

Annual Report

April 2009 – March 2010



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Executive Summary

The Provincial Infection Control Network of British Columbia (PICNet) is a provincially supported professional collaborative that provides guidance and advice on healthcare associated infection (HAI) prevention and control in British Columbia (BC). Under the aegis and accountability framework of the Provincial Health Services Authority, PICNet connects health care professionals from across the province to develop and create guidelines and tools, with a focus on surveillance, education and evidence-based practice.

Surveillance

In June of 2009 PICNet launched its secure, web-based *Clostridium difficile* Infections (CDI) surveillance system. This system allows the Health Authorities in BC to upload surveillance data into the PICNet data repository. PICNet provides analysis of this data at the provincial level and published its first two reports to the PICNet website on March 24, 2009. PICNet's Surveillance Steering Committee began work in September of 2009 to plan for the expansion of its HAI surveillance system to include data on Methicillin resistant *Staphylococcus aureus* (MRSA). PICNet also performed a needs assessment for Infection Prevention and Control Activities in Long Term Care Facilities in the province. The findings of this analysis will be published in the summer of 2010.

Education

At the beginning of April, PICNet hosted its annual Education Conference, attended by 130 delegates from across BC. In February of 2010 PICNet made three new resources available to our community of practice (COP) through our website; two online education modules for the prevention of surgical site infections (SSI) and care and management of central venous catheters and a hand hygiene resource page. On March 24, 2010 PICNet hosted an additional educational event on the prevention of SSI, featuring Dr Charles Edminston. PICNet continues to provide access to Webber Training Teleclasses, which cover many topics of importance, to our COP.

Evidence-Based Practice

In July of 2009, in response to an ongoing outbreak of mumps in the province, PICNet facilitated a working group that developed recommendations for the management of healthcare workers exposed to mumps. Over the past year, another guideline development group has been working to update the guidelines for the prevention and control of outbreaks of gastrointestinal illness (GI) in healthcare settings. These guidelines will be published in the summer of 2010. PICNet has also developed a guidelines evaluation process to improve the quality of evidence-based practice guidelines. This process was applied to the respiratory illness (RI) outbreak guidelines that were published in 2007. Lessons learned from the process have already been applied in the creation of the GI outbreak document.

Based on this year's report, priorities for next year are:

Priority 1:

To expand our HAI Surveillance to include planning and implementation of MRSA, VRE and SSI modules

Priority 2:

To expand our educational tools to include a toolkit for the management of CDI

Priority 3:

To develop recommendations for the management of HCW exposed to measles and rubella

Priority 4:

To update our guidelines for the management of RI Outbreaks

Introduction

The Provincial Infection Control Network (PICNet)

The Provincial Infection Control Network (PICNet) is a provincially supported professional collaborative encompassing regional and provincial health organizations. PICNet was developed in 2005 by the BC Ministry of Health.

Our vision continues to be: *Good Science - Good Will.*

PICNet's mission is to maximize coordination and integration of activities related to healthcare associated infection prevention, surveillance and control, for the entire province, using an evidence-based approach.

PICNet's network model emphasizes participation, collegiality, and trust. This model fosters and strengthens professional relationships and enables the infection prevention and control community of practice (COP) to benefit from the knowledge and expertise of others across healthcare settings in BC. As a result, PICNet's initiatives and best practice guidelines are developed and owned by healthcare professionals in the province, combining rigorous evidence-based standards with a hands-on knowledge of what is needed within healthcare settings to achieve the best possible results for infection prevention and control.

Under the aegis and accountability framework of the Provincial Health Services Authority (PHSA), with the support of all Health Authorities in BC, PICNet is a collaborative of many healthcare disciplines working together to prevent and control healthcare associated infections (HAI) across the continuum of care.

PICNet does this by:

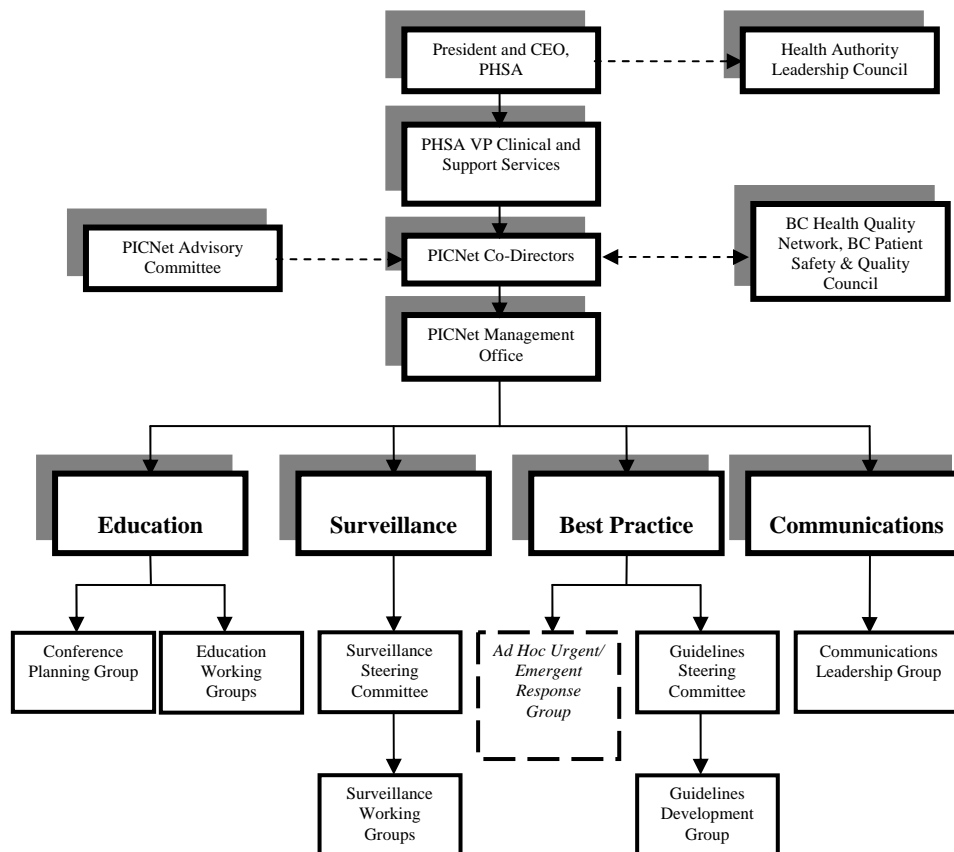
- Supporting and coordinating initiatives of shared importance
- Providing knowledge to guide best practices
- Sharing information, translating knowledge and training experts
- Directing, coordinating and enhancing surveillance activities

- Advocating on behalf of all professionals working to prevent and control HAIs in BC
- Providing advice on relevant policy and issues.

PICNet's COP includes – but is not limited to – environmental health officers, epidemiologists, infection control professionals, infectious disease physicians, medical health officers, medical microbiologists, public health nurses and physicians, and occupational health nurses and physicians.

PICNet's work is focused in three areas, the coordination of province-wide surveillance of healthcare associated infections, the creation of guidance documents for infection prevention and control best practice and providing educational tools and programs to our community of practice.

PICNet's Organizational Chart is provided as Figure 1.



Acknowledgements

PICNet would like to thank the members of our community of practice who participate in both our standing committees and our working groups. Members volunteer their time to attend meetings and contribute to PICNet's success. Without the hard work of these members PICNet would not be able to produce the volume and quality of work it does.

PICNet Team Members

- Dr. Judith Isaac-Renton, Co-Director
- Dr. Elizabeth Bryce, Co-Director
- Bruce Gamage, Network Manager
- Joanne Archer, Infection Control Consultant/Educator
- Lucy Truong, Office and Communications Coordinator
- Ellie Sheng, Surveillance Systems Coordinator

Contact Information

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Lucy Truong, Office and Communication Coordinator
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Email: lucy.truong@phsa.ca

Standing Committee Reports

1. Advisory Committee

Appointees to the PICNet Advisory Committee represent the six Health Authorities and several key organizations/specialities involved with the prevention and control of healthcare associated infections. This allows for accountability and lines of communication between PICNet and the Health Authorities and represented organizations, and also helps clarify the roles and responsibilities of Committee members. At the same time, the Committee continues to represent all regions of British Columbia, and includes members with great expertise and experience in areas relevant to infection prevention and control. This expertise and experience includes not just specific professional expertise but also knowledge and experience in the varied physical and institutional environments across the province. This Committee's principle role is to provide PICNet with strategic direction for its work.

PICNet would like to acknowledge and thank each Health Authority, as well as the various professional organizations, for their support and contributions to the PICNet Advisory Committee, and all of PICNet's work. It is the collective expertise and commitment of our partners within these organizations that truly drives PICNet and it is with much appreciation that we recognize this.

Advisory Committee¹

- *John Andruschak, VP Clinical and Support Service, Provincial Health Services Authority*
- *Joanne Archer, Consultant/Educator, PICNet, Provincial Health Services Authority*
- Dr. George Astrakianakis, Director, Disease Prevention, Occupational Health and Safety Agency for Healthcare in BC
- Dr. William Bowie, Adult Infectious Diseases, Vancouver General Hospital, Vancouver Coastal Health
- Dr. Elizabeth Bryce, PICNet Co-Director, Regional Medical Director, Infection Control, Vancouver Coastal Health
- Dr. Sylvie Champagne, President, BC Association of Medical Microbiologists
- Geoff Clarke, Worksafe BC
- Catherine Fast, Director Employee Wellness, Provincial Health Services Authority
- *Bruce Gamage, Network Manager, PICNet, Provincial Health Services Authority*
- *Keva Glynn, Director Performance Management, Ministry of Health Services*
- Janice de Heer, Corporate Director, Infection Prevention and Control, Interior Health Authority

¹ Italicized members indicate non-voting status.

- Dr. Bonnie Henry, Advisory Committee Chair, Physician Epidemiologist, BCCDC, Provincial Health Services Authority
- Jacquie Hlagi, Community and Hospital Infection Control Association, British Columbia
- Deanna Hembroff, Acting Manager, Infection Prevention and Control, Northern Health
- Dr. Judy Isaac-Renton, PICNet Co-Director, Director of BCCDC Public Health Microbiology and Reference Laboratories, Provincial Health Services Authority Laboratories
- Dr. Pamela Kibsey, Medical Microbiologist/Infection Control, Vancouver Island Health Authority
- Dr. Ben Mack, Medical Microbiologist, Fraser Health
- Dr. Marc Romney, Medical Microbiologist/Infection Control, Providence Health Care
- Dr. Diane Roscoe, Head Medical Microbiology and Infection Control, Vancouver Coastal Health
- Dr. Eva Thomas, Director Microbiology/Virology/Infection Control, Women's and Children's Health Centre of BC, Provincial Health Services Authority
- *Lucy Truong, Office and Communications Coordinator, PICNet, Provincial Health Services Authority*
- Dr. Annalee Yassi, Occupational Health Physician, University of British Columbia

2. Communications Leadership Group

PICNet's Communications Leadership Group (CLG) was founded in July 2006 as a standing committee to provide policy development and leadership to the PICNet Management Office (PMO) with regards to communications priorities and activities. The purpose of the CLG is to develop and implement communication strategies that will further enable PICNet to meet its mandate.

PICNet's public website (www.picnetbc.ca) is regularly updated and maintained by Lucy Truong, our Office and Communications Coordinator. The website contains a wealth of information, highlighting PICNet's activities and resources. With website usage tracking beginning in February 2010, the PICNet website received an average of 850 visitors per month over the last two months of this fiscal year. The vast majority of users reside in British Columbia, primarily from the Greater Vancouver Area, Prince George, Kelowna, and Victoria. From the website statistics, PICNet website users predominantly use our education and training resources including the Infection Prevention and Control Online Education Module, Webber Training documents, and the newly introduced Hand Hygiene Resource Page. A more comprehensive analysis of website usage will be available for the next fiscal year, once tracking has commenced for a full period.

PICNet produces a monthly electronic newsletter in order to keep the infection prevention and control Community of Practice up-to-date on current PICNet activities. The newsletter is sent to all Community of Practice members via email and is linked directly to the PICNet website.

As part of PICNet's mandate, we also work hard to promote ourselves externally, and network with infection prevention and control colleagues across the country, to share knowledge and expertise. To this end, PICNet exhibits every year at the Community and Hospital Infection Control Association-Canada (CHICA) National Education Conference. This year's conference was held in St. John's, Newfoundland. With the direction and help of the CLG, PICNet produced an educational fiscal year calendar this year, to give away at our own conference, and at the CHICA conference in St. John's.

PICNet wishes to thank the members of the Communications Leadership Group for their hard work throughout the year.

Communications Leadership Group

- Janice de Heer, Interior Health Authority
- Terry Dickson, Fraser Health Authority
- *Bruce Gamage, PICNet*
- Deanna Hembroff, Northern Health Authority
- Margaret McLaughlin, Fraser Health Authority
- Cathy Munford, Vancouver Island Health Authority
- *Lucy Truong, PICNet*

3. Surveillance Steering Committee

In September of 2009 the PICNet *C. difficile* surveillance working group reformed to become our standing Surveillance Steering Committee. The purpose of the Surveillance Steering Committee (SSC) is to provide guidance to PICNet's HAI surveillance programs and to assist the PICNet Management Office (PMO) towards implementation among participating parties. This Committee also assists the PMO in processes related to provincial collection of summary data and reporting of trends over time.

The goals and objectives of this committee are to:

1. Assist in ongoing process evaluation of the PICNet surveillance processes and protocols.
2. Advise on development of web-based tools for data collection, storage, analysis and sharing.
3. Advise on the development of check-lists for each HA requirements to implement each surveillance module.
4. Assist in the implementation of standardized surveillance methodology and case definitions province-wide that conform to national initiatives.
5. Advise on the integration of laboratory surveillance through typing of a representative number of isolates and standardization of laboratory protocols (in collaboration with the BC Association of Medical Microbiologists (BCCAMM)).

The PICNet SSC has been formed to assist the PMO with moving the above goals and objectives forward. PICNet would like to thank the Surveillance Steering Committee for their hard work this year!

Surveillance Steering Committee

- Jun Chen Collet, Provincial Health Services Authority
- David Crawford, Interior Health Authority
- Leslie Forrester, Vancouver Coastal Health
- *Bruce Gamage, PICNet*
- Dr. Bonnie Henry, Provincial Health Services Authority
- Dr. Linda Hoang, Provincial Health Services Authority
- Patricia Bleakley, Vancouver Island Health Authority
- Felicia Laing, Fraser Health Authority
- *Ellie Sheng, PICNet*
- Elisa Lloyd-Smith, Providence Health Care
- Deanna Hembroff, Northern Health

4. Guidelines Steering Committee

In September of 2009 the PICNet Guidelines Steering Committee was formed. The purpose of this group is to ensure that PICNet guidelines use the most appropriate methodology and the best available research in their conception and development. The Guidelines Steering Committee (GSC) provides direction and assistance to Guideline Working Groups (GWG) in the evaluation and appropriate use of research and existing guidelines.

Responsibilities of the GSC are to :

- Review guideline proposals to identify priority guidelines for development
- Review appraisals of existing guidelines by the PMO
- Define the scope and purpose of guidelines for development
- Participate in the initial steps of literature review and refine key questions
- Membership selection for Guideline Working Groups
- Review the progress of guidelines in development to ensure transparency and due diligence in use of evidence and the guideline development process
- Review completed guidelines for appropriate use of evidence and the GWG responses to comments received from the Community of Practice during consultation

Guidelines Steering Committee

- Dr. William Bowie, Adult Infectious Diseases, Vancouver General Hospital, Vancouver Coastal Health
- Dr. George Astrakianakis, Director, Disease Prevention, Occupational Health and Safety Agency for Healthcare in BC
- Janice de Heer, Corporate Director, Infection Prevention and Control, Interior Health Authority
- Bev Dobbyn, Director, Infection Prevention and Control, Vancouver Island Health Authority
- Linda Kingsbury, Coordinator, Infection Prevention and Control, Vancouver Coastal Health
- *Joanne Archer, Consultant/Educator, PICNet*

Education

PICNet undertook the following education activities during this fiscal year:

Type	Description	Participants	Estimated Hours
Conference	PICNet Annual Educational Conference “We’re all in this together!”	130 Community of Practice Members	48 hours
Online Educational Module	Prevention of Surgical Site Infections	101 page visits (Feb/10 – Mar/10)	
Teleclasses	Webber Training	120 Community of Practice Members	38 hours
Web Page	Hand Hygiene Resource Page	435 page visits (Feb/10 – Mar/10)	
Presentation	Reducing the Risk of Surgical Site Infection	92 Community of Practice Members	1 hour

PICNet 2009 Educational Conference: “We’re All In This Together”

In early April 2009, PICNet hosted its third annual educational conference, “We’re All in This Together!” at the Radisson Hotel in Richmond, BC. This conference built on a history of educational gatherings hosted by PICNet, starting in 2005 with the formational “Stakeholder Summits” that brought together the provincial infection prevention and control community of practice for the first time, in order to begin to shape and frame the organization that PICNet would become.

This year, we welcomed approximately 130 delegates and exhibitors over the two days of the conference. In attendance were delegates from WorkSafe BC, First Nations and Inuit Health, the Ministry of Health, as well as Master’s of Public Health students, Infection Prevention and Control Practitioners, Occupational Health Nurses, and Medical Microbiologists.

The goal of the conference was to provide a relevant and engaging educational opportunity for members of PICNet’s COP, and to strengthen networks and professional relationships across the continuum of care in British Columbia.

Conference highlights included: a session on the management of HCWs exposed to mumps, a screening of the award winning documentary “Bevel Up”, a workshop on reprocessing and sterilization of medical devices and a presentation on infection prevention and control from a First Nation’s perspective.

Online Education Module: Prevention of Surgical Site Infections

In February of 2009 PICNet launched its Surgical Site Infection (SSI) Prevention module. Vancouver Coastal Health's Educational Technologies Department and PICNet collaborated to develop the online education module. The education module is designed to give patient care personnel a better understanding of SSIs and to teach best practices for the prevention and recognition of SSIs.

The Surgical Site Infection Prevention module uses real life photographs, graphics, interactive activities and video demonstrations to teach and discuss practices that prevent the development of a surgical site infection. The module is aimed towards health care providers employed in peri-operative services including home care. The module takes about 45-60 minutes to complete and is now available on the PICNet website.

Webber Training Teleclasses

PICNet continues to sponsor access to Webber Training teleclasses for PICNet's entire COP who may not otherwise have access through their employers. Webber Training is an international lecture series on topics of interest to infection control professionals and other health care professionals worldwide. A total of 38 training sessions were sponsored by PICNet between March 2009 and March 2010.

Hand Hygiene Resource Page

In January of 2010 PICNet launched its hand hygiene resource page. The page includes useful links to documents and websites on the Internet, which may be useful for educators and infection control programs. Resources include international standards and guidelines, links to campaigns around the world, and educational resources.

Reducing the Risk of Surgical Site Infection Through a Consilient Evidence-Based Perspective

On March 24, 2010 PICNet hosted this educational event, featuring Dr. Charles E. Edmiston from the Medical College of Wisconsin. Dr. Edmiston is a recognized leader in infection prevention and control and has many recent publications. The session was sponsored by Sage Products Inc. A total of 92 participants registered to attend the event, with 40 who attended in person and 52 who connected by teleconference. Participants came from all over the province and included Infection Control Professionals, Surgeons, Epidemiologists, Educators, Operating Room Nurses and Patient Safety Coordinators. Evaluations for this presentation were very favourable with 97% of participants stating they would like to attend future lectures.

Projects & Initiatives

Recommendations for Baseline Assessment and Management of Health Care Workers (HCW) who are Cases or Contacts of Mumps

Description: In 2008, an outbreak of mumps occurred in BC. As cases occurred in the community, and were admitted to health facilities, issues arose regarding the protection of those HCWs who had experienced or who were at risk of experiencing close, unprotected exposure to cases. When HCW in the affected regions were surveyed documentation of their mumps immunization status was lacking in the majority of cases. As a result, making decisions regarding the need to furlough exposed individuals was very challenging. In order to address these issues, an expert group was established, spearheaded and facilitated by PICNet. This group was tasked with developing guidelines for what constitutes adequate protection to mumps infection and recommendations for managing HCWs who, through their work or in the community, are exposed to cases of mumps.

Status: This document was completed in July 2009 and posted to the PICNet website.

Participants: Dr. George Astrakianakis (Occupational Health & Safety Agency for Healthcare in BC)
Dr. Elizabeth Brodtkin (Fraser Health)
Dr. Elizabeth Bryce (chair) (Vancouver Coastal Health Authority)
Wendy Burris (Northern Health)
Dr. Ian Connell (Fraser Health)
Janice de Heer (Interior Health)
Fe Evans (Vancouver Coastal Health Authority)
Bruce Gamage (Provincial Infection Control Network of BC)
Dr. Bonnie Henry (BC Centre for Disease Control)
Dr. Mel Krajden (BC Centre for Disease Control)
Gayle Lavallee (Vancouver Island Health Authority)
Myra Magrath (Provincial Health Services Authority)
Helen McMillan (Northern Health)
Deborah McPherson (Vancouver Coastal Health Authority)
Dr. Monika Naus (BC Centre for Disease Control)
Sherryl Papilla (Provincial Health Services Authority)
Dr. Martin Petric (BC Centre for Disease Control)
Elayne Preston (Fraser Health)

Organizational Impact: This project was a collaborative effort between Public Health, Occupational Health and Infection Prevention and Control Professionals from all jurisdictions in BC. The guidelines provide clear direction for the management of healthcare workers exposed to cases of mumps through their work and the community. Given the outbreak of mumps that occurred during the development of this document proved to be a valuable tool.

Gastrointestinal Illness Outbreak Guidelines for Healthcare Facilities

Description: The Gastrointestinal Illness (GI) Outbreak Guidelines Working Group stemmed from a project proposal received from our COP to revise and update the existing provincial guidelines for GI Outbreaks. This reference document is intended to provide information and guidance for all healthcare facilities when developing or updating their policies and processes that pertain to prevention, surveillance for, identification and control of GI outbreaks. Effective outbreak management requires a collaborative effort between Public Health, Infection Prevention and Control, Laboratory Services, Workplace Health and Safety, facility Managers and facility HCPs.

Status: The work of the guidelines group was completed in February of 2010. The document was then posted to the PICNet website for comment and feedback from our community of practice. The final document will be reviewed by the Communicable Disease Policy Committee in June of 2010 for inclusion in the Provincial Communicable Disease Policy manual.

Participants: *Joanne Archer, PICNet, writer*
Brian Auk, BC Centre for Disease Control Public Health Microbiology Reference Laboratories
Joanne Baines, Vancouver Island Health Authority
Donna Bush, Northern Health Authority
Yin Chang, BC Centre for Disease Control
Ken Cooper, BC Centre for Disease Control (chair)
Fern Davey, Calibre Health
Terry Dickson, Fraser Health Authority
Bev Dobbyn, Vancouver Island Health Authority
Debora Giese, Northern Health Authority
Nicki Gill, Interior Health Authority
Dr. Larry Gustafson, Fraser Health Authority
Deanna Hembroff, Northern Health Authority
Marney Hunt, Provincial Health Services Authority
Jessica Ip, Vancouver Coastal Health Authority
Beverly McCarthy, Vancouver Coastal Health Authority
Craig Nowakowski, Vancouver Island Health Authority
Parmjeet Panesar, Fraser Health Authority
Cathy Smith, Fraser Health Authority
Marsha Taylor, BC Centre for Disease Control
Greg Tone, Northern Health Authority
Julie Wong, BC Centre for Disease Control

Organizational Impact: The development of this guideline has been a collaborative effort between Public Health, Occupational Health and Infection Prevention and Control Professionals from all jurisdictions in BC. The guidelines provide clear direction for the management of gastrointestinal outbreaks in healthcare settings and will be a useful tool for facilities province-wide when updating their existing protocols.

Evaluation of the Provincial Infection Control Network of British Columbia's Respiratory Outbreak Prevention and Control Guidelines

Description:	<p>The BC Provincial Infection Control Network's <i>Reference for Respiratory Outbreak Prevention and Control Guidelines</i> were developed in response to a stakeholder proposal in 2005. Stakeholders wanted to avoid duplication, maximize the use of infection control resources and minimize inconsistencies in the recommendations made by regional guidelines. The goal was therefore to develop collaborative, standardized, research-based guidelines that exemplify best practices in British Columbia.</p> <p>The aim of this evaluation, commissioned by Provincial Infection Control Network of British Columbia (PICNet BC), was to evaluate the strengths and weaknesses of the Respiratory Outbreak Prevention and Control guidelines. Guidelines development committees will use the results of this evaluation to update the current guidelines document and improve the development process for future documents.</p>
Status:	<p>This project was completed in April 2010 and the full report is now posted on the PICNet website.</p>
Participants:	<p>Salman Klar, Graduate student, School of Population and Public Health, UBC Joanne Archer, Provincial Infection Control Network Bruce Gamage, Provincial Infection Control Network</p>
Organizational Impact:	<p>Lessons learned from the process have already been applied in the creation of the GI outbreak document. Additionally, this exercise will develop an evaluation process that can be used to evaluate other PICNet guidelines.</p>

***Clostridium difficile* Infection (CDI) Surveillance**

Description: In the fall of 2005, an ad hoc Working Group was formed to address surveillance of CDI in BC. The Working Group, in collaboration with the BC Association of Medical Microbiologists (BCAMM), developed the surveillance protocol for CDI for acute care facilities in BC.

In order to carry forward the work of the ad-hoc group, in January of 2007, a new CDI Working Group was formed. The goals of this group were to:

- Perform an evaluation of the PICNet CDI surveillance protocol based on experience of current users;
- Develop a participation agreement to allow the sharing of anonymized data from the Health authorities with PICNet;
- Develop a web-based tool for data collection, storage, analysis and sharing;
- Develop an on-site training module and checklist for use of the CDI surveillance tool and data base;
- Explore the implementation of a standardized CDI surveillance tool province-wide that employs standard case definitions;
- Integrate laboratory surveillance into the project through typing of a representative number of isolates.

Status: In June 2009 the system went live as the Health Authorities began uploading data into the PICNet database. By December 2009 PICNet had received data on healthcare associated CDI cases from all six participating Health Authorities and four affiliated facilities.

Surveillance reports for fiscal year 2008/2009 (April 1, 2008 to March 31, 2009) and for the first quarter of fiscal year 2009/2010 (April 1, 2009 to June 25, 2009) were published to the PICNet website (www.picnetbc.ca) on March 24, 2010.

PICNet continues to receive data submissions from all Health Authorities in BC. CDI surveillance updates will be published quarterly.

Participants: All Health Authorities and four affiliated healthcare facilities in BC.

Organizational Impact: PICNet's CDI Surveillance Reports will be used by the Ministry of Health Services Healthcare Provincial Healthcare Quality Measurement Group. Healthcare facilities within each Health Authority can use the information within the reports to benchmark their rates and focus prevention and control efforts where higher rates have been identified.

Methicillin Resistant *Staphylococcus aureus* (MRSA) Surveillance

Description: In September of 2009 the PICNet Surveillance Steering Committee was formed to provide guidance to PICNet's HAI surveillance programs and to assist the PICNet Management Office (PMO) towards implementation among participating parties. During the fall of 2009 this group worked to develop a set of standard case definition and a minimal data set to be used for the surveillance of Methicillin resistant *Staphylococcus aureus* (MRSA).

The Goals of the MRSA Surveillance System are:

- To measure the incidence of Healthcare Associated MRSA colonizations and infections in acute care facilities in BC
- To measure the incidence of Healthcare Associated MRSA infections in acute care facilities in BC

Status: The PICNet Surveillance Systems Coordinator has begun to work with our external IM/IT contractor to develop a second module that will be added to the existing CDI surveillance system to allow the participating Health Authorities to upload the minimal data set for MRSA. PICNet has begun the planning process for this system to go-live in the fall of 2010.

Participants: All Health Authorities and four affiliated healthcare facilities in BC.

Organizational Impact: The reports generated from this surveillance will be used as healthcare facility quality measures and as benchmarks for focusing infection prevention and control efforts in areas where higher rates are identified.

Identifying the Gaps in Infection Prevention and Control Resources for Long Term Care Facilities in British Columbia

Description: Infection prevention and control (IPC) resources are less available in long term care (LTC) than in acute care, despite general agreement that infections represent a significant source of morbidity and mortality for LTC residents. In addition, LTC facilities perform under a number of business models: from government funding to private payer.

The first step in ensuring that we are providing safe, high quality care to all British Columbian LTC residents is to gain a clear understanding of the differences in IPC structures and processes used between regions and under the various care models. This information can then be used to identify the strengths and gaps in our current model of LTC infection prevention and control so that a more effective and standardized model can be established across the province.

Status: The results of this survey will be published and made available to our community of practice in the summer of 2010.

Participants: Andrea Neil (Interior Health Authority)
Angela Long (Vancouver Coastal Health Authority)
Joanne Archer (PICNet)
Cathy Munford (Vancouver Island Health Authority)
Dawn Vallee (Capilano Care Centre)
Bruce Gamage (PICNet)
Dr. Bonnie Henry (BC Centre for Disease Control)
Holly-Lynn Nelson (Northern Health Authority)
Jackie Ratzlaff (Vancouver Coastal Health Authority)
Dr. Jennifer Grant (Vancouver Coastal Health Authority)
Kathy Wong (Vancouver Coastal Health Authority)
Lisa Young (Vancouver Island Health Authority)
Louise Holmes (Vancouver Coastal Health Authority)
Lorraine Wentland (Yaletown House Society)
Rashpal Toor (Vancouver Coastal Health Authority)
Dr. Réka Gustafson (Vancouver Coastal Health Authority)
Suzanne Hyderman (Good Samaritan Society)
Susan Higginbotham (Little Mountain Care)
Wanda Murphy (Yaletown House Society)
Valerie Schall (PICNet contractor)
Shannon Johnson (Dufferin Care Centre)
Avril Macdonald (Fraserview Care Lodge)

Organizational Impact: Our findings show that many LTC facilities lack the necessary resources to provide quality infection control programs. Although many of the facilities had established IPC policies and external partnerships to assist them with IPC issues that arise, most lacked the leadership and administrative support required to sustain an effective, high quality IPC program.

Terminology & Abbreviations

***Clostridium difficile* Infection (CDI)** also *C. difficile* - *C. difficile* is a bacterium that produces a toxin that can cause diarrhea and serious illness of the bowel. Generally, *C. difficile* does not cause problems in healthy people; however, CDI can be serious in people who are sick, elderly, or have weakened immune systems. In rare cases it can be fatal.

Hand Hygiene - Preventing the spread of illness through washing hands with soap and water or cleaning hands with alcohol based hand-rubs.

Healthcare Associated Infections (HAI) also *Nosocomial Infections* - Infections patients acquire while staying in a healthcare facility, which include pathogens from other patients, the environment, or staff. The pathogens can cause illness in patients during or after their stay.

Methicillin-resistant *Staphylococcus aureus* (MRSA) - *Staphylococcus aureus* is a bacterium that is normally found on the skin and in the nose of healthy people. Some bacteria have become resistant to the medicines used to treat infections (antibiotics). MRSA is a type of *Staphylococcus aureus* that is resistant to most antibiotics, including the antibiotic called penicillin. *Staphylococcus aureus* can cause minor skin infections such as boils, or infections in a surgical incision site.

Vancomycin-Resistant *Enterococci* (VRE) - *Enterococci* are bacteria that are commonly found in the stomach and bowels of healthy people. Some bacteria have become resistant to the medicines used to treat infections (antibiotics). Vancomycin is an antibiotic used to treat serious infections. VRE is a type of *Enterococci* that has become resistant to Vancomycin. These bacteria rarely cause illness in healthy people. However, when VRE gets into open cuts and skin sores, they can cause infections. Occasionally, VRE can also cause more serious infections of the blood or other body tissues.

Surgical Site Infection (SSI) - An infection at the site of an operative procedure occurring within 30 days of the procedure or within 1 year if an implant is in place and the infection appears to be related to the operative procedure. SSIs are classified as superficial, deep or organ space depending on the tissue involved.

Appendices

Objectives/Deliverables Table

The following objectives were identified in PICNet's Strategic Plan:

Objective	Completed	Milestones
Surveillance		
1. To continue to advocate for the expansion of PICNet's HAI surveillance program for BC, through the development of a relevant business case.	100%	A business case for the expansion of PICNet's HAI surveillance program has been developed and submitted for approval to the PHSA budget committee.
2. To expand existing Participation Agreements between the Health Authorities and PICNet to include other HAIs, as needed.	75%	An amendment to PICNet's existing Participation Agreement has been drafted and will be submitted for approval to the Health Authority Leadership Council.
3. To direct the implementation of a provincial plan for expansion of HAI surveillance in BC.	50%	Reports for 2008/09 Annual and first quarter for 2009/10 for CDI are published. Subsequent reports will be published quarterly.
4. To build on the existing infrastructure to support the expansion of data collection, analysis and reporting of HAI surveillance data in BC.	50%	Case definitions and minimal data set for MRSA have been developed and development of a surveillance module has begun.
5. To create a standing surveillance committee to address surveillance-related issues for HAI surveillance in BC.	100%	A standing Surveillance Steering Committee was formed in September of 2009. This committee provides guidance and assists in the implementation of PICNet's HAI Surveillance activities.
6. To maintain appropriate communications with Health Authorities, the Ministry of Health Services, and other key stakeholders regarding PICNet's surveillance initiatives.	100%	PICNet is working with the Provincial Healthcare Quality Measures Group to establish regular reporting of HAI Rates as quality indicators. A process for the review and approval of PICNet HAI Surveillance reports has been established and endorsed by the MOHS, the PICNet Advisory Committee and the PICNet Surveillance Steering Committee.

Objective	Completed	Milestones
Education		
1. To develop a Needs Assessment tool to identify the educational needs of the BC infection prevention and control COP.	100%	PICNet developed and implemented a COP Survey to receive feedback and recommendations for moving forward.
2. To ensure the ongoing development, enhancement and review of PICNet's web site as a vehicle for communication and education for PICNet's COP.	100%	PICNet's web site continues to be enhanced with the addition this year of CVC and SSI e-modules and a hand hygiene resource page.
3. To develop online educational modules to meet the needs of the infection prevention and control COP in BC.	100%	An online module for the prevention and control of SSI was created and made available to our COP through the PICNet web site.
4. To organize and facilitate annual PICNet educational conferences, bringing key leaders and educators together to share their knowledge and expertise with the infection prevention and control COP in BC.	100%	The 2009 PICNet Educational Conference was held April 2 & 3. It was attended by over 130 delegates.
5. To continue to provide ongoing access to educational teleclasses for the infection prevention and control COP in BC.	100%	PICNet Continues to provide province-wide access to Webber educational Teleclasses. 38 sessions were available this year.
6. To advocate for enhanced education and training opportunities for infection prevention and control professionals and allied health care providers.	100%	PICNet hosted an education event given by an internationally renowned speaker, Dr. Edminston, on the prevention of SSI.
7. To practice infection prevention and control-related knowledge transfer by linking with partners on relevant practice and projects.	100%	PICNet provided an education session for physicians working with the First Nations Inuit Health Branch (FNIHB).
8. To provide funding opportunities for members of the BC infection prevention and control COP to attend relevant educational events (conferences, courses, etc.).	100%	PICNet provided funding for 5 members of our community of practice to attend provincial, national and international educational events.

Objective	Completed	Milestones
Evidence-Based Practice		
1. To develop best practice guidelines for the prevention and control of Gastrointestinal Infections and other guidelines, as approved.	75%	PICNet's recommendations for the management of HCW exposed to mumps were completed in July of 2009. The GI guidelines will be completed in the spring of 2010.
2. To develop an evaluation tool for reviewing and updating new and existing infection prevention and control best practice guidelines.	75%	An evaluation tool for reviewing and updating existing guidelines has been developed and applied to the RI Outbreak Guidelines. These guidelines will be updated over the summer of 2010.
3. To encourage our COP to submit proposals for PICNet best practice guidelines development using the existing PICNet process.	100%	PICNet continues to solicit proposals from our community of practice for best practice guidelines.
4. To continue to engage our COP in PICNet's collaborative guideline development process	100%	In September of 2009 a Guideline Steering Committee was formed. PICNet's guideline development process has been revised to ensure internationally accepted guideline development processes are followed.