



# EHEALTH POLICY – WHERE IS IT TAKING US ?

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What is going on in Healthcare?

Let's start with some history



Let's go back to ~1970

You just walked into a bank





It's now 2011  
You (almost) never go into a bank





We are still in 2011

You just entered the hospital ER

Which bank is it more like?

How many health records do you have?

# A look at the transformations



- England – UK
- United States
- Canada



# UK

## Health System Structure

### ◎ Size

- Population: ~60M
- Clinicians: ~72K
- NHS budget: ~£100B (~7.5% GDP)

### ◎ Structure

- Fully integrated healthcare system organized across England, Scotland, Wales, N. Ireland
- Private Healthcare: Primarily England
  - Provides ~10% of care

### ◎ Who Pays for who?

- NHS - 80% through national budget, balance National Insurance

# England

## eHealth initial strategy and plan



- ◎ NHS Connecting for Health
  - Its role is to maintain and develop the NHS national IT infrastructure. This infrastructure includes a number of national services and a range of national applications.
  - The Spine - the NHS Care Records Service
  - N3 - The National Network
  - NHSmail is the secure email and directory service
  - National applications
    - Choose and Book
    - Electronic Prescription Service
    - Summary Care Record
- ◎ Formed: April 1<sup>st</sup>, 2005



# England

## How is it going?



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### NHS Connecting for Health - Enabling a transformation in healthcare

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## NHS Connecting For Health Transforms Management Of Patient Data To Optimize Quality Of Service Delivery

# The Register

Hardware Software Music & Media Networks Security P  
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## Mail comment: The NHS and its great white elephant

By DAILY MAIL COMMENT  
Last updated at 12:42 AM on 30th May 2008

Accenture escapes £1bn penalty for NHS walk-out  
It's 'been delivering'



# England

## Next steps

- ⦿ Major national budget cuts across the board
- ⦿ Central NHS program now focused on core services
- ⦿ Real transformation now being driven within the regional trusts
  - As budgets permit

# A look at the transformations



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- United States
- Canada



# United States Health System Structure

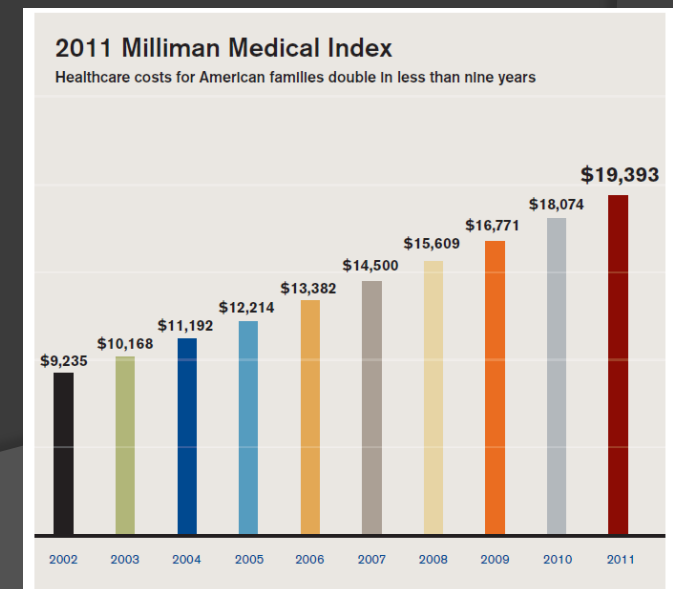
- ◎ Size
  - Population: ~300M
  - Clinicians: ~1M
  - Spend: ~\$2.5T (~17% GDP)
- ◎ Structure
  - ~ 5,815 Hospitals (~70% not for profit)
    - 5% are US Government (VA, DoD etc)
- ◎ Who Pays when they pay?
  - Employer: ~60% of population
  - Personal: ~10% of population
  - Government: ~30% of population
    - Public spend around 50% of total spend
  - But: In 2008, U.S. hospitals reported over 2.1 million hospitalizations of the uninsured

# United States

## Private side of the equation



- ⦿ Employers/Personal Healthcare costs – “payer” more likely to take action vs government
- ⦿ Employer Health Benefits have beneficial tax corporate tax treatment (vs payroll)
- ⦿ BUT – what began as a catastrophic event safety net has grown to include regular use coverage and these costs are growing much faster than inflation
  - Employers see this as a huge uncontrolled benefit cost



# United States

## Enter the regulator (FDA)



- February 15, 2011
- **Medical device data system.**
  - (a) *Identification.*
    1. A *medical device data system* (MDDS) is a device that is intended to provide one or more of the following uses, without controlling or altering the functions or parameters of any connected medical devices:
      - i. The electronic transfer of medical device data;
      - ii. The electronic storage of medical device data;
      - iii. The electronic conversion of medical device data from one format to another format in accordance with a preset specification; or
      - iv. The electronic display of medical device data.
    2. An MDDS may include software, electronic or electrical hardware such as a physical communications medium (including wireless hardware), modems, interfaces, and a communications protocol. This identification does not include devices intended to be used in connection with active patient monitoring.
  - (b) *Classification. Class I (general controls).* The device is exempt from the premarket notification procedures in subpart E of part 807 of this chapter, subject to the limitations in § 880.9.

# United States

## eHealth initial strategy and plan



- ◎ HITECH (2009) – Meaningful Use:
  - Provisions in the Stimulus bill included Incentives (through 2015) for hospitals to adopt Electronic Medical Records (EMR) and exhibit Meaningful Use (MU) of these along with associated penalties (starting 2015) if they did not achieve the objectives
- ◎ Patient Protection and Affordable Care Act (2010):
  - Drives the creation of integrated networks of physicians and hospitals (Accountable Care Organizations – ACO) that share responsibility for taking care of a population of patients. The goal is coordinated care that improves quality and reduces costs. It also includes transitions away from fee for service to lump sum for annual care.

Both use Carrot and Stick models

- Enhanced revenue (billings for care) for compliance
- Penalties for non-compliance on longer term

# United States

## New funding models



- ◎ Healthcare Savings accounts
  - Split employer funding into true premium for catastrophic plan + deposit to Healthcare Savings Account
    - HSA money if unspent = 401K \$ (RRSP)
    - Employee incented for wellness (not spend)
    - Employer has fixed/known/controlled costs
- ◎ Fixed fee providers
  - Set price for annual care, or set price for procedure
  - Kaiser Permanente, Giesinger, Intermountain Health all offer this model
    - All have vertical integration model (payer & provider)
  - Shouldice Clinic – in Ontario does this for Hernias



# United States

## How is it going?



### The Carrot and the Stick of EMR Adoption

July 15th, 2010 by [Andrew Clark](#)

Wave of U.S. Physicians Planning to Adopt Electronic Medical Records, Accenture Report Finds

**BUSINESS**

#### EMR adoption rates up, with small practices left behind

A survey finds the most growth among midsize and hospital-owned practices.

By **PAMELA LEWIS DOLAN**, *amednews* staff. *Posted Nov. 22, 2010.*

Hospital CIOs Pessimistic about Pace of EHR Adoption, as Numbers Show Mixed Story

WSJ BLOGS

## Health Blog

WSJ's blog on health and the business of health.

JUNE 3, 2011, 8:31 AM ET

### A.M. Vitals: Accountable Care Organization Proposal Not So Popular

#### Cleveland Clinic, leading hospitals blast ACOs



June 3, 2011 — 12:53pm ET | By [Karen Cheung](#)



# United States

## Where to next?

- ⦿ EMR/MU – adoption appears to be happening – but too early to tell
- ⦿ ACO – 400+ page rule appears to have landed with a thud
- ⦿ Change in control of Congress has put all Healthcare reform in question
  - Will it stay same, be rescinded, be modified?
- ⦿ BUT
  - The uninsured remain a huge issue
  - The high cost (and growing fast) of healthcare will likely cause employers to take action

# A look at the transformations



- ⦿ England – UK
- ⦿ United States
- ⦿ Canada



# Canada

## Health System Structure

### ◎ Size

- Population: ~32M
- Clinicians: ~60K
- Spend: ~\$183B (~10% GDP)

### ◎ Structure

- Government funded healthcare system
- Hospitals etc privately run (within trust structures)
  - Supported by (for profit) private sector (labs, imaging etc)
- ~1400 Hospitals

### ◎ Who Pays for who?

- Medicare: ~70%
- Private: ~30%

# Canada



## Enter the regulator (Health Canada)

- December 3, 2010
- **Software Regulated as a Class I or Class II Medical Device**
- Software involved in data manipulation, data analysis, data editing, image generation, determination of measurements, identification of a region of interest in an image, or identification (by an alarm or alert) of results from a monitor that are outside of an established range, is considered a Class II medical device and therefore requires a licence. This classification is based on Rule 10 (1) of the *Regulations*.
- Rule 10:
  - (1) Subject to sub-rule (2), an active diagnostic device, including any dedicated software, that supplies energy for the purpose of imaging or monitoring physiological processes is classified as Class II.
  - Software intended to be used to view images or other real time data, and is an accessory to the monitoring device itself, is a Class I medical device based on Rule 12 of the *Regulations*.
- Rule 12:
  - Any other active device is classified as Class I.

# Canada

## eHealth initial strategy and plan



- Canada Health Infoway (2001) - As a strategic investor, work with Canadian provinces and territories with the goal of creating an electronic health record for 50% of Canadians by the end of 2010
- Canada Health Infoway (2011) - Works as a strategic investor of funds provided by the Federal Government, in collaboration with the provinces and territories.
- CHI EHR development and implementation efforts include:
  - Providing the technology
  - Supporting and sustaining communications and technology standards
  - Jointly investing with the provinces and territories
  - Providing certification services for technology vendors
  - Fostering and supporting clinical adoption of EHRs

Per CHI presentation in May – 50% milestone achieved – led by PEI and Alberta... Laggard is Ontario



# Canada

## eHealth initial strategy and plan

- ◎ CHI project funding model
  - 75% of eligible expenses (software and implementation)
  - Result ~50% of overall project expense
  - Funds tied to performance (demonstrated use/uptake etc) milestones
- ◎ CHI Specific program areas:
  - Registries → providers and patients
  - Diagnostic Imaging Systems → 90% filmless
  - Drug Information Systems → 12% productivity gain for mature DIS
  - Laboratory Information Systems
  - Interoperable EHR
  - Telehealth
  - Public Health Surveillance
  - Innovation & Adoption
  - Infostructure
  - Patient Access to Quality Care
  - Consumer Health Solutions
  - Electronic Medical Records and Integration

# Canada

## How is it going?



Telehealth use in Canada grew by more than 35 per cent annually over the past 5 years: national study

**Saved patients nearly 47 million km in travel last year**

Education of next generation of nurses to include effective clinical use of information and communications technologies

Province launches eChart Manitoba

Canadian medical schools to strengthen training on effective clinical use of information & communications technologies

## Head of eHealth Ontario is fired amid contracts scandal, gets big package

| Last Updated: Sunday, June 7, 2009 | 7:47 PM ET [CBC News](#)





# Canada

## Where to next?

- ⦿ Ontario – needs to catch up with high percentage of Canadian population it is critical to adoption
  - eHealth Ontario - back on track
- ⦿ CHI – New \$500M funding in place (delayed 1 yr → eHealth Ontario). Tied Objectives (in budget text):
  - Canadians will see use
  - Clinicians will see clinical value
  - Economy will directly benefit



# What does this all mean?

- ⦿ eHealth transformation is NOT easy – rebuilding a flying airplane never is!
  - The scandals have really slowed progress
- ⦿ It took banking 30+ years, in a well funded transformation that involved less entities and less people with less interop (only ~6 big banks)
- ⦿ There is still a huge amount of work to be done
- ⦿ Employer driven change in US could trump any Congressional opinion