



The Long-Term Outlook for Healthcare Spending in Developed Countries

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PRESENTATION GOALS & SCOPE OF ANALYSIS

PRESENTATION GOALS

- ❑ Identify and analyze the long-term drivers of healthcare spending.
- ❑ Assess whether the recent slowdown in healthcare spending is likely to be lasting.
- ❑ Explore possible scenarios for the future direction of healthcare spending.

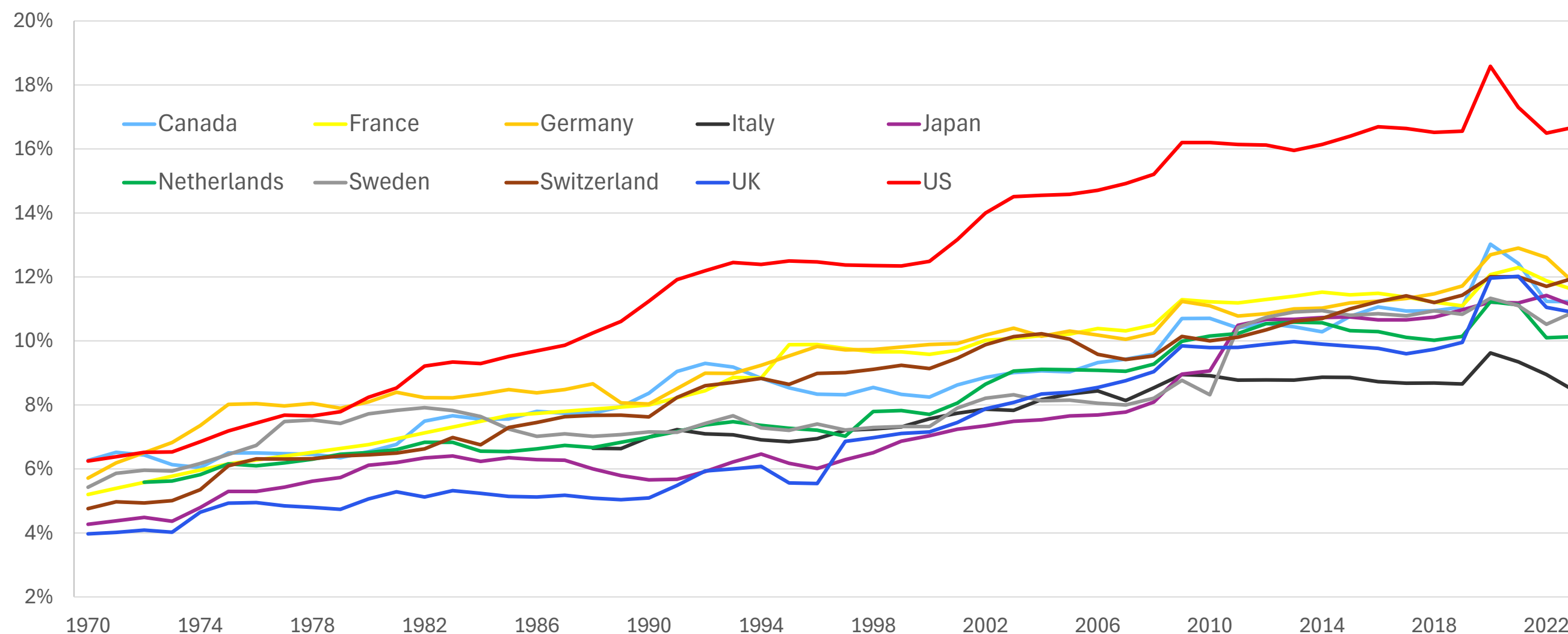
SCOPE OF ANALYSIS

- ❑ Our analysis is limited to high-income OECD countries with mature welfare states.
- ❑ Ten countries are included: Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, the UK, and the United States.
- ❑ We examine historical trends from 1970 to the present. Our projections extend to 2060.
- ❑ Our analysis focuses on aggregate personal healthcare spending, which in principle includes all categories of healthcare consumption. However, LTC is missing for some countries.

HISTORICAL SPENDING TRENDS

Since the Great Recession, the upward trend in healthcare spending as a share of the economy has moderated in most developed countries.

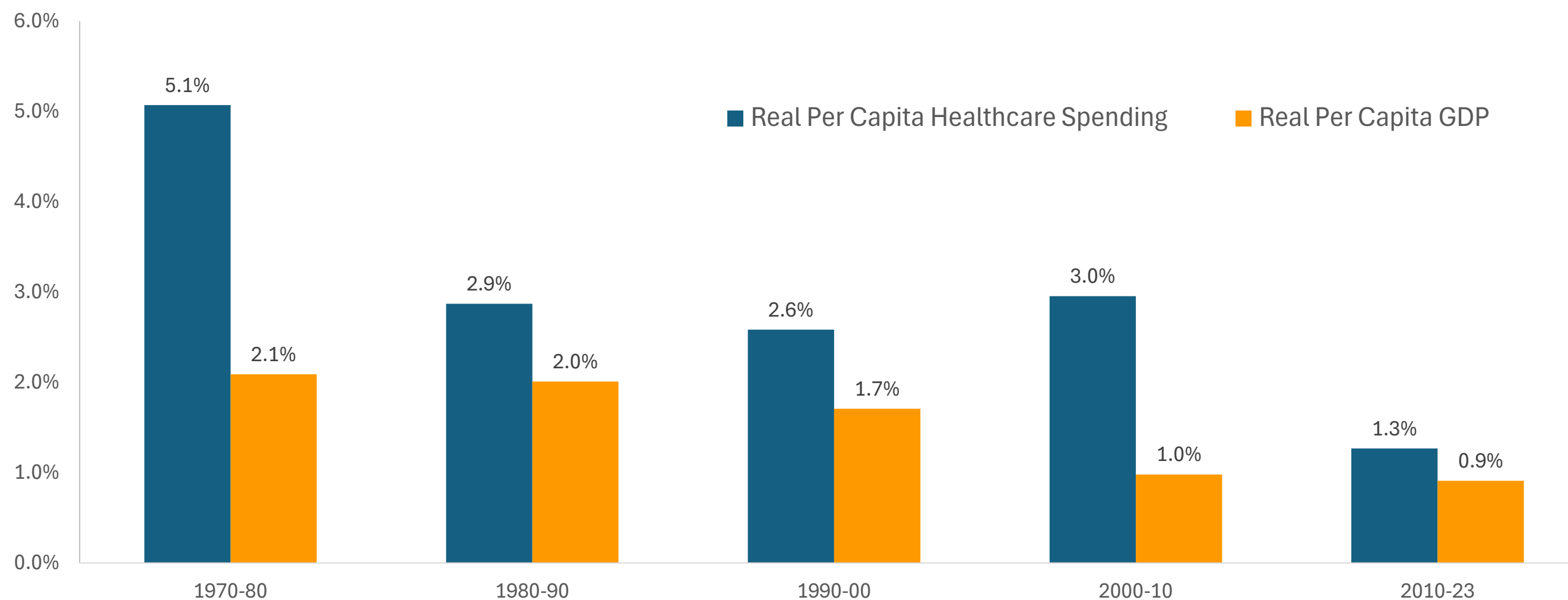
Personal Healthcare Spending as a Share of GDP, by Country, 1970-2023



Source: OECD Data Explorer

The growth in per capita healthcare spending has slowed relative to the growth in per capita GDP.

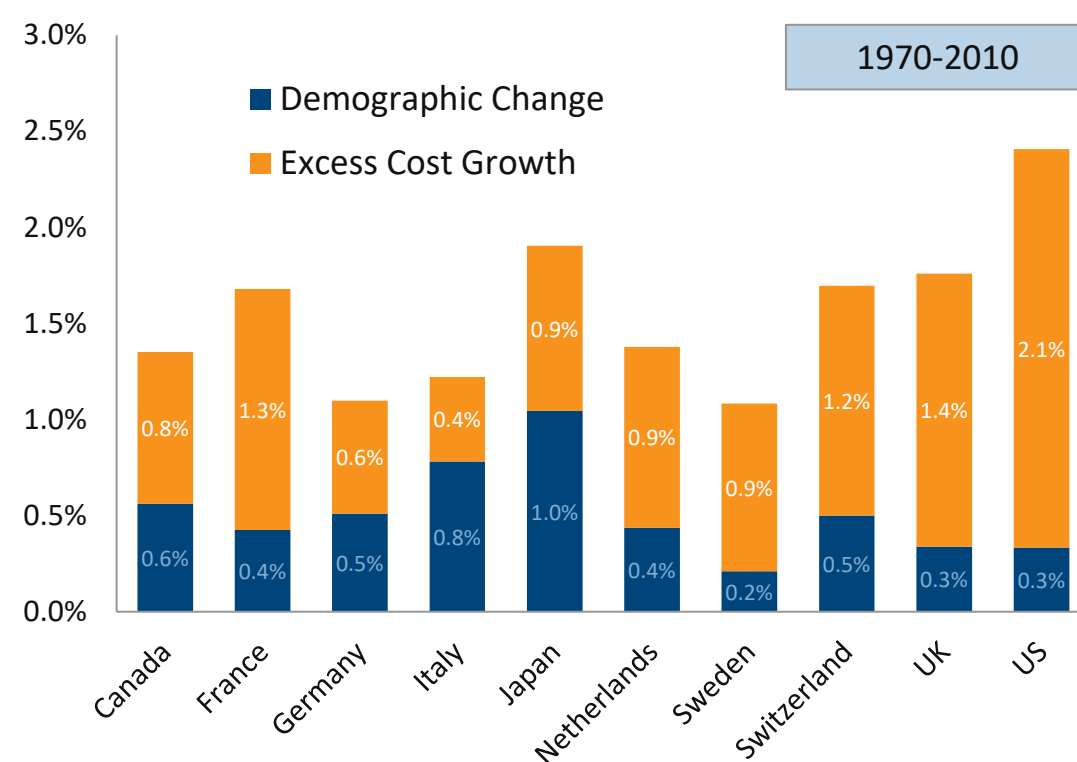
Growth Rate in Real Per Capita Personal Healthcare Spending and Real Per Capita GDP, Average for 10 OECD Countries, by Period, 1970-2023



Source: OECD Data Explorer and UN Population Division (2024)

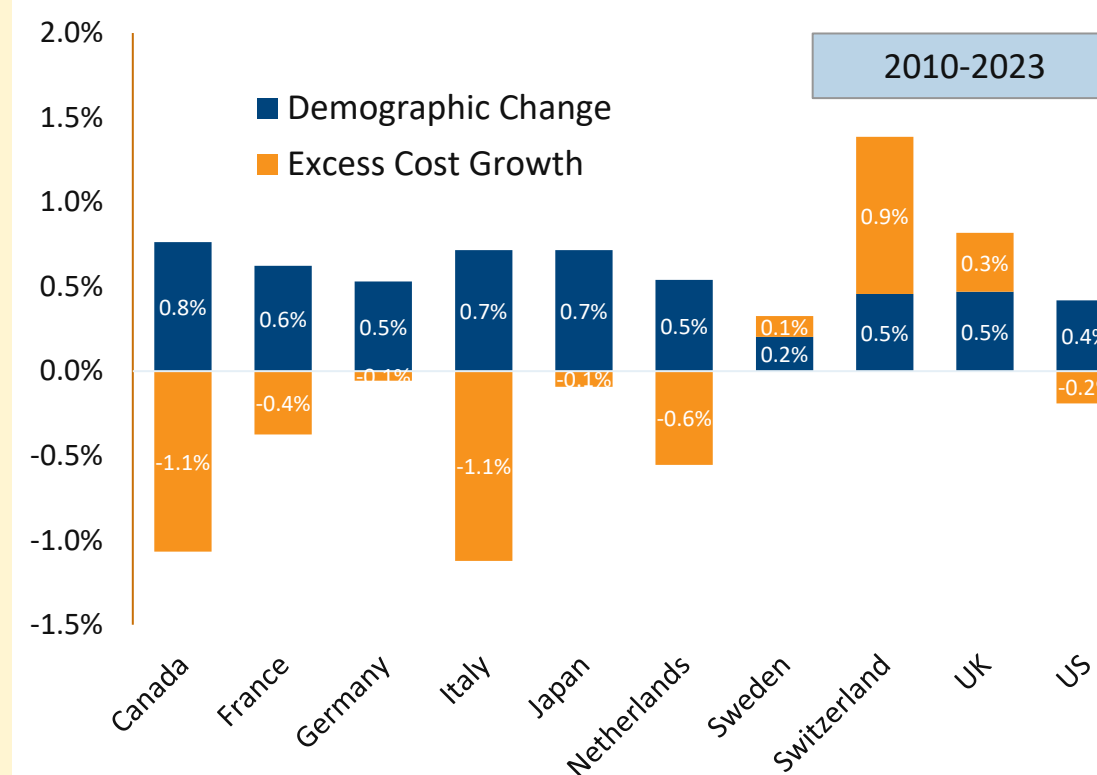
The growth in real healthcare spending as a share of GDP can be divided into two components: Growth due to demographic change and “excess cost growth.”

Growth Rate in Real Per Capita Personal Healthcare Spending Relative to Real Per Capita GDP, by Country and Component, 1970-2010



Source: OECD Data Explorer, UN Population Division (2024), and authors' calculations

Growth Rate in Real Per Capita Personal Healthcare Spending Relative to Real Per Capita GDP, by Country and Component, 2010-2023



Source: OECD Data Explorer, UN Population Division (2024), and authors' calculations

Note: “Excess Cost Growth” is a residual. It is the amount by which the growth in real per capita spending exceeds the growth in real per capita GDP after taking into account the impact of demographic change.

REASONS FOR THE SLOWDOWN

- ❑ The recent slowdown in healthcare spending is almost entirely due to reductions in “excess cost growth.”
- ❑ Most studies have concluded that lower “excess cost growth” is largely attributable to two developments: slower growth in income and more effective government cost-control measures. Improvements in healthcare sector productivity may also have played a role.
- ❑ There is no consensus among healthcare economists about whether the slowdown will be lasting.

LONG-TERM COST DRIVERS

The drivers of healthcare spending differ in the short term, medium term, and long term.

SHORT-TERM PROJECTIONS (1-3 years)

Short-term spending projections are based on such factors as provider/insurance contracts, healthcare budgets, case mix, utilization patterns, and government regulation.

MEDIUM-TERM PROJECTIONS (3-10 years)

Medium-term spending projections may also take into account the business cycle, changes in healthcare sector labor supply, and other industry trends.

LONG-TERM PROJECTIONS (10-30+ years)

Long-term spending projections are based on demographic trends and an assessment of the underlying factors contributing to “excess cost growth.”

Demographic Drivers: Population Aging and Population Health

Excess Cost Growth Drivers: Income Elasticity, Healthcare Productivity, Technological Change, Public Expectations, and Government Healthcare Policy

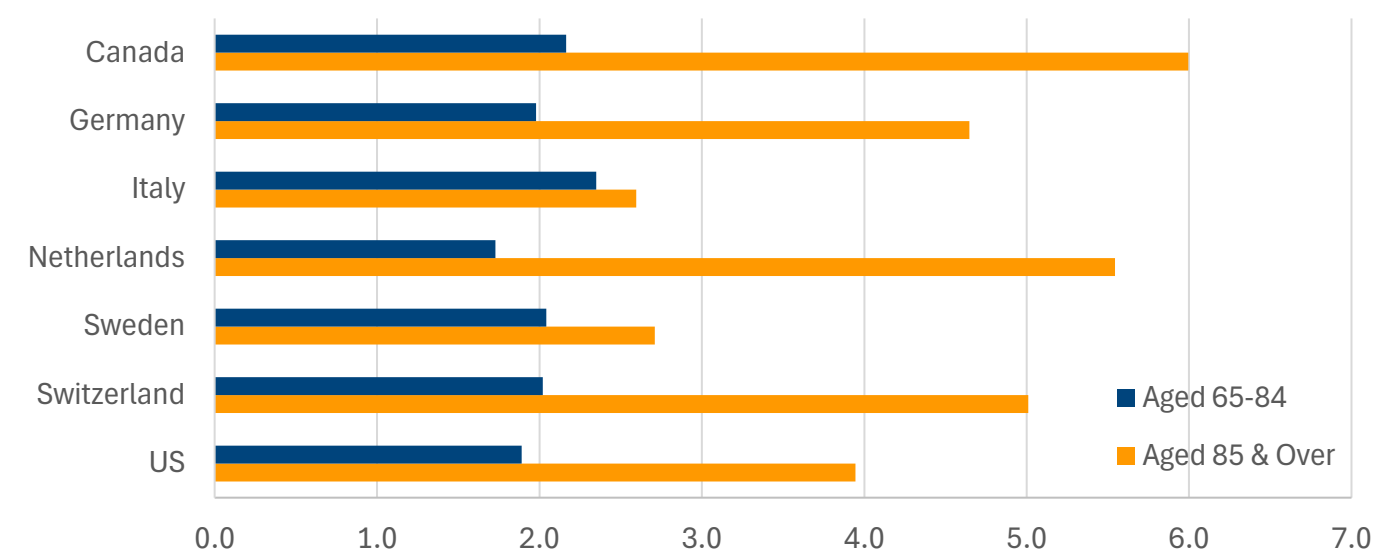
Demographic Drivers: POPULATION AGING

❑ The four age-related healthcare multipliers:

- The elderly consume more per capita in health-care services than the nonelderly.
- The elderly are the fastest growing segment of the population.
- The older the elderly are, the more healthcare they consume.
- The oldest elderly age brackets are the fastest growing of all.

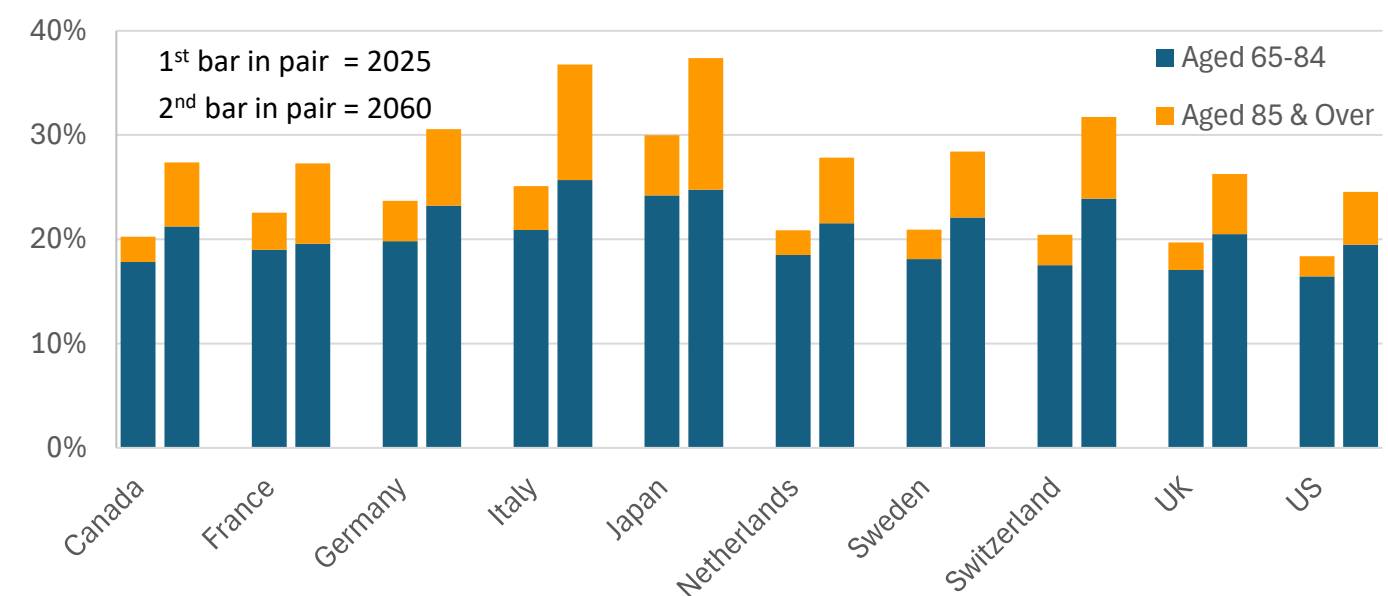
❑ As population aging has accelerated—and “excess cost growth” has slowed—demographic trends have become a relatively more important long-term driver of healthcare spending.

Relative Per Capita Cost of Healthcare Spending by the Elderly, by Elderly Age Group and Country, 2018 or Most Recent Available Year



Source: Morgan and Mueller (OECD, October 2023)

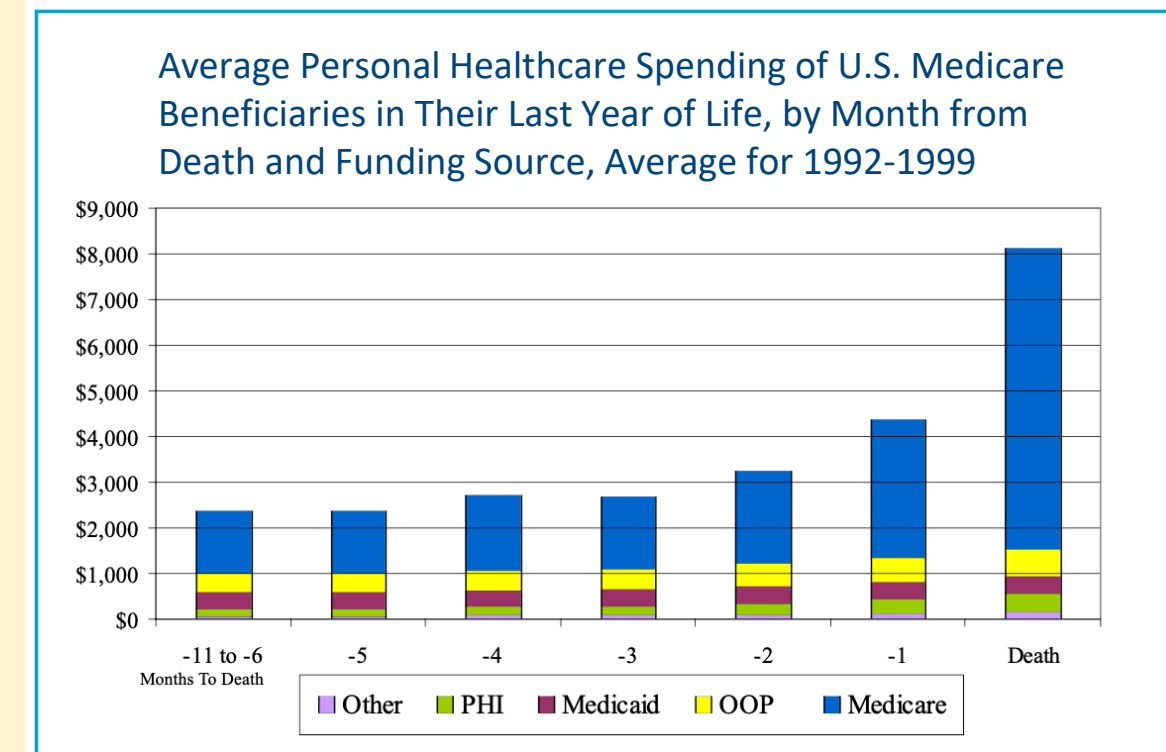
Elderly (Aged 65 & Over) as a Share of the Population, by Elderly Age Group and Country, 2025 and 2060



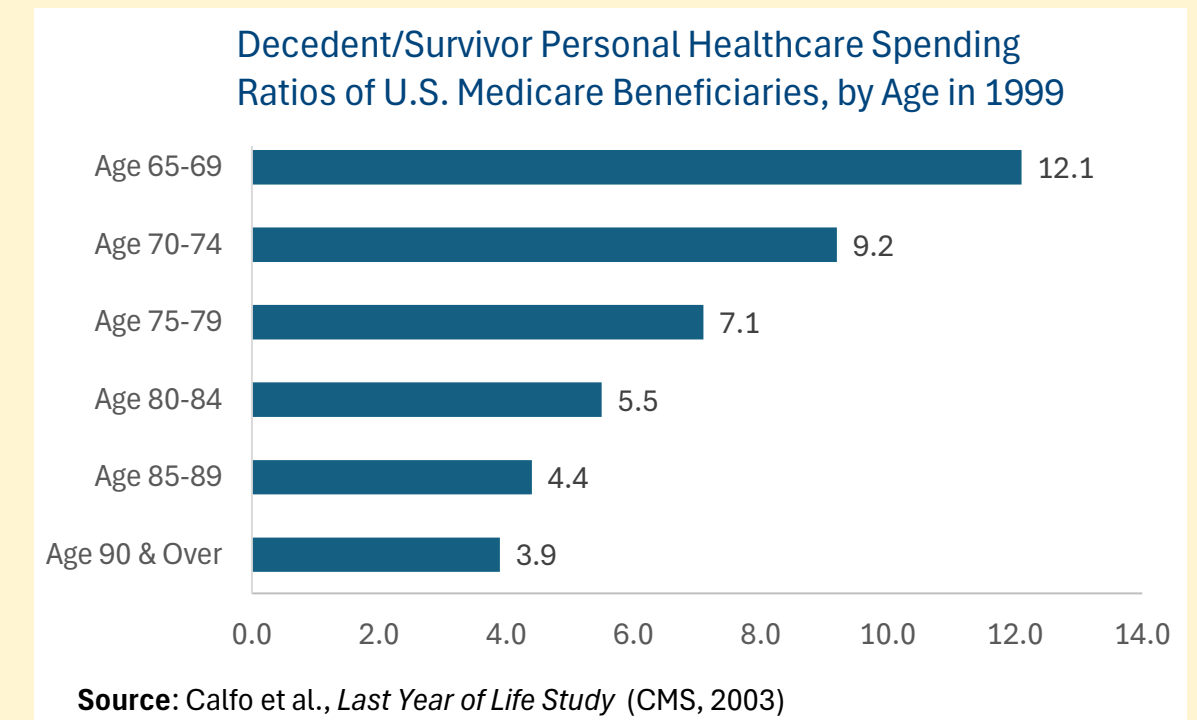
Source: UN Population Division (2024)

Demographic Drivers: POPULATION HEALTH

- ❑ Trends in health at older ages can mitigate or exacerbate the impact of population aging.
- ❑ Three possible future scenarios:
 - Expansion of Morbidity: Life expectancy rises faster than health expectancy, increasing the number of high-cost years.
 - Constant Morbidity: Health expectancy grows in tandem with life expectancy, leaving the number of high-cost years unchanged.
 - Compression of Morbidity: Healthy aging and/or biomedical advances cause health expectancy to rise faster than life expectancy, reducing the number of high-cost years.



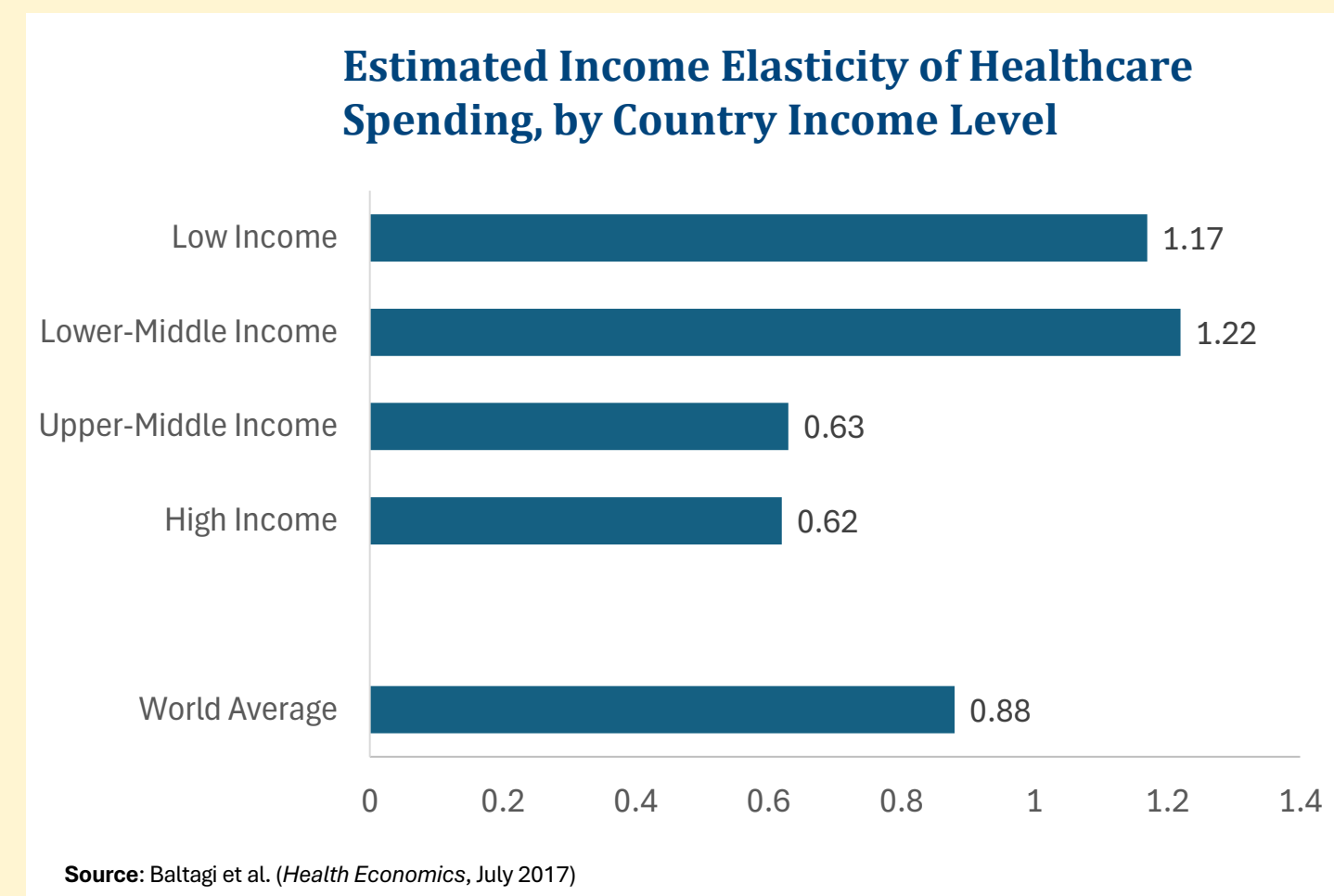
Source: MCBS Profiles (CMS, May 2003)



Source: Calfo et al., *Last Year of Life Study* (CMS, 2003)

Excess Cost Growth Drivers: INCOME ELASTICITY

- ❑ It is well established that there is a close relationship between a society's income level and how much it spends on healthcare.
- ❑ Poor societies spend little on healthcare as a share of GDP, developing ones spend more, and affluent ones spend most of all.
- ❑ There also appears to be a close relationship between income growth and healthcare spending growth. Several studies have concluded that slower GDP growth has contributed to slower healthcare spending growth since the Great Recession.
- ❑ The developed world's aging societies will likely continue to have slow-growth economies, which in turn suggests that income elasticity is likely to remain a negative driver in the future.



Excess Cost Growth Drivers: HEALTHCARE PRODUCTIVITY

- ❑ Industries with lower-than-average productivity growth tend to grow as a share of the economy. The dynamic is known as “Baumol’s cost disease.”
- ❑ Historically, healthcare sector productivity has been unusually resistant to productivity improvements. Most healthcare economists agree that this resistance has been a significant driver of “excess cost growth.”
- ❑ There is some evidence that this may be changing due to such developments as the adoption of EMR systems and the substitution of lower-cost healthcare professionals for physicians. It is possible that AI could also raise productivity growth in the future.

Estimate of Baumol’s Cost Disease Coefficient

$$\Delta \log(C^{NP}) = \lambda[\Delta \log(W) - \Delta \log(Y)]$$

$\Delta \log(C^{NP})$ = the change in unit costs in the non-productive sector (e.g., healthcare)

$\Delta \log(W)$ = the growth rate in wages in the overall economy

$\Delta \log(Y)$ = the growth rate in labor productivity (output per worker) in the overall economy

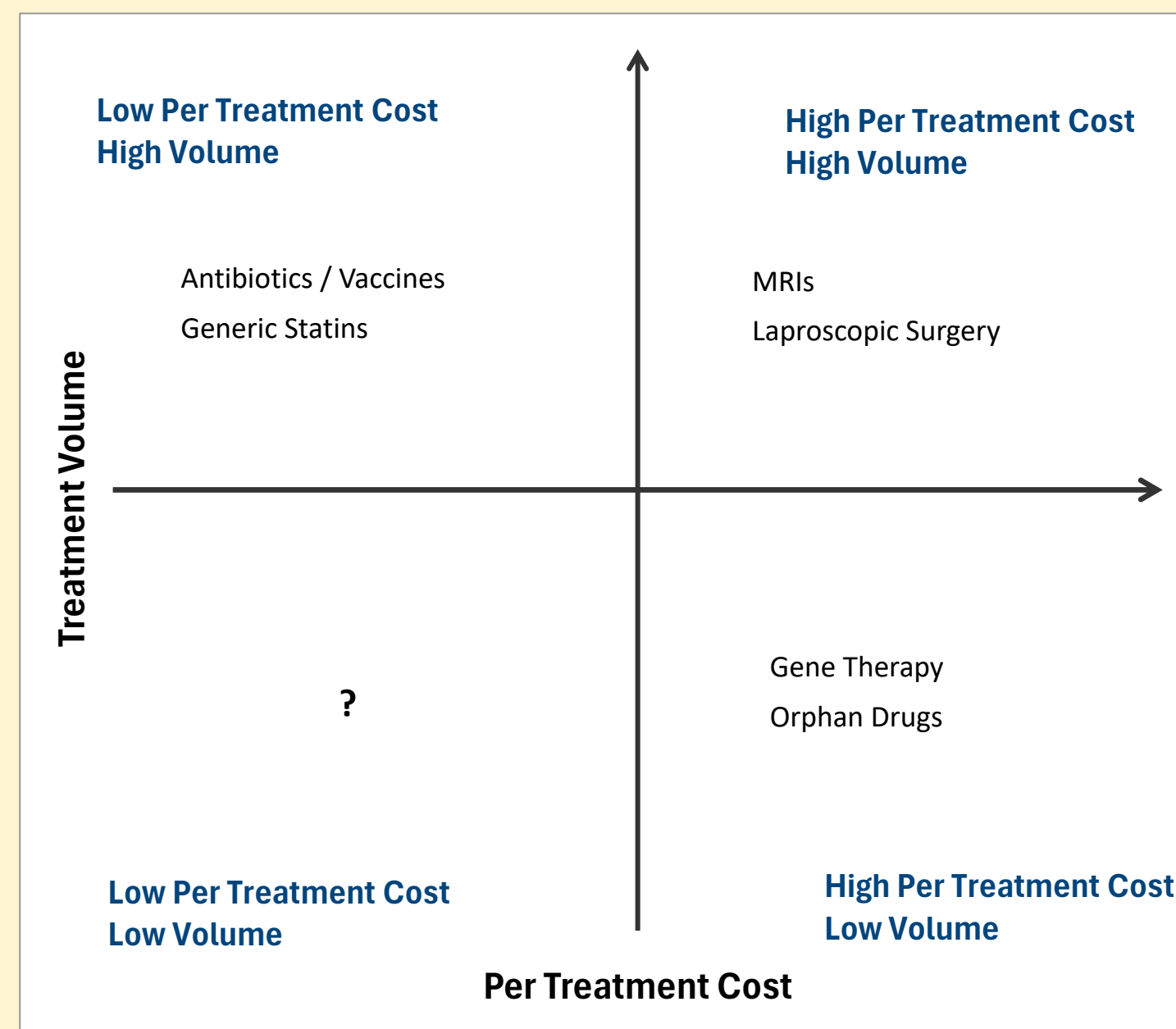
Excess Cost Growth Drivers: **TECHNOLOGICAL CHANGE**

❑ Historically, technological change in the healthcare sector has usually added to costs.

- New technologies tend to be additive rather than to substitute for old technologies.
- Even when new technologies reduce per treatment costs, they may increase treatment volume by allowing earlier detection of disease, treatment of subtler degrees of morbidity, and/or less invasive procedures.
- Advances in biomedicine allow ever-greater customization of medical interventions.

❑ In recent years, there is some evidence that the more efficient use of new technologies, along with government policies that limit the diffusion of those technologies, may be making technological change a less potent cost driver.

Technological Change & Healthcare Costs



Excess Cost Growth Drivers: EXPECTATIONS & POLICY

PUBLIC EXPECTATIONS

- ❑ Good health is not a fixed goal, but a subjective standard that rises over time as societies become more affluent, better educated, and less tolerant of risk or “bad health.”
- ❑ Widespread patient access to information about the latest tests and treatments makes it more difficult for providers or governments to set limits.
- ❑ As growing public expectations interact with medical advances, healthcare is becoming a lifelong process of diagnostics and finetuning in which any extra dollar or euro or yen spent is likely to confer some perceived benefit.
- ❑ All of this is likely to put upward pressure on future healthcare spending.

GOVERNMENT HEALTHCARE POLICY

- ❑ Much of the recent slowdown in healthcare spending growth is attributable to government cost-control efforts. These include:
 - Shifting to reimbursement policies that reward the “value” rather than volume of services
 - Encouraging greater efficiency through reductions in hospital re-admissions, emergency room utilization, etc.
 - Making more effective use of global budgeting enforced by price controls and/or volume controls
 - Stressing prevention and healthy lifestyles
- ❑ Such cost-control efforts are likely to intensify as aging societies with slow-growth economies face increasing fiscal constraints. They may also collide with rising public expectations.

PROJECTION SCENARIOS

All other things being equal, population aging alone will drive up healthcare spending as a share of GDP.

ASSUMPTIONS

Demographics:

Constant morbidity scenario

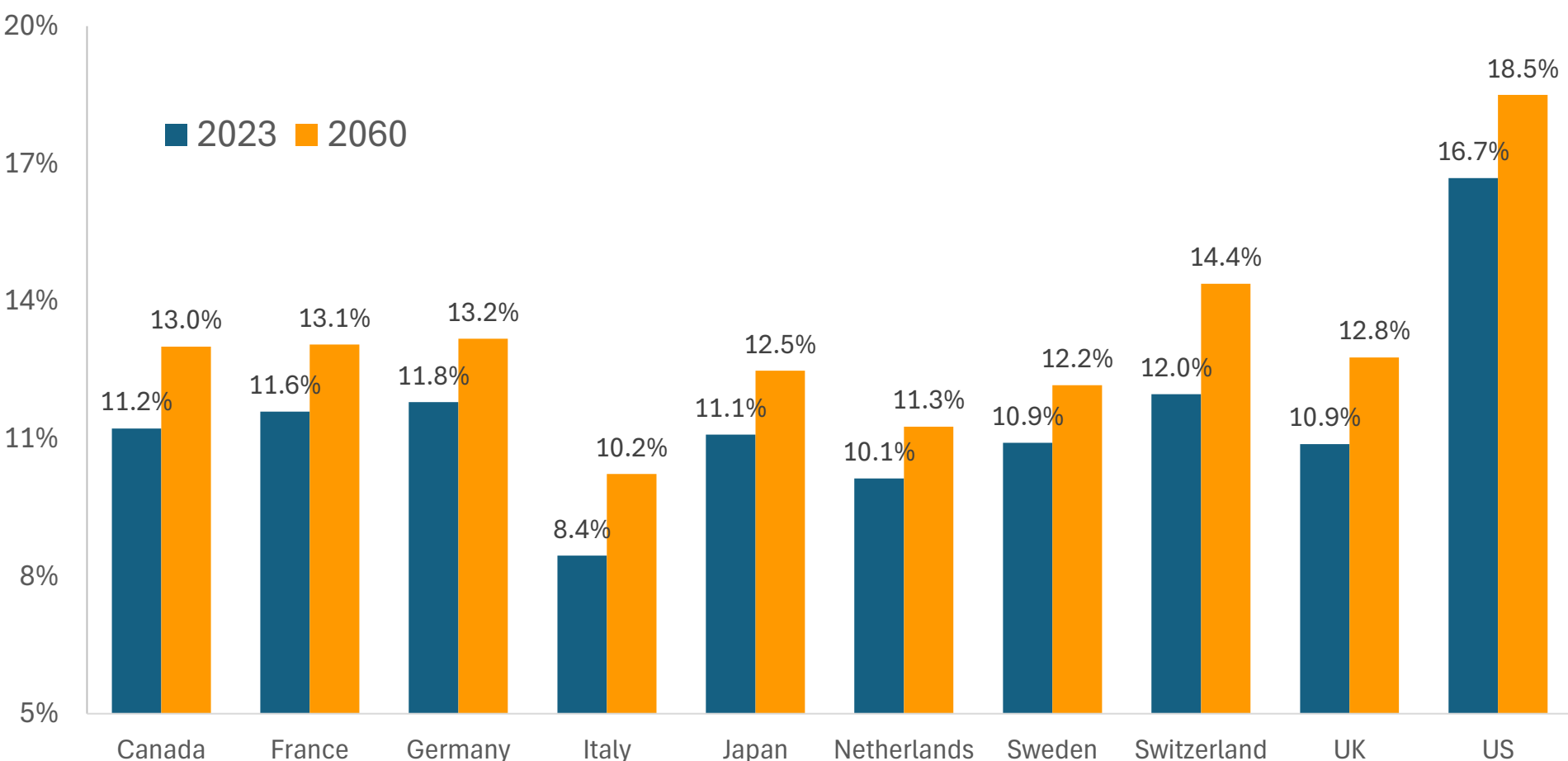
Excess Cost Growth:

Income Elasticity: 1.0

Healthcare Productivity: 0

Technological Change, Expectations & Policy 0

Personal Healthcare Spending as a Share of GDP, by Country, 2023 and Projection for 2060 Assuming No Excess Cost Growth



Source: Authors' calculations

THREE SCENARIOS FOR HEALTHCARE SPENDING

ASSUMPTIONS

Demographics:

<u>Effective Cost Control:</u>	Compression of Morbidity
<u>Moderate Cost Pressure:</u>	Constant Morbidity
<u>High Cost Pressure:</u>	Expansion of Morbidity

Excess Cost Growth:

Effective Cost Control:

Income Elasticity	0.73
Healthcare Productivity	0.2
Technological Change, Expectations & Policy	0.0025

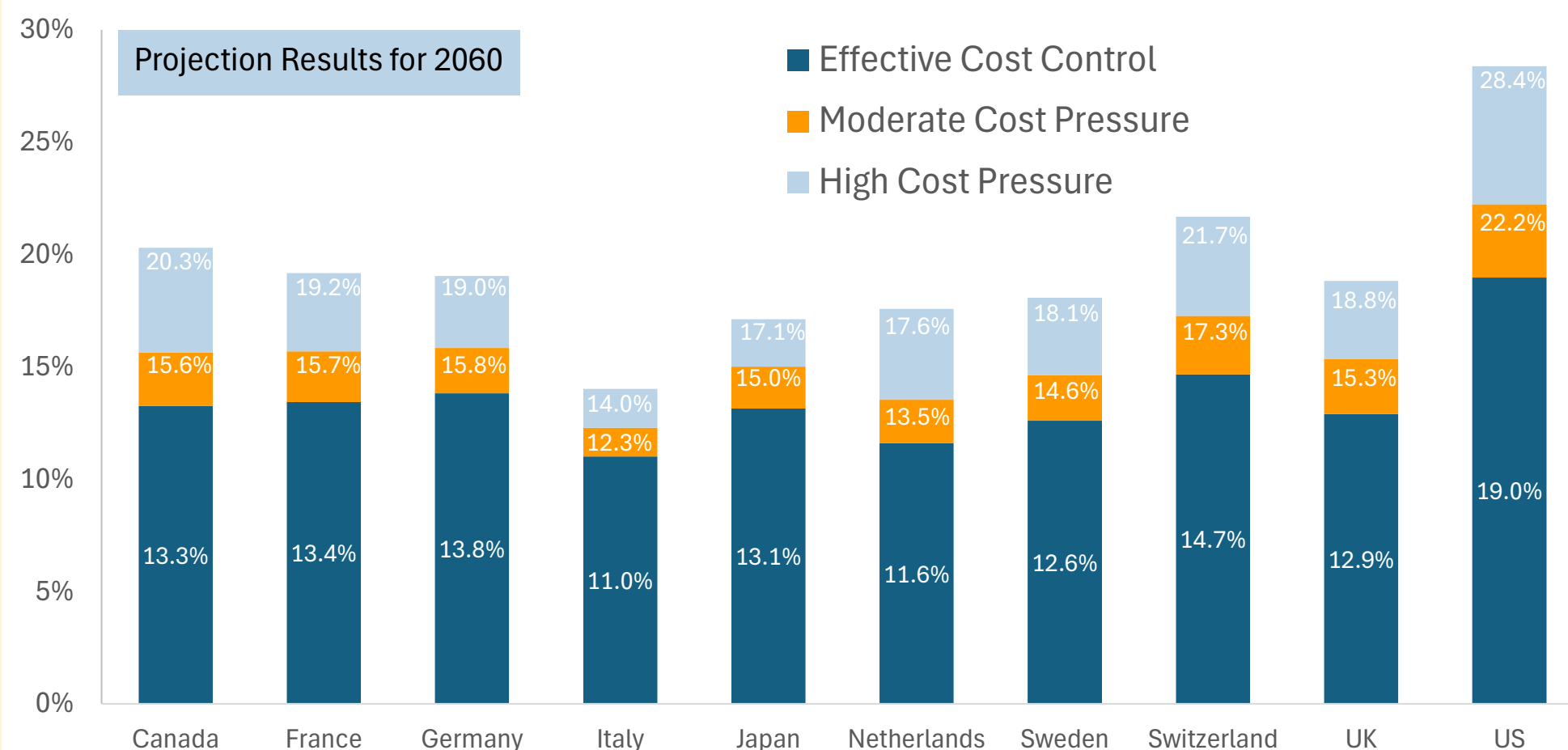
Moderate Cost Pressure:

Income Elasticity	0.73
Healthcare Productivity	0.265
Technological Change, Expectations & Policy	0.005

High Cost Pressure:

Income Elasticity	0.73
Healthcare Productivity	0.4
Technological Change, Expectations & Policy	0.0075

Personal Healthcare Spending as a Share of GDP in 2060, by Country and Projection Scenario



Source: Authors' calculations

PROJECTION RESULTS

Personal Healthcare Spending as a Share of GDP, by Country and Scenario, 2023-2060

	2023	2030	2040	2050	2060		2023	2030	2040	2050	2060
CANADA						NETHERLANDS					
No Excess Cost Growth	11.2%	11.9%	12.4%	12.7%	13.0%	No Excess Cost Growth	10.1%	10.5%	10.9%	11.0%	11.3%
Effective Cost Control	11.2%	11.8%	12.4%	12.8%	13.3%	Effective Cost Control	10.1%	10.5%	11.0%	11.2%	11.6%
Moderate Cost Pressure	11.2%	12.3%	13.4%	14.5%	15.6%	Moderate Cost Pressure	10.1%	10.9%	11.9%	12.6%	13.5%
High Cost Pressure	11.2%	12.8%	15.3%	18.0%	20.3%	High Cost Pressure	10.1%	11.3%	13.4%	15.5%	17.6%
FRANCE						SWEDEN					
No Excess Cost Growth	11.6%	12.2%	12.8%	13.0%	13.1%	No Excess Cost Growth	10.9%	11.2%	11.6%	11.7%	12.2%
Effective Cost Control	11.6%	12.2%	12.8%	13.1%	13.4%	Effective Cost Control	10.9%	11.3%	11.8%	12.1%	12.6%
Moderate Cost Pressure	11.6%	12.6%	13.9%	14.8%	15.7%	Moderate Cost Pressure	10.9%	11.6%	12.6%	13.4%	14.6%
High Cost Pressure	11.6%	13.1%	15.3%	17.3%	19.2%	High Cost Pressure	10.9%	12.1%	13.9%	15.7%	18.1%
GERMANY						SWITZERLAND					
No Excess Cost Growth	11.8%	12.5%	13.1%	13.2%	13.2%	No Excess Cost Growth	12.0%	12.7%	13.7%	14.1%	14.4%
Effective Cost Control	11.8%	12.5%	13.2%	13.6%	13.8%	Effective Cost Control	12.0%	12.7%	13.6%	14.2%	14.7%
Moderate Cost Pressure	11.8%	12.9%	14.3%	15.1%	15.8%	Moderate Cost Pressure	12.0%	13.2%	14.9%	16.2%	17.3%
High Cost Pressure	11.8%	13.3%	15.2%	17.4%	19.0%	High Cost Pressure	12.0%	13.6%	16.2%	19.0%	21.7%
ITALY						UNITED KINGDOM					
No Excess Cost Growth	8.4%	9.0%	9.9%	10.2%	10.2%	No Excess Cost Growth	10.9%	11.3%	12.0%	12.3%	12.8%
Effective Cost Control	8.4%	9.1%	10.2%	10.8%	11.0%	Effective Cost Control	10.9%	11.3%	11.9%	12.3%	12.9%
Moderate Cost Pressure	8.4%	9.3%	10.7%	11.7%	12.3%	Moderate Cost Pressure	10.9%	11.7%	13.0%	14.1%	15.3%
High Cost Pressure	8.4%	9.5%	11.4%	12.8%	14.0%	High Cost Pressure	10.9%	12.2%	14.3%	16.6%	18.8%
JAPAN						UNITED STATES					
No Excess Cost Growth	11.1%	11.4%	11.9%	12.4%	12.5%	No Excess Cost Growth	16.7%	17.4%	17.8%	18.1%	18.5%
Effective Cost Control	11.1%	11.5%	12.1%	12.8%	13.1%	Effective Cost Control	16.7%	17.4%	18.0%	18.4%	19.0%
Moderate Cost Pressure	11.1%	11.8%	12.9%	14.1%	15.0%	Moderate Cost Pressure	16.7%	18.0%	19.4%	20.7%	22.2%
High Cost Pressure	11.1%	12.2%	13.7%	15.5%	17.1%	High Cost Pressure	16.7%	18.7%	21.9%	25.0%	28.4%

Thank you! Obrigado!

Questions?

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