



northern health
the northern way of caring

Infection Prevention and Control Annual Report

2013 – 2014

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Executive Summary

The Northern Health Infection Prevention and Control (IPAC) program's annual report highlights achievements and continued challenges facing infection prevention and control practices throughout the region. The report summarizes the progress of programs and initiatives, education, hand hygiene compliance, outbreaks, and annual infection rates within Northern Health (NH) during the fiscal year 2013 – 14 (April 1, 2013 – March 31, 2014).

This fiscal year, the IPAC program has been involved in a number of projects and initiatives both provincially with Provincial Infection Control Network (PICNet), and regionally. The IPAC team members are also involved in the BC chapter of Infection Prevention and Control Canada (IPAC Canada) [formally known as CHICA], as well as individual interest groups within IPAC Canada.

Regional:

- Launched an on-line hand hygiene (HH) dashboard for managers and supervisors
- Developed a “NO GO” list for construction and equipment purchases by facility and HSSBC (Health Shared Services BC) to be reviewed by IPAC prior to purchases made
- Provided Influenza Outbreak education for both residential and acute care facilities
- Worked with UHNBC surgeon to reduce Surgical Site Infections (SSI) in breast surgery patients
- Involved in eight large construction projects: Lakes District Hospital – new build, St. John Hospital - ER, lab, outpatients renovation, Queen Charlotte City Hospital – new build, Kitimat General Hospital – ER renovation, GR Baker – pharmacy renovation, UHNBC – new High Acuity Unit, UHNBC – new Learning Center, UHNBC – demolition of Nechako building
- Disseminated, in collaboration with the Sterile Processing Coordinator, best practice standards for breast pump kit cleaning

Provincial:

- Participated in the Provincial Hand Hygiene Working Group, including three sub-groups: Communication, Evaluation and Infrastructure
- Participated in working group responsible for the development of Surveillance Protocol for Carbapenemase Producing Organisms (CPO) in British Columbia
- Contributed to the Pandemic Supply Chain Working Group
- Participated in the Provincial Reprocessing Working Group: responsible for development of best practice guidelines and the sterile processing audit tool - Sterile Processing Coordinator

National:

- Participated in the following IPAC Canada Interest Groups: Surveillance and Applied Epidemiology Interest Group , Construction and Renovation Interest Group, Residential Care Interest Group, Home and Community Interest Group

Medical Device Reprocessing Department (MDRD):

- Initiated reprocessing audits in all NH residential care sites
- Involved in best practice standards regarding UHNBC Neonatal Intensive Care Unit cleaning and reprocessing beds

Based on this year's report, the key priorities for 2014 -2015 will be:

<p>Priority 1:</p> <p>To achieve a 3% increase in hand hygiene compliance</p>	<p>Priority 2:</p> <p>To follow <i>Clostridium difficile</i> best practice guidelines re: environmental cleaning and patient care</p>	<p>Priority 3:</p> <p>To achieve a 1% reduction in Surgical Site infection rates</p>	<p>Priority 4:</p> <p>To achieve a 1% reduction in nosocomial transmission of Antibiotic Resistant Organisms</p>
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Introduction

The Northern Health IPAC program is part of the Vice President Planning, Quality, and Information Management portfolio. The program is dedicated to the prevention and reduction of healthcare associated illness in Northern British Columbia residents through a variety of strategies summarized in this annual report.

The IPAC team is comprised of a Regional Manager, an Epi-technologist, eight infection prevention and control practitioners and a Sterile Processing Coordinator. The group (including a dedicated practitioner for residential care), provides on-site and consultative infection prevention and control and sterile reprocessing expertise, to thirty five acute care facilities, residential care facilities, home and community care, assisted living facilities, Diagnostic and Treatment (D&T) and health centres.

Northern Health is geographically divided into three Health Service Delivery Areas (HSDAs) and each of these areas is represented by a multidisciplinary IPAC Committee. Committee membership includes representatives from the following groups: physicians, public health, environmental health, workplace health and safety, plant services, nursing, residential care, lab, support services and HSA's. The committees report to the NH IPAC Council, the NH Medical Advisory Committee, and the Senior Executive Team.

The IPAC program functions in accordance with international, national, and provincial guidelines and best practices across the continuum of care. The program influences practice through the following:

- Provides infection surveillance (includes Antibiotic Resistant Organisms [ARO], and Surgical Site Infection [SSI]) and disseminates data to appropriate stakeholders;
- Develops and recommends best practices, policies, and procedures;
- Involved in infection prevention and control issues relating to all construction and renovation projects within NH to ensure that IPAC Canadian standards association (CSA) standards are considered and adhered to;
- Provides education and training to healthcare providers, patients, non-medical caregivers, and visitors;
- Provides outbreak management support to all acute care facilities, residential care facilities, D&T centres, health centres, and community programs within Northern Health.

Infection Prevention and Control Team Members

Regional IPAC Manager

Deanna Hembroff

Infection Prevention and Control Practitioners

Kelsey Breault
Sylvia Eaton
Roxanne Fitzsimmons
Debora Giese
Judy Klein
Beth McAskill
Cynthia Monk
Holly Lynn Nelson
Bonnie Schurack
Monica Sephton

Coordinator Sterile Processing

Penny Brawn (since retired)

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Acute Care Facilities

Bulkley Valley District Hospital – Smithers
Chetwynd Hospital & Health Centre
Dawson Creek and District Hospital
Fort Nelson General Hospital
Fort St. John Hospital
GR Baker Memorial Hospital – Quesnel
Northern Haida Gwaii Hospital
Kitimat General Hospital
Lakes District Hospital – Burns Lake
Mackenzie and District Hospital
McBride Hospital
Mills Memorial Hospital – Terrace
Prince Rupert Regional Hospital
Queen Charlotte Islands Hospital
St. John Hospital – Vanderhoof
Stuart Lake Hospital-Fort St. James
University Hospital of Northern BC – Prince George
Wrinch Memorial Hospital – Hazelton

Assisted Living Facilities

Alward Place Seniors Assisted Living – Prince George
Gateway Lodge Assisted Living Residence – Prince George
Heritage Manor II – Fort St John
Laurier Manor – Prince George
McConnell Estates - Terrace
Nick Grosse Assisted Living Residences - Masset
Summit Assisted Living Residences – Prince Rupert

Diagnostic and Treatment Centres, Health Centres

Atlin Hospital
Fraser Lake D&T Centre
Granisle Community Health Centre
Houston Health Centre
Hudson Hope Health Centre
Stewart Health Centre
Stikine D&T Centre – Dease Lake
Tumbler Ridge D&T Centre
Valemount D&T Centre

Home and Community Care

Residential Care Facilities

Acropolis Manor – Prince Rupert
Bulkley Lodge – Smithers
Dunrovin Park Lodge – Quesnel
Gateway Lodge Residential Care – Prince George
Jubilee Lodge – Prince George
Kitimat Mountain View Lodge
Laurier Manor – Prince George
Peace Villa – Fort St. John
Parkside Care – Prince George
Rainbow Lodge – Prince George
Rotary Manor – Dawson Creek
Simon Fraser Lodge – Prince George
Stuart Nechako Manor
Terrace View Lodge
The Pines – Burns Lake

Education

The IPAC team continuously strives to provide NH staff, patients, visitors, and residents with relevant education, based on current evidence-based recommendations. This year, the team completed the task of reviewing/ revising and transferring all the policies from the IPAC manuals onto the OurNH intranet website.

Messages are communicated using various strategies with the goal to promote a culture in which infection prevention and control is integrated into all aspects of care, namely: workshops and presentations, consultations, “coffee break” sessions, and “huddles” to address patient, procedure, or unit-specific concerns to acute and residential care, support services, home health, health promotion and prevention and third party providers:

- Educational resources such as pamphlets for patients and families are updated as needed to ensure recommendations are based on current evidence-based industry standards and guidelines.
- On-line education available to NH healthcare providers via OurNH intranet website for orientation, Hand Hygiene, DST's and outbreak management is promoted
- A newsletter with pertinent information and current events ongoing within the region, as well as fun facts and stories and a 'spot light' introducing individual infection control practitioners ICPs was launched.

Education and /or consultation provided by NH IPC team this year including but not limited to:

- New Employee Orientation
- Hand Hygiene
- Reprocessing of Medical Devices
- Equipment purchases (medical and patient care equipment)
- Construction and renovation
- Influenza and Immunizations
- Tuberculosis
- Clostridium difficile
- Outbreaks: GI and Respiratory
- Routine Practices
- Transmission-based precautions
- Personal protective equipment (PPE)
- Antibiotic Resistant Organisms
- Risk assessment
- Mentorships for students
- Environmental cleaning
- N-95 FIT testing

Medical Device Reprocessing Department

Education:

Six additional staff successfully upgraded their skills for reprocessing by taking the CSA exam.

A reprocessing course took place March through May. One student found employment with Interior Health and all other students were hired by Northern Health.

Penny Brawn Sterile Processing Coordinator presented “Sterilization Best Practices and the importance of Manufacturer’s Instructions for use” to the Perioperative Registered Nurses Association of BC (PRNABC).

Surveillance

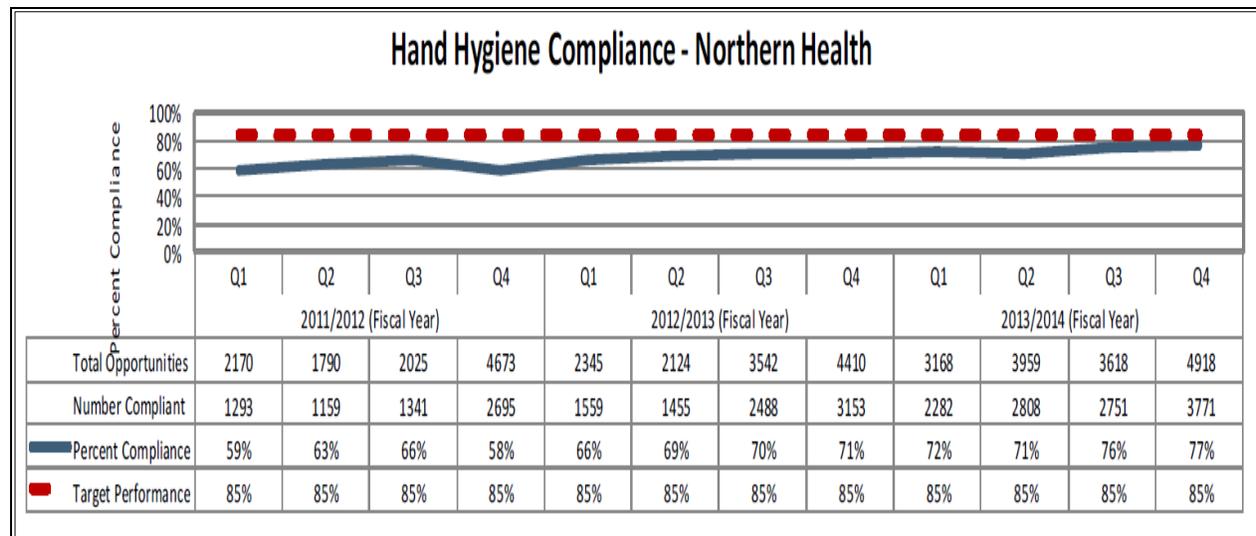
The IPAC program carries out surveillance on a number of quality and patient safety indicators. This section of the report presents information on a number of these indicators. Surveillance case definitions can be found in Appendix 1.

Hand Hygiene

Indicator	2013 – 2014 Rate	Trend*	Target
Hand Hygiene Compliance	Acute Care Facilities: 74% Residential Care Facilities: 74% Nursing Staff: 78% Physicians: 57% Clinical Support Services: 75% Other: 69%		85%

Hand hygiene (HH) with either soap and water or alcohol based hand rub is recognized as a key component in the prevention of healthcare associated infections. HH is required both before and after contact with patients and their environment. All BC Health Authorities are participating in the provincial hand hygiene program including the standardized audit process. The minimum provincial requirement is 200 observations per quarter for each facility with 25 or more beds. For facilities with fewer than 25 beds, the audit data is aggregated into NH data.

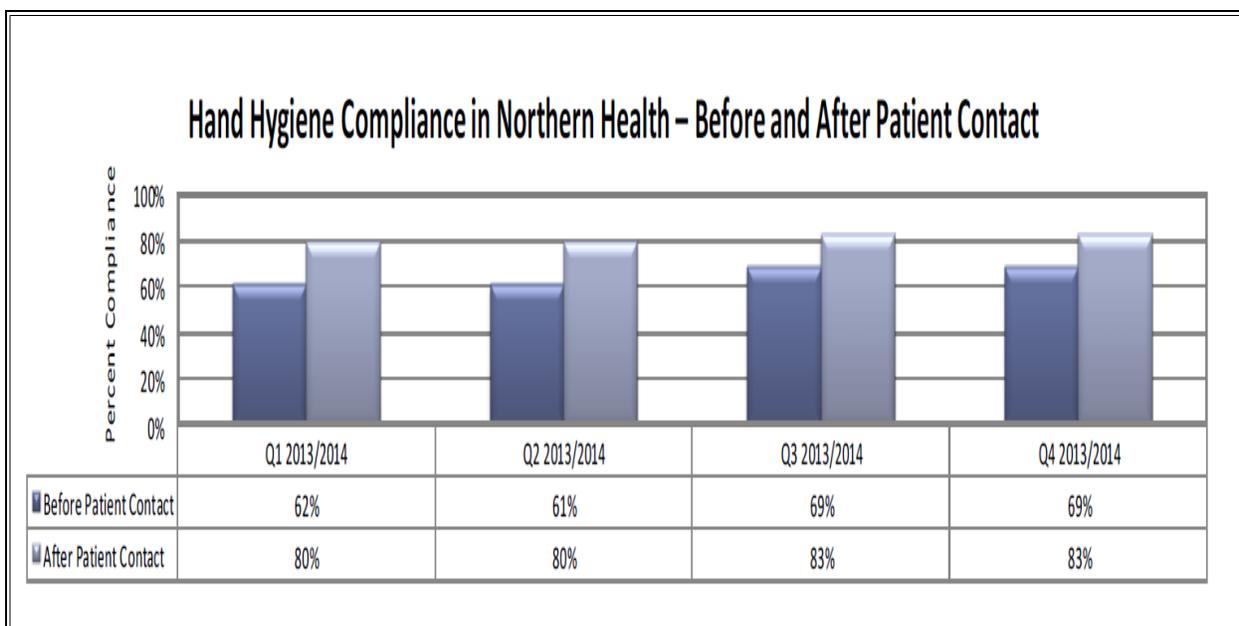
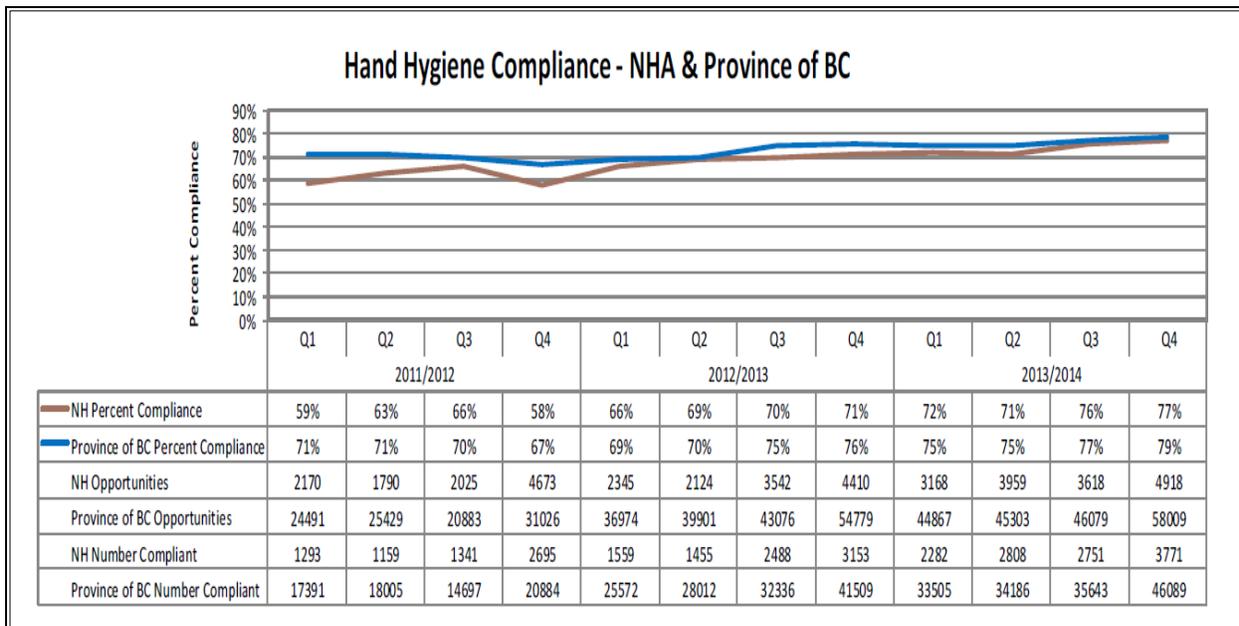
HH auditing processes were implemented in residential care facilities in 2013 – 14. Ongoing challenges within NH are recruitment of HH auditors, and maintaining consistency with auditing at both acute and residential care facilities.



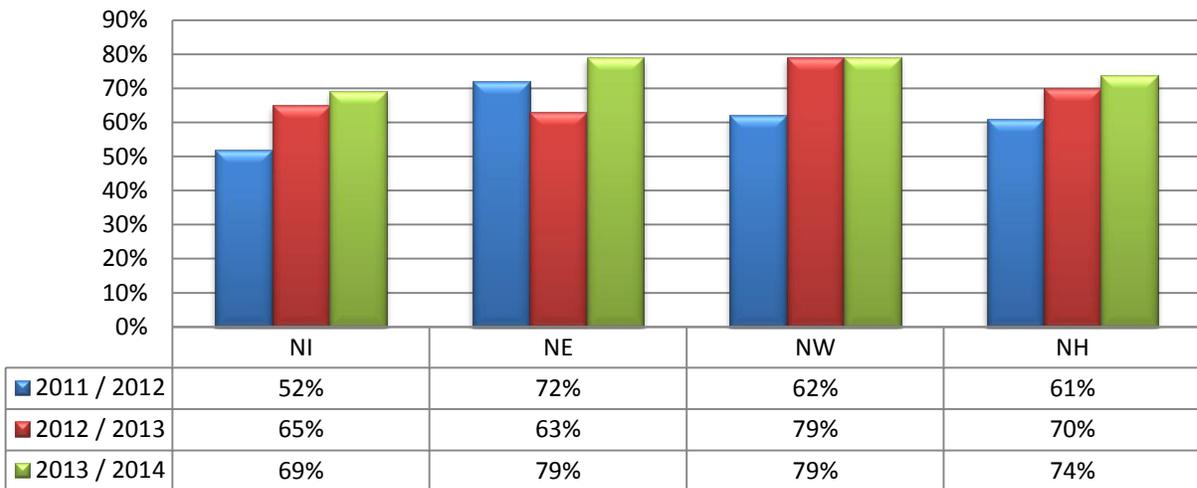
*  = improving; at least 4 consecutive data points moving towards target  = deteriorating; at least 4 consecutive data points moving away from target  = steady; fewer than 4 consecutive data points moving in either direction

HH compliance in NH is slightly lower at 74% than the province of BC rate of 77% however, “variation in audit strategy and methodology may exist between health authorities (HAs), between facilities, or even between the auditors. The comparison of percentage compliance between HAs and facilities or with other published audits results is therefore not recommended.”

PICNet BC Hand Cleaning Compliance 2013 – 2014



NH Averages - Hand Hygiene

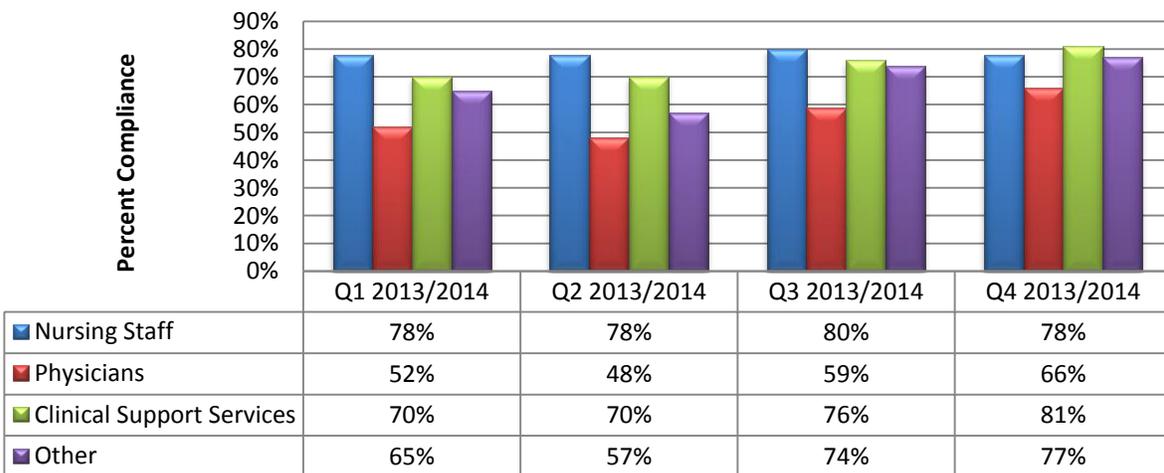


Overall in 2013-14 nursing staff had the highest HH compliance among healthcare providers. Physicians, Clinical Support Services, and Other had lower HH compliance rates; however all three healthcare provider groups have improved.

Actions taken in 2013-14 include:

- Production of an on-line HH dashboard for managers and supervisors
- Implementation of HH auditing processes in residential care facilities
- Participation in “Stop Clean Your Hands Day” and Patient Safety Week occurred in many sites
- Promotion of increased usage of AHR in residential care

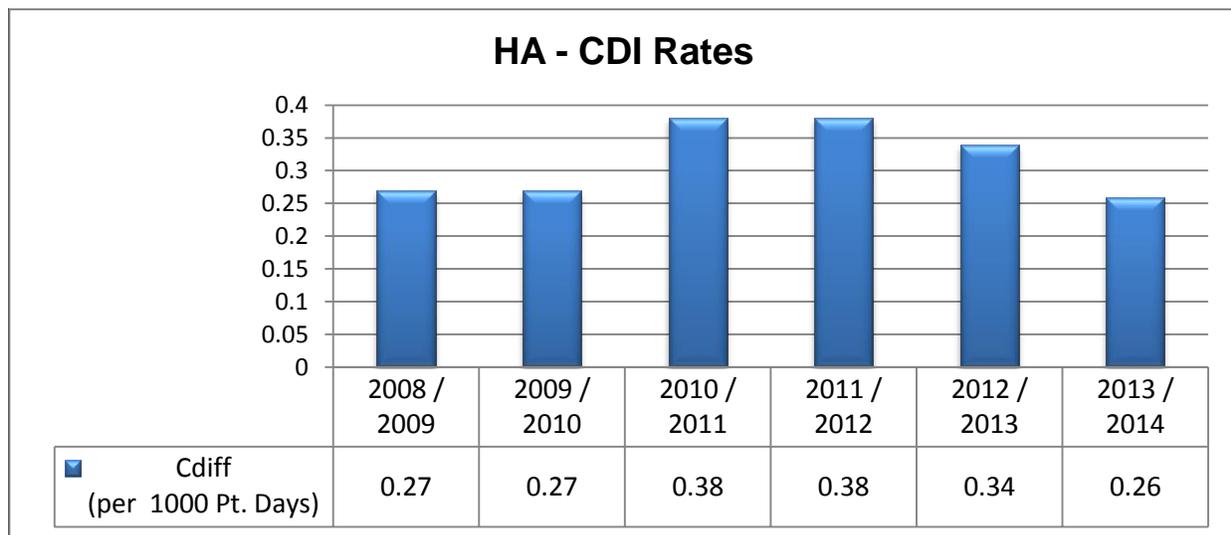
Hand Hygiene Compliance in NorthernHealth per Healthcare Provider



Clostridium difficile Infections (CDI)

Indicator	2013 – 2014 Rate	Trend*	Target
Hospital-acquired (nosocomial) CDI rates	0.26 per 1000 pt. days	↑	< 0.4 per 1000 pt. days

Clostridium difficile is a spore forming bacterium that can cause infections of the gastrointestinal system. *Clostridium difficile* infection (CDI) is one of the most common infections acquired in health care settings as the physical environment plays a significant role in transmission of CDI than any other healthcare associated infection.



The annual rate of hospital acquired *Clostridium difficile* infection (HA-CDI) is the number of new cases of CDI in NH facilities, divided by the total number of in-patient days, multiplied by 1000.

The projected 2014-15 target is a continued HA-CDI rate of < 0.4 cases per 1000 pt. days.

In comparison to the Canadian Nosocomial Infection Surveillance Program 2012 rate of 0.60 HA-CDI cases per 1000 pt. days, NH rates were lower at 0.26 per 1000 pt. days in 2013 -14. <http://www.phac-aspc.gc.ca/nois-sinp/projects/mrsa-eng.php>

Actions taken in 2013-14 include:

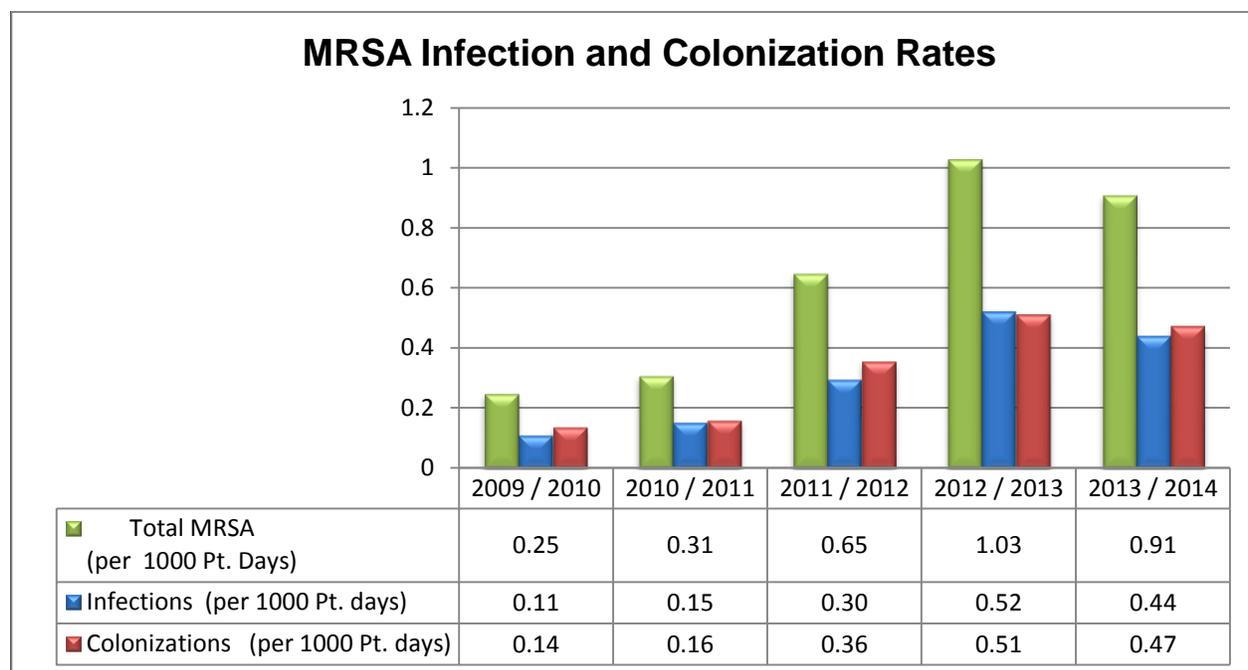
- Environmental cleaning methods changed to twice daily cleaning with sporicidal product in *C. difficile* positive rooms

* ↑ = improving; at least 4 consecutive data points moving towards target ↓ = deteriorating; at least 4 consecutive data points moving away from target → = steady; fewer than 4 consecutive data points moving in either direction

Methicillin-resistant *Staphylococcus aureus* (MRSA)

Indicator	2013 – 2014 Rate	Trend*	Target	Actual
Hospital-acquired (nosocomial) MRSA Infection & Colonization Rates	0.91 per 1000 pt. days		< 0.5 per 1000 pt. days	Infections 0.44/1000 pt. days Colonizations 0.47/1000 pt. days

Methicillin-resistant *Staphylococcus aureus* (MRSA) is a strain of *Staphylococcus aureus* resistant to a number of antibiotics such as methicillin, penicillin, and amoxicillin. MRSA is primarily spread by skin to skin contact or contact with items and surfaces contaminated by the bacteria. The principle mode of transmission in healthcare facilities is considered to be from one (colonized or infected) patient to another via the contaminated hands of healthcare providers. Patients at greatest risk of acquiring MRSA are the elderly, have chronic diseases and/or undergo invasive procedures.



The incidence rate of MRSA is the number of newly identified cases of MRSA (colonized and infected) acquired by patients as a result of their stay in a Northern Health acute care facility, divided by the total number of in-patient days, and multiplied by 1000.

*  = improving; at least 4 consecutive data points moving towards target  = deteriorating; at least 4 consecutive data points moving away from target  = steady; fewer than 4 consecutive data points moving in either direction

Northern Health MRSA rates decreased from 1.03 in 2012-13 to 0.91 in 2013-14. The projected 2014-15 target is a continual decrease to < 0.5 per 1000 pt. days.

Limitations included:

- Difficulty with accommodating patients with an ARO (s) or risk factors for AROs in appropriate single rooms continued in 2013 -14
- Many sites had increased numbers of over-capacity patients
- Many sites have limitations with storage space and difficulty separating clean versus dirty equipment storage
- Rates of hand hygiene compliance increased in 2013-14 but remain below 85% target

In comparison to the Canadian Nosocomial Infection Surveillance Program 2012 rate of 1.14 MRSA cases per 1000 pt. days, NH MRSA rates were lower at 0.91 per 1000 pt. days in 2013 -14. <http://www.phac-aspc.gc.ca/nois-sinp/projects/mrsa-eng.php>

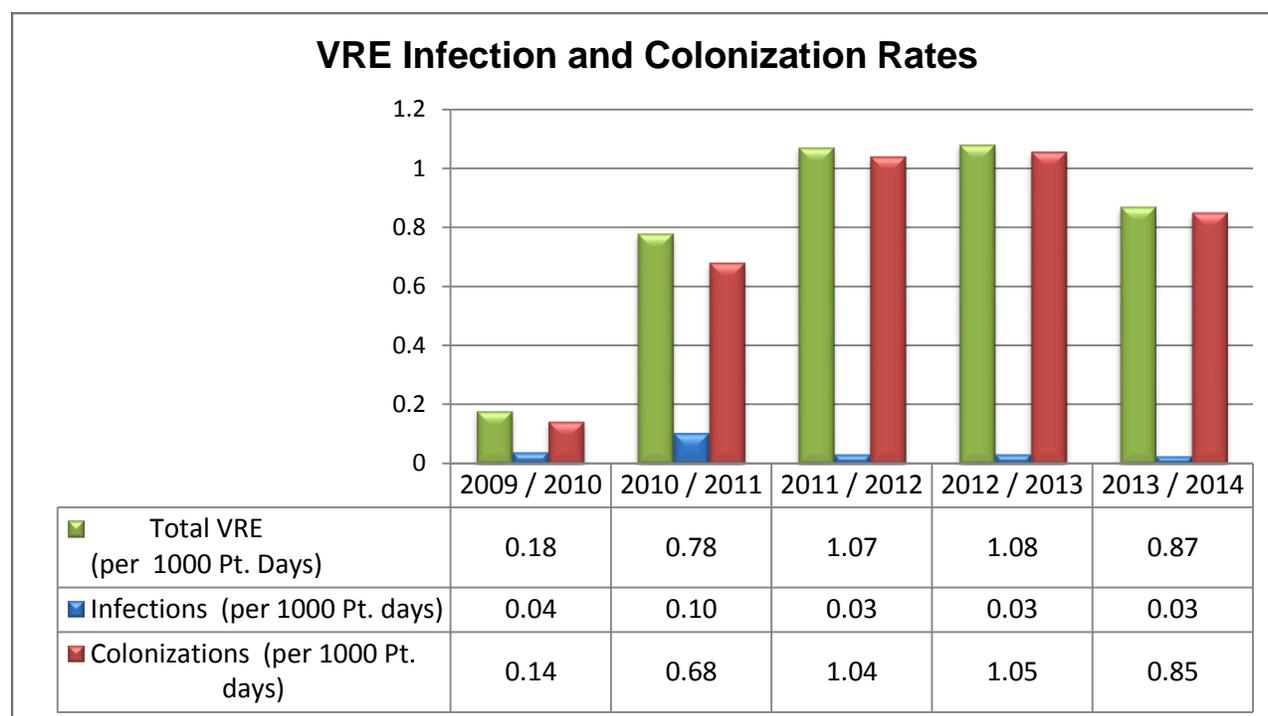
Ongoing Actions:

- An ARO screening form is completed on all acute care admissions
- All NH patients who test positive for an ARO have their health record flagged with that ARO alert
- Continued 30 day prevalence screening of all previously tested negative in-patients

Vancomycin-Resistant *Enterococci* (VRE)

Indicator	2013 – 2014 Rate	Trend *	Target	Actual
Hospital-acquired (nosocomial) VRE Infection & Colonization Rates	0.88 per 1000 pt. days	↑	< 0.8 per 1000 pt. days	Infections 0.03 /1000 pt. days Colonizations 0.85 /1000 pt. days

Vancomycin-Resistant *Enterococcus* is a strain of enterococci that has developed resistance to the antibiotic Vancomycin, making infections more difficult to treat. Most patients are colonized with VRE rather than infected. VRE, like MRSA, is most often spread via contact with contaminated hands or surfaces and equipment.



The incidence rate of Vancomycin-Resistant *Enterococci* (VRE) is the number of newly identified cases of VRE (colonized and infected) acquired by patients as a result of their stay in a Northern Health acute care facility, divided by the total number of in-patient days, and multiplied by 1000.

* ↑ = improving; at least 4 consecutive data points moving towards target ↓ = deteriorating; at least 4 consecutive data points moving away from target → = steady; fewer than 4 consecutive data points moving in either direction

Northern Health VRE rates decreased from 1.08 in 2012-13 to 0.88 in 2013-14. The projected 2014-15 target is a continual decrease to < 0.8 per 1000 pt. days.

Limitations included:

- Difficulty with accommodating patients with an ARO (s) or risk factors for AROs in appropriate single rooms continued in 2013 -14
- Many sites had increased numbers of over-capacity patients
- Many sites have limitations with storage space and difficulty separating clean versus dirty equipment storage
- Rates of hand hygiene compliance increased in 2013-14 but remain below 85% target

In comparison to the Canadian Nosocomial Infection Surveillance Program 2012 rate of 0.939 VRE cases per 1000 pt. days, NH VRE rates were lower at 0.88 per 1000 pt. days in 2013 -14. <http://www.phac-aspc.gc.ca/nois-sinp/projects/mrsa-eng.php>

Ongoing Actions:

- An ARO screening form is completed on all acute care admissions
- All NH patients who test positive for an ARO have their health record flagged with that ARO alert
- Continued 30 day prevalence screening of all previously tested negative in-patients

Management of Carbapenem Resistant Gram Negative Bacilli (CRGNB)

The ARO screening form was revised to include Carbapenem Producing Organism risk factors. The form revisions are pending laboratory procedure finalization.

In 2013 -14 no cases of CRGNB were identified in NH.

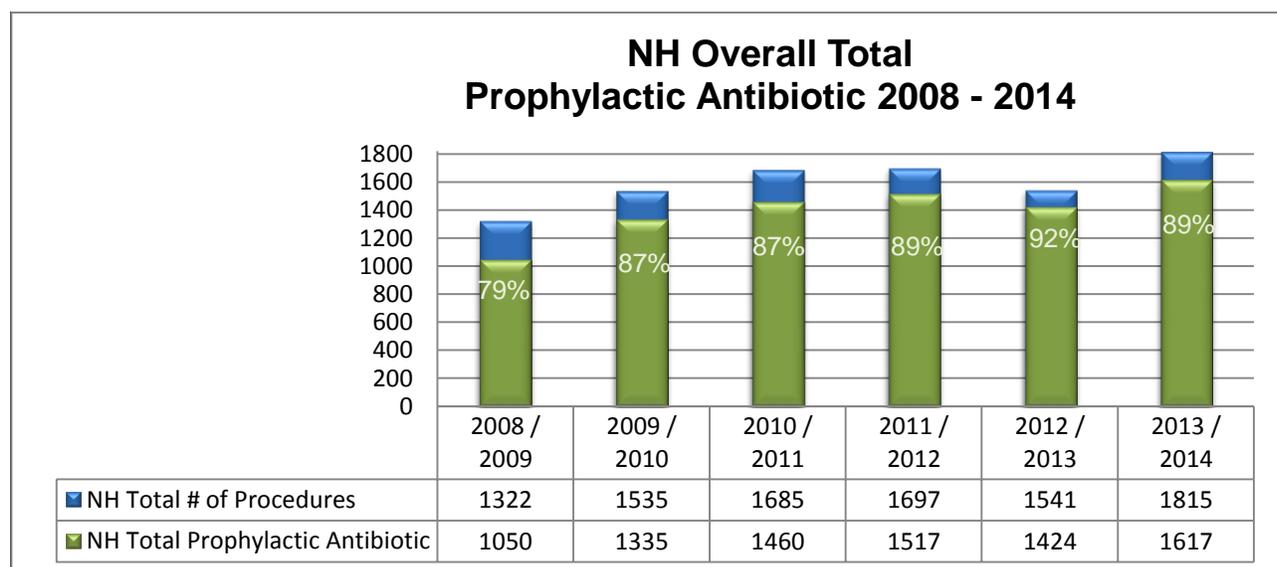
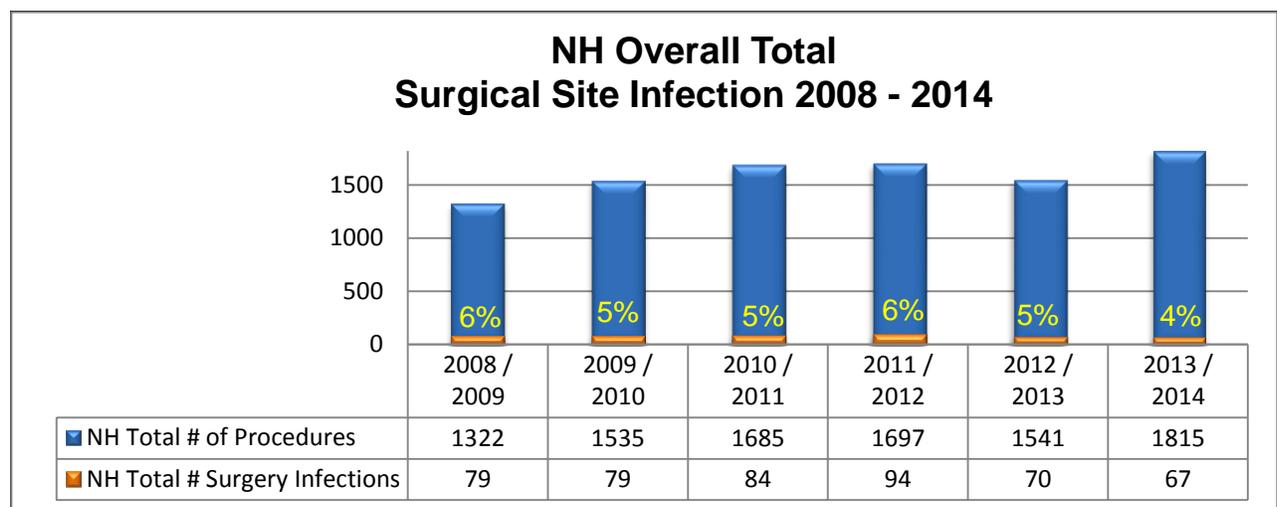
Surgical Site Infections (SSI)

Indicator	2013 – 2014 Rate	Trend *	Target
Surgical Site Infection Rates	4 per 100 procedures		< 3 per 100 procedures

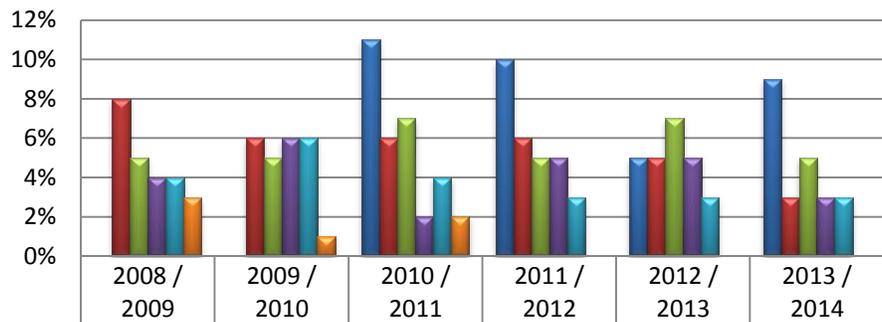
Surgical Site Infections (SSI) is the most common healthcare-associated infections as found in a prevalence study done by the CDC. SSI's remain a substantial cause of morbidity, prolonged hospitalization, and death.

Surgical procedures surveyed for infection include: Caesarean section, total abdominal hysterectomy, total primary hip replacement, total primary knee replacement, and bowel resection (not including the rectum).

Surveillance of antibiotic prophylaxis given within one hour of surgical cut time is also monitored.

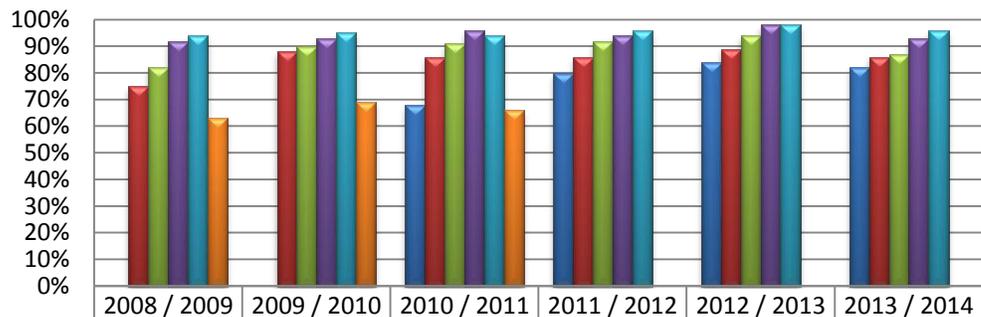


Surgical Sites Infection Rate by Percentage



■ Bowel Resections Total %			11%	10%	5%	9%
■ C-sections Total %	8%	6%	6%	6%	5%	3%
■ Abdominal Hysterectomies Total %	5%	5%	7%	5%	7%	5%
■ Total Hip Replacements Total %	4%	6%	2%	5%	5%	3%
■ Total Knee Replacements Total %	4%	6%	4%	3%	3%	3%
■ Abd / Inguinal Hernias Total %	3%	1%	2%			

Antibiotics Given within 1 Hour of Cut Time (%)



■ Bowel Resections			68%	80%	84%	82%
■ C-sections	75%	88%	86%	86%	89%	86%
■ Abdominal Hysterectomies	82%	90%	91%	92%	94%	87%
■ Total Hip Replacements	92%	93%	96%	94%	98%	93%
■ Total Knee Replacements	94%	95%	94%	96%	98%	96%
■ Abd / Inguinal Hernias	63%	69%	66%			

Northern Health SSI rates decreased from 5 per 100 procedures in 2012-13 to 4 per 100 procedures in 2013-14. The projected 2014-15 target is a continual decrease to < 3 per 100 procedures.

Rates of antibiotic prophylaxis administered within one hour of procedure cut time have decreased from 2012 – 13 in all of the surgeries followed. Difficulty in finding prophylactic antibiotic administration information on the patient chart continues to be an ongoing challenge.

Benchmark and Rate Comparison with previous years:

Procedure	Benchmark*	SSI - 2011/2012	SSI - 2012/2013	SSI - 2013/2014
Abdominal Hysterectomy	1.10-4.05 per 100 procedures	4.8 per 100 procedures	7 per 100 procedures	5 per 100 procedures
Caesarean Section	1.46-3.82 per 100 procedures	6.5 per 100 procedures	5 per 100 procedures	3 per 100 procedures
Bowel Resection	**3.99-9.47 per 100 procedures	10 per 100 procedures (denominator data <100)	5 per 100 procedures (denominator data <100)	9 per 100 procedures (denominator data < 100)
Total Primary Hip Replacement	0.67-2.40 per 100 procedures	5.0 per 100 procedures	5 per 100 procedures	3 per 100 procedures
Total Primary Knee Replacement	0.58-1.60 per 100 procedures	3.3 per 100 procedures	3 per 100 procedures	3 per 100 procedures

*Benchmark data from National Healthcare Safety Network (NHSN) report: Data Summary for 2006 through 2008, issued December 2009. Doi: 10.1016/j.ajic.2009.10.001

Actions Taken in 2013 -14:

-In response to increased rates of SSI in total hip and knee replacement surgeries at University Hospital of Northern BC, discussions occurred with the clinical practice lead (CPL) and manager to review potential sources of transmission including the dressing cart and chest ice machine (ice used for ice packs). This resulted in policies for scheduled cleaning of the dressing cart and ice chest being put into place.

-As a result of concern expressed by a surgeon at UHNBC regarding a number of SSI noted in breast surgery patients, a 3 month retrospective surveillance study was conducted. Changes made following surveillance included: Administering prophylactic antibiotics to all breast surgery patients and ensuring skin preparation solution for fine wire biopsy meets best practice guidelines by using 2% chlorhexidine with 70% alcohol. A follow-up 3 month surveillance of breast surgery patients at UHNBC was started.

Outbreak Management

Responsible Organism	# of Staff Affected	# of Patients Affected	Dates / Length of Outbreak	Facility Type
GI, unknown	0	4	Apr 5 - 12, 2013	Ft. St. John Hospital (acute)
GI, Norovirus	23	28	Dec 29, 2013 - Jan 14, 2014	Rotary Manor (complex)
ILI, unknown	0	12	Feb 24 - Mar 21, 2014	Terrace View Lodge (complex)
GI, Norovirus	3	7	Mar 23 - Mar 31, 2014	Mountain View Lodge (complex)
GI, unknown	0	7	Mar 27 - Apr 7, 2014	Terrace View Lodge (complex)

Northern Health uses a multidisciplinary approach to manage outbreaks, and includes representatives from IPAC, Workplace Health & Safety (WH&S), administration, nursing, medical staff, support services and external resources such as Public Health.

Members of the Outbreak Prevention and Management Team (OPMT) service to the affected patients and/or units and work collaboratively to ensure a timely and coordinated response to an outbreak.

The primary components of outbreak management include:

- Confirmation of the presence of an outbreak based on case definition and outbreak definition criteria
- Notification of stakeholders
- Implementation of control measures
- Ongoing communication with all stakeholders
- Staff education and support as required throughout the outbreak episode

Residential Care

Infection Prevention and Control in Residential Care can be challenging. Some of the challenges encountered in 2013 -14 were as follows:

- There was no dedicated residential care ICP in the first quarter of the year
- Most of the residential care facilities struggled with providing the necessary number of hand hygiene audits per quarter. Another challenge was recruiting auditors for the program
- Meeting the NH requirement of reprocessing all foot care instruments

Some of the successes seen in Residential Care in 2013 -14 were as follows:

- Reprocessing audits were conducted for critical and semi-critical devices. It was determined that no sites are reprocessing these devices
- Education is always appreciated and well received. In 2013-14 each site received Influenza Outbreak Management Teaching, including an information package with resource links. Other education included Stop! Clean Your Hands Day and “coffee break” sessions on a variety of topics
- There was a sharp decrease in outbreaks in Residential Care from 19 in 2012-13 to 5 in 2013-14

Medical Device Reprocessing Department (MDRD)

In 2013 ten large sites were surveyed with an overall rating of 94.82%. Rates trended downward as a result of two new managers starting into their positions at the time of the survey. Some managers still do not have a basic understanding of sterile processing. In addition, a number of sites continue to transport soiled instruments back to the decontamination department inappropriately.

Another issue, is that validated manufacturer's instructions for use/reprocessing of new equipment is not always provided to managers prior to the purchase of equipment.

Northern Health is currently working with HSSBC to resolve this. All sites will be audited again in 2014.

Facilities Audited	2011 Percentage	2012 Percentage	2013 Percentage
Bulkley Valley District Hospital – Smithers	99.50	94.44	97.14
Dawson Creek and District Hospital	97.56	87.67	92.68
Fraser Lake D&T Centre		93.04	
Fort Nelson General Hospital		94.96	
Fort St John Hospital	98.17	97.51	97.73
GR Baker Memorial Hospital - Quesnel	95.33	96.13	96.36
Kitimat General Hospital	99.51	99.56	97.33
Lakes District Hospital – Burns Lake		97.05	
Mackenzie and District Hospital		89.55	
Mill Memorial Hospital - Terrace	97.88	94.00	93.75
Prince Rupert Regional Hospital	97.73	92.54	87.04
Queen Charlotte Islands Hospital		98.07	
St John Hospital - Vanderhoof	98.52	98.64	97.51
Stewart Health Centre		99.02	
Stikine D&T Centre – Dease Lake		93.81	
University Hospital of Northern BC – Prince George	98.48	95.42	92.68
Wrinch Memorial Hospital - Hazelton	98.37	97.71	96.04

The overall regional rating in 2011 was 98.11%. The audit tool was revised in the fall of 2011, and in 2012 audit rates showed a reduction in score (95.24%) due to different questions asked in the auditing process. The 2013 audit results also showed a reduction in score (94.82%) as explained in the opening paragraph.

Residential Care Facility Audits:

Fourteen residential sites were audited across Northern Health to determine if critical and semi-critical medical devices are being reprocessed. While no sites are reprocessing, there are some concerns regarding foot care instruments. NH policy requires instruments be sterilized between each patient use. Many foot care providers across the province are struggling to meet the BC best practice guidelines that require sterilizing foot care instruments. At present, PICNet is reviewing the guidelines. Also of note in some sites, is the incorrect storage of sterile supplies in cardboard boxes, and physical space between clean and soiled areas.

Residential Care Facilities Audited	2013 Percentage
Acropolis Manor – Prince Rupert	73.33
Bulkley Lodge - Smithers	72.73
Chetwynd Hospital & Health Centre	89.47
Dunrovin Park Lodge - Quesnel	88.00
Gateway Lodge – Prince George	100
Wrinch Memorial LTC - Hazelton	83.33
Jubilee Lodge – Prince George	94.74
Mountain View Lodge - Kitimat	71.43
Peace Villa – Fort St John	100
Parkside Care – Prince George	100
Rotary Manor – Dawson Creek	78.26
Stuart Nechako Lodge - Vanderhoof	75.00
Terrace View Lodge	91.67
The Pines – Burns Lake	84.62

Endoscopy Competencies:

Senior administration had requested an endoscope competency for all staff reprocessing endoscopes. This was completed with no areas of concern found.

Capital Equipment Changes:

Both Mills Memorial Hospital (MMH) and Prince Rupert Regional Hospital (PRRH) were successful in their purchase of a low temperature sterilizer. MMH replaced their old Ethylene Oxide Sterilizer which was removed from service, and PRRH was replacing another different type of low temperature sterilizer. The new machines are both located in Sterile Processing and functioning well.

Accreditation

Accreditation 2014:

Based on the reprocessing self-assessment, two red flags were noted; “How does the organization manage reprocessing services contracted to external providers” and “Do we maintain a bank of neuro-surgical and ortho-spine instruments?”

NH does not contract to any external providers, and any patients requiring procedures for undiagnosed dementia will be transferred outside of NH. The majority of standards were met – three Required Organizational Practices (ROPS) and nine high priority items require follow-up as a result of the Accreditation Canada Site visit.

Appendix 1 – Surveillance Case Definitions

Clostridium *difficile* infection (CDI):

A diagnosis of CDI applies to a person with:

- Presence of diarrhea (e.g. three liquid or loose stools within a 24 hour period) or toxic megacolon without other known etiology, and laboratory confirmation of the presence of *C. difficile* toxin A and or B (positive toxin or culture with evidence of toxin production or detection of toxin genes)
- Diagnosis of typical pseudo-membranes or sigmoidoscopy or colonoscopy or
- Histological/pathological diagnosis of CDI with or without diarrhea

A CDI case is considered hospital acquired when:

- Patient develops symptoms in hospital equal to or greater than 72 hours after admission; or
- Symptoms occur in a patient that has been hospitalized or discharged within the previous 4 weeks, and the patient is not in a residential care facility

Antibiotic Resistant Organism (ARO) Case Definition:

An ARO case is defined as meeting ALL of the following criteria:

- Laboratory identification of an ARO;
- Patient must be admitted to an acute care facility
- ARO must be newly identified from the specimen collected at the time of hospital admission or during hospitalization
- Patient must have no known history of either infection or colonization with an ARO in any BC acute care facilities

This includes:

- ARO identified for the first time during hospital admission
- ARO newly identified in the emergency dept. and then admitted to your acute care facility;
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This does not include:

- ARO cases previously identified by NH or other BC acute care facilities
- ARO cases identified in the ER or outpatient clinics but are not subsequently admitted
- ARO cases re-admitted

An ARO case is considered hospital acquired based on the following criteria:

- Length of time in acute care facility is >48 hours prior to ARO identification
- Prior healthcare facility admission >24 hours within the previous 12 months
- Prior history of chemotherapy, dialysis, or surgery in healthcare facility within the previous 12 months

- Indwelling catheter or other medical device (excluding foley catheters and peripheral IV's) at time of admission which was installed at your facility

Surgical Site Infection:

Surgical procedures surveyed for infection include: caesarean sections, total abdominal hysterectomies, total primary hip and knee replacements, and bowel resections that do not involve the rectum.