



# Raising the Bar on Patient Safety and Supply Chain Efficiency

## GS1 Canada

Global GS1 Healthcare Conference  
March 16-18, 2010 - São Paulo, Brazil



- Carenet is Canada's healthcare sector strategy to standardize the healthcare supply chain. Represents **over 470 healthcare providers and 97 suppliers.**
- Carenet will guide the healthcare sector toward the adoption of global standards such as:
  - Product identification = GTIN
  - Location identification = GLN
  - Medical product and location registries = Canadian Healthcare Product Registry & GLN Registry
  - Electronic communications = Electronic Data Interchange (EDI)



# Provincial Supply Chain Consolidation and Adoption



## Why Now?

### National Trend Towards Consolidation

- British Columbia is consolidating 6 Health Authorities into 1 Shared Services Organization
- Alberta is consolidating 9 Health Authorities into 1 Health Authority
- Saskatchewan is developing a strategic plan to consolidate the healthcare supply chain
- Ontario is modernizing the healthcare supply chain through the Ministry of Finance's OntarioBuys program
- New Brunswick is consolidating 8 Health Authorities into 1 Shared Services Organization
- Nova Scotia has adopted one ERP for all of government and broader public services (healthcare and education)

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# Canadian Healthcare Supply Chain Standards Project



*Partners in Driving Patient Safety and Supply Chain Efficiency*



BC Health Authority  
Shared Services  
Organization





# Canadian Healthcare Supply Chain Standards Project

## 1. Advancing Electronic Commerce (EDI) in Healthcare

- Six Transaction Sets Developed - Specific to Healthcare
- National environmental scan

## 2. Healthcare Industry Outreach and Communications Program

- 6 Customized Healthcare Implementation Guidelines for the Transaction Sets
- 3 Healthcare Specific Education Modules Developed

## 3. Global Supply Chain Standards in Healthcare

- Implementation Roadmap for Product and Location Numbers (GTIN/GLN)
- Development of Medical Product Registry and GLN Registry

# Phase I Completed

Phase 2 is currently in development and will focus on implementation of the standards developed in Phase 1.



# Project Phase II - Implementation

## *EDI Standards Advancement and Implementation (Q1 – Q4)*

- Implementation of 3 pilot projects including:
  - Integration of standardized EDI transaction set attributes
  - Global product identifiers (GTIN and GLN)
- Provide one-on-one support and “how to”, to enable EDI implementation
- Develop up to four new EDI transaction sets
- Leverage the industry group created in Phase I to manage ongoing maintenance of Phase I transaction sets

# Project Phase II - Implementation

## *Healthcare Industry Outreach, Engagement and Education Program (Q1 – Q4)*

- Establish industry stakeholders committee to drive implementation plan
- Establish software providers committee to drive integration of standards, processes and registries into systems
- Education support including education modules, support materials
- Media relations implementation strategy
- Implementation support material

## *Data Synchronization, Product /Location Standards Implementation (Q1 – Q4)*

- Establish committee for trading partner data synchronization
- Launch standards implementation in acute care facilities (Terms of Trade)
- Provide data synchronization implementation support

## Suppliers/Associations



MEDICALMART



## Providers/GPOs/SSOs



BC Health Authority  
Shared Services  
Organization



Capital Health



Eastern Health

Facilicorp<sup>NB</sup>



Winnipeg Regional  
Health Authority  
Caring for Health

Office régional de la  
santé de Winnipeg

À l'écoute de notre santé

HealthPRO  
Choice. Support. Results.



# Carenet Standards Council Members



BC Health Authority  
Shared Services  
Organization



Capital Health



Consolidated Health Information Services



COVIDIEN



Eastern  
Health



Hamilton Health Sciences



Choice. Support. Results.



Health  
Canada

Santé  
Canada



THE HOSPITAL FOR  
SICK CHILDREN



Winnipeg Regional  
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# Carenet Standards Council Members



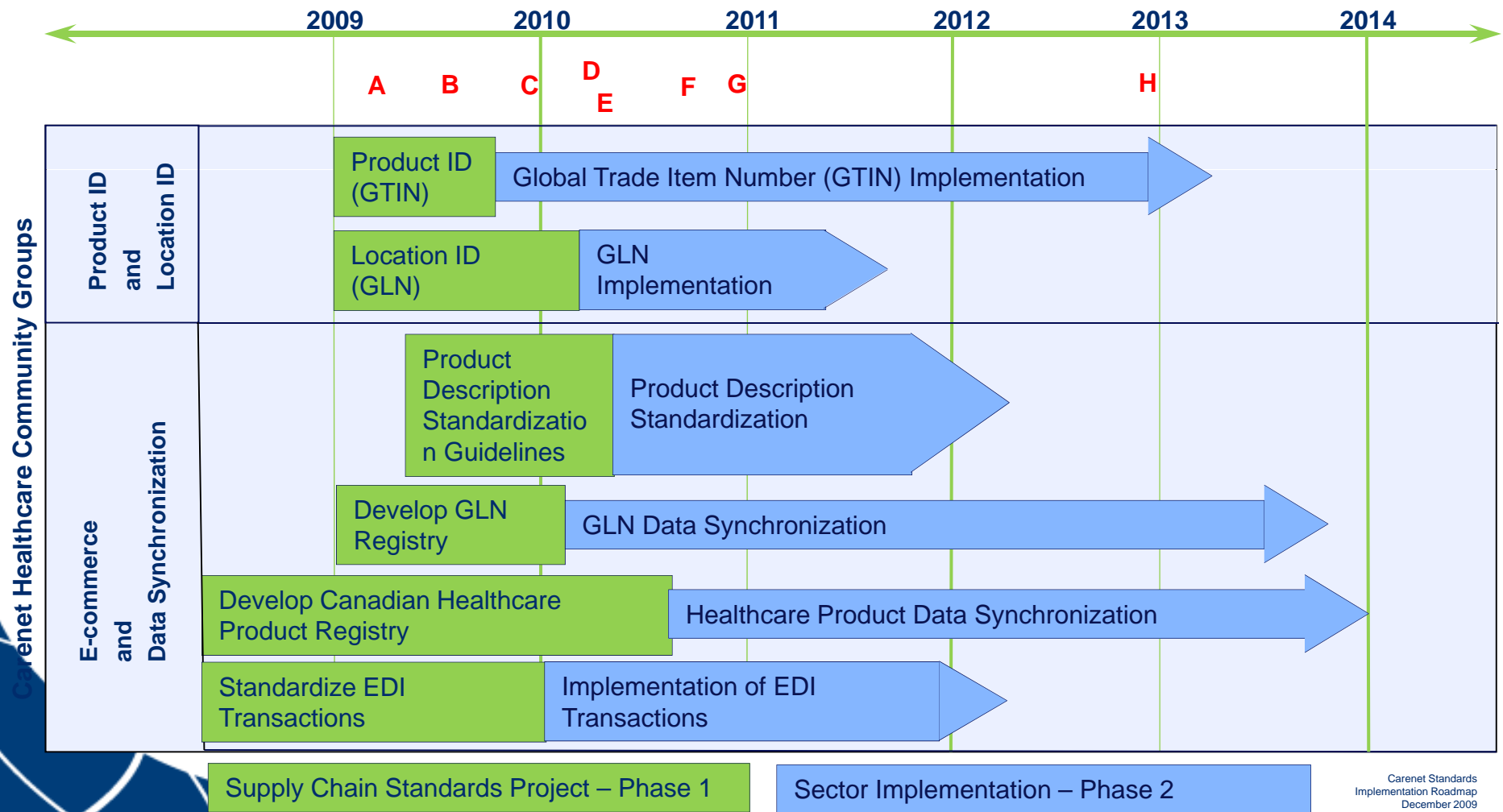


# North American Implementation Alignment



# Carenet Standards Implementation Roadmap

Milestone	2009		2010		2011		2012		2013		2014	
	A	Mar. '09	Carenet Standards Implementation Roadmap Announced		E	April '10	Canadian Global Location Number Registry Launch					
	B	July '09	Canadian Healthcare Product ID Standards Announced		F	Q3 2010	Canadian Healthcare Product Registry Launch					
	C	Dec. '09	EDI Guidelines Completed (832, 850, 997, 855, 856, 810)		G	Dec. '10	Carenet/North American GLN Sunrise Date					
D	Mar. '10	Canadian Product Description Guidelines Finalized		H	Dec. '12	Carenet/North American GTIN Sunrise Date						







# **Vaccine Traceability**

## **Public Health Agency of Canada**



# Vaccine Traceability Public Health Agency of Canada

- GS1 Canada maintains two AIVP meeting group positions (Automatic Identification of Vaccine Products Committee)
- Project proceeds despite H1N1 priority focus
- Deputy Minister approved consensus statement, stipulating GS1 standards
- Deputy Minister approved project plan and funding for the Vaccine Industry Database, including ECCnet Registry linkage
- Vaccine Industry Committee (VIC) issues agreement to complete ECCnet loading by June 2010





# Public Health Agency of Canada

## Vaccine Product Consensus Statement

- Two dimensional (2D) bar codes on the primary package, including Global Trade Identification Number (GTIN) and lot number
  - ✓ Including the expiry date in the bar code is optional as it can be determined through the lot number
  - ✓ Lot number and expiry date will continue to appear in human readable form on the primary packaging, as per Canadian labeling requirements
- 2D or linear (also known as 1D) bar codes on the secondary package that include GTIN and the lot number
  - ✓ Lot number and expiry date will continue to appear in human readable form on the secondary packaging ,as per Canadian labeling requirements



# **Patient Safety Advocate Groups Link Standards to Safety**





## **ISMP Canada and Canadian Patient Safety Institute Team Up with GS1 Canada to Advance Patient Safety in Canada**

Two of Canada's patient safety organizations – Institute for Safe Medication Practices Canada (ISMP Canada) and Canadian Patient Safety Institute (CPSI) are collaborating with GS1 Canada, a global supply chain standards organization, to advance automated identification (e.g., bar coding) of pharmaceutical products in Canada. **To this end, the three organizations are working collaboratively to advance the Canadian Pharmaceutical Bar Coding Project.**



# Joint Technical Statements



### **Section 1: Pharmaceutical Products to be Included**

- Medications and related items to which this statement applies are listed, including all pharmaceuticals, with a federal Drug Identification Number (DIN)

### **Section 2: Common National Standard for Automated Identification of Pharmaceuticals**

- GS1 standards should be applied for automated identification
- The GTIN (Global Trade Item Number) is a required “fixed” data element within the automated identification (bar code) symbology used
- The bar code symbology must be GS1-compliant
- The GTIN field length must accommodate a 14-character GTIN code
- The bar code must also show the human-readable text form of the GTIN
- Pharmaceutical manufacturers are responsible for validating the readability of their bar codes



### Section 3: Content of Bar Codes

- Required “fixed” data element will consist of the GTIN (up to 14 characters)
- “Variable” data elements (e.g., expiry date) are not required at this time, but they will likely be required in the future
- Manufacturers may use RFID chips, but a compliant bar code must also be used - until further notice

### Section 4: Pharmaceutical Packaging Levels, and the Placement and Content of Bar Codes

- Various packaging levels for medications are defined (i.e., pallet, case or shipper unit, secondary packaging, primary packaging, unit of use)
- The type, placement, and content of bar codes are outlined for each packaging level defined above
- Reduced-space symbologies (e.g., 2-dimensional bar codes) are encouraged for pharmaceutical units with limited space on the label, such as ampoules or unit-dose tablet packages

### Section 5: Common Canadian Pharmaceutical Product Registry

- A Common Canadian Pharmaceutical Product Registry (CCPPR) will be identified and adopted in 2010
  - ✓ Each medication (or item for which a GTIN is required according to Section 1 of the joint technical statement) will have a corresponding data record in the CCPPR, with defined data elements describing the product
  - ✓ The CCPPR will force compliance with standardized data fields, units of measure, etc.
- In addition to the GTIN, the DIN must be included in the CCPPR
- The Global Data Synchronization Network will be used to synchronize data exchange between GS1 (and other) global product registries

### Section 6: Bar Code Symbology

- GS1-compliant bar codes (or RFID) will be used
- One-dimensional or 2-dimensional bar codes will be acceptable
- End-user healthcare organizations (e.g., hospitals and retail pharmacies) should acquire only bar-code readers that are capable of reading both 1- and 2-dimensional GS1-compliant bar codes
- Healthcare solution providers (including software developers) should develop functional software programs that can read, identify, and otherwise use manufacturers' bar codes to reduce patient harm, standardize documentation, and improve system efficiencies



### **Section 7: Expectations of Professional Practice Organizations and End-Users**

- Professional and regulatory bodies should develop professional practice recommendations that promote or require the increased use of automated identification in healthcare practices, such as bar code scanning at all levels of the medication-use process
- End-user healthcare organizations (e.g., hospitals and retail pharmacies) should, in the coming years, acquire automated systems that will offer healthcare practitioners innovative methods of using scanned bar codes, reducing patient harm, and maintaining or improving system efficiencies



### Section 8: Timeline for Adoption of Standard by Health Sectors

- By December 1, 2012, pharmaceutical manufacturers should be compliant with the requirement for fixed data elements (GTIN) for all products listed in Section 1
- The inclusion of variable data elements (e.g., expiry dates and lot numbers) in product bar codes is recommended but not required by the deadline of December 1, 2012
  - ✓ It is expected that variable data will be required in the future, but this requirement will be reviewed in January 2011
- Healthcare solution providers (e.g., vendors of automated systems and software) should develop methods for automated identification of products **at all levels of the medication-use process, by a date to be determined in 2010**
- The readiness of end-users to acquire the necessary systems and a proposed timeframe will be reviewed and discussed by January 2011

1. Health Canada establish an internal UDI committee and have engaged GS1 Canada (observer status)
2. Provincial supply chain consolidation projects adopting GS1 standards
3. Canadian Healthcare Supply Chain Standards project entering phase II – Sector Implementation
4. Implementation roadmap adopted and in alignment with GS1 US (North American strategy)
5. Public Health Agency of Canada adopting GS1 standards for vaccine product identification
6. Institute for Safe Medication Practices Canada (ISMP) and Canadian Patient Safety Institute (CPSI) endorse GS1 standards and launched a technical statement