



Focus Reset: Adopting a consumer “first mile” mindset

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Information for Life.

 **TELUS** | HEALTH®

Our healthcare system needs transformation



BUT it's resistant to transformation

- Heavy government regulation resulting in suppression of
 - Market competition
 - Mergers and acquisitions
 - Cross border service delivery
- Commercial relationship between customer and provider is heavily intermediated
- Very limited consumer knowledge about care quality

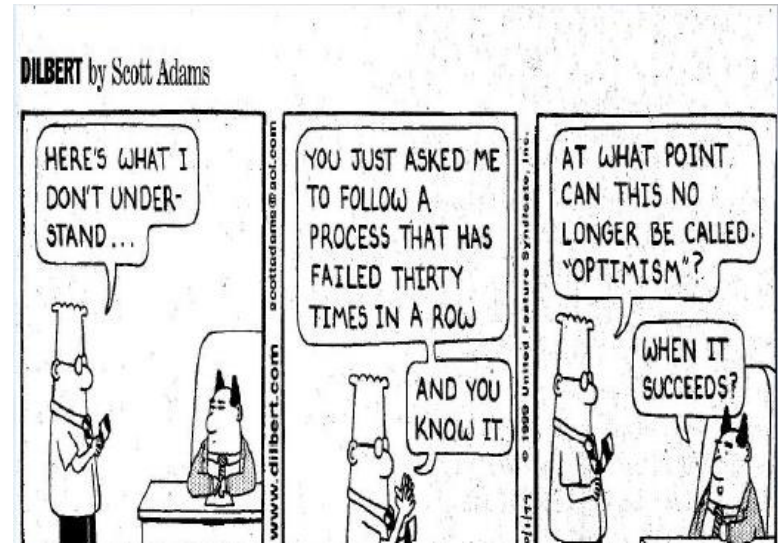


Over the last 25 years, there have been many attempts to change the trajectory

Investment has primarily focused on providers



- Quality initiatives within existing institutions
- Downsizing existing institutions
- Productivity improvements within existing policy structures
- Technology solutions that connect providers



But it is clearly not enough...

What we are doing today is not working



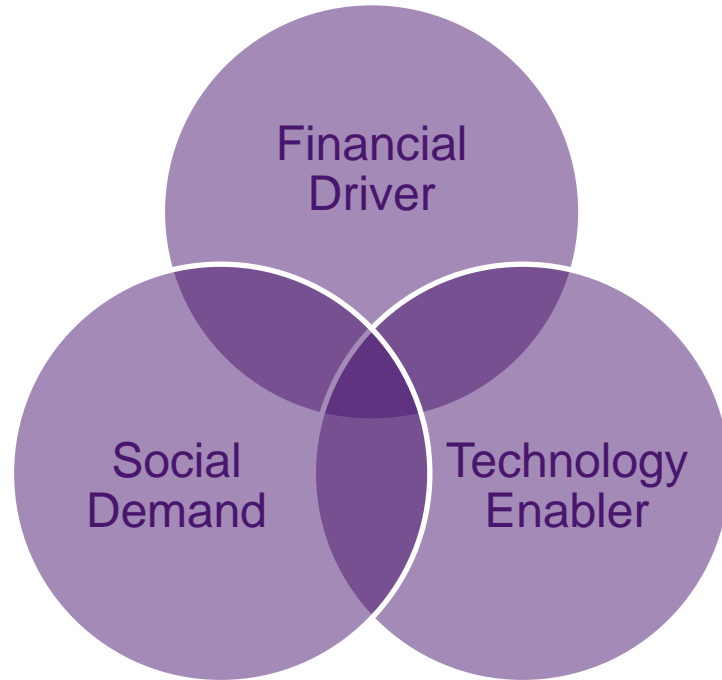
“If the Health Care System were a patient, and the symptoms were found to be persistent despite intensive therapy, the diagnosis should be questioned and new treatments considered”

*Dr. Robert Corona
“Teaching old Gods new tricks”*



We need to take a disruptive view of our Health System

There Key Drivers of Disruption



Disruptive innovation in the health care sector:

- The transference of skills from highly trained but also expensive personnel to more affordable providers, including technology-based care
- The shift away from traditional health care venues like hospitals into clinics and office settings, and, in some cases, into patients' own home

Disruptive Forces



Potential Disruptive Technology Enablers

- Mobile computing
- Power to the consumer
- Virtual visits
- Saving acute illness & creating chronic illness



Virtual visits – patient and provider in different locations



“By 2020, more than 25% of care will be delivered virtually (with provider and patient in separate places).” - Dr. Ed Brown, Nov. 2011



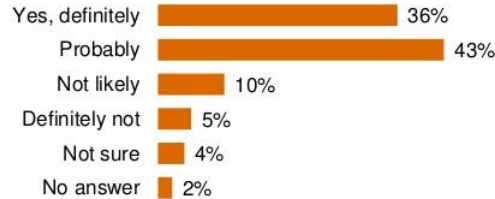
Virtual, more accessible care...not otherwise available

Canadians are ready for virtual monitoring of chronic conditions



79%
of Canadians indicate that they are comfortable with virtual monitoring for chronic conditions

Most Canadians indicated they would be comfortable having a chronic condition monitored virtually...



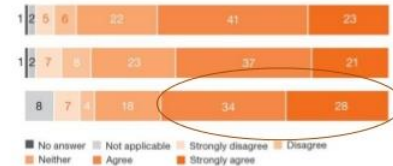
... and 62% of caregivers indicated that virtual health care would help them to provide care for someone else (e.g. parent/ child)

I think we should try to deliver health care virtually wherever appropriate

I would be interested in receiving health care virtually for myself

I provide care for someone else (e.g., parents, children) and we would benefit from virtual health care for them*

*Only includes those who care for someone else.

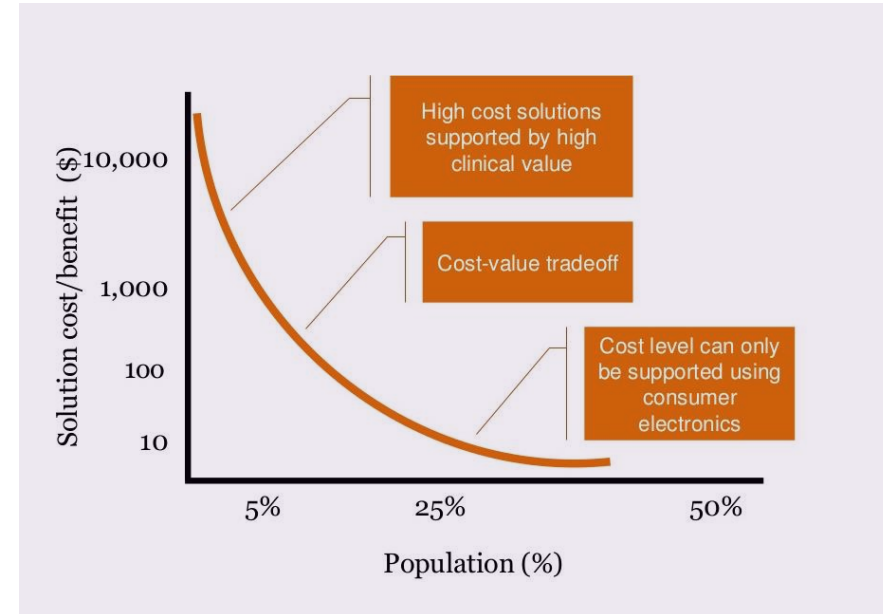


Consumer mHealth is a disruptive innovation



mHealth can impact higher quality of care at lower costs by impacting:

- supporting citizens in making lives healthier through **wellness and prevention**
- faster diagnosis of **chronic diseases** to limit severity
- remote monitoring can support treatment and **reduce hospitalizations**
- **enhancing decision making** by making analytics more relevant and available



Virtual, more accessible care...not otherwise available

Disruptive Forces



Potential Social Demand for Change

- 34% using social media, 46% using online health portals, 67% using search engines
- 26% of Canadians would pay extra to access their online record
- Between 60 and 80 million consumers use social media to share their health experiences online

- Aging Population
- Digital providers
- Tech savvy consumers
- Unhealthy lifestyles

- 72% of e-patients search for medical information
- 93% of e-patients say the Internet allows them to get the medical information they need
- 36% of people want to see what other consumers say about medication or treatment

An outside-in view: the Consumer



More than 2,400 Canadians participated in our research to address the central question, “What does the future of health care delivery look like?”



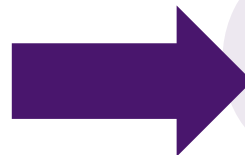
79%

of patients report that they would definitely, or are likely to, use email services with their doctor



83%

of patients report that they would definitely, or are likely to, use online prescription refill services



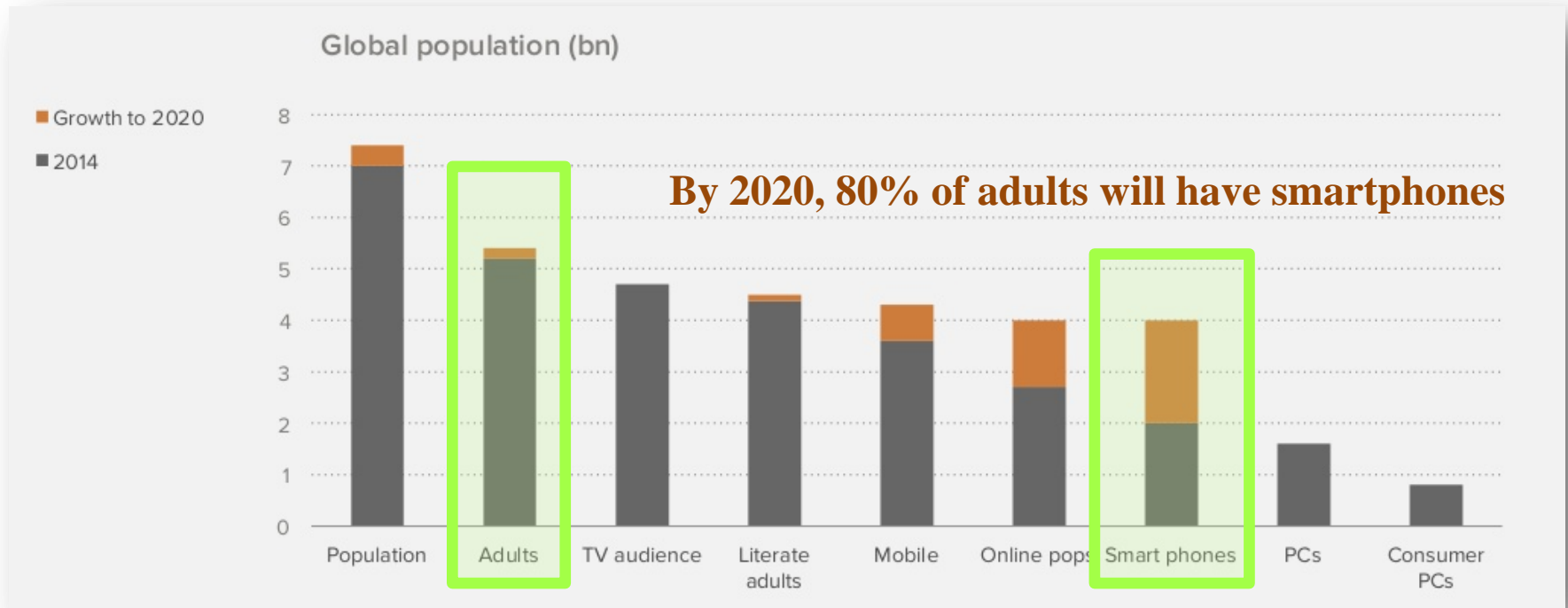
Consumers are demanding modernization, moving away from traditional care models

...and getting together on-line and influencing their own care path



The screenshot shows the PatientsLikeMe website interface. At the top, the navigation bar includes links for Patients, Treatments, Symptoms, and Research, along with a search bar and a 'Search' button. The main heading is 'Find Patients Like You'. Below this, there is a form titled 'Tell us a bit about yourself:' with dropdown menus for 'Multiple Sclerosis' and 'Female', and a 'Find Patients' button. There are also links for 'Share Your Experience' and 'Learn From Others', and a 'Join Now (It's free!)' button with a 'Log in' link for existing members. A section titled 'There are 6570 patients like you in our community. See more...' features a grid of patient profile cards. Each card displays a bar chart representing disease progression, a profile picture, and the patient's name and details (e.g., 'buggleeyes', 'Female, 47 years, Deland, FL, United States'). Below the grid is a banner with a collage of photos of patients and their families. The bottom section is divided into 'Our Current Communities' (listing various neurological and neuroendocrine conditions) and 'Highlights' (featuring a 'Genetics Search Engine', 'Fibromyalgia Community', and 'Lithium & ALS Study').

...and becoming increasingly technology savvy



Source: World Bank, GSMA, a16z via Evans 2014

Rise of virtualization and consumer mHealth



expands and deepens this trend across healthcare

Disruptive Forces



Financial Drivers of Change

- Rising costs of labour and drugs
- Cost containment strategies
- Private sector partnerships

Status quo is clearly not an option...

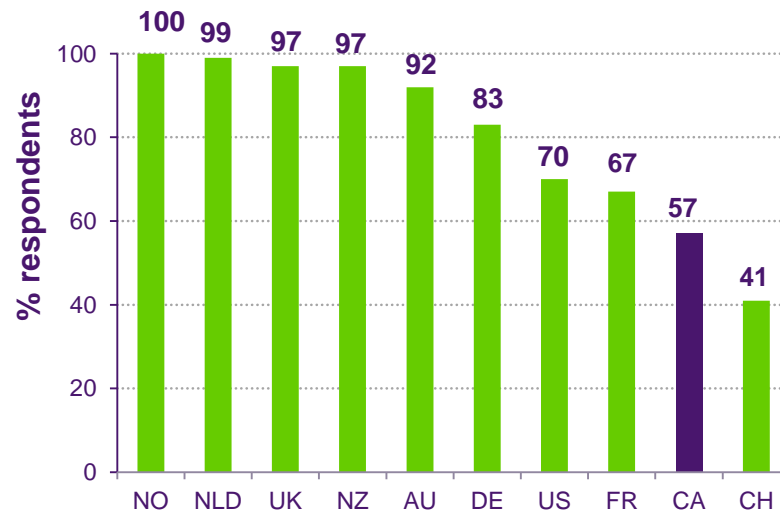


Healthcare Performance Ranking- 11 OECD Countries

	AUS	CAN	FRA	GER	NETH	NZ	NOR	SWE	SWIZ	UK	US
Overall Ranking (2013)	4	10	9	5	5	7	7	3	2	1	11
Quality Care	2	9	8	7	5	4	11	10	3	1	5
Effective Care	4	7	9	6	5	2	11	10	8	1	3
Safe Care	3	10	2	6	7	9	11	5	4	1	7
Coordinated Care	4	8	9	10	5	2	7	11	3	1	6
Patient-Centered Care	5	8	10	7	3	6	11	9	2	1	4
Access	8	9	11	2	4	7	6	4	2	1	9
Cost-Related Problem	9	5	10	4	8	6	3	1	7	1	11
Timeliness of Care	6	11	10	4	2	7	8	9	1	3	5
Efficiency	4	10	8	9	7	3	4	2	6	1	11
Equity	5	9	7	4	8	10	6	1	2	2	11
Healthy Lives	4	8	1	7	5	9	6	2	3	10	11
Health Expenditures/ Capita 2011	\$3,800	\$4,522	\$4,118	\$4,495	\$5,099	\$3,182	\$5,669	\$3,925	\$5,643	\$3,405	\$8,508
	Country Rankings			Top 2*			Middle			Bottom 2*	

Source: The Commonwealth Fund 2014 Update - Mirror, Mirror On The Wall: How The Performance Of The U.S. Health Care System Compares Internationally

EMR International Adoption Rates



Source: Commonwealth Fund "How do Canadian primary care physicians rate the health system?" Jan. 2013. Results from the 2012 Commonwealth Fund International Health Policy Survey of Primary Care Physicians

Increased spending on health-related goods (U.S.)

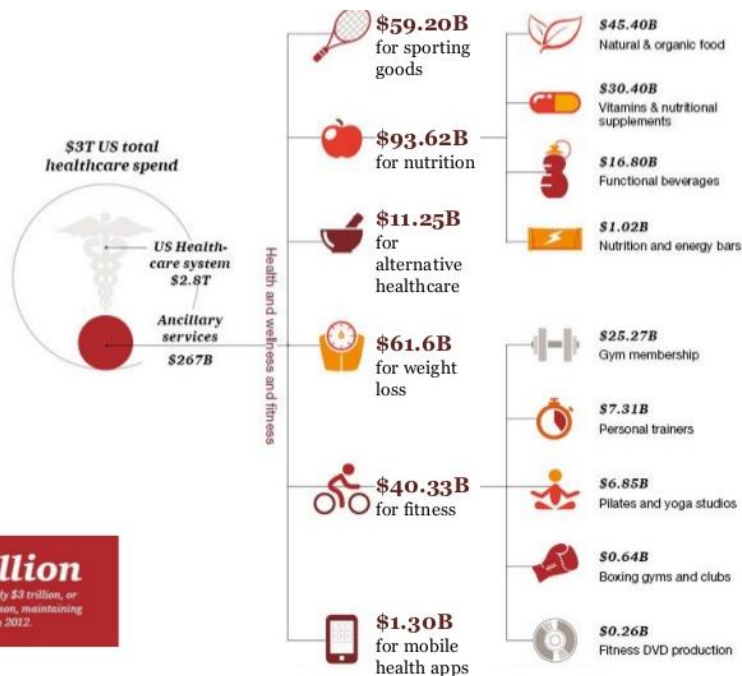


Americans spent **\$2.8 trillion** on healthcare in 2012, an oft-cited figure that ignores the lucrative fitness and wellness industry.

HRI estimates the nation spent another

\$267 billion

in 2012 on the fitness and wellness market.



\$3 trillion

Americans spent nearly \$3 trillion, or almost \$10,000 a person, maintaining health and wellness in 2012.

Why has uptake been so slow in Canada?



- Policy
- Regulatory
- Funding
- Lack of incentives / business model
- Technology

How do we “curate” this disruptive change to make it successful?



Creating hubs to allow for better health collaboration

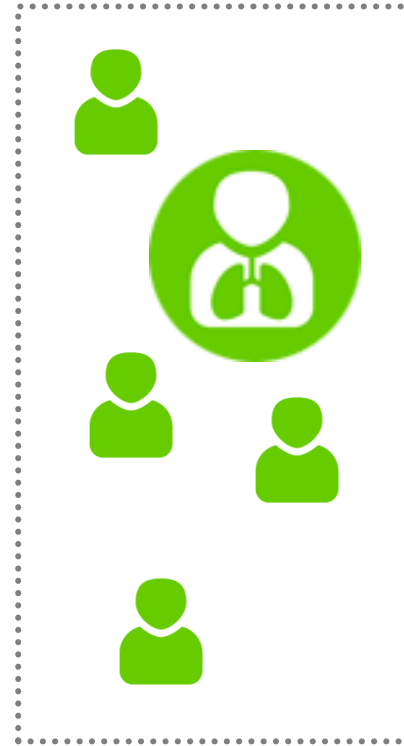
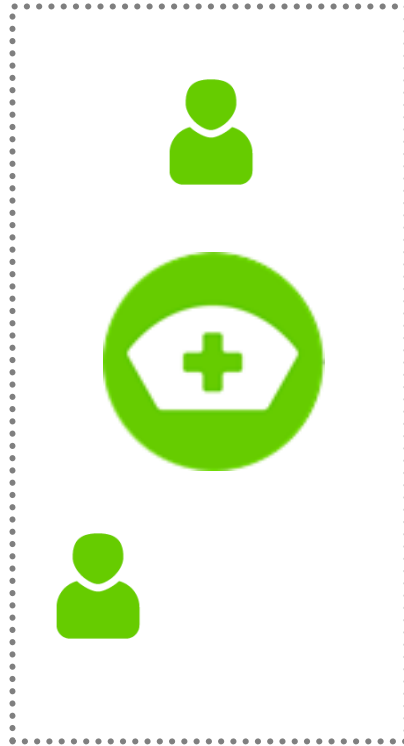


Private sector hubs will also support strong health collaboration



Strong relationship with the health insurance sector with over 40% market share for drug claims in Canada

Innovation Today



What's the Impact?



80% of encounters lack important information

60% of clinical questions go unanswered

50% of those answers would have had a direct impact

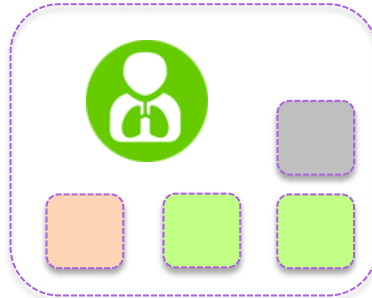
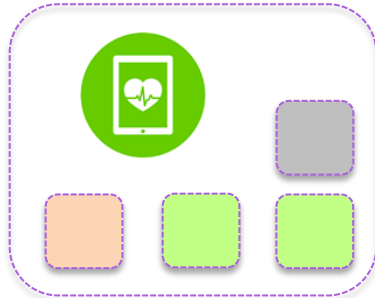
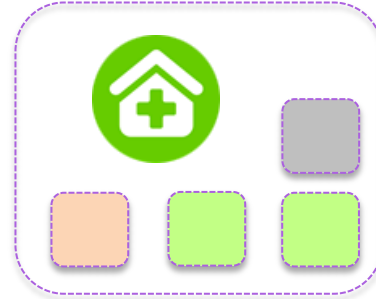
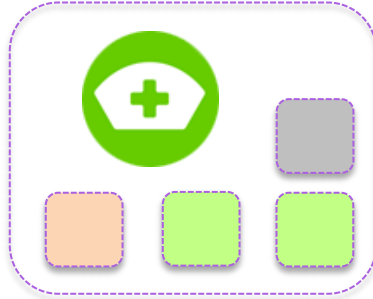
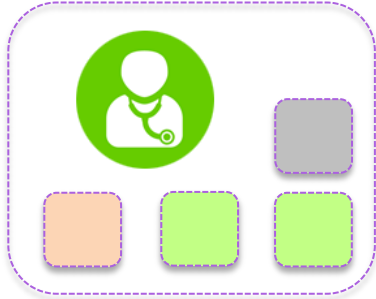
33% of clinical time is searching/organizing data

40% of clinical data resides in “white space”

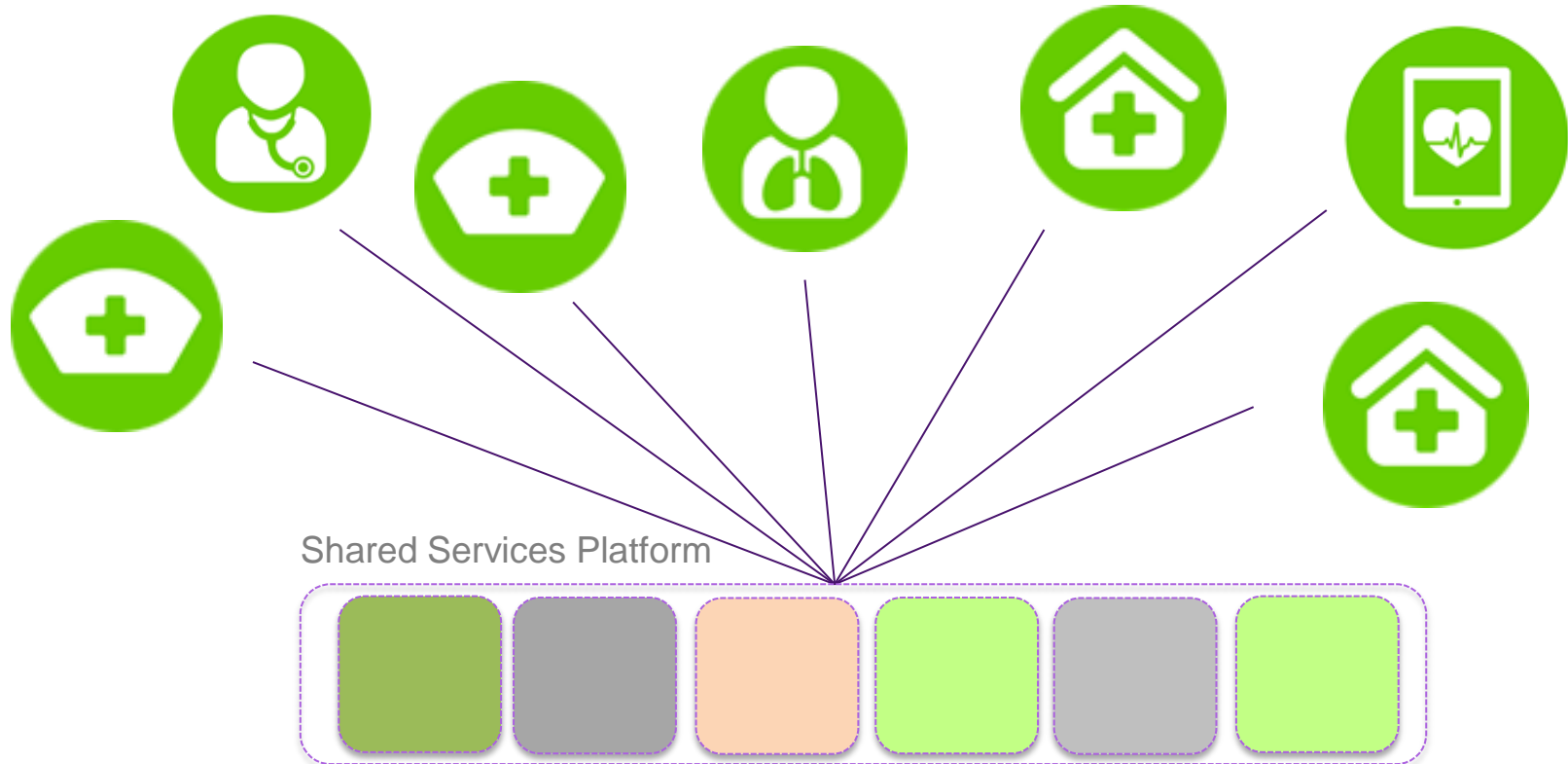
Innovation Tomorrow



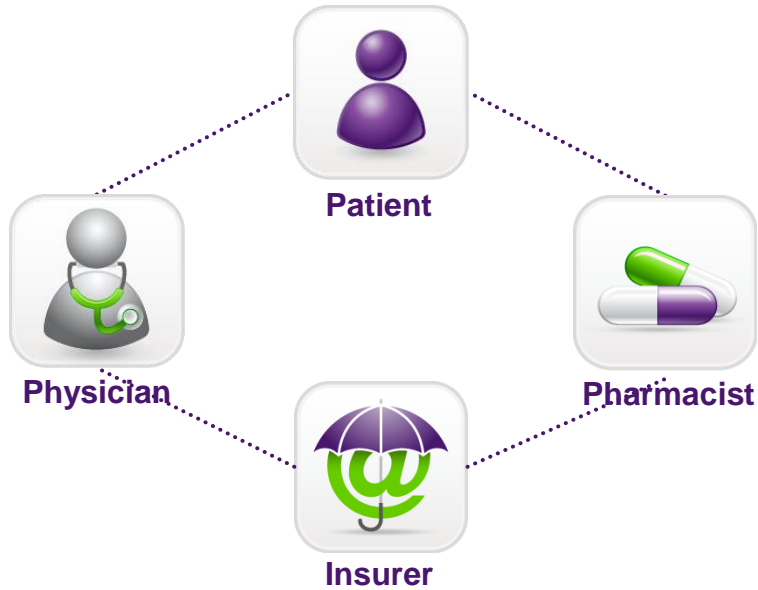
Apps Today



Apps Tomorrow



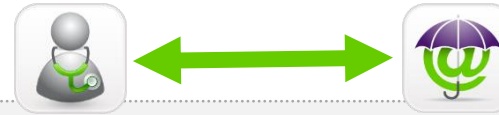
Developing collaborative health services that connect providers and consumers



Collaborative Health Services Examples



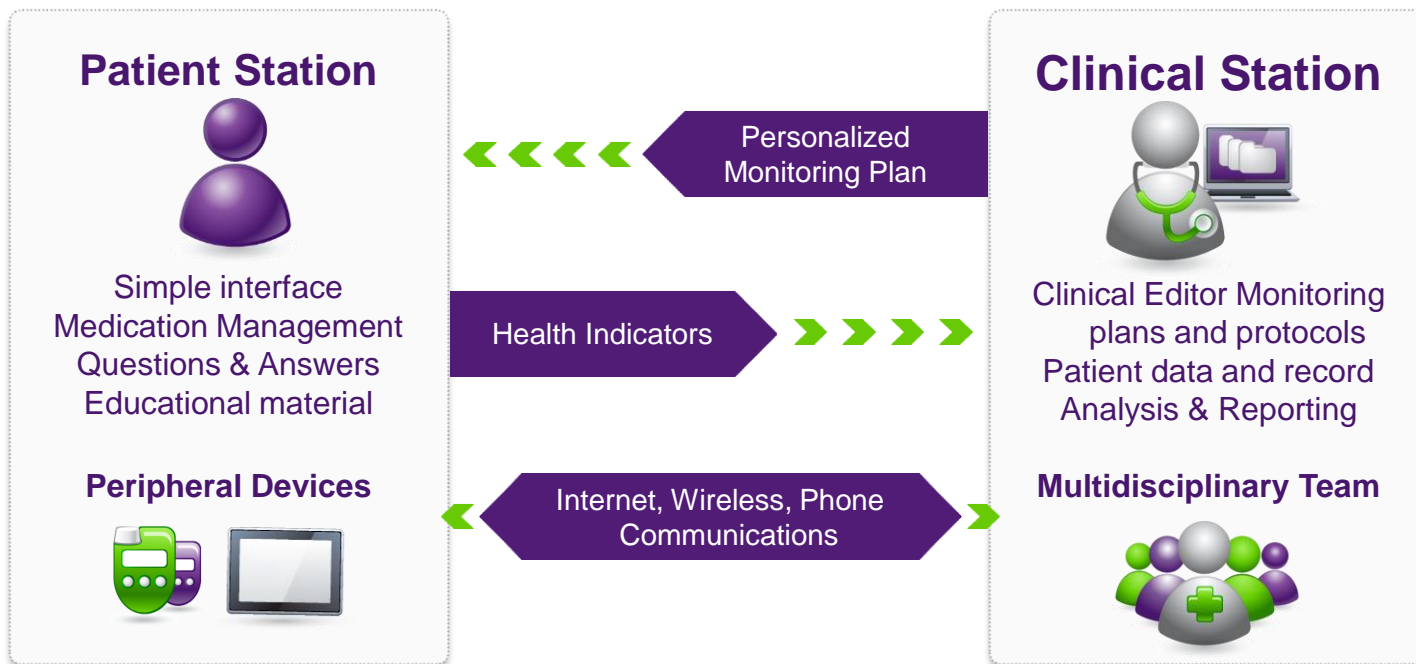
- 1 Electronic refill renewal requests and authorizations
- 2 Secure messaging



- 3 Forms integration
- 4 Pre-adjudication

Facilitating interactions between consumers, physicians and pharmacists through connected digital information

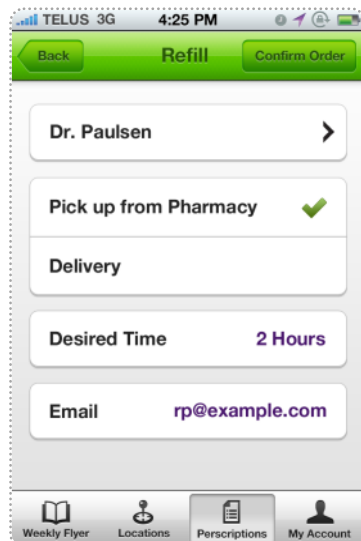
Example of collaborative health services: Home Health Monitoring



Example of collaborative health services: TELUS Pharma Space



Simplified Refills



One-click prescription refill
from anywhere

Medication History



Medication history at your
fingertips

Drug Information



Access information anytime

Empowering consumers with Personal Health Records



SMART record IN PARTNERSHIP WITH **LAWSON** **TELUS** health solutions

Home Manage My Health Measurements Medical History Reports Profile & Settings References

Home Welcome, Ria Parris [sign out](#)

Welcome to Lawson's SMART record! This personal health record has been designed to assist individuals to collect, store, update their personal health information and display the data collected in a user friendly manner.

HEALTH JOURNAL ENTRY FORM

Date:

Time: : AM PM

MY MOOD

* On a scale from 1 (extremely sad) to 7 (extremely happy), how is your mood at the moment?

Extremely Sad

Slide the circle to indicate your answer

Value: 1

MY FIELDS [Manage My Fields](#)

[Save](#)

APPOINTMENTS

Date Range:

[Add New Item](#)

DATE	APPOINTMENT WITH	REMINDER
2012-10-16 10:00 AM	Demo Lawson	View Reminder
2012-10-15 9:00 AM	Lisa Norman	View Reminder

REMINDERS

Date Range: Event Group:

[Add New Item](#)

REMINDER TEXT	SCHEDULE	EDIT	DELETE
Medication	Recurring 8:00 AM every day		
Salon Appointment	One Time 2012-10-12 4:00 PM		
Appointment with Lisa Norman	One Time 2012-10-15 8:55 AM		
Appointment with Demo Lawson	One Time 2012-10-16 9:55 AM		

MY ALERTS

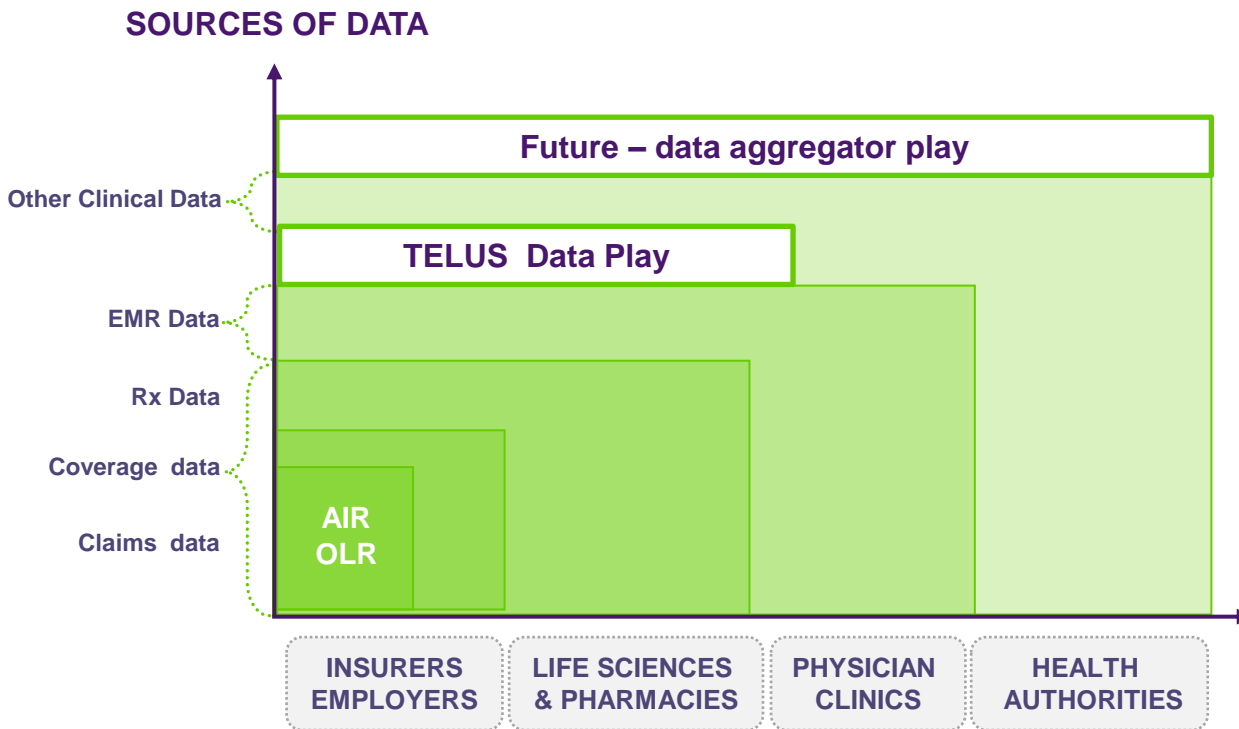
There are no alerts for this user.

Create, Store & Manage

- Immunizations
- Allergies & Asthma
- Medications
- Height, weight, symptoms
- Medical measurements (such as blood glucose)
- Pre-existing illnesses or conditions
- Hospitalizations & operations

Our industry-leading Personal Health Record solution enables users to self-manage their health information

Generating quantifiable health outcomes





Information for Life.



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