



Implementation of a Province-wide Drug Information System

The PEI Experience





PEI's DIS Vision

A Drug Information System that establishes:

- a longitudinal medication record for all Islanders;*
- is accessible by authorized health care professionals at points of care; and*
- forms a foundational piece of the province's interoperable Electronic Health Record (iEHR).*



DIS Overview

- Supports an All Drugs All People (ADAP) Program:
 - ◀ Complete, on-line, and up-to-date medication profiles
- Records Patient clinical information:
 - ◀ Records all Prescriptions and Dispenses
 - ◀ Records OTCs, allergies/intolerances, patient observations, medical conditions, office medications/samples, professional services, and immunizations
- Features a comprehensive Drug Utilization Review:
 - ◀ Decision support tool for prescribing and dispensing
- Contains E-prescribing functionality



Project Status

- *Pharmaceutical Information Act* was proclaimed March 31, 2007:
 - ◀ Enforcement date of January 1, 2008
 - ◀ The Act legislates pharmacists to submit all dispenses (to Island residents) to the DIS
- On March 13, 2008, the first community pharmacy came online with the DIS
- On September 3, 2008, all Island pharmacies were online and totally integrated with their pharmacy system
- Provincial Pharmacy is also connected to DIS:
 - ◀ Long Term Care facilities
 - ◀ Special medication programs (HIV, transplant program, cystic fibrosis medications, growth hormones)

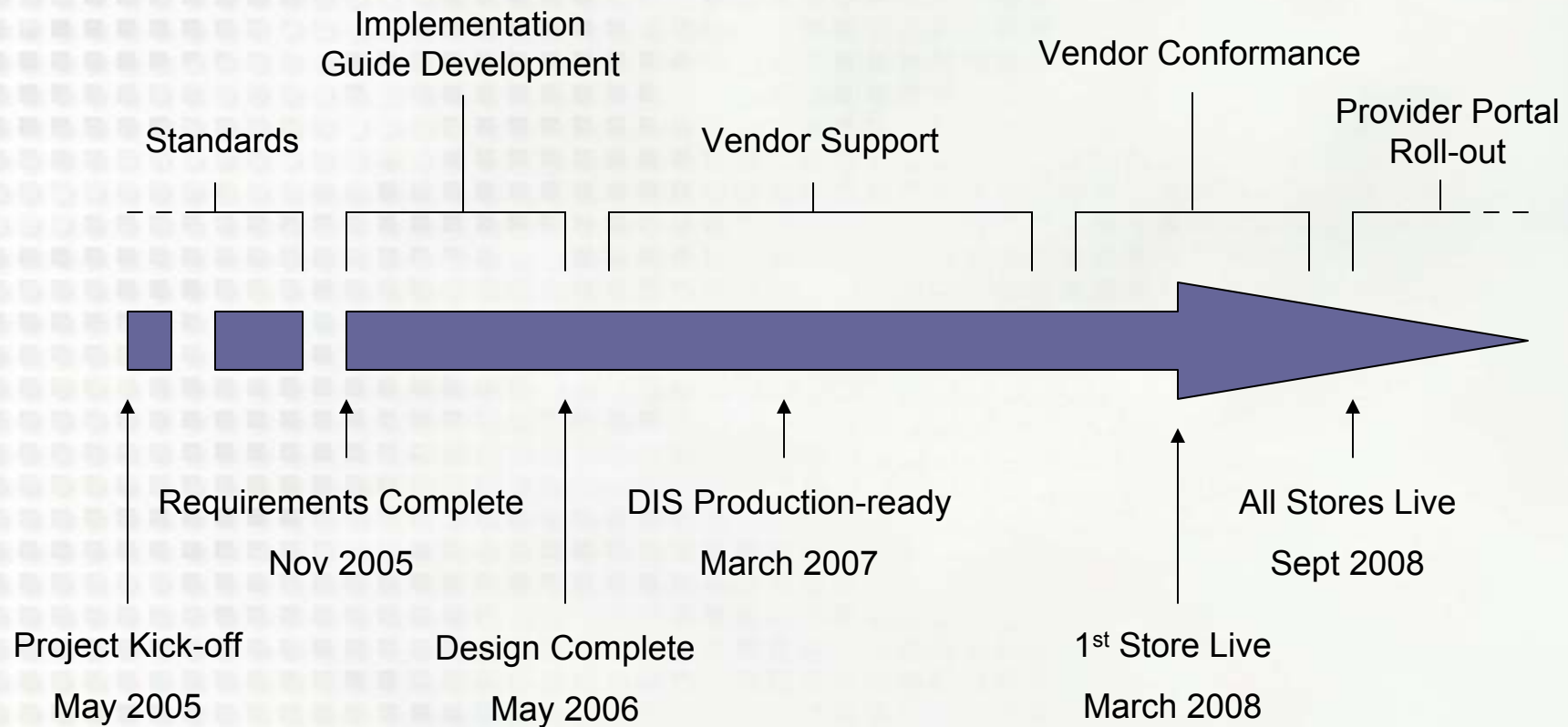


...Project Status

- Moving on providing access to other health care providers:
 - ◀ DeltaWare Systems has developed a web-based application (Provider Portal) that provides health care professionals access to the information stored in the DIS
 - ◀ All hospital pharmacies, four primary health care centers, and several physicians (private practice) have been trained and are currently viewing patient medication profiles
 - ◀ Next step includes roll-out to hospital ERs



Implementation Activities





Significant Advancements

- First production implementation of the Canadian Electronic Drug (CeRx) messaging standard:
 - ◀ V01R04.2 + Addendum
- First production implementation of the National eClaims (NeCST) Standard in the pharmacy domain:
 - ◀ V01R04.0 (Standards Collaborative Baseline Version)
- First production implementation of HL7 v3 pan-Canadian standards by POS solutions:
 - ◀ Kroll Computer Systems Inc. – All stores live as of March 2008
 - ◀ ProPharm Ltd. – All stores live as of August 2008
 - ◀ Emergis – All stores live as of September 2008



...Significant Advancements

- First point of iEHR integration by external healthcare organizations:
 - ◀ Zellers / Hudson's Bay Company Pharmacies
 - ◀ Walmart Pharmacies
 - ◀ Shoppers Drug Mart
 - ◀ Sobeyes / Lawtons Drugs
 - ◀ Atlantic Superstore / Loblaws Pharmacies
 - ◀ Katz Group of Companies
 - ◀ Murphy Pharmacies
 - ◀ Guardian / I.D.A. Pharmacies



Next Steps

- In the coming years, our focus will be on providing access to a broader set of health care professionals:
 - ◀ Comprehensive physician engagement strategy
 - ◀ Integration with hospital pharmacies
- Monitoring and continually improving the quality of the profile data
- Using the data collected through the DIS for reporting, evaluation, and research purposes



PHARMACIST PERSPECTIVE

Positives

- Ability to monitor non-prescription codeine use
- Ability to monitor polypharmacy
- Ability to manage interactions from multiple locations



PHARMACIST PERSPECTIVE

Challenges

- Pharmacist being drawn back in front of computer
- Numerous Repetitive DURs
- Frequent DIS Outages- Ranging from minutes to hours
- Increased wait-times
- Lack of sufficient training
- Need to switch computer vendor to comply



PHARMACIST PERSPECTIVE

Challenges

- Increased stress
- Patient safety concerns:
 - Over-stimulation due to excessive info
 - 'Missed Data' due to outages
 - Underutilization of DIS capability



PHARMACIST PERSPECTIVE

Challenges

- Financial Implications:
 - Increased Staffing Required
 - New Software/Printer Requirements
 - Lost revenue during outages
 - Rebilling (labels, toner, time, delivery)
 - \$5000 government support 'reclaimed'



Speaking from Experience...

- Make current software compatible
- Insist on adequate training by your vendor on DIS as it applies to YOUR software
- Revisit DUR sensitivity requirements
- Ensure stability of the system
- Implementation is on-going
- This is a costly undertaking