How to Survive the Tsunami

Presented by

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to

“GAME CHANGING HEALTH INNOVATIONS CONFERENCE”

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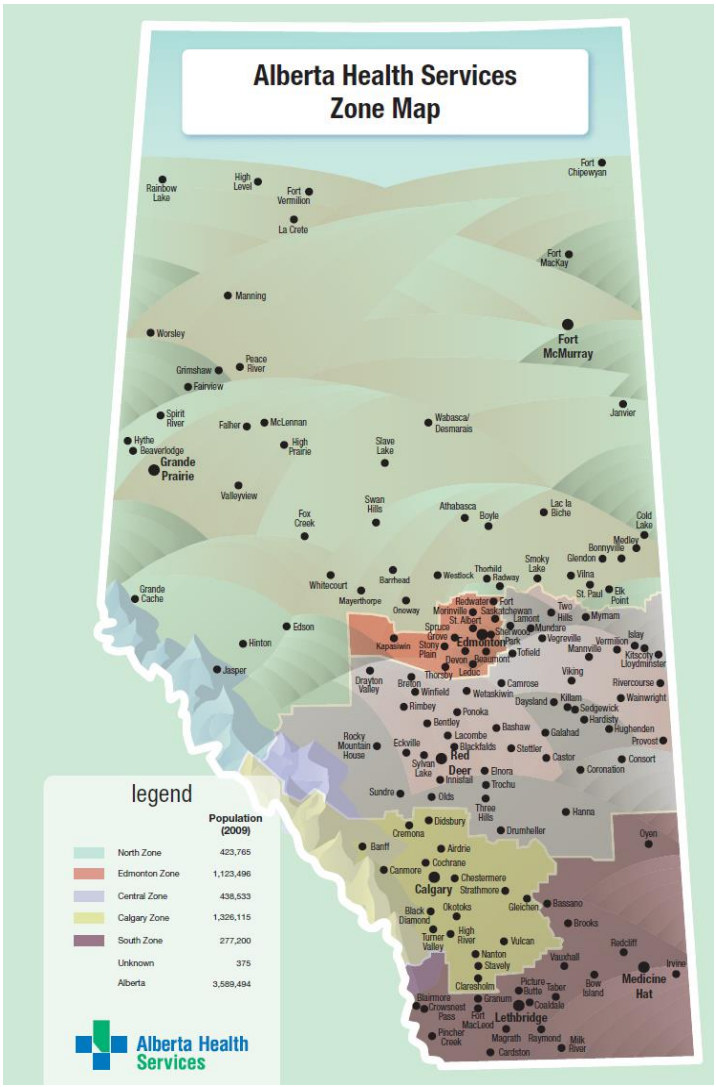


Alberta Health Services Quick Facts:

Annual Service Volumes (preliminary 2009/2010)

1,980,000 Emergency Department visits
178,000 Urgent Care visits
363,000 Hospital discharges
51,000 Births
60,000 Home Care Clients
1,030,000 Health Link calls

48,860,000 Laboratory procedures
149,500 MRI exams
416,500 CT exams

Cancer Care

510,000 Cancer Patient Visits
46,000 Cancer patients receive treatment, care & support

Facilities

There are 102 facilities (97 acute care hospitals and 5 standalone psychiatric facilities: this does not include Lloydminster Hospital).

TSUNAMI of Chronic Disease

Tsunami of Chronic Disease

- 75% of people at age 65 have at least one chronic disease.
- “Baby Boomers” are now entering this age group

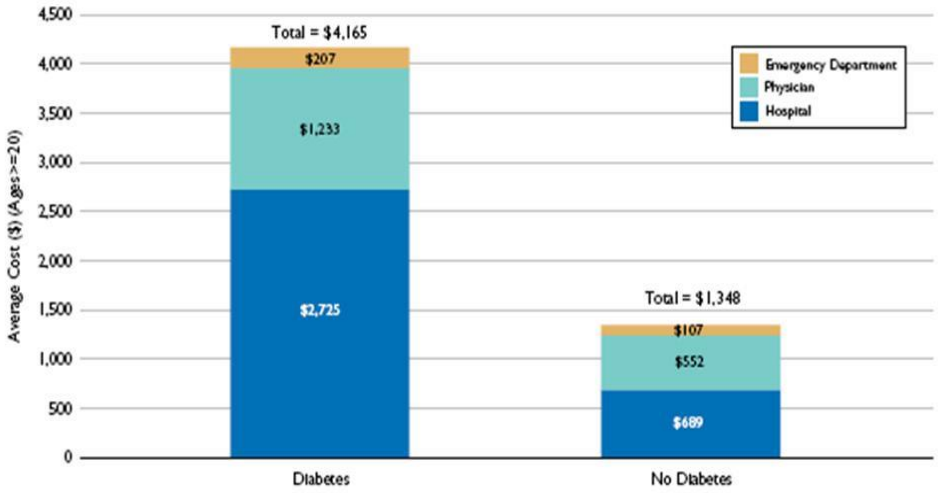
The 33% of Canadians who have one or more of seven chronic conditions account for:

- ***51% of GP consults***
- ***55% of Specialist consults***
- ***66% of Nursing consults***
- ***72% of nights spent in hospital****

•****Lockwoods - 2008***

Why is Innovation so important for Alberta Health Services?

Figure 4.42 **Average Health Care Costs by Category for Adults, 2007**



It might therefore be reasonable to estimate the total per capita direct health care costs to be in excess of $5,000. If this individual amount is multiplied by the estimated number of people living with diabetes in Alberta in 2007, or approximately 164,000, total health care costs for diabetes in Alberta would be in excess of $800 million.

Alberta Diabetes Surveillance System

MOTIVATION

- Health Care Costs are rising between 8% & 15% annually
- GDP and population growth are between 2% & 4%
- Number of net additional clinicians is minimal (retirees vs. new entrants); a corollary of the “Baby Boom”

An Elderly Diabetic and their interactions with the Healthcare System

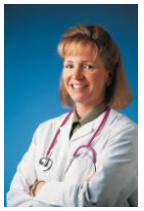
- Managing Chronic Disease as discrete events (current state) will not be sustainable

Alberta Health Services

Case Study: Elderly Diabetic

Public Health (flu)

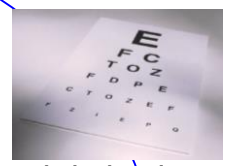
Diabetes Education Centre



Internist/ Endocrinologist

HealthLink

Family Phys



Ophthalmologist

Diagnostic Services

Client/Patient

Home Care

Home Dialysis

Pharmacy

Acute Care

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14

Legend:

1. Annual flu shot
2. Call HealthLink for advice
3. HealthLink refers to GP
4. Referral for Education
5. Referral to specialist
6. Referral to ophthalmologist
7. Orders for diagnostics
8. Referral to acute care
9. Discharge medications
10. Home dialysis
11. Discharge to care of GP
12. Referral to homecare
13. Visit to acute care

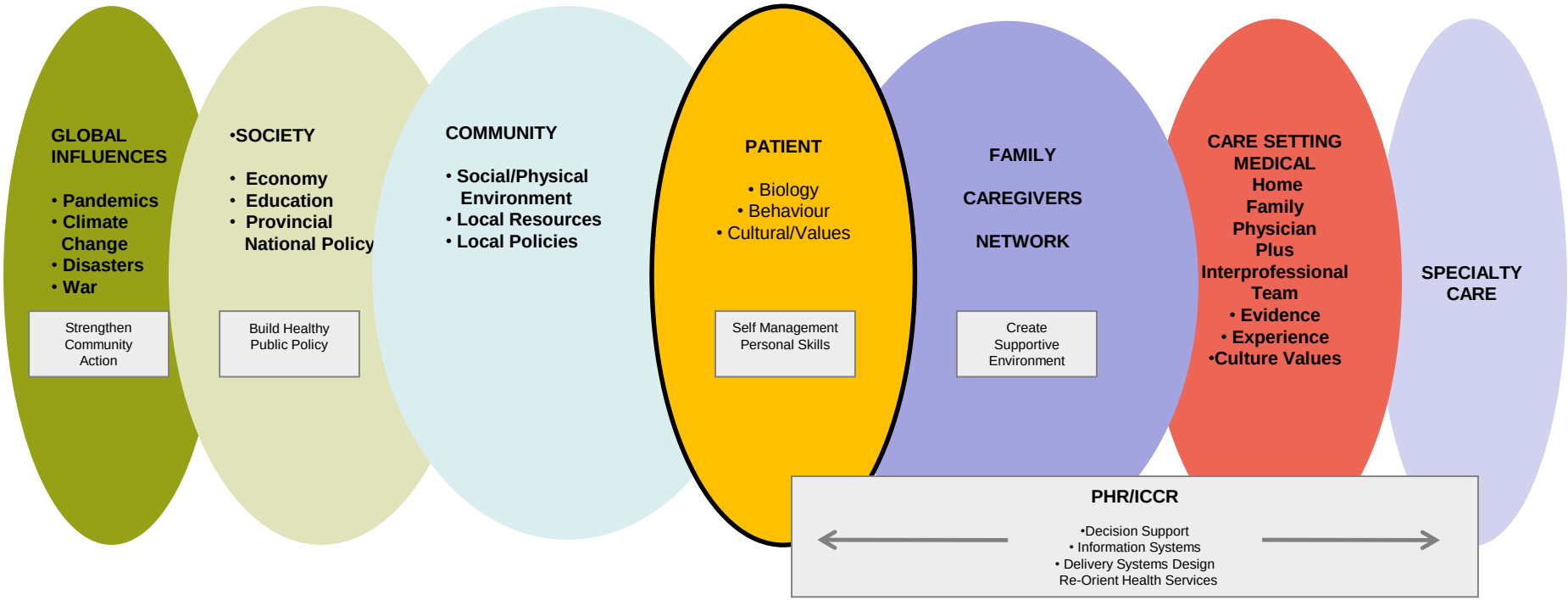
Range of Solutions

- More providers, more facilities
- Leverage lower cost workforce
- Through increased use of technology engage the patient to co-manage care, reduce burden on system
- Through increased use of technology, gain an order of magnitude in productivity of providers

This is not about IT

THE HUMAN VIEW:

New Paradigm – re-orient the system from episodic to continuous care

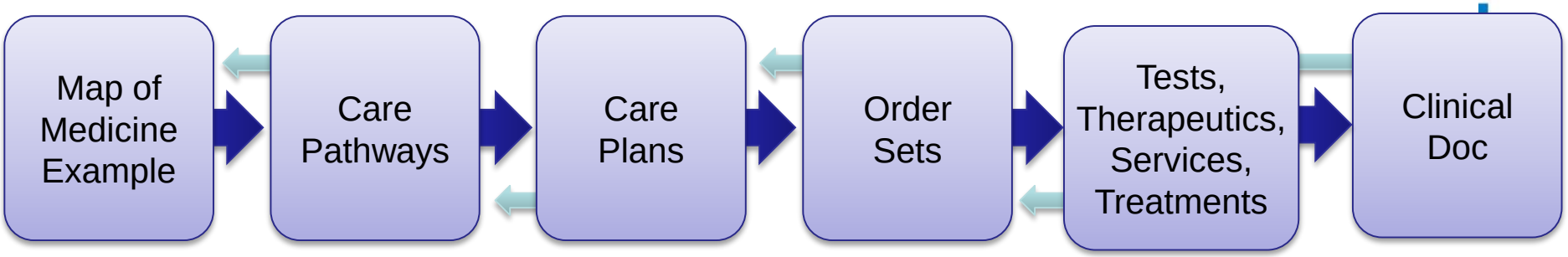


Impact → The patient will be supported by a multitude of providers, services and family. They must work in close harmony. Data, information and knowledge must be available in real time in the patients and care givers hands.

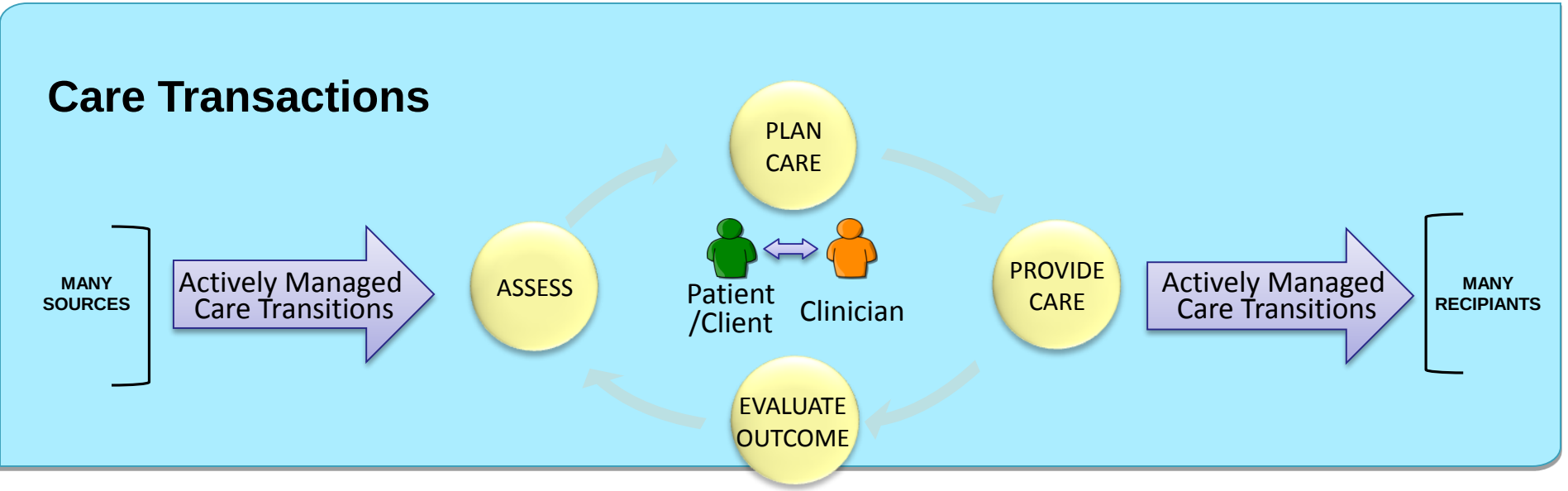
THE CLINICAL VIEW

Common Process Across Care Settings

Care Process



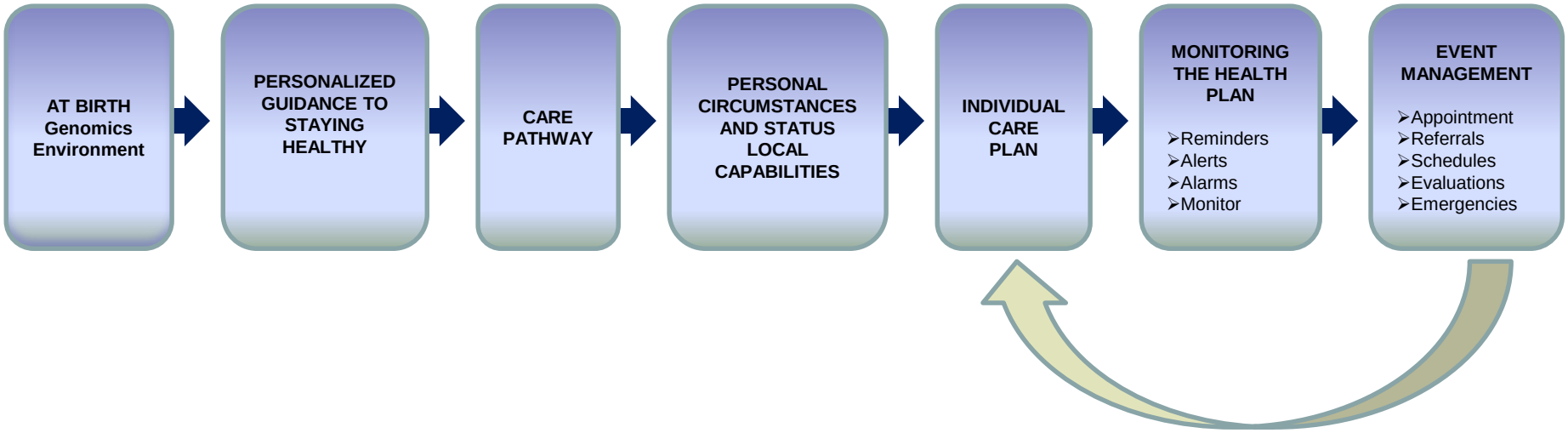
Care Transactions



The Change

- The future of healthcare in Canada will be very different from the past with a potential tsunami of chronic disease requiring dramatic change in the way health care has been delivered. The increased incidence of chronic disease requires health professionals to be true partners with their patients in co-managing the illness. Already people with chronic disease have unrivaled direct access to information (accurate or not) about their condition. Increasingly people with chronic disease will expect to be provided with more information about treatment options and more information about the course of their disease.
- This change in attitude can be harnessed by the health system. The more people with chronic disease monitor their own health carefully, the better their outcomes will be.
- In terms of treatment patterns, the actual time that a person with chronic disease and ends with a health professional is relatively small. For the vast bulk of the time, the person with chronic disease is managing themselves. They are supported by their family and other careers for much of the time as well.
- The following diagram outlines the new context of care.

The Future – Globalization; Anywhere, Any Time, Real Time



❖We need to recognise this as a de facto world model

Is this possible? Yes

- Alberta is ahead of most of the world.
- Assets are in place for:
  - Lab
  - DI
  - Discharge
  - Drugs
  - Telehealth
  - Net Care
- Majority of regulatory needs are in place (HIA).
- Most importantly, the desire is here.

> *"I invented nothing new. I simply assembled into a car the discoveries of other men behind whom were centuries of work. . . . Had I worked fifty or ten or even five years before, I would have failed. So it is with every new thing. Progress happens when all the factors that make for it are ready, and then it is inevitable. To teach that a comparatively few men are responsible for the greatest forward steps of mankind is the worst sort of nonsense."*
>
> Henry Ford

What is needed to move to the new Model and to encompass the entire continuum of care?

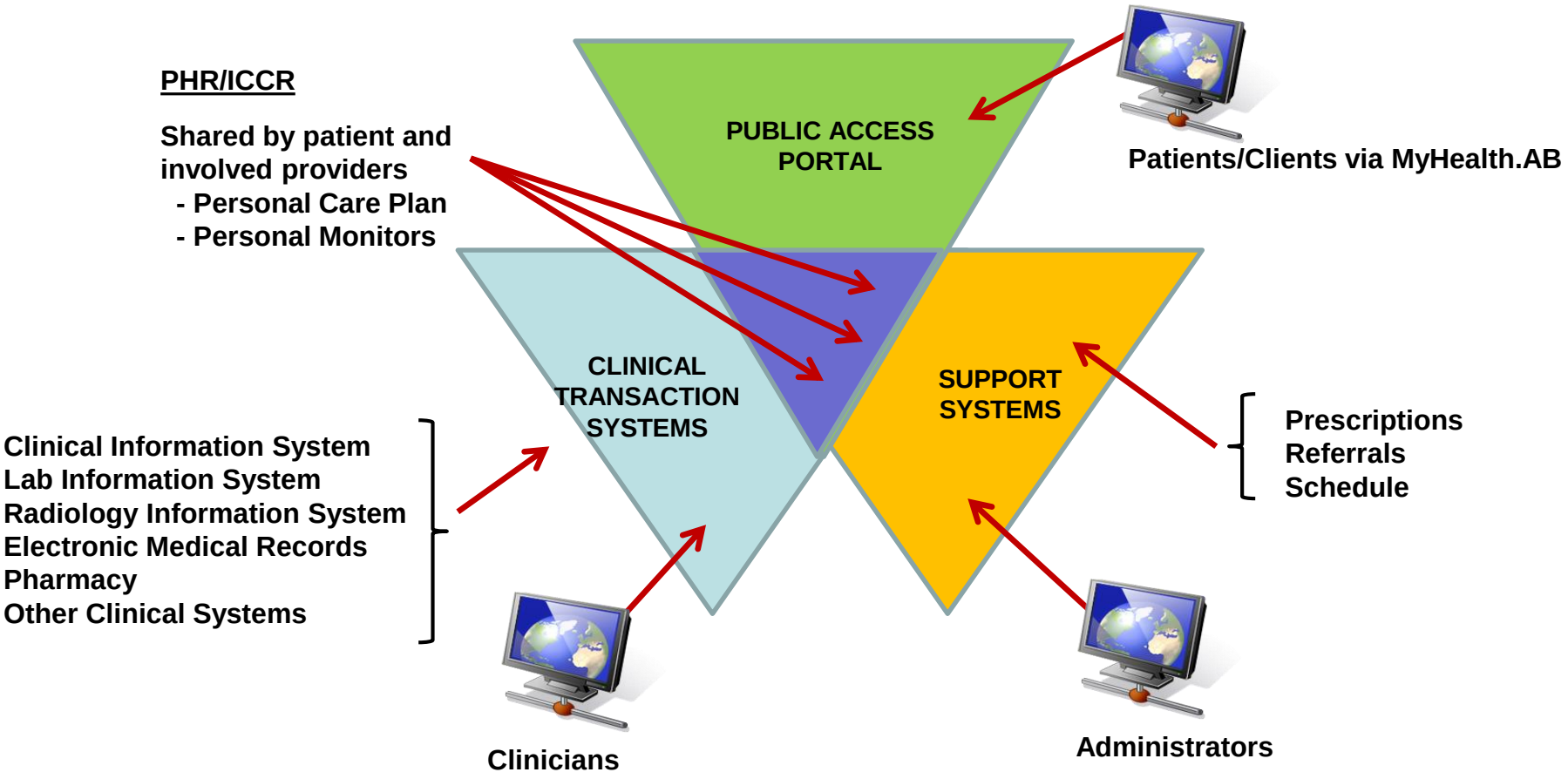
HEALTH SYSTEMS	INFORMATION TECHNOLOGY
- Best Practice Care Pathways - Utilizing appropriate services	- Electronic, real time availability of all information
- Standard Care Plans - Cross continuum; from home to hospital	- Secure personal access to information
- Uniform Decision Support	- Shared Care Plans
- Billing modifications (electronic consults)	-Alarm and Alert processer and tools
- Data “ownership” shifted to patient (Ownership implies control)	- CPOE/Decision Support
	- Process/work flow management tools (aka Referrals)
	- Real Time Reporting Measurement

***PHR/*ICCR**
- Managing
- Monitoring
- Communication Tools

***PHR = Personal Health Record**

***ICCR – Interactive Continuity of Care Record**

The PHR and ICCR Context



The "New" Environment – PHR & ICCR

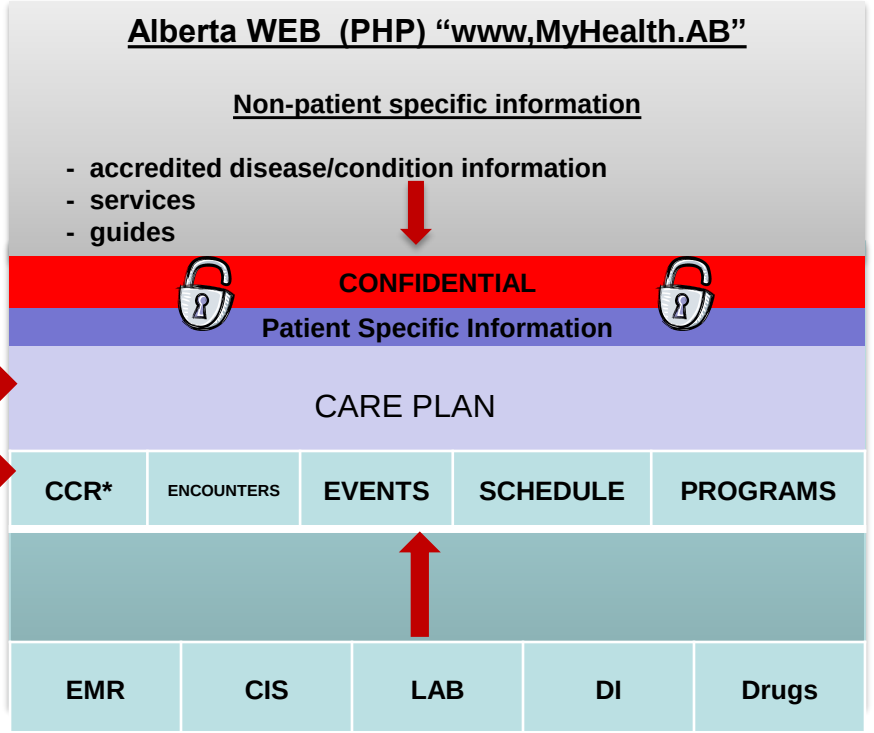
CARE PATHWAY

Best Practice plan for treatment of a condition based on evidence and optimal process

ACCESS

- View Privileges – by role
- Update Privileges – by role
- Access granted by patient

- Patient
- Family
- Physicians
- Medical staff
- Pharmacists
- Healthlink
- EMS
- Homecare



*Continuity of Care Record (CCR)[1] is a health record standard specification developed jointly by ASTM International, the Massachusetts Medical Society[1] (MMS), the Healthcare Information and Management Systems Society (HIMSS), the American Academy of Family Physicians (AAFP), the American Academy of Pediatrics[2] (AAP), and other health informatics vendors.

A Simple Care Plan

July

Care Plan updated that blood test was ordered (Process Measure)

Care Plan updated that blood test was performed (Process Measure)

Blood Test Results are Pending

Therapies/ Interventions	Clinical Guideline Process Target	Care Plan Process Target	Care Plan Process Measure	Clinical Guideline Outcome Target	Care Plan Outcome Target	Scheduled Therapies & Interventions: Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Diabetes Education	1/Yr	6 Months	2														
Ophthalmologis	2/Yr	1/Yr	1														
Diagnostics: HbA1C	3/Yr	4/Yr	3/4	< 7.0mmol/L	< 6.5mmol/L							?					
Diagnostics: Total/HDL	2/Yr	2/Yr	2/2	> 1.0 mmol/L	>1.0 mmol/L							?					
Endocrinologist	24 Months	12 Months															
Flu Shot	1/Yr	1/Yr															

1. Care Team Orders Lab Work as per Care Plan

2. Blood Tests Performed

3. Results forwarded to Provider & Available to Patient

Family Phys

Patient

Diagnostic Services

CDMR - Example

Steps

- MyHealth.AB Portal ⇒ Launch planned for March 15, 2011
  - Non personalized information
  - Trusted specifics about health issues
  - guidance, maps, services, contact

  "ONE STOP SHOP"
- MyHealth.AB ⇒ Phase II 2012/2013 (est.)
  - Patients/Clients have access to personal information
- MyHealth.AB ⇒ Phase II (ICCR) 2012/2013
  - All Diabetics have access to individualized care plan
- MyHealth.AB ⇒ Phase III/IV 2013/2014 (est.)
  - All chronic disease patients have access to individual care plans

First Milestone

"That every Albertan with diabetes will have access to a personal electronic health record, which will include their personal care plan and allow them to monitor and track their condition by the end of 2012"

Will It Work?

(Care Pathways and Care Plans – Example Diabetes)

- Using “best practice” Clinical Pathways that drive continuously monitored and managed individual Care Plans works.

Improvements in Measures

- HbA1C control (Diabetes)	16.5% increase
- Total/HCL control (Diabetes	12.5% increase
- Triglyceride control (Dyslipidemia)	13.6% increase

Improvement in Appropriate Care

- Emergency department admissions	34% decrease
- Inpatient admissions	41% decrease
- Inpatient length of stay	31% decrease

These outcomes were achieved by actively engaging the patient in the management of their condition.

•Based on the Chronic Disease Management Information System Prototype and subsequent evaluation; February, 2009

IMPACT

QUALITY → Actively managed Care plans managed by patients equates to better outcomes.

ACCESS → Move from “events” to “continuous” care will reduce wait times.

SUSTAINABILITY → Clinicians focus on high-value work, higher satisfaction; greater productivity.

Example: Geisinger Health, Pennsylvania

Innovation

"Ideas are cheap, execution is everything"

- **Healthcare is full of bright ideas successfully implemented in microcosms.**
- **Innovation now has to focus on the macro problems.**

  - The concept that we can put the information, knowledge and tools into a patients hands for managing their own care is mandatory.

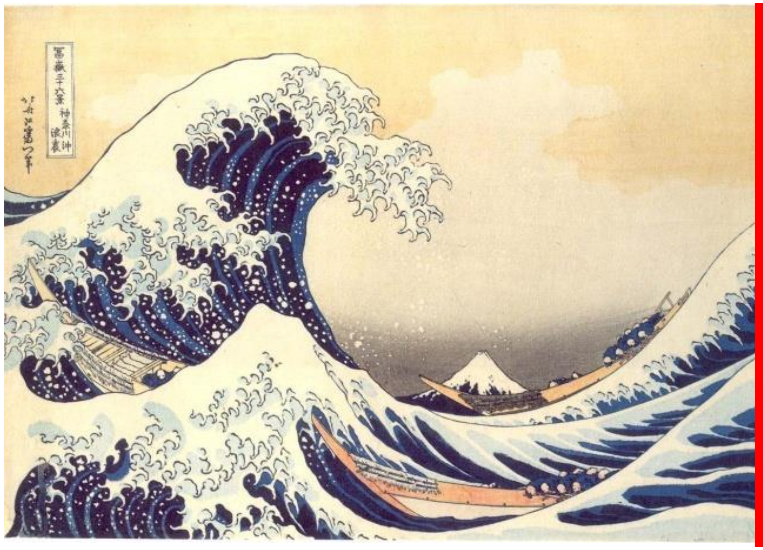
  - The capability to have a multi-disciplinary team collaborating in real time to support that patient is innovative.
- **Some of the people, some of the time = mediocre**
- **All of the people, all of the time = game changer**

Summary – How to survive the Tsunami

- **The Challenge: sustaining a publicly funded health system in the face of rapidly rising demand due to Chronic Disease.**

- **The solution: a "connected" provider community and well informed, empowered patients.**

The Tsunami



PHR / ICCR

The Sea Wall