

Challenges and accomplishments with value measurement  
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# Content

## Context

### Challenges

- Implementing the Reform

- Reorganising Information

- Budget changes and Ressources Constraints

- Measuring and improving value

### Accomplishments

- Information Management

- IPU implementation

- Performance and Quality Improvement

- Some Examples of Cost and Outcomes

## Conclusion

# Some elements our healthcare system

- ▶ Canada has 13 different healthcare systems sharing some common characteristics
  - ▶ Public fiscal funding (70%)
  - ▶ Global funding for hospital or other institutions
  - ▶ Physicians are not employed by hospitals paid by a third party
- ▶ Quebec healthcare system serves a population of 8M
  - ▶ Health care system includes social services
  - ▶ The lowest per capita health spending in Canada
  - ▶ Many reforms: the latest merged 182 organizations in 34
  - ▶ Creation of Integrated Health and Social services network CISSS and CIUSSS

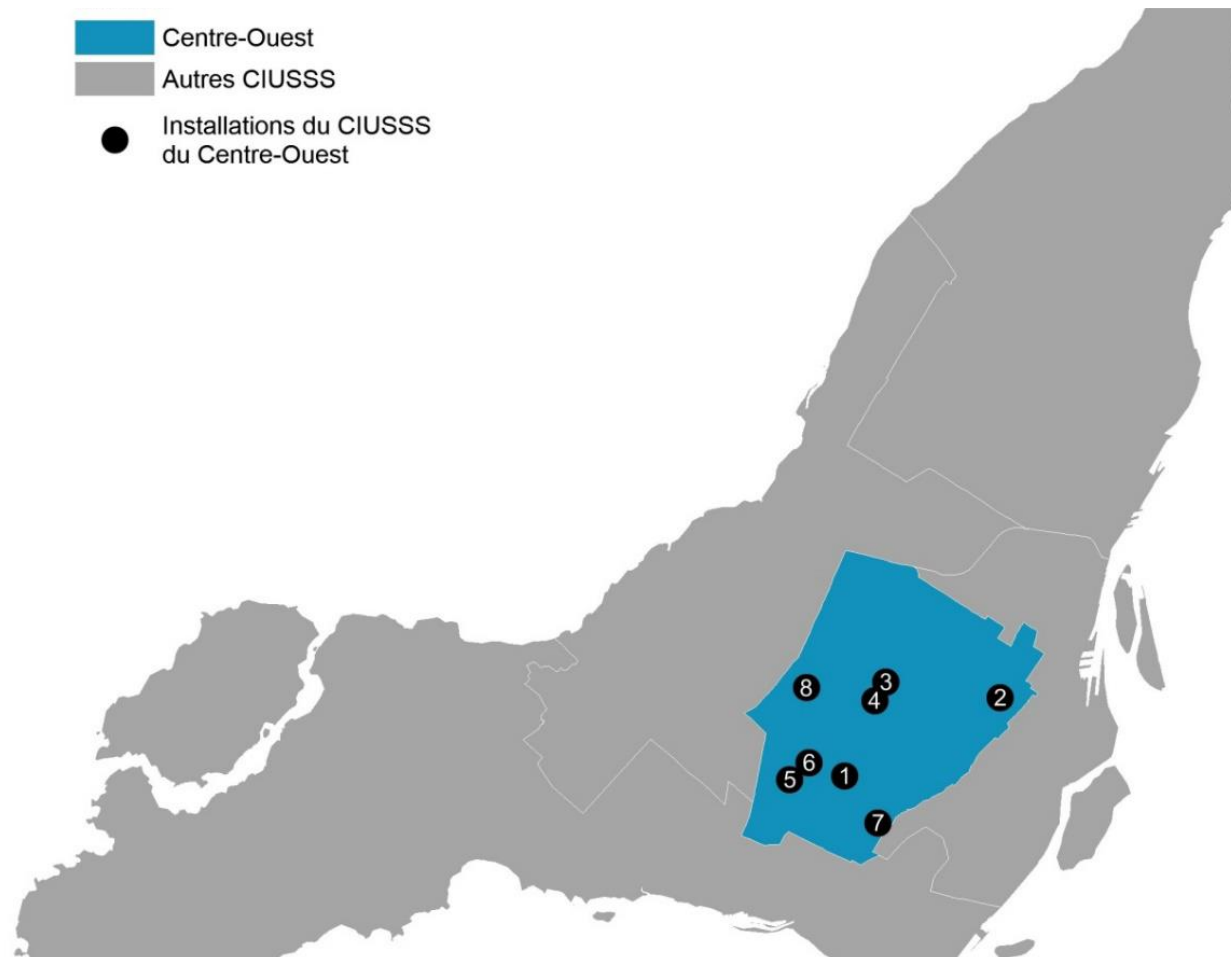
# Mandate of CISSS and CIUSSS

- ▶ Center of a territory network
- ▶ Assure the provision of health and social services of its population
- ▶ Responsible for the health and well being of the network population
- ▶ Includes the Health and Social services of all the continuum of the episode
  - ▶ Acute hospital (1 teaching hospital)
  - ▶ Rehabilitation centers (3)
  - ▶ Nursing homes (7)
  - ▶ Ambulatory centers (5 CLSC)
  - ▶ Intellectual and physical deficiency centers (2)
- ▶ If CIUSSS, has an academic status for teaching, research and knowledge transfer






# Challenge 1: implementing bill 10 reform

- ▶ The reform started in April 2015
- ▶ Implementing a successful reform:
  - ▶ Integration of care across all the spectrum of services;
  - ▶ Re-structuration and all managers appointment
- ▶ Another bill for physician (Bill 20)
- ▶ Another change to come for funding healthcare institutions according to Fee for service

# Territory map in Montréal



# Examples of

Life Habits and risk factors		CIUSSS Centre- Ouest	CSSS Cavendis h	CSSS de la Montagne	CSSS min/max	MTL
Low level of global activity		18 % (-)	17 % (-)	19 %	13 % (-)	21 %
Physical activity corresponding to recommandation		42 % (+)	39 %	44 % (+)	57 % (+)	35 %
Smoking		14 % (-)	14 % (-)	15 % (-)	13 % (-)	19 %
Eating at least 5 fruits and vegetables daily		59 %	57 %	59 %	55 % (-)	59 %
Excessive alcohol consumption		12 % (-)	12 %	12 %	7 % (-)	14 %
Obesity		11 % (-)	12 % (-)	10 % (-)	10 % (-)	16 %

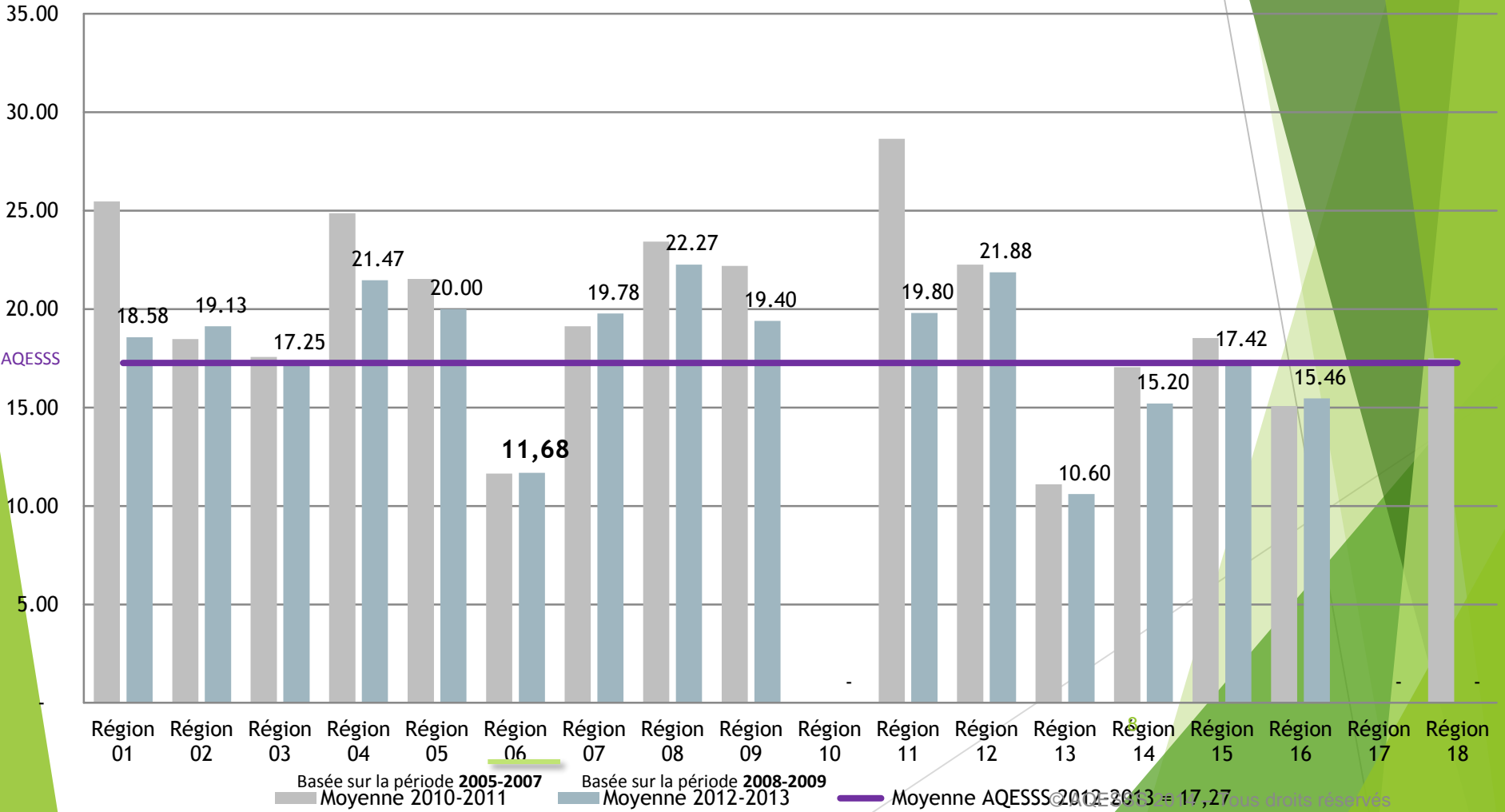
01 - BAS-SAINT-LAURENT	10 - NORD DU QUÉBEC
02 - SAGUENAY-LAC-SAINT-JEAN	11 - GASPÉSIE ILES DE LA MADELEINE
03 - CAPITALE NATIONALE	12 - CHAUDIÈRE-APPALACHES
04 - MAURICIE ET CENTE DU QUEBEC	13 - LAVAL
05 - ESTRIE	14 - LANAUDIÈRE
06 - MONTRÉAL	15 - LAURENTIDES
07 - OUTAOUAIS	16 - MONTÉRÉGIE
08 - ABITIBI-TEMISCAMINGUE	17 - NUNAVIK
09 - CÔTE NORD	18 - TERRES-CRIES-DE LA BAIE

## Taux de mortalité par suicide par 100 000 habitants (ajusté par l'âge, le sexe) (42000-050)

Moyenne de la région de Montréal = **11,68** par 100 000 habitants

Moyenne de tous les membres de l'AQESSS = **17,27** par 100 000 habitants

Échelle : par 100 000 habitants - Indicateur négativement associé à la performance





# Challenge 2: Reorganising information

- ▶ Merging 9 organizations involves
  - ▶ The same persons could have many different patient identifier among the new merger organization
    - ▶ We had to implement a unique patient identifier (done less that two years after the merge). Done last april.
  - ▶ Integration of 9 finances, human resources, material management systems;
    - ▶ We are in the heart of that complex and time consuming process
  - ▶ Developing performance clinical trajectories across the CIUSSS and the network for a population of 342K

# Build an Enabling Integrated IT Platform

Utilize information technology to enable **restructuring of care delivery** and **measuring results**, rather than treating it as a solution itself

- ▶ Combine **all types of data** (e.g. notes, images) for each patient
- ▶ Use common **data definitions**
- ▶ Data encompasses the **full care cycle**, including care by referring entities
- ▶ Allow access and communication among **all involved parties**, including with patients
- ▶ Medical conditions **templates** to enhance user interface

# Challenge 3:

## Resources Constraints

- ▶ Very important budget cuts (our CIUSSS) for three years in a row
- ▶ Difficulty to achieve the two first challenges in the same time
- ▶ Logically the reform will produce cost reductions and resources optimization in middle term and not easily at the beginning of the reform
- ▶ Providing the best value services is very important

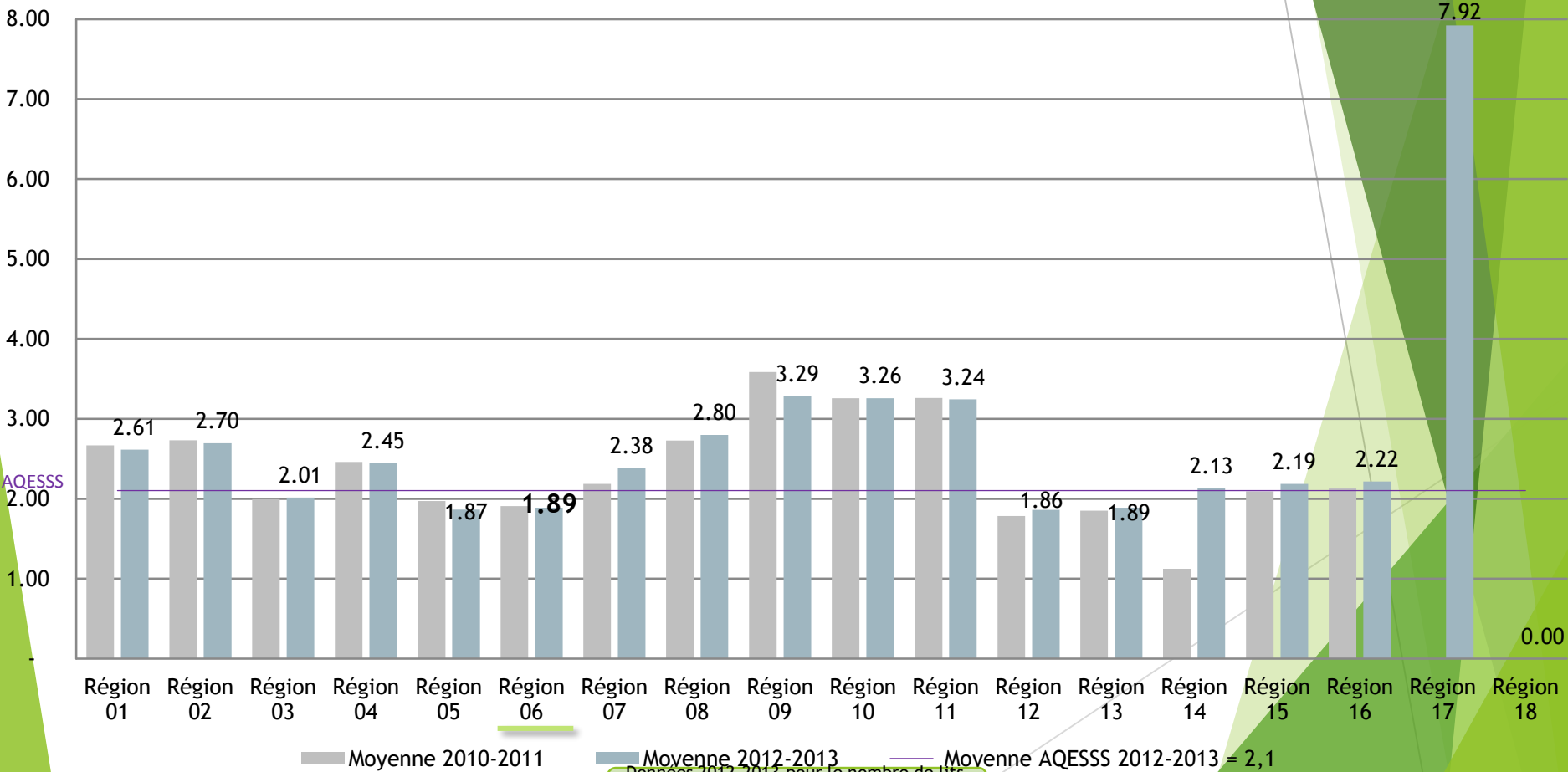
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## Ratio de lits dressés en CD en santé physique par rapport au bassin de desserte

Moyenne de la région de Montréal = **1,89 lits par 1000 habitants**

Moyenne de tous les membres de l'AQESSS = **2,1 lits par 1000 habitants**

Échelle : nombre de lits de CD en santé physique par 1000 habitants - Indicateur contextuel



Données 2012-2013 pour le nombre de lits  
Données 2011-2012 pour le bassin de desserte

01 - BAS-SAINT-LAURENT	10 - NORD DU QUÉBEC
02 - SAGUENAY-LAC-SAINT-JEAN	11 - GASPÉSIE ILES DE LA MADELEINE
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05 - ESTRIE	14 - LANAUDIÈRE
06 - MONTRÉAL (OUTAOUAIS)	15 - LAURENTIDES
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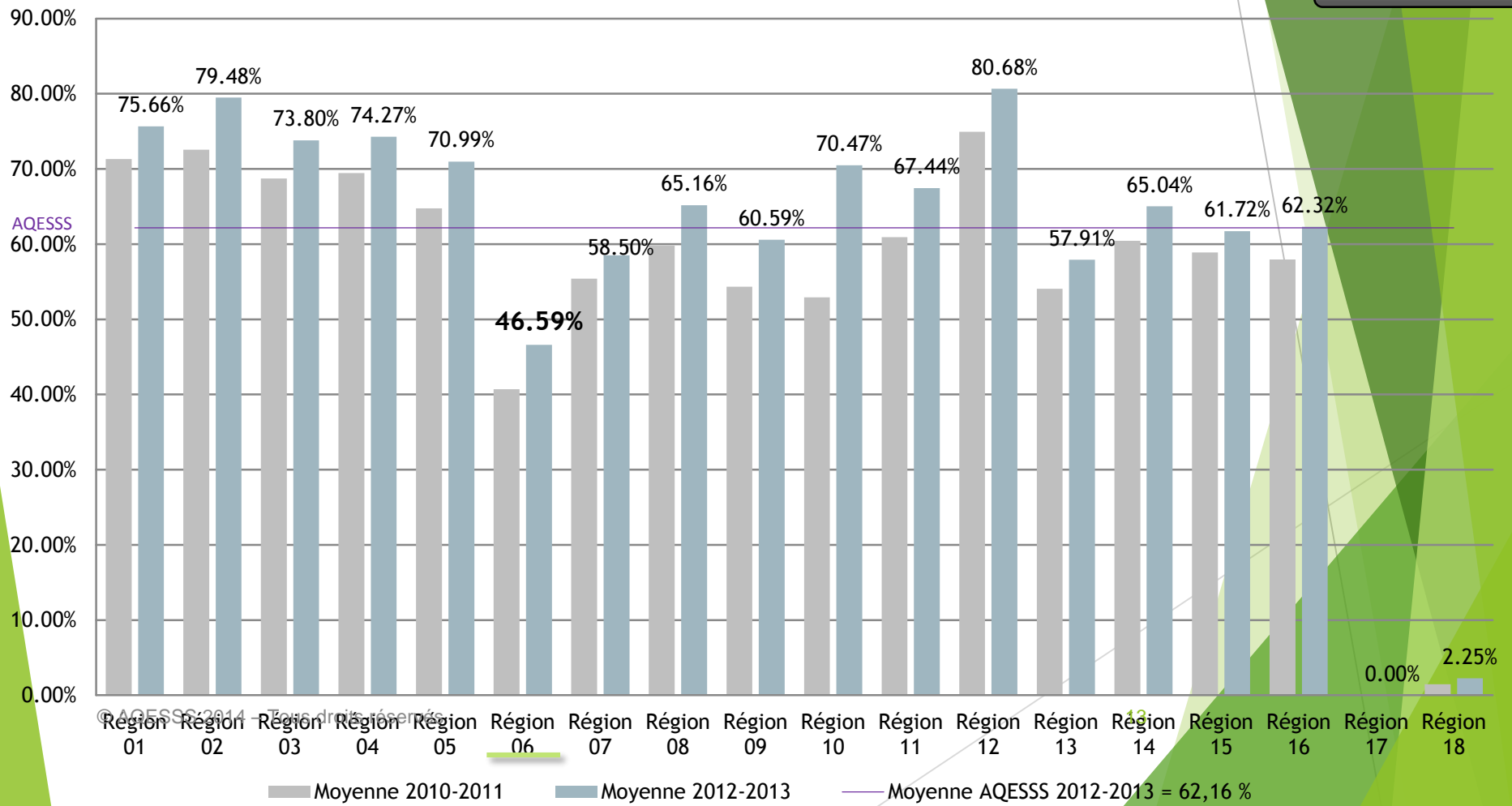
## Proportion de la population inscrite auprès d'un médecin de famille (33110-150)

Moyenne de la région de Montréal = **46,59 %**

Moyenne de tous les membres de l'AQESSS = **62,16 %**

Échelle : % - Indicateur positivement associé à la performance

Cible AQESSS 2010-2011 = 70 %



# Challenge 4 : measuring and improving value

**Value:** Patient health outcomes per dollar spent

► Value is the only goal that can unite the interests of all CIUSSS participants and stakeholders



► Improving value is the only real **solution** to reforming health care versus cost cutting, per se **cost shifting** to patients, **restricting services**, or **reducing provider compensation**

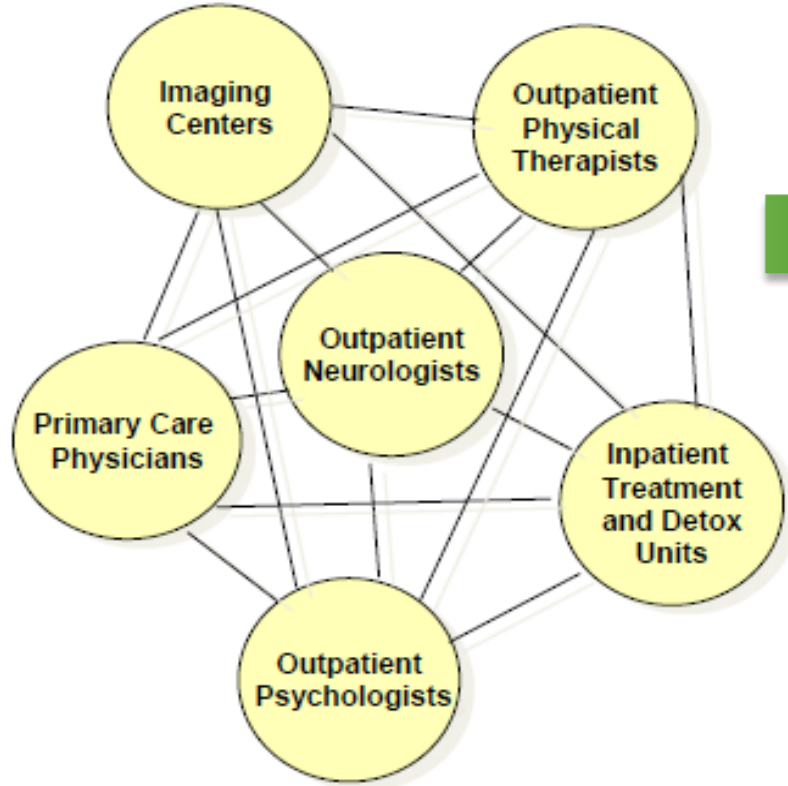
# Creating a Value-Based Healthcare Delivery System

## Value-based Healthcare

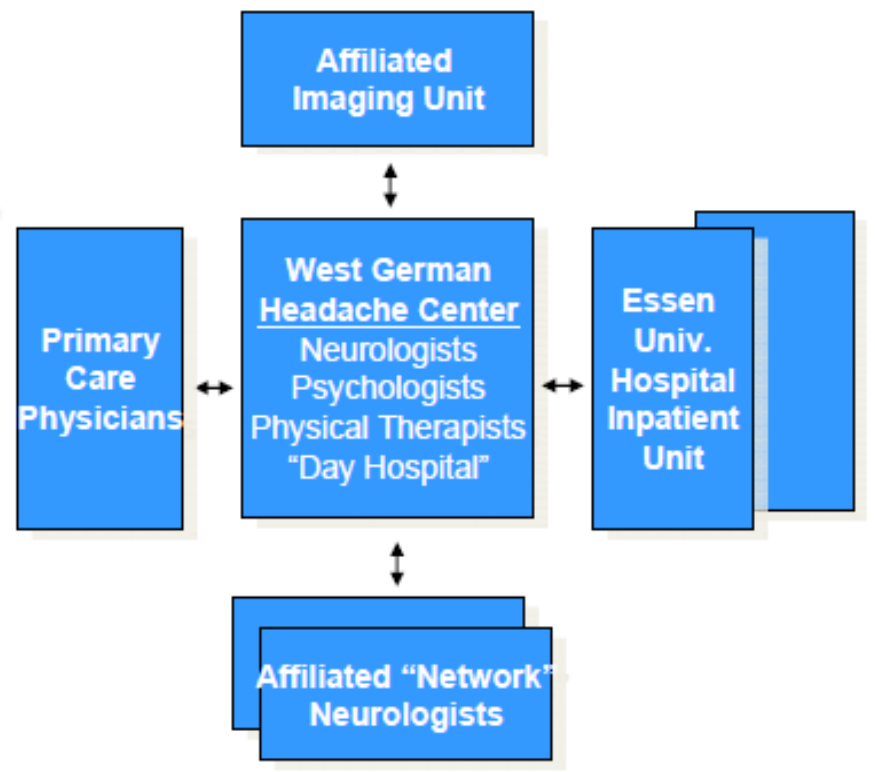
1. Integrated Practice Units (IPUs)	<ul style="list-style-type: none"><li>• Lead <b>multidisciplinary teams</b>, not specialty silos</li></ul>
2. Measure Cost and Outcomes	<ul style="list-style-type: none"><li>• Become an expert in <b>measurement</b> and <b>process improvement</b></li></ul>
3. Integrated Practice Units (IPUs)	<ul style="list-style-type: none"><li>• Champion <b>value enhancing rationalization, relocation, and integration</b> with sister hospitals, as well as between inpatient and outpatient units, instead of protecting turf</li></ul>
4. Integrate Across Separate Facilities	<ul style="list-style-type: none"><li>• Create networks and affiliations to expand high-value care <b>across geography</b></li></ul>
5. Enabling IT	<ul style="list-style-type: none"><li>• Become a <b>champion for the right EMR systems</b>, not an obstacle to their adoption and use</li></ul>

# Challenge 4

**Existing Model:** Organize care around Specialty and Discrete



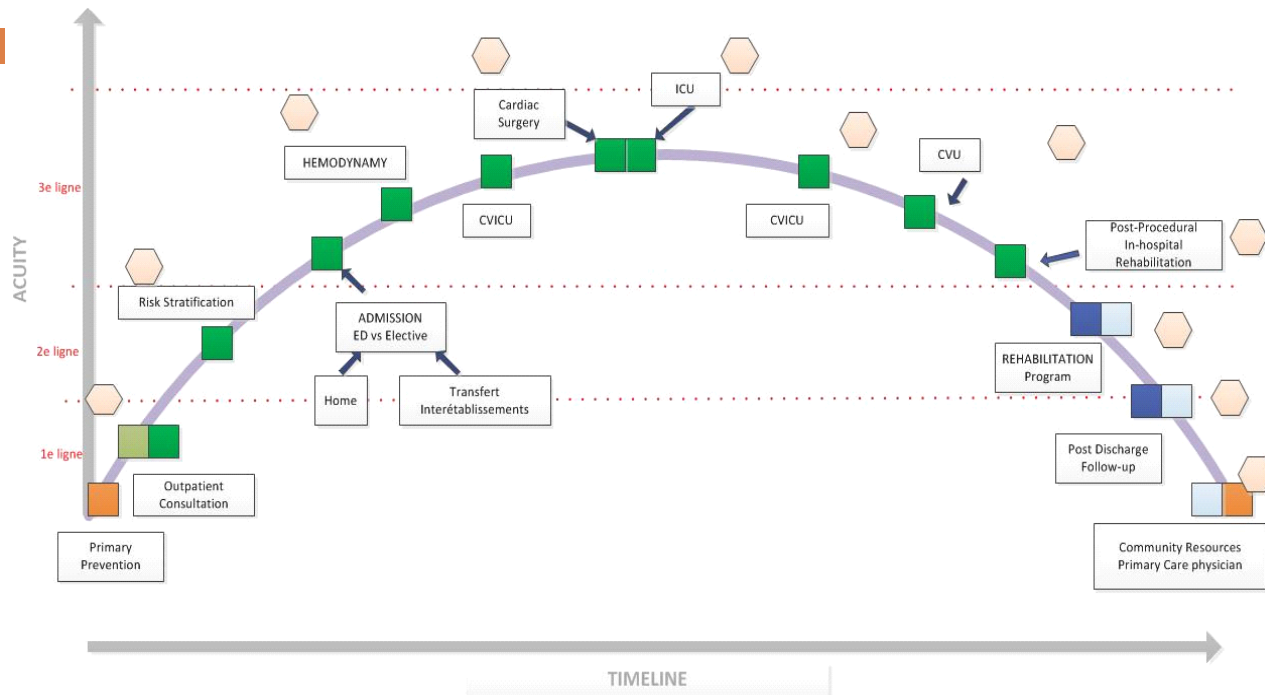
**New Model:** Organize into Integrated Practice Units (IPUs)





# Trajectoire de soins

## CORONARY CARE DISEASE



- Communauté / GMF
- CH - CIUSSS
- CLSC - CIUSSS
- CR - Partenaires CIUSSS
- Co-ownership / joint venture
- ⬡ Indicateurs de qualité Références à déterminer

Source: Cardiovasculaire

Équipe Innovation

# Attributes of an IPU

1. Organized around the patient **medical condition** or set of **closely related conditions** (or patient segment in primary care)
2. Involves a **dedicated, multidisciplinary team** who devotes a significant portion of their time to the condition
3. Providers on the team see themselves as part of a **common organizational unit**
4. Team takes **responsibility** for the **full cycle of care** for the condition:
  - ▶ Encompassing **outpatient, inpatient, and rehabilitative** care as well as **supporting services** (e.g. nutrition, social work, behavioral health)
5. Incorporates patient education, engagement, follow-up and secondary prevention are **integrated into the care**

# Attributes of an IPU

6. Utilizes a **single administrative** and **scheduling structure**
7. Much of the care is **co-located** in one or more **dedicated facilities**
8. Care is led by a **physician team captain** and a **clinical care manager** who oversee each patient's care process
9. The **team measures** outcomes, costs, and processes for each patient using a **common information platform**
10. Providers function as a team, meeting **formally and informally** on a regular basis to discuss patients, processes and results
11. Accepts **joint accountability** for outcomes and costs

# Full cycle of care

Leadership & Management

## Systemness: The Next Frontier for Integrated Health Delivery

Written by Alan M. Zuckerman, FACHE, FAAHC, president of Health Strategies & Solutions, Inc. | March 10, 2014 | Print |

### Rethinking the Organization of Delivery of Care



# Build an Enabling Integrated IT Platform

Utilize information technology to enable **restructuring of care delivery** and **measuring results**, rather than treating it as a solution itself (cont'd)

- ▶ **“Structured”** data vs. free text
- ▶ Architecture that allows easy extraction of **outcome measures**, **process measures**, and **activity-based cost measures** for each patient and medical condition
- ▶ Interoperability standards enabling communication among **different provider organizations**

# Our Journey in Outcomes Measurement

- ▶ Identifying most important aspects to consider in each IPU and some patient trajectories (7 IPU this year) ex: stroke, depression, coronary syndrome
- ▶ Collecting information
  - ▶ Some informations are already available (complications, readmissions, mortality, survival, etc..)
  - ▶ Some information has to be collected: patient reported information (pain, discomfort, anxiety, ambulation, vision, hearing etc...)
  - ▶ The surveys are available but we need to implement a platform for collecting, organizing, analyzing and reporting information

# Measuring Outcomes

- ▶ Partnership with I-CHOM Consortium<sup>23</sup> using their data set and indicators for some health and well being problems
- ▶ Measurement of some other outcomes with our own tools: complications, morbidity impact, mortality

# The ICHOM Approach

## Grounded in a theoretical framework

- The ICHOM approach is built on a solid framework developed at Harvard Business School by Professor Michael E. Porter, Ph.D.

## Rooted in strategy

- One of their founding organizations, The **Boston Consulting Group**, was the first to introduce competitive strategy to the business world.



## Research-based thought leaders

- Their tie to the **Karolinska Institute** in Stockholm, Sweden provides us with a strong foundation in medicine and research.

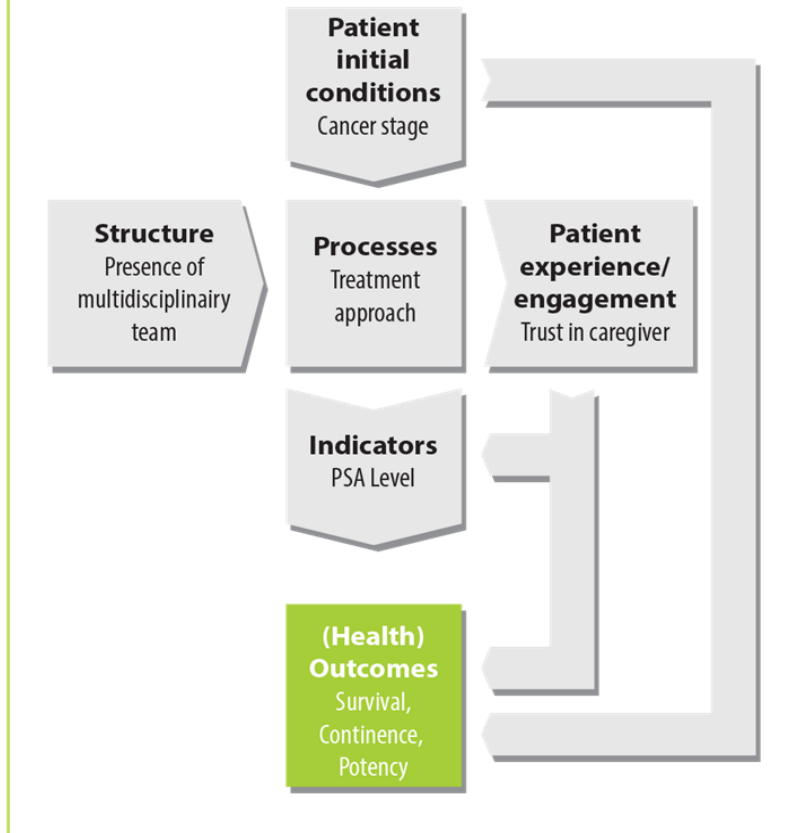




# Measurement of Health Outcomes

## The Measurement Landscape

with examples for Localized Prostate Cancer



## What is a Health Outcome?

Outcomes are the results people care about most when seeking treatment, including functional improvement and the ability to live normal, productive lives

# Standard Set Overview (21 developed and 10 in progress)

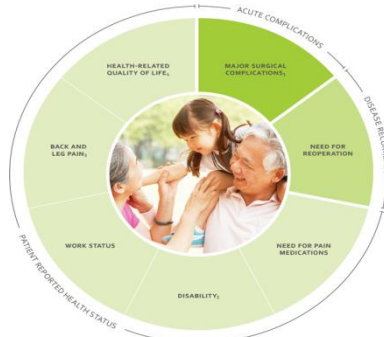
## Stroke



## Hip & Knee Osteoarthritis



## Low Back Pain



## Coronary Artery Disease



## Macular Degeneration



## Cataract



## Depression and Anxiety



## Parkinson's Disease



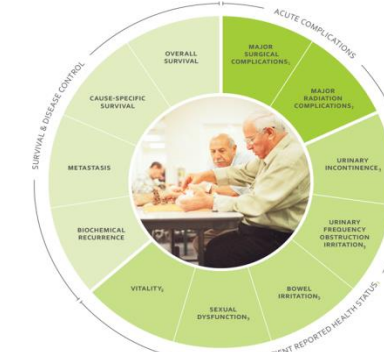
## Lung Cancer



## Advanced Prostate Cancer



## Localized Prostate Cancer



## Cleft Lip & Palate



# Exemple of measures of outcomes

- ▶ Patients reported outcomes
  - ▶ Management of anxiety symptoms
  - ▶ Outcomes after a cataract surgery
  - ▶ Patient/user experience
- ▶ Clinico administrative documented outcomes
  - ▶ Readmissions
  - ▶ Complications
  - ▶ Pain management
  - ▶ Mortality

# Measuring the Cost of Care Delivery: Principles

- ▶ Cost is the **actual expense** of patient care
- ▶ Useful to compare with the **tariff** billed or collected
- ▶ Cost should be measured around the **patient/user**, not just the department or provider organization
- ▶ Cost should be aggregated over the **full cycle of care for the patient's health condition along the trajectory**
- ▶ Cost depends on the **actual use of resources** involved in a patient's care process (personnel, facilities, supplies)

# Measuring the Cost of Care Delivery: Where we are in the CIUSSS

- ▶ May 2015 - Development of the cost for every patient of the JGH for FY 2013-2014 was completed and made available to managers and clinicians
- ▶ Cost per cost center and total cost for each patient for inpatient episode and ambulatory episode is now calculated
- ▶ We use this information for management, research and for the evaluation of the non quality costs
- ▶ Now preparing for FY 2016-2017 hospital data
- ▶ In the months to follow, we will develop a plan for calculating the cost per patient all across the CIUSSS

# Conclusion

- The challenges are all interrelated
- The reform will help to improve access and continuity
- Performance and quality improvement will achieve resources and budget optimisation and increase the overall value of our services