British Columbia

Patient Safety & Learning System

Annual Report

April 2010 – March 2011

The BC Patient Safety & Learning System (BC PSLS) would like to acknowledge funding support from the six BC health authorities and the BC Ambulance Service (BCAS).

The views expressed in this report are those of BC PSLS alone and do not necessarily reflect those of the BC health authorities or the BCAS.

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"Today, several hundred hospitals, long-term care facilities, residential care facilities and provincial laboratories are using BC PSLS to identify, analyze and trend safety concerns."

Message from the Steering Committee Chair and the Provincial Director

Over the past year, we have had the opportunity to reflect on the influence BC PSLS is having on the quality and safety of patient care in BC's healthcare facilities.

In 2010 – 2011, expansion of BC PSLS continued. Today, several hundred hospitals, long-term care facilities, residential care facilities and provincial laboratories are using BC PSLS to identify, analyze and trend safety concerns.

The provincial database reached a milestone of 100,000 safety events reported from all areas of the province. An average of 200 safety events are reported daily. Feedback from leaders and managers tells us that the information available in BC PSLS is helping to promote a culture of safety and learning and supporting quality improvement efforts in all settings.

A new and improved Safety Learning Form (follow-up form) was launched across the province thanks to the valuable feedback we received from health authority Handlers, and advancements in the software tool. The new follow-up form provides healthcare leaders and managers with useful data about safety concerns and sophisticated follow-up tools and processes. We also launched new forms for hazard, visitor, and security and property events, which currently account for 6% of all safety events reported in BC. These forms are providing a consistent approach and a common language across the province.

For the first time in our Annual Report, we are pleased to share some preliminary findings from the provincial database. We will include this kind of data in our reports going forward, and the information we provide will evolve as BC PSLS continues to develop.

Later in 2011, rollout of the safety and learning tool across the province will be complete, marking the end of a three-and-a-half-year journey and making BC PSLS the first province-wide web-based system for reporting safety events in Canada.

Our plans over the next year include working closely with BC health authorities and other stakeholders to enhance the tools available in BC PSLS and pilot test new modules with the aim of making them available across the province.

Our vision is to ***make healthcare safer by fostering a culture of safety and learning***. We gratefully recognize and thank the hundreds of BC PSLS reporters, leaders and managers for their support and for their commitment to building a safer healthcare system in BC.

Dr. Doug Cochrane

Annemarie Taylor

"We are committed to building the safest healthcare system in Canada. As the first province-wide system of its kind, BC PSLS is calling attention to issues we can fix and guiding us toward safer solutions for our patients and their families."

~ Dr. Doug Cochrane

"I am inspired by the dedication of BC's healthcare leaders. They are taking advantage of the tools available in BC PSLS and sharing their knowledge, allowing us to improve the safety and learning system and foster a culture of safety across the province."

~ Annemarie Taylor

BC Patient Safety & Learning System Overview

How We Began

In 2002, the Health Care Protection Program (HCPP), which provides insurance for the BC healthcare system, established the BC Risk Management Committee. When it first formed, the committee recognized the need for better ways to identify, respond to, and learn from safety issues, such as those involving patients in healthcare facilities, and began to work to identify a solution for the province. The committee is still active today and includes representatives from all six BC health authorities.

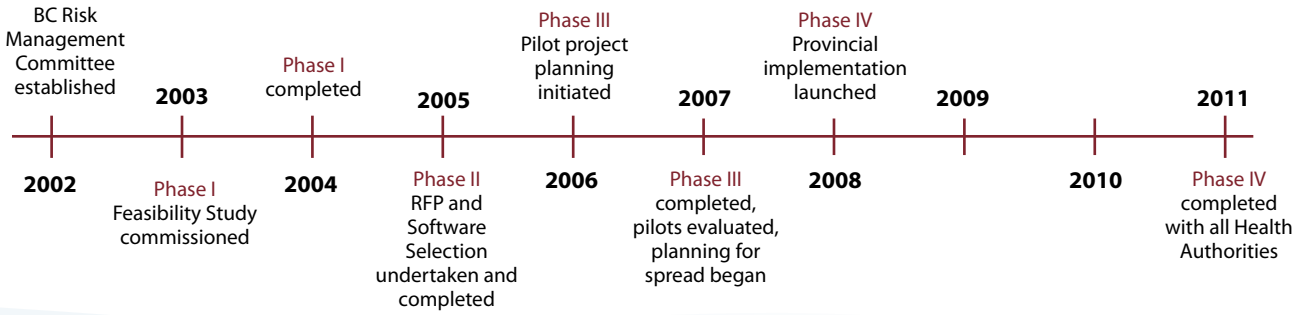
In 2003, the BC Ministry of Health (MOH) established the BC Patient Safety Task Force (PSTF) to identify and examine patient safety issues within the BC health authorities and to lead change initiatives aimed at making healthcare safer for British Columbians. The PSTF championed the concept of a provincial adverse event reporting and management system and supported BC PSLS as one of its key initiatives.

In 2008, the PSTF disbanded and the new BC Patient Safety Quality Council (BC PSQC) was formed to enhance patient safety, reduce errors in the healthcare system, promote open discussion and sharing of safety ideas and identify best practices to improve patient care. BC PSLS is an initiative supported by the BC PSQC.

The implementation and use of BC PSLS is under close observation by patient safety leaders and organizations in other jurisdictions. It is the first web-based reporting and learning tool of its kind in Canada to be implemented on a province-wide scale for use by all healthcare providers in all care settings.

The overall project timeline and key milestones are represented below.

Timeline



Who We Are and What We Do

BC PSLS is an important means of influencing patient safety in the province. The system aims to ***foster a culture of safety and shared learning*** by implementing web-based tools that enable the collection, notification, tracking, trending and analysis of patient safety event data. These tools help BC health authorities to focus their efforts on reducing and mitigating adverse events and on measuring the success of improvement initiatives. Ultimately, success in these efforts may bolster public confidence in BC's healthcare system and help to reduce the extra bed days and additional costs associated with adverse events.

In 2010 – 2011, BC PSLS received funding from the six BC health authorities and the BC Ambulance Service (BCAS) for implementation and operations.

The initial focus of BC PSLS was on acute care. We are now completing rollout across the healthcare system and continuum of care — from hospitals and long-term care facilities to home-care and community services — in all six health authorities.

The Provincial Health Services Authority (PHSA) has been a leader in the initiative since it began in 2002. Following a successful pilot in 2007, PHSA established a provincial BC PSLS Central Office and infrastructure to enable the system to expand across BC, and the expansion is nearly complete. Working in collaboration with others, PHSA is committed to provincial solutions and promoting improvement at the provincial level.

Although BC PSLS is a web-based reporting and learning tool, it is not only an information technology (IT) implementation effort but also a significant change initiative. It provides an opportunity to influence safety awareness and practices across the province.

"BC PSLS is an important means of influencing patient safety in the province. The system aims to foster a culture of safety and shared learning."

Our Desired Outcomes and Goals

Quality Patient Care

A key attribute of quality care is ***safety***. BC PSLS aims to promote safety in order to improve quality of care for patients. At the patient care level, changes to clinical practice and proactive, preventive actions to improve safety may be based on the knowledge gained from single safety events identified and managed using BC PSLS or by analysis of aggregate BC PSLS data. Central Office is making improvements to the reporting and learning tools available in BC PSLS to support front-line providers and leaders in their efforts to improve care and patient safety.

In 2010 – 2011, BC PSLS launched a business intelligence initiative to provide better analytics regarding patient safety events in BC. The goal is to provide senior leaders, and other designated users, quick access to interactive reports about their BC PSLS data. BC PSLS reports will use SAP BusinessObjects visual analytics tools to help users access rich, meaningful information that they can use to inform their quality and safety improvement initiatives.

A Sustainable, Affordable Healthcare System

A coordinated approach to patient safety event reporting and management across the BC health authorities will facilitate sharing and analyses of information. It will also help to identify trends and issues with respect to patient safety.

Through better management, significant benefits will be realized: costs associated with patient harm will be reduced and human and financial resources required to manage patient safety issues will be freed up.

"In 2010 – 2011, BC PSLS launched a business intelligence initiative to provide better analytics regarding patient safety events in BC."

Costs (ranging from unplanned readmissions or home care for patients suffering from care-related harm to complex complaints and legal actions taken against the health authorities) can be reduced through a coordinated approach to safety event management and follow-up. By investing in improving patient safety, BC's health authorities are essentially increasing capacity and cutting costs by avoiding risk and non-productive activities.

Short- and Medium-term Goals

- Improve safety event reporting to promote specific actions that lead to reducing or eliminating safety problems
- Provide tools that support timely feedback to BC PSLS users and leaders
- Develop more efficient reporting and safety event management processes
- Encourage teamwork and communication among healthcare teams
- Provide an accessible and reliable source of data for analysis and learning

Long-term Goals

- Foster and support a culture of safety and learning across BC healthcare facilities
- Improve information sharing across the continuum of care
- Enhance productivity in BC's healthcare system
- Develop methods to utilize resources more effectively
- Reduce costs associated with adverse events, safety hazards and near misses

Our Organizational Structure and Governance

BC PSLS began as a provincial grassroots initiative and as a shared desire of healthcare leaders to address quality and safety concerns and learn from safety issues collaboratively. The committee structure *(depicted on the next page)* reflects this philosophy. This structure was developed to effectively oversee and influence the strategic directions and ongoing operations of BC PSLS. The structure also reflects the notion of shared ownership and responsibility for the system and its use.

The BC PSLS Steering Committee is responsible for the overall strategic vision and direction of the BC PSLS program and Central Office.

PHSA has been appointed as the initial custodian of Central Office, which currently has six full-time and two casual employees:

- Provincial Director
- Administrative Manager and Communications Coordinator
- Senior Technical Manager
- Business Development and Information Systems Analyst (2)
- Training and Change management Lead
- Training, Change Management and Data Quality Assurance (2)

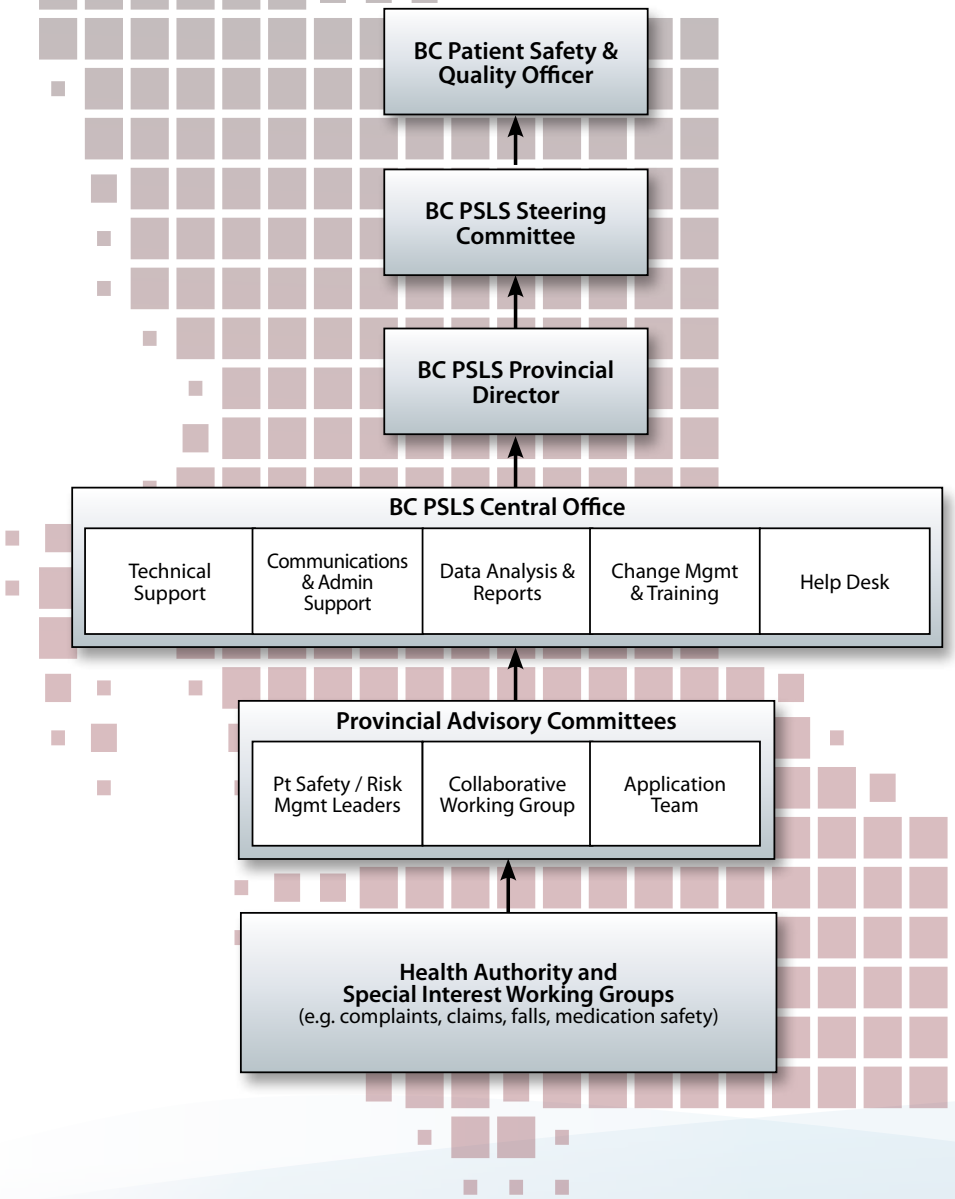
Led by the Provincial Director, the Central Office team is responsible for managing the day-to-day operations of BC PSLS in accordance with the strategic vision and priorities set out by the Steering Committee and the provincial Participation Agreement (PA).

The provincial advisory committees are comprised of the Patient Safety/Risk Management Leaders Committee (PSRMLC), the Application Team Committee and the Collaborative Working Group (CWG). These three committees work closely with Central Office staff to shape and administer the application on behalf of BC health authorities.

Central Office Team

(left to right) Darren Frizzell, Annemarie Taylor, Inderpal Chani, Tammy Quach, Anne Marie White, Linda Cumming and Michelle Preston [missing – Sandra Christenson]

Organizational Chart

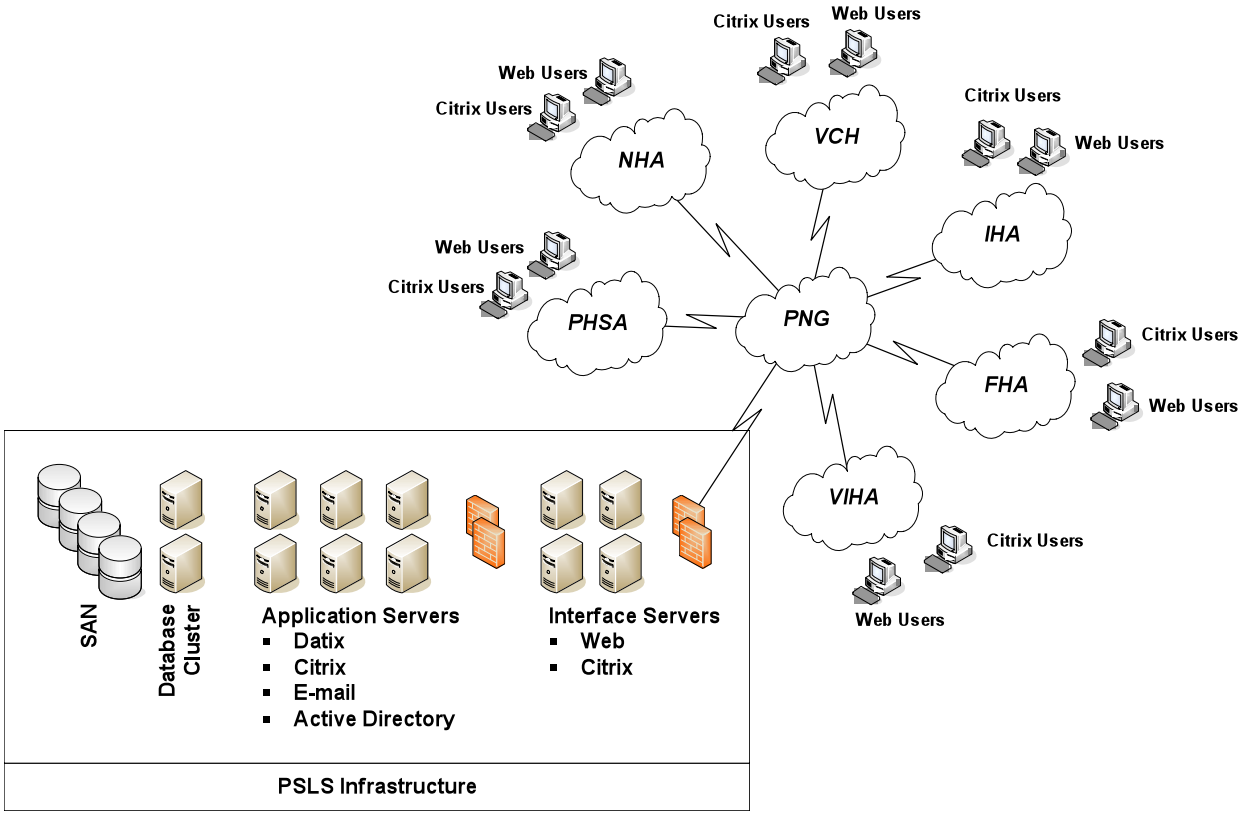


System Infrastructure and Database

BC PSLS uses Datix software (www.datix.co.uk).

The system hardware, software and connectivity infrastructure are housed on the Vancouver campus of the Children's & Women's Health Centre of BC and are supported by the Central Office technical team and PHSA's IM/IT department.

The patient safety data is stored on a single shared database, which is managed and secured by Central Office. To meet confidentiality requirements, each health authority has access to only its own data, with access enabled and restricted by security permissions within the Datix application.



Projects and System Improvements

"In 2010 – 2011, we enhanced the use and functionality of a variety of tools already available in the system and developed new tools to better support our users across the province."

In 2010 – 2011, Central Office enhanced the use and functionality of a variety of tools already available in the system and developed new tools to better support our users across the province:

- **Safety Learning Form** (follow-up form) — The new form incorporates feedback we have received from health authority Handlers across the province and takes advantage of advancements in the software tool. The Safety Learning Form is more streamlined and provides leaders and managers with more reliable and comprehensive follow-up tools and processes. The form also allows us to accommodate those staff affected by Lower Mainland Consolidation (FHA, PHC, PHSA, VCHA).

- **Provincial Forms** — New forms for hazard, visitor, and security and property events were made available across the province to provide consistency and a common language. The new forms are also easier for reporters to complete. These types of events account for 6% of the total events reported in BC PSLS.

- **Patient Engagement** — Central Office collaborated with two groups at PHSA to learn more about patient safety and quality from the perspective of patients and families. Using the Safety Events module, the Patient Experience Program (PEP) pilot project sought feedback from patients and parents about their overall experiences at BC Children's and BC Women's hospitals, and the Bedside Observer (BSO) project invited parents to identify safety events they witnessed during their child's stay in hospital.

- **Provincial Language Service (PLS)** — New language questions have been added to all Safety Event Report forms to identify patient safety issues where language barriers played a significant role.

Health Authority Implementations: Nearly Complete!

Provincial rollout of BC PSLS began in February 2008 with PHSA and Interior Health Authority (IHA). Once implementation is complete in all six BC health authorities in 2011, BC PSLS will be the first province-wide web-based safety event reporting system in Canada.

Fraser Health (FHA)

FHA went live at its first site in April 2008 and will be completely rolled out in all facilities by mid-2011. This past year, FHA worked closely with Central Office to pilot test a number of new BC PSLS modules and determine the potential for full provincial rollout.

Interior Health (IHA)

IHA was one of the first BC health authorities to go live with BC PSLS in February 2008. IHA is finishing implementation in its community facilities and will be completely rolled out across the region by mid-2011.

Northern Health (NHA)

All NHA facilities have been using BC PSLS since the fall of 2009. NHA is focusing their attention on learning about their BC PSLS data and initiating quality improvement projects based on the findings.

Provincial Health Services Authority (PHSA)

All PHSA agencies have been using BC PSLS since early 2009. BC Ambulance Service (BCAS), an affiliate of PHSA, launched a pilot project of the Safety Events module in late 2010. BCAS also plans to implement the Complaints module in 2011.

Vancouver Coastal Health (VCH)

All VCH facilities have been using BC PSLS since late 2009. Providence Health Care (PHC), an affiliate of VCH, will be completely rolled out by mid-2011.

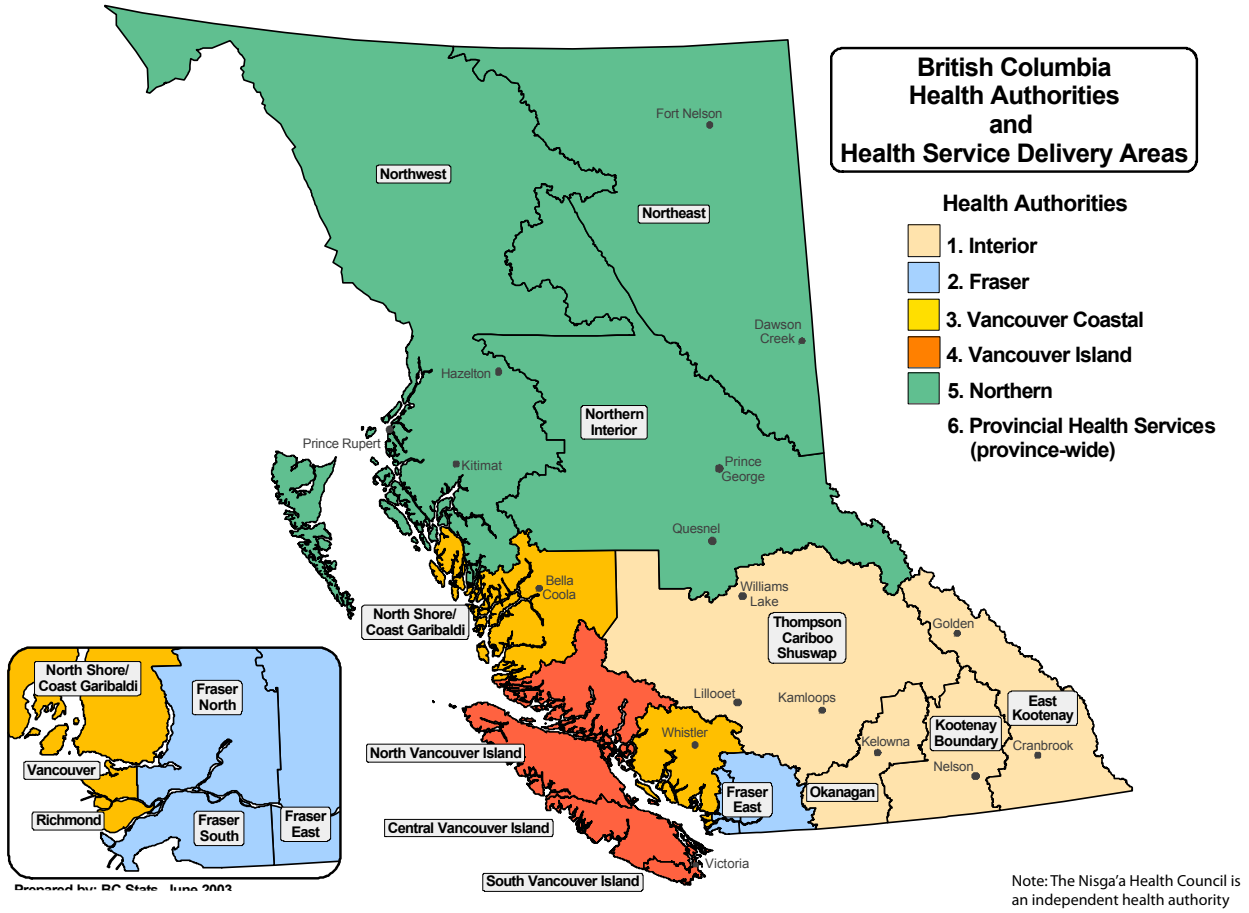
Vancouver Island Health Authority (VIHA)

VIHA is currently rolling out BC PSLS across the region. Their first go live was in early 2010, and VIHA will complete all implementations by mid-2011. This will mark the end of province-wide rollout of BC PSLS to all healthcare facilities in BC.

Preliminary Findings from the Provincial Database

The BC PSLS provincial database reached 100,000 safety events in 2010 – 2011. With an average of 200 safety events reported daily from across the province, the information available to health authority leaders and managers is a useful tool to drive quality and safety initiatives in all BC health authorities.

BC PSLS Users Across the Province



Note: The Nisga'a Health Council is an independent health authority

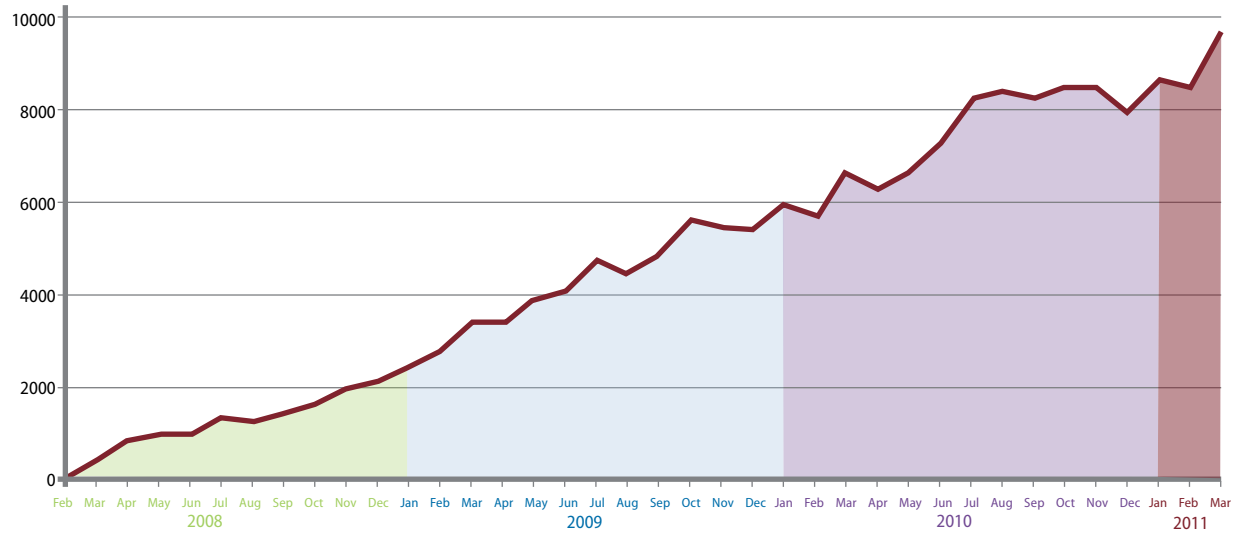
Number of BC PSLS Handlers by Region (authenticated users):

- Interior Health: 1226
- Fraser Health: 2011
- Northern Health: 595
- Vancouver Coastal Health 1735
- Providence Health (affiliated with Vancouver Coastal Health) 389
- Vancouver Island Health Authority 1128
- Provincial Health Services Authority 887

Prepared by BC Stats June 2003

Volume of Safety Events Reported Since First Go Live

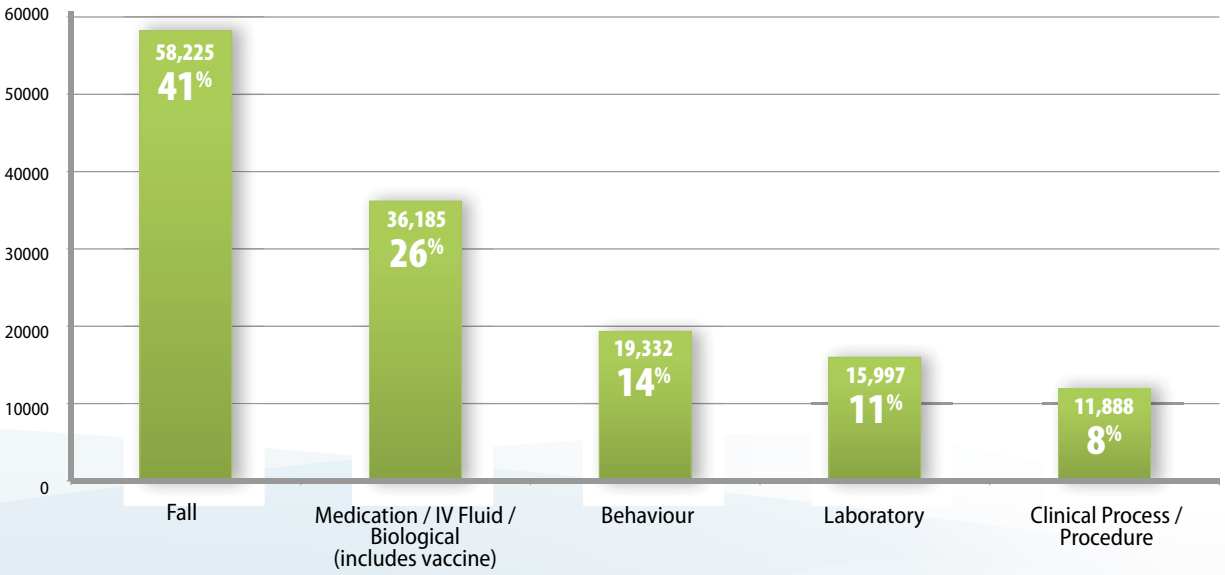
February 25, 2008 - March 31, 2011



The volume of safety events reported in BC has steadily risen since 2008 as more facilities have gone live with BC PSLS.

Top 5 Event Categories Reported Since First Go Live

February 25, 2008 - March 31, 2011



Falls and medication-related events account for 67% of the total events reported across the province.

What's Next

The Datix software package that forms the basis of BC PSLS offers a functional way to report safety events and provides support for a number of other related activities. Plans are underway to improve several modules currently available in the system and to configure new modules for pilot testing in the coming year:

- **New Tools** — Over the next year, we plan to develop three new modules within the BC PSLS platform:
    - *Recommendations Manager* will support the management of recommendations and review processes arising from event reviews.
    - *Safety Alerts* will coordinate the distribution of information about drugs, devices and other related health and safety concerns.
    - *Risk Register* will pull together issues identified in other BC PSLS modules and sources so those issues can be addressed and monitored.
- **BC PSLS Reports** — The goal of this business intelligence initiative is to provide improved visual analytics and functionality of BC PSLS reports for senior leaders and other designated users. The reports will use SAP BusinessObjects tools which will allow users to interact with and drill through BC PSLS data without restrictions in order to answer emerging questions about quality and safety at BC's healthcare facilities.
- **Infection Prevention and Control** — A group of representatives from the Provincial Infection Control Network (PICNet) of BC, the BC health authorities and an EMBA student from the Sauder School of Business (UBC) recently worked with Central Office to identify the data elements required for reporting healthcare-associated infections in healthcare facilities. The goal is to develop this area of BC PSLS to learn more about infection-related events and how to prevent them.
- **re:act Adult Abuse & Neglect** – VCH is a designated agency responsible for investigating situations of suspected and known abuse, neglect and self-neglect of vulnerable adults under the Adult Guardianship Act. A pilot project of the Safety Events module is guiding rollout to Designated Responder Coordinators across VCH and eventually across the province.

"We are improving several modules currently available in BC PSLS and configuring new modules for pilot testing in the coming year."

Financial Statement

In 2010 - 2011, the six BC health authorities (FHA, IHA, NHA, PHSA, VCHA and VIHA) and BCAS contributed the $1,387,000 required to support Central Office operating costs and software licence fees. The health authorities also committed funds to support their own implementation and sustainment efforts in 2010 - 2011.

BC PSLS Central Office operations	$1,026,027
Software purchase and licence fees	$360,973

"BC PSLS is the first web-based reporting and learning tool of its kind in Canada to be implemented on a province-wide scale for use by all healthcare providers in all care settings."

Thank You!

BC PSLS would not be a reality without the support, dedication and encouragement of many people and organizations. We want to take this opportunity to recognize these contributions. Some individuals played more than one role, but for the sake of brevity, each person is listed only once. We hope we have not missed anyone and express our sincerest apologies if we have.

BC PSLS Steering Committee

Doug Cochrane
Chair

Fraser Bell
VP, Planning, Quality & Information Management
(NHA)

Jeremy Etherington
VP, Medicine & Quality
(IHA)

Thomas Fulton
Chief of Professional Practice, Nursing & Quality Improvement
(IHA)

Georgene Miller
Chief Administrative Officer, Quality, Safety & Outcome Improvement
(PHSA)

Patrick O'Connor
VP, Clinical Quality & Safety
(VCH)

Barb Trerise
VP, Patient Safety, Quality & Information Management
(PHC)

Martin Wale
Executive Medical Director, Quality, Research & Safety
(VIHA)

Andrew Webb
VP, Medicine
(FHA)

Health Authority BC PSLS Coordinators

Tammy Simpson
FHA

Kelly Mendes
IHA

Marie Hunter
NHA

Jyoti Ladhar
PHSA

Terri Ellis
VCH

Peter Chan
PHC

Carmen Strom
VIHA

Thank You!

Patient Safety / Risk Management Directors Committee

Ruby Fraser
Director, Quality, Safety & Risk Management
(NHA)

Wrae Hill
Director, Quality & Patient Safety
(IHA)

Patty Glaim
Corporate Director, Risk Management
(IHA)

Darren Kopetsky
Regional Director, Client Relations & Risk Management
(VCH)

Camille Ciarniello
Director, Risk Management & Patient Safety
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Director, Quality Improvement & Patient Safety
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Manish Bharadwaj

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