



northern health

the northern way of caring

Annual Infection Control Report

2010 - 2011



Table of Contents

| | |
|--|----|
| TABLE OF CONTENTS | 2 |
| EXECUTIVE SUMMARY | 3 |
| INTRODUCTION | 5 |
| INFECTION PREVENTION AND CONTROL PROGRAM | 5 |
| ACKNOWLEDGEMENTS | 5 |
| INFECTION PREVENTION AND CONTROL TEAM MEMBERS..... | 7 |
| CONTACT INFORMATION..... | 10 |
| HOSPITAL ASSOCIATED INFECTION (HAI) INDICATORS..... | 11 |
| 1. HAND HYGIENE COMPLIANCE RATE | 11 |
| 2. <i>CLOSTRIDIUM DIFFICILE</i> INFECTIONS (CDI) INCIDENCE RATE..... | 15 |
| 3. METHICILLIN-RESISTANT <i>STAPHYLOCOCCUS AUREUS</i> (MRSA) INCIDENCE RATE..... | 19 |
| 4. VANCOMYCIN-RESISTANT <i>ENTEROCOCCI</i> (VRE) INCIDENCE RATE | 22 |
| 5. SURGICAL SITE INFECTION (SSI) INCIDENCE RATE..... | 25 |
| OUTBREAK MANAGEMENT | 28 |
| EDUCATION..... | 33 |
| PROJECTS & INITIATIVES..... | 36 |
| STERILE PROCESSING DEPARTMENT..... | 37 |
| TERMINOLOGY & ABBREVIATIONS..... | 39 |
| APPENDICES | 41 |

Executive Summary

The annual report of the Northern Health Infection Prevention & Control Program affords the opportunity to highlight infection prevention and control activities throughout the Northern Health Authority, as well as illustrate the extensive and diverse scope of the Infection Prevention & Control Program.

Healthcare Associated Infections (HAIs) presented in this report include:

Methicillin-Resistant Staphylococcus aureus (MRSA)

Trends varied dependant on the type of MRSA seen, with incidence of Healthcare-Associated (HA) MRSA having decreased from 0.07 (09/10) to 0.01 per 1000 patient days (10/11), while incidence of Community-Associated (CA) MRSA increased from 0.19 (09/10) to 0.30 per 1000 patient days (10/11).

Vancomycin-Resistant Enterococcus (VRE)

An increase in incidence of VRE was seen in 2010/2011, compared to the previous year (from 0.18 per 1000 patient days in 2009/2010, to 0.78 per 1000 patient days in 2010/2011).

Clostridium *difficile* Infection (CDI)

While Northern Health saw a 40% increase in CDI rates in 2010/2011 (0.38 per 1000 patient days), the NH incident rate remains below the benchmark (0.6 per 1000 patient days) as well as below provincial and national CDI rates.

Surgical Site Infection (SSI)

Trends varied dependant on the type of procedure performed, with SSI rates for total primary hip replacements decreasing significantly, and total primary knee replacements and caesarean sections both having minor decreases in SSI rates. Inguinal and abdominal hernia procedures saw a minor increase (prior to the discontinuation of surveillance for these procedures), and SSI rates for abdominal hysterectomies almost doubled. Comparative rates for bowel resections in NH are not yet available; however the NH rate for these procedures is higher than the benchmark.

Rates of antibiotic prophylaxis administration within one hour of procedure cut time have essentially remained stable when compared to 2009/2010 rates.

All outbreaks of communicable disease throughout NH during 2010-2011

Northern Health experienced thirteen outbreaks in 2010/2011: eleven were due to gastrointestinal infections (ten were confirmed Norovirus, one was an undetermined organism), and the remaining two were outbreaks of scabies.

In addition, this report includes a summary of the newly implemented hand hygiene action plan, the status of the NH Sterile Processing Department and the various projects undertaken by the Infection Prevention & Control Program.

Infection Prevention & Control Program achievements in 2010/2011 include:

- The development of the Hand Hygiene Action Plan;
- Eight NH acute care sites with a designated Infection Prevention & Control Practitioner (IPCP), full or part time, and an additional IPCP with an emphasized focus on Complex Care;
- The continuing development of a diverse portfolio of education material, ensuring that the widest possible range of learning needs are met;
- Evidence-based surveillance programs, informed by provincial, national and international guidelines, applied consistently across NH;
- The inclusion of IPCPs in healthcare facility construction projects, from initial stages of conception and design, and on throughout development and building.

Sterile Processing Department (SPD) achievements in 2010/2011 include:

- Extensive writing and revising of SPD policies and procedures, 117 documents now available on iPORTAL site for NH staff;
- The provision of extensive education opportunities for SPD staff, including SPD full certification Sterile Technician Program at the College of New Caledonia (CNC) and Vancouver Community College (VCC);
- Provincial audit of NH sites with Operating Rooms (completed 2010).

Future directions of the NH Infection Prevention & Control Program:

- The continued implementation of the Hand Hygiene Action Plan, building toward a holistic and sustainable program, addressing every aspect of hand hygiene necessary to ensure the best possible environment for client care;
- The development of accessible resources for a diverse group of staff, particularly tools to be used during Infection Prevention & Control challenges (e.g. outbreaks), in order to best facilitate staff capacity for addressing these challenges efficiently and effectively;
- The conversion of Infection Prevention & Control policies and procedures from the previous manual format to independent DSTs available on iPORTAL.

Based on this year's report, the key priorities for next year will be:

Priority 1:

To achieve a 15% increase in Hand Hygiene Compliance (baseline 60%)

Priority 2:

To achieve a 5% reduction in nosocomial infection rates in Northern Health

Priority 3:

To increase the administration of pre-surgical prophylactic antibiotic within one hour by 5%

Priority 4:

To be seen as and utilized throughout NH as a communication conduit for IDC.

Introduction

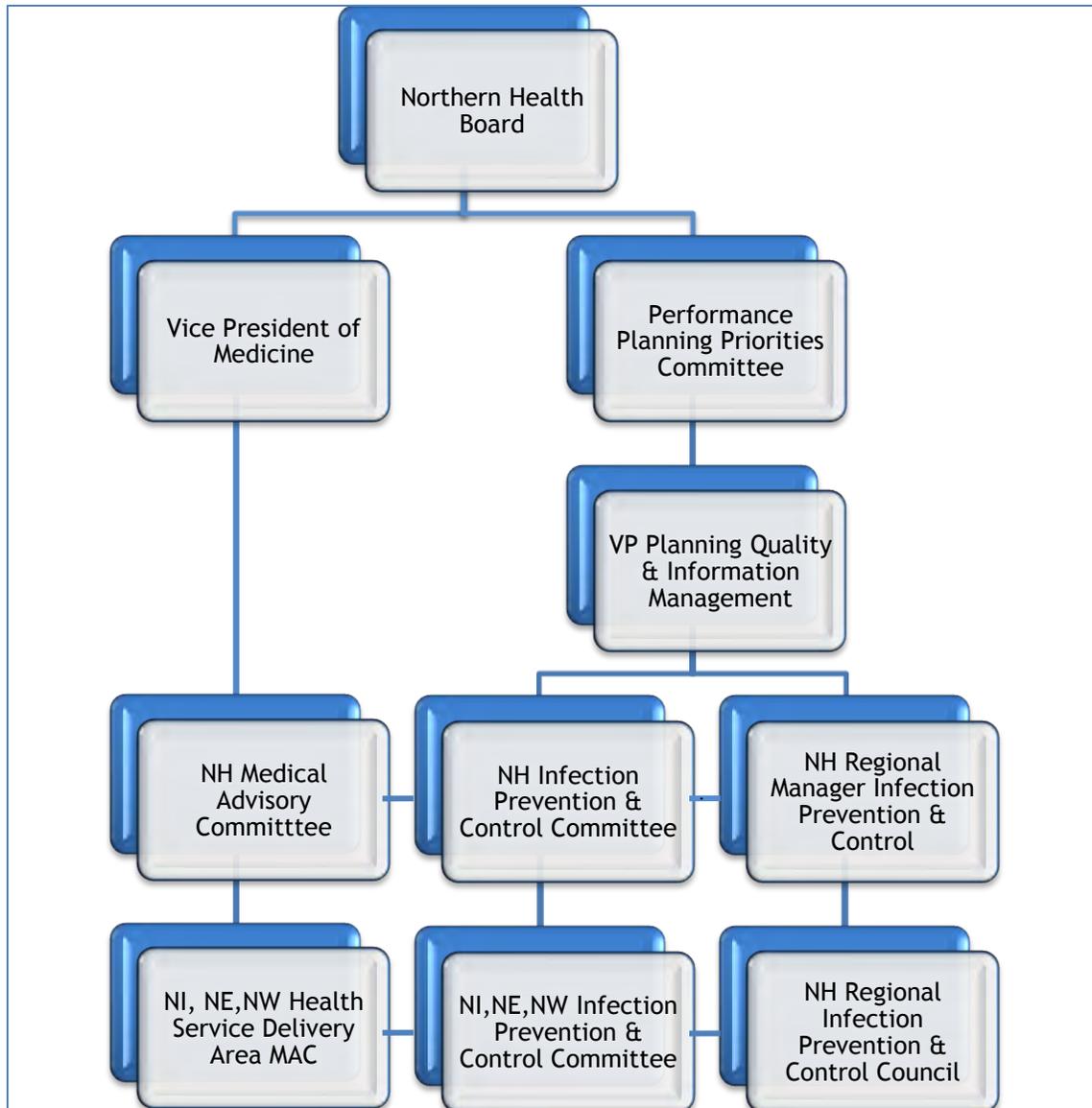
Infection Prevention and Control Program

Northern Health Infection Prevention and Control is a region wide health program dedicated to the prevention and reduction of healthcare associated illnesses in Northern British Columbia residents. The program acts as a quality and safety program within Northern Health. Infection surveillance, outbreak management and education for staff, visitors and clients are cornerstones to the success of the Infection Prevention & Control Program throughout the Northern Region. The Infection Prevention & Control Program incorporates evidence - based best practices when developing and implementing policies and decisions with stakeholders within Northern Health.

The Infection Prevention & Control team is composed of a Regional Manager, eight infection control practitioners and an Epi-technologist. The group provides onsite Infection Prevention & Control expertise to eight Acute Care facilities and a dedicated IPCP for Complex Care. The Infection Prevention & Control group provides consultation to over thirty-nine Complex Care facilities, Diagnostic & Treatment Centres and Residential Living Centers in a wide geographical area of Northern British Columbia covering Haida Gwaii to Dawson Creek and as far north as Fort Nelson. The program is further complemented by a Regional Coordinator for Sterile Processing whose role is to implement and monitor quality assurance processes and education of staff in Sterile Processing Departments across the region.

Northern Health is geographically divided into three Health Service Delivery Areas and each of these areas is represented by a multidisciplinary Infection Prevention and Control Committee. These committees report to the Northern Health Infection Prevention and Control Council. Any changes to existing policies and practices are forwarded through the committees for review and discussion so as to make the best possible decisions for Northern Health patients, staff and visitors.

The following organizational chart represents the reporting structure of the Infection Prevention & Control Program within NH:



Acknowledgements

The NH Infection Prevention & Control Team would like to acknowledge the continued dedication of the front line hospital staff that has helped facilitate continuous quality improvements to the Infection Prevention & Control Program within Northern Health. The ongoing commitment of the Medical Advisory Committees and the Hospital Site Administrators has ensured the success of the program in the prevention of Healthcare Associated Infections (HAIs) throughout Northern Health.

Infection Prevention and Control Team Members

Regional IPCP Manager

Deanna Hembroff

Infection Prevention & Control

Practitioners

Beth McAskill
Bonnie Schurack
Debora Giese
Debra Foster
Frances Beswick
Holly Lynn Nelson
Judy Klein
Monica Sephton
Sylvia Eaton

Coordinator Sterile Processing

Penny Brawn

Sites:

Atlin Hospital
Bulkley Valley District Hospital -
Smithers
Chetwynd General Hospital
Dawson Creek & District Hospital
Fort Nelson General Hospital
Fort St. John Regional Hospital
G.R. Baker Memorial Hospital - Quesnel
Kitimat General Hospital
Lakes District Hospital - Burns Lake
Mackenzie and District Hospital
Masset Hospital
McBride Hospital
Mills Memorial Hospital-Terrace
Prince Rupert Regional Hospital
Queen Charlotte Islands Hospital
St. John Hospital - Vanderhoof
Stuart Lake Hospital
University Hospital Northern BC-UHNBC
Wrinch Memorial Hospital - Hazelton

Complex Care Facilities

Health Centers

Diagnostic & Treatment (D&T) Centres

Residential Care Facilities

Acropolis Manor - Prince Rupert
Alward Place Seniors Assisted
Baker Lodge - Quesnel
Bulkley Lodge -Smithers
Dunrovin Park Lodge-Quesnel
Fraser Lake D &T Centre
Gateway Lodge -Prince George
Granisle Community Health Center
Home and Community Care
Houston Health Center
Hudson Hope Health Center
Jubilee Lodge - Prince George
Kitimat Multi Level Care Unit
Laurier Manor
North Peace Care Center
Parkside Care - Prince George
Peace River Haven -Pouce Coupe
Rotary Manor - Dawson Creek
Stewart Health Center
Stikine D&T Center
Stuart Nechako Manor
Terrace View Lodge
The Pines
Tumbler Ridge D&T Center
Valemount D&T Center

Infection Prevention and Control Committees

Northern Health Regional Infection Prevention and Control Committee

Dr. David Bowering, Chief MHO
Dr. Ronald Chapman, MHO NWHSDA
Dr. Charl Badenhorst, MHO NEHSDA
Dr. Willem Osei, MHO NIHSDA
Dr. Randall Dumont, Pathologist UHNBC
Dr. Kamran Azar, Pathologist NEHSDA
Dr. Abuobeida Hamour, Internal Medicine and Infectious Disease
Angela DeSmit, HSA North Peace NEHSDA
Deanna Hembroff, Regional Manager Infection Prevention and Control
Frank Talarico, Director Workplace Health and Safety Integrated Services
Fraser Bell, VP Planning, Quality and Information
Joanne Archer, Education/Consultant Provincial Infection Control Network
Lois Barney, Regional Director Support Services
Lynn MacDonald, Manager Workplace Health and Safety
Mary Margaret Proudfoot, Regional Manager Communicable Diseases
Mike Hickey, Director Facilities Management and Support Services
Penny Brawn, Regional Coordinator Sterile Processing
Ruby Fraser, Regional Director Quality and Risk Management

Northeast HSDA Infection Prevention and Control Committee

Dr. Charl Badenhorst, MHO NEHSDA
Dr. Kamran Azar, Pathologist
Angela DeSmit, HSA North Peace NEHSDA
Barb Schuerkamp, Head Nurse Tumbler Ridge
Betty Asher, Nurse Manager Fort Nelson
Catherine Guy, Employee Health Advisor
Cheryl Danchuk, Manager of Support Services
Christine Morey, Health Services Administrator
Dave Callahan, Residential Care Program Manager
Deanna Hembroff, Regional Manager Infection Prevention and Control
Elaine Washington, Residential Program Manager
Frances Beswick, IPCP Dawson Creek
Harry Gelowitz, NE Manager Support Services
Judy Klein, IPCP Fort St. John Hospital
Kathy Peters, DOC Fort St. John Hospital
Lisette Vienneau, NE Regional Laboratory Technologist
Lynn MacDonald, Manager Workplace Health and Safety
Ophelia Spencer, DOC Dawson Creek
Patricia Emery, Public Health Nursing Manager Fort St. John
Penny Brawn, Regional Coordinator Sterile Processing
Rick Bruce, Site Manager Chetwynd
Roger Lythall, Plant Services Fort St. John Hospital
Sarah MacDougall, Environmental Health Officer

Northern Interior HSDA Infection Prevention and Control Committee

Dr. Abuobeida Hamour, Internal Medicine and Infectious Disease
Dr. David Nelson, Orthopaedic Surgeon
Dr. Randall Dumont, Pathologist UHNBC
Dr. Richard Raymond, UHNBC Medical Director/Chief of Staff
Dr. William Abelson, Paediatrician UHNBC
Dr. William Osei, Medical Health Officer
Adrea Rusnak, HSA Valemount Community Health
Andrew Aucoin, Manager Housekeeping and Laundry Services
April Hughes, HSA St. John Hospital Vanderhoof
Arlene Crawford, Care Coordinator Jubilee Lodge
Barb Crook, HSA Mackenzie
Belinda Maidment, Manager Patient Care Services
Bill Carlson, Manager Plant Services UHNBC
Bonnie Schurack, IPCP/Regional Epi -Tech UHNBC
Catherine Guy, Employee Health Advisor
Cathy Antoniazzi, Clinical Practice Leader UHNBC
Carolyn Bouchard, PHN Manager Communicable Disease Team
Dawn Gauthier, Head Nurse Fort St James
Deanna Hembroff, Regional Manager Infection Prevention and Control
Heather Floris, Head Nurse Acute Care and Emergency Vanderhoof
Holly Nelson, IPCP GR Baker Hospital
Jan Trippel, Manager, Surgical Services UHNBC
Jaret Clay, Care Program Manager
Karen Desormeau, Registered Nurse McBride
Lana Armstrong, Clinical Standardization
Lois Barney, Director, Support Services
Loretta Jackson, Residential Care Program Manager
Marie Hunter, Site Manager Lakes District Hospital
Monica Sephton, IPCP Residential & Home and Community Care
Paula Tait, Environmental Health Officer
Penny Brawn, Regional Coordinator Sterile Processing
Sylvia Eaton, IPCP UHNBC
Vicky Rensby, Home & Community Care Manager
Virginia Schneider, Community Services Manager

Northwest HSDA Infection Prevention and Control Committee

Anna Harrison, Charge Nurse BVDH

Beth McAskill, IPCP BVDH

Bruce Nicholls, Maintenance Supervisor MMH

Catherine Guy, Employee Health Advisor

Deanna Hembroff, Regional Manager, Infection Prevention and Control

Debbie Foster, IPCP PRRH

Debora Giese, IPCP MMH

Edna McLellan, NW Public Health Nurse

Edwin Empinado, Nurse KGH

Helen McMillan, Safety Advisor

Jennifer Hogan, NW Safety Advisor

Linda McMynn, NW Manager Support Services

Lori McWilliams, NW HSDA Regional Laboratory Technologist

Lorna Ross, Housekeeping Services QCI

Lynn MacDonald, Manager Workplace Health and Safety

Marnie Matthews, Charge Nurse Surgical Services MMH

Penny Brawn, Regional Coordinator Sterile Processing

Robyn Knox, Section Head Biochemistry/Microbiology PRRH

Sheila Nelson, Nurse Supervisor QCI

Dr. Willem Lombard, General Surgeon KGH

Contact Information

Deanna Hembroff, Regional Manager Infection Prevention and Control

Deanna.hembroff@northernhealth.ca

Prince Rupert Regional Hospital

Ph.250-622-6247

Fx.250-622-6522

Healthcare Associated Infection (HAI) Indicators

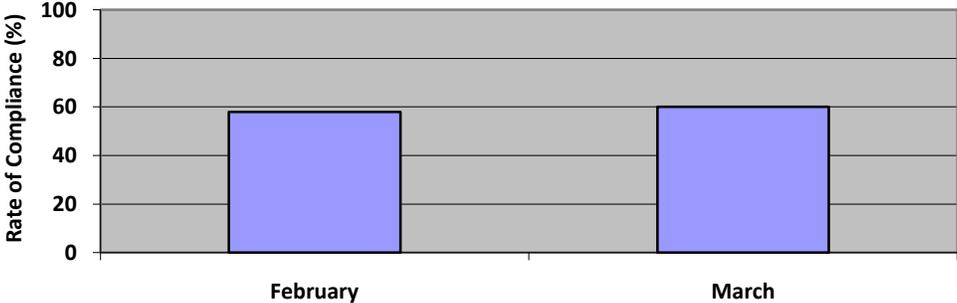
1. Hand Hygiene Compliance

| | | |
|-------------|----------------|----------------------------|
| Trend* ➔ | Target 100% | Actual** 60% (Baseline) |
|-------------|----------------|----------------------------|

**Data collection began February 2011

Optimal hand hygiene in healthcare facilities has been recognized as being of primary importance in the prevention of Healthcare Associated Infections. In 2010-2011, Northern Health (NH) built, in collaboration with the Provincial Hand Hygiene Working Group (PHHWG), the Northern Health Hand Hygiene Action Plan. The NH Hand Hygiene Action Plan detailed a comprehensive, staged plan to introduce multi-tiered programming of hand hygiene policy, education, promotion and evaluation, with the ultimate goal of achieving optimal hand hygiene practices across NH.

NH Hand Hygiene Compliance 2011



What is being measured?

Hand Hygiene (HH) rates are based on compliance with Northern Health Hand Hygiene policy (Appendix A). Compliance with Hand Hygiene is defined as a percentage of the number of compliant Hand Hygiene events over the total number of Hand Hygiene opportunities and is expressed in the following formula:

$$\text{Compliance (\%)} = \frac{\text{Compliant HH events}}{\text{Total HH opportunities}} \times 100$$

* **↑** = 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

Methodology: How was the data collected?

All healthcare providers are expected to perform hand hygiene before and after touching any client and/or client environment. In addition, all healthcare providers are expected to perform hand hygiene before donning and after doffing gloves, before and after handling medications and food, and after using the bathroom.

A case definition of having performed correct hand hygiene is, at appropriate moments (as noted above), either:

- Using appropriate Alcohol-Based Hand Rub (ABHR) - choosing an ABHR with at least 60% alcohol content, using a quarter-sized amount of ABHR on hands, rubbing for at least 10-15 seconds, until ABHR has completely dried, prior to contact with the client and/or client's environment.
- Washing hands and wrists with soap and water for 40-60 seconds, ensuring that areas inclined to harbour pathogens (i.e. cuticles, between fingers) are scrubbed effectively, drying hands with paper towels and turning off faucet with paper towel to avoid re-contamination.

Data collection is conducted through direct observation (the gold standard methodology in determining Hand Hygiene compliance, according to the World Health Organization). HH compliance data collection has been initiated by Infection Prevention & Control Practitioners (or, in smaller sites without IPCP present on-site, managerial representatives). The intention is, by September 30, 2011, to have trained facility staff from a variety of departments conducting the audits themselves as part of their general duties. The IPCP will continue to collect the completed audit forms and enter the data into the HH database. It is believed that integrating HH audits into regular staff duties will increase staff engagement in the data collection process and also serve to increase staff awareness of optimal HH practices.

Hand Hygiene audit forms and audit guidelines designed for, and standard throughout the province of British Columbia, are used in Northern Health for HH compliance data collection (Appendix B & C). Category of staff, contact type (before or after) and whether or not Hand Hygiene is completed for each opportunity are listed on the form, and each form provides space for the recording of 20 opportunities. Each audit should take no more than 30 minutes to complete (aspiring to the ideal of 20 opportunities observed and recorded in that time, with as close to equal numbers of before and after opportunities documented as possible).

Data is entered into a Northern Health shared database. All Infection Prevention & Control Practitioners are responsible for entering hand hygiene audit data into the database, and a single IPCP is responsible for compiling the data on both a monthly (by site) and quarterly (across Northern Health as an overall HH compliance rate, as well as broken down by facility and by healthcare provider category) and providing that data to the rest of the IPCPs for dissemination throughout their respective sites. Quarterly data is also provided to PICNet for inclusion in provincial HH compliance statistics.

What is the Annual Target the organization seeks to reach?

Northern Health's ultimate hand hygiene compliance target, as outlined in the Hand Hygiene Policy, is 100% hand hygiene compliance in non-emergency situations. However, in regards to annual target and in keeping with Provincial Hand Hygiene Working Group recommendations, NH intends to increase hand hygiene compliance by 15% each year for the next three years (in the first year, this means an increase from 60% to 69% hand hygiene compliance).

Benchmark & Comparators: How does the rate compare to other areas?

Internationally, according to the World Health Organization's *Guidelines on Hand Hygiene in Health Care: a Summary* (2009), "Adherence of [Healthcare providers] to recommended hand hygiene procedures has been reported as variable, with mean baseline rates ranging from 5% to 89% and an overall average of 38.7%". Closer to home, Vancouver Island Health Authority (VIHA) hand hygiene rates for 2010 were 44%*. Northern Health's baseline Hand Hygiene compliance rate of 60% may be above the average found by the World Health Organization, but certainly affords a great deal of room for improvement.

(*based on VIHA "would be" hand hygiene rates, were the healthcare providers not wearing watches, stone rings, nail art or long nails. As NH does not currently observe for those variables, the "would be" hand hygiene rates from VIHA is appropriate for comparison).

Trend: What does the data show?

As data collection has only recently begun (February 2011), no internal measures are available for comparison and/or trend analysis.

Limitations: What may have affected the quality of this measure?

Clear and consistent methodology, observer training and periodic inter-rater reliability testing will ensure that the data collected minimizes observational limitations. These limitations include:

- The potential influence an observer may have on Healthcare Provider behaviour (The Hawthorne Effect);
- Variation in an observer's classification over time (intra-observer variability);
- Variation between observer classifications (inter-observer variability).

What actions have been taken over the last year?

The development and implementation of the NH Hand Hygiene Action Plan have all occurred in the last year. Actions include:

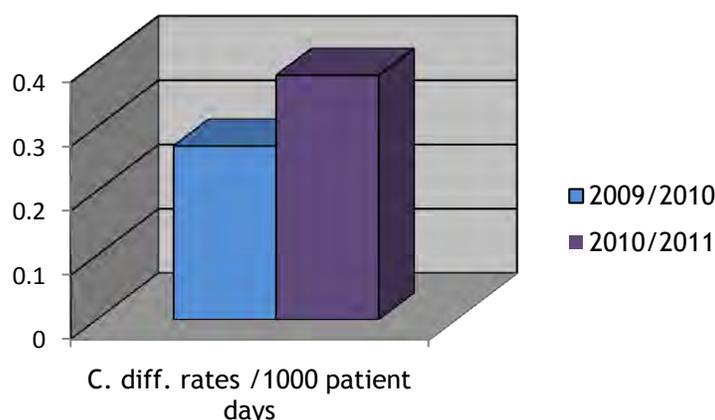
- Development of the Hand Hygiene Action Plan, and approval of the plan by Northern Health Board (February 2011)
- Hand Hygiene Audits implemented in some NH acute care sites, with results posted on each unit (February 2011);
- Staff & physician education about the issue & the new programs being developed (ongoing);
- Initial development of NH Hand Hygiene Policy (Issued May 2011);

- Creation of a Hand Hygiene Toolkit committee tasked with the development of a multi-focal hand hygiene toolkit for distribution to all Northern Health sites.

2. *Clostridium difficile* Infections (CDI) Incidence Rate

| Trend* | Target | Actual |
|--------|------------------------|------------------------|
| ➔ | <0.6 per 1000 pt. days | 0.38 per 1000 pt. days |

Northern Health CDI Incidence Rates



What is *Clostridium difficile* infection?

Clostridium difficile infection (CDI) is the most common cause of healthcare associated infectious diarrhea in Canada. This organism is easily transferred to patients in the healthcare setting and the ability of the organism to produce spores enables the organism to survive for long periods of time in the environment. Symptoms of infection include abdominal pain and cramping with diarrhea to the most serious complication of toxic megacolon which may result in the patient having surgery. The elderly and immunocompromised are at extreme risk of infection and death may result in severe cases. *Clostridium difficile* (*C. difficile*) has been responsible for major outbreaks in Acute and Complex Care facilities across Canada.

What is being measured?

The annual rate of *Clostridium difficile* infection (CDI) per 1000 patient days is being measured. This is the number of new cases in NH facilities (reporting facilities only) of CDI acquired by clients as a result of their stay in the hospital, divided by the number of patient days (reporting facilities only), multiplied by 1000. This is reported as both an overall NH rate as well as site-specific incidence rates.

* ↑ = 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

Methodology: How was the data collected? / Where did the data come from?

Information is collected daily by the IPCPs from microbiology reports and all positive Toxin A/B assays are reviewed to determine if the result meets the standard definition set out by PICNet. Once the case has been determined to meet the definition it is entered into a shared computer database and the data is sent to the various sites within Northern Health on a quarterly basis.

The PICNet definition is based on national guidelines and is as follows:

A diagnosis of CDI applies to a person with:

- Acute onset of diarrhea (> 3 loose stools within a 24 hr period) without another etiologic (loose stool is defined as that which takes the shape of the container that holds it).

And one or more of the following:

- Laboratory confirmation (positive toxin or culture with evidence of toxin production).

OR

- Diagnosis of typical pseudo-membranes on sigmoidoscopy or colonoscopy or histological/pathological diagnosis of CDI.

OR

- Diagnosis of toxic megacolon.

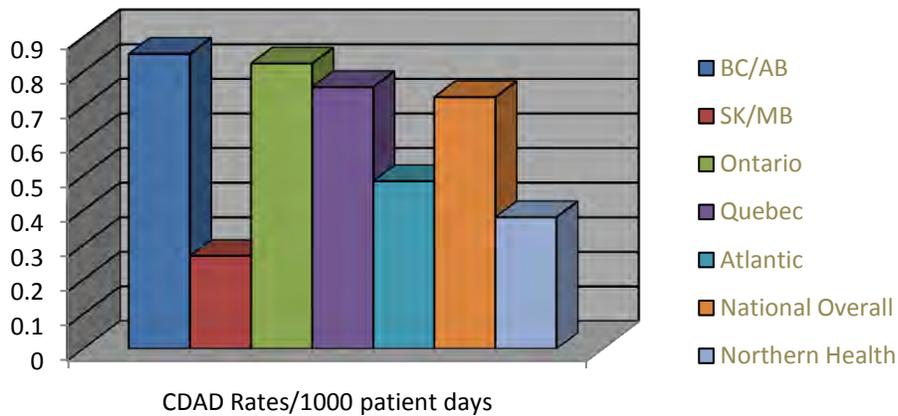
What is the Annual Target the organization seeks to reach?

Northern Health's goal is to reach a 20% reduction in CDI across the region from a rate of 0.38 per 1000 pt days to 0.30 cases per 1000 pt days. Achieving this goal would result in incidence rates similar to those seen in previous years.

Benchmark & Comparators: How does the rate compare to other areas?

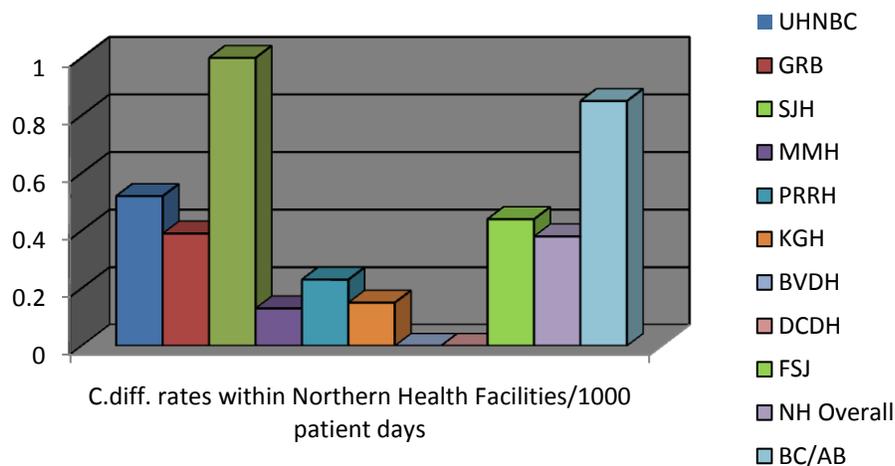
Although Northern Health observed approximately a 40% increase in CDI rates from the previous year the chart below indicates that Northern Health rates are below the National and Provincial rates. The Canadian Nosocomial Infection Surveillance Program's 2007 CDI Report identifies a national rate of 0.72/1000 patient days and a British Columbia Rate of 0.85/1000 patient days. Northern Health is only slightly greater than the lowest reporting provincial rate of Saskatchewan and Manitoba.

Comparison of NH CDI Incidence Rates to Provincial Rates



Canadian Nosocomial Infection Surveillance Program rates
<http://www.phac-aspc.gc.ca/nois-sinp/projects/cdad-eng.php#jmp-lan07>

CDI Rates within NH Facilities



Trend: What does the data show?

The data indicates that the facilities within Northern Health for the most part continue to display rates of CDI that are below the provincial level and below the benchmark set at 0.6 cases/1000 pt days.

Limitations: What might have affected the quality of this measure?

Delay in the identification by hospital staff of patients who should be tested for CDI when presenting with diarrhea.

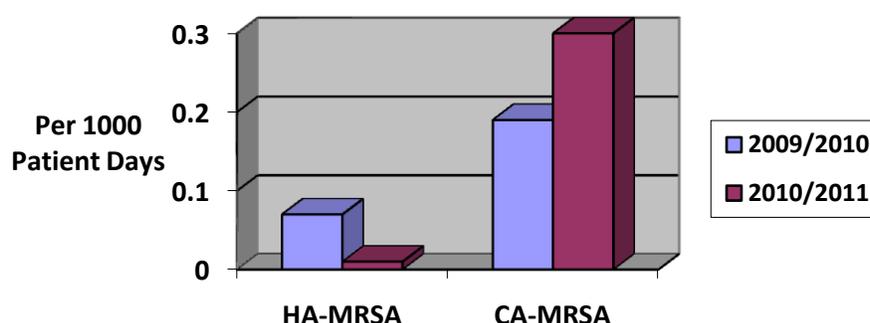
What actions have been taken over the last year?

Northern Health continues to aim for below benchmark rates of CDI. Regular education sessions for housekeeping staff concerning appropriate cleaning methods and for healthcare providers to ensure high suspicion of CDI, as well as emphasising the necessity for early implementation of Contact Precautions for clients with diarrhea have been successful in keeping the number of cases low.

3. Methicillin-resistant *Staphylococcus aureus* (MRSA) Incidence Rate

| Trend* | Target | Actual |
|---|--------|------------------------------|
|  | 0 | 0.01/1000 Pt. days (HA-MRSA) |
| | 0 | 0.30/1000 Pt. days (CA-MRSA) |

Northern Health MRSA Case Rates



What is being measured?

The annual rate of Methicillin-resistant *Staphylococcus aureus* (MRSA) per 1000 patient days; which is the number of new cases of MRSA (infection & colonization) acquired by clients as a result of their stay in hospital (reporting facilities only), divided by the total number of inpatient days (reporting facilities only), multiplied by 1000.

Methodology: How was the data collected?

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

- Laboratory identification of MRSA :
 - Includes *Staphylococcus aureus* cultured from any specimen that tests oxacillin-resistant by standard susceptibility testing methods; or by a positive result for penicillin binding protein 2a (PBP2a); or molecular testing for *mecA*. May also include positive results of specimens tested by other validated polymerase chain reaction (PCR) tests for MRSA.
- Patient must be admitted to an acute care facility

*  = 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

Data is collected by the Infection Prevention & Control Practitioners throughout Northern Health, and compiled in the NH MRSA database.

Source: Where did the data come from?

Data is collected through:

- Routine ARO screening upon admission to any acute care NH facility;
- Routine testing of all clients for every 30 consecutive days spent in any NH acute care facility;
- Routine testing of all client infections;
- Selective testing based on clinical evidence (e.g. persistent, difficult to treat infection, non-responsive to standard antibiotic treatment).

What is the Annual Target the organization seeks to reach?

The annual target for MRSA is a 10% decrease in incidence in 2011/2012.

Benchmark & Comparators: How does the rate compare to other areas?

Canadian Nosocomial Infection Surveillance Program (CNISP) rates are recommended: <http://www.phac-aspc.gc.ca/nois-sinp/projects/mrsa-eng.php>

The CNISP 2006 Surveillance Report found a national average of 1.016* MRSA cases per 1,000 patient days.

The Northern Health Authority continues to separate rates of MRSA into Healthcare-Associated (HA) MRSA and Community-Associated (CA) MRSA. For 2009-2010, NH found 0.014-0.56 [0.07 avg] cases of HA-MRSA and 0.07-0.48 [0.19 avg] cases of CA-MRSA, per 1,000 patient days. For 2010-2011, NH reported 0.15 [0.01 avg] of HA-MRSA and 0.06-0.59 [0.30 avg] of CA-MRSA per 1,000 patient days.

**Adjusted from per 10,000 patient days to per 1,000 patient days for comparison purposes.*

Trend: What does the data show?

Incidence of Healthcare-Associated (HA) MRSA have decreased from 0.07 (2009/2010) to 0.01 (2010/2011), while incidence of Community-Associated (CA) MRSA have increased from 0.19 (2009/2010) to 0.30 (2010/2011).

Limitations: What may have affected the quality of this measure?

Delay in the identification by hospital staff of patients who should be tested for MRSA upon admission to acute care facilities.

What actions have been taken over the last year?

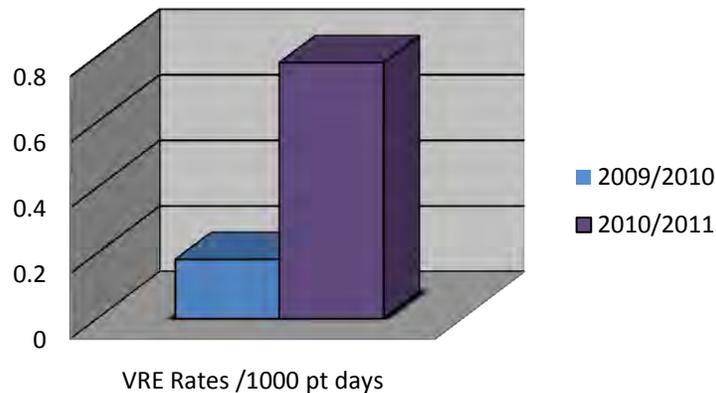
The primary action taken this year regarding MRSA in Northern Health is the implementation of the 30 day ARO screening process. Recognizing that one of the risk factors of MRSA & VRE colonization/infection is length of stay in an acute care facility (longer length of stay = increased risk of acquiring MRSA and/or VRE), NH created the 30 day screening process, which requires all acute care inpatients be tested for MRSA & VRE colonization for every thirty consecutive days spent in an acute care facility.

The introduction of this 30 day ARO screening practice, which occurred at the end of the 2010-2011 year, required a significant amount of education of ward and laboratory staff, as the implementation of the program resulted in an increase in workload for affected departments.

4. Vancomycin-Resistant *Enterococci* (VRE) Incidence Rate

| | | |
|-------------|-------------|------------------------------------|
| Trend* ↓ | Target 0 | Actual 0.78 cases/1000 pt. days |
|-------------|-------------|------------------------------------|

Northern Health VRE Rates



What is Vancomycin Resistant Enterococcus (VRE)?

Vancomycin-Resistant Enterococcus is a type of bacteria from the genus *Enterococcus* that is resistant to the antibiotic Vancomycin. *Enterococci* are normal inhabitants of the gastrointestinal tract of humans and mammals. Infection by Enterococcus is thought to be endogenously acquired but infection in hospitalized patients may be through transmission of the organism from patient to patient through fomites in the environment and health care workers' hands.

What is being measured?

The annual rate of Vancomycin-resistant Enterococcus (VRE) per 1000 patient days; which is the number of new cases of VRE (infection & colonization) acquired by clients as a result of their stay in hospital (reporting facilities only), divided by the total number of inpatient days (reporting facilities only), multiplied by 1000.

Methodology: How was the data collected?

Data is collected by the Infection Prevention & Control Practitioners throughout NH via microbiology reports, and compiled in the shared NH VRE database. Those lab reports of cultures suggesting VRE are forwarded to the PHSA laboratory for confirmation, and the IPCP responsible for the area in which the culture was collected is copied on both the original lab report as well as the confirmation report from PHSA (with the exception of UHNBC, where confirmation testing is performed on-site).

* ↑ = 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

Source: Where did the data come from?

Data is collected through:

- Routine ARO screening upon admission to any acute care NH facility;
- Routine testing of all clients for every 30 consecutive days spent in any NH acute care facility;
- Selective testing based on clinical evidence (e.g. persistent, difficult to treat infection, non-responsive to standard antibiotic treatment).

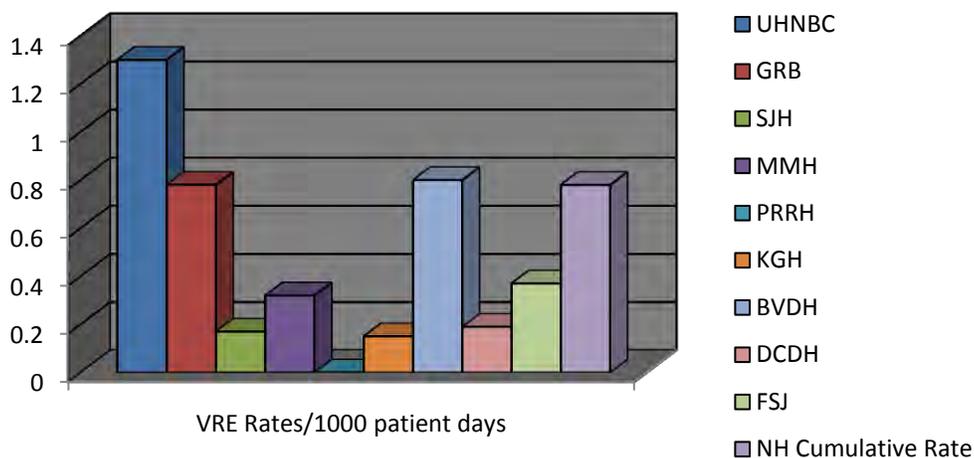
What is the Annual Target the organization seeks to reach?

The annual target for VRE is a 10% decrease in incidence in 2011/2012.

Benchmark & Comparators: How does the rate compare to other areas?

Currently there is no established Provincial benchmark with which to compare Northern Health rates.

VRE Rates within Northern Health Facilities



Trend: What does the data show?

The data indicates that there has been an increase from the previous year (0.18 per 1000 patient days in 2009/2010 vs. 0.78 per 1000 patient days in 2010/2011) in the number of VRE isolated across NH. UHNBC is the region’s tertiary care referral facility and the number of clients transferred among NH facilities could account for the overall increase. Over-capacity admissions may also account for the increase.

Limitations: What may have affected the quality of this measure?

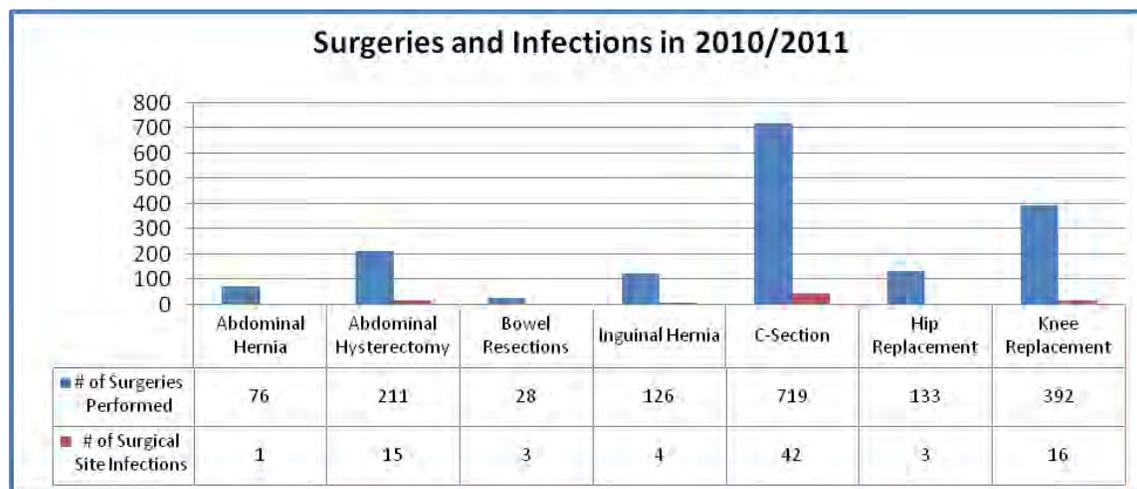
Delay in the identification by hospital staff of patients who should be tested for VRE upon admission to acute care facilities.

What actions have been taken over the last year?

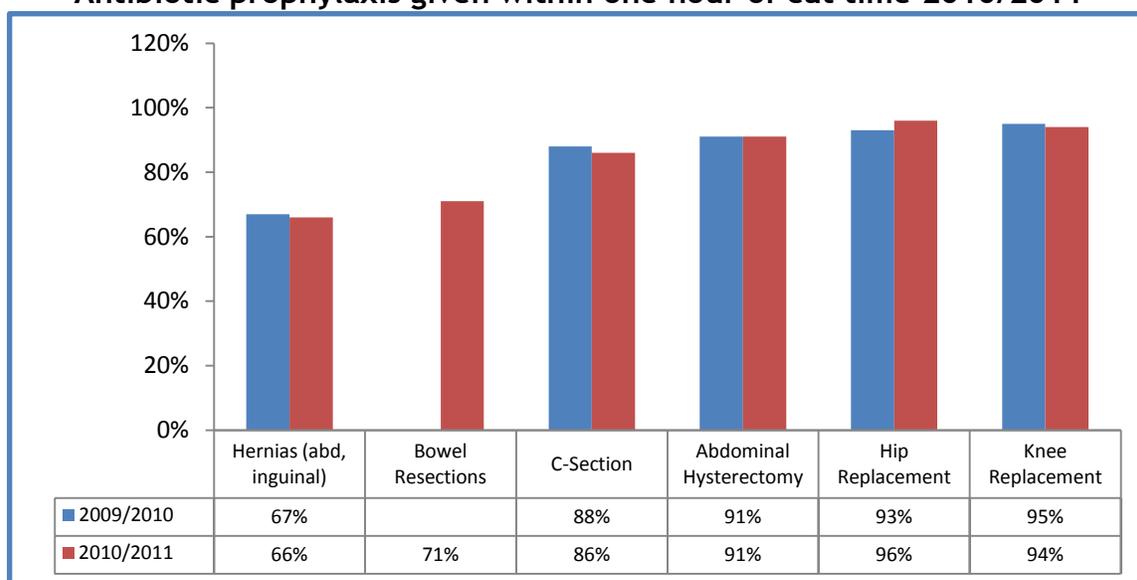
The primary action taken this year regarding VRE in Northern Health is the implementation of the 30 day ARO screening process. Recognizing that one of the risk factors of MRSA & VRE colonization/infection is length of stay in an acute care facility (longer length of stay = increased risk of acquiring MRSA and/or VRE), NH created the 30 day screening process, which requires all acute care inpatients be tested for MRSA & VRE colonization for every thirty consecutive days spent in an acute care facility.

The introduction of this 30 day ARO screening practice, which occurred at the end of the 2010-2011 year, required a significant amount of education of ward and laboratory staff, as the implementation of the program resulted in an increase in workload for affected departments.

5. Surgical Site Infection (SSI) Incidence Rate



Antibiotic prophylaxis given within one hour of cut time 2010/2011



What is being measured?

The annual rate of surgical site infections, as defined by the Center for Disease Control and Prevention's (CDC) National Nosocomial Infection Surveillance system, in Northern Health (expressed per 100 procedures). The surgical procedures surveyed for infection include: caesarean sections, total primary hip replacements, total primary knee replacements and abdominal hysterectomies. In addition, during the 2010/2011 fiscal year, the surveillance of inguinal and abdominal hernia surgeries was discontinued at the end of quarter 3, and the surveillance of bowel resections was initiated in quarter 4. This change occurred part way through the year, and as such, partial data is available about both types of procedures for 2010/2011.

The frequency of antibiotic prophylaxis given within one hour of surgical cut time is also monitored, as it has been found that the provision of antibiotic prophylaxis outside of the one hour time period is a significant risk factor for postoperative infection. This measurement is expressed as a percentage of the whole number of each type of surgical procedure conducted.

Methodology: How was the data collected?

Northern Health surveillance targets specific surgical procedures in facilities where Infection Prevention & Control Practitioners have sufficient knowledge and training to collect reliable data (8 sites). IPCPs track all clients taking part in those specific procedures, first while in the facility and continuing on after discharge. This post-discharge follow-up is done through phone calls to clients, electronic medical records and laboratory reports. Total primary hip and knee replacements are followed periodically for twelve months, and the remaining targeted surgical procedures are followed for one month’s time.

During follow-up phone calls, IPCPs ask a series of questions pertaining to the client’s experience of wound healing after the procedure, signs & symptoms of infection, and any follow-up experiences the client may have had with their physician and/or surgeon.

Source: Where did the data come from?

- Client medical records (chart & electronic records)
- Laboratory reports
- Client self-reporting

What is the Annual Target the organization seeks to reach?

The NH target for 2010/2011 is a 10% reduction in SSI rates and the NH target for antibiotic prophylaxis given within one hour of cut time is 100%.

Benchmark & Comparators: How does the rate compare to other areas?

| Procedure | Benchmark* | SSIs 2009/2010 | SSIs 2010/2011 |
|--------------------------------|------------------------------|------------------------|-------------------------|
| Abdominal Hysterectomy | 1.10-4.05 per 100 procedures | 3.6 per 100 procedures | 7.1 per 100 procedures |
| Caesarean Section | 1.46-3.82 per 100 procedures | 6.5 per 100 procedures | 5.84 per 100 procedures |
| Hernia (Inguinal & Abdominal) | 0.74-5.25 per 100 procedures | 2.3 per 100 procedures | 2.47 per 100 procedures |
| Bowel Resection | 3.99-9.47 per 100 procedures | No surveillance | 10.7 per 100 procedures |
| Total Primary Hip Replacement | 0.67-2.40 per 100 procedures | 5.9 per 100 procedures | 2.3 per 100 procedures |
| Total Primary Knee Replacement | 0.58-1.60 per 100 procedures | 4.9 per 100 procedures | 4.1 per 100 procedures |

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

Trend: What does the data show?

Surgical Site Infections:

Rates of Surgical Site Infections in 2010/2011, in comparison to the previous year's rates, have varied - SSI rates for total primary hip replacements have decreased significantly and total primary knee replacements and caesarean sections have both had minor decreases in SSI rates. Alternatively, hernia procedures saw a minor increase (prior to the discontinuation of surveillance for these procedures), and SSI rates for abdominal hysterectomies almost doubled. Comparative rates for bowel resection procedures in NH are not available however the NH rate for these procedures is higher than the benchmark.

Antibiotic prophylaxis within one hour of cut time:

Rates of antibiotic prophylaxis administration within one hour of procedure cut time have essentially remained stable across the board (with the exception of bowel resection procedures, for which that assertion cannot be made as data collection was only recently implemented).

Limitations: What may have affected the quality of this measure?

The changes in target procedures being surveyed (the initiation of the bowel resection surveillance in quarter 4) during the fiscal year 2010/2011 may have an impact on the quality of the data, in terms of being representative of the reality of SSI rates associated with this specific procedure, as it is incomplete.

As well, one of the challenges of tracing antibiotic prophylaxis rates is reliability of documentation. The antibiotic prophylaxis may be administered within the one hour window, but if healthcare providers do not correctly document the administration time (e.g. omit the precise time the antibiotics are administered), the surveyor must classify the antibiotic prophylactic treatment as being given outside the one hour window. This has previously been a challenge for SSI surveillance in some NH facilities.

What actions have been taken over the last year?

The primary action taken in the past year is the discontinuation of the hernia procedure surveillance and the implementation of the bowel resection procedure surveillance, a decision informed by provincial statistics and guidelines concerning those surgical procedures with the highest risk of SSI.

Additionally, a great deal of teaching has taken place - with healthcare providers concerning such issues as the importance of administering antibiotic prophylaxis within one hour of cut time; and with clients and family about post-operative wound care and the signs & symptoms of infection.

Outbreak Management

In response to outbreak situations in Northern Health, the Medical Health Officers (MHOs), in conjunction with the Infection Prevention & Control team, developed a system wherein the MHO office would organize an AD-HOC Action Committee immediately after declaring an outbreak. The purpose of this committee is to advise on, and participate in, the control and management of outbreaks and public health emergencies in Northern Health.

The function of the committee is to discuss, review and evaluate precautions and restrictions imposed as a result of the MHO declaration of any outbreak or health emergency. The committee also reviews the resources available in members' respective departments for such responses and make recommendations concerning how to proceed. The committee also forwards issues that require additional resources or policy clarification to the appropriate Regional Committee such as the Regional Infection Control Committee. Finally, the committee meets to debrief and evaluate the response prior to dissolving once an outbreak or public health emergency is declared over. The Action Committee members report back to the affected department supervisors, communicating directives and required actions to be taken.

The committee is made up of the following members:

- Medical Health Officer (MHO)
- NH - Workplace Health and Safety
- NH - Infection Prevention & Control
- NH - Preventive Public Health Nursing
- NH - Environmental Health
- NH - Human Resources (Staffing and/or Human Resources Manager)
- Managers of affected facility
- HSA of affected area

The following are members that may be brought in as needed in the management of the outbreak or emergency:

- NH - Communications
- NH Licensing Officer or
The Assisted Living Registrar
- BC Ambulance Services
- Fire Department / RCMP
- Provincial Emergency Response
- Representative of external facility
- NH Business Continuity Lead

This committee formation has resulted in faster response and implementation of control practices in addition it has streamlined the communication process so that the people that need to know the information are receiving it in a timely, organized and consistent manner.

Outbreaks within Northern Health 2010/2011

| Type of Outbreak | Responsible Organism | # of Staff Affected | # of Patients Affected | Dates / Length of Outbreak | Facility Type |
|------------------|----------------------|---------------------|------------------------|------------------------------|------------------------------|
| GI | Norovirus | 13 | 22 | Dec 30-Jan14 (13days) | Bulkley Lodge LTC |
| GI | Norovirus | 17 | 22 | July 9- July 15 (6days) | Jubilee Lodge LTC |
| GI | Undetermined | 0 | 10 | Dec 6-Dec 9 (3 days) | Mountainview Lodge LTC |
| GI | Norovirus | 20 | 7 | Dec 9-Dec 22 (14 days) | MMH Acute Care |
| GI | Norovirus | 22 | 30 | Feb 15- Mar 8 (22 days) | Terrace View Lodge |
| GI | Norovirus | 13 | 24 | Jan 17-Jan 26 (10 days) | NPCC Residential Care |
| GI | Norovirus | 0 | 7 | Mar 9-Mar 11 (2 days) | NPCC Intermediate Care |
| GI | Norovirus | 22 | 27 | Nov 16-Nov 24 (8days) | Parkside Complex Care |
| GI | Norovirus | 9 | 9 | Nov 29- Dec 8 (9 days) | UHNBC Rehab |
| GI | Norovirus | 2 | 9 | Dec 22 - Dec 29 (8 days) | DCDH Medical Ward |
| GI | Norovirus | 48 | 77 | Dec 26 - Jan 14 (20 days) | Rotary Manor |
| GI | Norovirus | 4 | 11 | Jan 8 - Jan 17 (10 days) | DCDH Medical Ward |
| Scabies | Scabies mite | 6 | 7 | Sept 23-Nov 28 (67 days) | Acropolis Manor LTC |
| Scabies | Scabies mite | 10 | 12 | Jan - May 31 (5 months) | Mountainview Lodge LTC |

Outbreak Discussion

Bulkley Lodge Long Term Care

The cause of the gastrointestinal outbreak at the Bulkley Lodge Long Term Care facility in Smithers was confirmed to be Norovirus. The outbreak was declared on December 30 when 8 residents presented with sudden onset of diarrhea and vomiting and declared over on January 14, 2011. The Outbreak Response Committee under Dr. Osei's initial leadership created good communication and a feeling of mutual support. The GI Outbreak Kit was very useful and the Bulkley Lodge nursing and housekeeping staff worked diligently at containing the outbreak. Environmental Health Officer (EHO) involvement and advice including production of Epi-curves proved vital in monitoring the situation as the outbreak unfolded. Areas that were identified as needing refinement were public communication, internal communication with staff with respect to the control measures and more clarity is needed with respect to

compassionate exceptions to no visiting measures. Staffing and supply shortages were also areas of concern during the outbreak. Greater than 200 hours in overtime were used and there was no VIROX disinfectant within Northern Health due to supply issues with the company. Environmental Health and Infection Prevention & Control arranged post outbreak education with staff at Bulkley Lodge (BL) to review what worked and what areas needed more follow up. The MHOs were to lead development of compassionate visitation guidelines and management of BL was to consider ways to make the facility less vulnerable to future outbreaks. Examples include staff education around not working when ill and reconsideration of the current level of access to the kitchen.

Jubilee Lodge Long Term Care

A BCCDC laboratory confirmed outbreak occurred at the Jubilee Lodge Long Term Care facility and affected 22 residents and 17 staff. Visitor restrictions were put in place and all group activities were cancelled. Resident families and physicians were notified and housekeeping staff was increased. Symptomatic residents were placed on Contact Precautions and remained in their rooms until they were 48 hours symptom free. The importance of Hand hygiene was emphasized with all staff.

Mountainview Lodge Long Term Care

There was no laboratory confirmation on the causative organism responsible for this outbreak despite stool sampling. Patients presented with diarrhea and vomiting and the initial case occurred November 20, 2010, but the outbreak was declared December 6, 2010, when IPCP and MHO were informed. This outbreak was short lived due to the quick implementation of contact precautions; no bed days or staff hours were lost.

Mills Memorial Hospital Acute Care

The cause of the GI outbreak at Mills Memorial Hospital in Terrace was confirmed to be Norovirus. The initial case was identified on December 5 and an outbreak was declared on December 9. It was observed that predominantly hospital staff was ill and Environmental Health investigated whether a staff luncheon held on December 8 could have resulted in food poisoning. It was determined that both well and ill staff had eaten at the luncheon and that the first case was before this date. Residents soon began showing symptoms of diarrhea and vomiting as well. There were approximately 300 hours in sick time due to the illness.

Terrace View Lodge

A GI outbreak occurred at Terrace View Lodge from February 15 to March 8 and was laboratory confirmed as Norovirus. Visitor restrictions were put in place and all group activities were cancelled. Resident families and physicians were notified and housekeeping staff was increased. Symptomatic residents were placed on Contact Precautions and remained in their rooms until they were 48 hours symptom free. Employees were cohorted and extra staffing was brought in as required.

North Peace Care Center (NPCC) Residential Care

The ten day GI outbreak at this facility was confirmed to be caused by Norovirus and affected 28% of the patient population. Patients presented with diarrhea and vomiting and Contact Precautions were implemented.

North Peace Care Center (NPCC) Intermediate Care Unit

Stool samples were confirmed positive for Norovirus. NPCC has 87 residents and 3 units: Extended Care, Special Care and Intermediate Care. This outbreak was on the Intermediate Care Unit. The Predominant symptoms were diarrhea and some vomiting. Symptomatic residents were immediately placed on contact precautions and isolated to their rooms; all activities for intermediate care were cancelled as well as the day care program. All residents in this facility are in shared rooms and stayed in their rooms during the outbreak. Facility personnel who work on intermediate care were to work in this area only and not go between other care areas. The housekeeping staff changed to Virox as the cleaner/disinfectant and high touch areas were a focus of this group. Visitor restrictions were implemented and all residential activities were postponed until the outbreak was declared over. Physiotherapy and dieticians were permitted to work in the non-outbreak units only and Laboratory Staff who travel from the Hospital to do blood draws were restricted from the Intermediate care unit until the outbreak was over. Blood draws will be done by facility Registered Nurses. Extra hand hygiene signage/ stations were put in place with handwashing with soap and water being the preferred method of cleaning hands in a GI outbreak. Manorapid Synergy alcohol hand sanitizer was also used. Extra supplies of gowns, gloves and masks were brought in from DCDH. The Public Health unit, Heritage Manor II, FSJH, DCDH, and Rotary Manor were notified of the outbreak status as well as BC Ambulance. It was determined after the outbreak that further attention to communicating with Housekeeping staff is needed. It was also determined that each possible outbreak requires an outbreak number assigned by BCCDC apparently the old outbreak number from the January 2011 outbreak was used and this created some confusion in reporting.

Parkside Complex Care

A laboratory confirmed outbreak occurred at the Parkside Complex Care facility and affected 27 residents and 22 staff. Visitor restrictions were put in place and all group activities were cancelled. Resident families and physicians were notified and housekeeping staff was increased. Symptomatic residents were placed on Contact Precautions and remained in their rooms until they were 48 hours symptom free. Employees were cohorted and extra staffing was brought in as required.

UHNBC Rehab

A GI outbreak occurred at the UHNBC Rehab from November 29 to December 8 and was laboratory confirmed as Norovirus. There was teaching done with the affected staff as most were allied health staff which did not have direct patient care.

Dawson Creek & District Hospital

Norovirus was determined to be the causative agent in an outbreak on the medical ward at the Dawson Creek and District Hospital. The outbreak lasted eight days and affected nine patients and two staff. After the outbreak was declared over and a review of the process completed it was revealed that two areas required further action. There is a need for increased education of outbreak procedures and for reference resources that frontline workers can access when management is not available.

Rotary Manor

A twenty day outbreak of Norovirus affected 67 % of the residents of the Rotary Manor complex care facility in Dawson Creek. As well 48 staff became ill with diarrhea and vomiting. Movement of staff and residents was restricted within the facility and limitations were put in place for staff between facilities to help contain and minimize the impact of the outbreak. Education of staff about outbreak procedures was identified as a key factor in helping to manage future outbreaks.

Dawson Creek & District Hospital

A second Norovirus confirmed outbreak occurred on the medical ward at the DCDH ten days after the first outbreak. This outbreak affected eleven patients and four staff. It was noted from this outbreak that there is a need for strict limitations on staff movement between facilities during outbreaks. Education of staff regarding outbreak procedures was also noted and it was determined that education sessions would be organized in the fall of 2011 to prepare staff on what to do during an outbreak.

Acropolis Manor

A scabies outbreak lasting from September 23, 2010 to November 28, 2010 at the Complex Care facility Acropolis Manor affected six staff members and seven residents. Skin scrapings were not obtained and diagnosis was made through clinical observation. The impact in the beginning was increased workload for staff to treat residents and then retreat them in 24 hours. The Housekeeping Staff was impacted as well as they were required to clean the resident's bed and room after treatment. Contact precautions were in place for the residents who were suspected of scabies but then removed physician examination ruled out infection. Residents who were diagnosed remained on precautions during and after treatment. Intervention post-outbreak included nursing to be more proactive with skin assessments and staff who suspected that had come into contact with scabies would consult a physician and start treatment if necessary prior to returning to work. A review of the scabies outbreak policy and procedure resulted in the formation of a working group made up of IPCPs and Workplace Health & Safety representatives. This group updated the scabies policy and procedure using Best Practice Guidelines.

Mountainview Lodge

A scabies outbreak occurred from January to May 2010 at Kitimat General Hospital Mountainview Lodge affecting 12 residents and 10 KGH staff. Scabies mites from skin

scrapings taken from affected residents in April were identified by a dermatologist. All staff members and residents were treated in one 24 hour period and Contact Precautions continued for all symptomatic residents until symptoms subsided. Impacts were increased workload for staff to treat residents and ongoing Contact Precautions; also increased workload for Housekeeping staff. A total of 144 staff hours were lost. Staff compiled suggestions for scabies policy changes and these were used by a NH working group to update Infection Prevention & Control scabies policy and procedure.

Education

| Type | Description | Participants |
|---|--|--|
| Hand Hygiene (NH wide) | The development and implementation of the Hand Hygiene Action Plan, started in 2010/2011, required a significant amount of education on the topic, presented to a wide range of NH staff and physicians. This included education concerning the necessity of the new program; education about changes in practice and/or documentation associated with the action plan; and education about the newly-introduced audit process. The education was presented in both formal scheduled sessions and informal learning opportunities as they arose. | All NH staff and physicians, in varying contexts. |
| Orientation (NH wide) | Infection Prevention & Control Practitioners are involved in both general staff orientation as well as nursing-specific orientation sessions. Generally, the Infection Prevention & Control orientation sessions involve lecture-style teaching, using a standard NH PowerPoint presentation, with the possible addition of teaching aides (e.g. the Glitter bug handwashing tool). New staff is also required to complete of Infection Prevention & Control and hand hygiene online education modules. | All newly hired staff during 2010/2011, as well as some staff interested in a review of orientation information. |
| Antibiotic Resistant Organism (ARO) Screening Criteria and | Two areas of focus were highlighted in Infection Prevention & Control teaching concerning AROs in 2010/2011. 1. The change in ARO question #1, (time spent in a healthcare facility >48 hours) from 6 to 12 months. This education was | All nursing staff affected by the two practice changes. In addition, some teaching was done with laboratory staff due to |

| | | |
|--|---|--|
| Testing Procedure (NH wide) | <p>done largely informally on the wards.</p> <p>2. The implementation of collecting ARO cultures from all patients in acute care facilities for every 30 consecutive days as inpatients. Education included instructional memos, informal teaching on the wards and organized education sessions with staff.</p> | <p>the increased workload created by the 30 day screening.</p> |
| Respiratory Illness (RI) Screening Tool (NH wide) | <p>The introduction of the Respiratory Illness (RI) Screening tool required education from IPCPs for the Emergency Department (ED) nursing staff, as well as the ED clerical staff, in order to effectively integrate the new screening tool into the assessment process for every patient coming through the ED. The education process for the screening tools was a combination of the provision of instructional resources for tool use and informal teaching sessions on the wards.</p> | <p>All Emergency Department nursing staff (for tool use) and ED clerical staff (for data entry).</p> |
| Decision Support Tool (DST) Revisions (NH wide) | <p>The Infection Prevention & Control team began to review and restructure all Northern Health IP&C policies & procedures, in the interest of moving away from the large manual format to separate Decision Support Tools for each topic. As such, many of the Infection Prevention & Control policies and procedures have been altered to adhere to new best practice findings. Staff education has been provided accordingly, to ensure that staff practice reflects the updated policies & procedures.</p> | <p>Staff participating in the education has varied, dependent upon the content of the updated DST. Those affected by the change have been informed of any changes made to the policies / procedures.</p> |
| Post GI Outbreak Debriefing Sessions (Rotary Manor, South Peace) | <p>In a multistep approach to improving GI outbreak response in the South Peace region, the local IPCP and EHOs built a plan to develop a comprehensive education program. The first step, taking place in March 2011, was to hold debriefing sessions (both in person and via survey) with acute and complex care staff in the interest of learning about their learning needs and building an effective GI outbreak education program. The second and third steps, taking place in the 2011-2012 time period, uses this information to develop both a manual and education plan for South Peace facility staff.</p> | <p>~50 staff members from both Rotary Manor and DCDH participated in the debriefing sessions.</p> |
| Resource Development (NH wide) <ul style="list-style-type: none"> • Decision Support Tools | <p>IPCPs continue to work through the process of revising and updating Infection Prevention & Control policies and procedures, moving away from the manual format to separate DSTs for each topic.</p> <p>“Did You Know” Newsletter - One page</p> | <p>All staff throughout NH, to varying degrees, depending upon context and need.</p> |

| | | |
|---|--|--|
| <p>(DSTs)</p> <ul style="list-style-type: none"> • “Did You Know” Newsletter • Information Pamphlets • Power Point Presentations | <p>newsletter created for delivery of quick pertinent information points to staff and clients. Each “Did You Know” newsletter concerns a single topic (e.g. scabies, MRSA, Influenza) and can be posted throughout facilities, distributed to appropriate staff groups as well as found online.</p> <p>Information pamphlet is a continual process, often informed by events or issues as they arise, indicating the need for resources (bed bug pamphlet due to bed bug incident in acute care facility).</p> <p>Power Point presentations were developed to facilitate education sessions throughout NH, including presentations concerning hand hygiene, plant & property management and infection prevention as well as presentations introducing changes in practice.</p> | |
| <p>Teaching resources and education sessions for Optimization Clinic (UHNBC)</p> | <p>An educational pamphlet was developed for those clients involved with the Optimization Clinic (joint replacements). Additionally, education sessions were held at the clinic with clients about infection prevention and control practice from a client’s perspective.</p> | <p>45 participants in 8 education sessions</p> <p>Educational pamphlet available to clients of optimization clinic</p> |
| <p>Infection Control Week (NH wide)</p> | <p>Infection Control Week (October) provided an excellent opportunity for a variety of education opportunities with staff and clients throughout NH. Fun activities, posters/banners and education sessions allowed the IPCPs to increase awareness of their role in NH as well as share pertinent information with an attentive audience.</p> | |
| <p>Student teaching (NH wide)</p> | <p>In addition to holding education sessions for staff and physicians, a number of IPCPs have taken the initiative to offer learning opportunities to outside groups, such as student healthcare providers (RNs, LPNs & Care Aides), as well as, in Fort St. John, an interested Sparks group.</p> | |

Projects & Initiatives

Hand Hygiene

The purpose of this project was to implement a Health Authority wide Hand Hygiene Program. The goal of the project was to increase the awareness and importance of hand hygiene with staff, patients and visitors. An auditing process for hand hygiene and a reporting structure of the compliance to hand hygiene were key issues.

Status: The Hand Hygiene Program is currently in place in all NH Acute Care Sites where there is an ICP on site.

Activities and Milestones: Northern Health's Hand Hygiene Policy was developed and accepted through the NH Management and the Medical Advisory Committee. The Hand Hygiene policy was posted on the facilities' website.

Organizational Impact: NH has partnered with the Provincial Hand Hygiene Working group (PHHWG), the Ministry of Health and the Office of the Auditor General to improve patient care by increasing hand hygiene compliance in healthcare.

Accreditation

Northern Health facilities were scheduled for accreditation in June 2011 and Infection Prevention and Control as well as the Sterilization and Processing Departments (SPD) were part of the focus.

Status: Accreditation was completed June 2011

Activities and Milestones: Infection prevention and Control had a total of 103 criteria to meet, of those 96 were met, 3 did not apply to NH and 3 require additional work to complete. The SPD had a total of 99 criteria to meet, 93 criteria were met, 3 criteria did not apply and 3 criteria require additional attention. The IC group was commended for the work put forth to develop the Hand Hygiene Education and Auditing process. The SPD was commended on the dedicated work put forward in developing the SPD program within Northern Health and for encouraging and enabling SPD staff in achieving CSA certification.

Sterile Processing Department (SPD)

Essential functions are performed in Sterile Processing Departments across Northern Health on a daily basis. These functions vary with the size and sophistication of the healthcare facility, but generally include the cleaning and disinfection of medical devices such as instruments, flexible endoscopes and power tools from the Operating Room (OR), as well as preparation, inspection and assembly of the instrument sets and equipment, sterilization and storage. Some sites also pick the OR cases for all procedures performed in the OR. Twenty sites across Northern Health conduct some variation of reprocessing activities. Ten of these sites run operating rooms and are considered the key sites.

In 2010, all sites that reprocess were audited for the reprocessing activities, with an average result of 95% across Northern Health.

In 2010/2011 the Policies and Procedures for the region have continued to be developed and are now on line (iPORTAL) for the region to access (total 117).

Education is a top priority for all reprocessing staff. Half hourly education sessions are conducted monthly; featuring topics such as preparing for Accreditation, chemicals used in decontamination, Sterrad process and assembly. These education sessions include a quiz in order to evaluate staff comprehension of the material. Three all-day education sessions were provided in 2010 across Northern Health. Topics included in these all-day sessions were microbiology, machines in decontamination, routine precautions, steam sterilization and chemical indicators.

In addition to this NH education, a number of SPD staff members have actively sought to upgrade their skills. Some have taken extra courses through the College of New Caledonia (CNC) with the goal of completing the full certification Sterile Technician Program (with 7 staff members complete in 2010/2011) and 15 staff members are preparing to take the CSA Exam scheduled for the 29th August 2011. CNC has also partnered with Vancouver Community College (VCC) in order to develop a sterile processing course, taught by the Coordinator of the NH Sterile Processing department in the Prince George SPD.

Monthly SPD Council Meetings act to bring the NH region together, sharing information about the challenges and innovations in Sterile Processing Departments across Northern Health. Included in each SPD Council Meeting is an education session, taught by the Coordinator of SPD for NH.

The Coordinator of SPD is closely involved with the NH Infection Prevention and Control program and is included in the ICP Council meetings at least on a monthly basis. This individual sits on the Infection Prevention and Control Council, attends the HSDA committees, is a member of the Provincial Reprocessing Working Group, the HealthPro Group for reviewing medical devices (in regards to their reprocessing requirements) and attends quarterly meetings with the ministry concerning reprocessing activities.

Terminology & Abbreviations

ABHR - Alcohol-Based Hand Rub
ARO - Antibiotic Resistant Organism
BVDH - Bulkley Valley District Hospital
CA-MRSA - Community-Associated Methicillin-Resistant Staphylococcus aureus.
CDAD - Clostridium difficile Associated Diarrhoea
CDC - Center for Disease Control & Prevention
CDI - Clostridium difficile Infection
CNC - College of New Caledonia
CNISP - Canadian Nosocomial Infection Surveillance Program
DCDH - Dawson Creek & District Hospital
DOC - Director of Care
DST - Decision Support Tool
EHO - Environmental Health Officer
FSJH - Fort St. John Hospital
GI - Gastrointestinal Illness
HAI - Healthcare-Associated Infection
HA-MRSA - Healthcare-Associated Methicillin-Resistant Staphylococcus aureus
HH - Hand Hygiene
HSA - Health Service Administrator
HSDA - Health Service Delivery Area
IDC - Innovations and Development Commons
IPCP - Infection Prevention & Control Practitioner
KGH - Kitimat General Hospital
LPN - Licensed Practical Nurse
MAC - Medical Advisory Committee
MHO - Medical Health Officer
MMH - Mills Memorial Hospital
MRSA - Methicillin-Resistant Staphylococcus aureus

NEHSDA - Northeast Health Service Delivery Area
NEMAC - Northeast Medical Advisory Committee
NH - Northern Health
NHIPCP - Northern Health Infection Prevention & Control Program
NHSN - National Healthcare Safety Network
NIHSDA - Northern Interior Health Service Delivery Area
NIMAC - Northern Interior Medical Advisory Committee
NNIS - National Nosocomial Infection Surveillance
NWHSDA - Northwest Health Service Delivery Area
NWMAC - Northwest Medical Advisory Committee
UHNBC - University Hospital of Northern British Columbia
OR - Operating Room
PHHWG - Provincial Hand Hygiene Working Group
PHN - Public Health Nurse
PHSA - Provincial Health Services Authority
PRRH - Prince Rupert Regional Hospital
QCCH - Queen Charlotte City Hospital
RCMP - Royal Canadian Mounted Police
RI - Respiratory Illness
RN - Registered Nurse
SHEA - Society for Healthcare Epidemiology of America
SPD - Sterile Processing Department
SSI - Surgical Site Infection
VCC - Vancouver Community College
VIHA - Vancouver Island Health Authority
VP - Vice President
VRE - Vancomycin-Resistant Enterococcus

APPENDICES

Appendix A

POLICY (P): **HAND HYGIENE POLICY**

All Northern Health care providers are required to comply with the policy.

APPLICABILITY: All Northern Health Care Providers including contracted services personnel

RELATED DSTS: 5-3-0-060-P: Dress Code and Personal Hygiene Policy
Infection Prevention and Control IB030

DEFINITIONS: **ABHR:** Alcohol Based Hand Rub (60% of alcohol or greater)
Northern Health (NH) Healthcare Providers: Includes all clinicians, physicians, volunteers and other individuals having direct contact with patients/clients/residents or their immediate environment.
Person(s): Includes all employees (excluded and unionized), students, medical staff, dentists, researchers, physicians, residents, fellows, volunteers, executives, contractors, visitors, clients, and patients.

**COMPETENCY
REQUIREMENTS:**

POLICY STATEMENT

All healthcare providers including physicians, contracted employees and students will perform hand hygiene before and after touching any patient and/or touching any object that comes in contact with the patient. **The expectation is that all staff will be in compliance 100% of the time in non-emergency situations.**

Specifically:

- **Before**
 - Eating
 - Touching a patient
 - Touching any object or furniture in the patient's immediate environment
 - Putting on gloves
 - Performing any aseptic procedure
 - Handling medication and food
 - Exposure risk to blood/body fluids
- **After**
 - Touching a patient
 - Touching any object or furniture in the patient's immediate environment
 - Removing gloves

Performing any aseptic procedure
Handling medication or food
Exposure to blood/body fluids
Using the bathroom

POLICY PRINCIPLES

Hand hygiene is the single most effective way to prevent the spread of communicable diseases and infections. The Northern Health Board of Directors expects every healthcare professional to clean their hands before and after touching any patient or touching any object that comes in contact with the patient.

Northern Health is committed to health promotion and disease prevention:

- NH is responsible for health promotion and disease prevention within the Northern Health region.

Northern Health is committed to creating and sustaining a Culture of Safety.

- A culture of safety equally values the safety of staff and patients.
- Patient safety and staff safety are inseparably linked. By supporting safe and healthy staff, we support quality patient care.
- NH is committed to a safety culture of open communication of workplace and patient concerns, near misses, and events, which are resolved in a blame-free respectful environment.
- The importance of hand hygiene cannot be understated as it is the very foundation of staff and patient safety and quality care.

Special Considerations

- Nails should be kept clean and short at all times. Long and/or chipped nails are known to harbour bacteria and interfere with effective hand hygiene.
- Artificial nails, nail polish and nail jewellery should not be worn.
- Hand/wrist jewellery should not be worn by healthcare providers. A plain band and watch may be worn. Jewellery hinders effective hand hygiene and harbours the growth of bacteria.

Patient Hand Hygiene

All staff will promote patient hand hygiene to assist in reducing the spread of infection. Staff will provide patients, residents, and clients with educational guidance and support to perform hand hygiene. Patients who are immobile, bed bound, and/or confused may require frequent support from staff to assist with hand hygiene either with soap and water or a disposable towelette.

Compliance

- Any person(*) found in violation of this policy may be subject to remedial or disciplinary action up to and including termination of employment, cancellation of contract and/or revocation of privileges pursuant to applicable Health Authority processes.

- Any staff member, including contracted services employees, may report persistent violations of compliance to their supervisor and/or complete a PSLS form. No person will be subject to retaliation for reporting in good faith, breaches of this hand hygiene policy.
- Visitors, patients, and clients will be provided with educational guidance and support to adhere to the hand hygiene policy.
***Person refers to all staff, contractors, physicians, students and volunteers across NH.**

HAND HYGIENE TECHNIQUES AND EXCEPTIONS

General

Perform hand hygiene procedures using one or more of the following options for guidance:

- 1) [WHO How to Hand Rub and Hand Wash](#) (Form #10-414-6023)
- 2) [NH 4 Moments for Handy Hygiene Poster](#) (Form#10-200-4041)

Emergency Situations

Assist and stabilize patient, client or resident. Perform hand hygiene procedures using one of the methods presented above as soon as possible.

Glove Use

The use of gloves is an integral component of Routine Precautions. Refer to NH Infection Control Manual: [Routine Standard Precautions I B030](#).

NOTE: The use of gloves is not a substitute for performing hand hygiene. Gloves must be changed between each patient contact and care procedure, e.g., bathing and mouth care on the same patient. **Hand hygiene must be performed before and after using gloves.**

Equipment and Supplies

- Alcohol Based Hand Rub (ABHR) is the preferred method for performing hand hygiene in healthcare settings.
- Soap and water are used for hand hygiene when hands are visibly soiled and in exceptional situations.

Patient/Client/Resident Education

- All staff are expected to assume a leadership role in providing instruction and educational support regarding hand hygiene to patients, residents, family members, and visitors.

EXCEPTIONS

- Staff may be required to forgo hand hygiene during emergent patient situations, e.g., patient collapse. In emergency situations staff are encouraged to perform appropriate hand hygiene as soon as possible after the patient, client or resident has been stabilized.

- Staff that are unable to perform hand hygiene due to an injury or skin conditions (e.g., eczema, psoriasis) that may require exemption from this policy must immediately report to their supervisor and provide documentation

Clostridium difficile

- Hand washing with soap and water to physically remove spores is preferred when dealing with spore forming bacteria such as Clostridium difficile (Cdiff).
- If a sink is not immediately available, hand hygiene should be performed with an ABHR immediately after patient care. Hand washing should be performed as soon as possible after this.
- ABHR is effective against “vegetative” forms of Cdiff - use of an ABHR is advised at the point of care, hand washing is recommended immediately after this.

Norovirus

The current recommendation is that the healthcare provider performs hand hygiene at the point of care using an ABHR immediately after patient care. Hand washing is recommended after this.

REFERENCES

- Canadian Patient Safety Institute (CPSI). (October 2007). *Fact sheet 1: The Need for better hand hygiene*. Retrieved August 9, 2010 from <http://www.handhygiene.ca/English/Documents/Fact%20Sheets/Fact%20Sheet%201%20The%20Need%20for%20Better%20Hand%20Hygiene.pdf>
- Center for Disease Control and Prevention (CDC). (2008). *Clean hands saves lives*. Retrieved May 9, 2011 from <http://www.cdc.gov/handwashing/>
- Center for Disease Control and Prevention (CDC). (2007). *Guideline for isolation precautions: Preventing transmission of infectious agents in healthcare settings*. Retrieved August 6, 2010 from <http://www.cdc.gov/hicpac/2007IP/2007isolationPrecautions.html>.
- Center for Disease Control and Prevention (CDC). (2002, October). *Morbidity and Mortality Weekly Report. Guideline for Hand Hygiene in Health Care Settings Recommendations of the Healthcare Infection Control practices. Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force, Vol 51/No RR- 16*. Retrieved August 6, 2010 from <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5116a1.htm>.
- Community and Hospital Infection Control Association-Canada (CHICA). (2008). *Information about hand hygiene*. Retrieved August 9, 2010 from http://www.chica.org/links_handhygiene.html.
- Community and Hospital Infection Control Association-Canada (CHICA). (2008). *Position statement: Hand hygiene*. Retrieved August 9, 2010 from <http://www.chica.org/pdf/handhygiene.pdf>.

- Hilburn, J., Hammond, B.S., Fendler, E.J., & Groziak, P.A. (2003, April). Use of alcohol hand sanitizer as an infection control strategy in an acute care facility. *American Journal Infection Control* ,2, 109- 116.
- Ontario Ministry of Health and Longterm Care. *Just Clean Your Hands*. Retrieved August 6, 2010 from <http://www.health.gov.on.ca/en/ms/handhygiene/>.
- Pittet D.(2000). Improving compliance with hand hygiene in hospitals. *Infection Control and Hospital Epidemiology*, 21(6), 381-386.
- Pittet D. (2001, March- April). Improving adherence to hand hygiene practice: A Multidisciplinary approach. *Emerging Infectious Diseases*, 7(2), 234-240.
- Provincial Infectious Diseases Advisory Committee (PIDAC). Ministry of Health and Long-term Care. (2009). *Best Practices for Hand Hygiene in all Health Care Settings*. Retrieved August 9, 2010 from http://www.health.gov.on.ca/english/providers/program/infectious/diseases/ic_hh.html.
- Public Health Agency of Canada (PHAC). (1999, July). *Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Health Care*. Volume 25S4. Retrieved August 9, 2010 from <http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/99vol25/25s4/index.html>.
- United Kingdom National Patient Safety Agency. (2008). *Clean Hands Save Lives*. Retrieved August 6, 2010 from <http://www.nrls.npsa.nhs.uk/resources/?entryid45=59848>.
- Vancouver Coastal Health. (2007). *Regional Infection Control Guidelines*.
- Vancouver Coastal Health. (2007). *Hand Hygiene Policy*.
- World Health Organization (WHO). (2009). *WHO Guidelines on Hand Hygiene in Health Care. The first Global Safety Challenge: Clean Care is Safer Care*. Retrieved on August 6, 2010 from http://whqlibdoc.who.int/publications/2009/9789241597906_eng.pdf.
- World Health Organization (WHO). (2009). *Save Lives: Clean Your Hands. Guide to Implementation: a Guide to the Implementation of WHO Multimodal Hand Hygiene Improvement Strategy*. Retrieved August 6, 2010 from http://whqlibdoc.who.int/hq/2009/WHO_IER_PSP_2009.02_eng.pdf.

Appendix B

PROVINCIAL HAND HYGIENE AUDIT

FACILITY: _____ UNIT: _____ AUDITOR: _____ DATE: _____

Health Care Provider Category

| | | | | |
|------------------------------|--|---|--|---|
| 1. Nursing Staff | <ul style="list-style-type: none"> Registered Nurse Midwife | <ul style="list-style-type: none"> Licensed Practical Nurse | <ul style="list-style-type: none"> Care Aide | <ul style="list-style-type: none"> Nursing/Midwife Student |
| 2. Physicians | <ul style="list-style-type: none"> Medical Doctor | <ul style="list-style-type: none"> Resident | <ul style="list-style-type: none"> Fellow | <ul style="list-style-type: none"> Medical Student |
| 3. Clinical Support Services | <ul style="list-style-type: none"> Occupational Therapist Physiotherapist Respiratory Therapist Speech Therapy | <ul style="list-style-type: none"> Social Work Dietician Psychologist Audiologist | <ul style="list-style-type: none"> Porter Pastoral Care Radiology | <ul style="list-style-type: none"> Technicians (e.g. EKG, EEG, etc) Lab: Phlebotomy |
| 4. Other | <ul style="list-style-type: none"> Housekeeping Food Services | <ul style="list-style-type: none"> Clerk | <ul style="list-style-type: none"> Volunteer | <ul style="list-style-type: none"> Security |

Observations of Hand Hygiene Opportunities

| | HCP | Before Contact | After Contact | Hand Hygiene | D = Done N = Not Done |
|----|-----|--------------------------|--------------------------|---|--------------------------|
| 1 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> N <input type="checkbox"/> D | |
| 2 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> N <input type="checkbox"/> D | |
| 3 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> N <input type="checkbox"/> D | |
| 4 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> N <input type="checkbox"/> D | |
| 5 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> N <input type="checkbox"/> D | |
| 6 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> N <input type="checkbox"/> D | |
| 7 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> N <input type="checkbox"/> D | |
| 8 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> N <input type="checkbox"/> D | |
| 9 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> N <input type="checkbox"/> D | |
| 10 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> N <input type="checkbox"/> D | |
| 11 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> N <input type="checkbox"/> D | |
| 12 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> N <input type="checkbox"/> D | |
| 13 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> N <input type="checkbox"/> D | |
| 14 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> N <input type="checkbox"/> D | |
| 15 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> N <input type="checkbox"/> D | |
| 16 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> N <input type="checkbox"/> D | |
| 17 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> N <input type="checkbox"/> D | |
| 18 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> N <input type="checkbox"/> D | |
| 19 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> N <input type="checkbox"/> D | |
| 20 | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> N <input type="checkbox"/> D | |

PHHWG-EC Audit Tool FINAL January 30, 2011

Appendix C

888938 - Revised / August 10, 2011

THE PROVINCIAL HAND HYGIENE COMPLIANCE AUDIT¹

Version - May 16, 2011

Intended use of this document: This document provides methodology and guidance on the collection of hand hygiene compliance observations for the purpose of provincial reporting using a standardized Minimal Dataset.

Purpose of the audit: The purpose of the audit is to demonstrate and document healthcare provider (HCP) compliance with hand hygiene guidelines or policies. In addition, hand hygiene compliance results will assist Health Authorities (HAs) to evaluate the effectiveness of interventions for hand hygiene promotion, education and training. Hand hygiene compliance results may also be correlated with trends of healthcare acquired infection rates (e.g. Methicillin resistant *Staphylococcus aureus*) as an indirect outcome measure for evaluating the hand hygiene program.

Strengths and limitations of the hand hygiene audit: Direct observation of HCPs while delivering patient care is the method that will be used in this audit. According to the World Health Organization, direct observation is considered the gold standard method in determining hand hygiene compliance. Clear and consistent methodology, observer training and periodic inter-rater reliability testing will ensure that the data collected minimizes observational limitations. These limitations include:

- the potential influence an observer may have on HCP behavior, known as the Hawthorne Effect;
- variation in an observer's classification over time (intra-observer variability); or
- variation between observer classification (inter-observer variability)
- hand hygiene audits are completed by a variety of auditors including dedicated externally hired auditors, Infection Prevention and Control Practitioners, Managers and HCPs on their own or other units. All auditors are instructed to follow the Provincial guidelines for observation and reporting to facilitate standardization of audit results across all HAs.

Guidelines of observation and reporting: Please note that the audit methodology outlined defines the Minimal Dataset that must be obtained for the provincial reporting. Additional data may be collected within each HA, but must be aggregated to the Minimal Dataset for provincial reporting.

Ideally, data should be collected anonymously and, objectively by a well trained observer, and kept confidential until reviewed by the local hand hygiene team.

¹ Clinical Care Management process measure for hand hygiene compliance