



BC Patient Safety & Learning System

- Overview
 - Background
 - Project
 - Timeline
- Pilot evaluation results
- Provincial implementation
 - Concept
 - Strategies
 - Enablers
 - Status
 - Challenges & opportunities
- Working with others

Overview: Background

“In seeking to improve safety, one of the most frustrating aspects for patients and professionals alike is the apparent failure of healthcare systems to learn from their mistakes...(and) share what they’ve learned. As a consequence, the same mistakes occur repeatedly in many settings and patients continue to be harmed by preventable errors.

One solution to this problem is reporting...At a minimum, reporting can help identify hazards and risks, and provide information as to where the system is breaking down. This can help target improvement efforts and system changes to reduce the likelihood of injury to future patients.”

World Alliance for Patient Safety, 2005

WHO Draft Guidelines for Adverse Event Reporting and Learning Systems

Overview: Background

- The healthcare system has an obligation to learn from adverse events
 - Adverse events affect approximately 10% of patients admitted to hospital
 - Healthcare provider reports reveal 5 – 25% of adverse events
 - Other methods include surveillance, audits, reports from patients / families
 - No standardization of methods, require resources to perform
- Barriers to reporting include:
 - Failure to do anything about the event
 - Lack of acknowledgement / response (“Black Hole Syndrome”)
 - Failure to recognize the important and critical among the common and accepted
 - Fear of punishment / retribution
 - Time constraints
 - Cumbersome paper-based systems
 - Accumulation of forms
 - Focus on organizing forms / processes / data
 - Delays in response from leaders

Overview: Background

- A robust adverse event reporting system is foundational to patient safety
 - Helps us to respond
 - Allows us to identify and learn from failures of the system
 - Allows us to share learning with others
- Technology removes some barriers to reporting
 - Time constraints
 - Cumbersome paper-based systems
- Need to work with staff to achieve learning and improve safety
 - Failure to do anything about the event
 - Lack of acknowledgement / response (“Black Hole Syndrome”)
 - Failure to recognize the important and critical among the common and accepted
- Can use system implementation as ‘culture carrier’ to address barriers

To be successful, we need to support a focus on quality and safety that extends beyond safety event reporting and system implementation

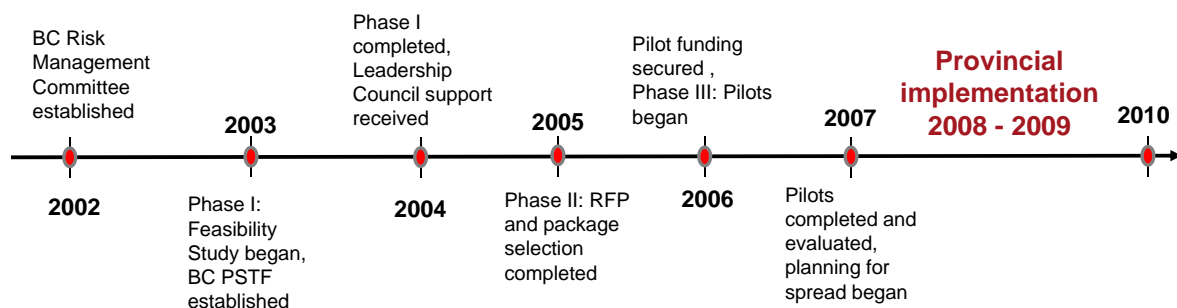
Overview: BC PSLS Project

- Collaborative effort of BC Health Authorities and Health Care Protection Program
- Vision to establish system for:
 - All Health Authorities
 - All participants (providers and recipients)
 - All settings
 - Across continuum of care
- Centralized structure:
 - Database
 - Infrastructure and team
 - Common language and approach

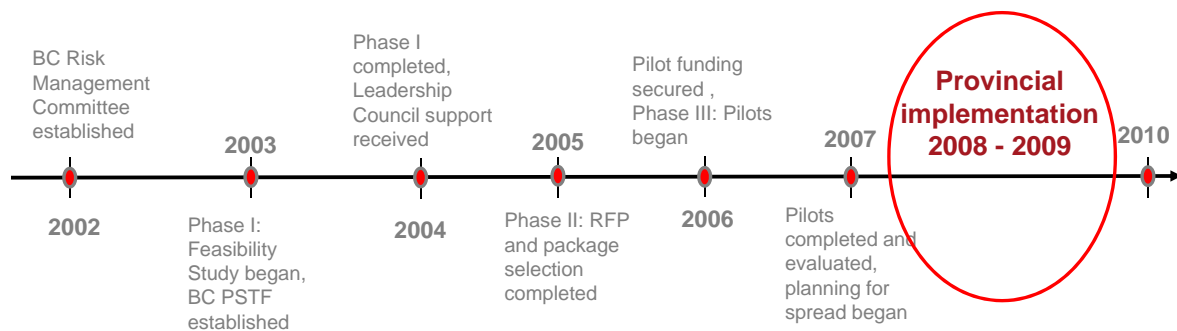
Overview: BC PSLS Project

- Short- and medium-term goals:
 - Improved event reporting, leading to actions to enhance safety, improve quality
 - Timely feedback to reporters and prompt notification of leaders
 - Improved efficiency for event management
 - Increased teamwork and improved communication
 - A better source of data for analysis
- Longer-term goals:
 - Improved information-sharing
 - Alerts, lessons learned, best practices
 - Enhanced productivity
 - More effective use of resources
 - Reduced costs associated with adverse events
 - A culture of safety and learning

Overview: BC PSLS Timeline



Overview: BC PSLS Timeline



Pilot implementation



Provide proof-of-concept

- Funding from Canada Health Infoway, BC Ministry of Health Services, pilot Health Authorities
- Pilot Steering Committee established
- Pilot sites at PHSA (BC Women's NICU) and VCH (VGH Vascular & General Surgery Unit)

Pilot implementation: Evaluation results

PHSA Pilot: BC Women's Hospital
Neonatal Intensive Care Unit

- High-risk area
- Critical incidents
- Leaders demonstrated interest in quality & safety



BC Women's NICU

Operational evaluation

INDICATOR	PRE-PILOT	PILOT	IMPROVEMENT
# of events reported	50	129	158%
Near miss or hazard	26%	36%	10%
Non-RN reports	8%	26%	18%
Reported within 48 hours of event	2%	84%	82%
Average time between event and notification to QSRM	25 days	1 day	24 days
Average time between event and completion of investigation	39 days	33 days	6 days
Report complete	6%	100%	94%
Evidence of adequate follow up	15%	70%	55%

Pilot implementation: Evaluation results

PHSA Pilot: BC Women's Hospital
Neonatal Intensive Care Unit

- High-risk area
- Critical incidents
- Leaders demonstrated interest in quality & safety



BC Women's NICU

Operational evaluation

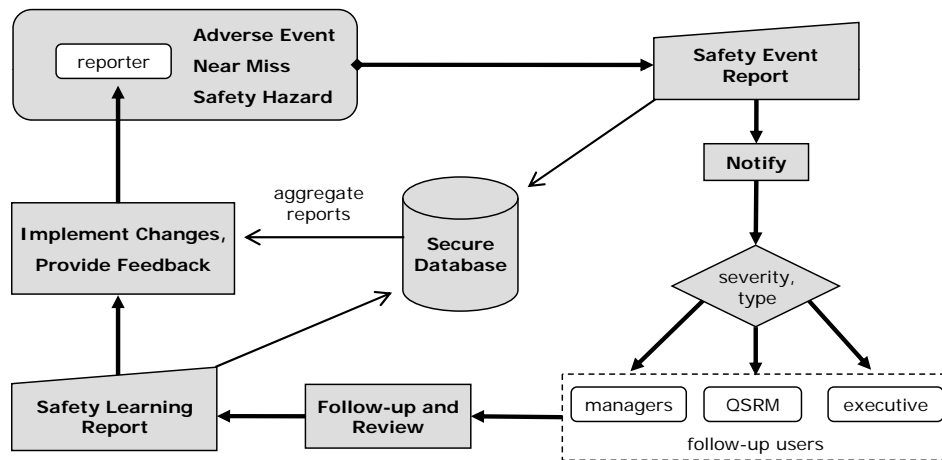
INDICATOR	PRE-PILOT	PILOT	IMPROVEMENT
# of events reported	50	129	158%
Near miss or hazard	26%	36%	10%
Non-RN reports	8%	26%	18%
Reported within 48 hours of event	2%	84%	82%
Average time between event and notification to QSRM	25 days	1 day	24 days
Average time between event and completion of investigation	39 days	33 days	6 days
Report complete	6%	100%	94%
Evidence of adequate follow up	15%	70%	55%

Pilot implementation: Evaluation results

- Cultural evaluation
 - Patient safety culture surveys and focus groups conducted pre- and post-pilot phase
 - Impact of change management activities shown in small but significant shift shown prior to Go Live
- Lessons learned
 - Collaboration takes time but produces better result
 - Important to use pilot to establish groundwork for provincial implementation
 - Most of effort in planning, system configuration and change management
 - Biggest impact felt by managers, others responsible for follow-up
 - System enables prompt notification, facilitating quick response to events
 - Co-locating technical and “business” team members promotes learning, development of shared understanding of initiative, limitations and opportunities

© British Columbia Patient Safety & Learning System

Provincial implementation: Concept



Continuous Improvement

- improve safety (change **system**)
- share learning, promote reporting (change **culture**)

© British Columbia Patient Safety & Learning System

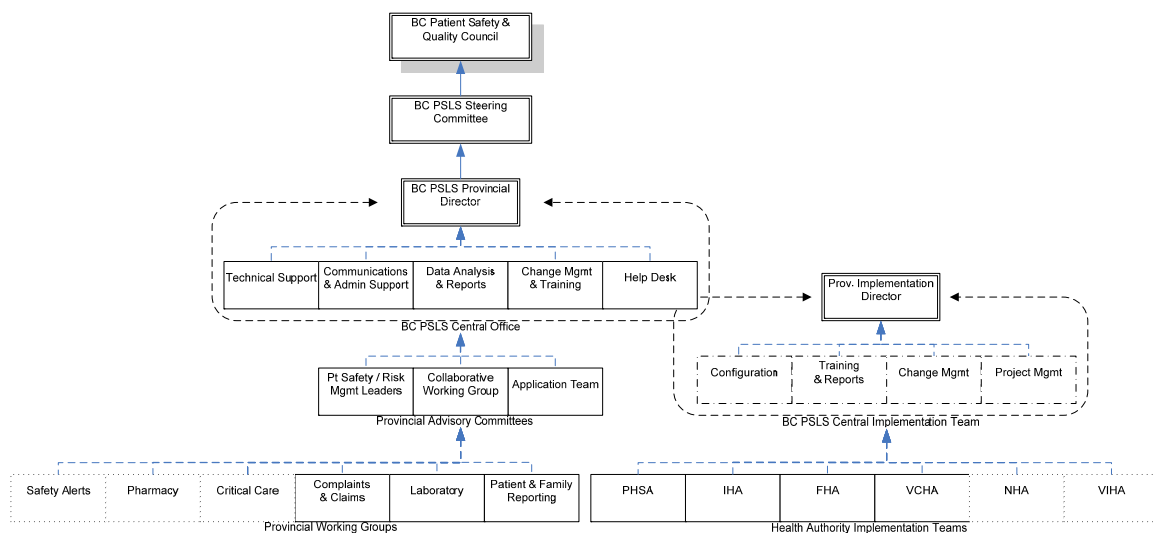
Provincial Implementation: Concept



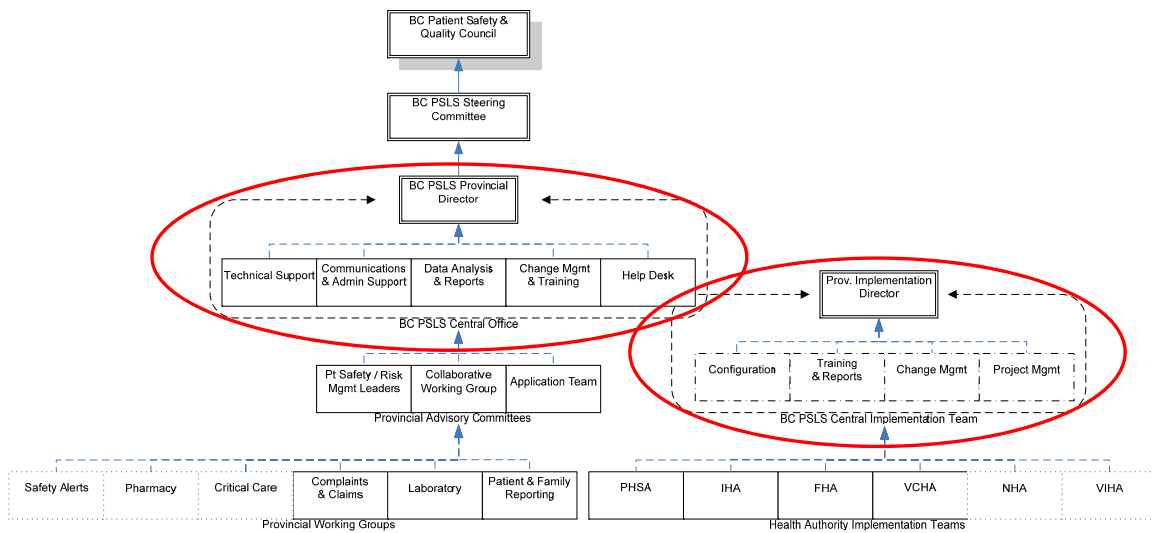
Focus on adoption and spread

- Funding from BC Ministry of Health
 - Established Central Office
 - Began provincial implementation through Central Implementation Team
- Centralized implementation and support model
 - Experienced, skilled and knowledgeable team members
 - Access to specialized experts as needed
 - Building on success of pilot through centralized provincial approach
 - Using and expanding Implementation Toolkit to ensure successful adoption
 - Evaluation built into implementation approach

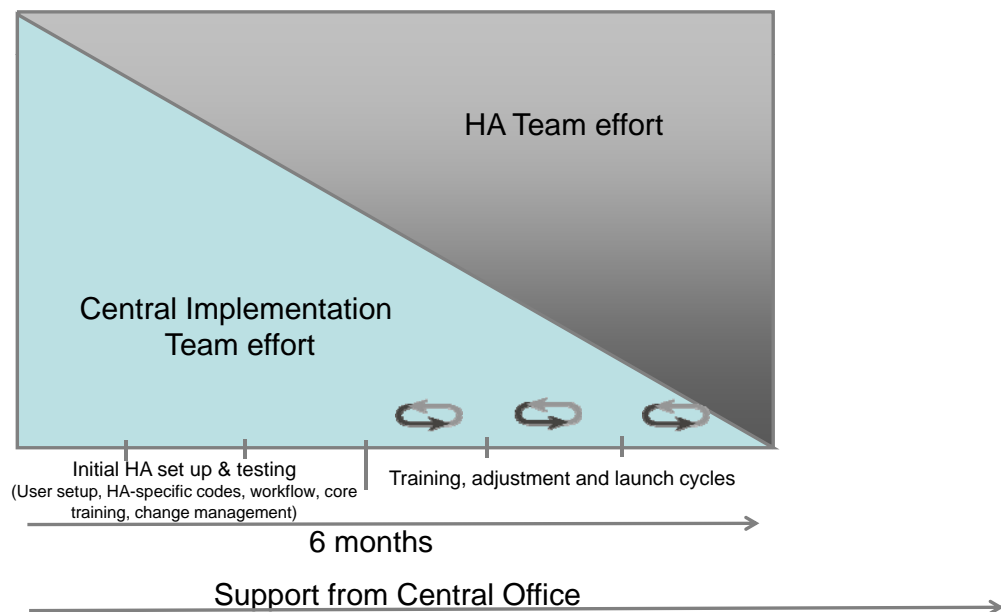
Provincial implementation: Concept



Provincial implementation: Concept



Provincial implementation: Concept



Provincial Implementation: Strategies

- Change management: Approach implementation as patient safety initiative
 - Training provides opportunities to discuss patient safety and explore barriers to reporting
 - Tailor discussions and materials to different stakeholders and audiences
 - Focus on adoption, response, learning and improvement
 - Organizational policies provide foundation for non-punitive, systems approach
- Technology: Use technology to address barriers to reporting
 - Option to report anonymously
 - Accessible
 - User-friendly interface
 - Simple
 - Quick to complete
 - Automatic notification enables timely response from leaders
 - Provides accessible data for analysis
 - Supports local improvement initiatives

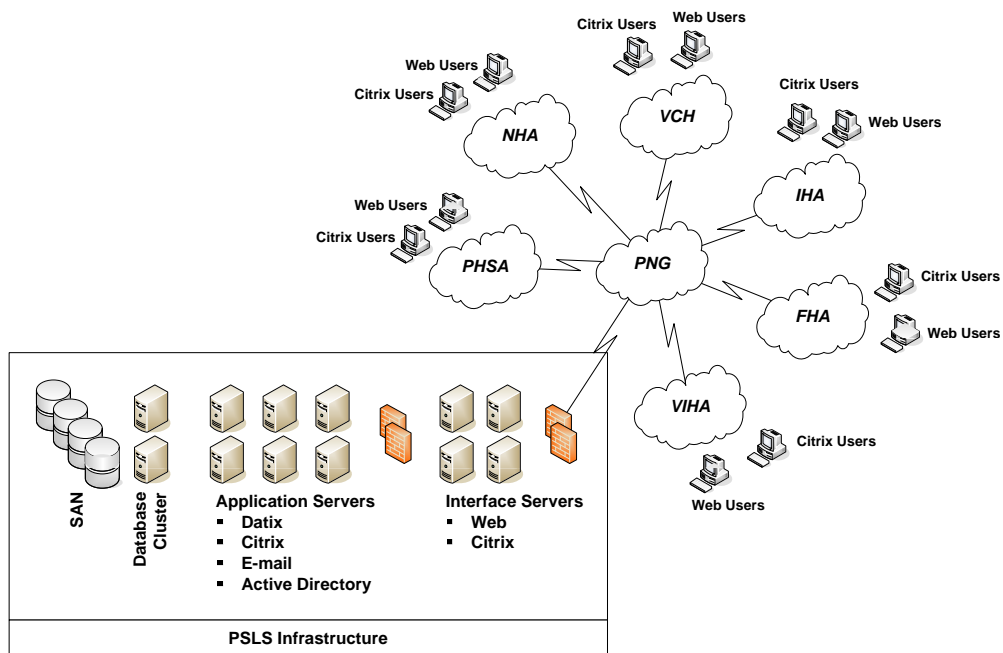
Strategies: Change management

- Stakeholder identification, assessment and engagement plan
 - Who is aware? Who will be impacted? Who could help or hinder?
- Readiness assessment
 - Identification of existing safety practices
 - Safety Rounds/Huddles
 - Use of PDSA Model for Improvement
 - Gap analysis
- Detailed communications plan and campaign
 - Presentations to existing committees
 - Tailored and targeted messages
- Comprehensive education plan
 - Reporters, managers
- Evaluation at all stages
 - Use of PDSA Model to facilitate iterative change

Strategies: Technology

- Centralized IT
 - Hardware
 - Infrastructure
 - Multiple system environments (Production, Training/Learning, Staging, Testing, Development, Reports)
- Provincial software licenses
 - DATIX
 - Support software
- System security
 - Provincial Private Network Gateway
 - PHSA IT disaster recovery and back-up procedures
- Opportunities for integration
 - Reviewed feasibility of interface with provincial Enterprise Master Patient Index

Strategies: Technology



Provincial implementation: Enablers

- Project management approach
 - “Hybrid” model developed
 - Combines best elements of formal project management and PDSA model
 - Allows flexibility and supports innovation
- Privacy and data sharing tools and templates
 - Privacy Impact Assessment
 - Participation Agreement
 - Health Authorities “own” and control their own data, respond to privacy requests
 - BC PSLS Central Office is custodian of data, prepares reports, trending, analysis
 - Incorporate legislative requirements
 - Offer a foundation for other provincial system implementations and support the maturing relationships of the Health Authorities with province-wide systems
- Centrally-developed Implementation Toolkit for use by Health Authorities
 - Website deployment tools, e-learning modules, training materials, communications campaign aids, evaluation surveys...and more!
 - Little additional expense or effort required

Provincial implementation: Enablers

- Centralized, expert support and proven implementation methodology to promote successful adoption
- Site-specific approach, look and feel to promote local ownership



Go Live at Forensic Psychiatric - BCMHAS Team

Provincial implementation: Enablers

- Centralized, expert support and proven implementation methodology to promote successful adoption
- Site-specific approach, look and feel to promote local ownership

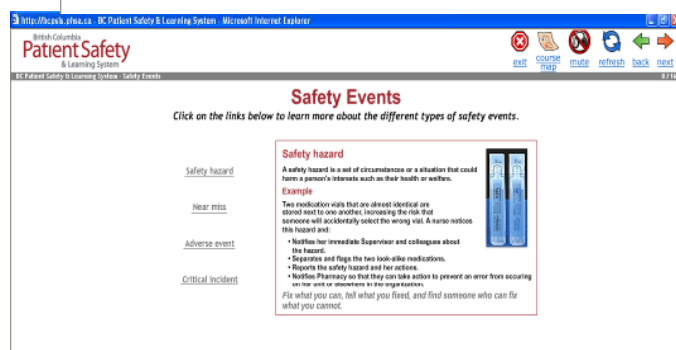
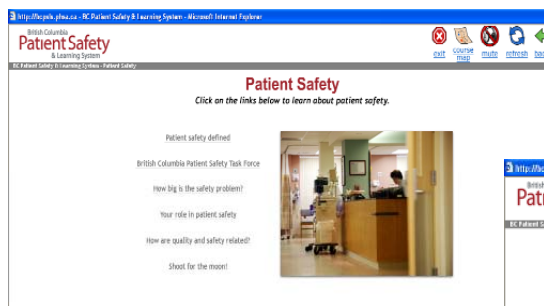


IHA Labs – “Test-tube Tammy”

Provincial implementation: Enablers

E-learning tools:

- Modules for reporters and managers
- Video demonstration of form completion
- Practice scenarios and environment



Provincial implementation: Enablers

- Success with roaming Safety Champions and “Ask me!” campaigns
 - Seconded staff
 - Trained (2 hours)
 - Patient safety
 - Culture of safety
 - Safety event reporting using BC PSLs
 - “Roam” to clinical areas after Go Live to introduce system
 - Meet with staff in small groups for 10 - 20 minute ad hoc sessions
 - Attend Safety Rounds
 - Introduce e-learning tools
 - Provided valuable feedback to Central Team



PHSA Safety Champions

© British Columbia Patient Safety & Learning System

Provincial implementation: Status

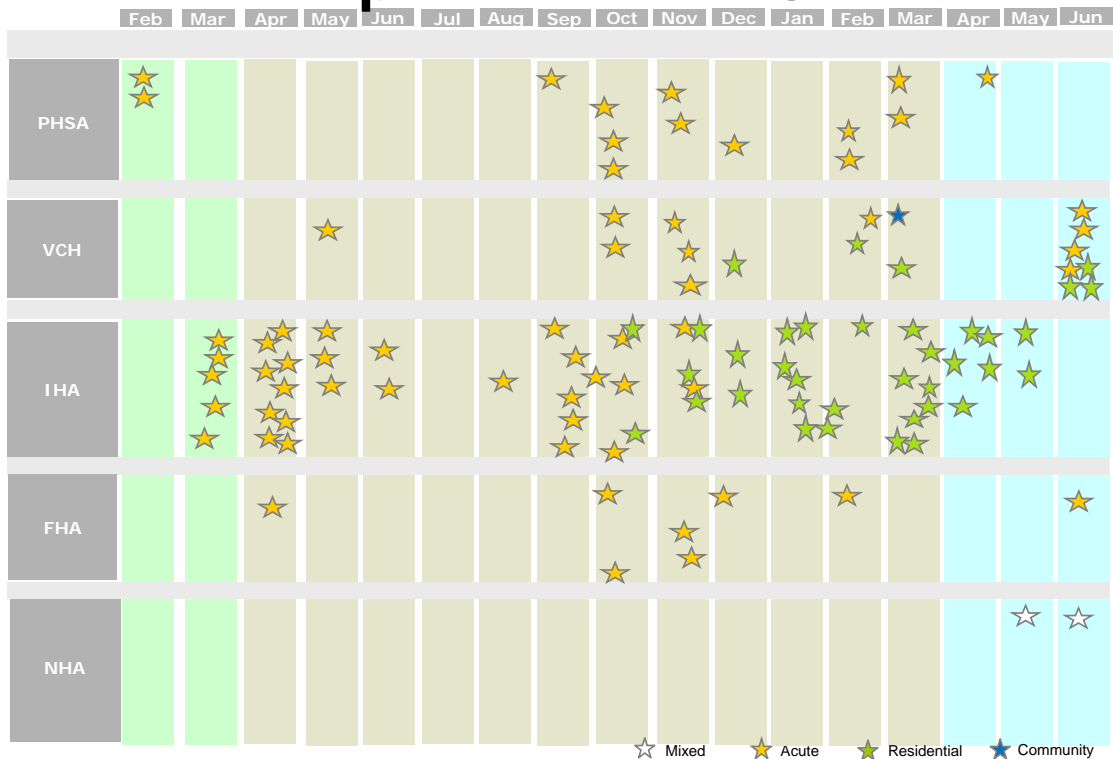
- Rapid spread due to ease of implementation
- Five Health Authorities now using BC PSLs
- Nearly 30,000 safety events now in provincial database
- Implementations in acute care, residential care and community
- Pilot implementation of additional modules underway



Go Live at Delta Hospital

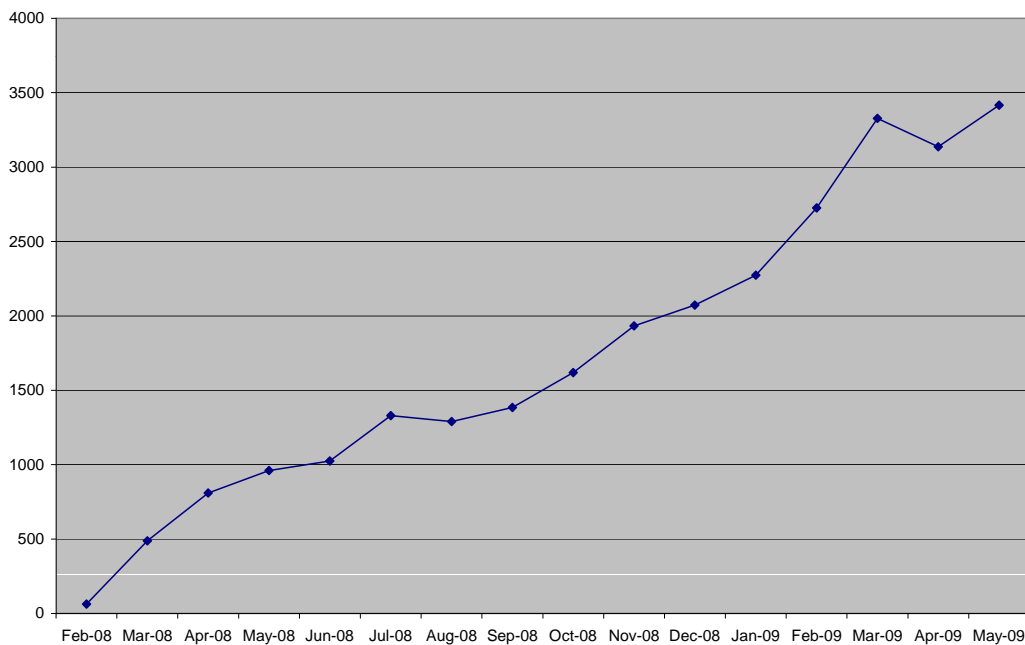
© British Columbia Patient Safety & Learning System

Provincial implementation: Status



Provincial implementation: Status

Safety events reported since first Go Live – Feb 25/08 – May 31/09



Challenges & opportunities



We are shifting our focus from implementation and adoption to action and learning

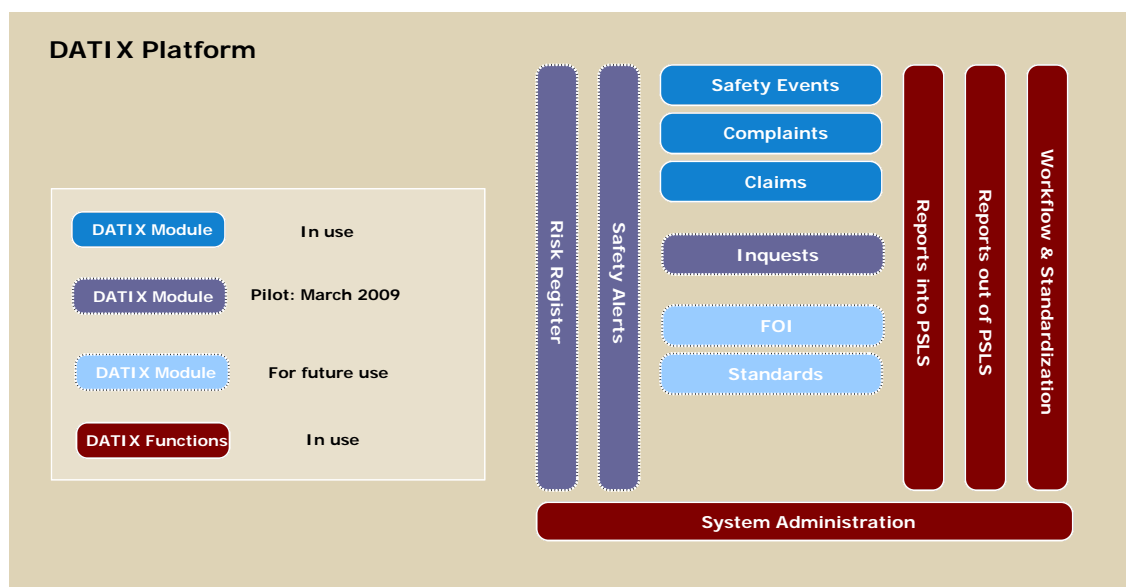
“Reporting in itself does not improve safety. It is the response to reports that leads to change. The response system is more important than the reporting system.”

World Alliance for Patient Safety, 2005

WHO Draft Guidelines for Adverse Event Reporting and Learning Systems

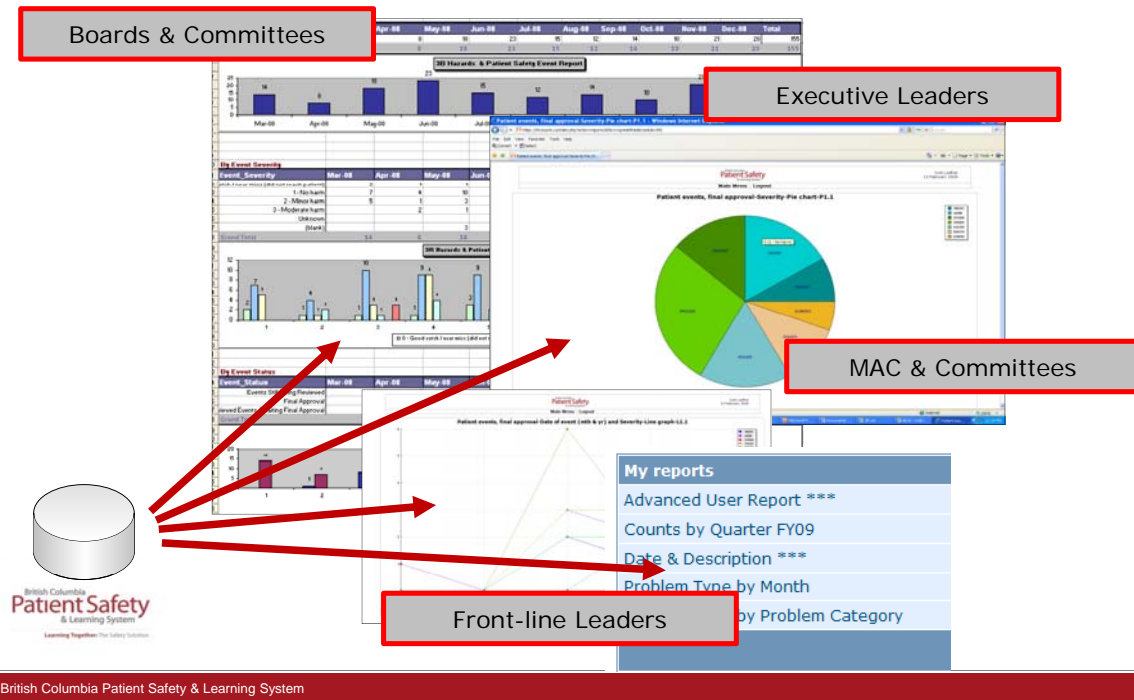
Challenges & opportunities

BC PSLS modules and shared functions



Challenges & opportunities

BC PSLS reports



Challenges & opportunities

- Promoting effective response and event management practices from report “receivers”
- Building model for physician engagement
 - Use of e-learning tools to support just-in-time education?
 - Part of privileging and credentialing process? CMEs?
 - Use of BC PSLS to capture data and support learning about clinical issues?
- Exploring 1-800 call centre service for safety event reporting
- Configuring complaints module to support Bill 41 requirements
- Sharing our learning
 - Alerts, lessons learned, best practice recommendations
 - Addressing barriers of privacy, legislation, resource restrictions
- Securing funding
 - Removing barriers to Health Authority participation

Working with others

- Provincial:
 - Seeking partnership opportunities where possible with provincial and national safety event reporting initiatives
 - OSHA Workplace Hazardous Incident Tracking and Evaluation (WHITE) System
 - Infection Control
 - Community Licensing
 - Re:Act
 - Falls
 - Patient / Client Satisfaction (reports)
 - Supporting research initiatives
 - Safety event reporting in emergency room settings (VCH / PHC)
 - Safety event reporting by patients and families (BCCH)
 - Patient / family experience reporting (PHSA)

Working with others

- Interprovincial:
 - Offering support and consultation to Eastern Health, Newfoundland
 - Sharing lessons learned with (former) Calgary Health Region and (new) Alberta Health Authority
- National:
 - Will pilot data sharing with CIHI's National System for Incident Reporting (NSIR) medication module (formerly Canadian Medication Incident Reporting and Prevention System - CMIRPS) for BC
 - Advising on NSIR
 - Providing input on CPSI's proposed Canadian Adverse Event Reporting and Learning System
- International:
 - Participating in several international consultation initiatives on adverse event reporting
 - May pilot use of some of the AHRQ Common Formats data sets as part of international initiative

Establishing a Provincial Patient Safety and Learning System: Pilot Project Results and Lessons Learned

Doug Cochrane, Annemarie Taylor, Georgene Miller, Valoria Hait, Irene Matsui, Manish Bharadwaj and Patrick Devine

<http://www.longwoods.com/home.php?cat=592#loopBack>

British Columbia
Patient Safety
& Learning System

Annual Report

November 2007 – March 2008

