

# **Eight Major Interventions to Improve Health Outcomes and Reduce Costs**

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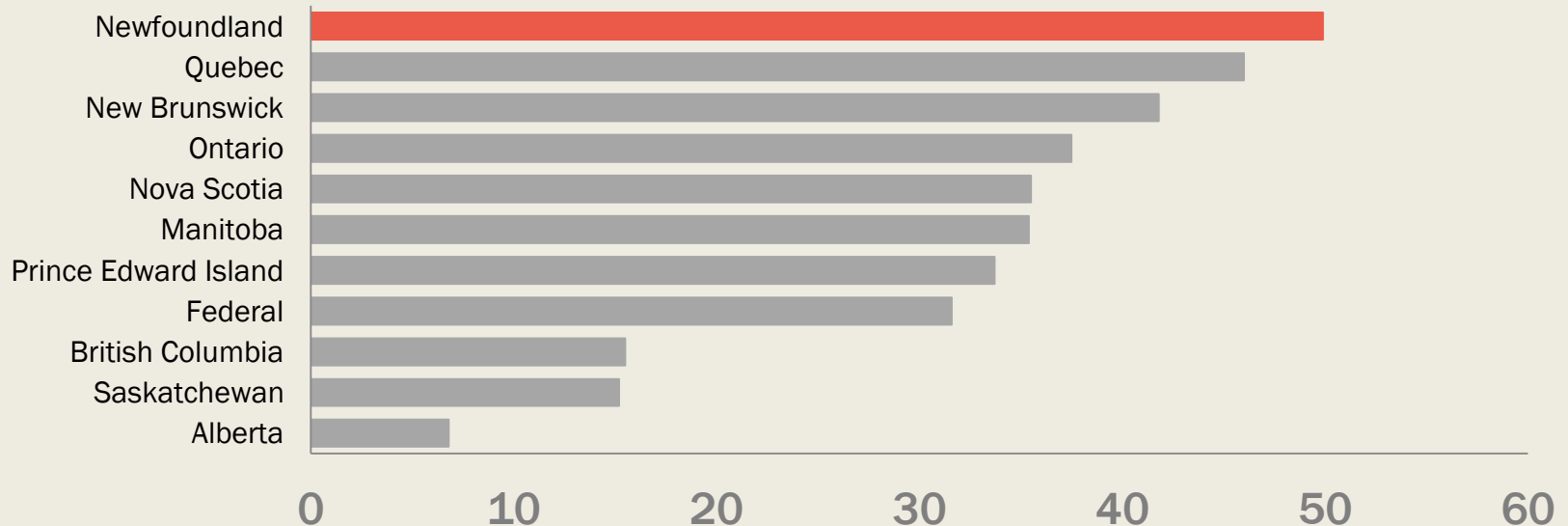
# Provincial Spending

## 2017 NL Provincial Budget

- Total spending \$8.1 billion
- \$1.1 billion spent servicing debt
- \$777 million deficit

**36%**  
on health

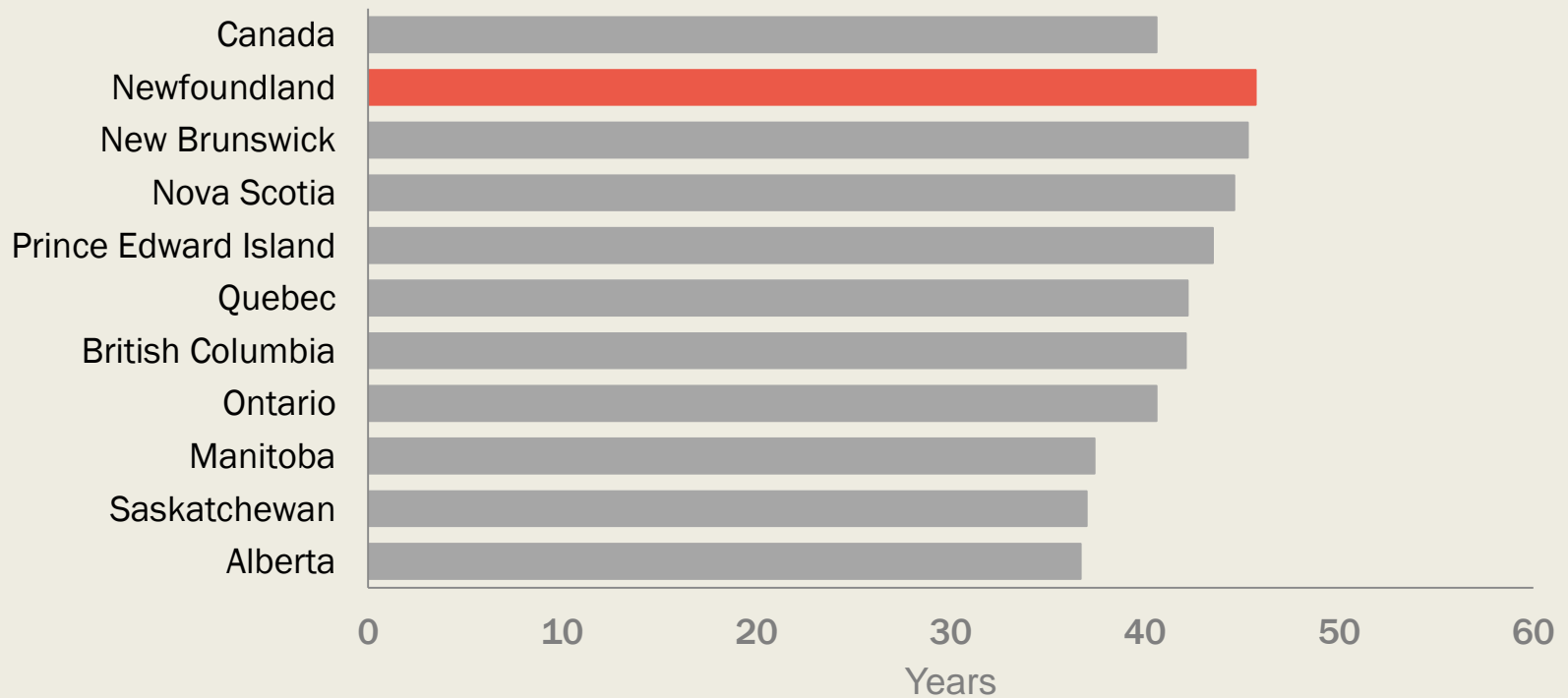
## Net debt to GDP ratio





# Provincial Population

## Median age of population, 2017

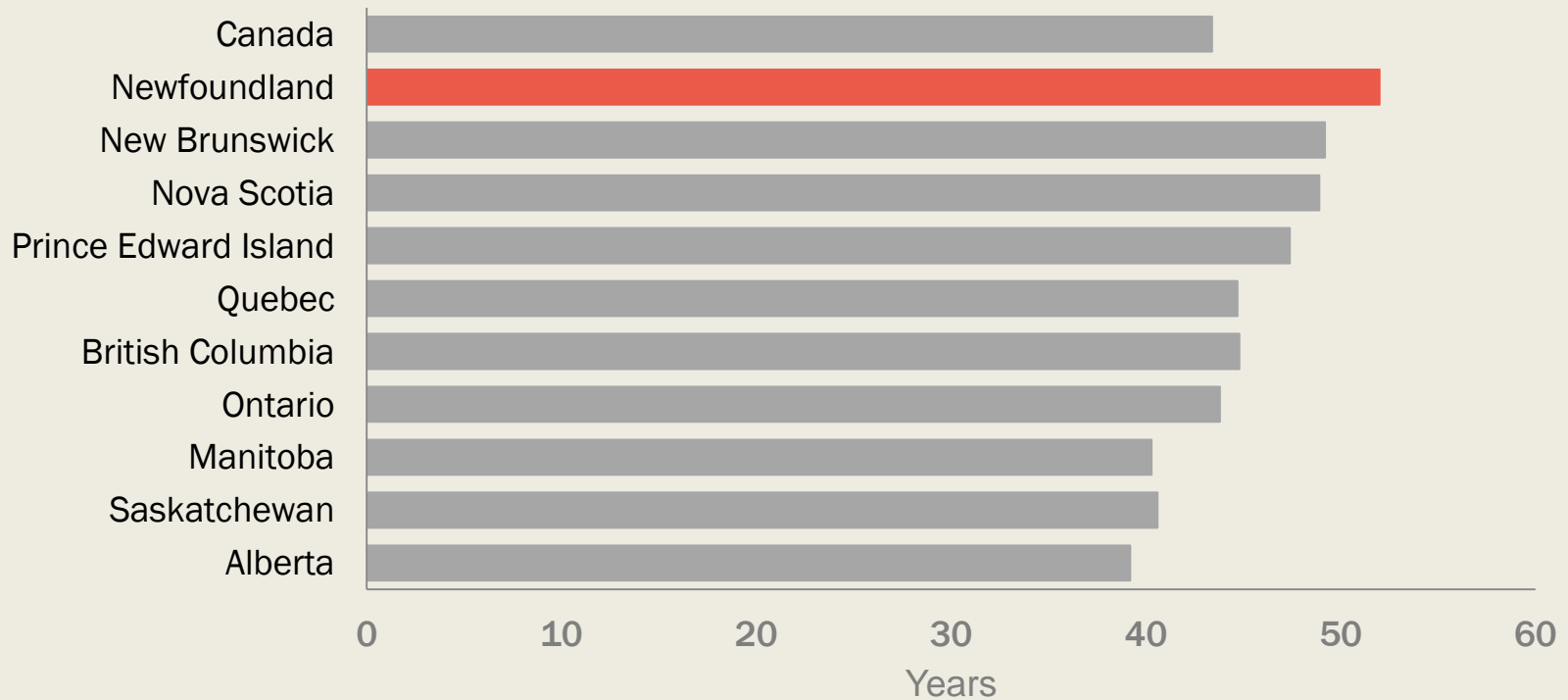


**20% of NL population 65+ years in 2017**



# Provincial Population

## Projected median age of population, 2038

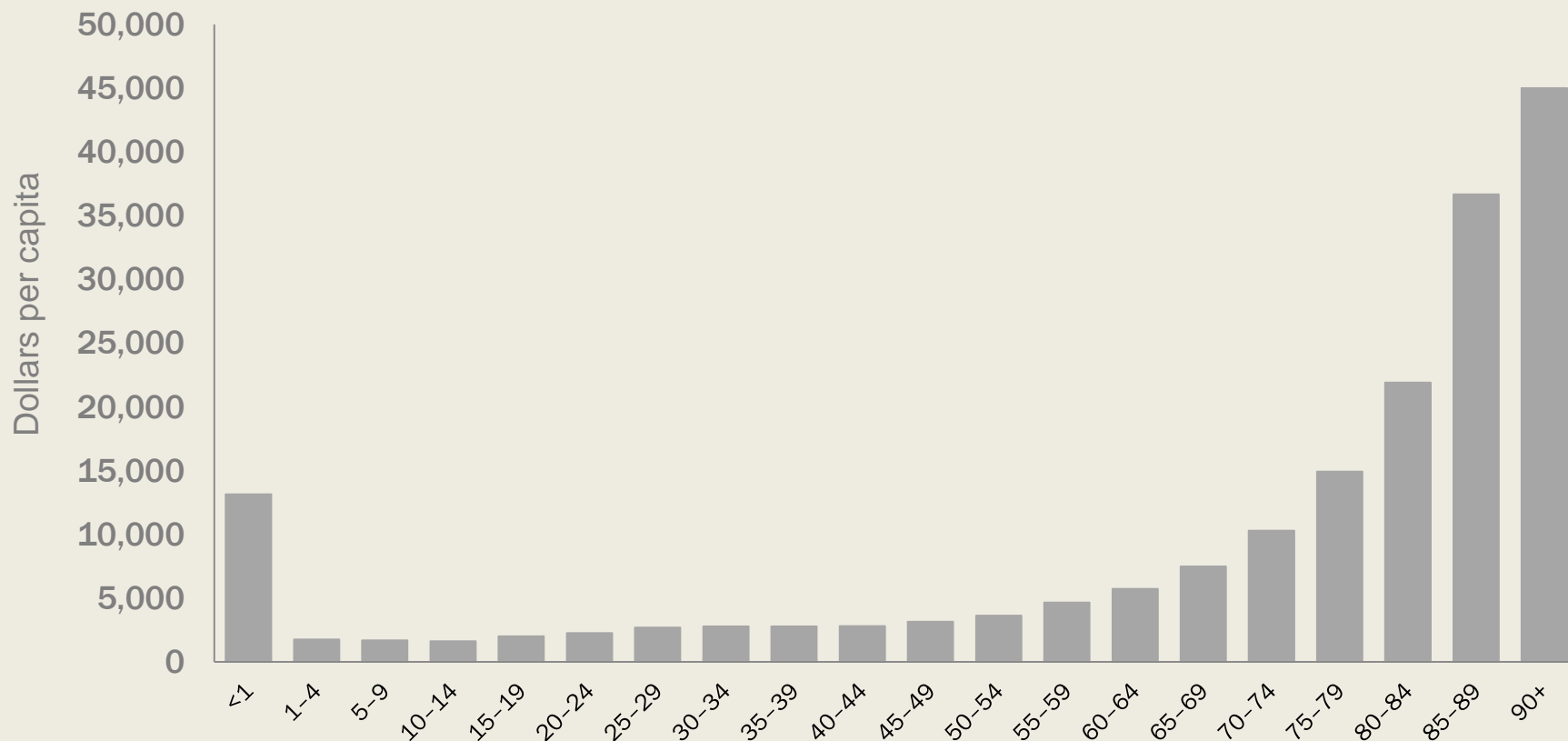


**34% of NL population 65+ years projected in 2038**



# Per Capita Spending by Age

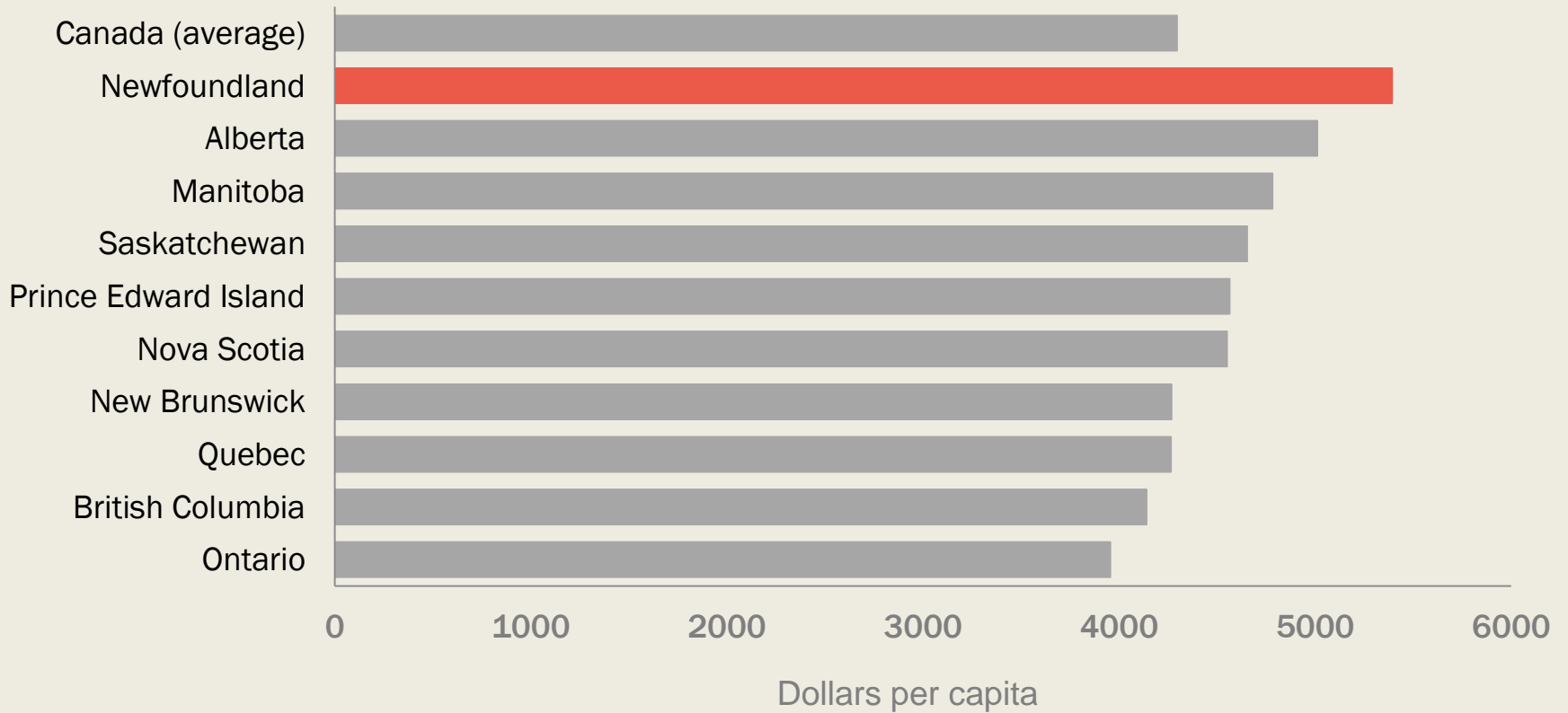
NL government health expenditure by age, 2015





# Health Spending

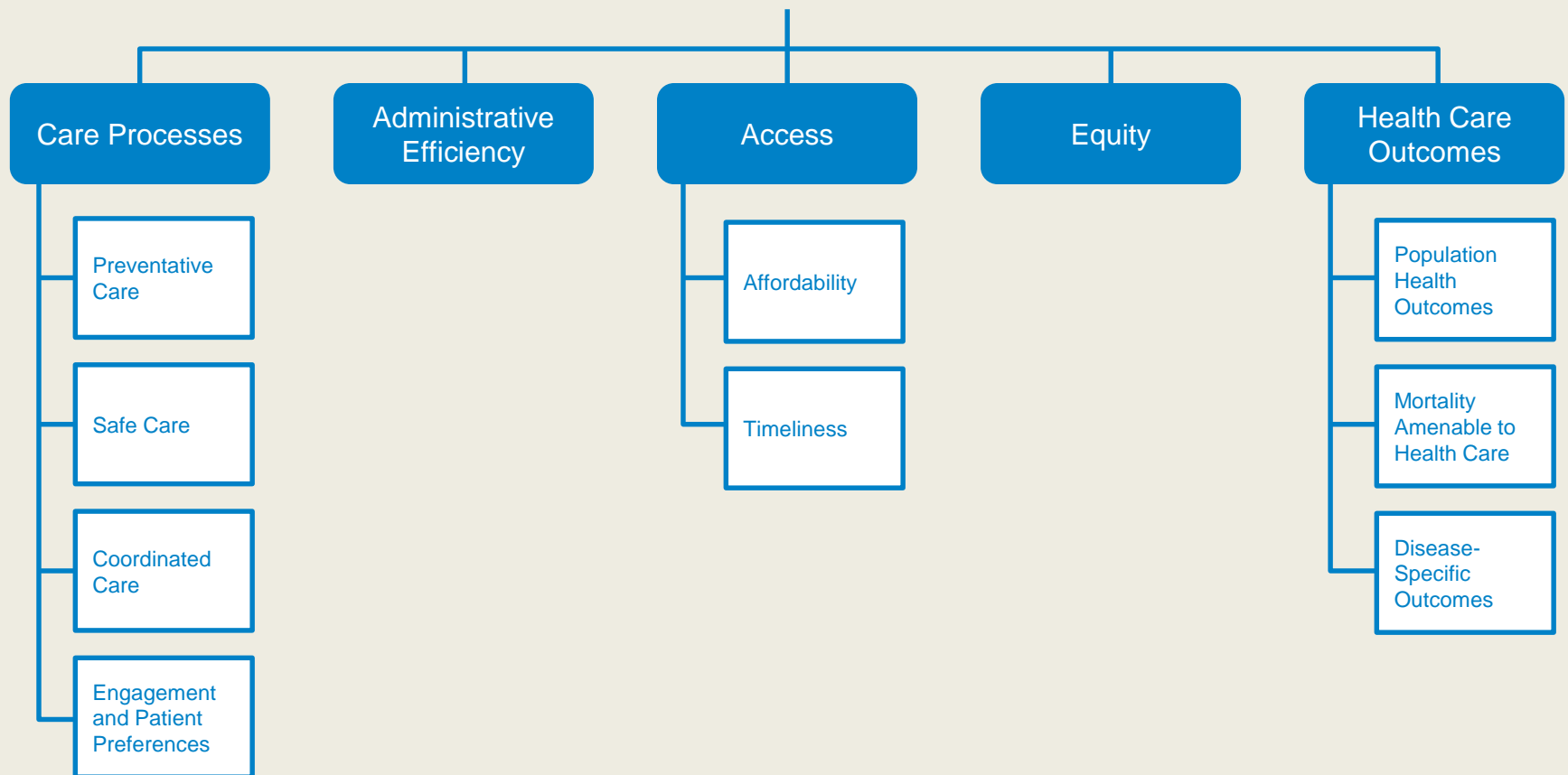
## Provincial government health expenditure, 2017





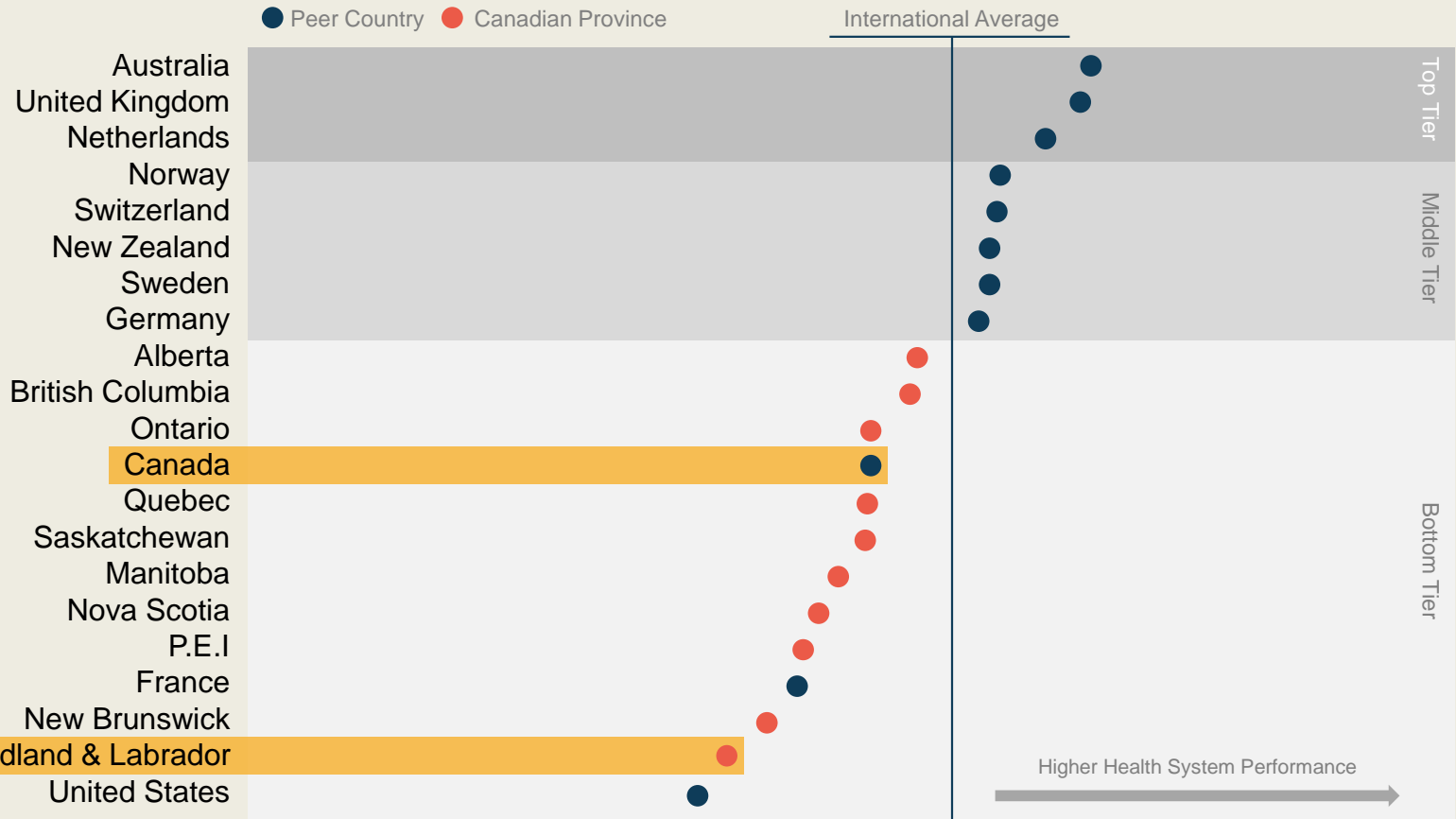
# Health System Scoring

## Health System Performance





# Health System Scoring



**Health care value (outcomes/costs) is poor in NL in comparison to other provinces**





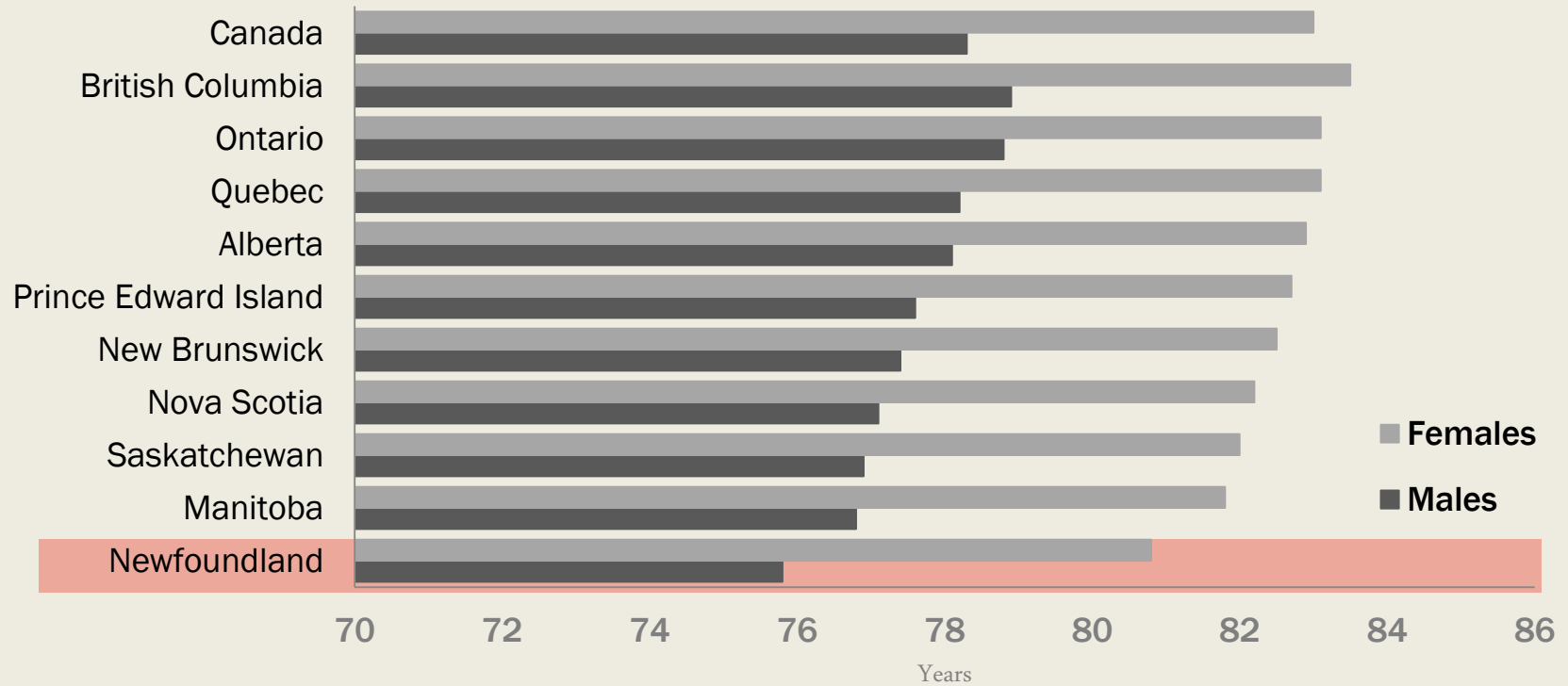
# Health Care Outcomes

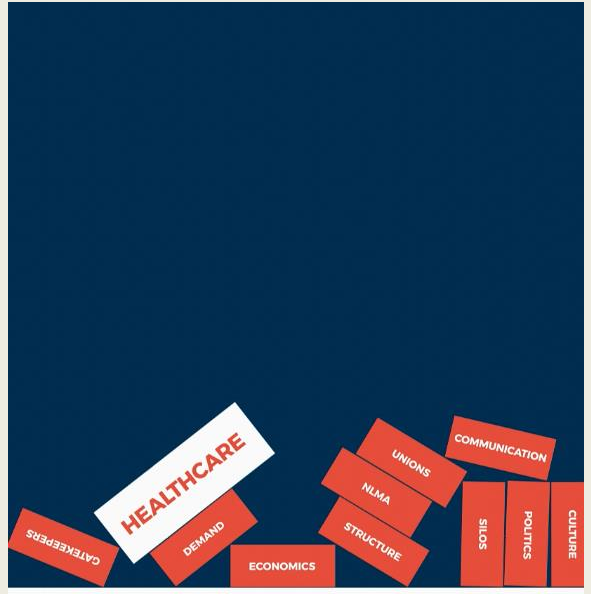
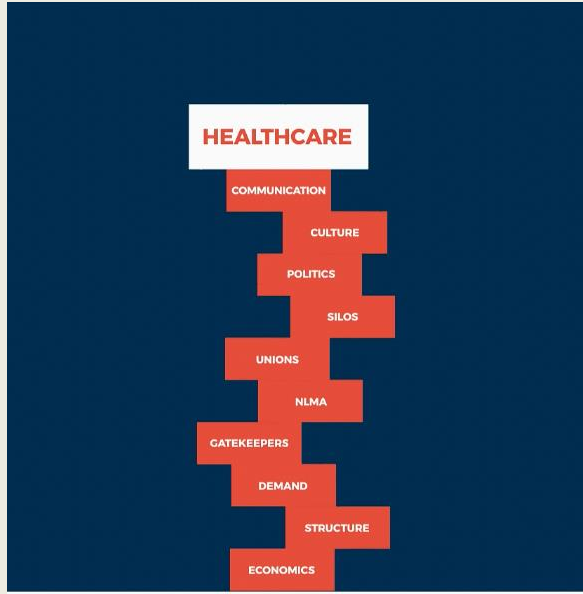




# Life Expectancy

## Life expectancy at birth

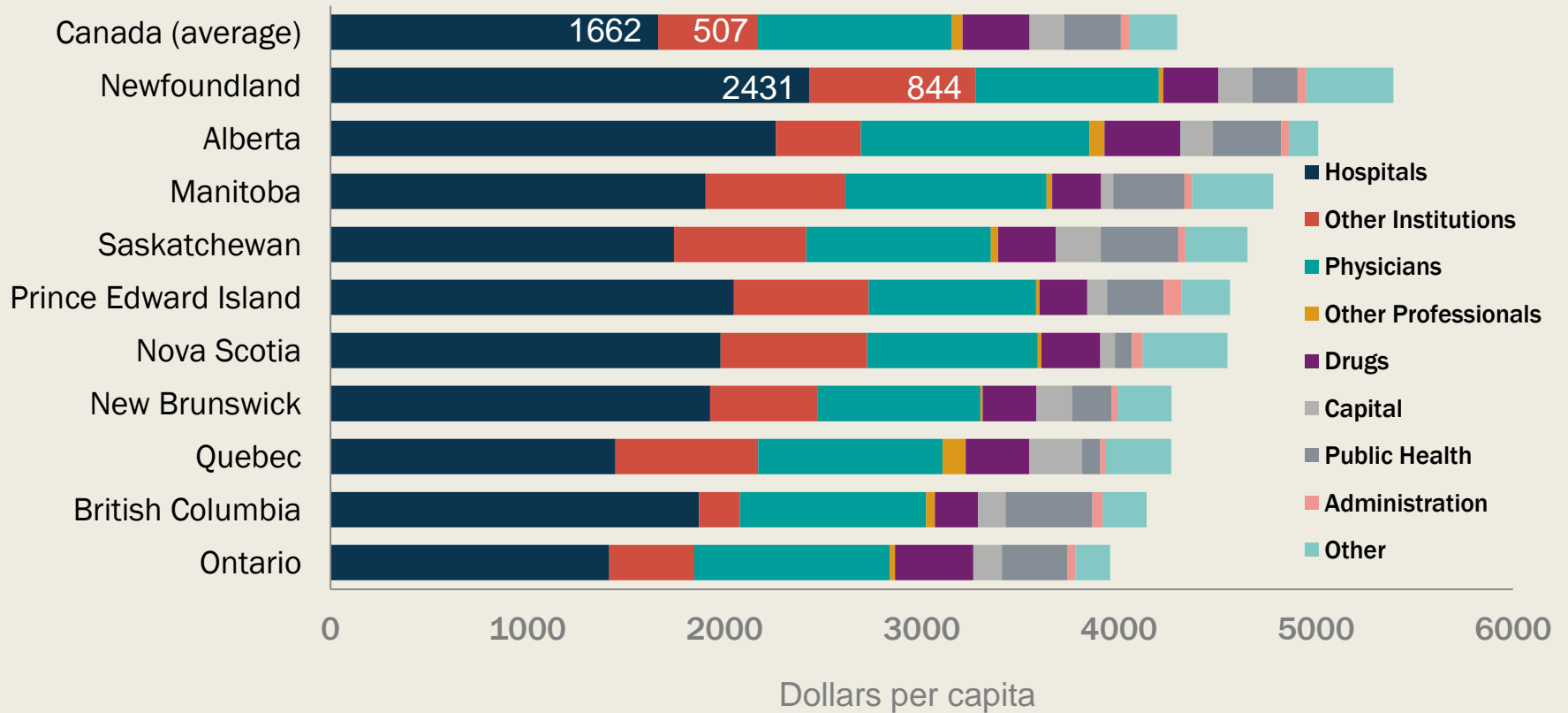






# Health Spending

## Provincial government health expenditure use, 2017





# Improve Health and Decrease Cost

- Spend more on the social determinants of health and do not increase the proportionate size of health care budget

## Social Determinants



- Fewer acute care hospitals and more community-based facilities locally (primary/emergency/long term care)

## Restructure Health Care



- Enhance an integrated health care system with primary care reform and e-technology

## Integrated Health Care



- Reduce unnecessary interventions and tests, and create a Quality of Care Accountability structure

## Unnecessary Care



- Improve access and quality of care by getting the right intervention to the right patient at the right time

## Quality of Care



- Support a National Drug Formulary under Medicare

## Pharmacare



- Knowledge translation on innovative health care delivery

## Innovative Health Care

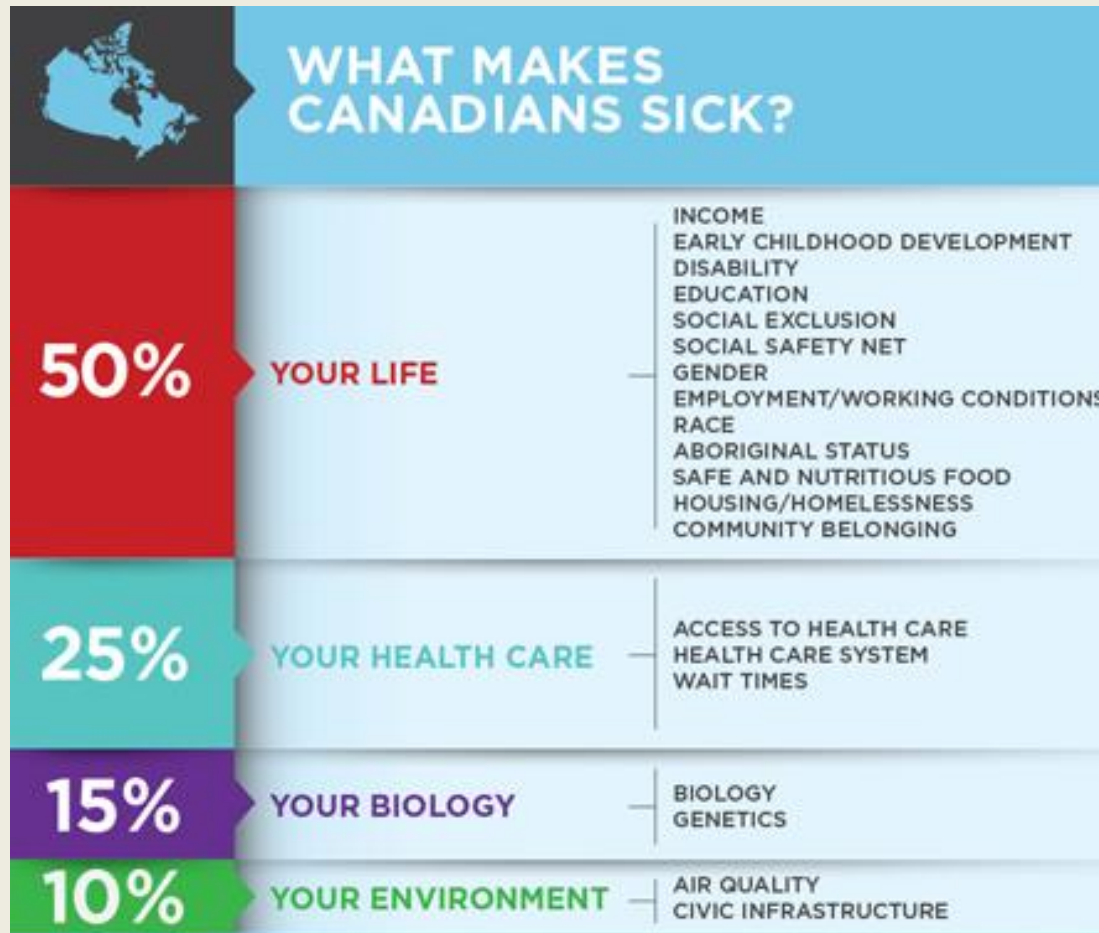


- Change the culture so that all citizens support the health system

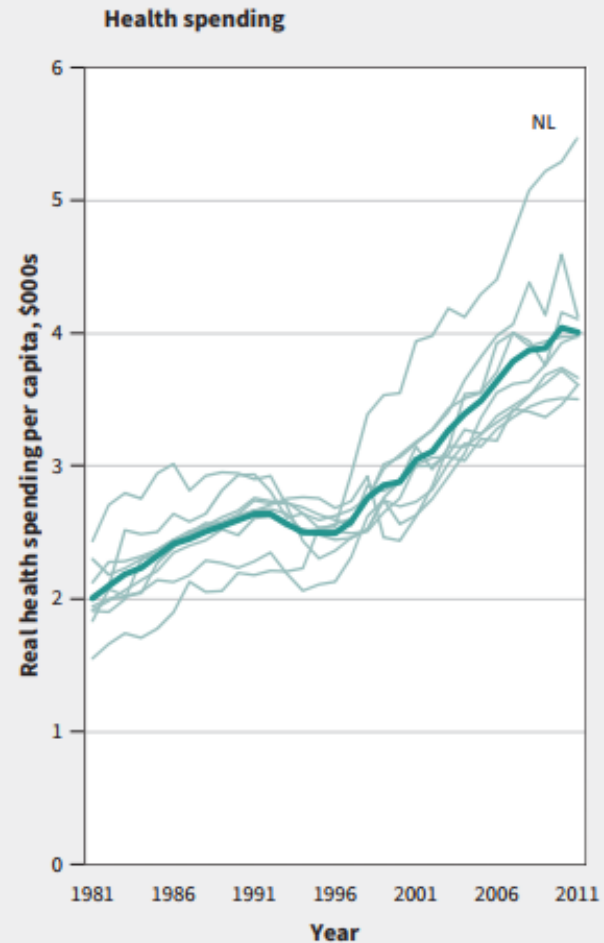
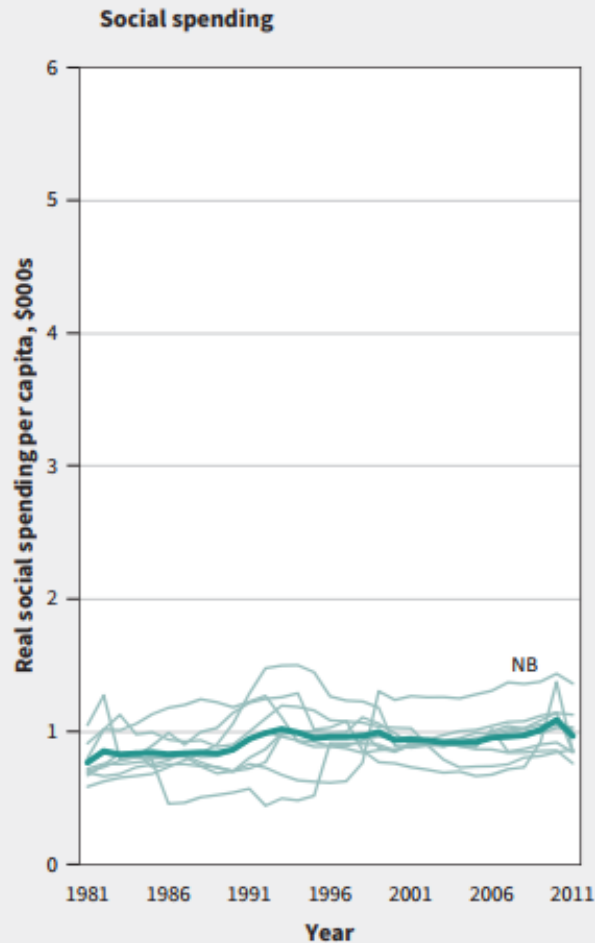
## Culture Change



# Social Determinants



# Social Determinants

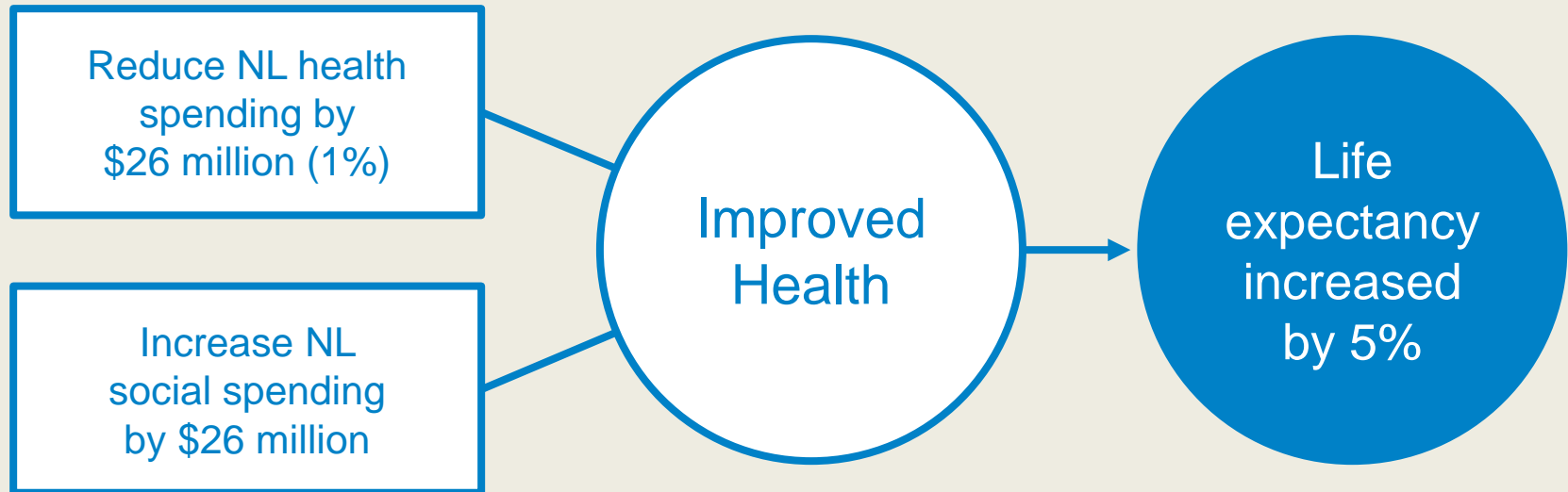


# Social Determinants



- Spending one more cent on social services for every dollar spent on health, **life expectancy** in Canada could have **increased by 5%** and avoidable **mortality dropped by 3%**

(Dutton et al., CMAJ, 2018)





# Social Determinants



## Problem

- Too little spent on social determinants of health



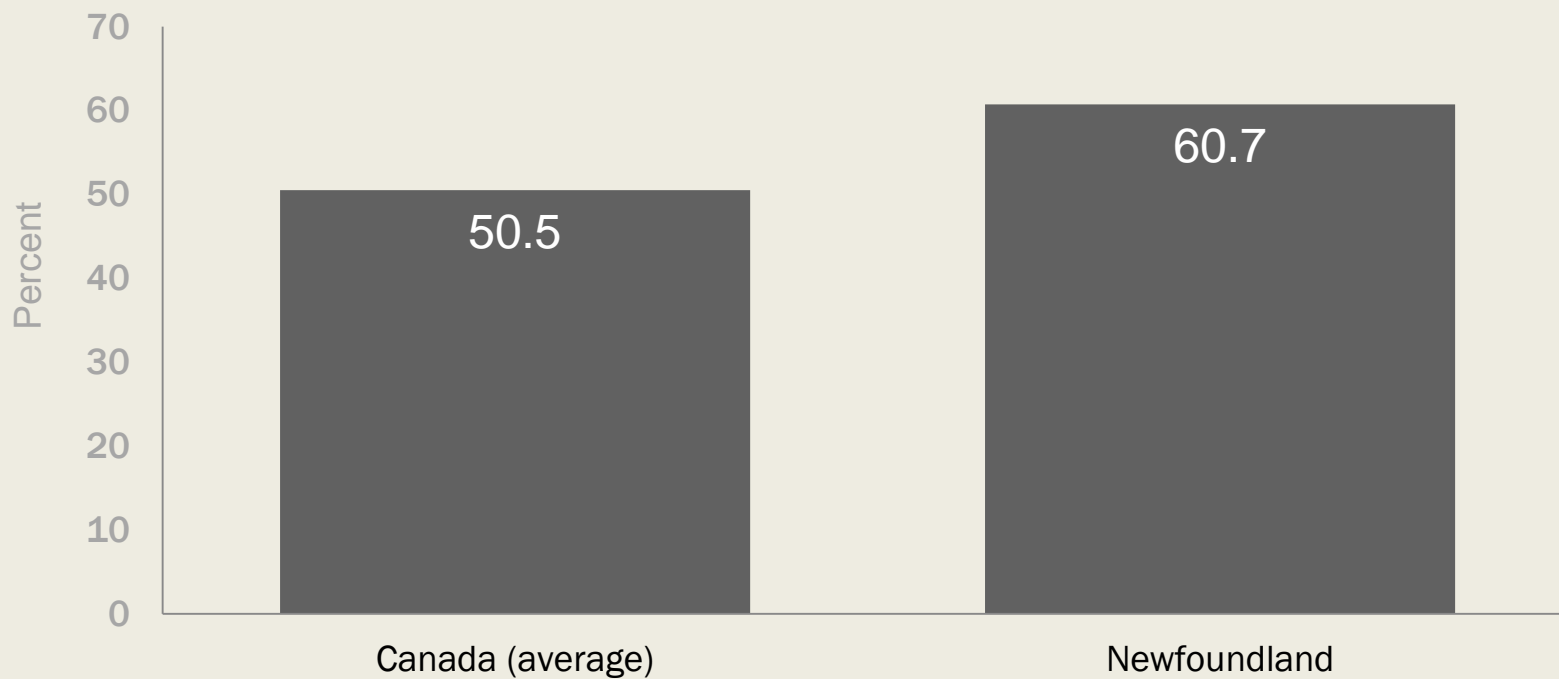
## Solution

- Increase spending on social determinants of health in lieu of increased spending on health care

# Restructure Health Care



## Provincial government spending on institutional health care





# Restructure Health Care



## Problem

- Excessive spending on institutional care



## Solution

- Decrease number of acute care hospitals
- Provide long term/primary/emergency care locally
- One provincial health authority to execute this mandate

# Integrated Health Care



## Transformative Change in Primary Health Care

Patient enrollment with a primary care provider

Group practices and networks

Blended payment schemes, including capitation

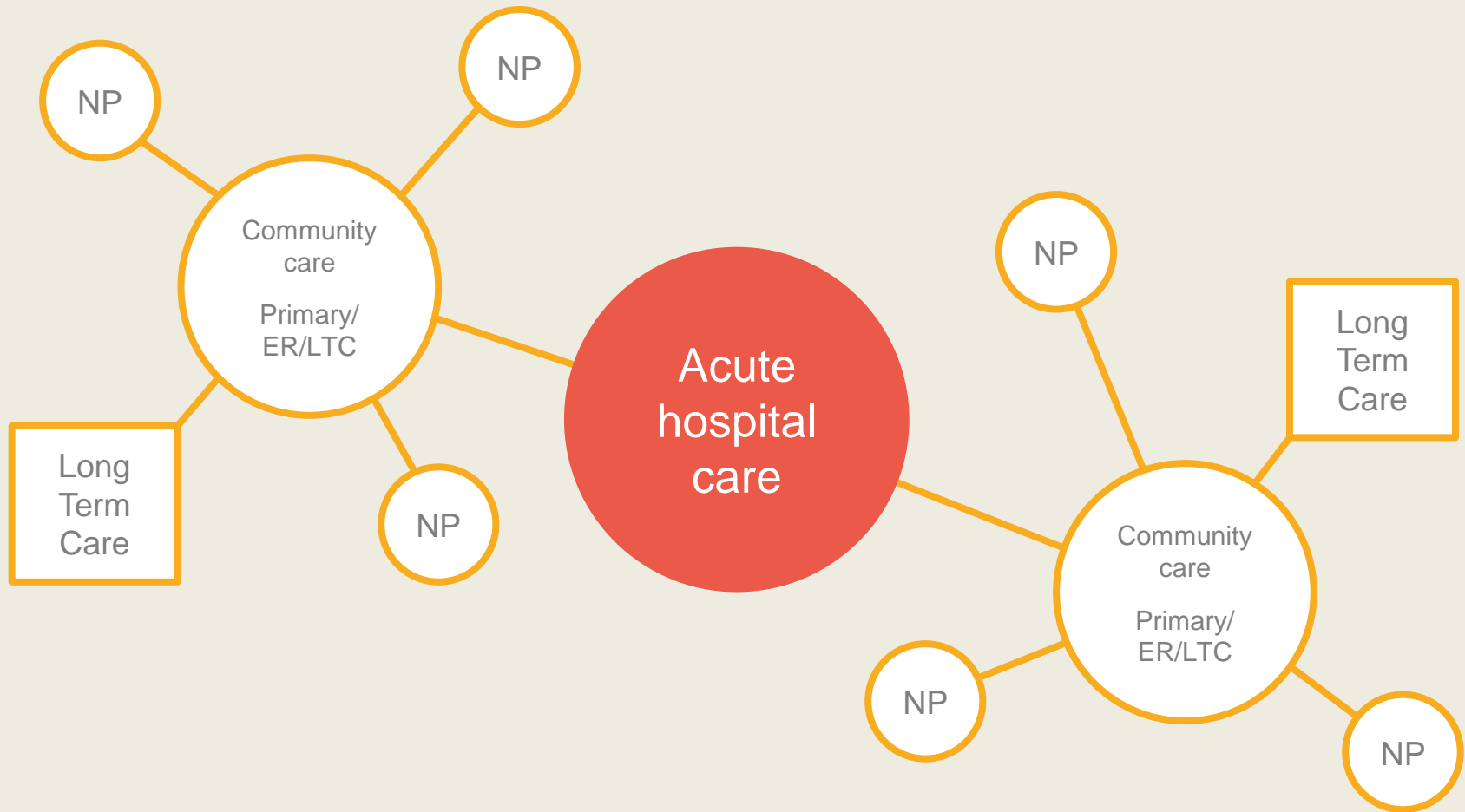
Primary health care governance

Inter-professional health care teams

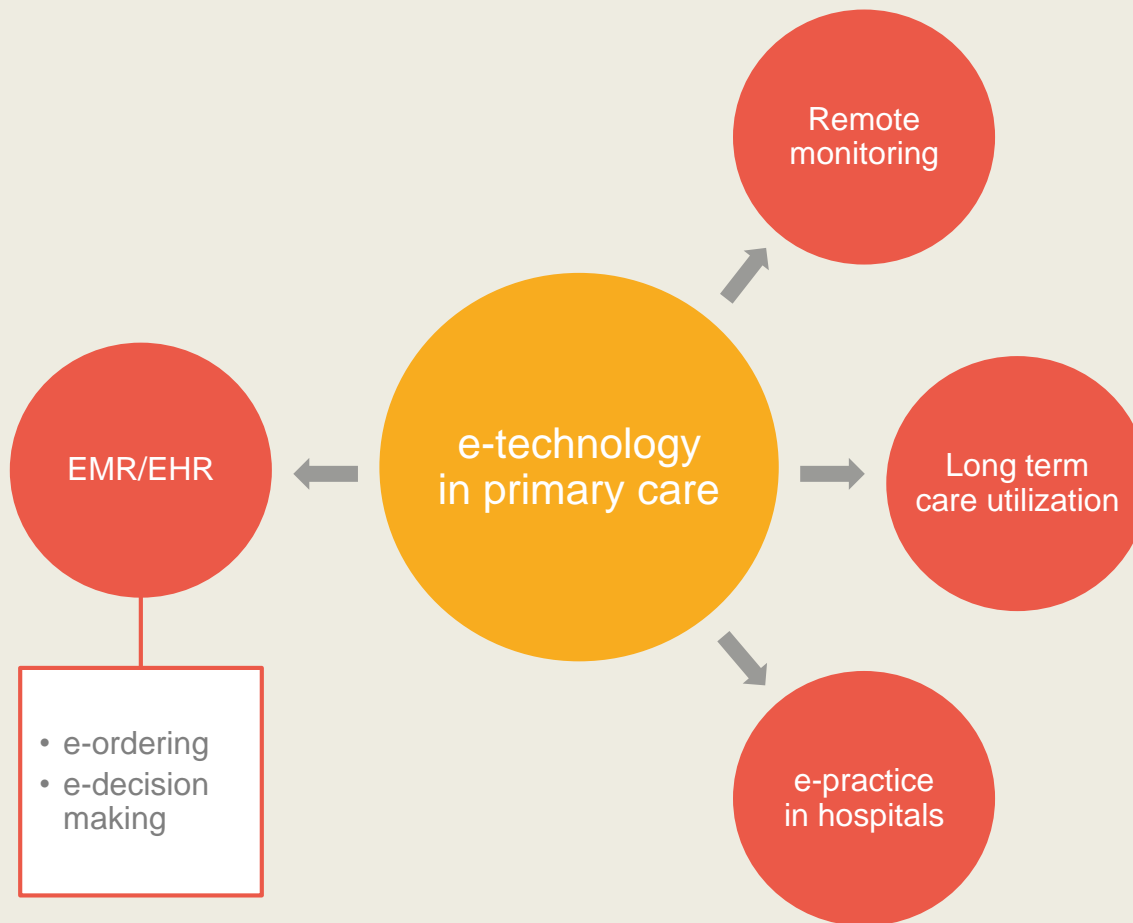
Financial incentives for quality of care

Rostered evening and weekend call

# Integrated Health Care



# Integrated Health Care



# Integrated Health Care



## Problem

- Fragmented care delivery
- Communication gaps across sectors
- Underserviced regions



## Solution

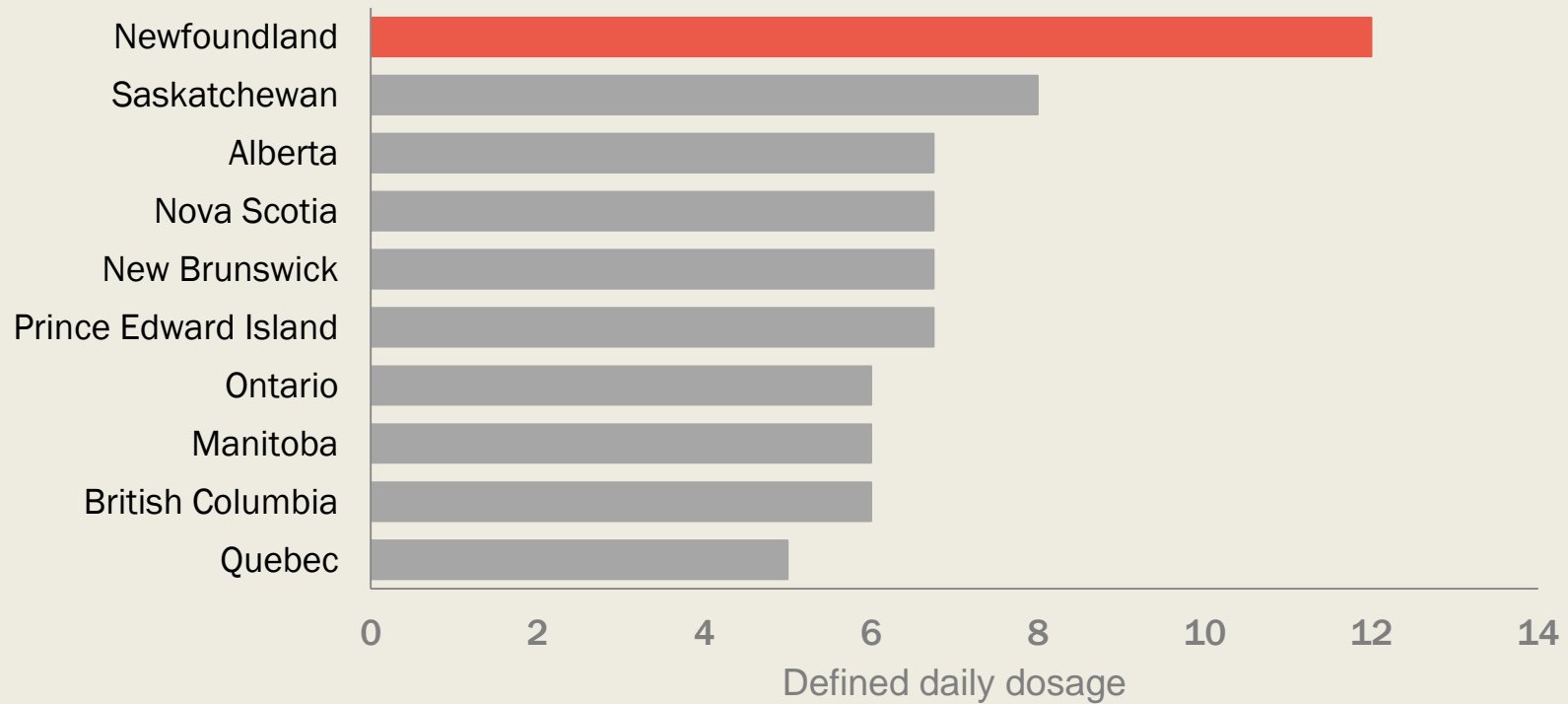
- Transform community care
- Use e-technology and integrate sectors



# Unnecessary Care



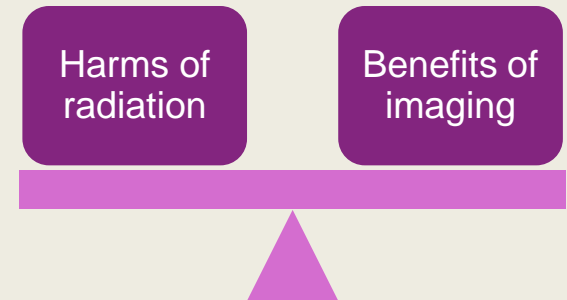
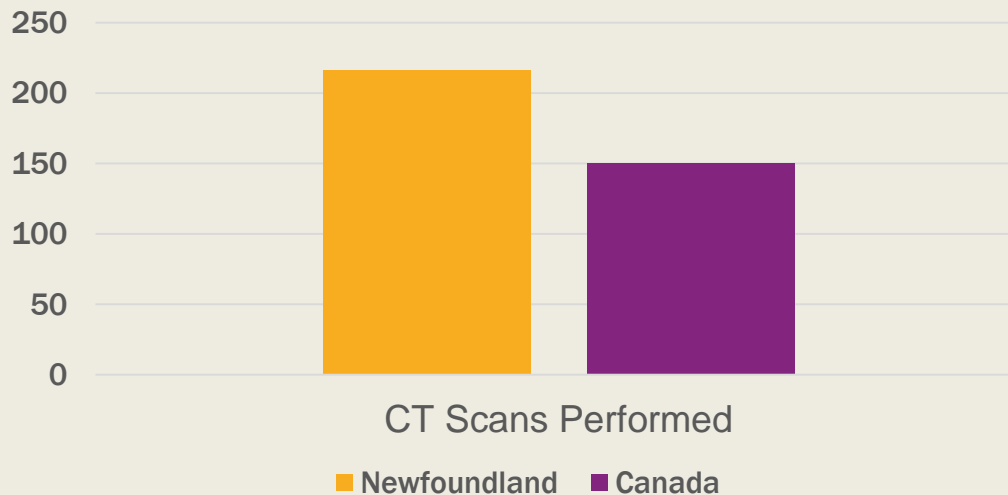
**Antibiotic prescriptions, 2014**



# Unnecessary Care



CT scans per 1,000 population

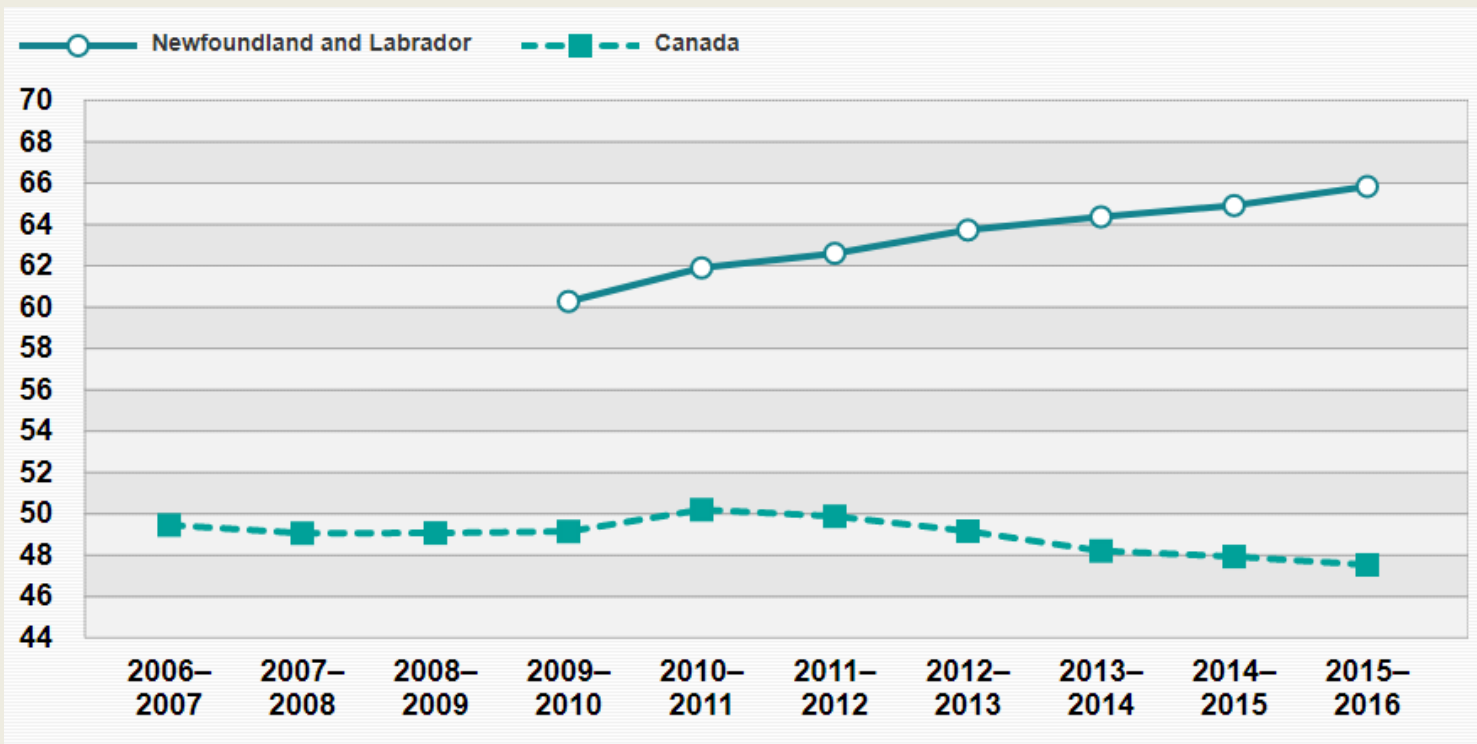


21 guidelines from Choosing Wisely Canada on appropriate use of CT scans

# Unnecessary Care



## Potentially inappropriate medication prescribed to seniors (%)

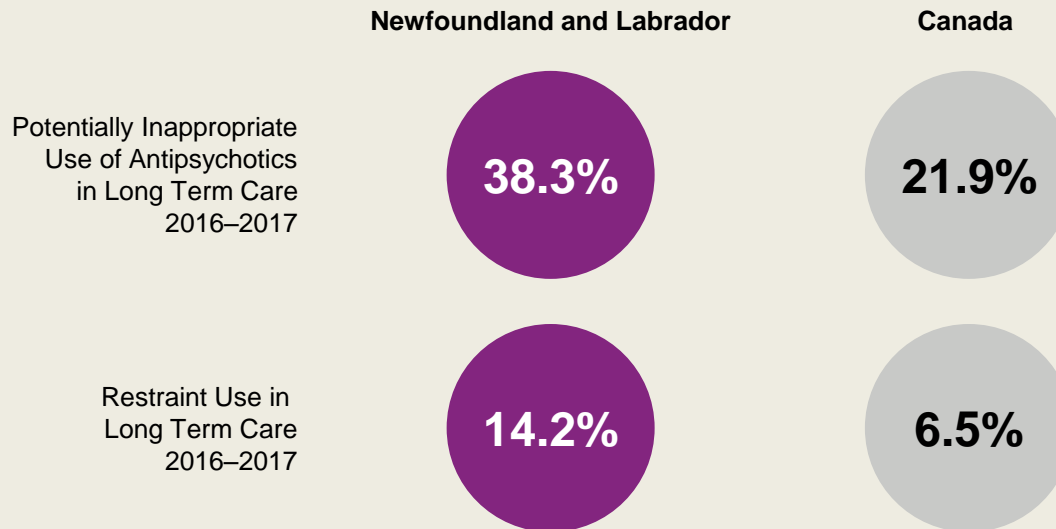


# Unnecessary Care



## Appropriateness and Effectiveness

- Providing care to only those who could benefit; this reduces the incidence, duration, intensity and consequence of health problems.



# Unnecessary Care



- Pre-op testing in patients at low/moderate surgical risk having low/moderate risk surgery

## Testing in low/moderate risk surgery in St. John's

	Patients	Creatinine	INR	Hemoglobin	CXR	ECG
2016 (pre)	3997	4235	1573	4756	1135	2787
2017 (post)	4039	4027	1223	4621	607	1711
Reduction N		208	350	135	528	1076
%		5%	22%	3%	47%	39%

Actual cost savings: \$97,053  
Potential additional cost savings: \$100,568

# Unnecessary Care



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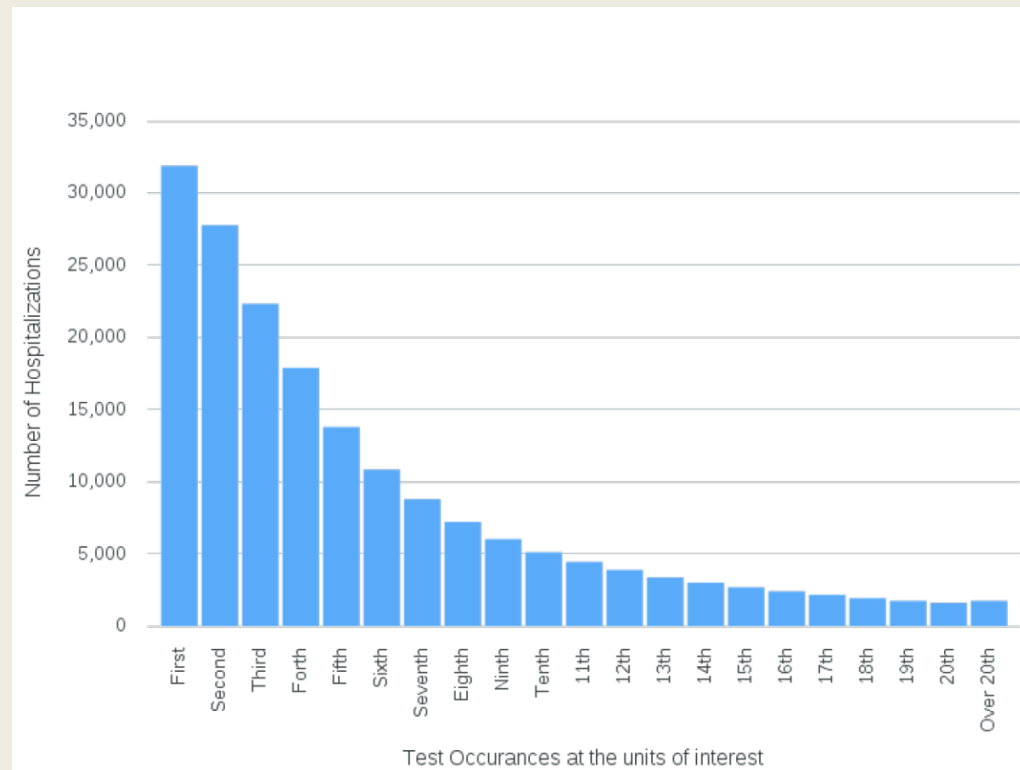
## Blood urea testing by family doctors in EH: 6-month update

- Baseline (2015/16): 205,754 tests
- 6 month post: 46% reduction
- Actual cost savings: \$90,656
- Potential annual cost savings: + \$300,000

# Unnecessary Care



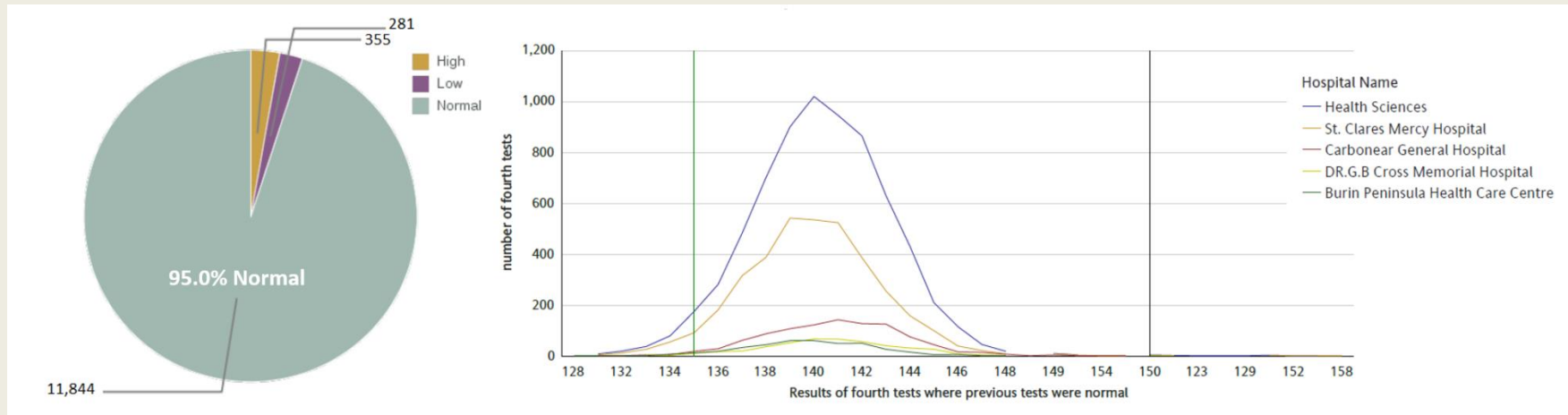
## Sodium test occurrences by the number of hospitalization at medical/surgical units in EH, 2014-16



# Unnecessary Care



## Fourth tests in hospitalizations where previous tests were normal





# Unnecessary Care



## Problem

- No restraint on patient demand
- No control of doctor decisions



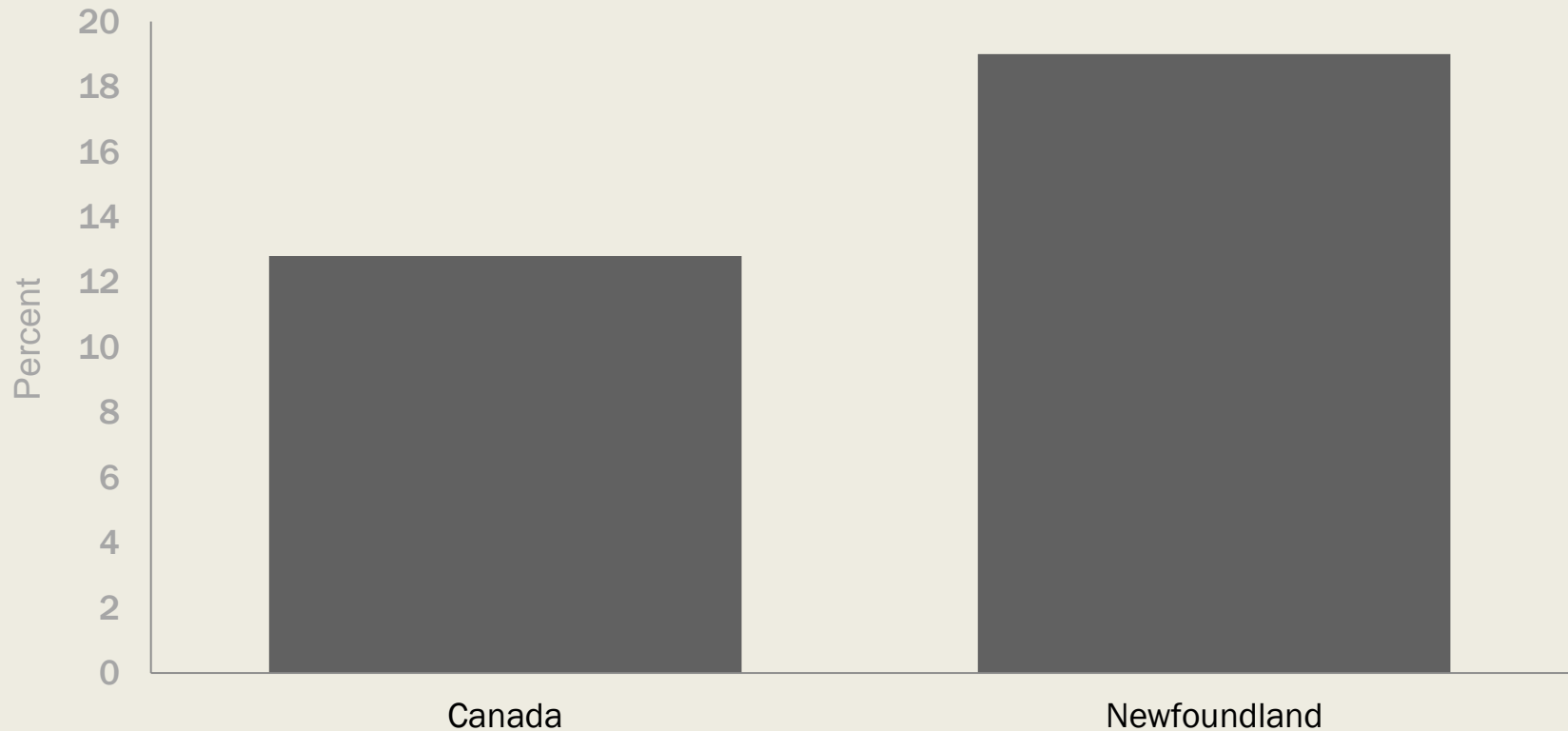
## Solution

- Public education
- ?? Economic disincentives for unnecessary interventions
- Doctor audit, feedback, and education
- Economic incentives to reduce unnecessary care
- Quality of Care Council NL

# Quality of Care



**Secondary stroke rate as percent of total strokes**



# Quality of Care



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## Utilization at St. Clare's Vascular Lab 2007-15

Carotid artery studies	17,600
Indicated based on symptoms	40%
Not indicated based on symptoms	60%
Test result shows high-grade stenosis	33%

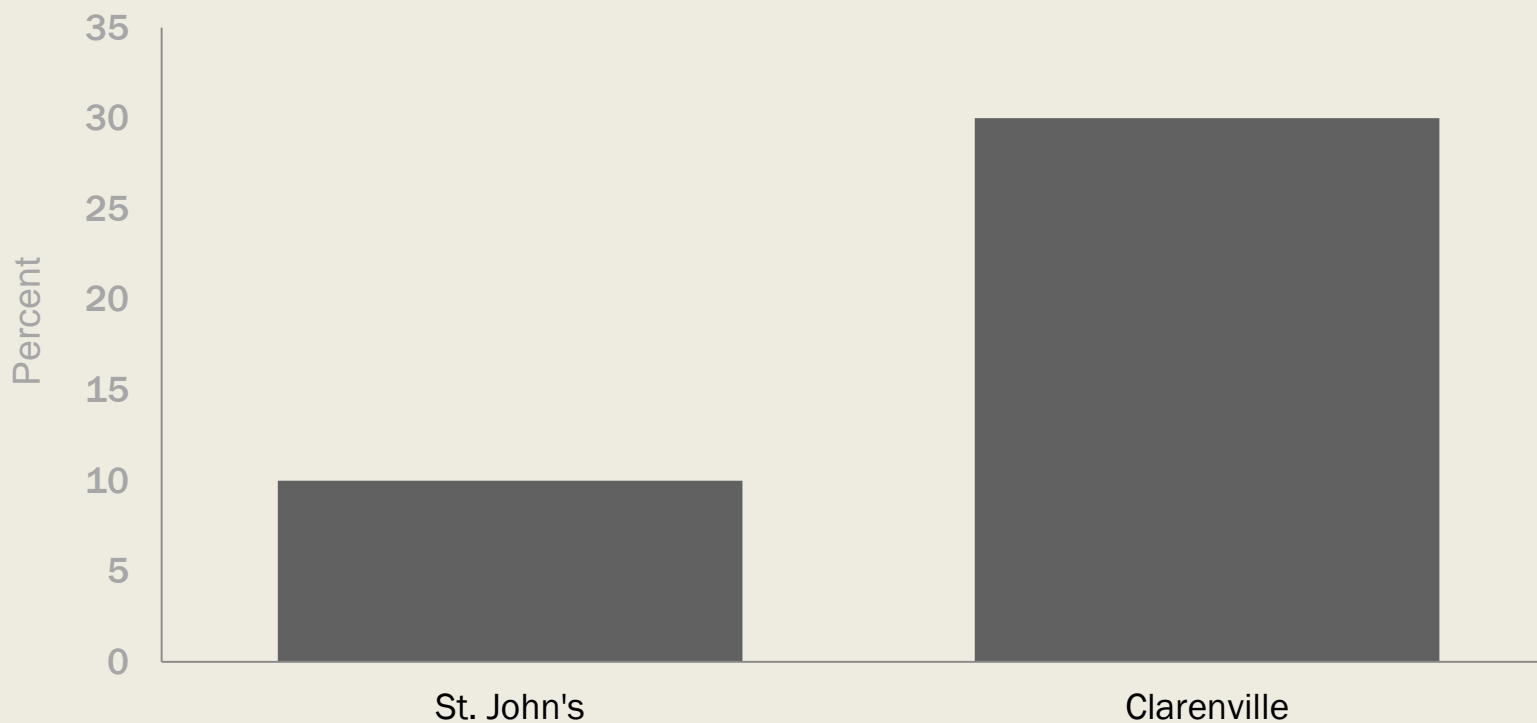
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- Most requests arrive too late after symptom onset
- Access to urgent testing is diminished by a waitlist for tests that are not indicated

# Quality of Care



**Thrombolysis rate for ischemic stroke**



# Quality of Care



## Problem

- Failure to get the right intervention to the right patient at the right time



## Solution

- Practice improvement teams
- E-ordering
- Quality of Care Council NL

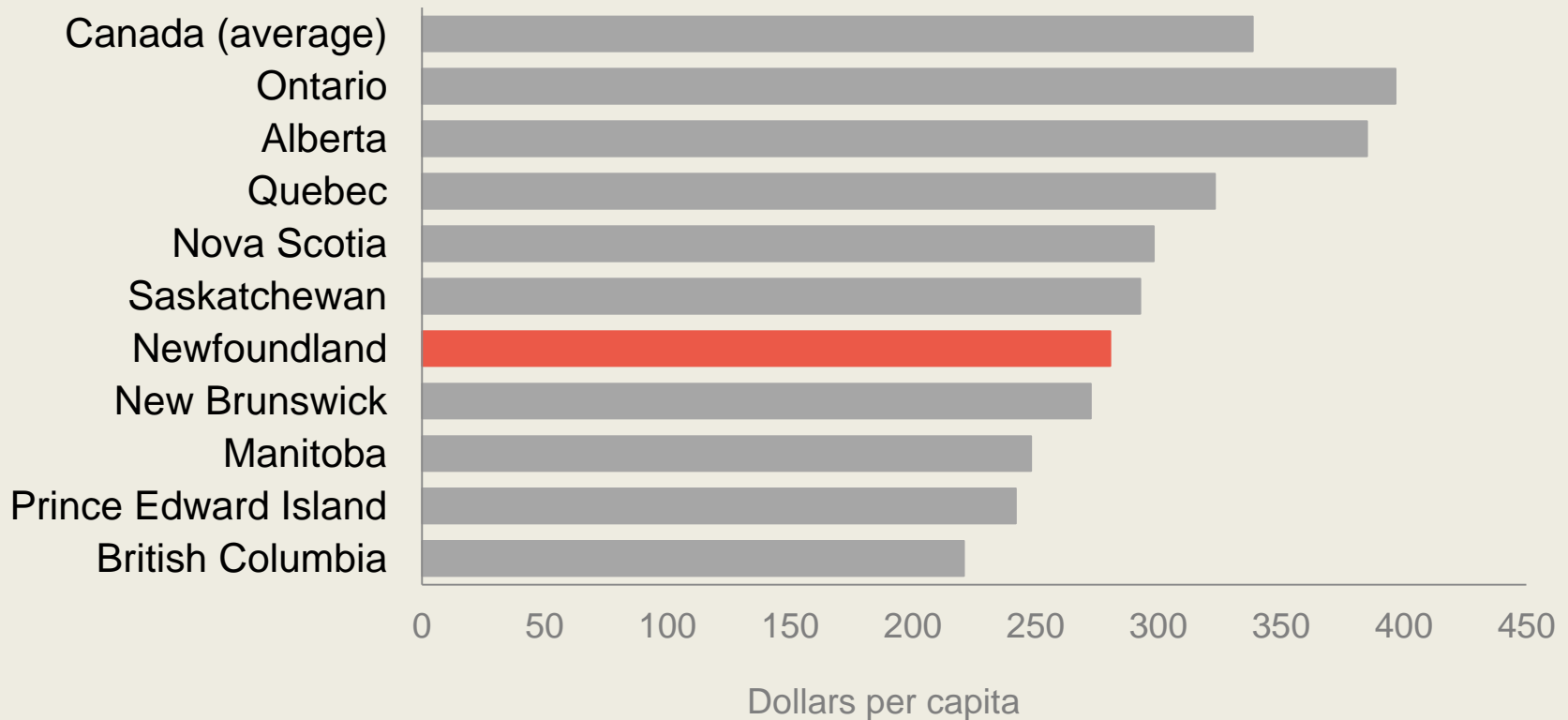
# Quality of Care



# Pharmacare



## Provincial government drug expenditure, 2017



# Pharmacare



## Problem

- Access to potentially beneficial drugs is limited



## Solution

- Decrease costs for drugs by partnering in national Pharmacare program
- Increase access to drugs demonstrated to improve outcomes



# Innovative Health Care



- Knowledge translation of successful interventions in other countries, provinces, and regional health authorities
  
- Province has the potential to embark on interventions that can improve health outcomes at reduced cost
  - Small population, geographically isolated
  - Close linkages between stakeholders
  - State-of-the-art electronic information system

# Innovative Health Care



## Problem

- A 50-year old health system providing low value, costing 36% of provincial budget, at a time of economic stress, and pending demographic change



## Solution

- Grasp the opportunity for innovation and become a leader in transforming Canadian health care

# Culture Change



- ✓ **Focus on health outcomes**
- ✓ **Public education**
- ✓ **Reduce no-shows**
- ✓ **Unnecessary use of interventions**
- ✓ **Return of service for medical students**
- ✓ **Union demands**
- ✓ **Health as a political football**
- ✓ **Media reporting**

# Culture Change



## Clinical Frailty Scale\*



1 Very Fit



2 Well



3 Managing Well



4 Vulnerable



5 Mildly Frail



6 Moderately Frail



7 Severely Frail



8 Very Severely Frail



9 Terminally Ill

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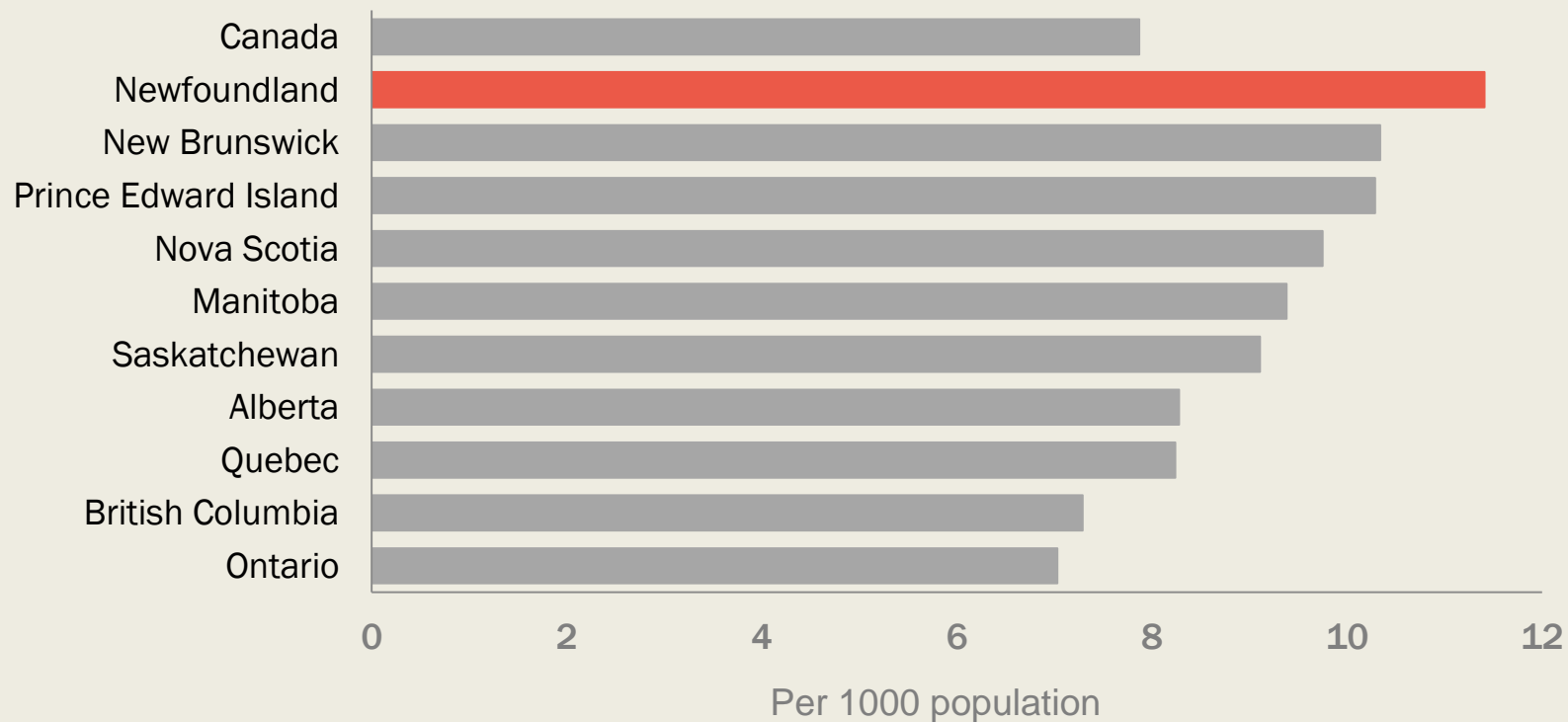
### Scoring frailty in people with dementia

The degree of frailty corresponds to the degree of dementia.

# Culture Change



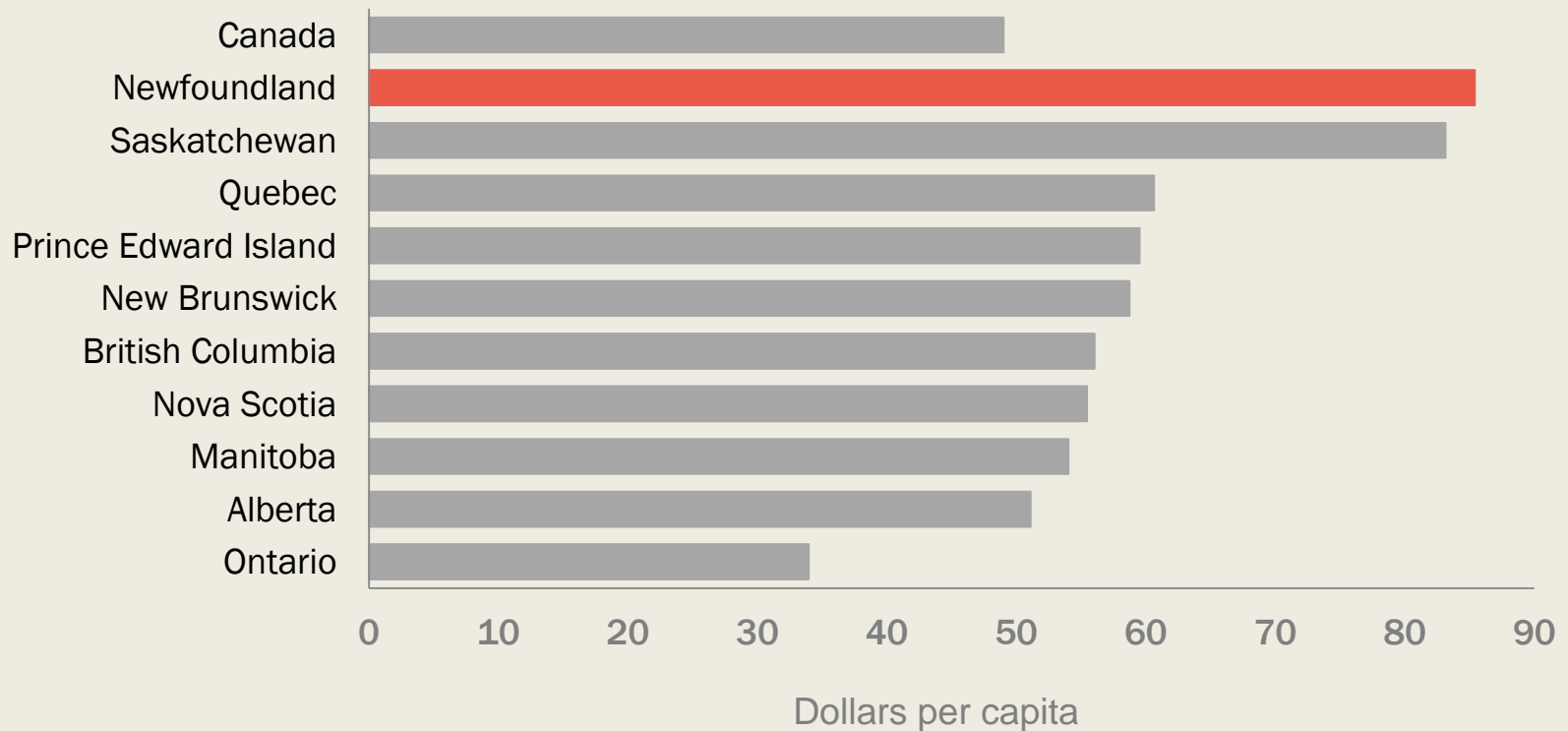
## Nursing workforce, 2016



# Culture Change



## Cost of absenteeism/overtime for nurses, 2016



# Culture Change



## Problem

- Patient demand, doctors' practice and remuneration, union demands, political competition, and media reporting predispose to fragmentation



## Solution

- Change culture to support of a major provincial asset
- 10-year health accord by stakeholders to sustain a universal access health care system

# HEALTHCARE

COMMUNICATION

POLITICS

CULTURE

NLMA

UNIONS

SILOS

ECONOMICS

STRUCTURE

DEMAND

GATEKEEPERS



# 10 Year Health Accord NL

