

# Labour Markets, Health Care & Innovation

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Edmonton

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# Overview

- Challenges/Opportunities facing health care system
- Impact of Covid on Health Care Workforce
- Innovation & Productivity
- Moving Forward
- Q&A

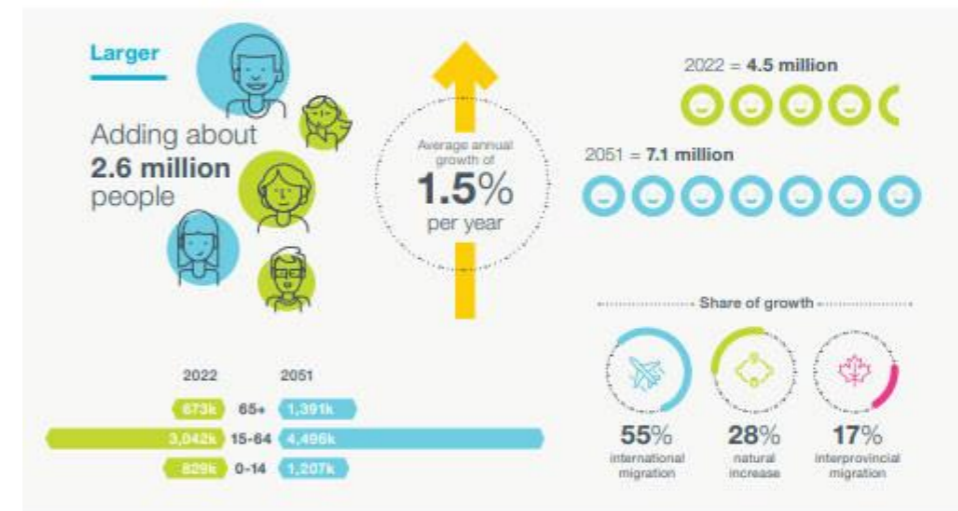
# Challenges/Opportunities

# 1) Increasing Demand for Health services

- Demographics are driving increased demand in health care services.
- Growing Population
- Aging Population

## Alberta population projections 2023 - 2051

By 2051, Alberta is expected to be...



## Older

The number of seniors will **more than double**



**1/5**  
will be a senior  
by 2051

## More urban

Regions with **larger urban areas** will see **higher growth**



**4/5**

people living in the  
Edmonton/ Calgary  
corridor by 2051

Sources: Statistics Canada and  
Alberta Treasury Board and Finance

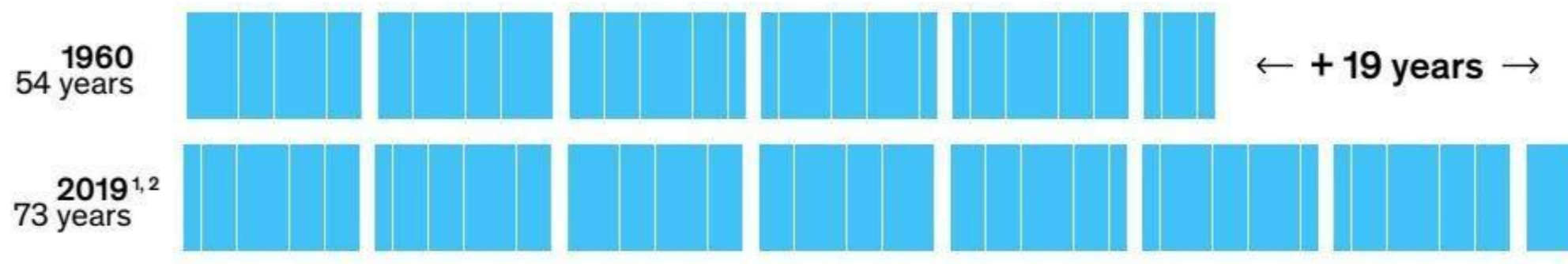
Alberta

# living longer, not healthier

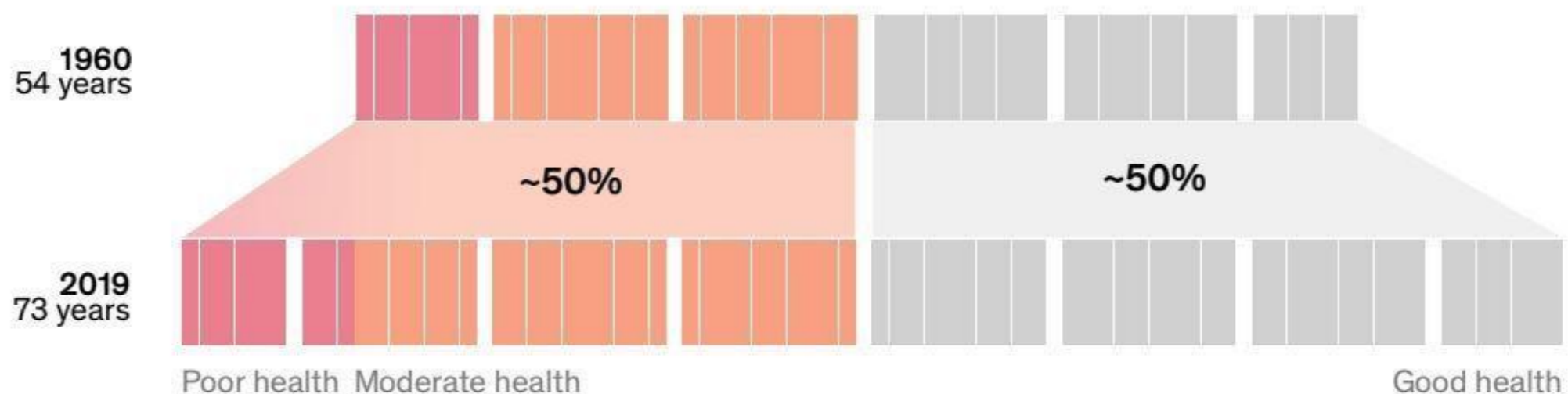
Globally, lives have gotten longer but not healthier.

The past 60 years have seen massive improvements in global life expectancy...

Average global life expectancy and healthy years



...but the proportion of life spent in poor or moderate health has not changed.



<sup>1</sup>Assumptions-based extrapolation of proportion of good/ok health from 2019 data.

<sup>2</sup>Assumptions-based extrapolation of proportions across geographies.

Source: WHO and World Bank health and life expectancy data; country-level health system and survey data, McKinsey Global Institute Prioritizing Health report; McKinsey Health Institute analysis

# Need to address chronic disease

## Key findings - Chronic Conditions - Health of Canadians Report - Statistics Canada September 13, 2023 (Selected)

**Almost half (45.1%) of Canadians lived with at least one major chronic disease in 2021.** The prevalence and number of chronic conditions increased with age...

Some of the most common chronic conditions in Canada in 2021 were overweight (35.5%), obesity (29.2%), arthritis (19.5%) and high blood pressure (17.7%)...

In 2021, **Canadians with the lowest household incomes had greater multimorbidity** and prevalence of chronic disease compared with those with the highest household incomes.

**From 2015 to 2021, the prevalence of high blood pressure, heart disease and obesity also increased**, as fewer Canadians were meeting physical activity guidelines and consuming enough fruits and vegetables.

## Key Findings – The Daily – Deaths, 2022 – Statistics Canada

**For the third year in a row, life expectancy at birth of Canadians fell**, from 81.6 years in 2021 to 81.3 years in 2022. The decline in 2022 (-0.3 years) was greater than in 2021 (-0.1 years) and was half that observed from 2019 to 2020 (-0.6 years).

**Cancer and heart disease remained the two leading causes of death in Canada**, accounting for 41.8% of deaths in 2022. In 2021, cancer and heart disease accounted for 44.3% of all deaths.

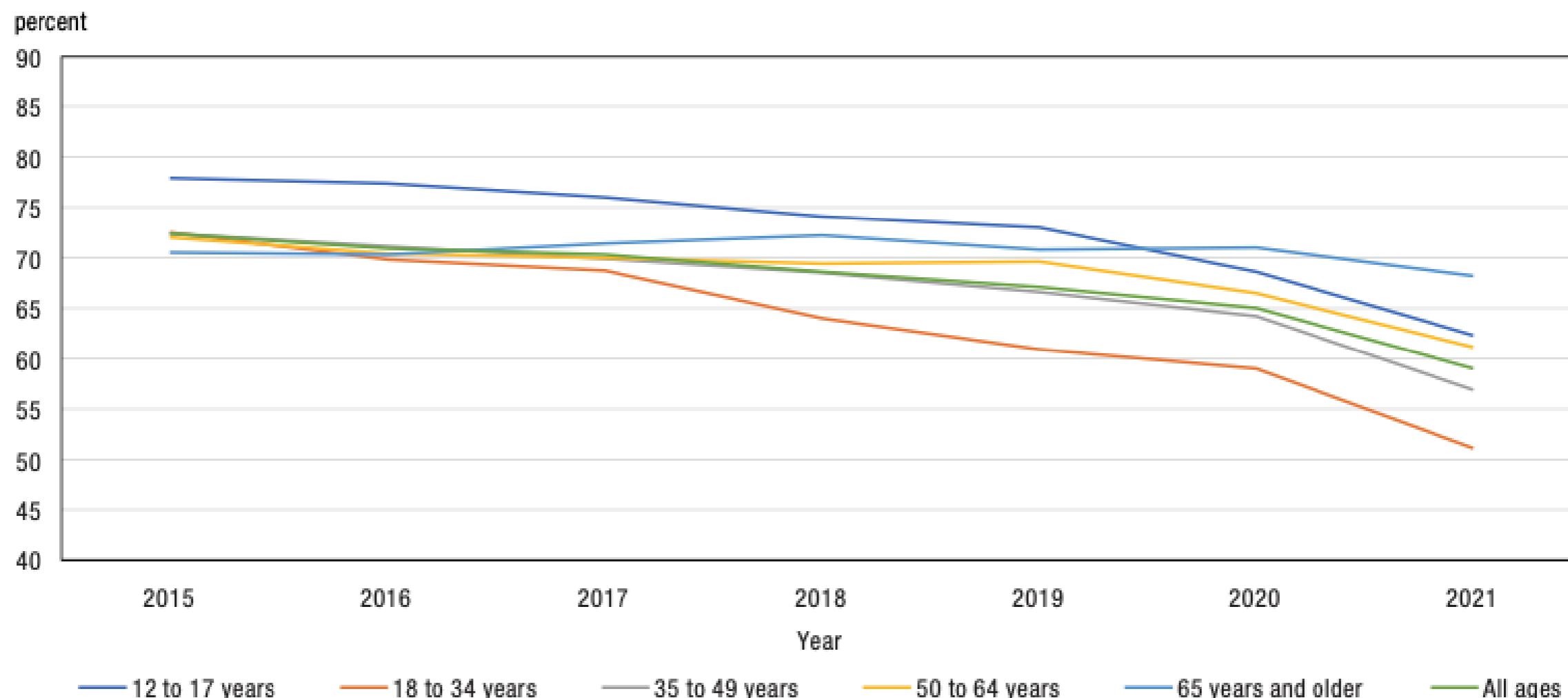
Completing the top 10 leading causes of death in 2022 were COVID-19, accidents (unintentional injuries), cerebrovascular disease (stroke), chronic lower respiratory diseases, diabetes mellitus, influenza and pneumonia, Alzheimer's disease, and chronic liver disease and cirrhosis.

In 2022, 227,705 deaths were attributable to the 10 leading causes of death, accounting for 68.2% of all deaths.

# ... and Mental Health

Chart 1.0

Canadians aged 12 and older reporting very good or excellent mental health, by age group, 2015 to 2021



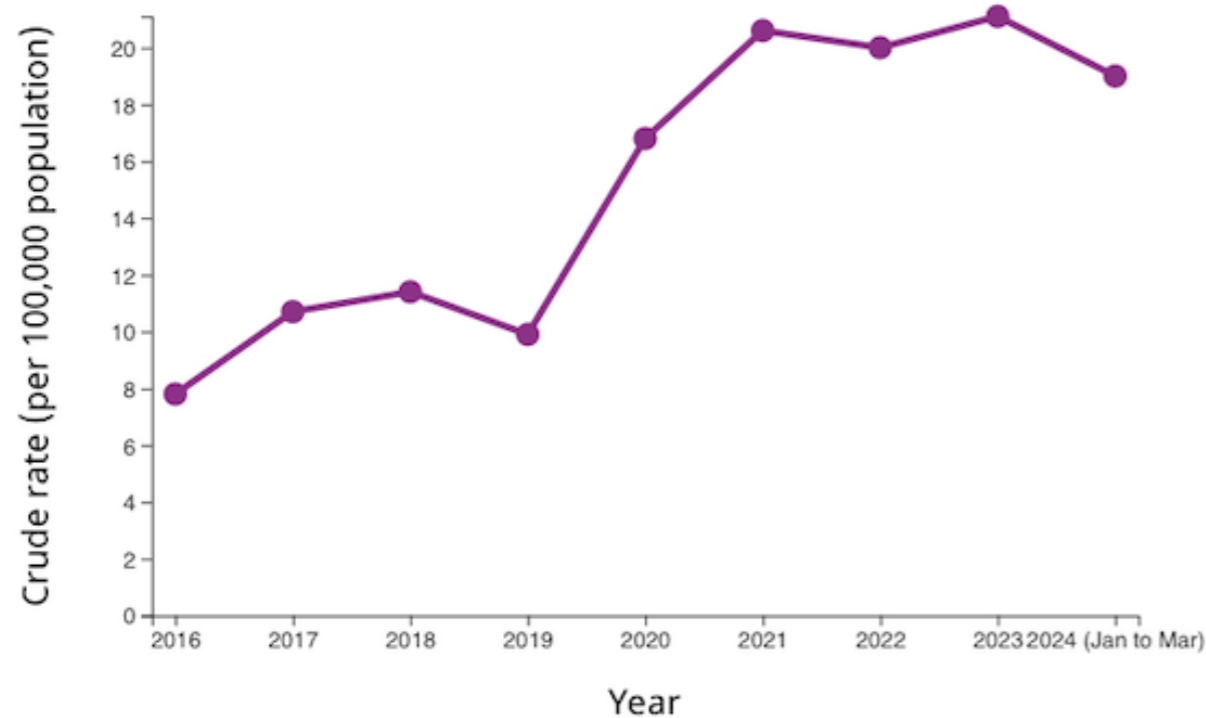
Note: Estimates exclude those living in the territories.

Sources: Statistics Canada, Canadian Community Health Survey, 2015 to 2021, Table 13-10-0096-01 Health characteristics, annual estimates.

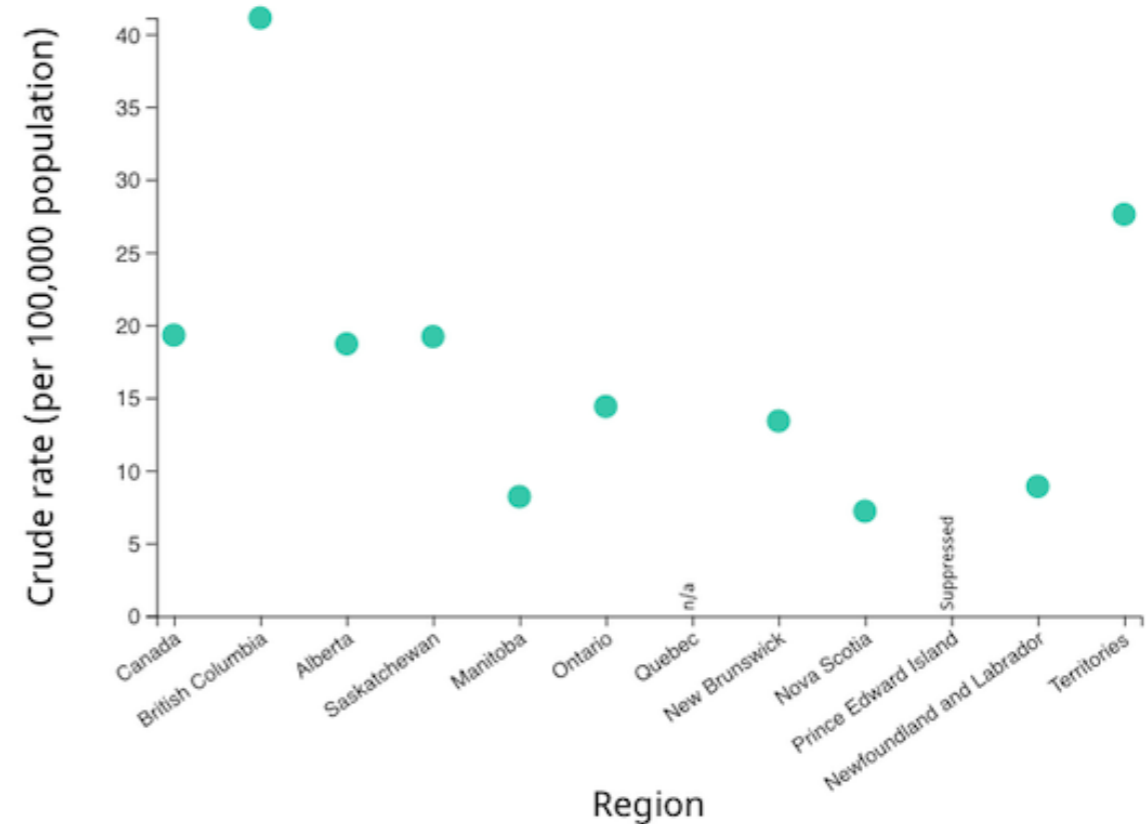
**March 21, 2024** — New international survey results released today by the Canadian Institute for Health Information (CIHI) reveal that in **2023, 29%** of Canadians age 18 and older said they'd experienced **depression, anxiety** or another **mental health condition, up from 20% in 2016**.... Alongside the impact of the COVID-19 pandemic, economic stressors were identified as a contributing factor to declining mental health.

# Opioids

Crude rate (per 100,000 population) of total apparent opioid toxicity deaths in Canada, 2016 to 2024 (Jan to Mar)



Crude rate (per 100,000 population) of total opioid-related poisoning hospitalizations by province or territory, in 2024 (Jan to Mar)



Source – Government of Canada – Health infobase  
<https://health-infobase.canada.ca/substance-related-harms/opioids-stimulants/graphs.html?ind=655&unit=0>

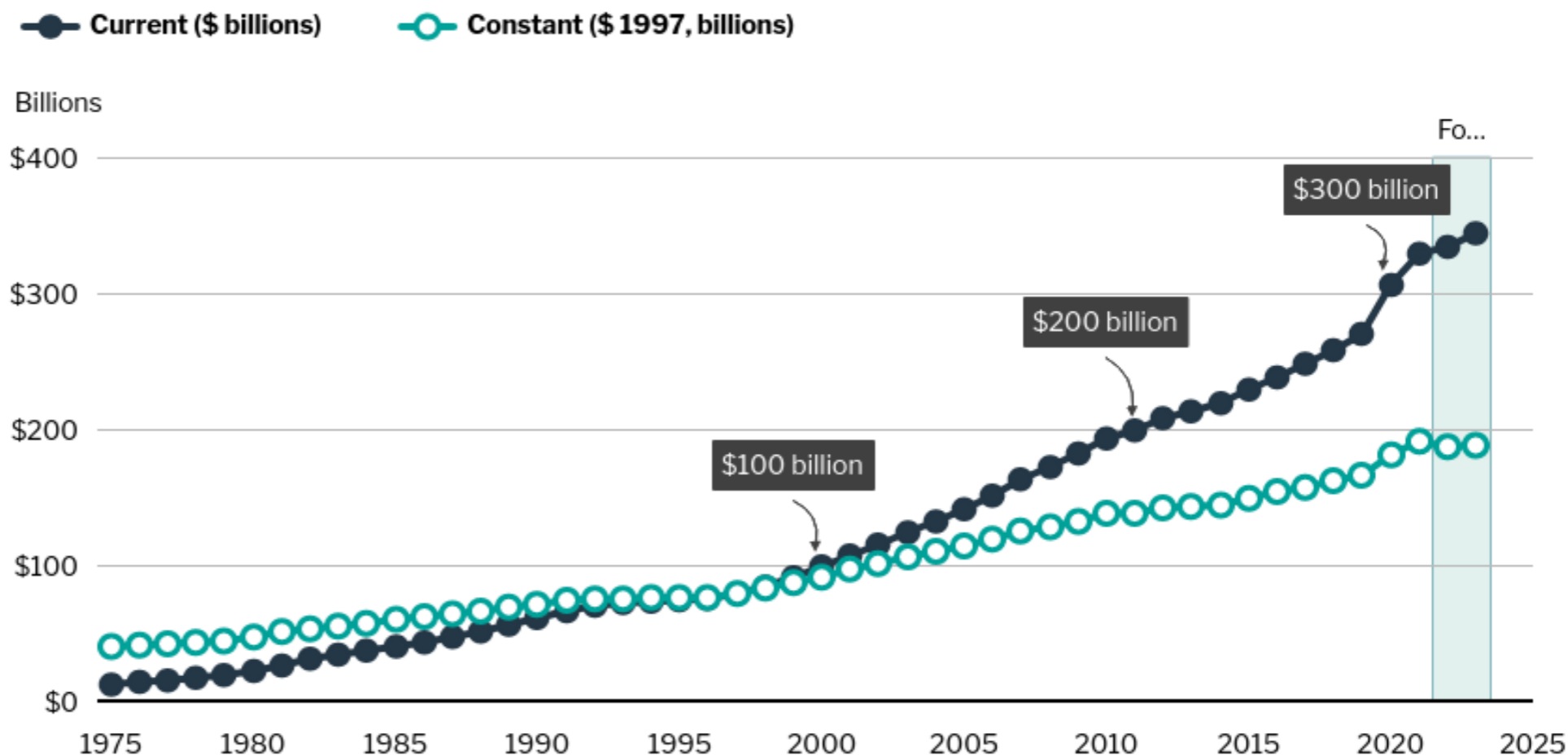
## 2) Rising costs of health care

### Key Drivers

- Hospitals (25.6%)
- Physicians (13.9%)
- Drugs (13.9%)

### Canada's health spending in 2023

1975 to 2023



Line chart of total health expenditures in current and 1997 constant dollars from 1975 to 2023. It shows the trending of health expenditure in the last 40+ years.

#### Note

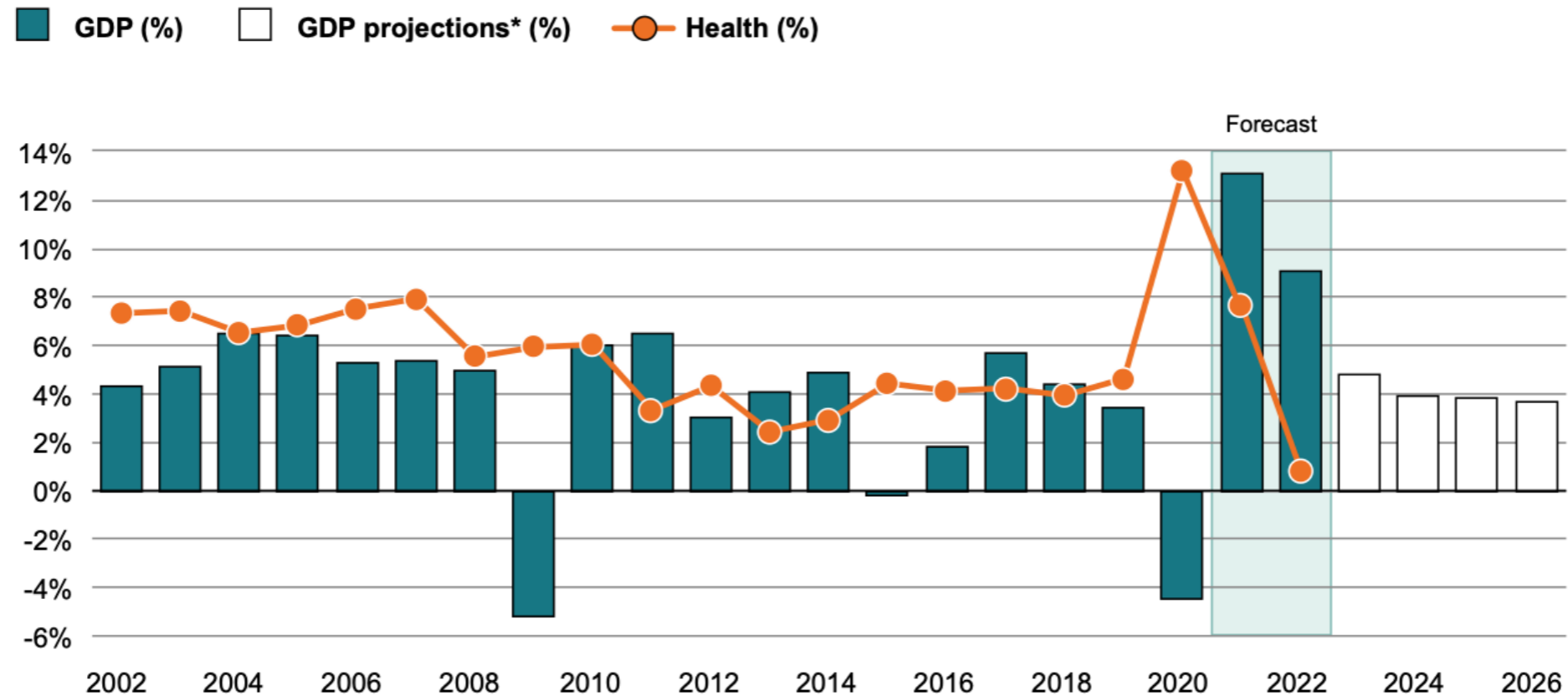
GDP: Gross domestic product.

#### Source

National Health Expenditure Database, Canadian Institute for Health Information.

# ...budgets are constrained

**Total health expenditure and GDP, annual growth rates, Canada**  
2002 to 2026



Bar chart of total health expenditures and GDP annual growth rates from 2002 to 2026. It shows the relationship between health spending and economic growth.

**Notes**

\* Data from Budget 2022.

GDP: Gross domestic product.

**Sources**

National Health Expenditure Database, Canadian Institute for Health Information.

Department of Finance Canada. *Budget 2022: A Plan to Grow Our Economy and Make Life More Affordable*. 2022.

# 3) Health Inequities

## Social Determinants of Health



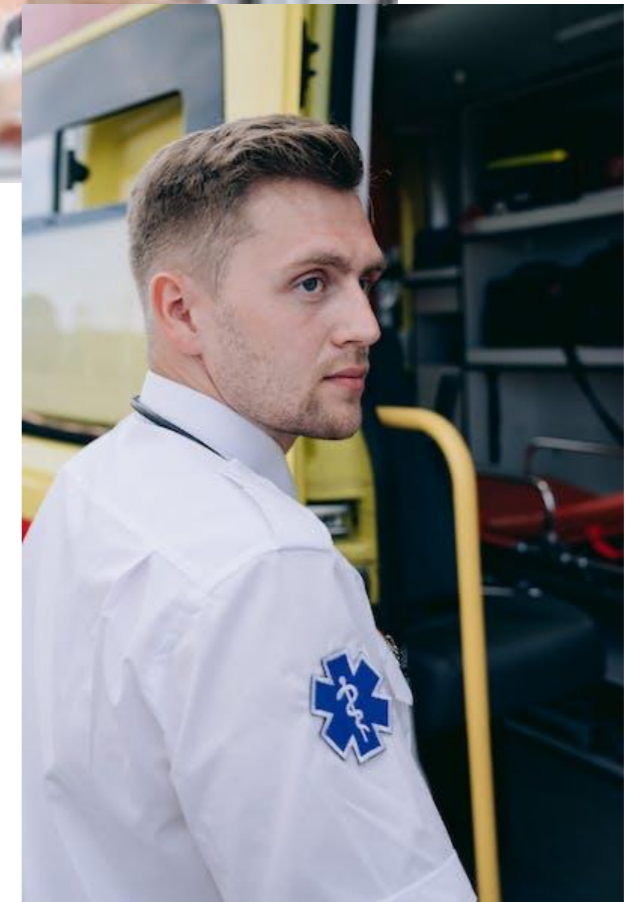
- **Life expectancy at birth is lower in areas where there is a high concentration of people who identify as Indigenous:** 12 years lower in areas with a high concentration of Inuit; 11.2 years lower in areas with a high concentration of First Nations; and 6.9 years lower in areas with a high concentration of Métis.
- **Canadians in the lowest income group live 11.3 fewer healthy years than those in the highest income groups.** If Canadians in the lowest income group lived as many years in good health as those in the highest income groups, they would experience a 22.4% increase in their health-adjusted life expectancy at age 18.

**Key Health Inequities in Canada - A National Portrait**, Pan- Canadian Inequalities Reporting Initiative, Public Health Agency of Canada, **2018**

# 4) Staff Shortages

Canada anticipates a shortfall of **78,000 physicians** by 2031, and **117,600 nurses** by 2030.

The House of Commons Standing Committee on Health's March 2023 report titled **Addressing Canada's Health Workforce Crisis**.



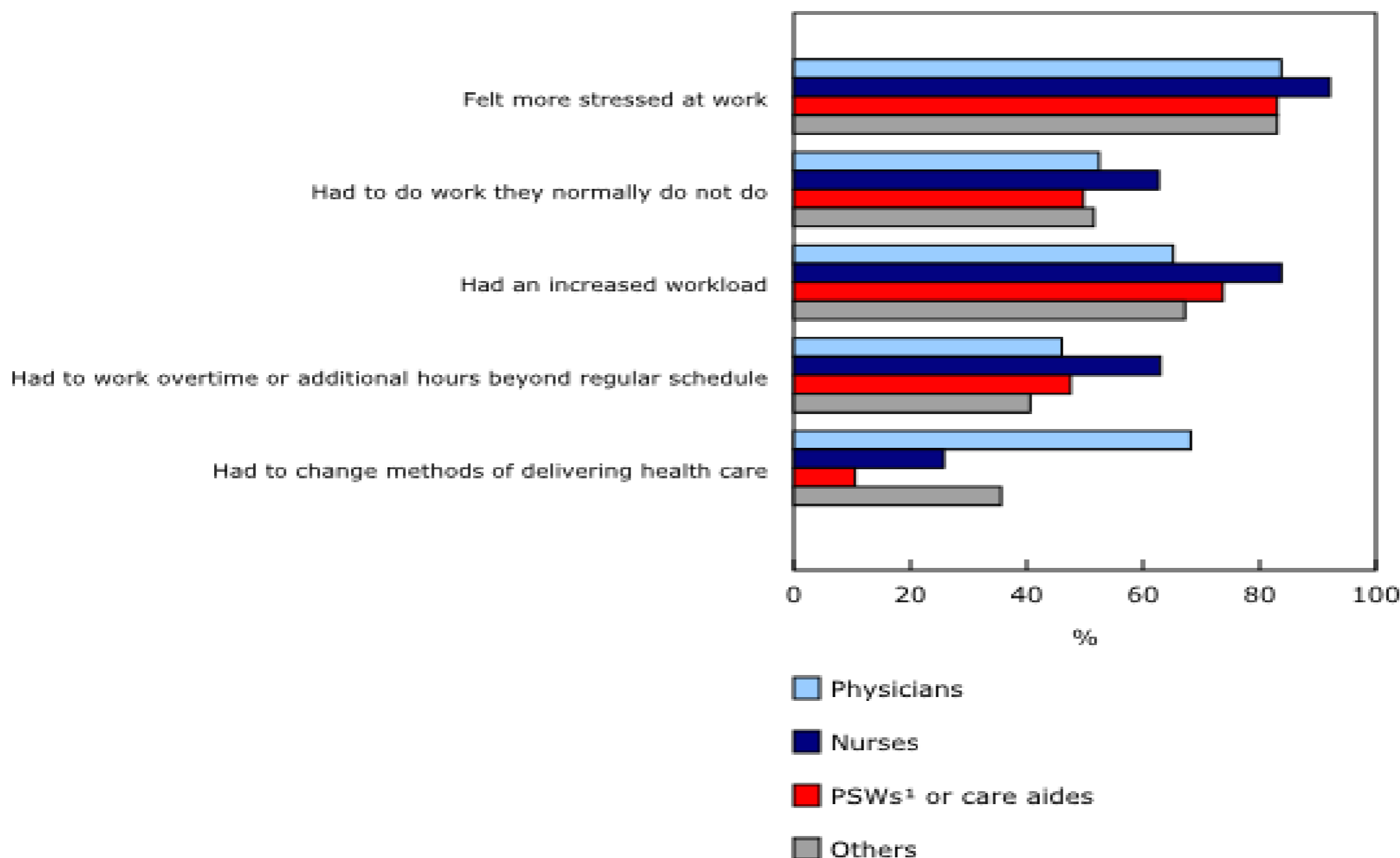
# Impact of COVID

## **Burnout of health care workers**

- Increased workload on health system during COVID
  - Direct impact of managing COVID patients
  - Backlog of treating other patients (surgeries, reduction in primary care)
- Increased stress among health care workers during pandemic
  - Increased overtime, decreased vacation, changes in job
  - Negative Impact on Mental Health
- Result – Leaving field, retiring earlier

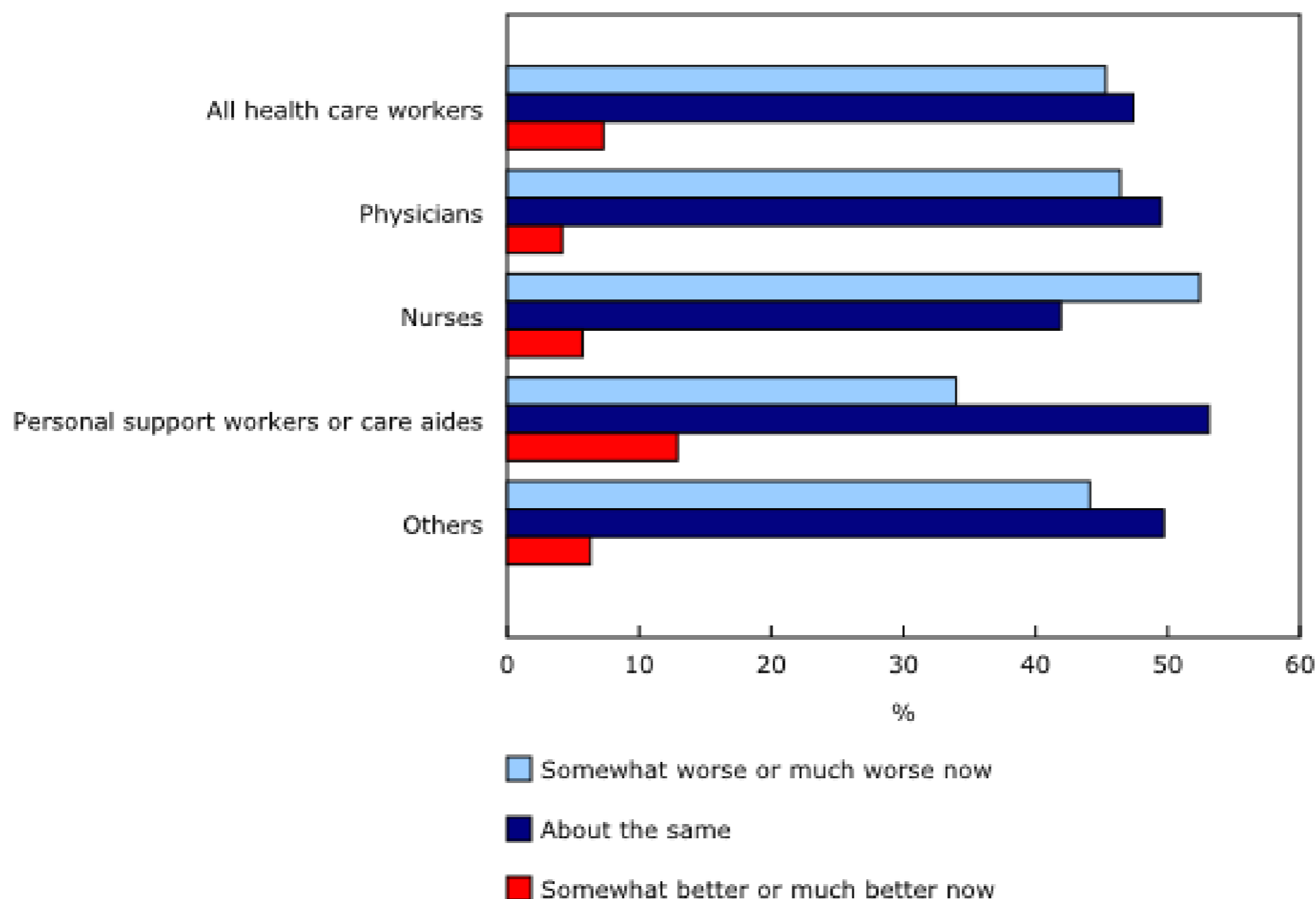
# Impact of COVID

## Impacts experienced by HCWs – COVID Sep-Nov 2021



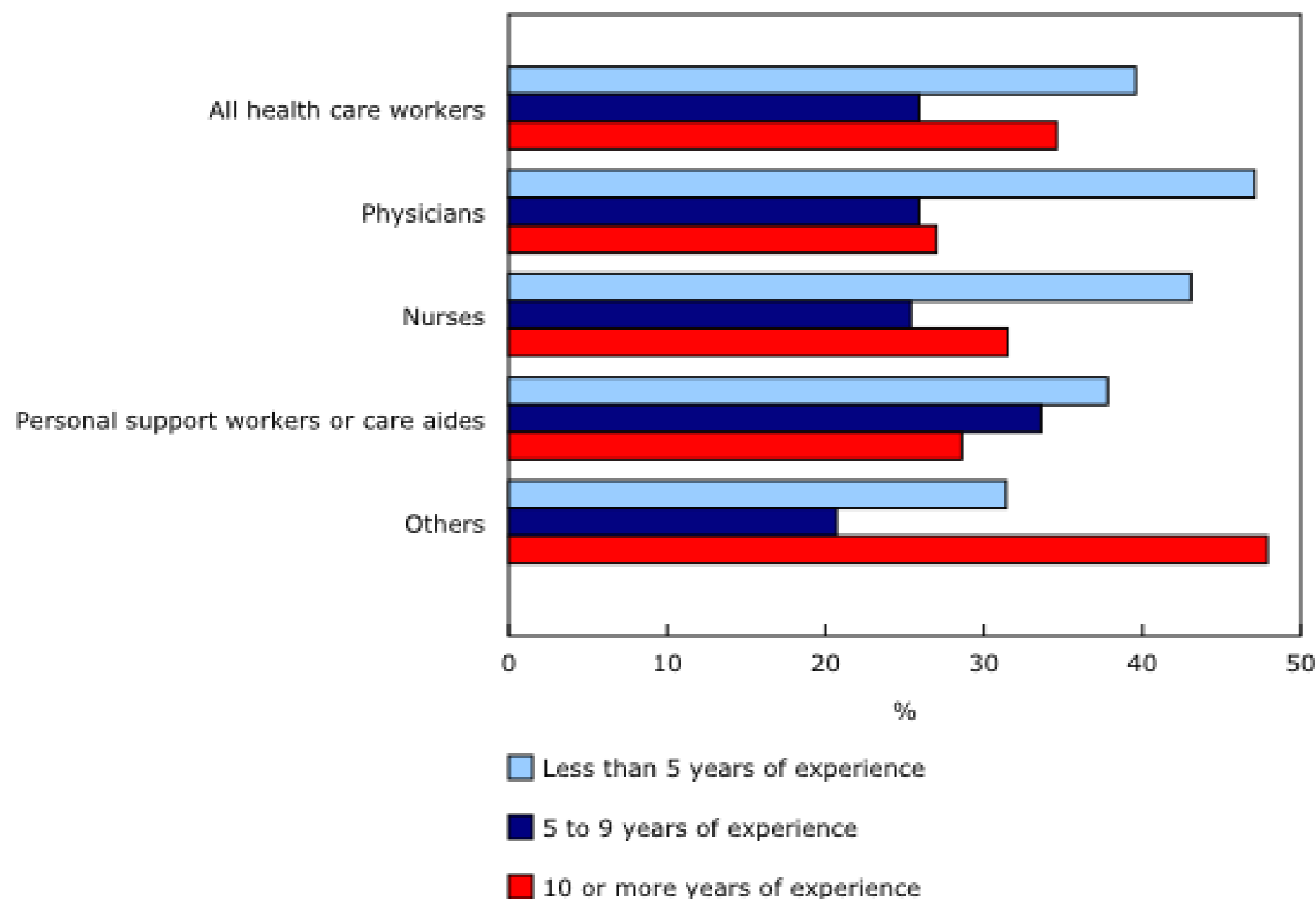
# Impact of COVID

## HCWs Mental Health Status – COVID Sep-Nov 2021 and prior to COVID



# Impact of COVID

## Intention to leave job – COVID Sep-Nov 2021

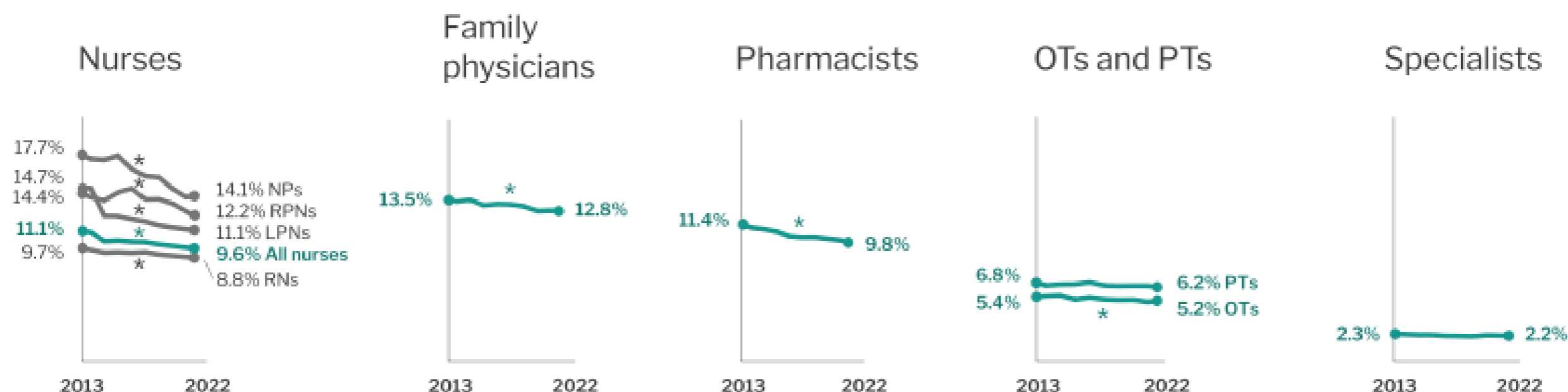


Statistics Canada - Experiences of health care workers during the COVID-19 pandemic, September to November 2021  
Intention to leave or change jobs in next 3 years for those not intending to retire

# Challenges in Rural Care

## Exacerbating challenges in provide care in rural areas

Proportion of providers working in rural/remote areas, selected health professionals, provinces/territories with available data, 2013 to 2022



# Results...

## Lack of Access

**Canadians have never waited this long for medical treatment, study finds**

“The annual Fraser Institute study this year reports a median wait time of 27.4 weeks for Canadians to get treatment after a family doctor referral.”

National Post - December 8, 2022

**ERs face worse wait-times this summer, as waiting room medicine gets creative.**

“...there is no easy answer to the ER crisis..”

CBC - July 15, 2023

**What the family doctor shortage looks like in Canada**

The shortage of family doctors affects millions of Canadians.

Of the 22 per cent of Canadians without a family doctor, 29 per cent say they have been looking for one but the effort has been unsuccessful. Thirty per cent of those who have stopped looking say they aren't doing so because there is none available in their area. Twenty per cent have simply given up looking.

National Post – Nov 6, 2024

**Rural BC mayors band together to press for fix to emergency departments**

“The action comes after communities including Oliver, Merritt, Williams Lake and Lillooet have faced repeated ER closures driven primarily by staffing shortages.”

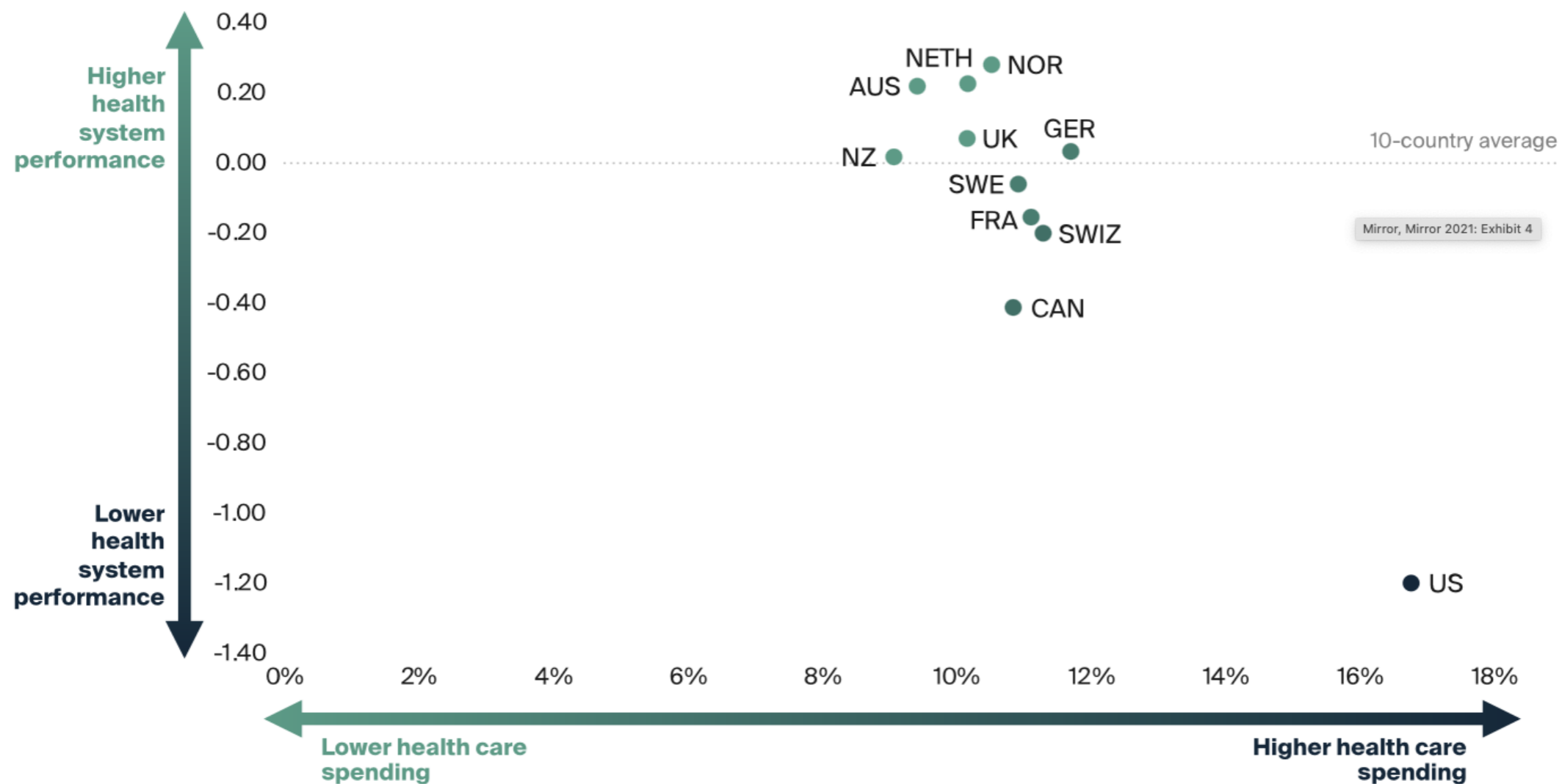
Global News – Nov 8, 2024

# Results

## Poor Value for Investment in Canada

EXHIBIT 4

### Health Care System Performance Compared to Spending

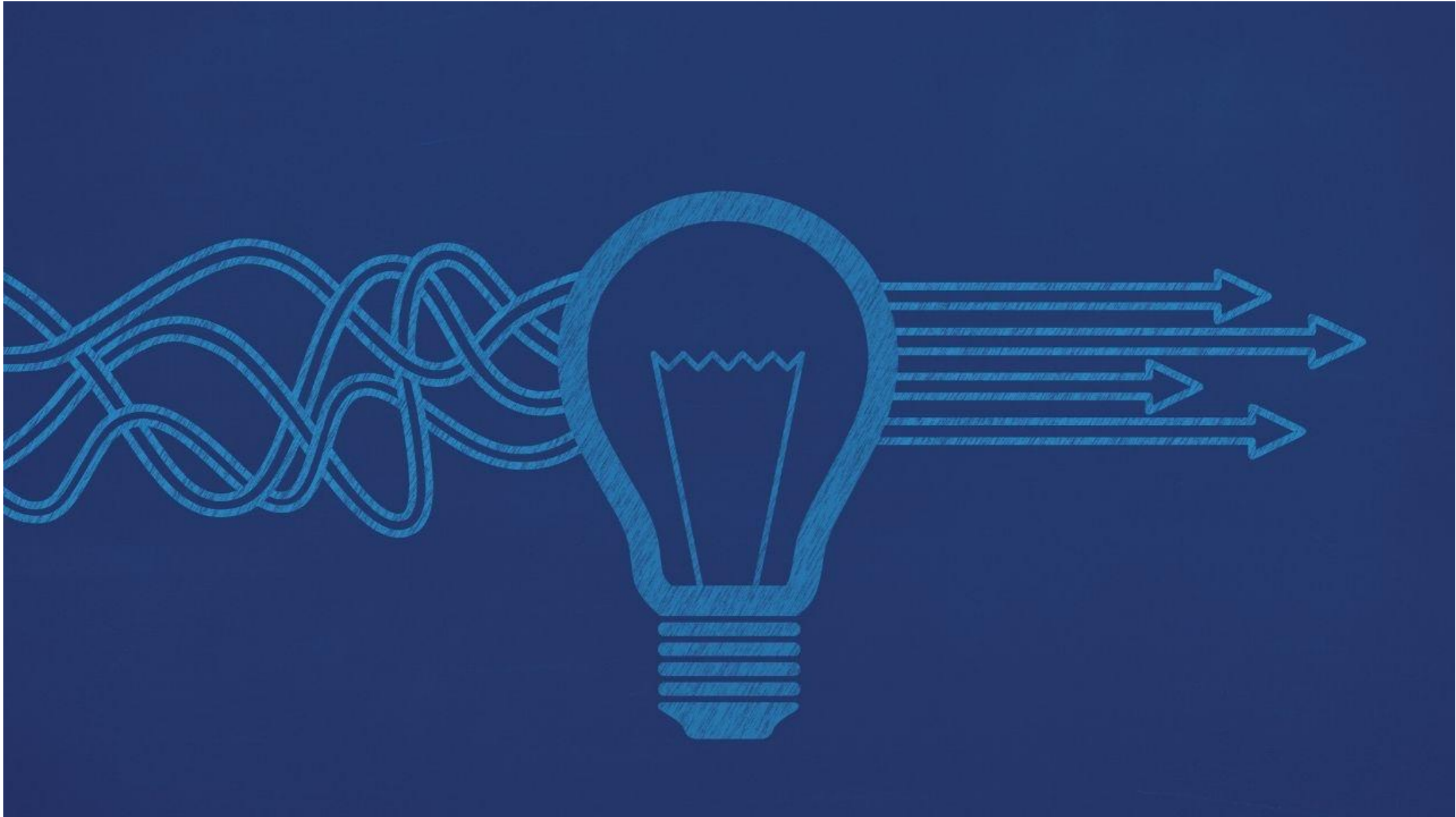


Note: Health care spending as a percent of GDP. Performance scores are based on standard deviation calculated from the 10-country average that excludes the US. See [How We Conducted This Study](#) for more detail.

Data: Spending data are from OECD for the year 2019 (updated in July 2021).

Source: Eric C. Schneider et al., *Mirror, Mirror 2021 — Reflecting Poorly: Health Care in the U.S. Compared to Other High-Income Countries* (Commonwealth Fund, Aug. 2021). <https://doi.org/10.26099/01DV-H208>

# Solution - Innovation

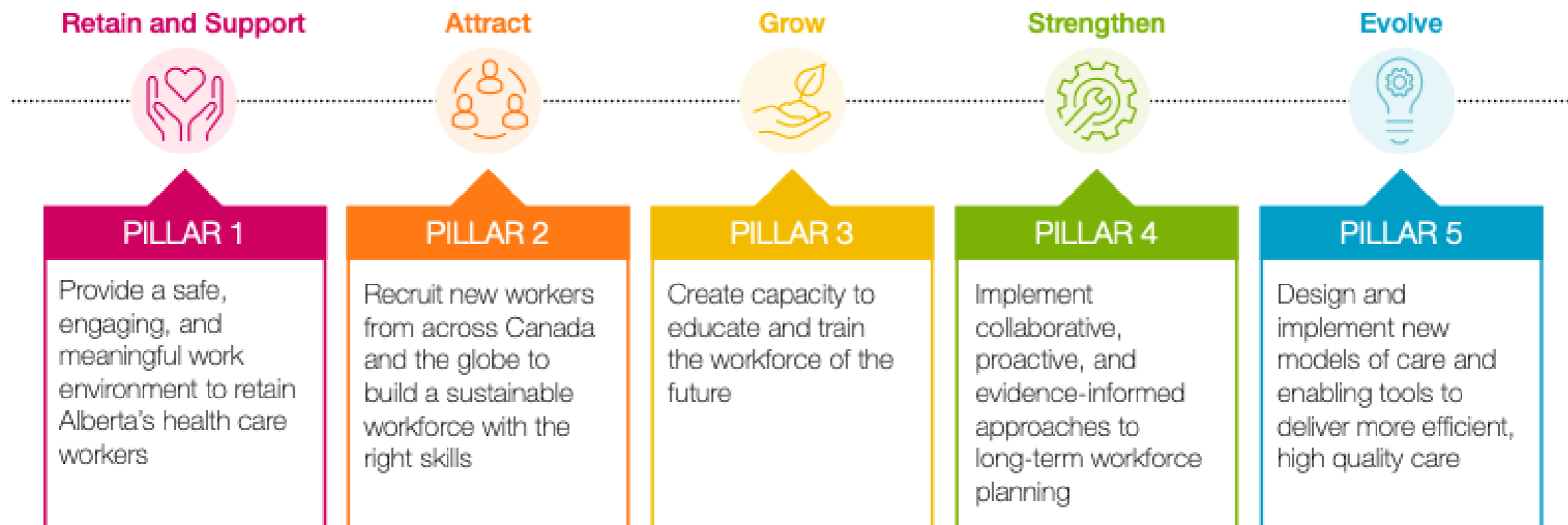


Policy, Process, Technology



## Policy Innovation

# Health Care Workforce Strategy



# Pillar 1 – Retain & Support

## Maintain current workforce

### Objectives

- Improve support for workforce well-being & Safety
- Support independent physician practice
- Build a more diverse & inclusive workforce
- Create welcoming work environment

### Actions

- Wellness & Safety supports for HCWs – access to MH & Wellness programs
- Site based workplace committees.
- Additional funding for physician practices
- UNA-Employer Rural Capacity Investment Fund
  - i.e. retention payments (\$0.57/hr), Expanded rural physician retention initiatives

# Pillar 2 – Attract

## Bring in new HCWs

### Objectives

- Increase opportunities for internationally educated health care workers
- Attract and recruit health care workers to rural & remote areas
- Provide fair & competitive compensation

### Actions

- UNA-Employer Rural Capacity Investment Fund
  - i.e. worksite relocation incentives (\$15K)
- Recruitment incentives for physicians up to \$100k

### Actions (continued)

- Career pathways for IMGs, Navigators for IENs
- Streamline college accreditation processes
- Bridging programs for IENs
- Maintaining competitive wages/payments for HCWs in comparison to other provinces
- International agreements – MOU with Philippines

# Pillar 3 – Grow

## Increase talent pool

### Objectives

- Grow post-secondary capacity to education future health care workers
- Expand opportunities for existing HCWs to gain new education, skills and credentials

### Actions

- HCA education financial support (\$9,K), commitment to work in AB after completing program
  - Recruitment incentives for physicians up to \$100k

### Actions (continued)

- Creating additional capacity for HCW training
  - Created additional 3,700 HCW seats since 2022 – Apr 2024
  - HCAs, Nurses, Doctors, Allied health
  - Expanding seats for mental health professionals (\$10m) – Aug 2024
- Supporting Rural Education
  - Rural Medical Education Program Training Centres (Lethbridge/Grand Prairie)
  - AHS/UofC Rural nursing program (i.e Wainwright, Drayton Valley)
- New programs
  - Physician Assistant - UofC

# Pillar 4 – Strengthen

## Improve Workforce Planning capability

### Objectives

- Develop clear roles, responsibilities and processes for proactive workforce planning
- Better leverage data and analytics to make evidence-informed workforce planning decisions

### Actions

- Alberta health – developing workforce planning model

### Actions (continued)

- Creating a Continuing Care health human resource strategy
- Future action - Workforce planning committee comprised of employers, post-secondary, unions and colleges

# Pillar 5 – Evolve

## Improve productivity & access to care

### Objectives

- Support and enable innovative, sustainable models of care
- Implement tool and processes to better leverage contingent workers
- Leverage digital tools to increase access to care

### Actions

- Investment & move to team based primary care
- Pharmacy-led primary care clinics
- New anesthesia models of care

### Actions (continued)

- Nurse Practitioner funding framework to better enable independent community practice
- Centralized booking & centralized assessment to better use surgical resources
- Reallocation of contingent workforce to rural settings – Locum services, AHS redeployment

# Refocusing Health care



Primary Care  
organization



Acute Care  
organization



Continuing Care  
organization



Mental Health and  
Addiction  
organization



## Process & Technology Innovation

# Innovation - AI

- Leverage data to improve diagnosis and treatments, processes & procedures.
- Example
  - Saventic Health working with AHS to diagnose rare disease.
- Using AI to improve processes.
- Example
  - Mikata AI Scribe



# Innovation - Data

- Leveraging data and developing/using new tools to improve access to health care and change how it is delivered.



TELUS Health



# Innovation – Med Tech

- Developing new technology to improve health outcomes and manage costs.



ORPYX<sup>®</sup>

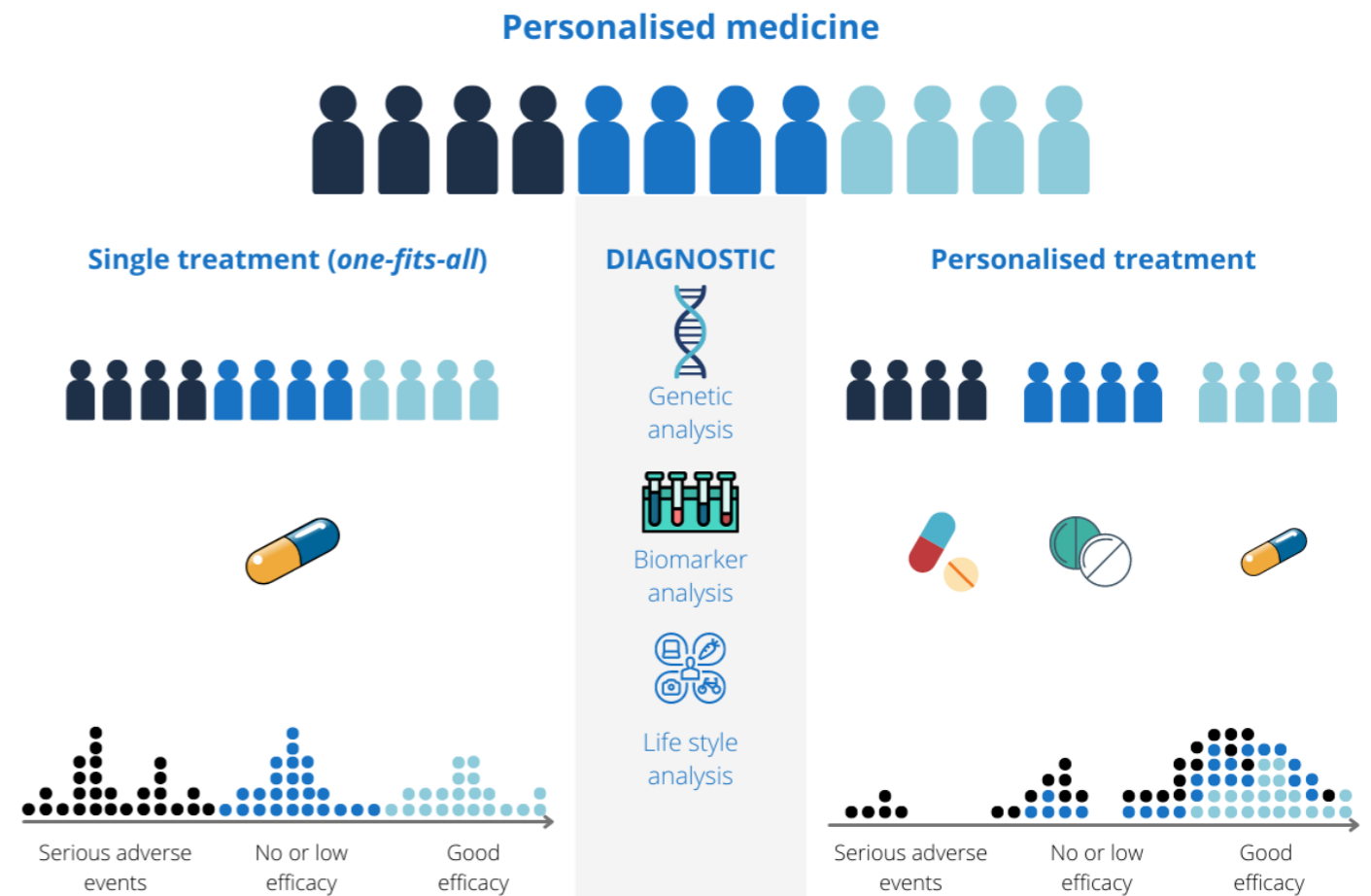
 **NANOTESS**  
CATALYTIC SOLUTIONS



# Innovation - Pharma

## Precision/Personalized Medicine

- Improve effectiveness of therapies
- Improve health outcomes
- Manage costs
- Example
  - CAR T cell Therapy UofA



# Moving Forward

# HC Workforce Challenges - Recap

- Insufficient Health Care Workers to deliver services
- HCW not necessarily in the right professions/specialties
  - Specialists – shortage of anesthesiologists
  - Family Doctors – Grads not interested in opening Family practices, streaming into specialties
  - Move to different sectors – Shortage of nurses in Long term care, Public to NFP/Private (Nurses/Doctors)
- HCW not in the right locations
  - Rural/Urban
  - Provincial Variation
  - International competition
- Increasing costs
- Innovation necessary but extent of impact on HC service delivery and productivity is unknown.

# Issues for Consideration

- What are the implications of innovation on HC service delivery, access to care, skills required, workforce productivity and the number of HCW needed, by profession and by location?
  - AI
  - Remote monitoring/assessment/service delivery
  - Precision medicine
- With a focus on living healthier, what are the impacts on health care demand in the future?
- How do we ensure that we have sufficient staff in the right places with the right training to meet the demand?
  - What are the tools/research need to plan?
  - What are the right policies to get the outcomes required?
- How do we manage costs of HC delivery and improve productivity of HCW?

# Concluding Thoughts

Appropriate workforce planning and policies is critical to ensuring we can deliver quality, accessible and affordable healthcare to all Albertans.

Through innovation and working together, we can build a Health Care system that Albertans need & deserve.

