



2023-2024
(April–March)

Infection Prevention & Control Annual Report

INFECTION PREVENTION & CONTROL ANNUAL REPORT

INTRODUCTION

Health care-associated infections (HAIs) are defined as infections that are transmitted within a health care setting during the provision of health care.

“Extrapolating from U.S. data, Zoutman et al. estimated that approximately 220,000 HAIs occur annually in Canada and more than 8,000 deaths occur each year, attributable to HAIs. **This translates into approximately 285 deaths per year in Manitoba.**”¹

Collection, analysis, and interpretation (surveillance) of these infections is an essential element in their control. The primary purpose of surveillance is to allow front line health care providers to understand the frequency and distribution of infections, including emerging and changing pathogens, and take steps in their control and prevention. The cost of managing illness/infections continues to increase across Canada. The Public Health Agency of Canada states that hospital costs for two of the most significant antibiotic resistant organisms (MRSA and C diff) attributed to over \$125 million in Canada in 2019.²

The term client will be used throughout this document when referring to patient, resident or client.

NOTE: Beginning in 2023-2024, stand-alone Transitional Care Units fall under the Personal Care Home (PCH) umbrella for infection control. They follow the PCH policies for hand hygiene monitoring, healthcare associated Infection surveillance, and outbreak management, etc.

PROJECTS AND INITIATIVES

LONG TERM CARE IP&C RESOURCES

One outcome of [The Stevenson Report](#) included support for Service Delivery Organizations (SDOs) to enhance Infection Prevention & Control (IP&C) resources in long term care (LTC). Southern Health-Santé Sud (SH-SS) received funding for one Regional Infection IP&C Nurse - LTC position and a compliment of six Infection Control Support Associates (ICSAs). ICSAs are a new role in Manitoba. Hiring, developing orientation and establishing these new positions was the focus in 2023-2024. In July 2023, the Regional Infection IP&C Nurse - LTC transitioned into providing regional coordination of PCH IP&C support for PCH ICPs and ICSAs. PCH ICPs and ICSAs continued a collaborative approach to provide IP&C support in PCH sites across the region.

HAND HYGIENE STRATEGY

Hand Hygiene (HH) is the most important measure to avoid the transmission of harmful germs and prevent infection. The SH-SS HH policy calls for all health care providers to perform HH before and after contact with a client or the client’s environment, before aseptic procedure and after body fluid exposure risk, based on the 4 Moments for HH.

¹ MB Health, June 2019. Routine Practices and Additional Precautions: Preventing the Transmission of Infection in Health Care.

² Public Health Agency of Canada, 2019, Hospital and related costs associated with antimicrobial-resistant infections in Canada, CCDR 48(11/12).

HH was monitored in SH-SS community programs in Quarters 1 & 2 using a paper audit tool adapted from the Canadian Patient Safety Institute. Health care providers are observed by trained auditors to determine compliance with HH performance for each of the four essential moments for HH. The audit measures HH compliance per opportunity, as well as HH compliance per moments/indications. The definitions for HH Moment/Indication and HH Opportunity are listed below.

- HH Moment (or Indication): The 4 Moments for HH are based on the risk of microorganism transmission when a health care worker is interacting with a client. A HH indication is the reason why HH is necessary at a given moment. It is justified by a risk of organism transmission from one surface to another.
- HH Opportunity: The need to perform HH, whether there are single or multiple indications (moments). HH action must correspond to each opportunity. One HH opportunity can also arise from multiple moments (combined moments) resulting in one single act of HH being compliant for multiple HH moments.

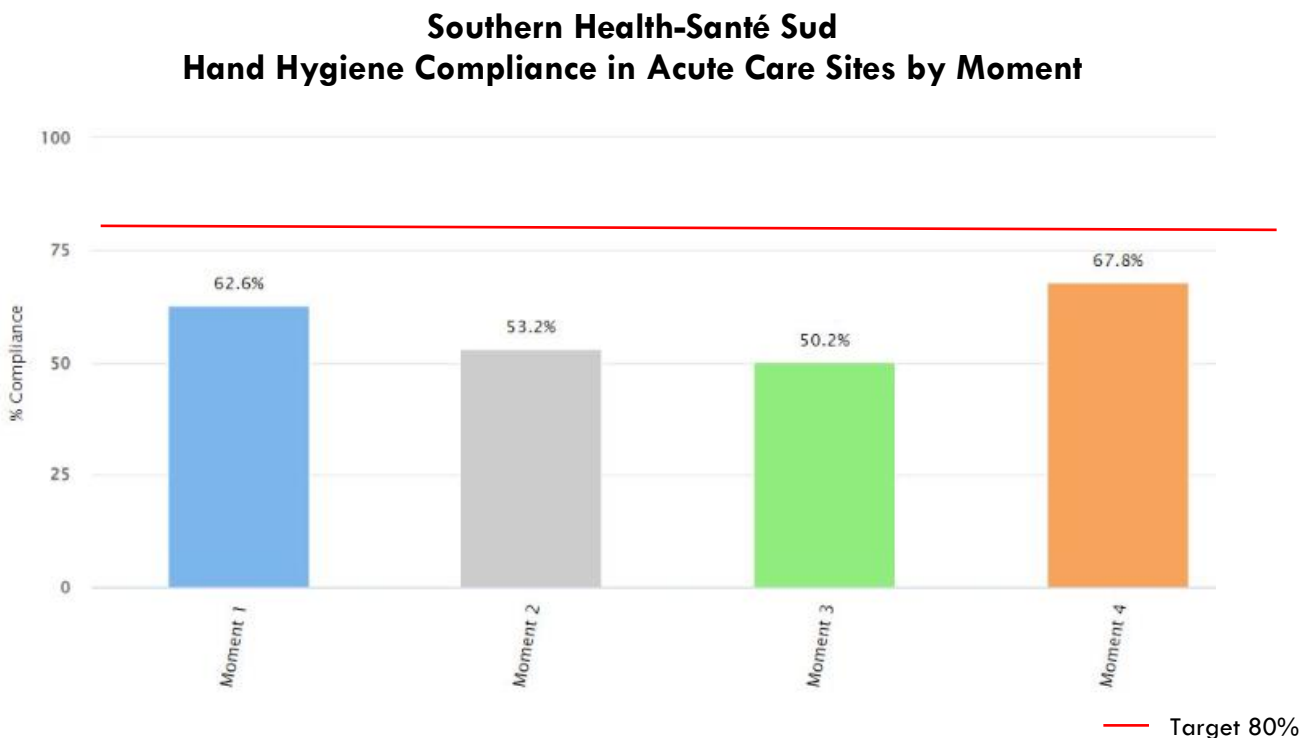
All Acute Care (AC) facilities and Personal Care Homes (PCHs) have been monitoring HH in 2023-2024 using HandyAudit, an electronic HH auditing platform utilized across all Manitoba SDOs. HandyAudit is an internet-based application that an auditor uses on a mobile electronic device to record the actions of a healthcare worker (HCW). Unlike paper-based auditing methods, the auditor does not decide on whether indications for HH are met. Instead, auditors record the actions of the HCW and the environment in which they occurred. HandyAudit makes the determination of compliance based on the recorded narrative, therefore, removing auditor subjectivity.

Education roll out on the new HandyAudit electronic platform has been provided to all staff in AC and PCHs.

HandyAudit was also rolled out for use in community programs, beginning in Quarter 3. With the education roll out and auditor training occurring, a lower number of audits were done for both Quarters 3 & 4. As such, HandyAudit graphs for these two quarters in community programs will not be shown in this annual report.

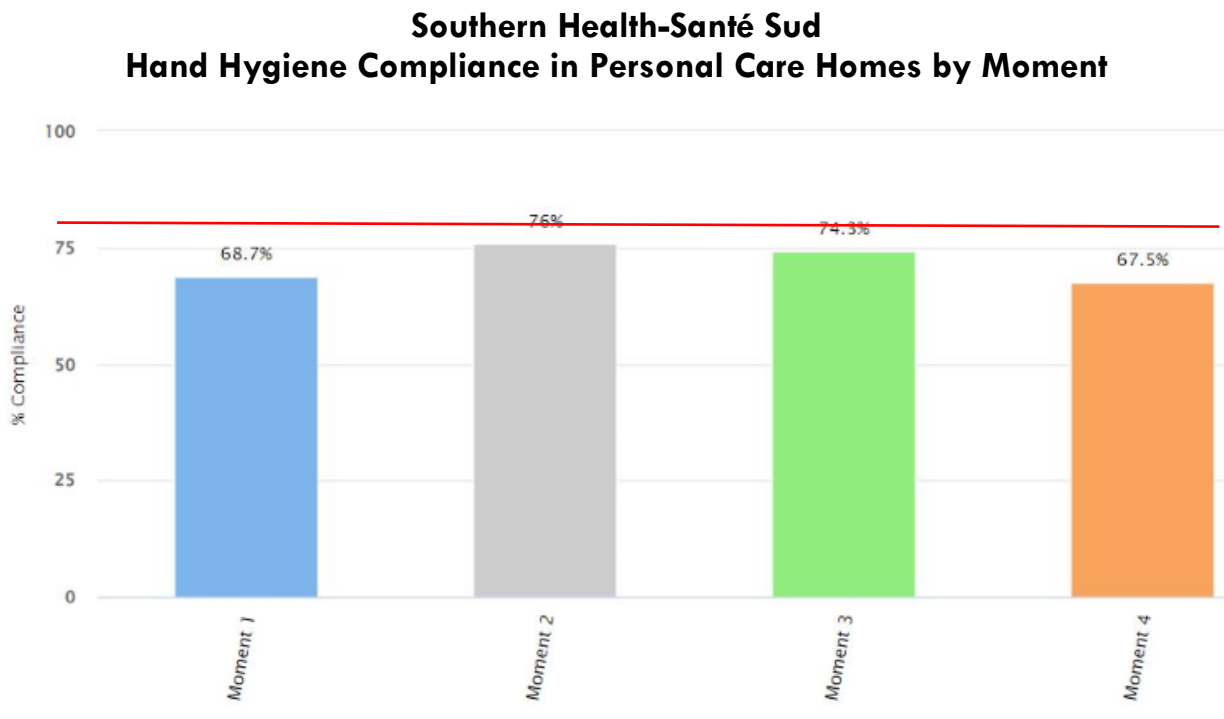
The following graphs in this section show the HH compliance rates per moment for the past fiscal year by program. **Please note: the graph for HH in Community Programs will show HH compliance for the past four fiscal years with only Quarters 1 & 2 in 2023-2024.**

Figure 1a. Overall regional HH compliance by moment at Southern Health-Santé Sud Acute Care (AC) facilities for the past year. Although the 80% target compliance rate was not met, HH compliance rates have increased in AC over the past year.



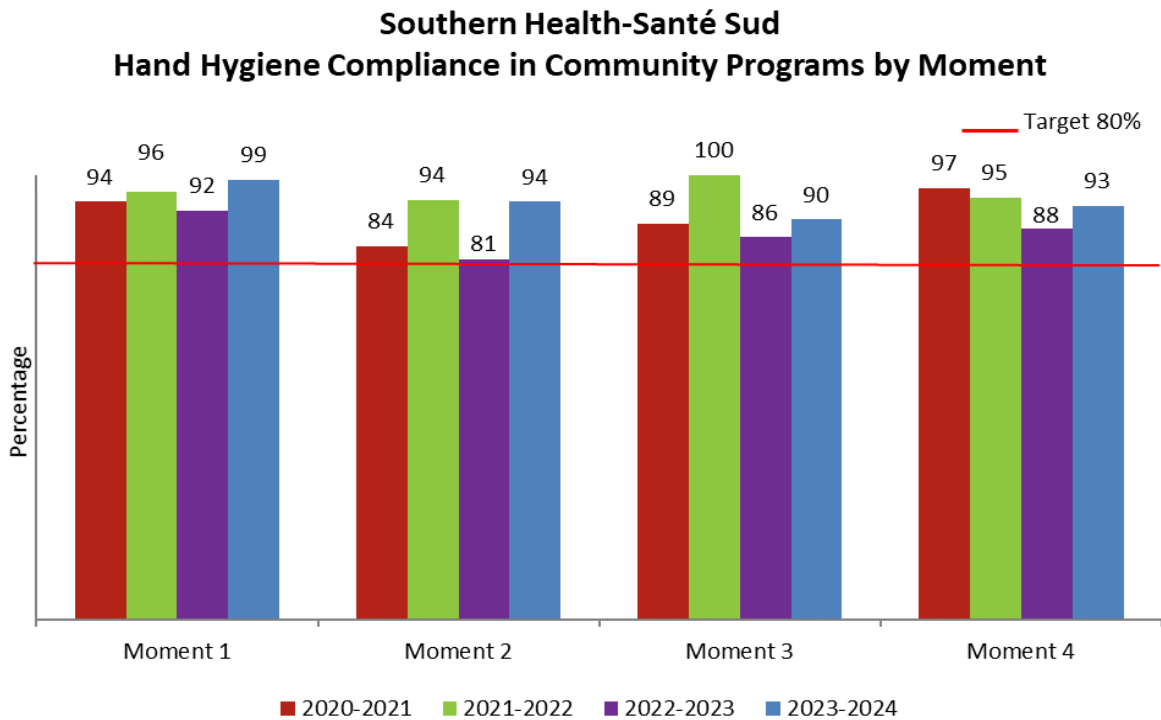
Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

Figure 1b. Overall regional HH compliance by moment at Southern Health-Santé Sud Personal Care Home (PCH) facilities for the past year. Although the 80% target compliance rate was not met, HH compliance rates have increased in PCHs over the past year.



Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

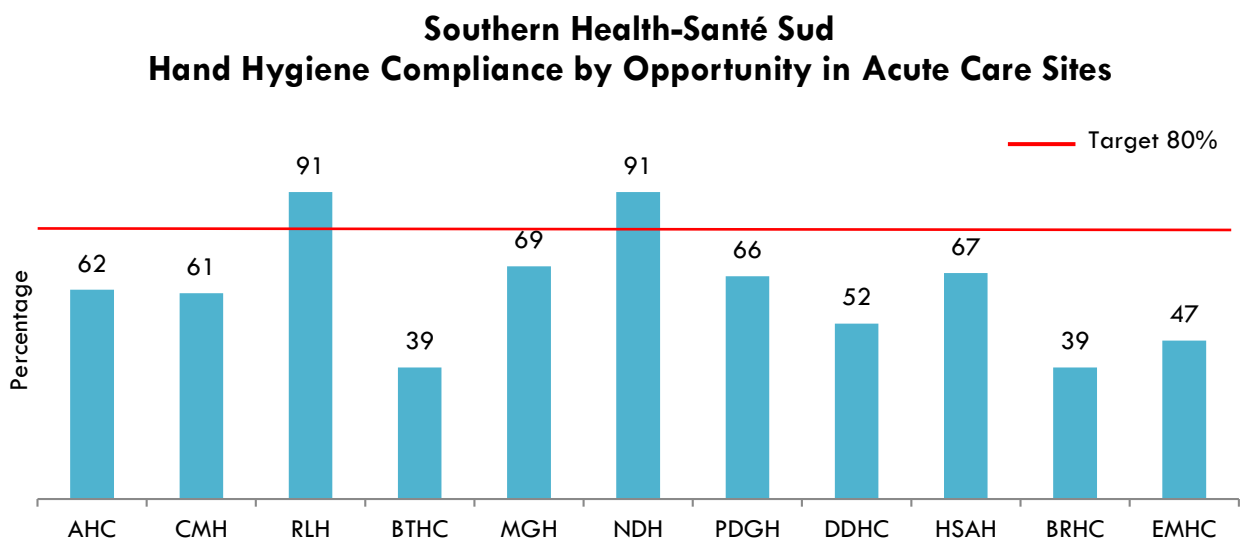
Figure 1c. Overall regional HH compliance by moment reported at Southern Health-Santé Sud community programs for the past four fiscal years. The community programs include Home Care, Public Health (PH), Primary Care (PC) and Mental Health (MH). The target of 80% compliance has been met for all 4 moments.



Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

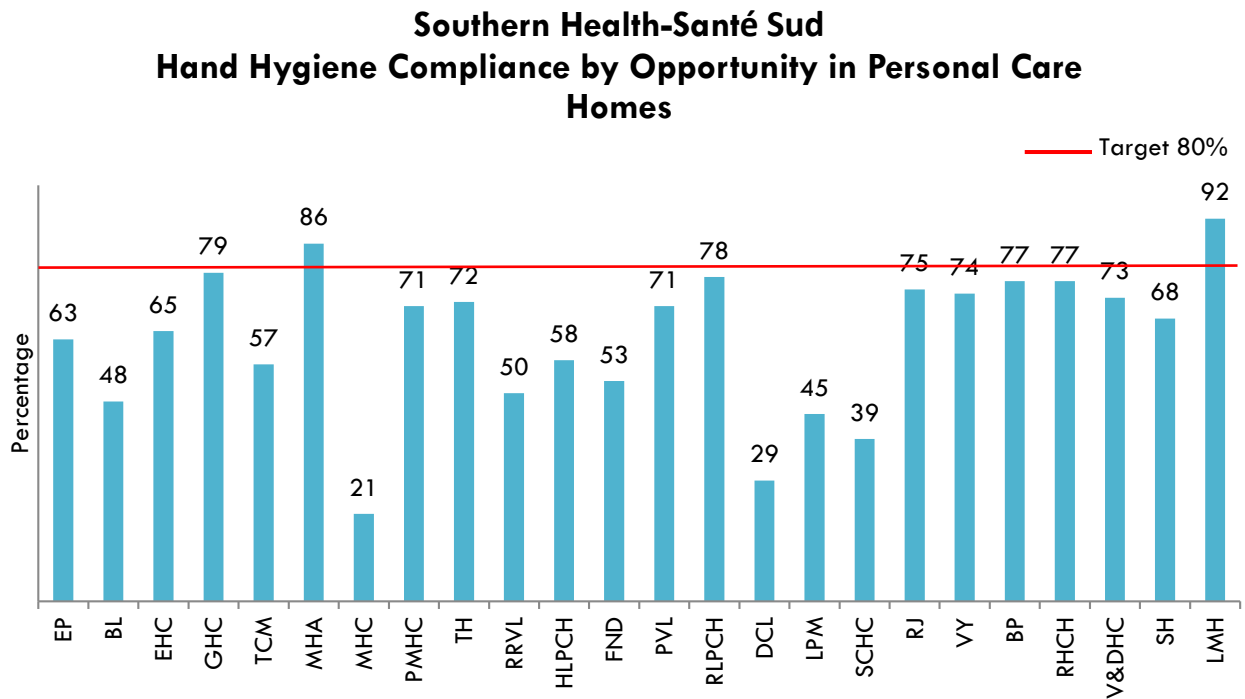
See the Facility Name Legend for the following two graphs.

Figure 1d. Overall HH compliance by opportunity in AC facility in Southern Health-Santé Sud for the fiscal year 2023-2024. Two of the eleven sites show a HH compliance that met the target of 80%.



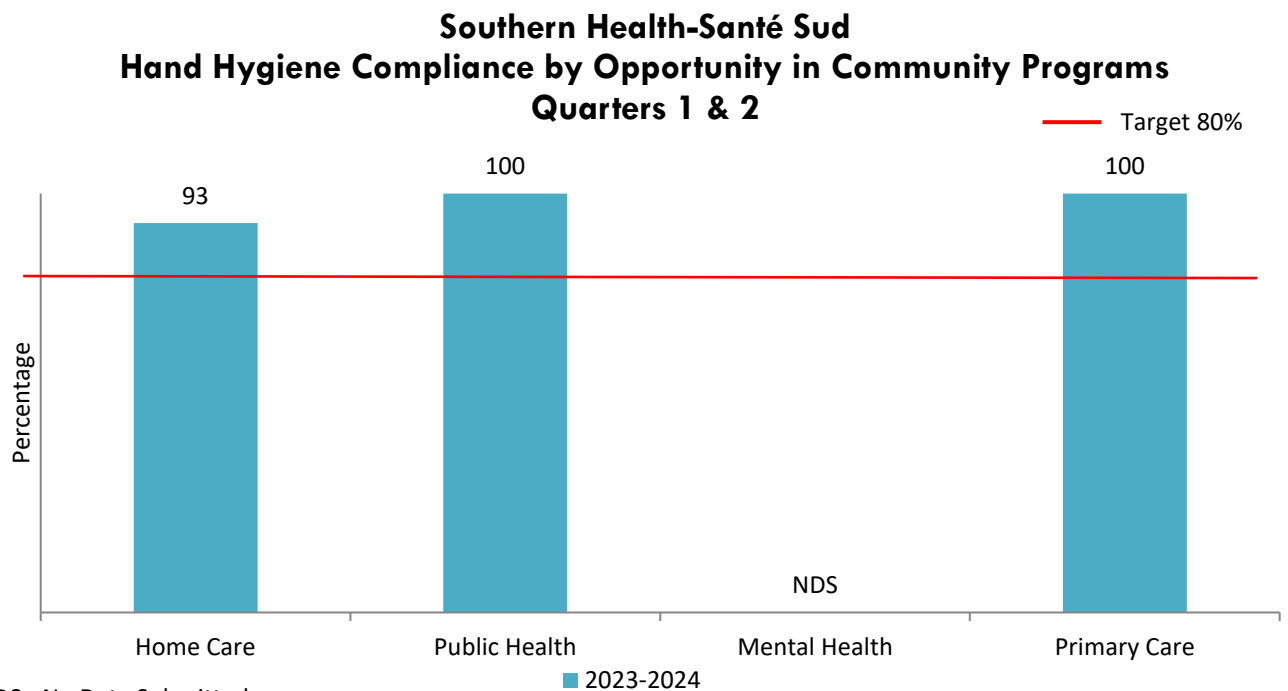
Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

Figure 1e. Overall HH compliance by opportunity in PCH facility in Southern Health-Santé Sud for the fiscal year 2023-2024. Two of the twenty-four PCH sites show a HH compliance that met the target of 80%.



Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

Figure 1f. HH compliance by community programs in Southern Health-Santé Sud for the past four fiscal years. Three of the four community programs show a HH compliance that met the target of 80%.



NDS - No Data Submitted

Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

WHAT IS SOUTHERN HEALTH-SANTÉ SUD DOING TO IMPROVE HAND HYGIENE RATES?

Southern Health-Santé Sud continues to emphasize the importance of HH in preventing the spread of HAIs through implementation of a comprehensive HH strategy targeting the 4 Moments for HH. This strategy includes:

- education on the 4 Moments for HH in the Regional Orientation for all new hires in all programs;
- education on the 4 Moments for HH in the Regional Clinical Orientation days, for all new nurses;
- requirement to have “point-of-care” alcohol-based hand rub available throughout the region;
- regional 4 Moments for HandyAudit HH audit process including auditor training, providing audit compliance feedback and submission of quarterly results throughout the region;
- posting of 4 Moments for HH audit results; and
- reporting regional HH monitoring compliance results for Moments 1 & 4 in AC/PCH to MB Health.

Regional Infection Prevention & Control (IP&C) completed a HandyAudit HH education blitz in fall for all facility/community staff. The goal of the education was to educate staff on viewing the hospital environment and patient environment differently, while still incorporating the 4 Moments of HH. The HandyAudit electronic HH auditing platform was rolled out in Quarter 3 across all community programs in the SDO.

WHAT IS THE ANNUAL TARGET SOUTHERN HEALTH-SANTÉ SUD SEEKS TO REACH?

The ultimate goal for HH compliance in SH-SS is 100% with a minimal target of 80% compliance.

WHAT ARE THE NEXT STEPS FOR SOUTHERN HEALTH-SANTÉ SUD?

Moving forward for 2024-2025, the Regional IP&C goals are:

- to continue to monitor hand hygiene compliance with a goal of increasing the number of HH opportunities being audited,
- to see an improvement in HH compliance by staff in all program areas,
- to reinforce HH education regarding HandyAudit for all direct care providers and those that interact with client environments in Southern Health-Santé Sud through compliance feedback when auditing,
- to develop an inter-rater reliability process to ensure HH auditors are auditing accurately and consistently across the SDO.

SURVEILLANCE

The Regional IP&C program carries out surveillance for a number of quality and patient safety indicators. This section of the report presents information on the targeted indicators.

HEALTHCARE ASSOCIATED INFECTION (HAI) SURVEILLANCE

The Regional IP&C program developed a Healthcare Associated Infection (HAI) Surveillance Policy two years ago, moving to a targeted HAI surveillance program for infections that are more common/relevant to an area or that are required by governing bodies (i.e., Manitoba [MB] Health, Accreditation Canada).

- Acute Care targeted HAI surveillance includes the following:
 - Methicillin Resistant Staphylococcus aureus (MRSA) colonizations and infections,
 - Carbapenemase Producing Enterobacteriaceae (CPE) colonizations and infections,
 - Vancomycin Resistant Enterococci (VRE) bacteremia (bloodstream infection),
 - Clostridioides difficile infections (CDI), and
 - Catheter-Associated Urinary Tract Infections (CAUTI).

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- Personal Care Home targeted HAI surveillance includes the following:
 - MRSA colonizations and infections,
 - CPE colonizations and infections,
 - VRE bacteremia (bloodstream infection),
 - CDI,
 - Symptomatic Urinary Tract Infections (UTI) excluding CAUTI,
 - Respiratory tract infections, and
 - Gastrointestinal tract infections.

The AC HAI rate is calculated as total number of cases by 10,000 AC inpatient days (to align with MB Health) and the PCH rate is calculated as total number of cases by 1,000 PCH resident days (to align with Infection Prevention and Control [IPAC] Canada). The presentation of rates by client days is recommended by Canadian Nosocomial Infection Surveillance Program (CNISP) as it reflects the per-day client risk of acquiring a HAI and disease risk factors. For this reason, it is the most useful rate for comparing different types of health care facilities with varying average lengths of stay.

With the changes to the targeted infections for AC and PCH, the targeted HAI rates for 2022-2023 will be a new baseline.

Descriptions of the HAI surveillance case definitions can be found in the Southern Health-Santé Sud *Infection Prevention & Control: Healthcare Associated Infection Surveillance Definitions - Acute Care and Personal Care Home, April 2023-March 2024*.

Figure 2a. Targeted HAI rates per 10,000 client days in Southern Health-Santé Sud AC Facilities for the past two fiscal years. HAI rates in AC facilities have increased slightly in the past year.

Southern Health-Santé Sud Healthcare Associated Infection Rate per 10,000 Client Days for Acute Care



2022-2023

2023-2024

Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

Figure 2b. Targeted HAI rates per 1,000 resident days in Southern Health-Santé Sud PCH Facilities for the past two fiscal years. HAI rates in PCH have increased slightly in the past year.

Southern Health-Santé Sud Healthcare Associated Infection Rate per 1,000 Resident Days for Personal Care Homes



2022-2023

2023-2024

Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

What are the next steps for Southern Health-Santé Sud?

Moving forward for 2024-2025, the Regional Infection Prevention & Control (IP&C) goals are:

- to continue to disseminate the targeted HAI rates in a report to each AC and PCH facility in the region on a quarterly basis.
- to provide each facility with an annual report comparing their HAI rates to the regional rate.
- to encourage facility ICPs/ICSAs to continue discussions with Facility IP&C Committee/Leadership re: analyzing infection rates, investigating causes where infection rates are high and developing an action plan focused on decreasing infections.
- to monitor for clusters of illness where heightened awareness is required.
- to ensure the surveillance case definitions align with current published definitions.

PREVENTION AND TREATMENT OF URINARY TRACT INFECTIONS

Urinary tract infections (UTIs) are the most frequently encountered HAI in PCH facilities, accounting for up to 20% of infections reported by PCHs as stated in the National Healthcare Safety Network (NHSN), Long-term Care Facility Component Urinary Tract Infection – January 2019. UTIs are the leading cause of bacteremia among PCH clients and can lead to significant morbidity and mortality in the elderly. UTIs are one of the most common reasons for client hospitalization, and are also the reason for considerable antibiotic use in PCH settings. PCHs are only targeting symptomatic UTIs (excluding catheter-associated UTIs).

UTIs are also the fourth most common type of HAI in AC, accounting for more than 12% of infections reported by AC hospitals as stated in the Centers for Disease Control (CDC)/NHSN Urinary Tract Infection Events, January 2018. A large percentage of healthcare associated UTIs in AC are caused by the insertion of

urinary catheters. It is estimated that each year, more than 13,000 deaths are associated with UTIs.³ AC facilities are only targeting catheter-associated UTIs (CAUTIs).

What is Southern Health-Santé Sud doing to decrease the risk of UTIs?

Southern Health-Santé Sud PCHs continue to use The Guidelines and Clinical Care Map - Diagnosis and Management of UTIs in PCH, commonly referred to as the UTI Guideline for the management and treatment of UTIs in PCH. These clinical guidelines were developed based on expert recommendations and are intended to:

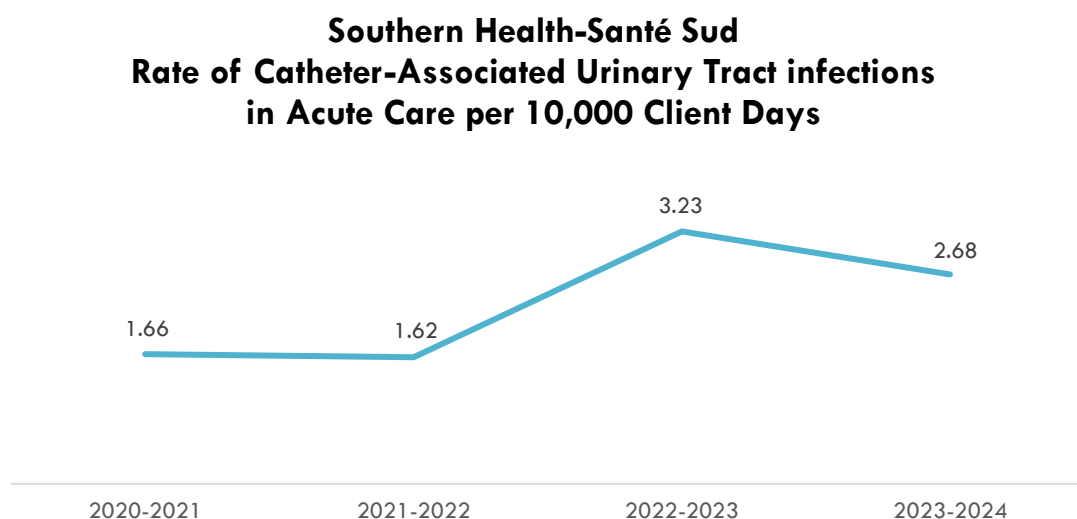
- assist health care workers to accurately identify UTIs and CAUTIs;
- prevent or reduce the risk of UTIs and CAUTIs; and
- provide management and treatment options for individuals with UTI or CAUTI.

These activities are complementary to the regional antimicrobial stewardship program whereby best client outcomes are optimized and antibiotic resistance is reduced by appropriately selecting antimicrobial therapy only when it is needed.

Other initiatives that have been put in place to decrease the rates of UTIs within the region are as follows:

- The Regional Clinical Orientation for all new nurses working in PCH and AC continues to include a presentation about Antimicrobial Stewardship.
- A Urine Trouble education sheet is being used for PCH residents/families providing education on UTI symptoms and how overuse of antibiotics can lead to the development of antibiotic resistant organisms (adapted from Winnipeg Regional Health Authority).

Figure 3a. The rate of CAUTIs in Southern Health-Santé Sud AC facilities from April 1, 2020 to March 31, 2024. The regional rate of CAUTIs reported in AC for 2023-2024 was 2.68 per 10,000 client days, a decrease of 0.55 from last year. This rate represents 30 healthcare associated CAUTIs.

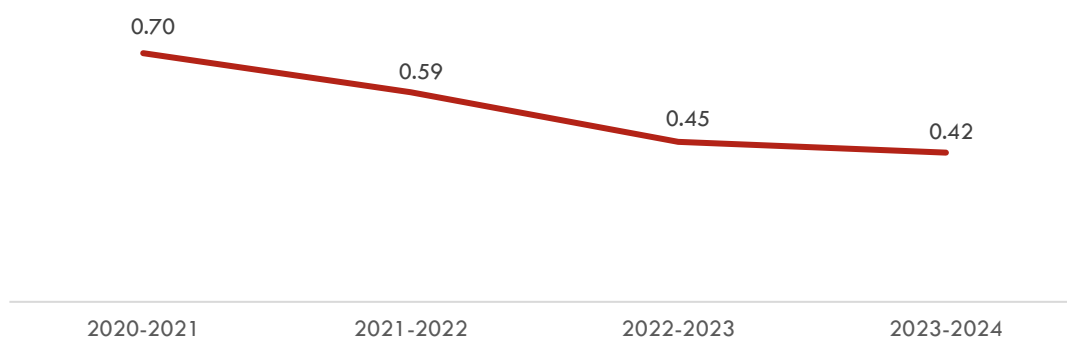


Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

³ Centers for Disease Control (CDC): January 2020, Urinary Tract Infection (Catheter-Associated Urinary Tract Infection [CAUTI] and Non-Catheter-Associated Urinary Tract Infection [UTI]) Events..

Figure 3b. The rate of symptomatic UTIs (excluding CAUTIs) in Southern Health-Santé Sud PCH facilities from April 1, 2020 to March 31, 2024. The regional rate of UTIs reported in PCHs for 2023-2024 was 0.42 per 1,000 resident days, a slight decrease of 0.03 from last year. This rate represents 189 healthcare associated UTIs.

Southern Health-Santé Sud Rate of Symptomatic Urinary Tract Infections in Personal Care Homes per 1,000 Resident Days



Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

What are the next steps for Southern Health-Santé Sud?

- The Regional IP&C Team is currently working on revisions to the PCH UTI Guideline in collaboration with the Antimicrobial Stewardship working group, creating a combined UTI Guideline for both AC & PCH facilities.
- The goal is to decrease the CAUTI rates in all AC sites and decrease the symptomatic UTI rates in all PCHs.

ANTIBIOTIC RESISTANT ORGANISMS (AROs)

Surveillance for AROs focuses on newly identified cases. The targeted AROs of concern include Methicillin-Resistant *Staphylococcus aureus* (MRSA), Carbapenemase-Producing *Enterobacteriaceae* (CPE) and Vancomycin Resistant Enterococci (VRE) bacteremia (bloodstream infection). Newly identified cases are categorized according to where they were most likely acquired. Cases may be healthcare associated, community-acquired, or of unknown origin. Healthcare associated cases are further investigated to determine whether they were acquired in one of the region's facilities or from another health care facility.

AROs are usually introduced into the health care setting by an infected or colonized individual. An infected individual is an ARO positive individual who shows signs and symptoms of an infection caused by that organism. Colonization refers to the presence of microorganisms in or on a host with growth and multiplication but without tissue invasion or cellular injury, so there are no signs or symptoms of infection.

ARO infection transmission most frequently occurs via the hands of health care workers that become transiently colonized while delivering care to patients, when removing gloves, or when touching contaminated surfaces. Environmental contamination can also serve as a vehicle of transmission. It remains important to control the spread of AROs within AC facilities where the risk of infections with AROs is

greatest. General IP&C measures (e.g. Routine Practices) remain essential, including hand hygiene, appropriate equipment cleaning and decontamination of the environment. The addition of contact precautions is also effective in preventing transmission of AROs.

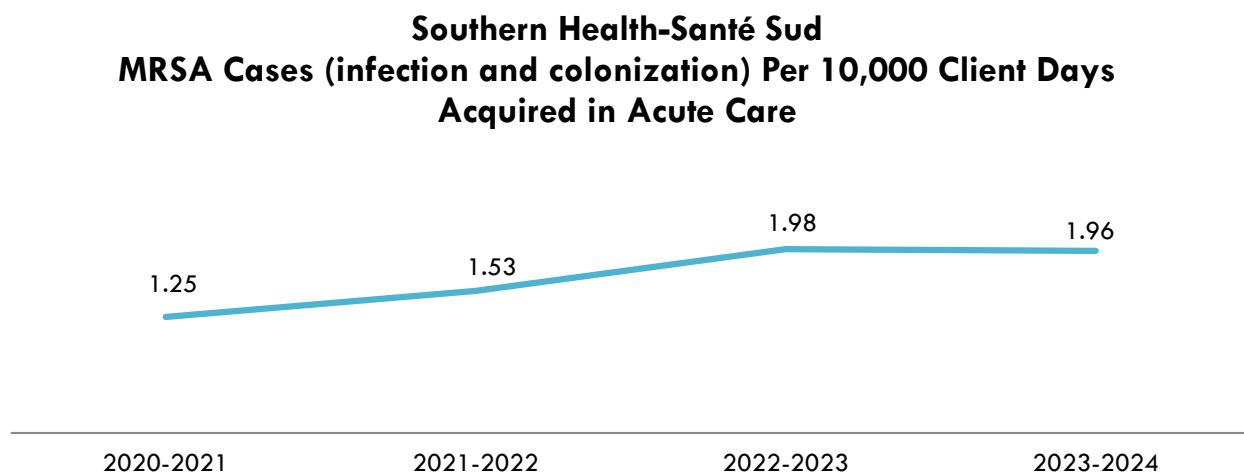
New AROs, i.e. *Candida auris*, continue to emerge and consultations with Infectious Disease specialists are recommended when dealing with such cases.

Methicillin Resistant *Staphylococcus aureus* (MRSA) incidence rate

MRSA is a strain of *Staphylococcus aureus* resistant to various antimicrobial agents. Individuals who carry the organism usually on their skin or in their nose without signs of infection are said to be colonized. Sometimes MRSA can cause serious wound, respiratory or bloodstream infections. Clients who are older, have chronic disease, and undergo invasive procedures are at higher risk of acquiring MRSA. The principle mode of transmission within health care facilities is considered to be from one colonized or infected client to another via the hands of health care providers. The following data represents newly identified cases of MRSA among clients admitted to a Southern Health-Santé Sud facility, where the acquisition occurred during the provision of health care.

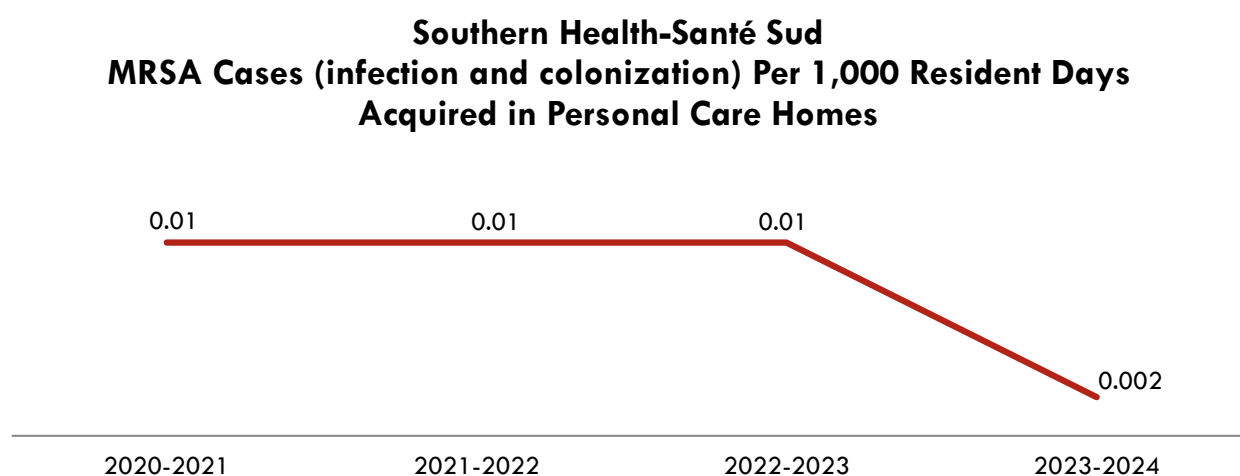
“An incidence rate measures the occurrence of new cases or events in a specific population during a given time period” (APIC Text of Infection Control and Epidemiology, 2014).

Figure 4a. MRSA incidence rates per 10,000 client days in Southern Health-Santé Sud AC facilities from April 1, 2020 to March 31, 2024. The incidence rate for MRSA acquired in AC is 1.96 per 10,000 patient days for the fiscal year 2023-2024, which is slightly lower than the previous year. This rate represents a total of 22 MRSA cases (14 colonizations and 8 infections).



Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

Figure 4b. MRSA incidence rates per 1,000 resident days in Southern Health-Santé Sud PCHs from April 1, 2020 to March 31, 2024. The incidence rate for MRSA acquired in PCH is 0.002 per 1,000 resident days for the reporting year 2023-2024, which is slightly lower than the previous year. This rate represents one MRSA infection case.



Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

What is Southern Health-Santé Sud doing to decrease MRSA incidence rates?

All clients admitted to Southern Health-Santé Sud AC facilities are screened for MRSA risk factors and those considered to be at risk are tested for the organism as quickly as possible. Clients who are found to be MRSA positive are placed on precautions to reduce the risk of transmission within a facility.

Admission screening is important to quickly identify and isolate positive cases to prevent cross transmission. The Admission Screening of Antibiotic Resistant Organisms (AROs) Policy was revised in March 2024. A consistent regional ARO admission screening process in AC has been established to screen for AROs on admission. Admission screening in PCH is not recommended by MB Health and as such, is no longer done.

What are the next steps for Southern Health-Santé Sud?

- The Regional IP&C goal is to develop an ARO Management Policy within the coming year.
- The goal is to decrease the MRSA, CPE and VRE bacteremia HAI rates in AC and PCH.

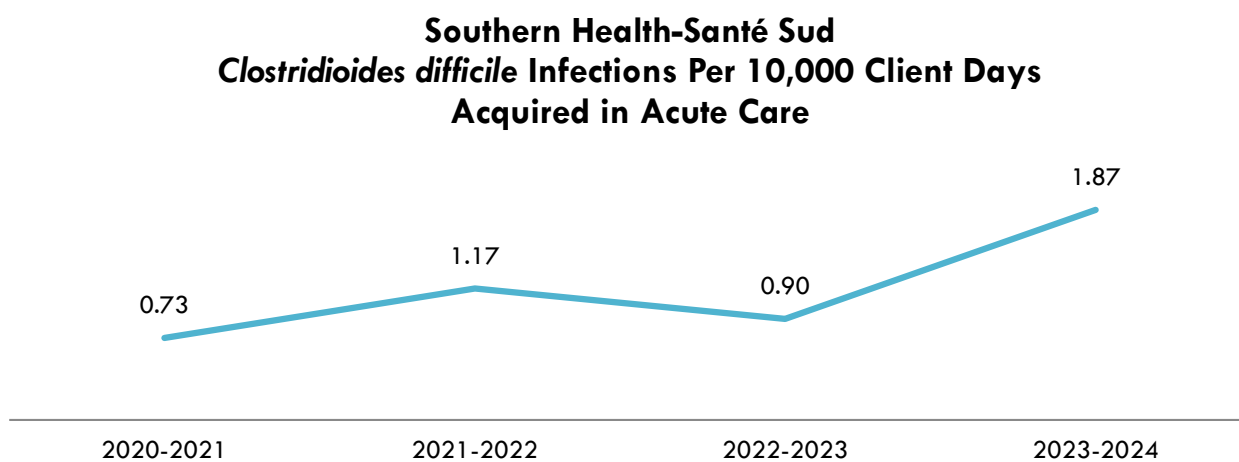
Clostridioides difficile infection (CDI) incidence rate

CDIs are the most frequent cause of healthcare associated infectious diarrhea in developed countries.⁴ CDIs are often related to antimicrobial therapy, which alters the normal bacteria found in the gastrointestinal tract. CDIs may present as severe diarrhea that may be difficult to control, toxic megacolon, sepsis and even death. The principle mode of transmission within health care facilities occurs when *C. difficile* spores are spread on environmental surfaces (e.g., toilet fixtures, furniture, health care equipment), contaminated gloves or unwashed hands. It can then be picked up by another person who touches these contaminated objects and then touches their face or mouth, causing *C. difficile* spores to enter the intestinal tract.

⁴ Canadian Nosocomial Infection Surveillance Program (CNISP), December 2017, 2018 Surveillance for *Clostridium difficile* infection (CDI).

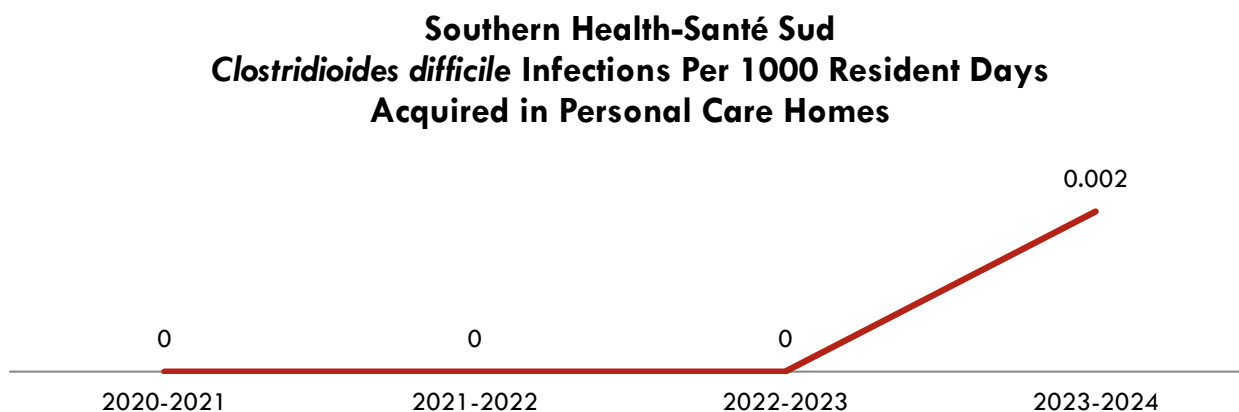
Surveillance for CDIs is different because clients may experience more than one episode of CDI and/or may experience relapses associated with an earlier episode. A case would be considered to be healthcare associated if the client's symptoms occurred 72 hours or more post-admission, the client had been previously admitted to a healthcare facility and discharged within the previous 4 weeks or the client had a previous healthcare exposure at a healthcare facility within the previous 4 weeks.

Figure 5a. Incidence of CDIs per 10,000 client days acquired in Southern Health-Santé Sud AC facilities from April 1, 2020 to March 31, 2024. The incidence rate for CDIs acquired in AC facilities is 1.87 per 10,000 patient days for the fiscal year 2023-2024, which is higher than the previous year. This rate represents a total of 21 healthcare associated CDIs, distributed by cases at four of the eleven AC sites. A *Clostridioides difficile* outbreak occurred at one of the regional centres during the past year, contributing to higher infection rates.



Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

Figure 5b. Incidence of CDIs per 1,000 resident days acquired in Southern Health-Santé Sud PCHs from April 1, 2020 to March 31, 2024. The incidence rate for CDIs acquired in PCH facilities is 0.002 per 1,000 resident days for the fiscal year 2023-2024, which is higher than the previous three years. This rate represents one healthcare associated CDI.



Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

SURGICAL SITE INFECTION (SSI) SURVEILLANCE

Despite advances in operative techniques and use of prophylactic antibiotics, surgical site infections (SSIs) continue to be a major source of morbidity for clients who undergo operative procedures. SSIs are identified by the development of an infection within a specified period of time following the procedure. The follow-up period varies according to operative procedure; within 30 days for most surgeries, but up to one year if the procedure included some type of implant (e.g. joint replacement).

The Regional IP&C program developed a Surgical Site Infection (SSI) Surveillance Policy two years ago, moving to a targeted SSI surveillance program. Southern Health-Santé Sud targeted surveillance of SSIs includes open colorectal surgery, caesarean section surgery, total hip arthroplasty and total knee arthroplasty. The cases presented in this report are representative of all clients with infections associated with a targeted surgery performed in a Southern Health-Santé Sud regional surgical centre:

- Bethesda Regional Health Centre (BRHC)
- Boundary Trails Health Centre (BTHC)
- Portage District General Hospital (PDGH)

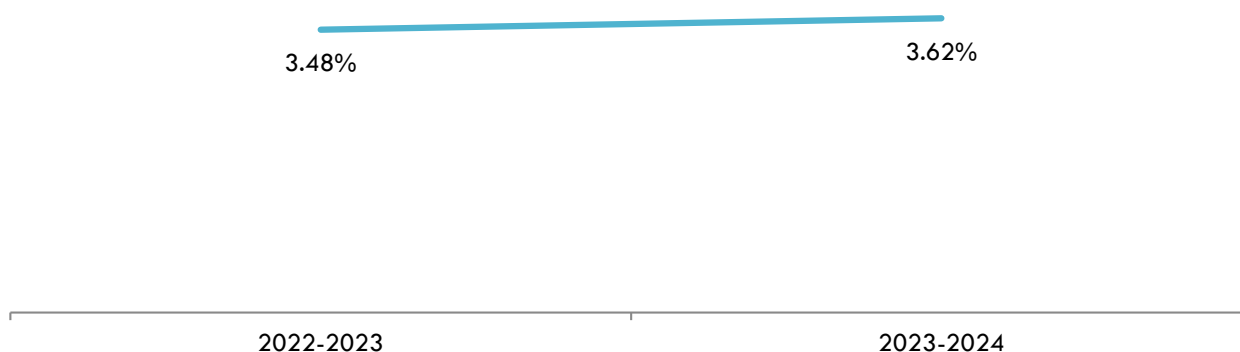
We know that some SSIs may be treated in outpatient clinics and physician offices and therefore may not be captured in this surveillance system.

SSI surveillance measurement utilized by Southern Health-Santé Sud is based on standard case definitions published by the Centers for Disease Control and Prevention/National Healthcare Safety Network.

With the changes to the targeted SSIs in Southern Health-Santé Sud, the overall SSI rates for 2022-2023 will be a new baseline.

Figure 6a. Southern Health-Santé Sud SSI rate per 100 targeted surgical procedures at the three regional centres for the past two fiscal years. The SSI rate per 100 targeted surgical procedures is 3.62%, which is higher than the previous year. This rate represents a total of 43 SSIs in the regional centres (10 BRHC, 27 BTHC and 6 PDGH) for the fiscal year 2023-2024.

Southern Health-Santé Sud Regional Centres Surgical Site Infections Per 100 Targeted Surgical Procedures

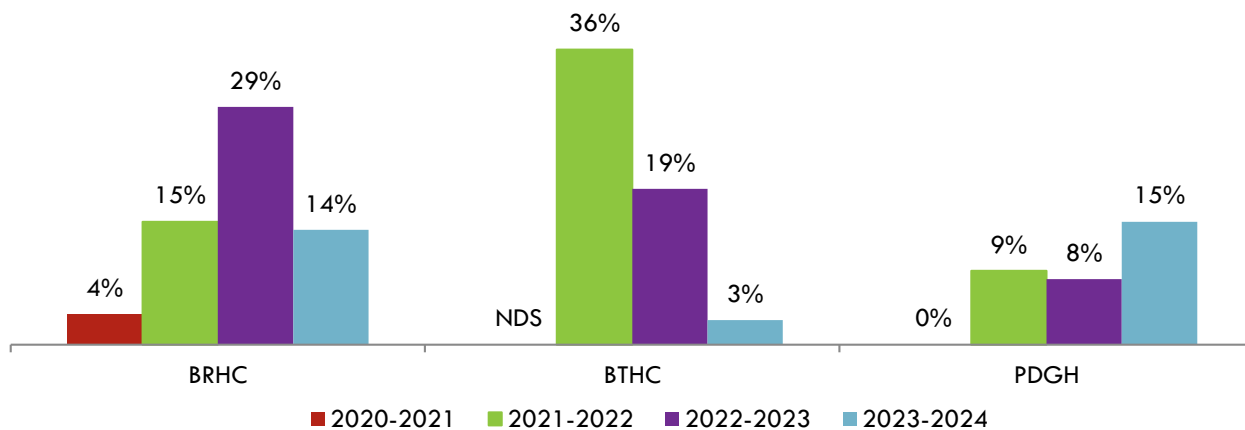


Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

The following four graphs show the SSI rates at the regional centres (BRHC, BTHC and PDGH) for each of the targeted surgical procedures during the past four fiscal years.

Figure 6b. Southern Health-Santé Sud SSI rates per 100 open colorectal surgical procedures in the three regional centres for the past four fiscal years. There was a total of 8 SSIs reported out of a total of 87 open colorectal surgical procedures in the regional centres (3 BRHC, 1 BTHC and 4 PDGH) for the fiscal year 2023-2024.

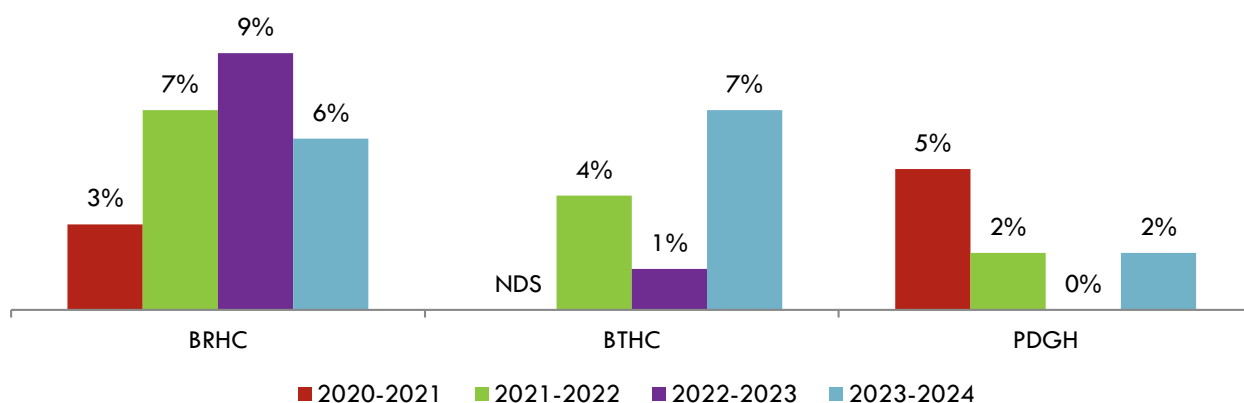
Southern Health-Santé Sud Regional Centres Surgical Site Infection Rates per 100 Open Colorectal Procedures



Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

Figure 6c. Southern Health-Santé Sud SSI rates per 100 C-section surgical procedures in the three regional centres for the past four fiscal years. There was a total of 22 SSIs reported out of a total of 379 C-section surgical procedures in the regional centres (6 BRHC, 15 BTHC and 1 PDGH) for the fiscal year 2023-2024.

Southern Health-Santé Sud Regional Centres Surgical Site Infection Rates per 100 C-section Surgical Procedures

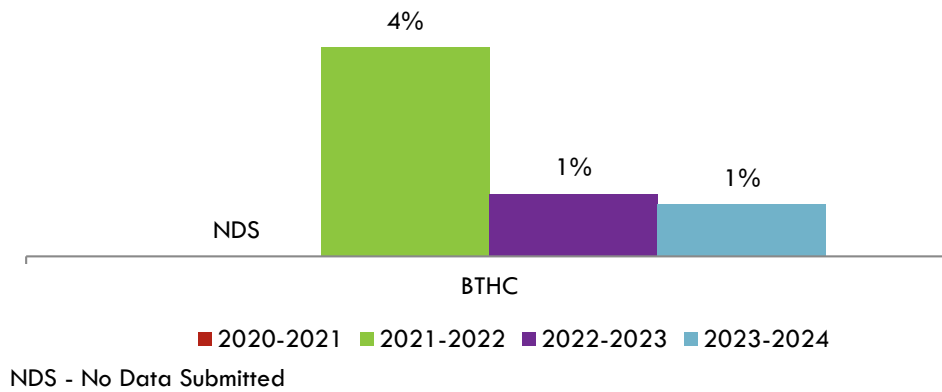


Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

Note: BTHC is the only regional centre that performs total knee/total hip arthroplasty surgical procedures.

Figure 6d. Southern Health-Santé Sud SSI rates per 100 total knee arthroplasty surgical procedures at BTHC for the past four fiscal years. In the period of 2023-2024, there were 3 SSIs reported out of a total of 450 total knee arthroplasty surgical procedures.

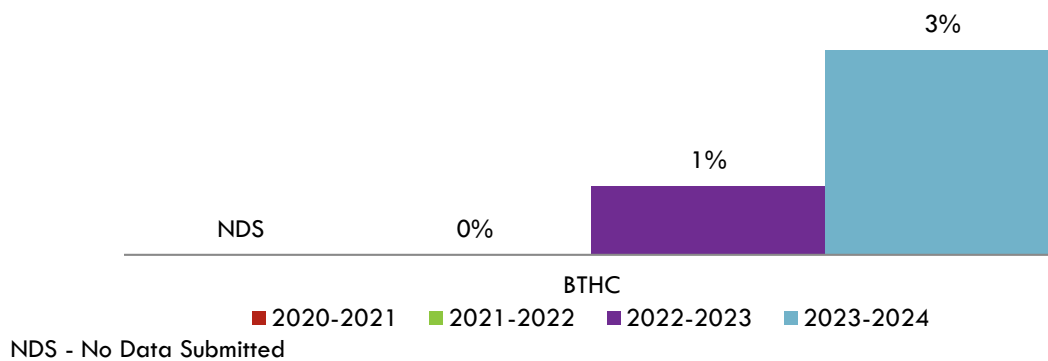
**Southern Health-Santé Sud Regional Centres
Surgical Site Infection Rates Per 100
Total Knee Arthroplasty Surgical Procedures**



Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

Figure 6e. Southern Health-Santé Sud SSI rates per 100 total hip arthroplasty surgical procedures at BTHC for the past four fiscal years. For 2023-2024, there was a total of 7 SSIs reported out of a total of 270 total hip arthroplasty surgical procedures.

**Southern Health-Santé Sud Regional Centres
Surgical Site Infection Rates Per 100
Total Hip Arthroplasty Surgical Procedures**



Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

What is Southern Health-Santé Sud doing to decrease SSI rates?

Processes are in place in Southern Health-Santé Sud surgical facilities to decrease the SSI rates. These processes include the timely administration, timely discontinuation and appropriate selection of antimicrobials perioperatively, maintaining normothermia during the surgical procedure and following recommendations for no hair removal or the use of clippers or depilatory as opposed to the use of razors in preparing the operative site.

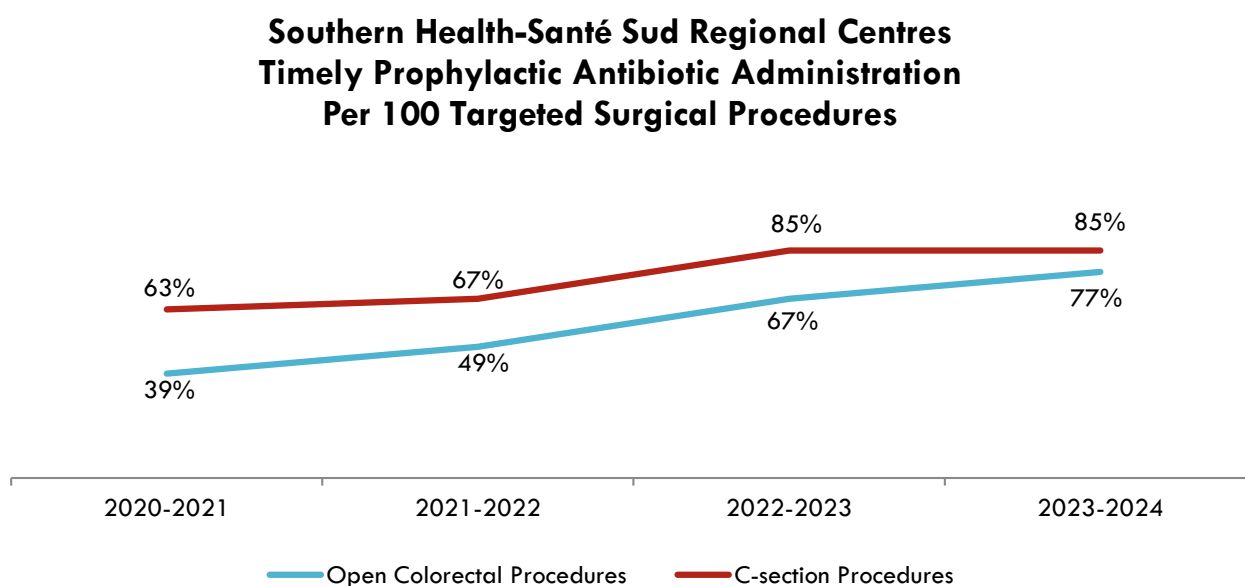
The Southern Health-Santé Sud surgical team meets on a regular basis to look at areas that can be improved. Infection Control representation on this team assists in reviewing infection rates and planning interventions to make positive changes to the area. Providing infection data feedback and education for this team helps to bring about positive change.

The following graphs will show some of the infection prevention strategies including:

- Open colorectal and C-section surgical clients receive prophylactic antibiotic within appropriate time prior to incision during surgical procedure.
- Open colorectal and C-section surgical clients remain normothermic (36.0° - 38.0°C) during surgeries as recorded in the post-anesthesia care unit (PACU).
- **2023-2024 is the first year we have been monitoring the rates for timely prophylactic antibiotic administration and maintaining normothermia for the total knee and total hip arthroplasty surgical patients. Therefore, 2023-2024 will be the baseline for these two targeted surgeries.**
 - **The Southern Health-Santé Sud rate of timely prophylactic antibiotic administration per 100 targeted surgical procedures for 2023-2024 is:**
 - **Total knee arthroplasty – 99%**
 - **Total hip arthroplasty – 99%**
 - **The Southern Health-Santé Sud rate of maintaining normothermia per 100 targeted surgical procedures for 2023-2024 is:**
 - **Total knee arthroplasty – 78%**
 - **Total hip arthroplasty – 73%**

The target rates for timely prophylactic antibiotic administration and maintaining normothermia is 95% or higher as per Safer Healthcare Now (SHN), Prevent Surgical Site Infections: Getting Started Kit, March 2014.

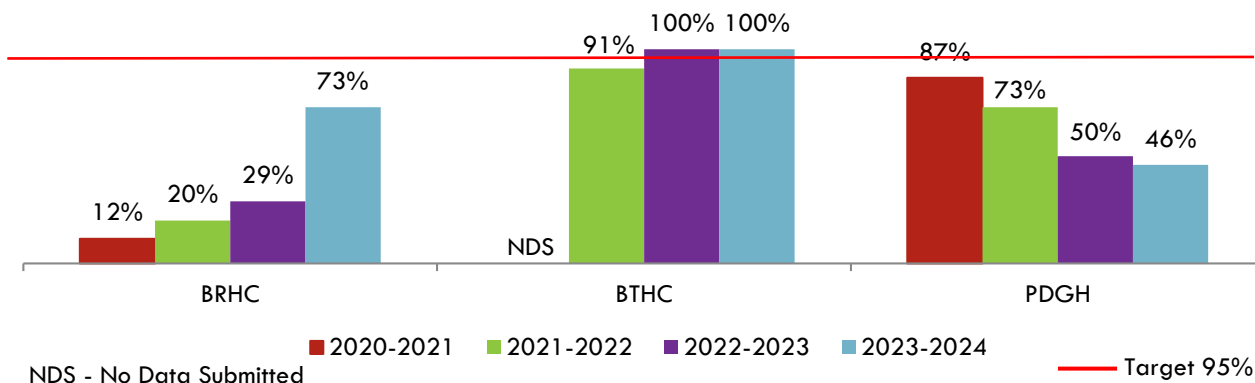
Figure 7a. Southern Health-Santé Sud rate of timely prophylactic antibiotic administration per 100 targeted surgical procedures at the three regional centres for the past four fiscal years. The rate of timely prophylactic antibiotic administration has increased by 10% for open colorectal procedures and has remained the same for C-section procedures compared to the previous year.



Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

Figure 7b. Southern Health-Santé Sud percent of open colorectal surgical clients receiving timely prophylactic antibiotic administration in the three regional centres for the past four fiscal years. The 2023-2024 rate of open colorectal surgical clients receiving timely prophylactic antibiotic administration has increased by 44% at BRHC, decreased in PDGH by 4%, and remained the same at BTHC. The rates at BRHC & PDGH are below the recommended SHN target of 95% identified by the red line. The rate at BTHC is to be commended as 100% of targeted surgical patients received timely prophylactic antibiotic administration.

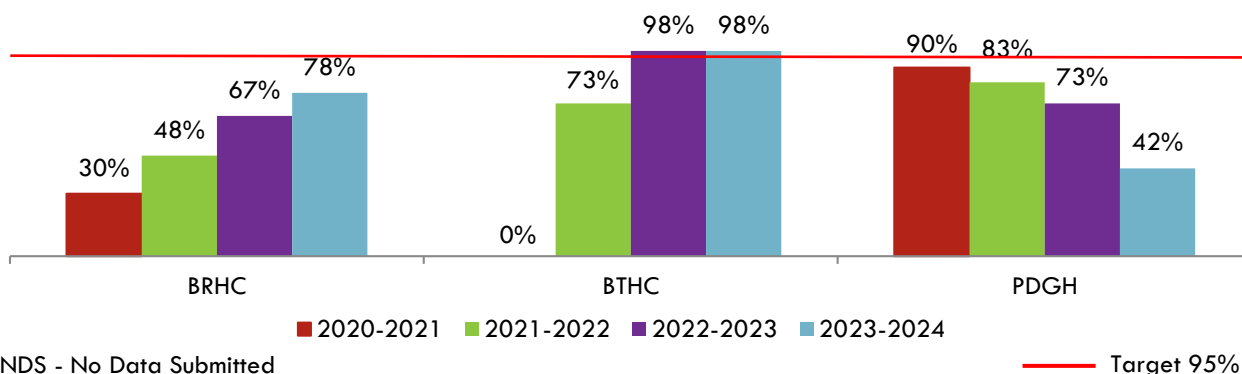
Southern Health-Santé Sud Regional Centres Percent of Open Colorectal Surgical Patients With Timely Prophylactic Antibiotic Administration



Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

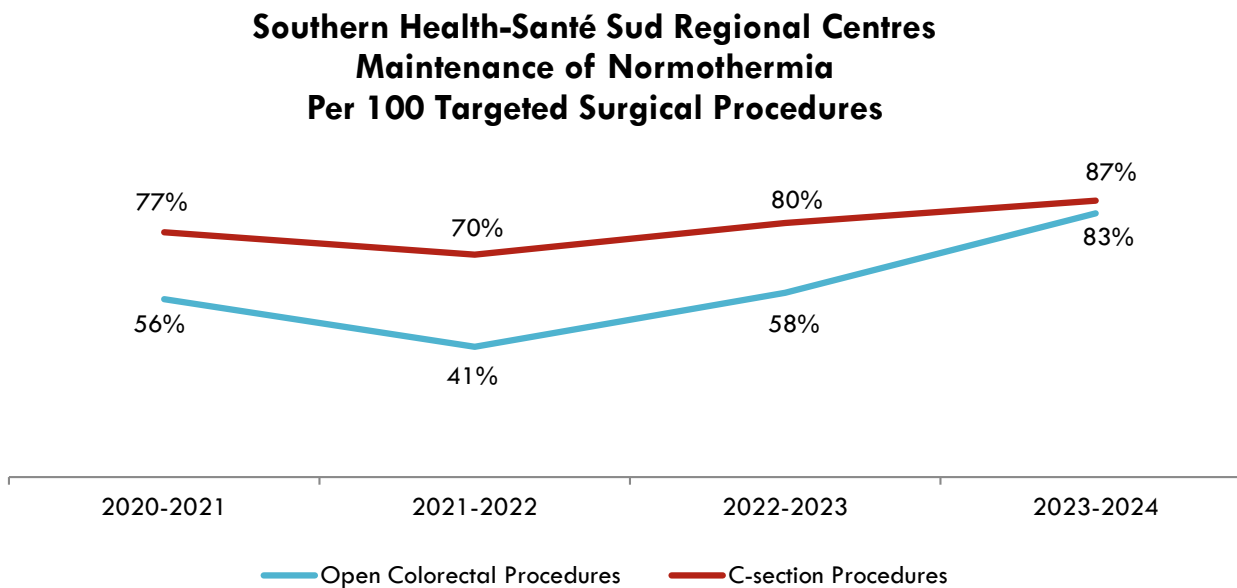
Figure 7c. Southern Health-Santé Sud percent of C-section surgical clients receiving timely prophylactic antibiotic administration in the three regional centres for the past four fiscal years. The target of 95% is identified by the red line. The 2023-2024 rates of C-section surgical clients receiving timely prophylactic increased by 11% at BRHC, decreased by 31% at PDGH and remained the same at BTHC. The rates at BRHC & PDGH are below the recommended SHN target of 95%. The rate at BTHC is above the target line at 98%.

Southern Health-Santé Sud Regional Centres Percent of C-section Surgical Patients With Timely Prophylactic Antibiotic Administration



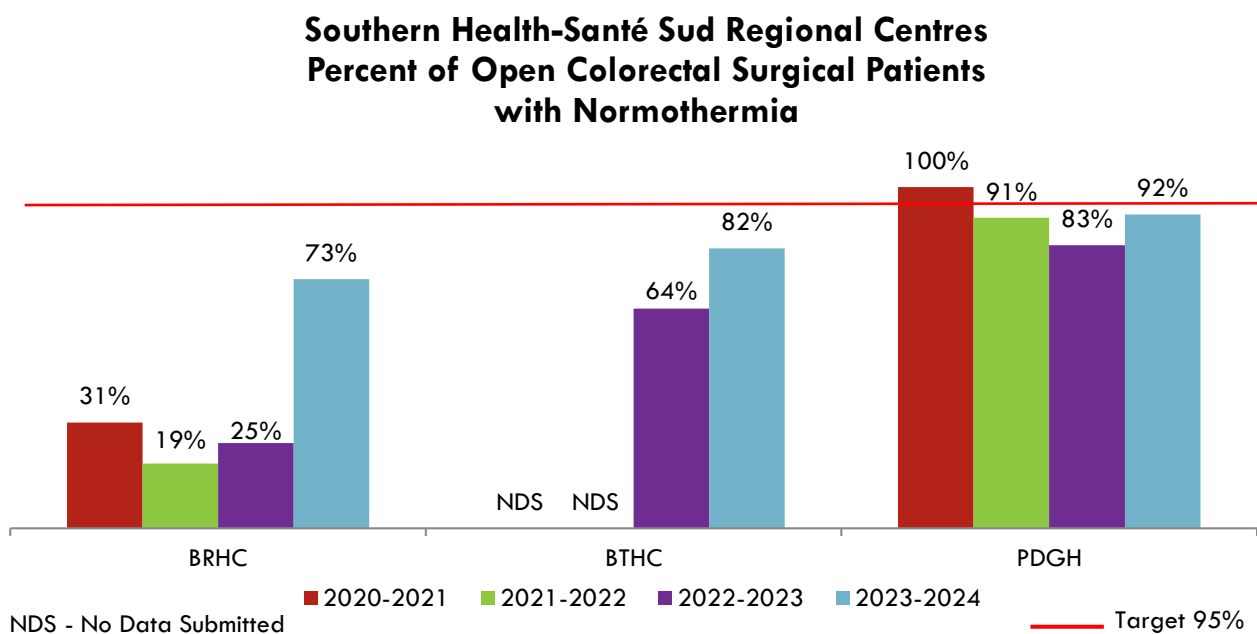
Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

Figure 7d. Southern Health-Santé Sud rate of normothermia maintenance per 100 targeted surgical procedures for the past four fiscal years. The rate of maintaining normothermia for open colorectal surgical procedures has increased by 25% in the regional centres from the previous year. The rate of maintaining normothermia for C-section surgical procedures has increased by 7% in the regional centres from the previous year.



Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

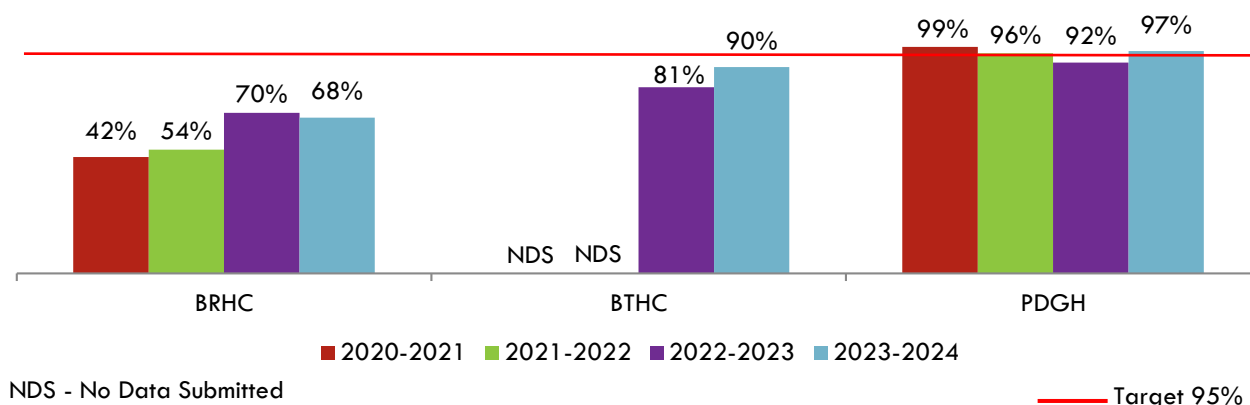
Figure 7e. Southern Health-Santé Sud percent of open colorectal surgical clients with maintenance of normothermia in the three regional centres for the past four fiscal years. The 2023-2024 rates of open colorectal surgical clients maintaining normothermia during open colorectal surgical procedures increased for all regional centres by: 48% for BRHC, 18% for BTHC and 9% for PDGH. All rates remain below the target of 95%.



Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

Figure 7f. Southern Health-Santé Sud percent of C-section surgical clients with maintenance of normothermia in the three regional centres for the past four fiscal years. The 2023-2024 rates of C-section surgical clients maintaining normothermia during C-section surgical procedures decreased slightly by 2% at BRHC and increased by 9% at BTHC and 5% at PDGH. BRHC & BTHC remain below the recommended SHN target of 95%, while PDGH show a rate above the target.

Southern Health-Santé Sud Regional Centres Percent of C-section Surgical Patients with Maintenance of Normothermia



Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

What are the next steps for Southern Health-Santé Sud?

Moving forward for 2024-2025, the Regional IP&C goals are:

- To continue to disseminate the SSI rates in a report to each surgical centre in the region on a quarterly basis.
- Site Infection Control Practitioners (ICPs) will strategize with surgical team to improve SSI rates, timely prophylactic antibiotic administration and maintenance of normothermia for targeted surgical procedures.
- to ensure any new surgical program is considered as a targeted SSI.

OUTBREAKS

The Regional IP&C program provides support to Southern Health-Santé Sud AC and PCH facilities that are experiencing outbreaks, including affiliated sites.

OUTBREAK SUMMARY

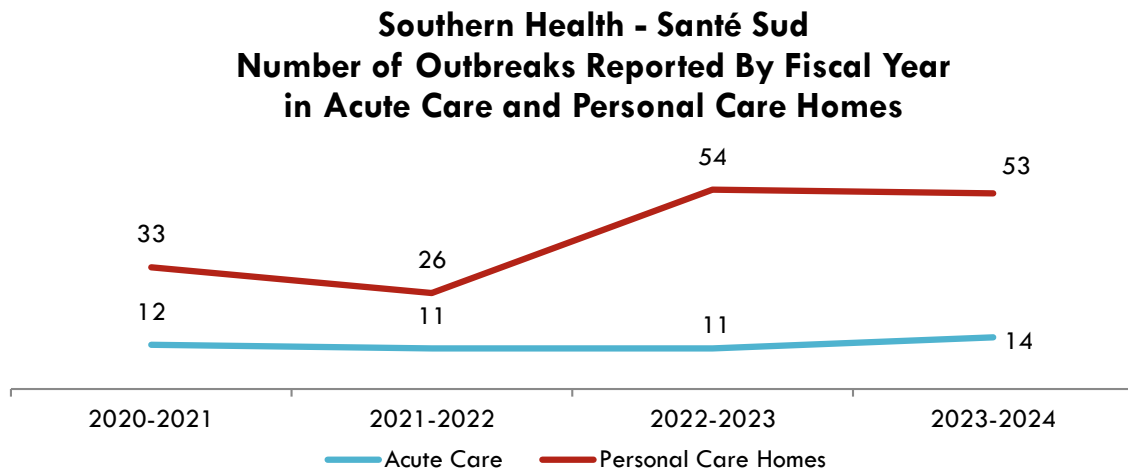
From April 2023 to March 2024, a total of 67 outbreaks were reported in Southern Health-Santé Sud facilities, 14 in AC and 53 in PCH. This is a slight increase from the 65 outbreaks in the previous year. COVID-19 was the virus responsible for about half of the respiratory outbreaks in the past year. Other viruses identified in outbreaks were Influenza A, Coronavirus, RSV, Rhinovirus/Enterovirus, CDI and Norovirus. All outbreaks are reported to the Canadian Network for Public Health Intelligence (CNPHI).

When comparing the number of outbreaks from year to year, it is important to keep in mind the changing prevalence of gastrointestinal and respiratory pathogens in the community.

It is important to note that during 2023-2024, a risk balance approach to applying outbreak measures shifted from declaring site wide outbreaks, to consideration for unit-based outbreaks where appropriate. This

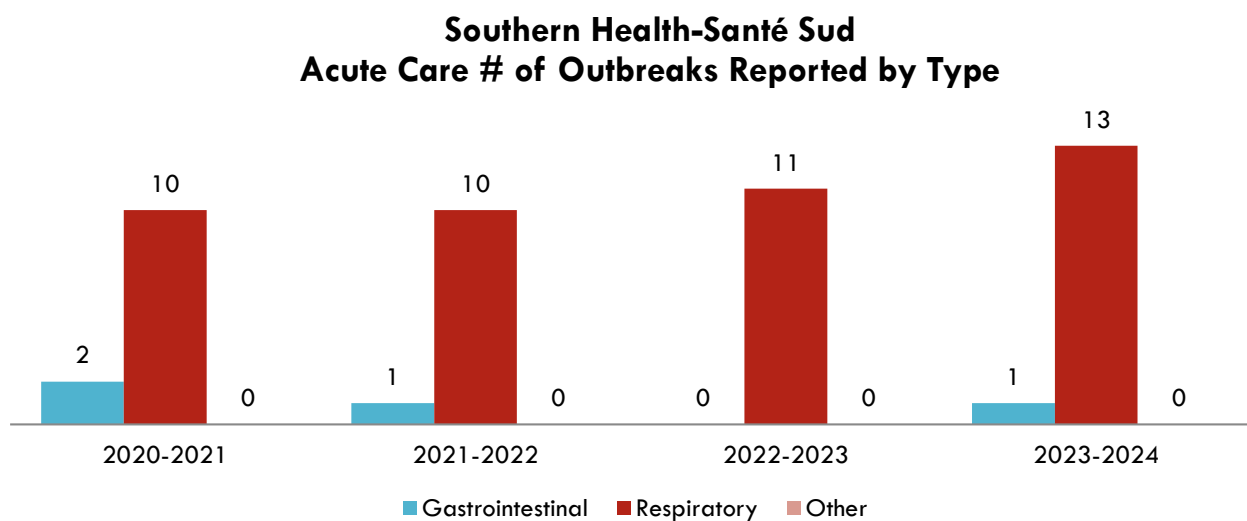
supports interruption of transmission, while also reducing impacts on clients, staff, families and visitors. There were evolving revisions to the outbreak termination criteria for COVID-19, which further reduced the potential length of a COVID-19 outbreak. These changes affect overall outbreak numbers by inflating the total number of outbreaks that are declared over the course of the year.

Figure 8a. Number of outbreaks in Southern Health-Santé Sud AC and PCH facilities per fiscal year since 2020. In 2023-2024, there were 53 PCH outbreaks, which is a slight decrease from 54 outbreaks in the previous year. There were 14 AC outbreaks, which is an increase of 3 outbreaks from the previous year.



Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

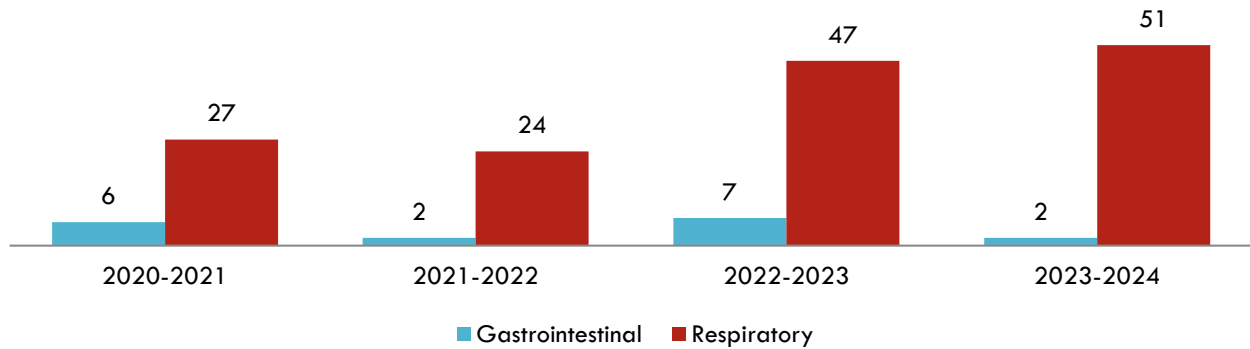
Figure 8b. The number of outbreaks reported by type in Southern Health-Santé Sud AC facilities per fiscal year since 2020. In 2023-2024, there were 14 outbreaks, which is an increase of 3 outbreaks compared to the previous year. Of the 14 outbreaks reported in AC, 13 were respiratory in nature and one was a gastrointestinal outbreak.



Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

Figure 8c. The number of outbreaks reported by type in Southern Health-Santé Sud PCH facilities per fiscal year since 2020. In 2023-2024, PCH sites reported a total of 53 outbreaks, which is a decrease of 1 outbreak compared to the previous year. Of the 53 outbreaks reported, 2 were gastrointestinal outbreaks and 51 were respiratory outbreaks.

Southern Health-Santé Sud Personal Care Homes # of Outbreaks Reported by Type

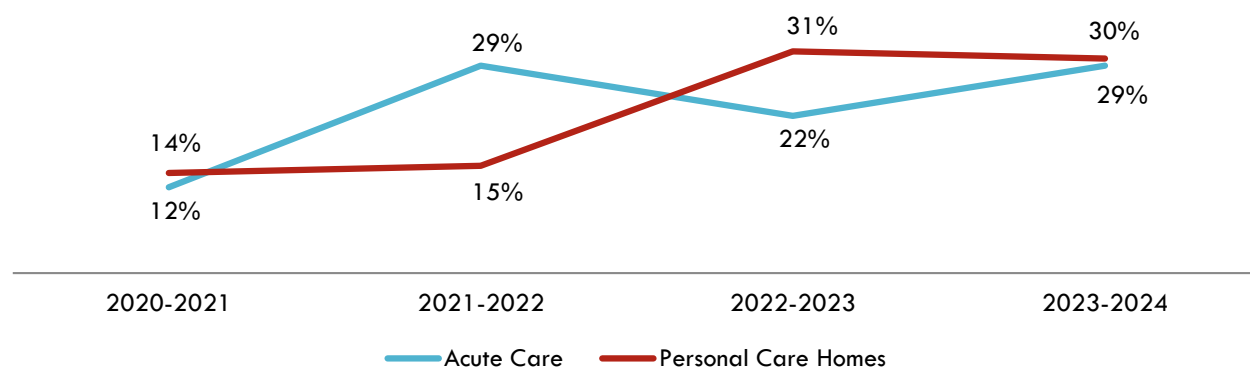


Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

While the endemic level of viruses may increase the risk of outbreaks, the presence of effective infection control measures to rapidly detect transmission and initiate appropriate interventions can reduce the severity of an outbreak, both in terms of the number of people affected and duration of illness. In the outbreak setting, the term attack rate is often used as a synonym for risk. It is the risk of getting the disease during a specified period, such as the duration of an outbreak. Overall attack rate is the total number of new cases divided by the total population. (Centers for Disease Control and Prevention, 2012).

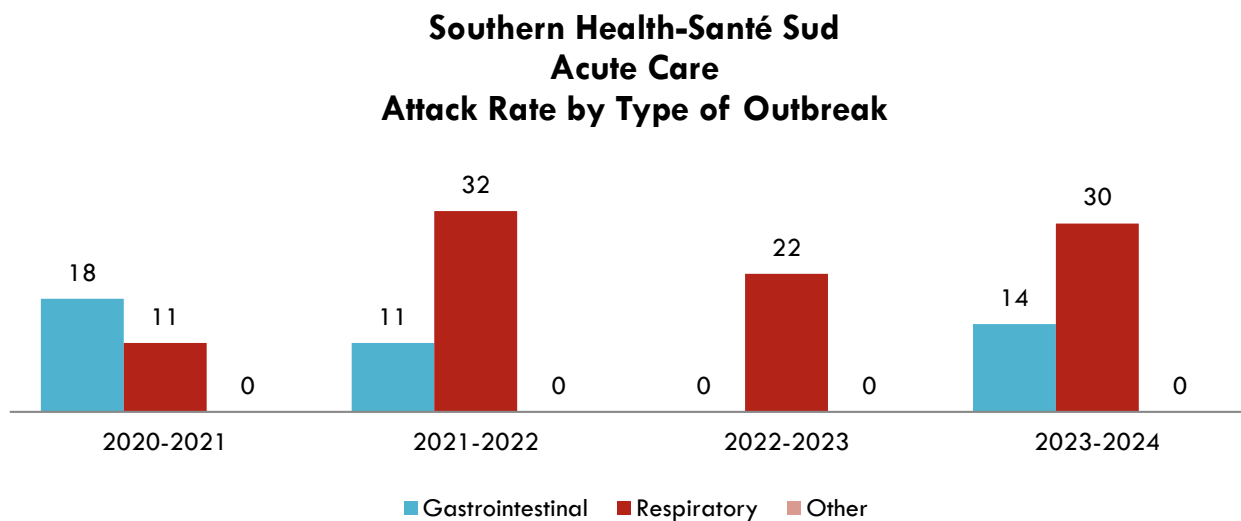
Figure 8d. The percentage of reported client illness during outbreaks in Southern Health-Santé Sud AC and PCH facilities. During 2023-2024, the outbreak attack rate decreased by 1% in PCH and increased by 7% in AC.

Southern Health-Santé Sud Outbreak Attack Rate (% of clients ill) in Acute Care and Personal Care Homes



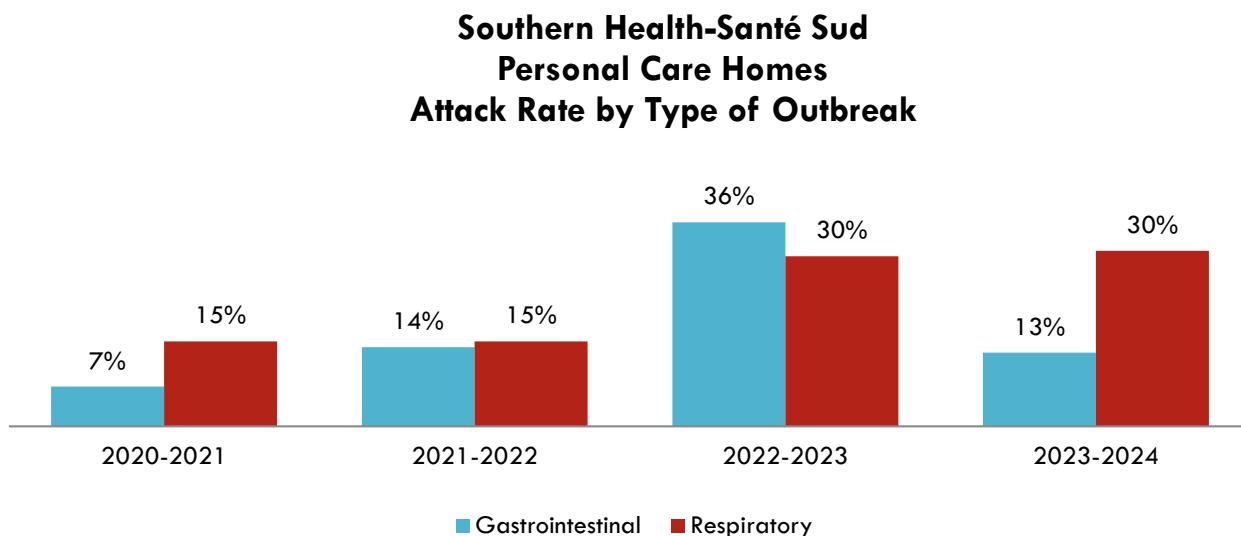
Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

Figure 8e. The percentage of reported client illness by outbreak type in Southern Health-Santé Sud AC facilities. For 2023 to 2024, the attack rate (% of clients ill) increased by 8% for respiratory outbreaks compared to the previous year and increased by 14% for gastrointestinal outbreaks.



Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

Figure 8f. The percentage of reported client illness by outbreak type in Southern Health-Santé Sud PCH facilities. For 2023 to 2024, the attack rate (% of clients ill) decreased by 13% for gastrointestinal outbreaks and remained the same at 30% for respiratory outbreaks compared to the previous year.



Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

What is Southern Health-Santé Sud doing to decrease number and duration of outbreaks?

In health care settings where the risk of transmission is high, use of additional precautions (isolation), adherence to HH and enhanced environmental cleaning are the most effective means of interrupting transmission of microorganisms.

The outbreak management protocols have been used when managing outbreaks in AC and PCH sites throughout Southern Health-Santé Sud. The Outbreak Management – Respiratory (including Influenza and COVID-19) and Gastrointestinal Policy was approved in February 2023 and follows the provincial outbreak management guidelines. Outbreak management is standardized across the region and well understood by

staff members. Early identification of outbreak situations and prompt implementation of coordinated infection control measures and treatment or prophylaxis is key to decreasing both client illness and duration of outbreak.

An environmental scan is an intensive inspection of all areas within a facility which looks for overall compliance with IP&C principles. In uncontrolled outbreak situation, Regional IP&C complete an environmental scan to guide the facility in making improvements.

Recognizing the concern that all regions should be completing a variety of IP&C audits, Regional IP&C initiated AC audits in regional centres using the IPAC Canada Audit Toolkit in January 2024, beginning with kitchenette audits. The goal of performing IP&C audits is to encourage site/unit management to take the results of audits and make positive changes which will decrease infection transmission and ultimately improve patient safety.

What are the next steps for Southern Health-Santé Sud?

Moving forward for 2024-2025, the Regional IP&C goals are:

- to continue to treat COVID-19 as an endemic state vs pandemic state
- to expand the use of IPAC Canada IP&C audits in all AC sites (i.e., Routine Practices, Additional Precautions, etc.)

EDUCATION

Education is a key component of the IP&C practitioner's role. Education regarding IP&C principles and practices is provided to Southern Health-Santé Sud staff primarily through the following venues: Regional and Facility Orientation for all new employees, Regional Clinical Orientation for all new nursing employees and senior practicum nursing students, annual IP&C education days, and ongoing in-service education. As mentioned previously, hand hygiene blitz education was rolled out for all facility/community staff.

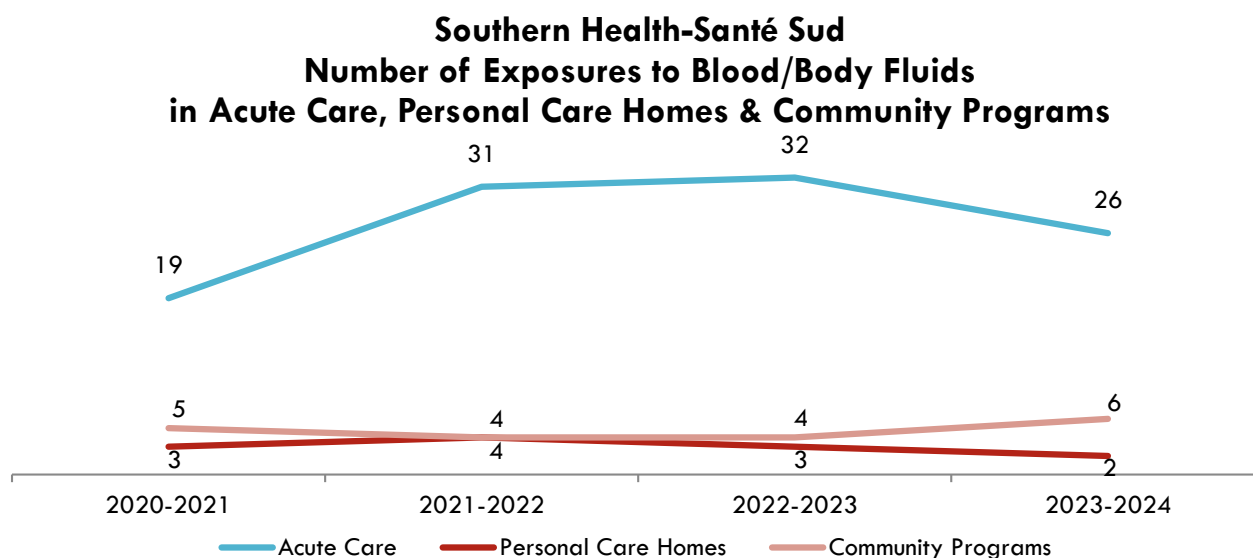
The Regional IP&C Team planned an education morning on October 24, 2023 with the following topics:

- How to Differentiate Between Infected Wounds and Colonized Wounds
- The Importance of Cleanliness in the Perioperative Environment
- PPE During the Pandemic – Procurement Challenges and Hurdles
- Annual Southern Health-Santé Sud IP&C Report Overview
- Pertussis in the SDO, Vaccine Hesitancy and Fatigue, Is COVID-19 an Ongoing Concern?

EXPOSURES TO BLOOD/BODY FLUIDS IN ACUTE CARE & PERSONAL CARE HOMES

Following initial assessment and treatment at an Emergency Department, IP&C continues to be responsible to direct the follow-up care of all occupational exposures for Southern Health-Santé Sud employees, physicians, students or volunteers as per the post-exposure prophylaxis policy.

Figure 9. The number of staff exposures to blood/body fluids in Southern Health-Santé Sud AC, PCHs and Community Programs for the past four fiscal years. In 2023-2024, the number of exposures to blood/body fluids decreased overall in the SDO from 39 to 34. A decrease in number of exposures was seen in AC and PCHs, with an increase seen in community programs.



Source: Southern Health-Santé Sud Regional Infection Prevention & Control Indicators 2023-2024

INFECTION CONTROL DURING CONSTRUCTION, RENOVATION AND MAINTENANCE

Construction, renovation and some maintenance projects in health care facilities pose a health risk to certain clients, particularly the immunosuppressed, the elderly and the very young.

Documented incidents of construction-related infections occurring in health care facilities caused by *Aspergillus*, *Legionella*, and other agents have been reported. Good planning and early implementation of preventive measures are necessary to prevent the transmission of infectious agents to vulnerable clients, health care workers and visitors during construction, renovation and maintenance projects.

Prevention of construction-related infections must include:

- a) control of dust generated during demolition and construction;
- b) prevention of dust infiltration into client care areas, laboratories, food preparation areas, and diagnostic areas; and
- c) prevention of the generation of aerosols from contaminated water sources.
- d) appropriate mitigation measures, focusing on client safety, which are necessary before construction and renovation begins, and throughout the construction process until completion.

IP&C is involved in construction, renovation and maintenance projects for the following reasons:

- To reduce the potential for HAIs related to construction, renovation and maintenance.
- To ensure client and personnel safety needs are met through implementing and maintaining IP&C measures.
- To participate as a member of the multidisciplinary team and provide IP&C construction education/advice to the team and construction workers.

Regional IP&C in Southern Health-Santé Sud have put efforts into increasing knowledge of IP&C during construction, renovation and maintenance both within our region and across MB. The following is a list of our involvement during 2023-2024:

-
- Provided IC Construction education on Infection Control Risk Assessment (ICRA), preventive measures and emergency measures for all Physical Plant staff throughout the SDO;
 - Ongoing participation on the Multidisciplinary Team (MDT) for Bethesda Community Health Dialysis project until its completion in October 2023, including site inspections and staff education;
 - Ongoing participation on the MDT for design development of the three regional capital projects;
 - Ongoing participation on Construction & Infection Control MDTs for the three regional capital projects, including site inspection;
 - Performed Environmental Scan at Ste Anne Hospital in preparation for Accreditation;
 - SH-SS IP&C Lead for the Provincial Fire & Life Safety (PFLS) projects throughout the SDO;
 - Provided IP&C leadership and advice for the Provincial Wireless Expansion projects throughout the SDO;
 - Provided IP&C leadership and advice for the Ste Anne Hospital Urology project;
 - Active participation for the Boil Water Advisory at BTHC;
 - Participated on the provincial construction document development working group;
 - Provided construction advice to ICPs across the province upon consultation;
 - Provided ongoing direction to ICPs in the SDO when dealing with construction projects at their facilities; and
 - Provided mentorship and ongoing direction to the Regional Infection IP&C Nurse - LTC and ICSAs, to assist with understanding and to provide advice/support for PCH construction projects.

MOVING FORWARD INTO 2024-2025

Southern Health-Santé Sud is committed to the following priorities for 2024-2025:

- Secure a second Regional IP&C Nurse - LTC
- Transition all PCH sites under the Regional IP&C Nurses - LTC and the six ICSAs
- Continue to monitor HH compliance with a goal of increasing the number of HH opportunities being audited across the SDO
 - Reinforce HH education regarding HandyAudit for all staff, direct care providers and those that interact with client environments through compliance feedback when auditing
 - Continue to disseminate HH reports on a regular basis
- Develop annual Inter-Rater Reliability testing for all HandyAudit HH Auditors to ensure accuracy and consistent reporting throughout the SDO
- Share the targeted HAI rates/reports with AC and PCH facilities on a regular basis and encourage site ICPs/ICSAs to analyze, investigate and develop action plans to decrease infections
- Develop the capacity and capability of the Site ICPs and ICSAs by providing current relevant information
 - Provide regular IP&C updates at team meetings
 - Provide IP&C input/recommendations to other regional programs as requested
 - Continue to provide IP&C education as needs arise
- Complete the harmonization of IP&C policies
- Further develop and integrate the IP&C program throughout Southern Health-Santé Sud
 - Policy development and review
 - Continue to provide standardized orientation/education for new and existing ICPs as needed.
- Disseminate the SSI rates in a report to each surgical centre in the region on a quarterly basis
 - Strategize with surgical team to improve SSI rates, timely prophylactic antibiotic administration and maintaining normothermia for targeted surgical procedures
- Continue to provide direction for outbreak management in a consistent way following provincial guidelines
- Continue to expand the use of IPAC Canada IP&C audits in all AC sites (i.e., Routine Practices, Additional Precautions, etc.)
- Represent IP&C through involvement in construction projects (from the planning/design phase to completion of the project) throughout Southern Health-Santé Sud facilities/programs
- Develop new contractor specific construction education, with voiceover powerpoint presentation
- Seek input from staff, service providers, volunteers, clients and families on components of the IP&C program.

Additional Attachments on HPS

- Facility Name Legend
- Infection Prevention and Control, Healthcare Associated Infection Surveillance Definitions, Acute Care and Personal Care Home – April 2023-March 2024