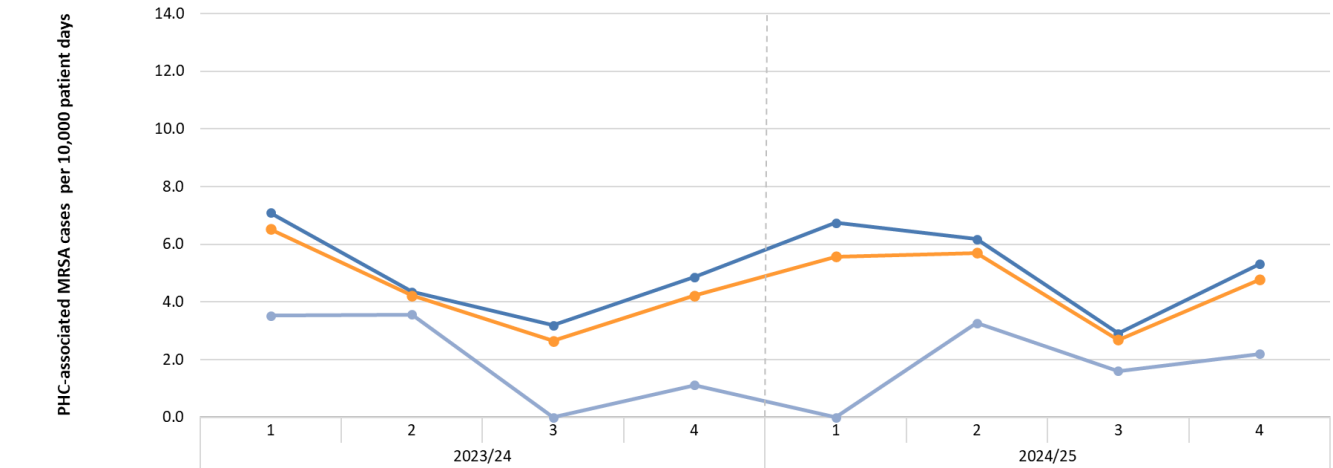


	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Rate	11.0	9.9	6.7	6.3	7.5	6.1	5.5	4.3	3.5	4.4	3.9	4.4	3.4	4.0	4.1	3.6	4.4	4.7
Cases	211	189	126	117	138	113	104	82	65	84	74	83	50	54	61	55	70	76

MRSA cases and rates exclude outpatient, LTC, ED, and mental health units.
EVS product change from Quat (quaternary ammonium) to AHP (accelerated hydrogen peroxide) occurred at the start of 2024/25 (April 1, 2024).

Fiscal year

Figure 2: PHC-associated MRSA incidence rate by acute care facility site and fiscal quarter, 2023/24 to 2024/25



	2023/24				2024/25			
	1	2	3	4	1	2	3	4
SPH Rate	7.1	4.3	3.2	4.9	6.7	6.2	2.9	5.3
MSJ Rate	3.5	3.6	0.0	1.1	0.0	3.3	1.6	2.2
PHC Rate	6.5	4.2	2.6	4.2	5.6	5.7	2.7	4.8
SPH number cases	21	13	10	21	20	19	9	23
MSJ number cases	2	2	0	1	0	2	1	2
PHC number cases	23	15	10	22	20	21	10	25

MRSA cases and rates exclude outpatient, LTC, ED, and mental health units.
EVS product change from Quat (quaternary ammonium) to AHP (accelerated hydrogen peroxide) occurred at the start of 2024/25 (April 1, 2024).

Fiscal quarter

Vancomycin Resistant Enterococci (VRE)

Background

VRE can be transmitted to patients in health care facilities. Colonization with VRE is more common than infection, and since colonization is the first step towards infection, prevention is crucial.

Outcome

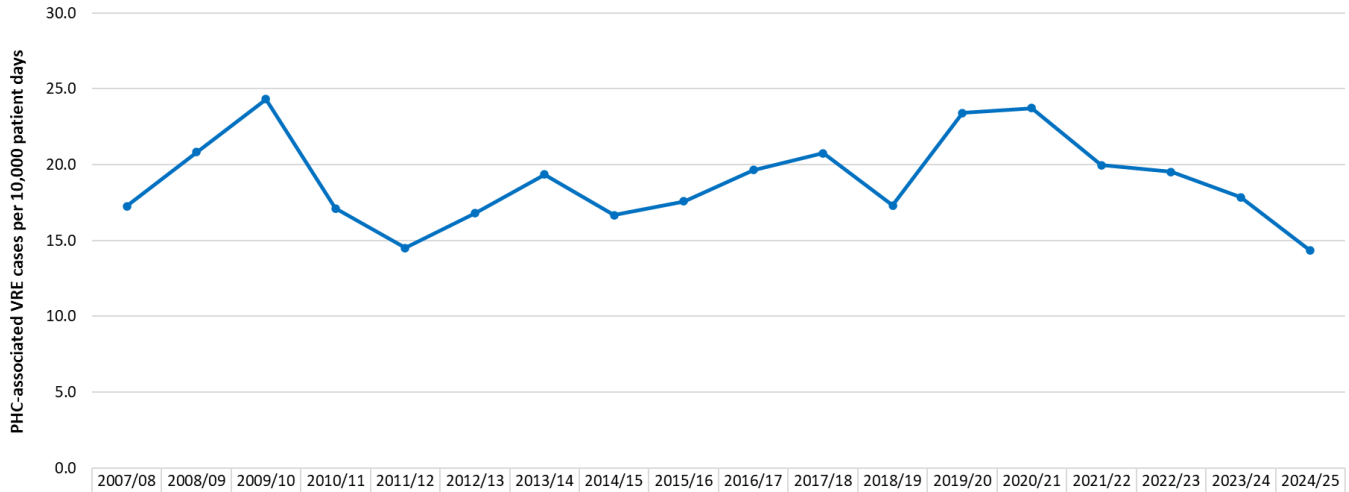
There were 450 new cases of VRE identified at PHC in 2024/25.

- In 2024/25, 237 (53%) were classified as PHC-associated cases. Of these, 233 (98%) were from acute-care facilities (Figure 3).
- The PHC-associated incidence rate in 2024/25 was 14.3 cases/10,000 patient days (95% CI: 12.6-16.3). This rate was **statistically significantly lower** than last fiscal year (17.9 cases/10,000 patient days, 95% CI: 15.9-20.0, $p<0.05$).
- The VRE incidence rate at SPH in 2024/25 was 15.7 cases/10,000 patient days (95% CI: 13.7-18.0). This rate was **statistically significantly lower** than last fiscal year (19.7 cases/10,000 patient days, 95% CI: 17.4-22.2, $p<0.05$).
- The VRE incidence rate at MSJ in 2024/25 was 7.6 cases/10,000 patient days (95% CI: 4.7-11.6). This rate was similar to last fiscal year (8.6 cases/10,000 patient days, 95% CI: 5.5-13.0, $p=0.67$).
- In 2024/25, 86% of PHC-associated cases were identified through hospital admission screening, while remaining cases were identified through clinical or unclassified specimens.

Working on

IPAC continues to promote a risk-informed VRE control program to prevent transmission and protect the most vulnerable patients we serve.

Figure 3: PHC-associated VRE incidence rate in acute care facilities, 2007/08 to 2024/25

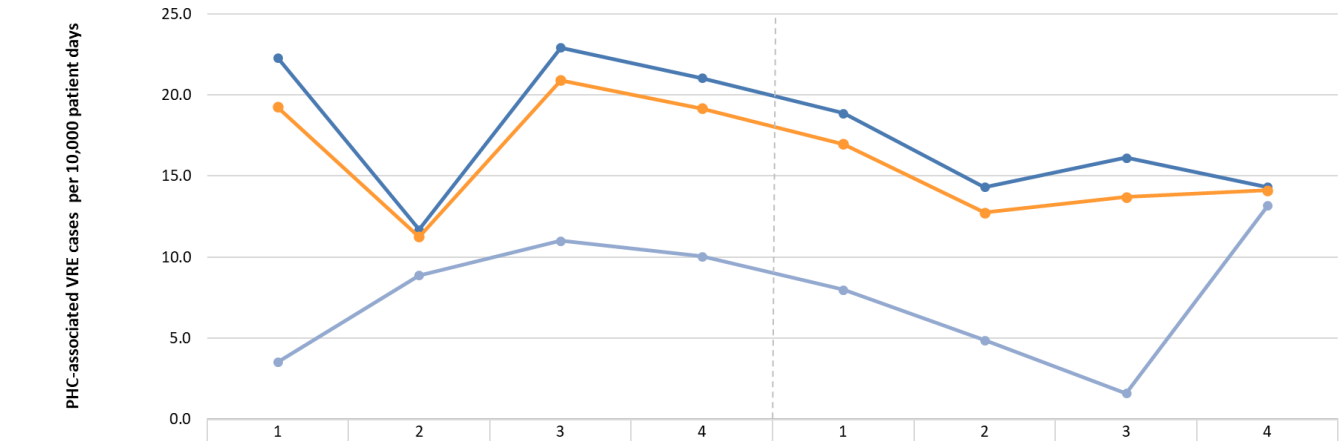


	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Rate	17.3	20.8	24.3	17.1	14.5	16.8	19.4	16.7	17.6	19.7	20.8	17.3	23.4	23.7	20.0	19.5	17.9	14.3
Cases	332	399	456	320	267	313	368	316	331	373	390	327	349	318	298	297	287	233

VRE cases and rates exclude outpatient, LTC, ED, and mental health units.
EVS product change from Quat (quaternary ammonium) to AHP (accelerated hydrogen peroxide) occurred at the start of 2024/25 (April 1, 2024).

Fiscal year

Figure 4: PHC-associated VRE incidence rate by acute care facility site and fiscal quarter, 2023/24 to 2024/25



	2023/24				2024/25			
	1	2	3	4	1	2	3	4
SPH Rate	22.3	11.7	22.9	21.1	18.9	14.3	16.1	14.3
MSJ Rate	3.5	8.9	11.0	10.0	8.0	4.9	1.6	13.2
PHC Rate	19.3	11.3	20.9	19.2	17.0	12.7	13.7	14.1
SPH number cases	66	35	72	91	56	44	50	62
MSJ number cases	2	5	7	9	5	3	1	12
PHC number cases	68	40	79	100	61	47	51	74

VRE cases and rates exclude outpatient, LTC, ED, and mental health units.
EVS product change from Quat (quaternary ammonium) to AHP (accelerated hydrogen peroxide) occurred at the start of 2024/25 (April 1, 2024).

Fiscal quarter

Clostridioides difficile Infection (CDI)

Background

CDI is the most common cause of health-care-associated infectious diarrhea. IPAC is actively involved in preventing transmission by engaging in the following activities:

- Providing regular education for staff and patients on appropriate isolation precautions, cleaning and disinfection practices, and hand hygiene;
- Increasing the frequency of communication with environmental cleaning staff to inform them of patient rooms requiring enhanced sporicidal disinfection;
- Creating a process for environmental cleaning staff to inform unit staff upon completion of sporicidal disinfection; and
- Notifying the Antimicrobial Stewardship Program (ASP) of cases to ensure patients and residents receive timely, effective and optimal antimicrobial therapy and management.

Outcome

There were 138 new cases of CDI identified at PHC in 2024/25.

- In 2024/25, 90 (65%) were classified as PHC-associated cases. Of these, 81 (90%) were from acute-care facilities.
- The incidence rate of PHC-associated CDI in acute care facilities in 2024/25 was 4.0 cases/10,000 patient days (95% CI: 3.2-5.0). This rate was similar to last fiscal year (4.1 cases/10,000 patient days, 95% CI: 3.3-5.1, p=0.80).
- The CDI incidence rate at SPH in 2024/25 was 4.2 cases/10,000 patient days (95% CI: 3.3-5.3). This rate was lower than last fiscal year (4.8 cases/10,000 patient days, 95% CI: 3.8-6.0, p=0.42).
- The CDI incidence rate at MSJ in 2024/25 was 2.9 cases/10,000 patient days (95% CI: 1.4-5.4). This rate was higher than last fiscal year (0.9 cases/10,000 patient days, 95% CI: 0.18-2.7, p=0.07).
- The unadjusted incidence, which includes patients colonized with CDI in 2024/25, was 6.0 per 10,000 patient days (95% CI: 4.9-7.1). This rate was lower than the unadjusted incidence from last fiscal year (7.4 cases/10,000 patient days, 95% CI: 6.3-8.7, p=0.07).

Outcome – CDI Rates by Test Results

- PHC transitioned to a 2-step test reporting algorithm with PCR testing, followed by toxin antigen testing in quarter 4 of 2017/18.
- PHC-associated rates by testing results (positive, indeterminate, overall) are displayed in Figure 5.
- Positive test results continued to be the key driver over the last 7 years, although indeterminate results from the 2-step algorithm also contributed to PHC-associated rates.
- In 2024/25, both positive and indeterminate rates stayed similar to 2023/24 as displayed in Figure 5.

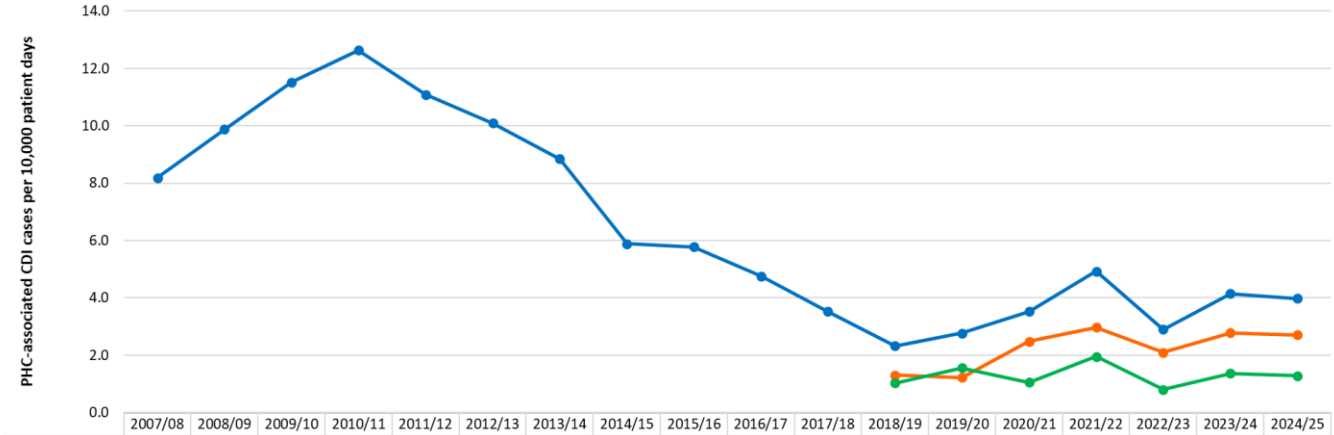
Issues

- Patients can be colonized with CDI prior to entering our hospitals and subsequently develop CDI when exposed to a risk factor such as antimicrobials. Thus, community-acquired CDI can be misclassified as health care-associated CDI.
- 2024/25 was the eighth year that IPAC clinically reviewed every case of CDI to determine whether the patient had a true infection, rather than colonization.
- At the start of quarter 2 of 2024/25 (June 21, 2024), the role of reviewing infection versus colonization status was transferred from Antimicrobial Stewardship Program (ASP) to IPAC.

Working on

- Infection control practitioners continue to round on every CDI case, providing education on contact precautions and hand hygiene for both patients and staff.

Figure 5: PHC-associated CDI incidence rate by test results in acute care facilities, 2007/08 to 2024/25



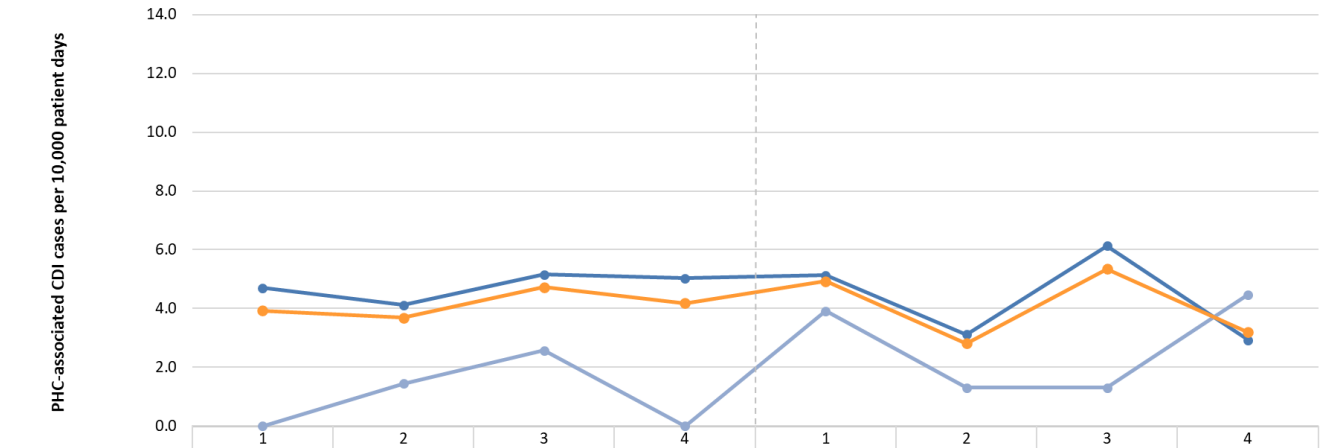
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Overall Rate	8.2	9.9	11.5	12.6	11.1	10.1	8.8	5.9	5.8	4.8	3.5	2.3	2.8	3.5	4.9	2.9	4.1	4.0
Positive Rate												1.3	1.2	2.5	3.0	2.1	2.8	2.7
Indet. Rate												1.0	1.6	1.1	2.0	0.8	1.4	1.3

CDI cases and rates exclude outpatient, LTC, ED, and NICU units.
CDI cases and rates exclude colonizations and relapses.
Overall = Positive & indeterminate.
Positive & indeterminate test results started in 2017/18 Q4 P11 (Jan. 30th).

Fiscal year

Switched from laboratory developed PCR to GeneXpert in 2019/20 Q2.
PHC started a new IDP test in addition to old CDI test on Oct 4/24 (2023/24 Q3).
EVS switched from Quat to AHP on Apr 1/24 (2024/25 Q1).

Figure 6: PHC-associated CDI incidence rate by acute care facility site and fiscal quarter, 2023/24 to 2024/25



	2023/24				2024/25			
	1	2	3	4	1	2	3	4
SPH Rate	4.7	4.1	5.2	5.0	5.1	3.1	6.1	2.9
MSJ Rate	0.0	1.4	2.6	0.0	3.9	1.3	1.3	4.5
PHC Rate	3.9	3.7	4.7	4.2	4.9	2.8	5.3	3.2
SPH number cases	17	15	20	27	19	12	24	16
MSJ number cases	0	1	2	0	3	1	1	5
PHC number cases	17	16	22	27	22	13	25	21

CDI cases and rates exclude outpatient, LTC, ED, and NICU units.
CDI cases and rates exclude colonizations and relapses.
Switched from laboratory developed PCR to GeneXpert in 2019/20 Q2.

Fiscal quarter

PHC started a new IDP test in addition to old CDI test on Oct 4/24 (2023/24 Q3).
EVS switched from Quat to AHP on Apr 1/24 (2024/25 Q1).

Carbapenemase-Producing Organisms (CPO)

Background

- CPO are Gram-negative bacteria that are resistant to carbapenems (considered antibiotics of last resort) and many other antibiotic classes. CPO infections are associated with high morbidity and mortality.

- In Canada, cases (infection or colonization) have primarily been identified in patients previously hospitalized in endemic countries. Health-care-associated transmission of CPO within British Columbia facilities has also been documented. In December 2016, CPO was added to the list of reportable communicable diseases in BC.

- At PHC, an Antibiotic-Resistant Organism (ARO) Admission Risk Assessment Order was created and implemented in May 2014 in response to the BC CPO Working Group recommendations for identifying and screening high-risk patients on admission to acute care facilities. Further amendments to the Admission Risk Assessment Form were made in 2017 to create a more focused screening assessment. PHC IPAC collaborates with other health authorities to refine infection prevention measures for CPO, such as risk-factor based screening, investigation of clusters and surveillance of CPO.

Outcome

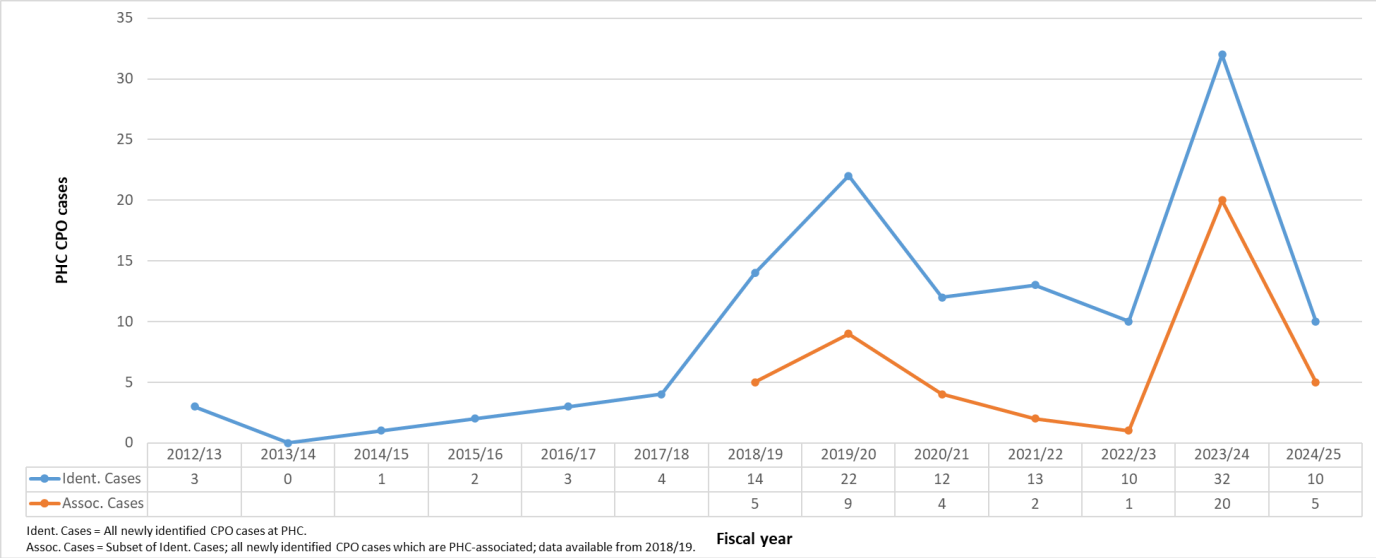
A total of 980 screening swabs were collected for CPO at PHC in 2024/25, which was lower than in 2023/24 (1,755).

- Ten new CPO cases were identified at PHC in 2024/25 which was lower than in 2023/24 (32) (Figure 7). Of these, 5 (50%) were PHC-associated.

- NDM (50%) was the most prevalent carbapenemase gene identified in 2024/25 and cumulatively over the last thirteen years (Table 7, Appendix).

- In 2024/25, 2 (20%) patients reported a healthcare encounter outside of Canada in the 12 months prior to detection; 4 (40%) patients were considered to have an infection, rather than colonization; and none of the patients died due to CPO infection at 30 days or at the time of discharge after the CPO infection was identified.

Figure 7: PHC-identified and associated CPO cases by fiscal year: 13-year trend



	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Ident. Cases	3	0	1	2	3	4	14	22	12	13	10	32	10
Assoc. Cases							5	9	4	2	1	20	5

Ident. Cases = All newly identified CPO cases at PHC.
Assoc. Cases = Subset of Ident. Cases; all newly identified CPO cases which are PHC-associated; data available from 2018/19.

Fiscal year

Mycobacterium tuberculosis (TB)

Outcome

In 2024/25, there were 29 cases of active pulmonary TB diagnosed at PHC acute care facilities. Of these, 19 (66%) cases were inpatients resulting in 13 exposed patients upon contract tracing.

- This is higher than **2023/24 where 24 new cases were identified** with 13 (54%) inpatient cases identified resulting in 3 exposed patients upon contract tracing.
- On follow-up, Vancouver Coastal Health (VCH) Public Health did not find evidence of TB transmission among any of these contacts.
- Prevention of in-hospital TB transmission is focused on applying appropriate transmission-based precautions for suspected or confirmed infectious TB. Physicians and other frontline staff should maintain a high index of suspicion for TB when there are clinical and epidemiologic risk factors. IPAC should be consulted before discontinuing airborne precautions.
- We continue to use the Assessment, Communication and Education (ACE) tool to guide risk assessments and standardize Infection Control Practitioners' documentation and recommendations. We also work closely with VCH Public Health, Occupational Health & Safety and Workplace Health Call Centre for contact tracing.

Surgical Site Infection (SSI) – Renal Transplant Surgery

Background

Due to the identification of CPO cases among renal transplant patients, we have started working with the renal transplant pharmacist, urology, nephrology and BC Transplant Society to prevent CPO transmission within this patient population. We implemented a renal transplant surgical site surveillance system in August of 2020.

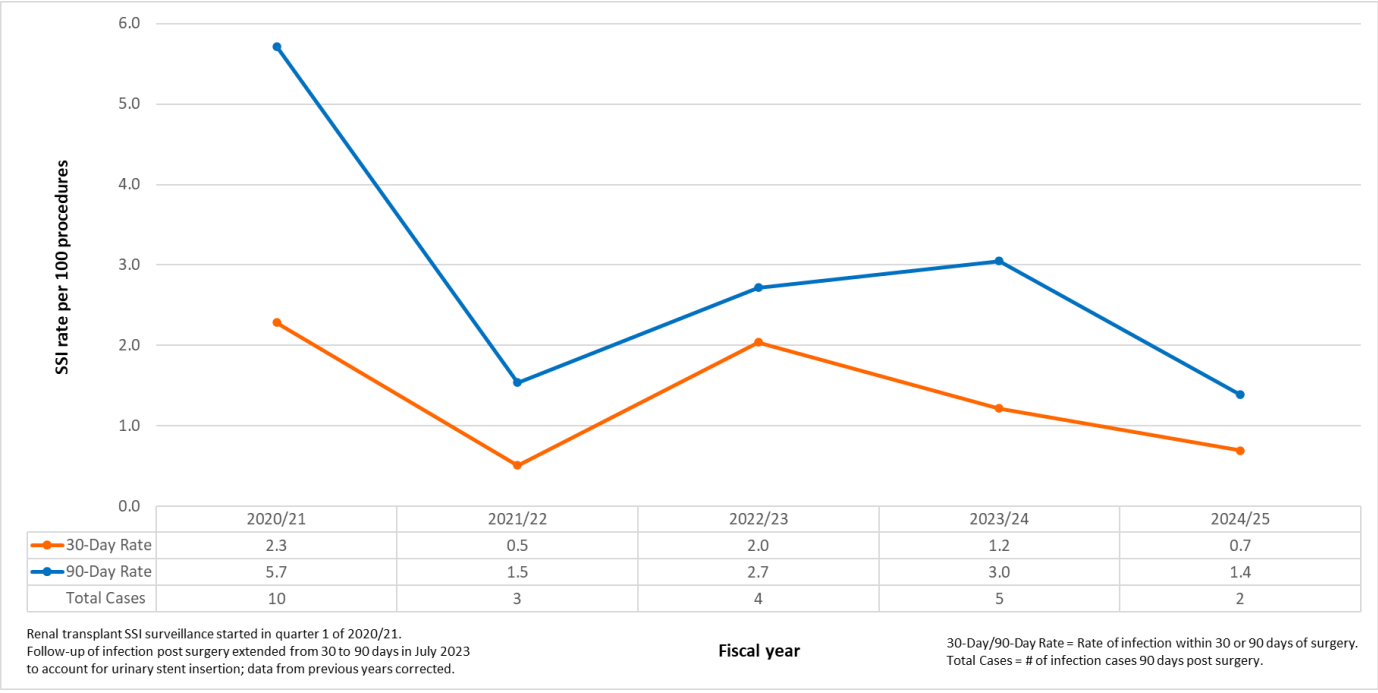
Outcome

Table 1: Summary of renal transplant surgical infections 2023/24 to 2024/25

	2023/24	2024/25
Renal transplant surgeries performed at PHC	164	144
Renal transplant SSI cases (Number and incidence)	5 (3.0 per 100 procedures)	2 (1.4 per 100 procedures)
Infection classification	5 (100%) organ space	2 (100%) organ space
Infection within 30 days of surgery	2 (40%)	1 (50%)
Infection beyond 30 days of surgery	3 (60%)	1 (50%)
Infection before ureteric stent removal	2 (40%)	1 (50%)
Infection after ureteric stent removal	3 (60%)	1 (50%)
Preoperative antibiotics used	5 (100%)	2 (100%)

The most prevalent sources of organisms in renal transplant SSIs cumulatively over the last 5 years were *E. coli* and *K. pneumoniae* (Figure 18, Appendix).

Figure 8: SSI rate per 100 procedures following renal transplant surgery, 2020/21 to 2024/25



	2020/21	2021/22	2022/23	2023/24	2024/25
30-Day Rate	2.3	0.5	2.0	1.2	0.7
90-Day Rate	5.7	1.5	2.7	3.0	1.4
Total Cases	10	3	4	5	2

Renal transplant SSI surveillance started in quarter 1 of 2020/21.
Follow-up of infection post surgery extended from 30 to 90 days in July 2023 to account for urinary stent insertion; data from previous years corrected.

Fiscal year

30-Day/90-Day Rate = Rate of infection within 30 or 90 days of surgery.
Total Cases = # of infection cases 90 days post surgery.

Surgical Site Infection (SSI) – Cardiac Surgery

Background

In collaboration with the Division of Cardiac Surgery, IPAC has conducted SSI surveillance for coronary artery bypass graft (CABG) surgery and cardiac valve replacement surgery for the past seven years. Cases are identified by weekly review of the consults seen by the Infectious Diseases service and through cardiac nurse practitioners notifying IPAC of any suspected SSI.

Working on

We are exploring ways to better ensure we have adequate case ascertainment. We will work with nurse practitioners and the cardiac surgeons to identify ways for more efficient and comprehensive case follow-up.

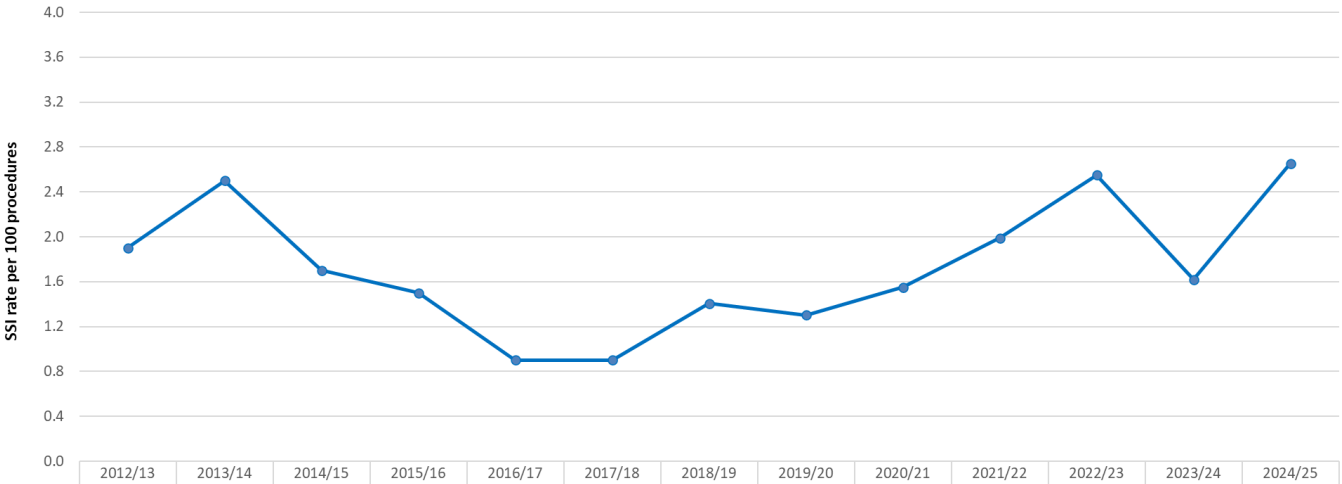
Outcome

Table 2: Summary of cardiac surgical infections 2023/24 to 2024/25

	2023/24	2024/25
Cardiac surgeries performed at PHC	927	867
Cardiac SSI cases	15 (1.6 per 100 procedures)	23 (2.7 per 100 procedures)
Infection classification	8 (53%) superficial 6 (40%) organ space 1 (7%) deep incisional	15 (65%) superficial 6 (26%) organ space 2 (9%) deep incisional
Location of infections	7 (47%) sternum 8 (53%) donor site (leg)	15 (65%) sternum 8 (35%) donor site (leg)
Preoperative antibiotics used	15 (100%)	23 (100%)

The most prevalent sources of organisms in cardiac SSIs cumulatively over the last 7 years were coagulase-negative *Staphylococcus (CoNS)* and *S. aureus* (Figure 19, Appendix).

Figure 9: SSI rate per 100 procedures following CABG and valve surgery, 2012/13 to 2024/25



	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Rate	1.9	2.5	1.7	1.5	0.9	0.9	1.4	1.3	1.5	2.0	2.6	1.6	2.7
Cases	17	18	14	14	9	7	14	9	9	13	20	15	23

Cardiac SSI surveillance started in quarter 1 of 2012/13.

Fiscal year

Denominator data is currently undergoing corrections due to surgical code changes. Thus, all reported rates are subject to change.

Central Line-Associated Bloodstream Infection (CLABSI)

Background

Central Line-Associated Bloodstream Infection (CLABSI) continues to be one of the costliest hospital-associated infections, resulting in prolonged hospital stay and increased patient morbidity and mortality.

IPAC's CLABSI surveillance is focused on cases associated with the intensive care unit (ICU) at SPH. Detection of CLABSI-related cases is based on ICP review of all ICU-associated positive blood cultures. We use standardized case definitions and methods from the Centers for Disease Control and Prevention's (CDC) National Healthcare Safety Network.

This was our third year of using an in-house developed CLABSI application to improve surveillance efficiency.

Suspected cases are reviewed by Infection Control Practitioners (ICPs) and IPAC physicians.

Outcome

PHC-associated CLABSI incidence rate at SPH ICU was 1.0 case per 1,000 central line days which was lower than the previous year (1.7) (Figure 10).

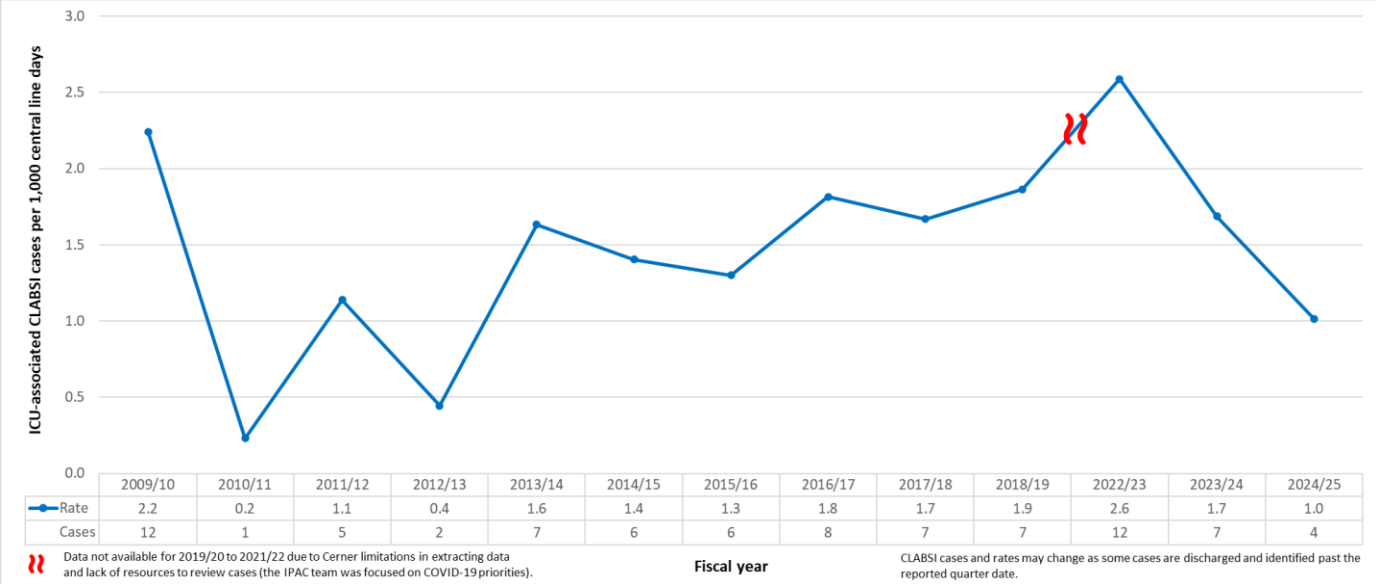
All cases were clustered in the first 3 quarters (Figure 11).

The most prevalent sources of organisms in CLABSI cumulatively over the last 7 years were *C. albicans*, *C. glabrata*, and VRE (Figure 20, Appendix).

Working on

2024/25 was our first year of obtaining the denominator, central line days, electronically via automated reporting. This process not only uses an existing resource, Cerner, but also allows for rapid data analysis and timely reporting of CLABSI rates. Moreover, if successful, CLABSI surveillance may be easily expanded to other acute inpatient units at PHC.

Figure 10: PHC-associated ICU CLABSI incidence rate by fiscal year, 2009/10 to 2024/25



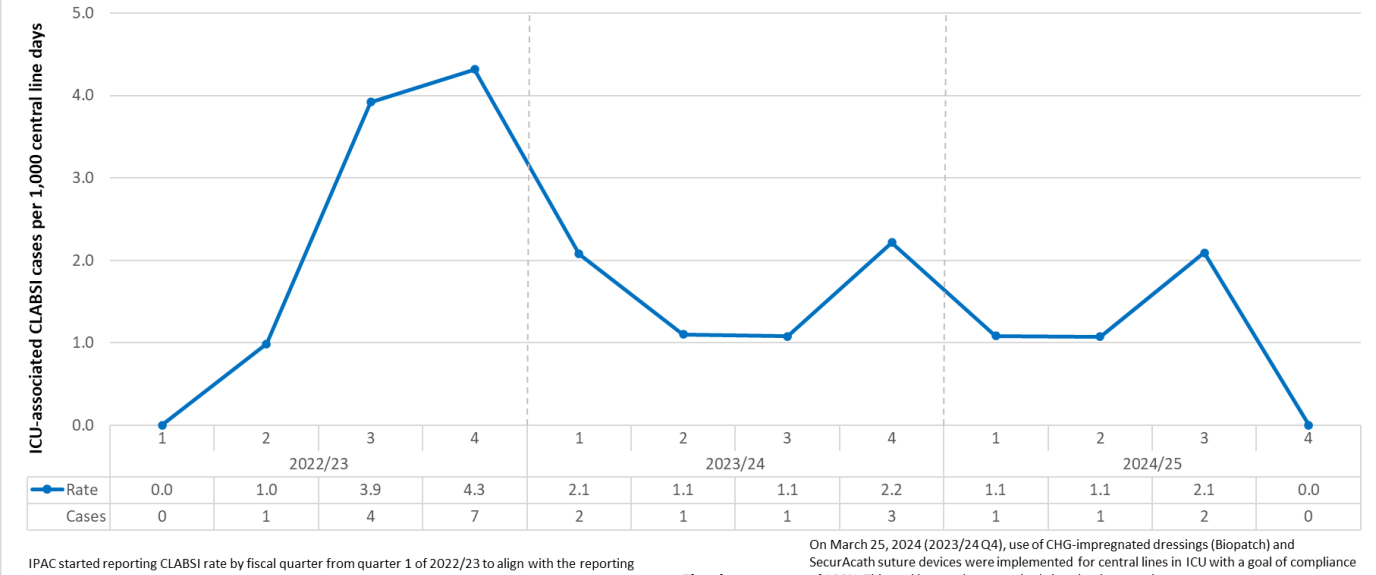
	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2022/23	2023/24	2024/25
Rate	2.2	0.2	1.1	0.4	1.6	1.4	1.3	1.8	1.7	1.9	2.6	1.7	1.0
Cases	12	1	5	2	7	6	6	8	7	7	12	7	4

Data not available for 2019/20 to 2021/22 due to Cerner limitations in extracting data and lack of resources to review cases (the IPAC team was focused on COVID-19 priorities).

Fiscal year

CLABSI cases and rates may change as some cases are discharged and identified past the reported quarter date.

Figure 11: PHC-associated ICU CLABSI incidence rate by fiscal quarter, 2022/23 to 2024/25



	1	2	3	4	1	2	3	4	1	2	3	4
	2022/23				2023/24				2024/25			
Rate	0.0	1.0	3.9	4.3	2.1	1.1	1.1	2.2	1.1	1.1	2.1	0.0
Cases	0	1	4	7	2	1	1	3	1	1	2	0

IPAC started reporting CLABSI rate by fiscal quarter from quarter 1 of 2022/23 to align with the reporting of other surveillance indicators. ******CLABSI cases and rates may change as some cases are discharged and identified past the reported quarter date.***

Fiscal quarter

On March 25, 2024 (2023/24 Q4), use of CHG-impregnated dressings (Biopatch) and SecurAcath suture devices were implemented for central lines in ICU with a goal of compliance of 100%. This goal has not been reached since implementation.
From 2024/25 Q2, Decision Analytics (DA), instead of ICU informatics nurses, started providing denominator data.

Hospital-Associated *Staphylococcus aureus* Bloodstream (HA-SAB) Infection

Background

Hospital-Associated *Staphylococcus aureus* Bloodstream (HA-SAB) Infection is associated with significant morbidity and mortality.

Surveillance for HA-SAB is required to identify probable sources of healthcare transmission, and to target infection control interventions to prevent HA-SAB in our facilities.

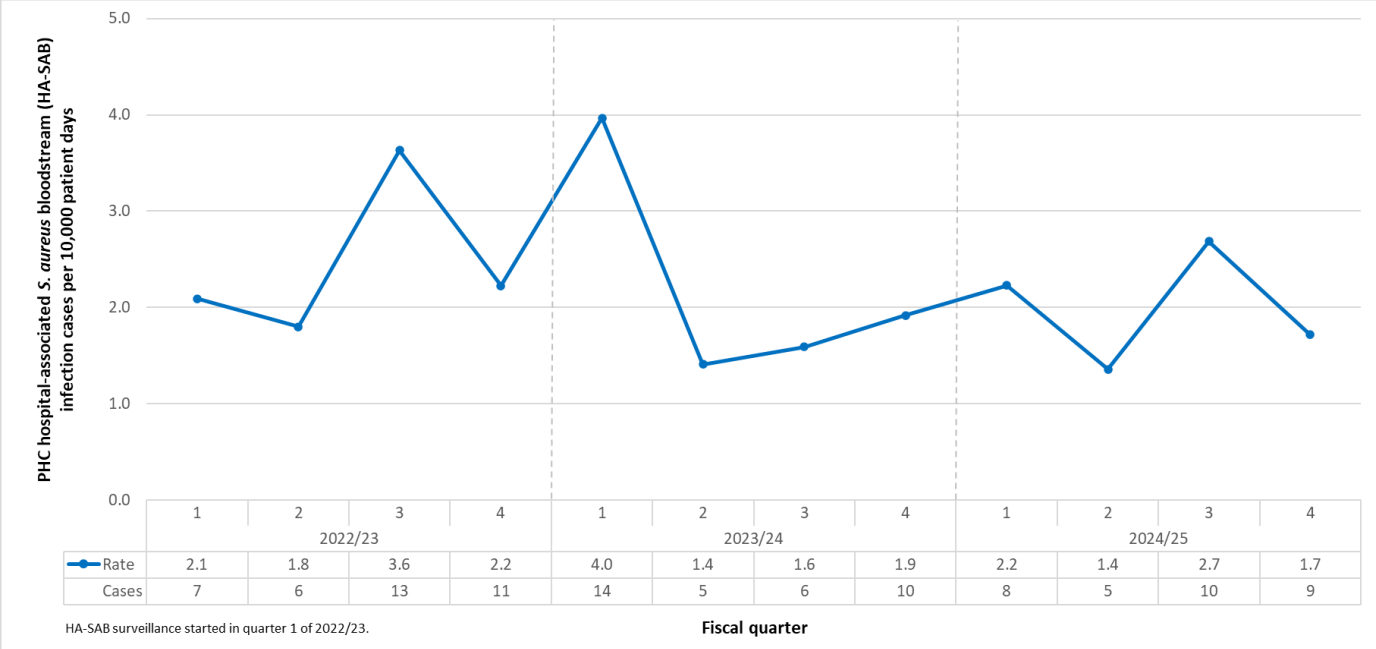
In the 2020/21 and 2021/22 fiscal year, we worked in collaboration with PHC Data Analytics to develop a semi-automated system to identify possible HA-SAB cases at PHC acute care facilities. Each case is reviewed by an ICP and IPAC physician.

Outcome

2024/25 marked our third year of HA-SAB surveillance. We identified a total of 32 cases in 2024/25 vs. 35 cases in 2023/24 (Figure 12). The most common sources of HA-SAB were peripheral intravenous catheter (PIVC) and skin and soft tissue infection (SSTI) (Figure 21, Appendix).

We have started implementing a knowledge-translation project to reduce the inappropriate use and maintenance of PIVC to prevent HA-SAB.

Figure 12: PHC-associated HA-SAB incidence rate by fiscal quarter, 2022/23 to 2024/25



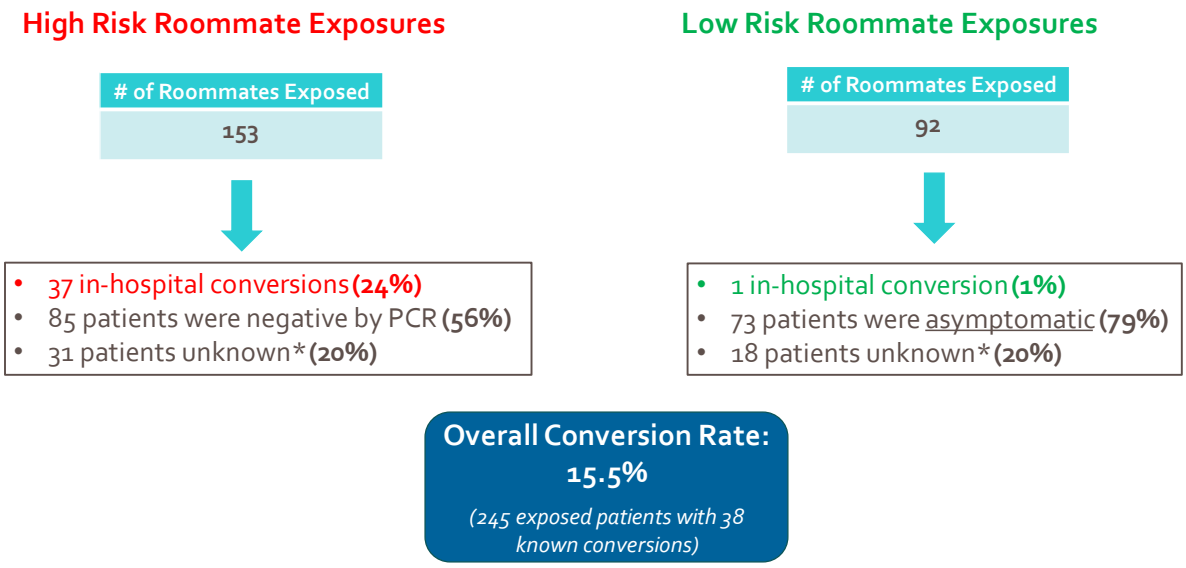
COVID-19

Background

- COVID-19 is a respiratory illness caused by the SARS-CoV-2 virus. The virus can spread through respiratory droplets and smaller airborne particles (aerosols) when an infected person coughs, sneezes, speaks, or breathes. Isolating patients with suspected or confirmed COVID-19 in a private room can help prevent the virus from spreading to others.

Outcome

- At PHC, admission screening for COVID-19 is based on symptom assessment and patients are monitored routinely for signs or symptoms throughout their hospital admission. If a patient tests positive while admitted into a multi-bed hospital room, staff will move the patient to a private room. The exposed patients from the affected room are placed under enhanced monitor to prevent further transmission.
- Between July 1, 2024 to June 30, 2025 (12-month summary), there were 245 roommate exposures from COVID-19 cases at SPH, MSJ, and HFH. The exposed patients were categorized as high risk (more than 12 hours of exposure to a positive case) or low risk (less than 12 hours of exposure to a positive case).



**Patients were marked "Unknown" if discharged or deceased before incubation period was completed.*

Outbreak Management

ASSESS → CONTAIN → COMMUNICATE

IPAC leads the work for assessment, investigation, containment, prevention, education, and communication of outbreaks of communicable diseases at PHC facilities.

In collaboration with Vancouver Coastal Health Authority's (VCH) Communicable Disease Control team, IPAC is responsible for investigating clusters of cases and determining whether there is an outbreak at a PHC facility.

Control measures are promptly implemented when each outbreak is declared.

Outcome

In 2024/25, there were a total of 12 influenza A and 1 gastrointestinal illness (GI) outbreaks in Providence Health Care facilities (Table 3). Of these, 6 (46%) were in acute care facilities.

All outbreaks occurred in quarter 4 of 2024/25.

Table 5: Summary of outbreaks in 2024/25

Unit	AC/LTC	Pathogen	Quarter [1]	Onset Date	End Date [2]	# Pt/Res. Affected	Census	Attack Rate	# Deceased
SPH 2N	AC	Influenza A	Q4	17-Jan-25	3-Feb-25	3	20	15%	0
SPH 5A	AC	Influenza A	Q4	4-Feb-25	15-Feb-25	2	20	10%	0
SPH 9CD	AC	Influenza A	Q4	12-Feb-25	21-Feb-25	2	40	5%	0
SPH 7C	AC	Influenza A	Q4	16-Feb-25	28-Feb-25	3	26	12%	0
SPH 10C	AC	Influenza A	Q4	25-Feb-25	12-Mar-25	4	25	16%	0
MSJ 3BC	AC	Influenza A	Q4	3-Mar-25	11-Mar-25	3	35	9%	0
BF (3rd & 4th fl.)	LTC	Norovirus	Q4	9-Dec-24	31-Dec-24	50	129	39%	3
Chenchenstway Salal (2nd fl.)	LTC	Influenza A	Q4	7-Jan-25	24-Jan-25	2	25	8%	1
Chenchenstway Harmony (3rd fl.)	LTC	Influenza A	Q4	29-Jan-25	10-Feb-25	6	24	25%	0
BF (4th fl.)	LTC	Influenza A	Q4	3-Feb-25	16-Feb-25	5	66	8%	0
Chenchenstway Salal (2nd fl.)	LTC	Influenza A	Q4	6-Feb-25	18-Feb-25	3	20	15%	1
Chechenstway Cranberry (2nd fl.)	LTC	Influenza A	Q4	8-Feb-25	19-Feb-25	4	15	27%	1
Chenchenstway Harmony (3rd fl.)	LTC	Influenza A	Q4	6-Mar-25	24-Mar-25	2	22	9%	1

[1] *All PHC outbreaks occurred in quarter 4 of 2024/25.*
[2] *For influenza outbreaks, the expected end date is after day 6 from the last case (day 6 = 2 incubation periods; 1 incubation period = 3 days) and/or at the discretion of MHO.*

Projects and Collaborations

Urinary Tract Infections (UTIs) and Asymptomatic Bacteriuria in Long-Term Care

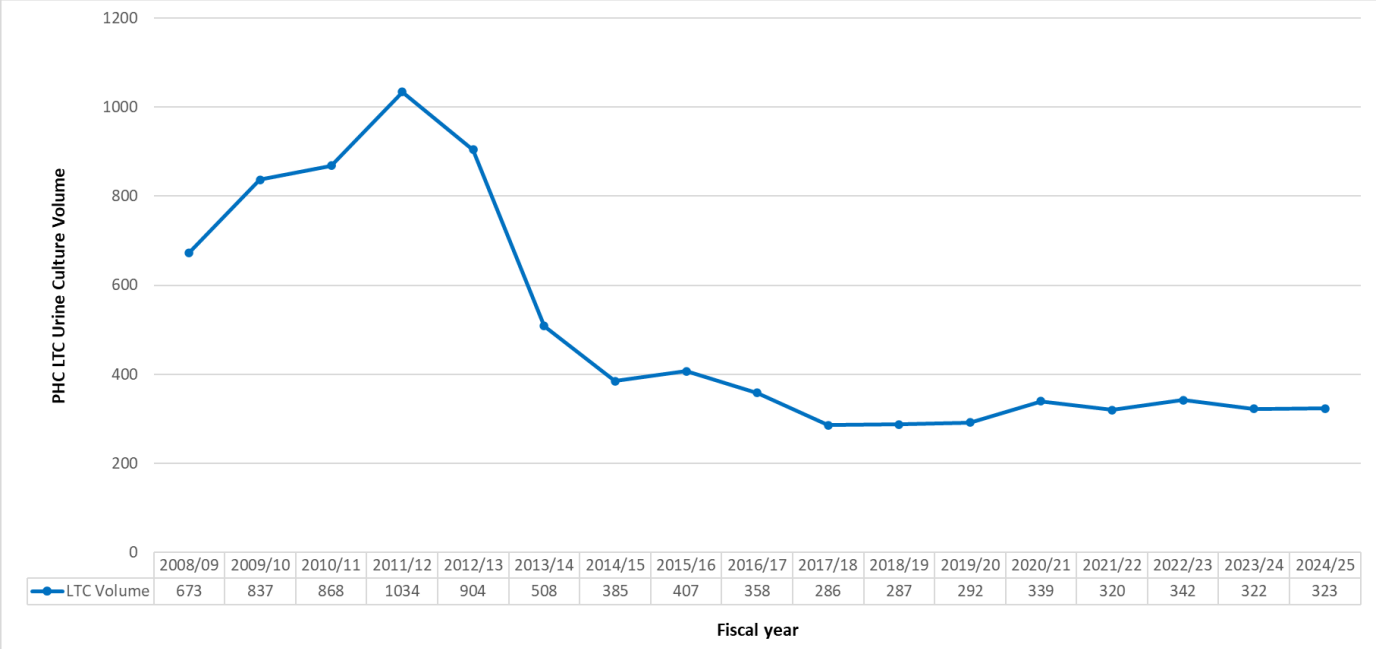
Urine culture collection is a primary driver of increased antimicrobial use. Our goal is to reduce the number of unnecessary urine cultures collected from residents in long-term care homes.

In 2013, IPAC focused on auditing and providing feedback to nurses and physicians for all urine cultures collected between January and December at St. Vincent's: Langara. This project was in collaboration with the PHC Antimicrobial Stewardship Program.

Although the intense phase of review and feedback stopped at the end of 2013, we have continued to collect data on the total number of urine cultures ordered and collected at the long-term care sites. We conduct annual follow-up to see if the initial intensive audit, feedback and education for the residential care facilities would be sustained.

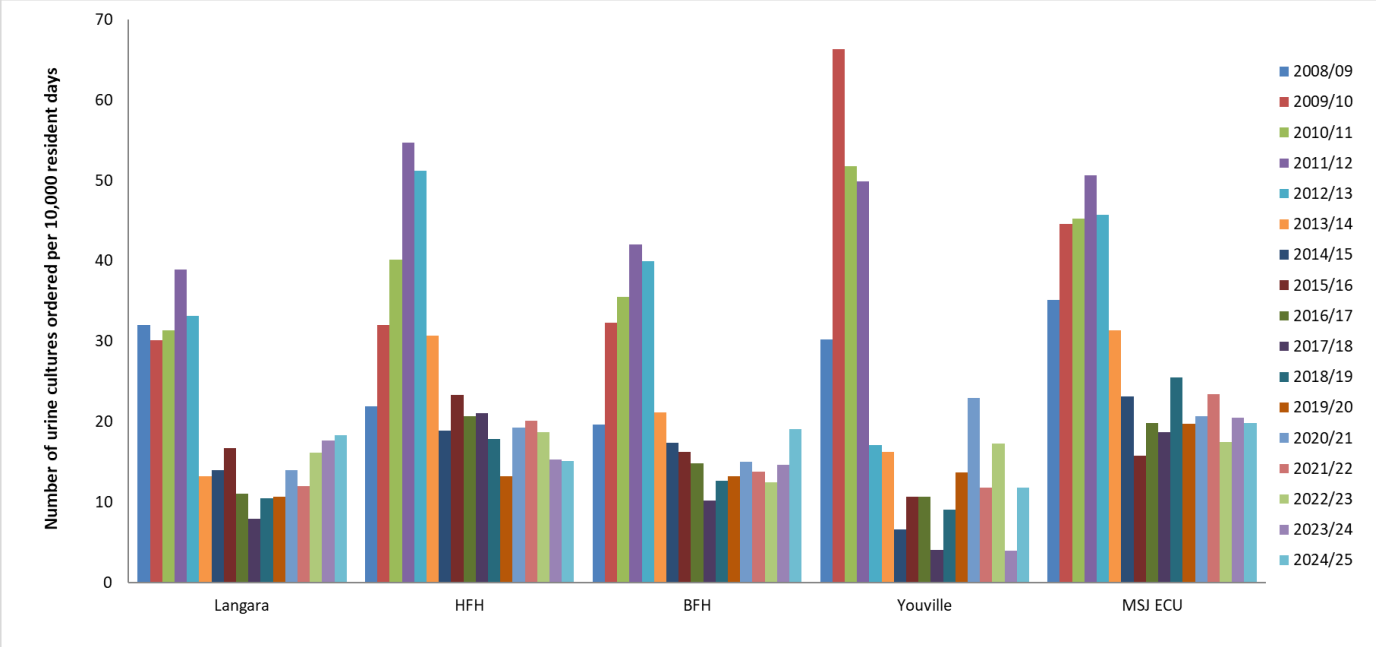
As of March 2025, **we have continued to see a sustained, significant decrease in urine cultures collected from all long-term care sites since 2011/12** (Figure 13). Antimicrobial use has also decreased for suspected UTIs. All sites have had a significantly lower rate of urine cultures collected since 2011/12 (Figure 14).

Figure 13: Number of urine cultures collected at PHC long-term care sites, 2008/09 to 2024/25



	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
LTC Volume	673	837	868	1034	904	508	385	407	358	286	287	292	339	320	342	322	323

Figure 14: Urine culture rates by PHC long-term care sites, 2008/09 to 2024/25



High Threat Pathogens

High Threat Pathogens (HTP) are rare and emerging pathogens that are expanding geographically to new populations and locations. While the likelihood of a patient presenting to a healthcare facility in BC with a viral hemorrhagic fever (VHF) such as Ebola, Lassa, or Marburg remains low, it is essential that healthcare professionals are equipped to identify and respond safely, deliver high-quality care, and prevent transmission to other patients and staff.

In the past year, PHC Infection Prevention and Control (IPAC) has actively participated in the provincial HTP Working Group, contributing to the development of updated BC HTP guidelines. These updates reflect valuable input from PHC frontline staff and incorporate global best practices and recent learnings. The revised guidelines are expected to be released by the end of 2025.

To support the implementation of these updates, two PHC Infection Control Practitioners (ICPs) attended an education day at the provincial Biocontainment Unit, gaining hands-on experience with the latest protocols. Building on this training, the ICPs will develop updated educational tools to align with the new provincial requirements and ensure staff are well-prepared to respond effectively to HTP scenarios.

MRSA De-Labelling Project

PHC currently conducts risk-based screening for MRSA for all inpatient admissions. Contact precautions are utilized for all MRSA-colonized and infected patients; currently these precautions are in place indefinitely. The duration of MRSA colonization is not well established; however, studies show 50-80% of MRSA colonized patients will clear colonization within one year. In collaboration with our clinical partners and the microbiology laboratory, PHC is evaluating a MRSA De-labelling Project. The goal of this project is to decrease unnecessary isolation days, with associated benefits of improving patient experience, reducing waste from PPE and lowering health care costs.

Currently, this project includes inpatient admissions for the Holy Family Hospital Rehabilitation Program and St. Paul's Hospital 9 C/D unit. So far, the project has identified 17 patients who have met criteria for assessment, with 9 patients successfully de-labelled of their MRSA status. During the coming year, this program will be further evaluated to assess possible expansion to other units within Providence Health Care.

New St. Paul's Hospital (NSPH) Project

Construction of the New St. Paul's Hospital (NSPH) continues to progress with an onsite workforce of around 1,950 people each day. The project is aiming for service commencement summer 2026 with the patient move-in date set for February 22, 2027. IPAC involvement at this stage includes reviewing and contributing to the planning of the activation activities that need to happen from when we get the keys next summer to be sure we are ready to move patients in February 2027. IPAC continues to be deeply involved with the work of the NSPH Site Multidisciplinary Team (MDT) to ensure the construction practices and materials handling on site follow the applicable Canadian Standards Association (CSA) Standards and will result in a sanitary facility safe for use as a health care facility. Other project activities include site instruction and shop drawing reviews as well as advising the NSP Equipment Team and Clinical Leads as final equipment selections and fit out decisions are made.

Work on the adjoining Clinical Support & Research Centre (CSRC) site is also well underway with the bulk excavation scheduled to be completed mid August and then the start of the foundation and form work. CSRC design is nearing the final stages and IPAC continues to provide advice and guidance on relevant design elements. The CSRC is a separate building adjacent to the NSPH facility which will be connected by a sky bridge walkway on two levels and IPAC is similarly involved with the CSRC Site MDT.

New St. Paul's Hospital (NSPH) and Clinical Support & Research Centre (CSRC) ground as of March 25, 2025

Support for Providence Living (PL)

Providence Living (PL) is a non-profit, Catholic-sponsored healthcare organization dedicated to long-term care, assisted living, housing, and other community services that support seniors and their families. Since the signing of the Memorandum of Understanding (MOU) in September 2022, IPAC has provided ongoing support to Providence Living (PL) sites, fostering safer environments and strengthening infection prevention practices across the organization.

IPAC has conducted regular on-site visits, at a minimum of twice per year, during which Infection Control Practitioners (ICPs) perform environmental assessments, observe staff practices, and evaluate compliance with PHC IPAC standards. These visits also supported PL sites in outbreak management and in meeting Accreditation Canada's Required Organizational Practices (ROPs).

Education has been a key component of the partnership. IPAC facilitates quarterly training sessions for staff, delivered either virtually or in person. Site educators are invited to participate in PHC IPAC meetings and events, such as IPAC Week, and are provided with training materials for onboarding new staff. IPAC also supports peer-to-peer hand hygiene audits and ensures PL staff have access to all relevant guidelines and policies via the SHOP platform.

A major milestone in the collaboration was IPAC's involvement in the opening of the new building at The Views at St. Joseph's. The team provided guidance on workflows, furnishings, and equipment, and conducted a final walkthrough prior to the facility's launch. Continued support was offered post-move to ensure smooth operational transitions.

IPAC has actively contributed to the **Home For Us** initiative by participating on the Executive Steering Committee and advising on clinical and support services workflows. This collaboration has helped align infection control practices with the broader goals of person-centered care.

In the area of construction and infrastructure, IPAC has played a critical role in conducting risk assessments for construction, renovation, maintenance, and design activities, in accordance with Accreditation Canada and CSA Standards. The team has provided guidance on purchasing and maintaining both medical and non-medical supplies and has supported the design and planning of the Prince George site. IPAC has also reviewed and approved equipment and finishing selections, including furniture, flooring, window coverings, hand hygiene sinks, placement of alcohol-based hand rub (ABHR), and washer/disinfectors units.

In April 2025, Providence Living notified IPAC of its decision to cancel the MOU, effective June 30, 2025.

Environmental Stewardship and Planetary Health

IPAC remains committed to advancing environmental stewardship and planetary health at local and provincial levels. Our team actively contributes to PHC's and Provincial Planetary Health Committees.

This past year, some examples of projects to promote planetary health include optimizing the use of metered-dose inhalers and gloves.

Metered-Dose Inhaler (MDI) Transition to Multi-patient use at PHC Pulmonary Function Testing (PFT) Lab

The outsized carbon footprint of metered-dose inhalers (MDIs) is the result of active propellant hydrofluoroalkanes (HFAs). HFAs have 1000 times the global warming potential of carbon dioxide. In PFT labs there was a transition to single use MDIs during the pandemic. We reverted to previously established processes by having multi-patient use cannisters with procedures in place to clean and disinfect the spacers. The transition to multi-patient use MDIs reduced waste and costs. The revised protocols were shared with all PFT labs in the province.

MDI multi-patient use in the Intensive Care Unit (ICU) for ventilators

We collaborated with the PHC pharmacy and the Respiratory Therapy team to explore multi-patient use of MDIs in the ICU. Through a small PHC Planetary Health grant, we planned a new process workflow whereby MDI cannisters would be cleaned and surface disinfected with storage in designated bins. The plan is for plastic sleeves to be saved for future re-use with MDI canisters from the hospital wards. The project is unfortunately stalled because we have not yet been able to identify an environmental microbiology laboratory to test and validate a cleaning process for plastic sleeves.

Glove Smart Project Expansion

The Glove Smart initiative was designed to encourage appropriate use of gloves within targeted hospital units to improve patient safety and reduce environmental waste. Following its successful launch in the Cardiac Surgery Intensive Care Unit, we began expanding the initiative to other critical care, cardiac, and medicine units at MSJ.

Early engagement efforts included discussions during Hand Hygiene Week and the Sustainability Fair. To support this rollout, the team implemented SMART objectives focused on staff education, the onboarding of unit champions, and active glove usage monitoring. The project plan supports activities from February to July 2025, including baseline assessments, training, visual reminders, champion-led observations, and monthly data collection.

Evaluation metrics included glove usage, qualitative staff feedback, and environmental impact, while a long-term sustainability strategy involves glove smart champions, refresher training, and communication to maintain adherence and promote continuous improvement.

Knowledge Translation (KT) Challenge

Peripheral intravenous catheters (PIVs) are the most frequently used medical devices in hospitalized patients, providing essential access for fluid and medication administration. However, they present a significant risk for hospital-associated bloodstream infections (HA-BSI) by creating a portal of entry for pathogens to enter the bloodstream.

At Providence Health Care (PHC), the HA-SAB surveillance program has identified PIVs as the most frequent source of HA-BSIs. A Knowledge Translation (KT) challenge project was launched to implement the I-DECIDED® tool across the Medicine units (7A/B/C/D) at St. Paul's Hospital (SPH). The project aimed to:

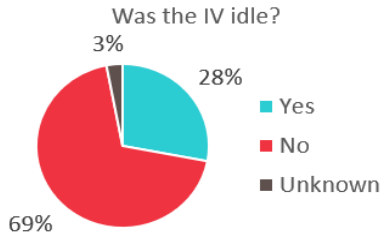
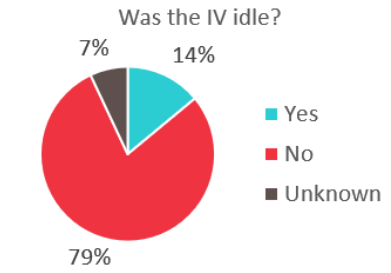
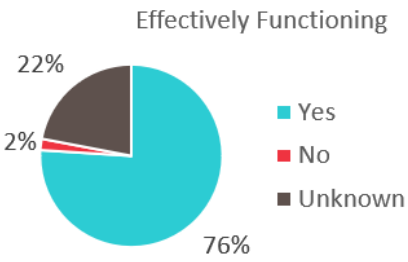
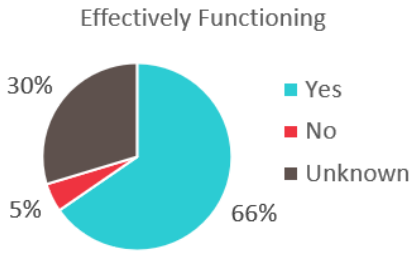
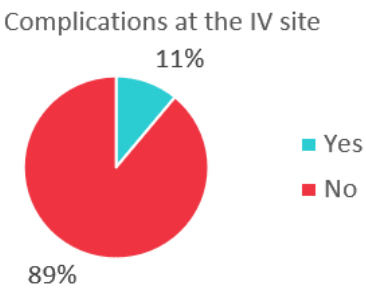
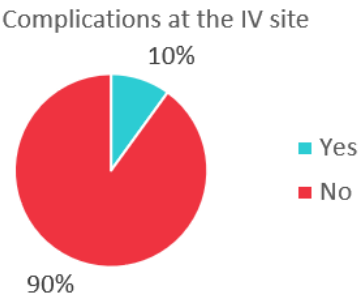
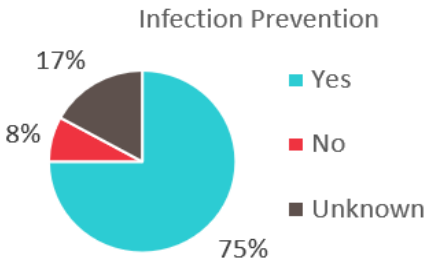
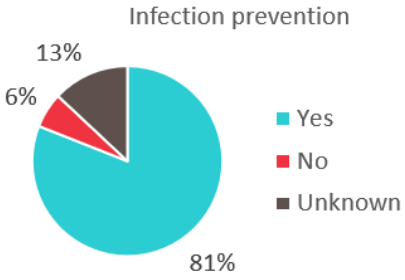
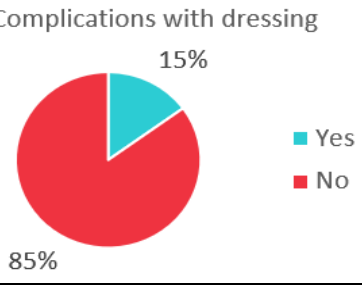
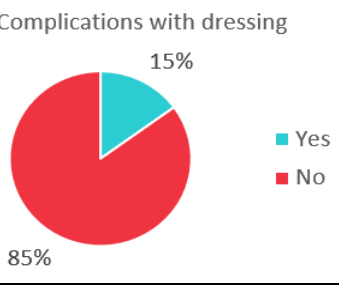
- Improve awareness and quality of PIV care
- Prompt timely removal of idle PIVs or those with complications
- Prevent and reduce the incidence of PIV associated HA-SAB

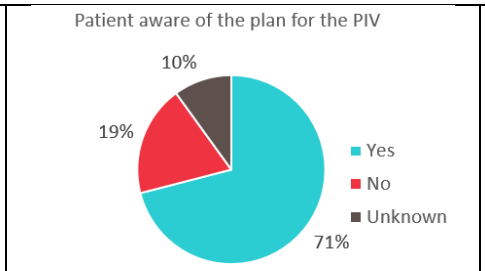
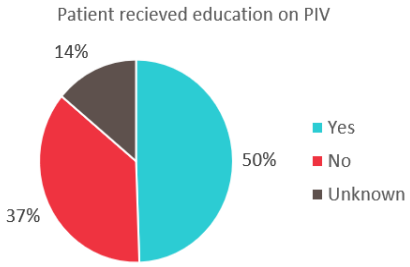
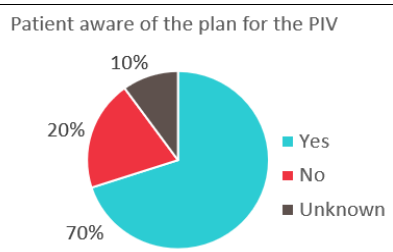
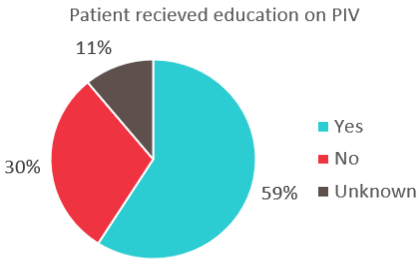
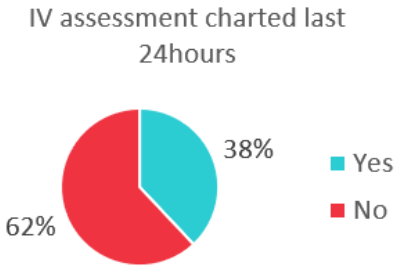
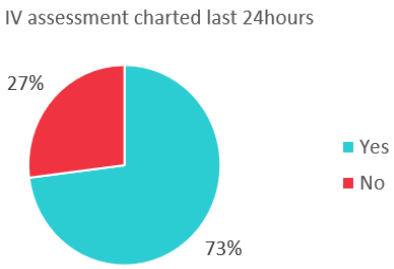
As shown in Table 6, between April 2024 and March 2025, a total of 685 patients consented to participate and 524 assessed PIVs were included in the final analysis. The percentage of PIVs that were identified as idle decreased significantly from 28% to 14%. The rate of insertion site complications remained relatively stable (11% to 10%), with redness being the most frequently observed issue, followed by reported pain. Notably, daily PIV assessment documentation in the electronic health record (EHR) i.e., Cerner increased from 38% to 73% compliance.

The percentage of patients who observed their nurse 'Scrub the Hub' prior to PIV access improved from 75% to 81%. In addition, the proportion of patients who reported receiving education from their nurse about PIV complications and when to report to staff increased from 50% to 59%.

Implementation of the I-DECIDED® tool and bundle of care reduced idle PIVs and improved documentation, patient education, and infection control practices. These findings demonstrate the effectiveness of targeted knowledge translation strategies in embedding evidence-based tools into clinical practice. Broader implementation of the I-DECIDED® tool within PHC may further reduce PIV associated complications, including those linked with HA-SAB, and support improved quality of care.

Table 6: PIV assessment data

		Pre-Intervention: Baseline	Post-Intervention: Implementation and Evaluation	Result
I	Identify if an IV is in situ	PIVs assessed: 288	PIVs assessed: 236	Total: 524
D	Was the IV idle? (In use or planned use next 24hrs)			
E	Effectively functioning (Based on documentation or visual assessment)			
C	Complications at the IV site			
I	IPAC - Scrub the hub			
D	Dressing and securement complication present			

E	Patient aware of the plan for the PIV Nurse provided education on the PIV complications to report to the patient	 	 	 
D	Document your actions Is there an IV assessment in the previous 24hrs			

Hand Hygiene

Background

Hand hygiene [handwashing with soap and water or using an alcohol-based hand rub (ABHR)] is important for preventing many healthcare-associated infections. However, overall adherence with hand hygiene among health care professionals continues to be a challenge.

The IPAC team continues to support the organization's improvement of hand hygiene adherence.

Goals/Successes/Innovations	Risks/Weaknesses/Threats & Mitigation Plans
1. Regular hand hygiene education: • In-the-moment • Unit huddles/meetings • All new staff orientations • Campaigns (e.g., annual *World Hand Hygiene Day* and *Bare Below the Elbows*) 2. Reporting via unit feedback boards, facility posters, and the dashboard 3. Innovation: SpeedyAudit app captures hand hygiene moments 4. Goal: Electronically accessible data	1. Hawthorne Effect (behaviour change due to awareness of being observed) • Minimized by conducting audits throughout the quarter and rotating auditors 2. Comparison to other health authorities is difficult • Methodology is variable 3. Supporting medical staff by promoting physician peer champions

We will continue to emphasize just-in-time education, activities around improving compliance, *before* patient contact, and patient hand hygiene. Facility risk assessments will be completed to target staff engagement and hand-hygiene infrastructure improvements.

Average hand-hygiene compliance across all healthcare workers in acute care facilities:

75% in 2024/25

68% before patient contact

80% after patient contact

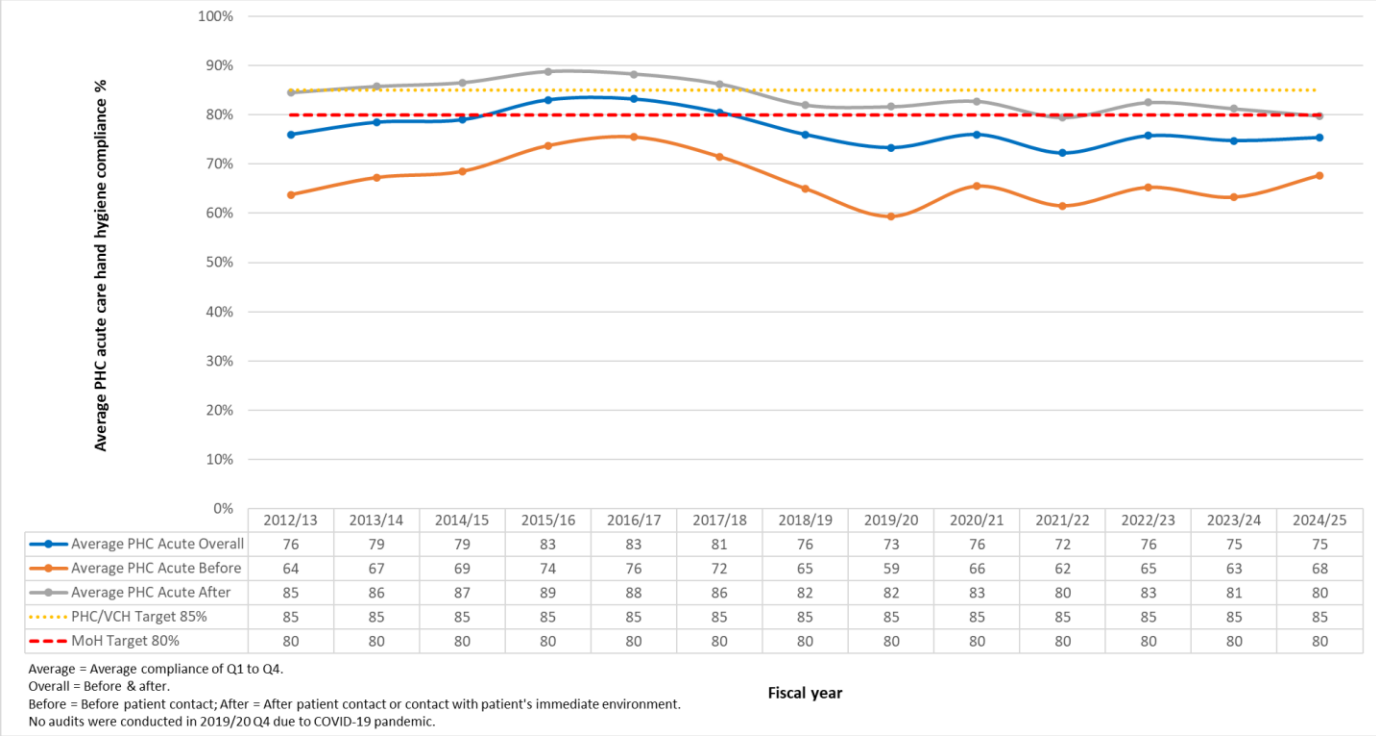
75% in 2023/24

63% before patient contact

81% after patient contact

Before patient-contact compliance was higher and after was slightly lower in acute care compared to 2023/24.

Figure 15: Average PHC acute care hand-hygiene compliance by fiscal year: 13-year trend



	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Average PHC Acute Overall	76	79	79	83	83	81	76	73	76	72	76	75	75
Average PHC Acute Before	64	67	69	74	76	72	65	59	66	62	65	63	68
Average PHC Acute After	85	86	87	89	88	86	82	82	83	80	83	81	80
PHC/VCH Target 85%	85	85	85	85	85	85	85	85	85	85	85	85	85
MoH Target 80%	80	80	80	80	80	80	80	80	80	80	80	80	80

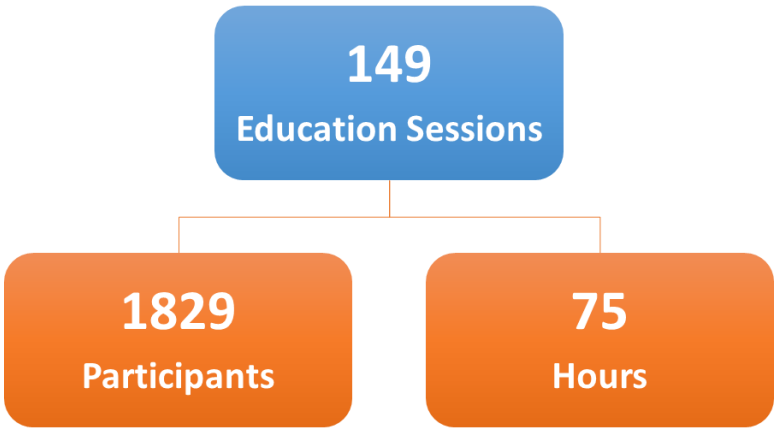
Average = Average compliance of Q1 to Q4.
Overall = Before & after.
Before = Before patient contact; After = After patient contact or contact with patient's immediate environment.
No audits were conducted in 2019/20 Q4 due to COVID-19 pandemic.

Education and Training

IPAC provides education to staff, physicians, patients and visitors to increase awareness of infection prevention and control measures. Education is provided during unit huddles, presentations, while consulting, and on the IPAC website.

- Provide updates and discuss "hot topics" at monthly leadership meetings and at the Acute Nursing Practice Council;
- Present at the new employee orientation (NEO) for new hires;
- Provide an orientation for incoming residents in critical care, cardiology, and medicine and other disciplines as needed;
- Promote the mandatory Learning Hub *Hand Hygiene Module* for all staff;
- Deliver *Personal Protective Equipment (PPE) Skills Lab* – a hands-on session for donning and doffing PPE; and
- Celebrate IPAC Week and Hand Hygiene Day with a travelling road show.

IPAC Education, 2024/25



Construction, Renovation, Maintenance and Design (CRMD)

Infection Prevention and Control (IPAC) plays a vital role within the Multidisciplinary Team (MDT), with a dedicated Infection Control Practitioner (ICP) overseeing the implementation and adherence to infection prevention protocols throughout all phases of construction. The ICP also consults with other practitioners who hold specialized expertise in relevant clinical areas.

An Infection Control Risk Assessment (ICRA) is conducted by the project manager and subsequently reviewed in collaboration with the ICP, who ensures the project complies with current CSA standards.

Over the past year, the ICP has actively worked alongside project managers to review ICRAs, assess infection control measures, and maintain ongoing oversight of project sites.

IPAC contributed to the following projects and initiatives:

- MSJ – Emergency Department Expansion Project;
- MSJ – Clinical Trials Unit;
- MSJ – Energy efficient window replacement 4th floor;
- Youville – New 6-person household;
- Youville – All Nations Sacred Space;
- St. Vincent's Langara – Resident washroom/room upgrades;
- St. Vincent's Langara – Constructing single rooms;
- Brock Fahrni – Resident room upgrades;
- Holly Family – Resident room upgrades;
- St. Vincent's Heather LTC – Groundbreaking; and
- SPH – Road to Recovery Transitional Care Unit

IPAC has the following responsibilities:

- Conducting educational programs for internal and external CRMD stakeholders;
- Collaborating with the Facilities Management Office (FMO) to monitor the performance of heating, ventilation, and air conditioning (HVAC) systems at PHC;
- Working with FMO to place Portable Air Handling Units (AHU) where needed; and
- Ensuring proper positioning of hand hygiene products in collaboration with the respective units and FMO.

Physical Environment

St. Paul's Hospital (SPH)

In 2024, SPH achieved an overall cleaning compliance rate of **68%**, which is below the 80% target and marking a 10% decrease from the 77% compliance rate in 2023. Of the 110 rooms audited, 35 rooms (32%) did not meet the 80% compliance threshold.

Rooms requiring Additional Precautions (AP) – specifically those occupied by ARO, CDI, or CPO cases – achieved a 90% compliance rate in 2024. This reflects a consistent upward trend in AP room compliance, improving from 72% in 2022 to 90% in 2024, successfully exceeding the target.

Mount Saint Joseph Hospital (MSJ)

In 2024, the overall cleaning compliance rate reached **86%**, successfully meeting the 80% target. Of the 102 rooms audited, 14 rooms (14%) recorded compliance levels below the threshold.

Rooms requiring AP showed a compliance rate of 75%, reflecting a slight decline from 81% in 2023 and 79% in 2022. Within this category, four rooms did not meet the 80% compliance standard.

Table 7: SPH and MSJ ultraviolet marking results, 2024/25

Variable	SPH	MSJ
Number of Rooms Audited	110	102
Overall Percent Compliance	68%	86%
Range	0-100%	13-100%
Below 80% Compliance	35 (32%)	14 (14%)
Number of AP*rooms audited	29	16
Overall Percent Compliance for AP rooms	90%	75%
Range for AP rooms	23-100%	38-100%
Below 80% compliance for AP rooms	3 (10%)	4 (25%)
***Additional precautions (ARO/CDI/CPO)**		

Figure 16: SPH UV Marking High-Touch Surface Audit Results, 2022-2024

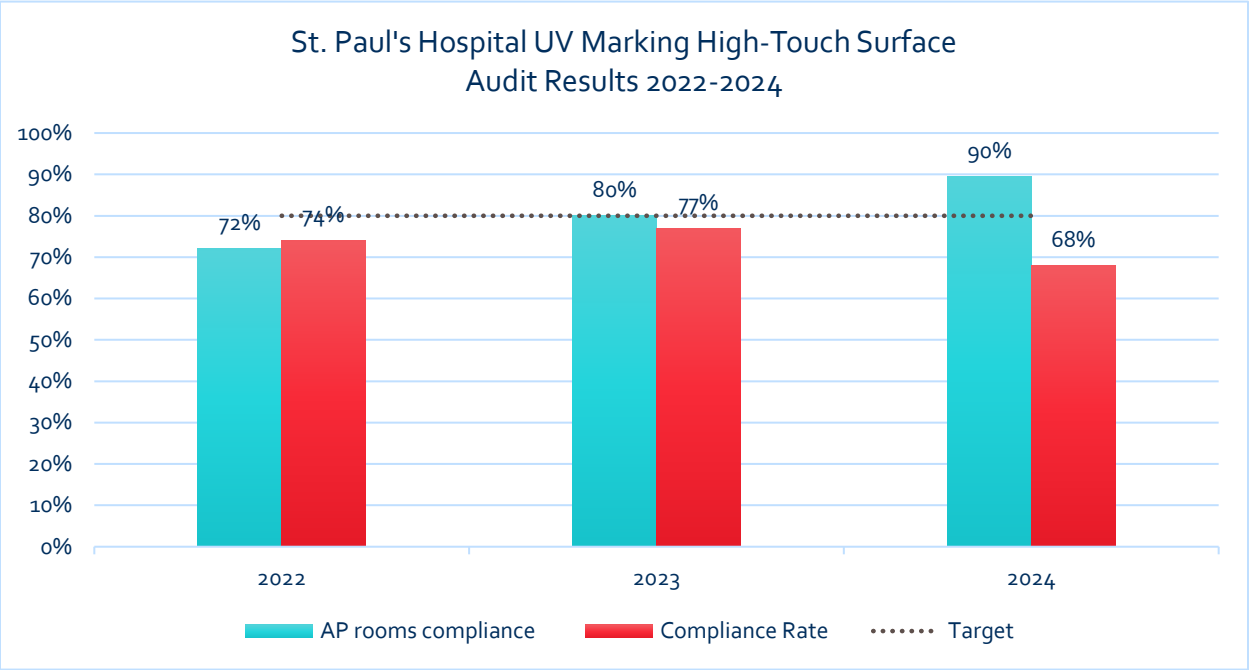
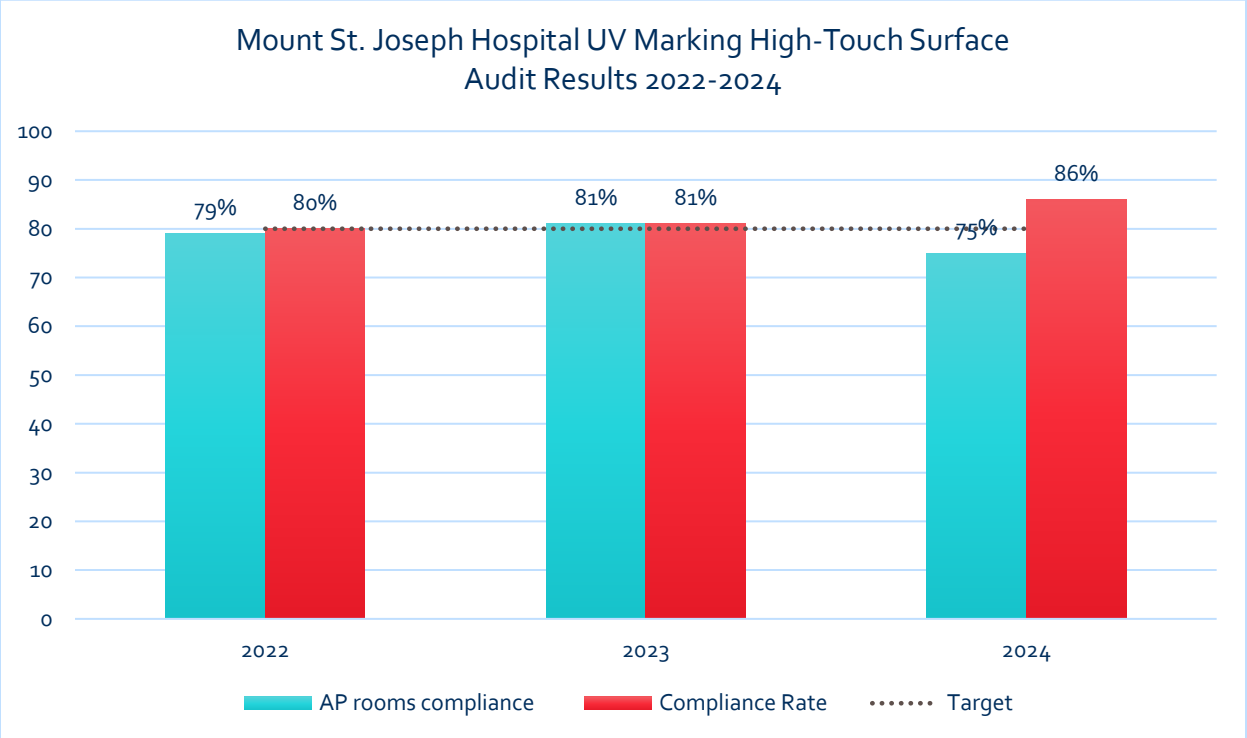


Figure 17: MSJ UV Marking High-Touch Surface Audit Results, 2022-2024



Environmental Sustainability

On April 1, 2024, the facility transitioned to Accelerated Hydrogen Peroxide (AHP) as the primary agent for routine cleaning and disinfection, selected for its superior efficacy, user safety profile, and alignment with the organization's environmental sustainability objectives. The product is biodegradable, non-toxic, and non-irritating when properly diluted. Its reduced contact time has facilitated faster bed turnover, contributing to improved patient throughput and greater operational efficiency.

Education and Collaboration

IPAC continues to deliver focused orientation sessions for new hires. These sessions emphasize critical components of environmental hygiene and safety, ensuring consistent practices across all care settings.

To also support cross-departmental alignment, IPAC and EVS leadership hold regular joint meetings, led by IPAC, that focus on issue resolution, protocol updates, review of healthcare-associated infection (HAI) data, and UV marking audit findings. These meetings also serve as a platform for broader departmental updates and collaborative planning.

Workflow Improvements

Recognizing the need for streamlined communication, IPAC and EVS successfully implemented a consolidated daily cleaning request process. This replaced the prior system of multiple ad hoc submissions, resulting in time savings and improved clarity in coordination and communication.

Appendix

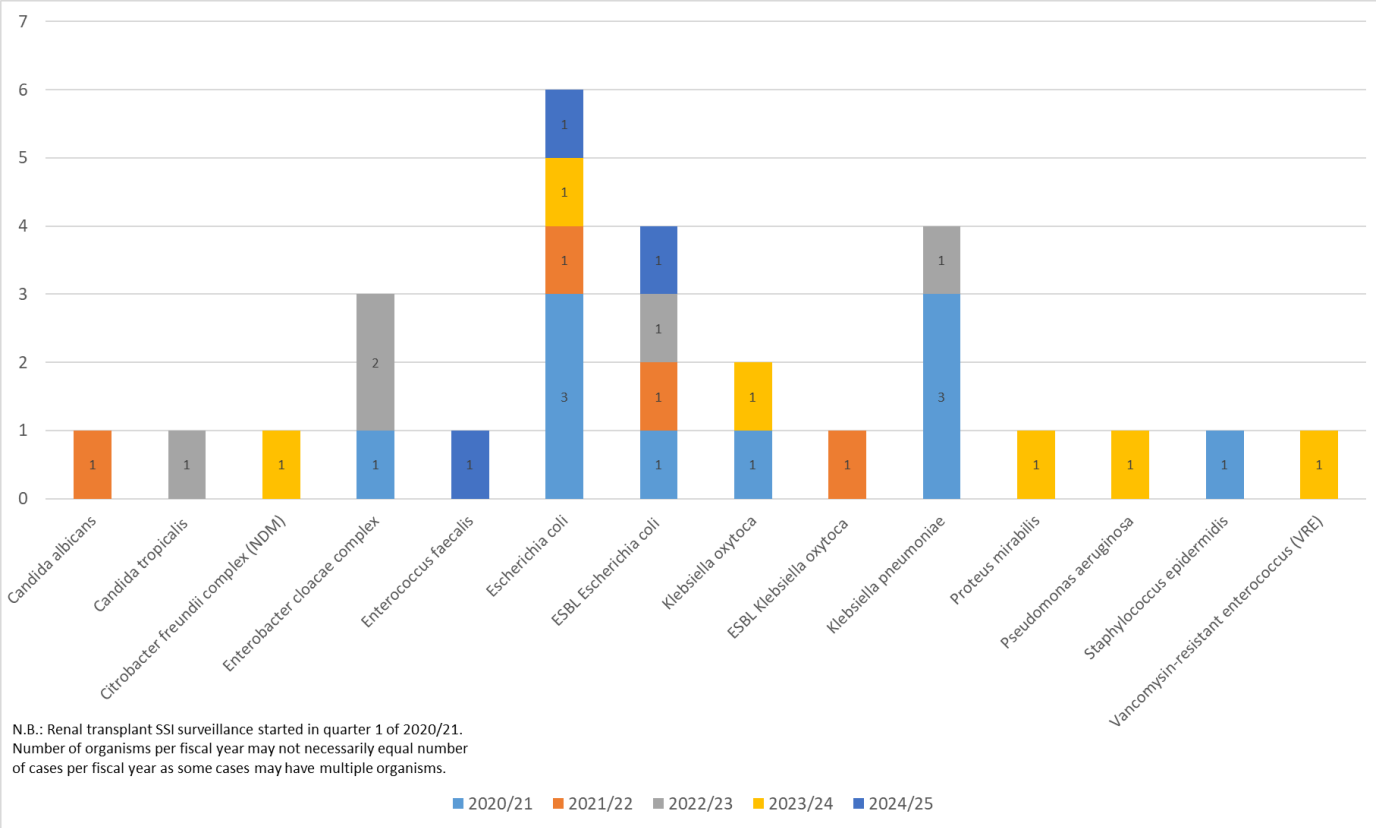
Carbapenemase-Producing Organisms (CPO)

Table 7: Distribution of genes identified in CPO positive patients from 2012/13 to 2024/25

Fiscal year	KPC	NDM	OXA-48	VIM	IMP	Patients with multiple genes
Total (n=126)	32 (25%)	67 (53%)	11 (9%)	3 (2%)	3 (2%)	10 (8%)
2024/25 (n=10)	0	5 (50%)	3 (30%)	0	0	2 (20%)
2023/24 (n=32)	5 (16%)	25 (78%)	1 (3%)	0	0	1 (3%)
2022/23 (n=10)	2 (20%)	7 (70%)	1 (10%)	0	0	0
2021/22 (n=13)	4 (31%)	6 (46%)	1 (8%)	0	0	2 (15%)
2020/21 (n=12)	6 (50%)	5 (42%)	0	0	1 (8%)	0
2019/20 (n=22)	8 (36%)	10 (45%)	1 (5%)	0	1 (1%)	2 (9%)
2018/19 (n=14)	6 (43%)	4 (29%)	2 (14%)	1 (7%)	0	1 (7%)
2017/18 (n=4)	0	2 (50%)	1 (25%)	0	0	1 (25%)
2016/17 (n=3)	0	2 (67%)	1 (33%)	0	0	0
2015/16 (n=2)	1 (50%)	0	0	0	0	1 (50%)
2014/15 (n=1)	0	1 (100%)	0	0	0	0
2013/14 (n=0)	0	0	0	0	0	0
2012/13 (n=3)	0	0	0	2 (67%)	1 (33%)	0

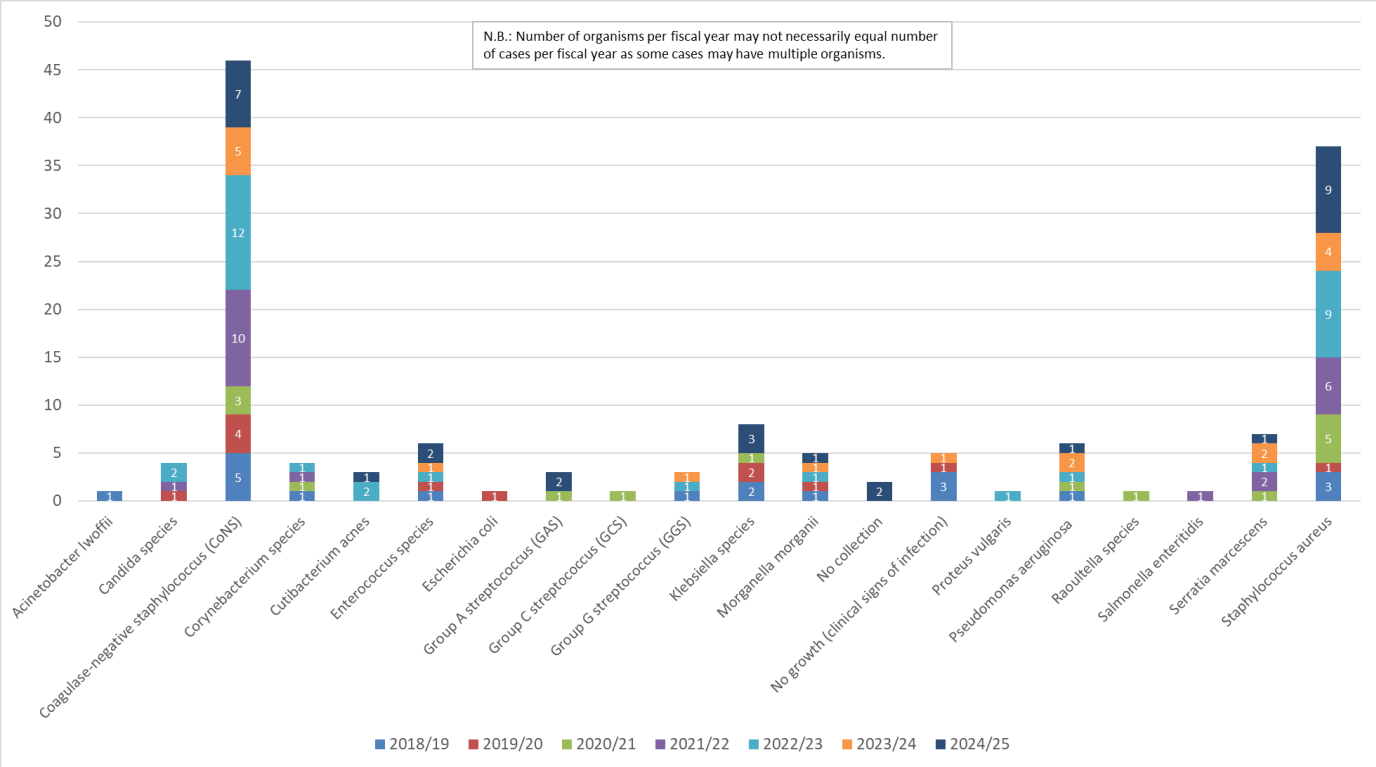
Surgical Site Infection (SSI) – Renal Transplant Surgery

Figure 18: Cumulative renal transplant SSI organisms from 2020/21 to 2024/25: 5-year trend



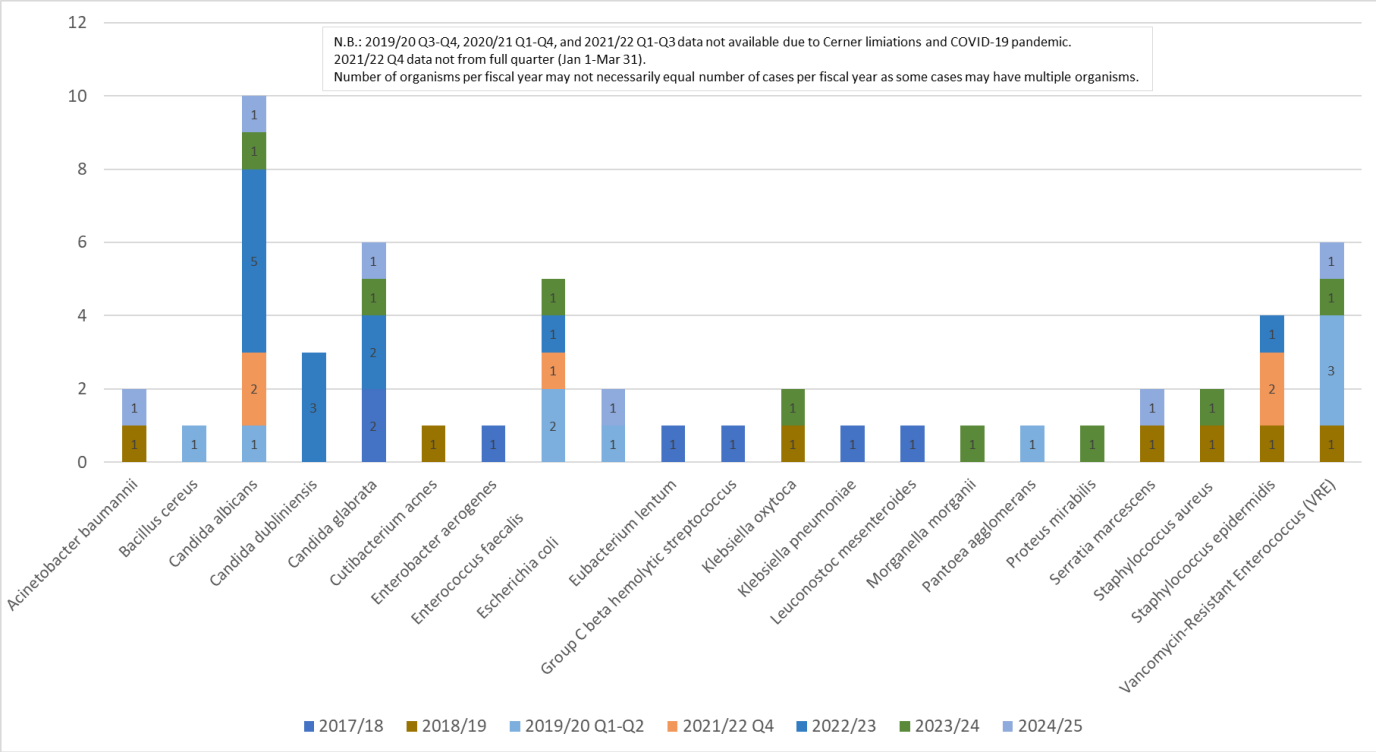
Surgical Site Infection (SSI) – Cardiac Surgery

Figure 19: Cumulative cardiac SSI organisms from 2018/19 to 2024/25: 7-year trend



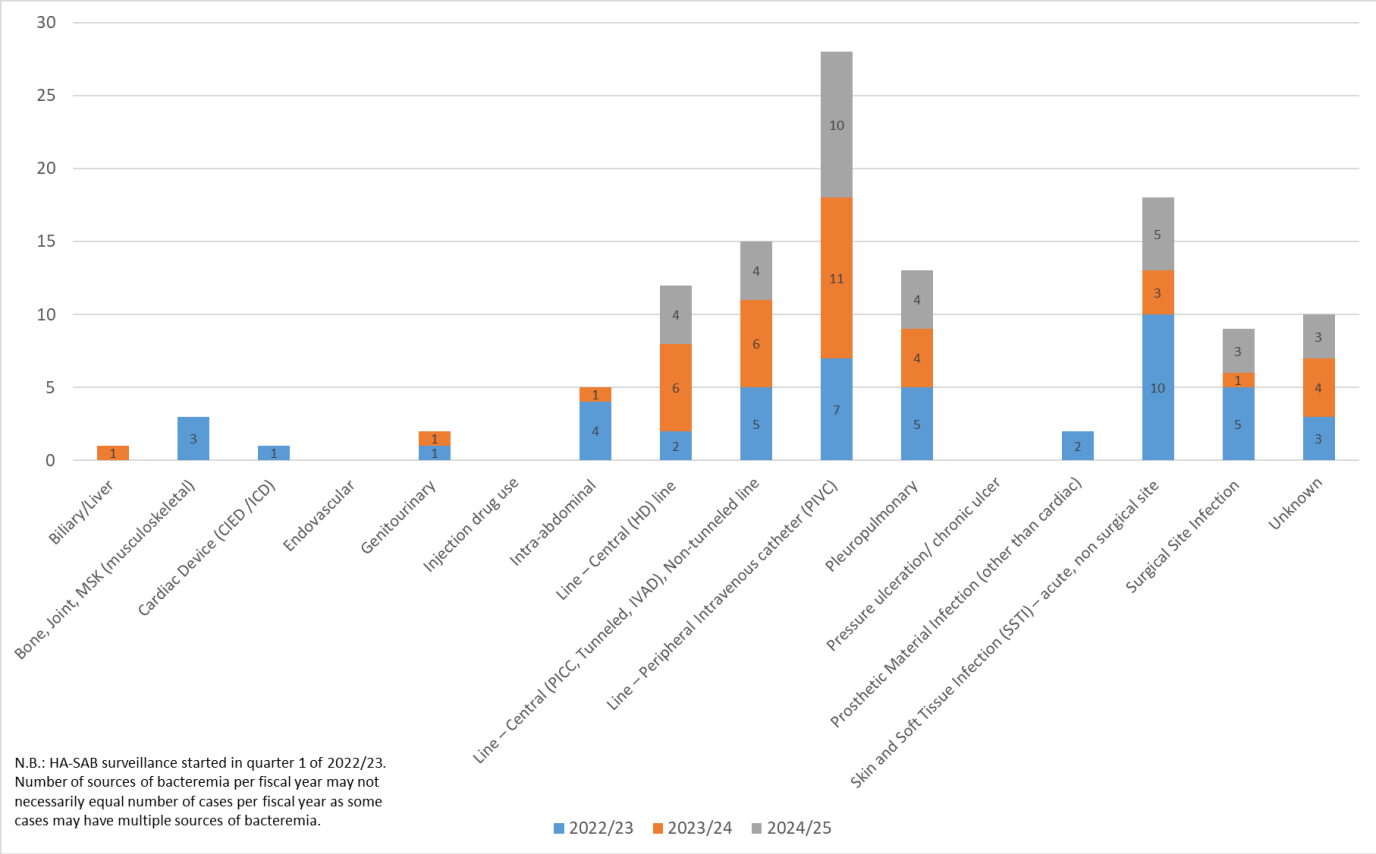
Central Line-Associated Bloodstream Infection (CLABSI)

Figure 20: Cumulative distribution of organisms for SPH ICU-associated CLABSI, 2017/18 to 2024/25



Hospital-Associated *Staphylococcus aureus* Bloodstream (HA-SAB) Infection

Figure 21: Cumulative sources of bacteremia for hospital-associated *S. aureus*, 2022/23 to 2024/25



N.B.: HA-SAB surveillance started in quarter 1 of 2022/23. Number of sources of bacteremia per fiscal year may not necessarily equal number of cases per fiscal year as some cases may have multiple sources of bacteremia.


HAND HYGIENE GAME BOARD
GENERAL
HAND CARE
TECHNIQUE
MOMENTS
SUPPLIES
Miss Vickie's
VAL NATURE
CROQUANTES
NATURE VALLEY
PROTEIN
VAL NATURE
PROTEINES
125
Welch's
SPIN TO WIN
SPOT A BREACH (1)
SPOT A BREACH (2)