

# High Cost Users

## Driving Value with a Patient-Centered Health System

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MOHLTC High User Discussion



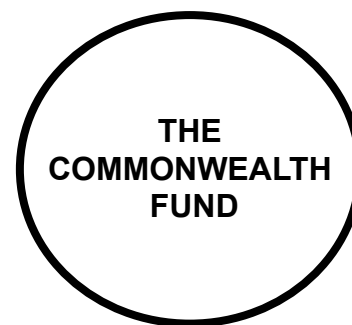
Leveraging the Culture of Performance Excellence in Ontario's Health System  
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Institute of Health Policy, Management & Evaluation  
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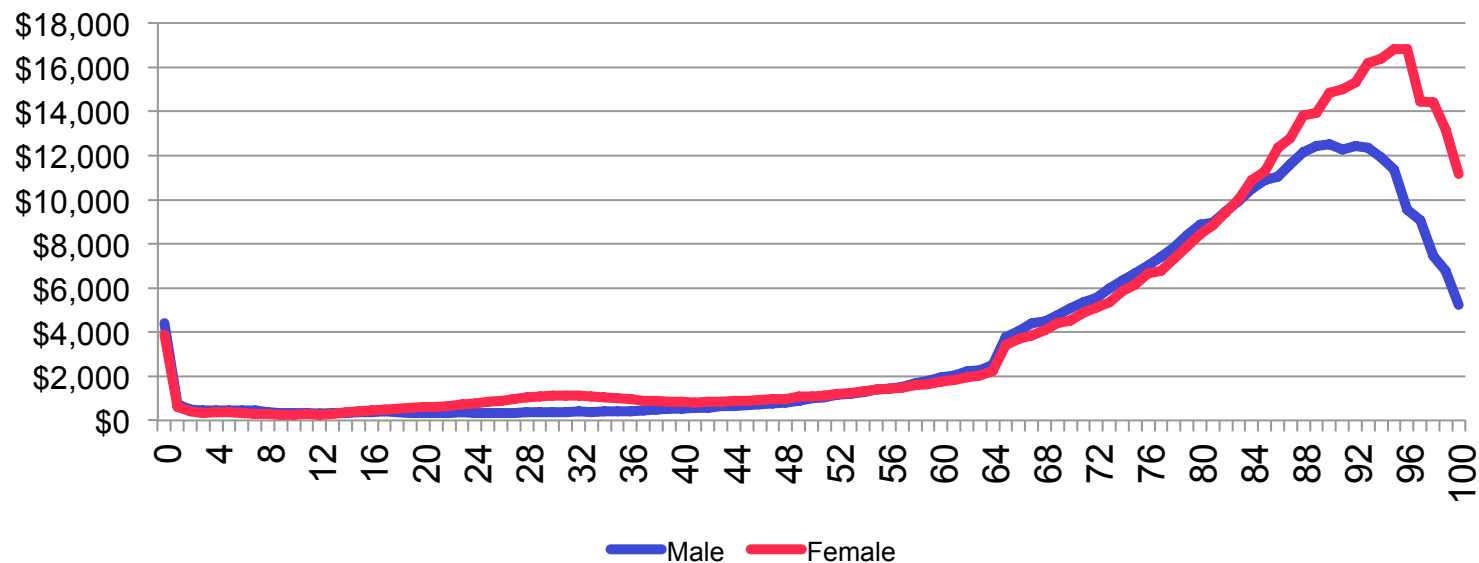


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# Average Annual Government Health Spending in Ontario

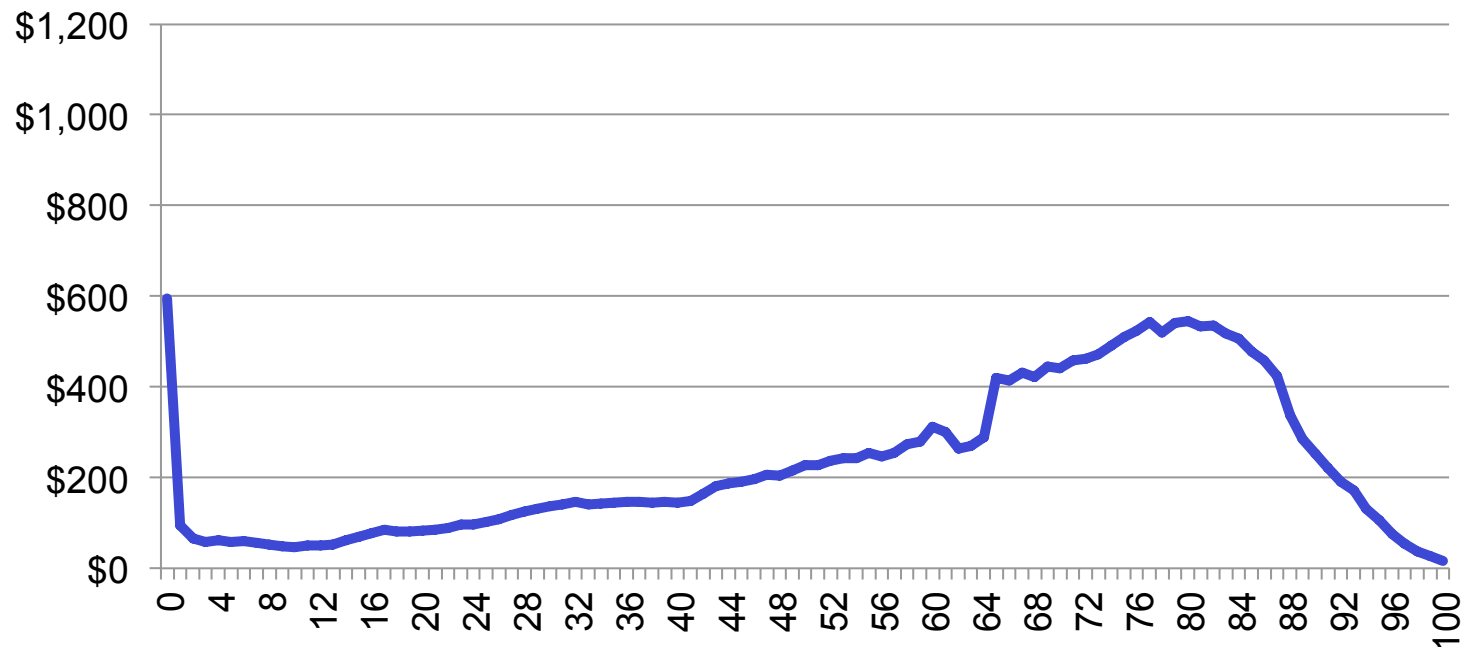
**Average Annual Total Health System Cost  
by Age & Sex Ontario 2008**



**Most people are healthy throughout their lives and incur their highest costs later in life. This is borne out in higher average costs for just about every sequential age.**

# Total Annual Government Health Spending in Ontario

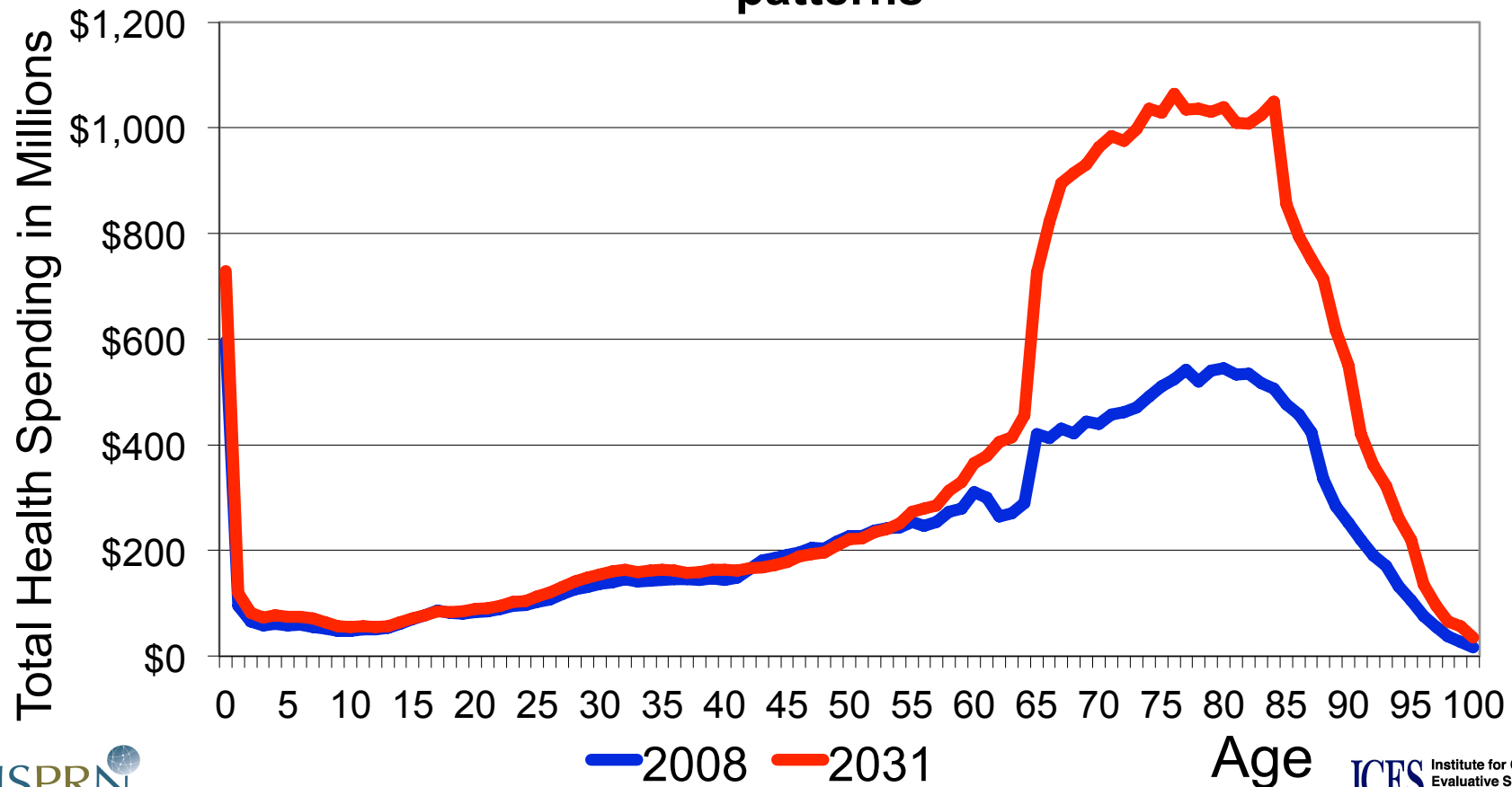
**Total Annual Health System Cost by Age Ontario  
2008 (\$Millions)**



**Total spending is a composite of both average spending for a given population (here by age) and the number of people in that group.**

# Forecasted Annual Government Health Spending in Ontario

2008 and estimated 2031 Total Annual Health System  
by projecting population and using 2008 spending  
patterns



# Implications for Sustainability

1. Most of the projected spending increase is for older persons (mostly with complex medical needs)
2. Future spending will be about 80% higher if we don't change the way that we care for older adults (in today's dollars)

# Implications for Sustainability

1. We cannot continue to spend the way that we are spending.
2. We need to improve health of older adults.
3. We need to better manage spending for older adults  
...but not necessarily all older adults.
4. Other populations including children and mental health are also important.



# What's it all about ?

- It's about population-based health

And...

- it's about person-centered health care for (particular) populations

# Ontario High Cost Users

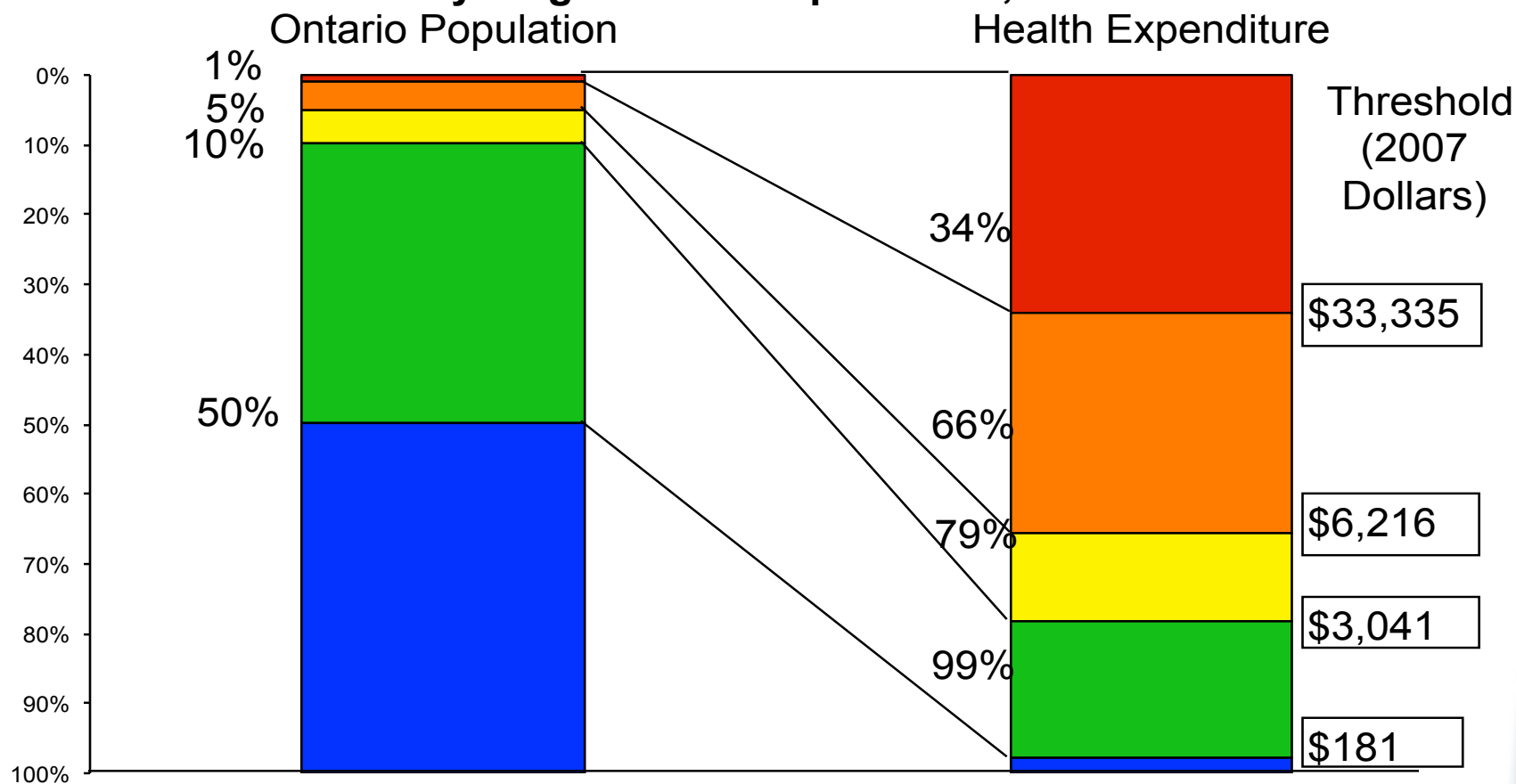
Using administrative databases at ICES we identified all Ontarians in 2007 with a valid health card.

We measured and summed (for all health sectors) the total health system cost for everyone and ranked 13.7 million individual's data in order of total health system cost.

We identified groups representing 1%, 5%, 10% and 50% of the total population with the highest health care spending.

# The Concentration of Healthcare Spending in Ontario

**Distribution of health expenditure for the Ontario population, by magnitude of expenditure, 2007/08**



On average, health care spending is highly concentrated with the top 5% of the population (ranked by cost) accounting for 66% of expenditure

# What conditions do they have?

Conditions among the top 1% users:

- **Mostly Chronic Disease:**
  - ◆ Heart Failure, Chronic Obstructive Pulmonary Disease, Myocardial Infarction, General Signs and Symptoms
- Infection (Pneumonia & Urinary Tract)
- Stroke & Hip Fracture
- End of Life
- Cancer

# It's not that many people

- We need to better manage the *health* of 13.2 Million Ontarians
- But we don't need to better manage the *health care* of 13.2 Million Ontarians.
- 50% of the population or 6.7 Million Ontarians used \$181 or less in 2008 health care dollars, totalling 1% of all spending

We do need to better manage the care of complex older adults

- Top 1% spenders in the population is about 132,000 people
- ~ 110,000 of these are aged 65+
- 1% of the population aged 65+ is about 18,000 people
- 5% of the population aged 65+ is about 92,000 people

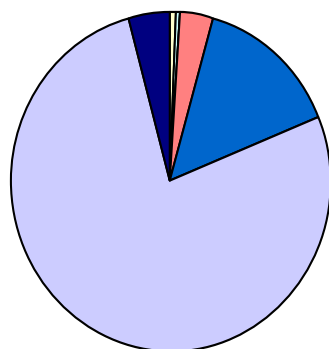
# Implications

- This is largely an actuarial exercise and clarifies the need for insurance (we don't know when or how much health care we're going to need).
- It doesn't really help us manage costs though. Managing costs requires attention to the ways in which there might be opportunities to:
  - ◆ better manage and coordinate physician care,
  - ◆ reduce or avoid unnecessary acute hospital admissions in hospital (but not reduce necessary treatments),
  - ◆ avoid/delay LTC admissions.
- Interventions should be targeted to specific identifiable populations.

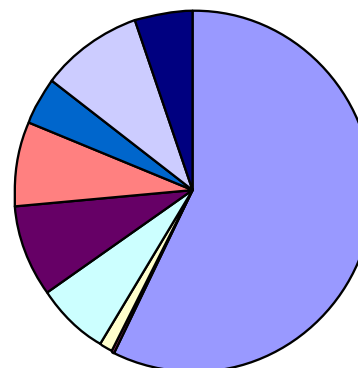
# Costs without acute care

**Breakdown of spending  
among top 1% of spenders with and without acute care costs.**

**A) Top 1% Without Acute Care Costs**



**B) Top 1% With Acute Care Costs**



**Among those in the highest 1% of total system spending, 30% use no acute care – these individuals consume three quarters of their costs in LTC.**

# Target Populations for System Improvement

## Purpose for the next study:

In order to improve patient experience and population health while containing costs it is important to define populations that can be linked to potentially effective interventions or system redesign strategies.

1. We examined three different patient populations of older people at hospital discharge: patients with multiple ambulatory care sensitive conditions, cardiac arrhythmia, and hip fracture patients.
- 2.
3. Examine the treatment and follow-up patterns of care for these patients.
4. Examine health system costs associated with total 1- year care for this population.



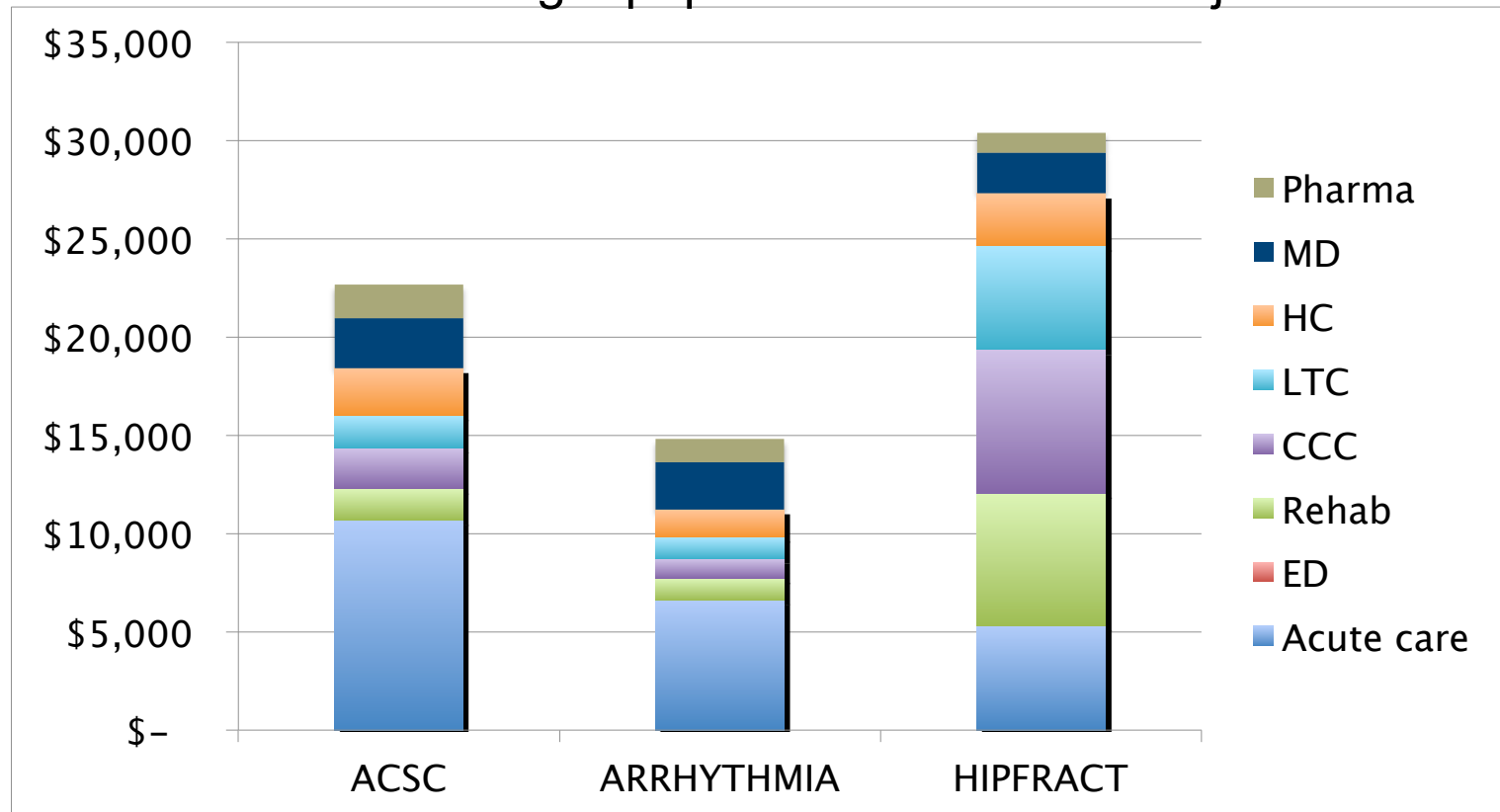
# Target Populations for System Improvement

Acute Diagnosis	Prevalence
Cardiac Arrhythmia	14,976
ACSC (> 1 diagnosis)	7,351
Hip Fracture	5,749

Chronic ACSC conditions include: Angina, Asthma, Chronic Obstructive Pulmonary Disease, Epilepsy, Heart Failure, Hypertension

# Some Ontario Data

Average 1-year costs after discharge from acute care  
in 2007/08 for 3 target populations: Different Trajectories



# High cost population

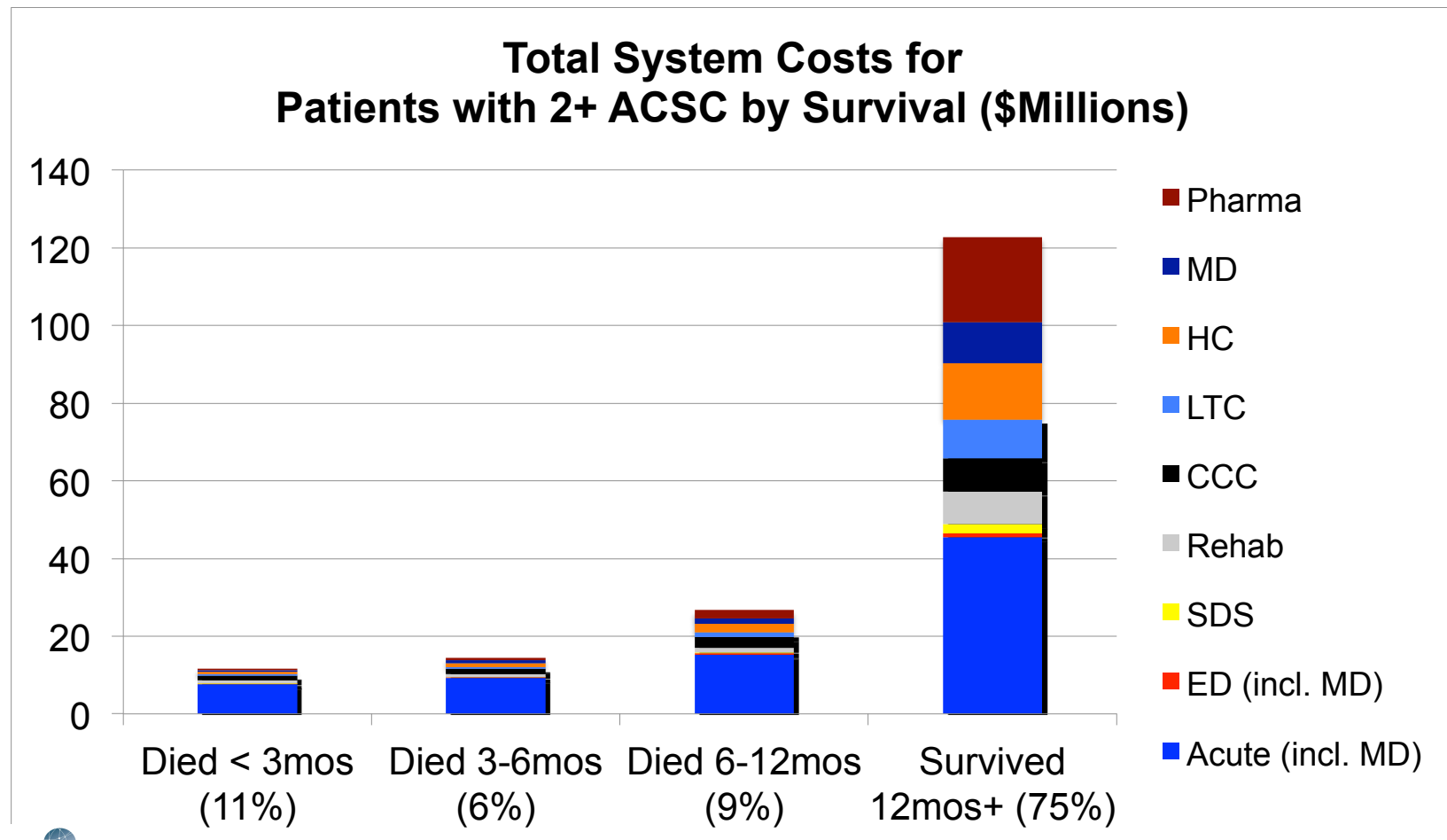
How well do we manage care?  
... for the high cost population?

Focus for a moment on those with 2 or more Ambulatory Care Sensitive chronic Conditions.

# Burden is High, Care is Sub-Optimal

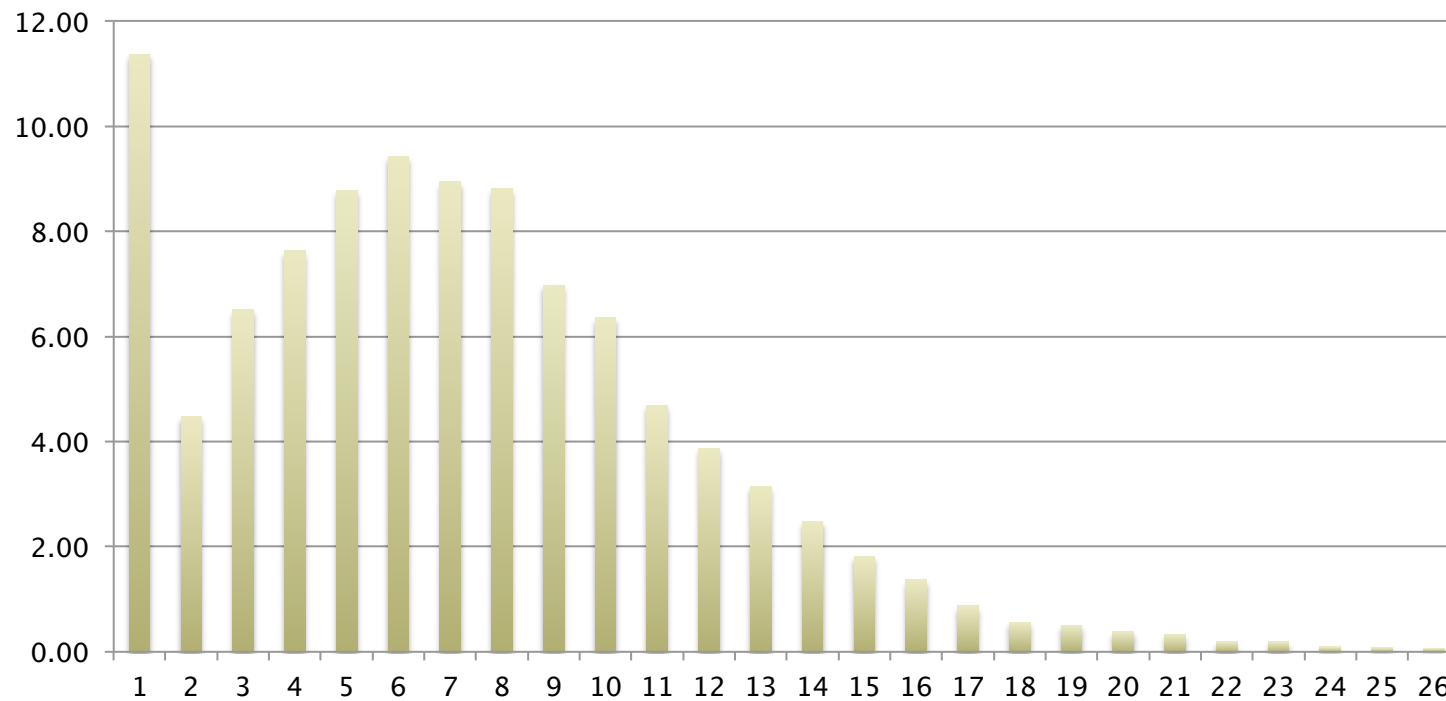
- Seniors with three or more reported chronic conditions account for 40% of reported health care use among seniors
- **Gaps exist in preventive and collaborative care for seniors**
- Though most seniors have access to PHC:
  - ◆ fewer than half (48%) reported talking at least some of the time to a health professional about their treatment goals.

# Most survive and most money is spent on patients who survive



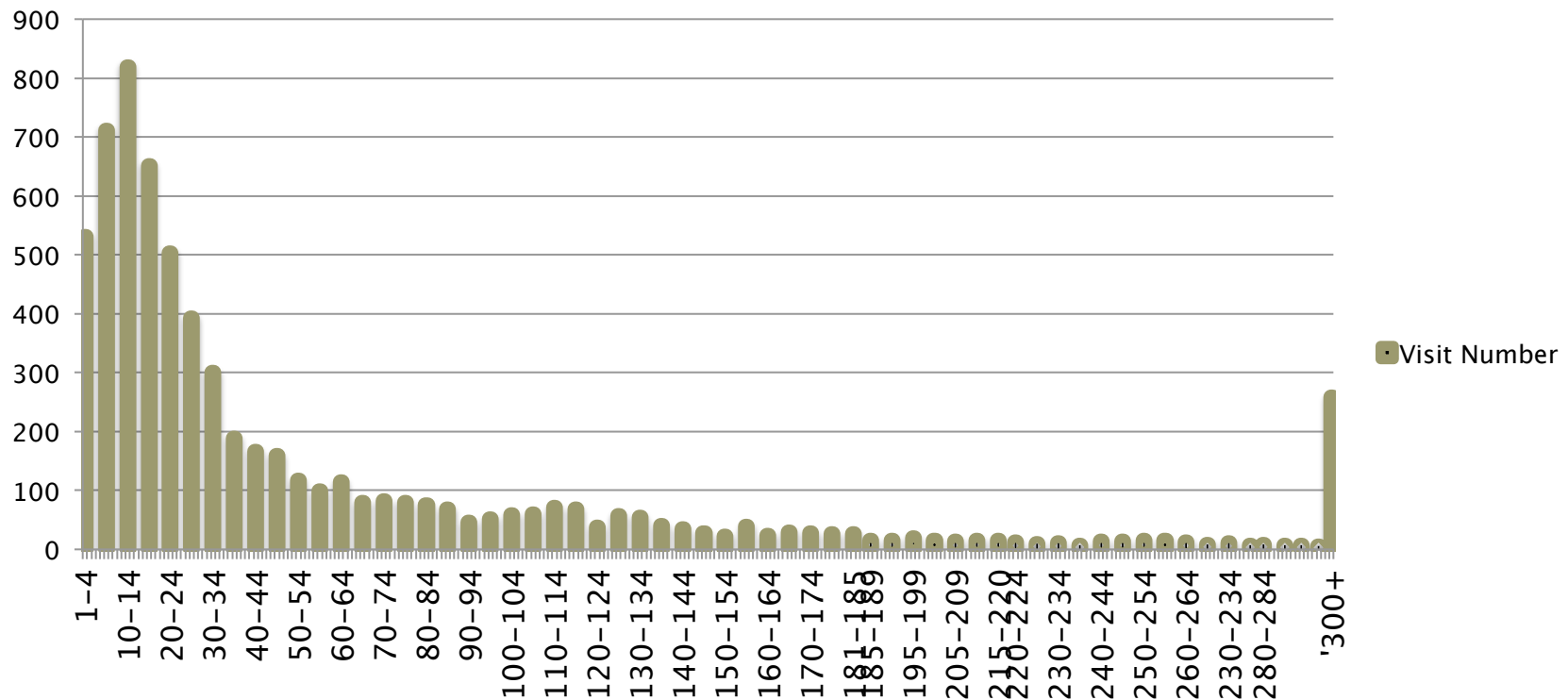
# Patients see different providers

**Percent of MACSC by Number of Different Providers in One Year**



# Some patients have many encounters

Patient visit counts in one year for all providers



# What to do ?

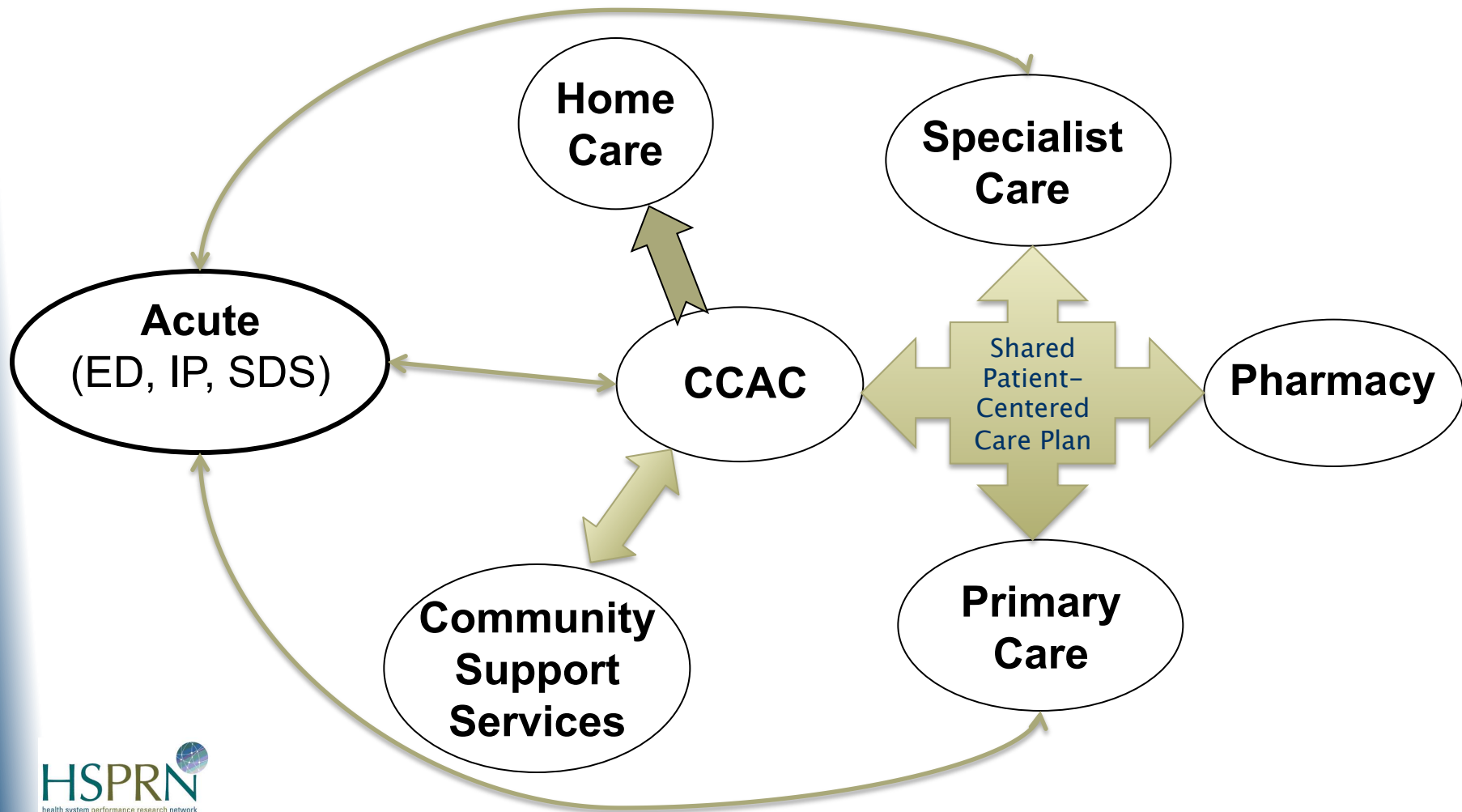
- Many good intervention ideas
- How to identify “service package” for different clients
- Targeting may be key:
  - ◆ Who is at risk for what outcome ?
  - ◆ What is the best intervention to avoid that outcome ?
- For example: We have found important differences in risk of acute readmission (medical) and LTC placement (functional)



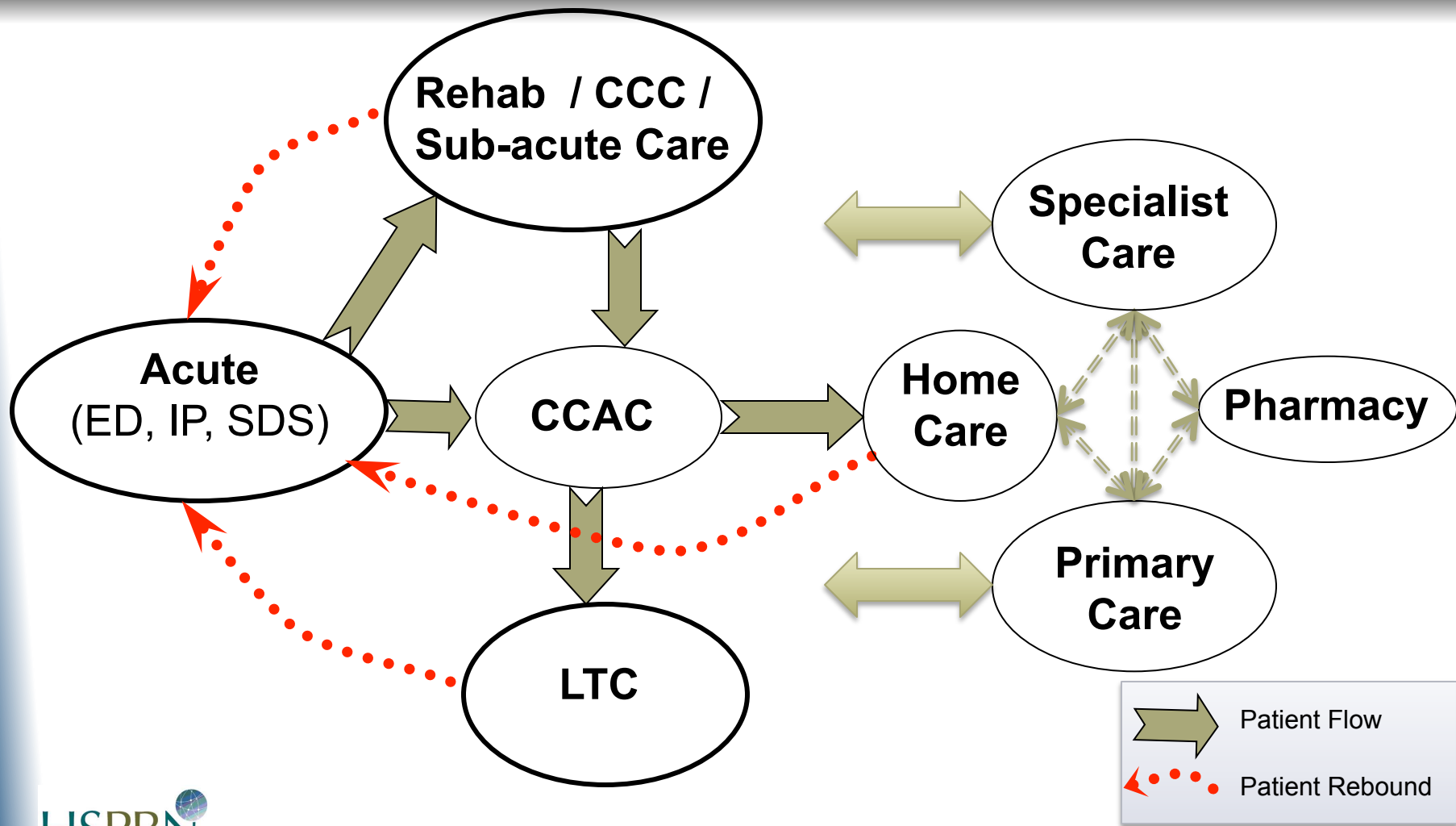
# We need to know more about opportunity for improvements

- There needs to be an appreciation that there are different types of issues presenting within the 'High Cost Users' including for example:
  - ◆ Chronic Diseases and Multiple Chronic Disease
  - ◆ End of Life/Palliative
  - ◆ Complex Children (with technological dependence)
- These different populations require different responses on the part of policy and providers.

# Patient-centered strategies



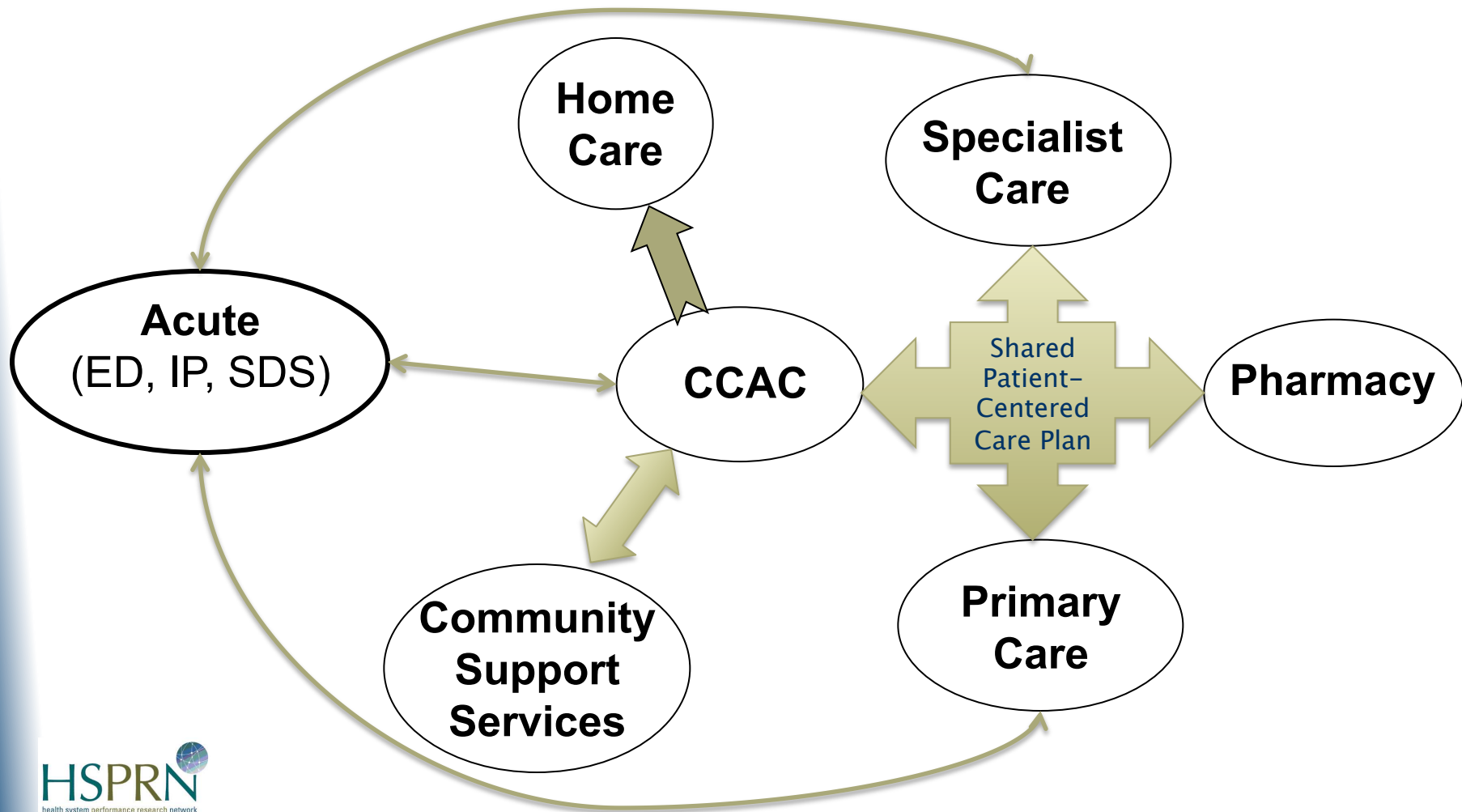
# Measurement that follows patients



# Summative comments

1. If we do more of the same we will get more of the same.
2. We need not more primary care or more home care but we need to work in new ways to collaborate across traditional working teams and working spheres to support and inform each others activity.
3. We need to measure performance for populations rather than providers.

# Patient-centered strategies



# What conditions do they have?

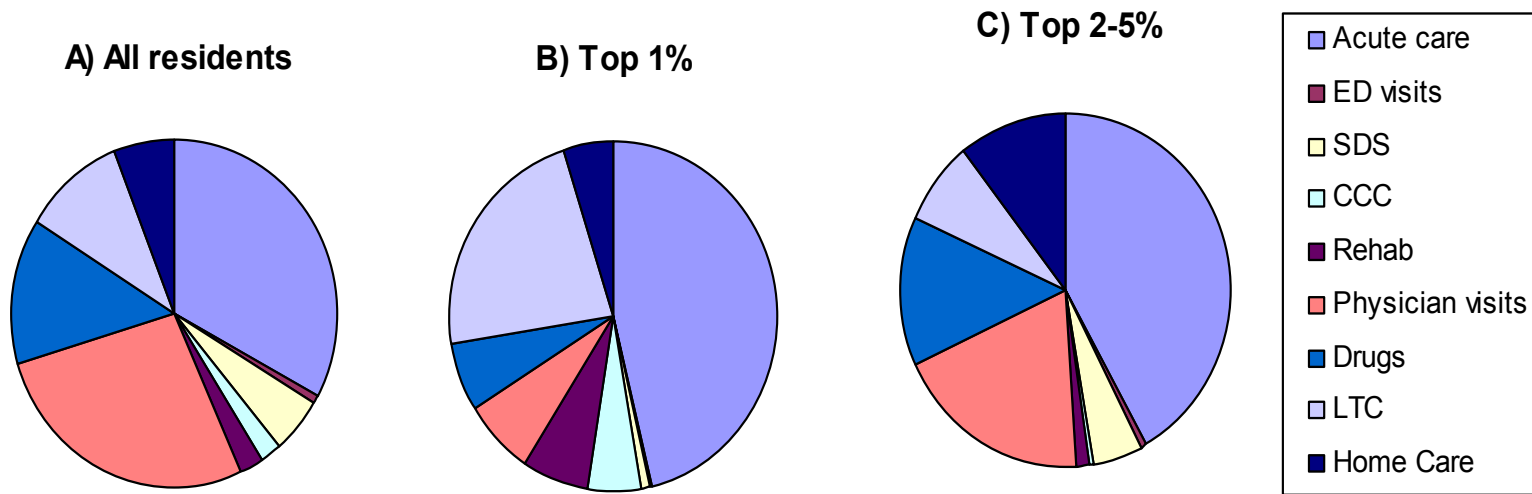
## (reference slide)

### Top 10 CMGs Among Top 1% with Acute Admission in 2007-08

Top 10 CMGs	% of Total Acute Admissions
Heart Failure without Cardiac Catheter	4.0%
Chronic Obstructive Pulmonary Disease	3.8%
Viral/Unspecified Pneumonia	2.4%
Myocardial Infarction/Arrest without Cardiac Catheter	2.1%
Fixation/ Repair Hip/ Femur	2.1%
Lower Urinary Tract Infection	1.8%
Ischemic Event of Central Nervous System	1.5%
General Symptom/ Sign	1.4%
Palliative Care	1.4%
Chemotherapy/ Radiotherapy Session for Neoplasm	1.4%

# Where are costs incurred? (reference slide)

**Total System Spending by Sector  
in Entire Population and Among Top 1% and Top 2-5% of Spending**



The largest costs are incurred in acute care (including physician services in acute care), physician and long-term care (LTC) institutional costs with the latter costs contributing relatively more in the highest 1% of the population.

# The Ontario Population (c.2008)

## (reference slide)

Population: Residents of Ontario alive and eligible for OHIP on their birthday between January 1 and December 31, 2007. Includes only those with a valid health card number (IKN) and identifiable using the Registered Persons Database (RPDB) aged up to 100 years.

Follow-up: Total health care costs in year following birthday in 2007. (max follow-up to December 31, 2008)

Health Care Utilization Types: Includes all health care system encounters in the 1 year follow-up period: Acute, emergency department and same day surgery, inpatient rehabilitation, complex continuing care, long term care homes, home care, ODB medications, physician services

Costs: Unit costs paid by MOHLTC



# Costing Methods

## (reference slide)

Costing: Sector-specific weighted attributable service-related costs expressed in nominal costs at the time of service (1/1/07-31/12/08).

- Hospital based services MOHLTC OCDM (Ontario Cost Distribution Methodology) actual unit costs for each care type and the corresponding case mix weighted activity (e.g. acute care episode, CCC Rug-weighted patient day).
- LTC services are per diem amounts less resident copayments.
- ODB, home care and physician services are according to fee paid by the MOHLTC recorded in OHIP/ODB or average provincial service-specific cost reported by the MOHLTC FIM branch (e.g. average cost for home care physiotherapy visit).

Excludes inpatient mental health, oncology and renal ambulatory care services, non-fee-for-service physician costs (e.g. capitation, alternative funding payments). *Work in progress.*

Note: These methods are robust and ensure that the data are representative of current care cost distributions and patterns although the prices are expressed in 2007-2008 nominal dollars.