



# PHIRI

Population Health Information  
Research Infrastructure

## Health system resilience

Task 8.4:

COVID-19 related international  
guidelines, initiatives, projects and  
information sources

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REF meeting

27th March, 2023



# Ready for the Next Crisis? Investing in Health System Resilience – OECD Health Policy Studies 23 Feb 2023

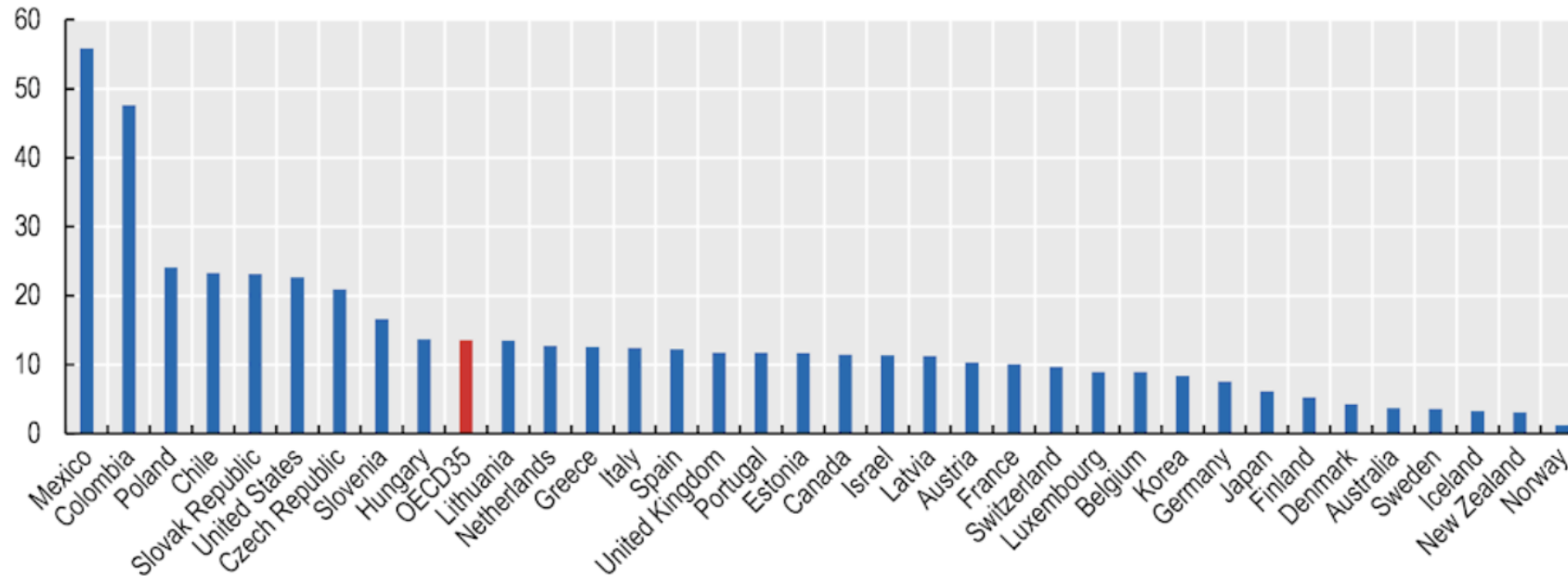
<https://doi.org/10.1787/1e53cf80-en>

- The COVID-19 pandemic is a tragedy. Over **6.8 million deaths** due to COVID-19 were reported worldwide in January 2023.
- Analysis of **excess mortality** suggests that as many as **18 million people may have died worldwide because of the pandemic** by the end of 2021.
- **Life expectancy decreased** in many OECD countries in 2020 and 2021.
- There was widespread disruption to society and education. GDP dropped by 4.7% in 2020 across OECD economies.
- Building the resilience of the health systems has never been more urgent. **Resilience entails much more than planning for a crisis.** Resilience helps to **absorb shocks and accelerates recovery.**
- Importantly, health systems can enhance resilience by **learning lessons which lead to better adaptation in a crisis.**

# Excess mortality

Figure 1.1. **Excess mortality in 2020-21 across OECD countries**

Percentage increase in total deaths in 2020-2021 (compared to 2015-2019)

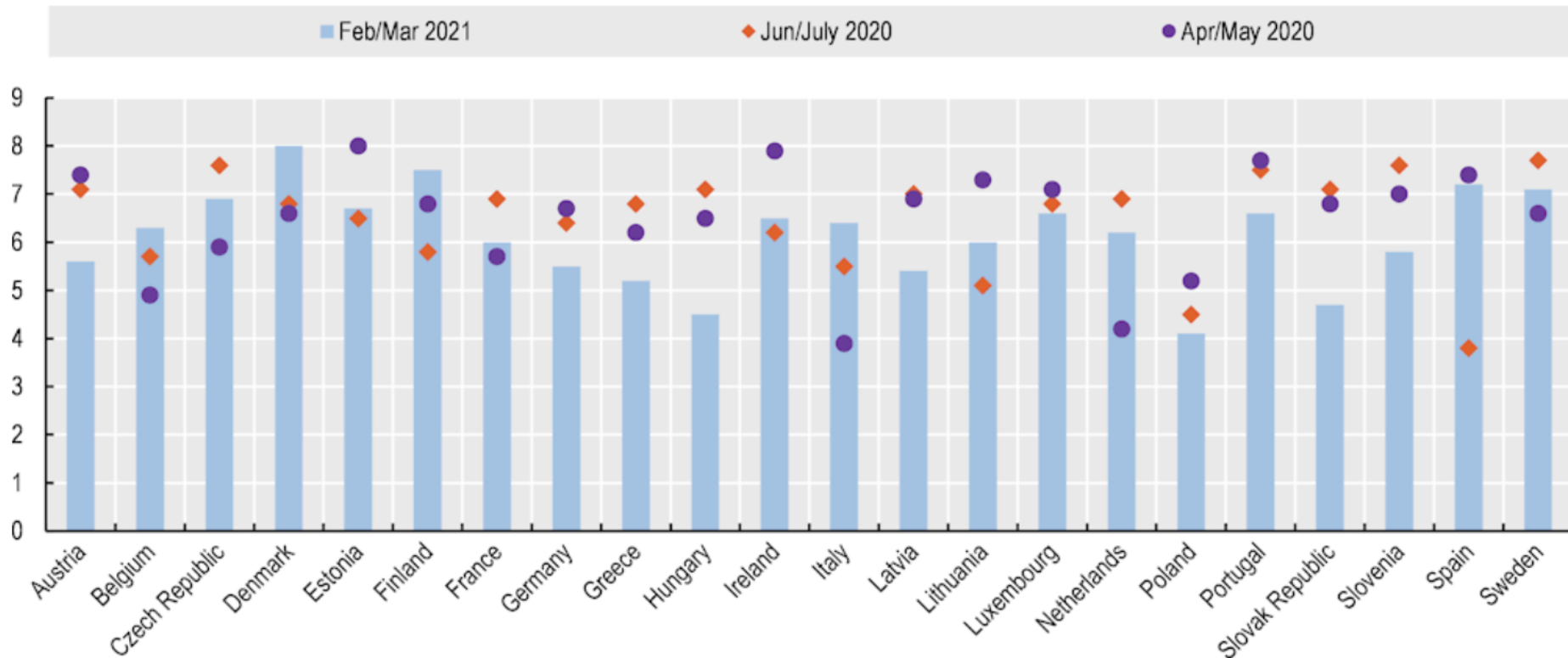


Note: Excess mortality is calculated by comparing the average annual deaths in 2020-21 with the annual average for 2015-19. Data for Colombia until week 35 in 2021 are included. No mortality data are available for Costa Rica, Ireland and Türkiye for 2020-21. OECD average is unweighted. Comparator years to calculate the percentage increase in total deaths are 2015-19.

Source: OECD (2022[3]), OECD Health Statistics, <https://doi.org/10.1787/health-data-en>, based on Eurostat data and national data.

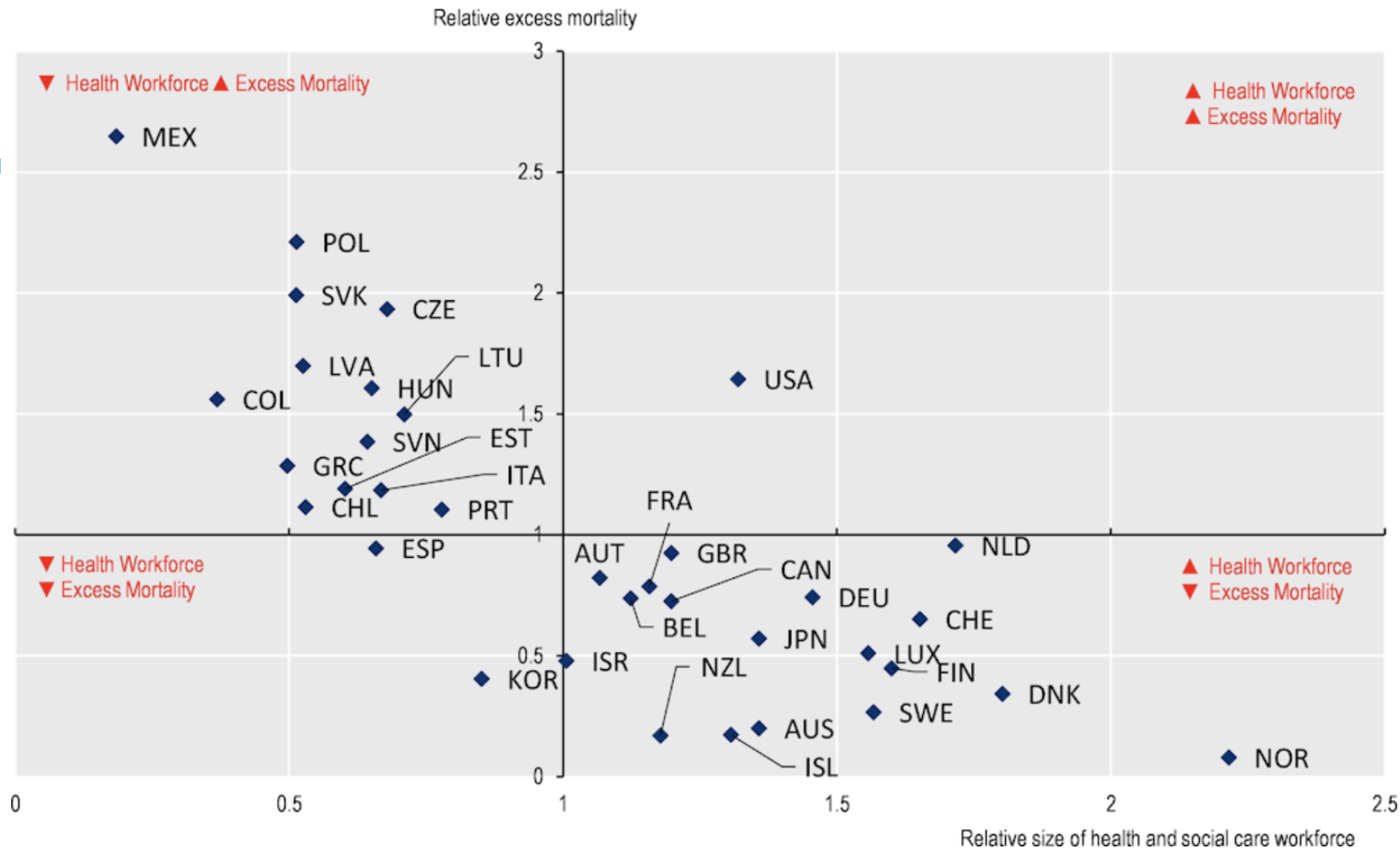
# Declining trust in healthcare system

Figure 1.14. Declining trust in healthcare systems, selected countries



Source: Eurofound (2022) presented in de Bienassis (2023[47]), "Advancing patient safety governance in the COVID-19 response", <https://doi.org/10.1787/9b4a9484-en>.

Figure 1.8. Higher numbers of health and social care employees associated with lower excess mortality



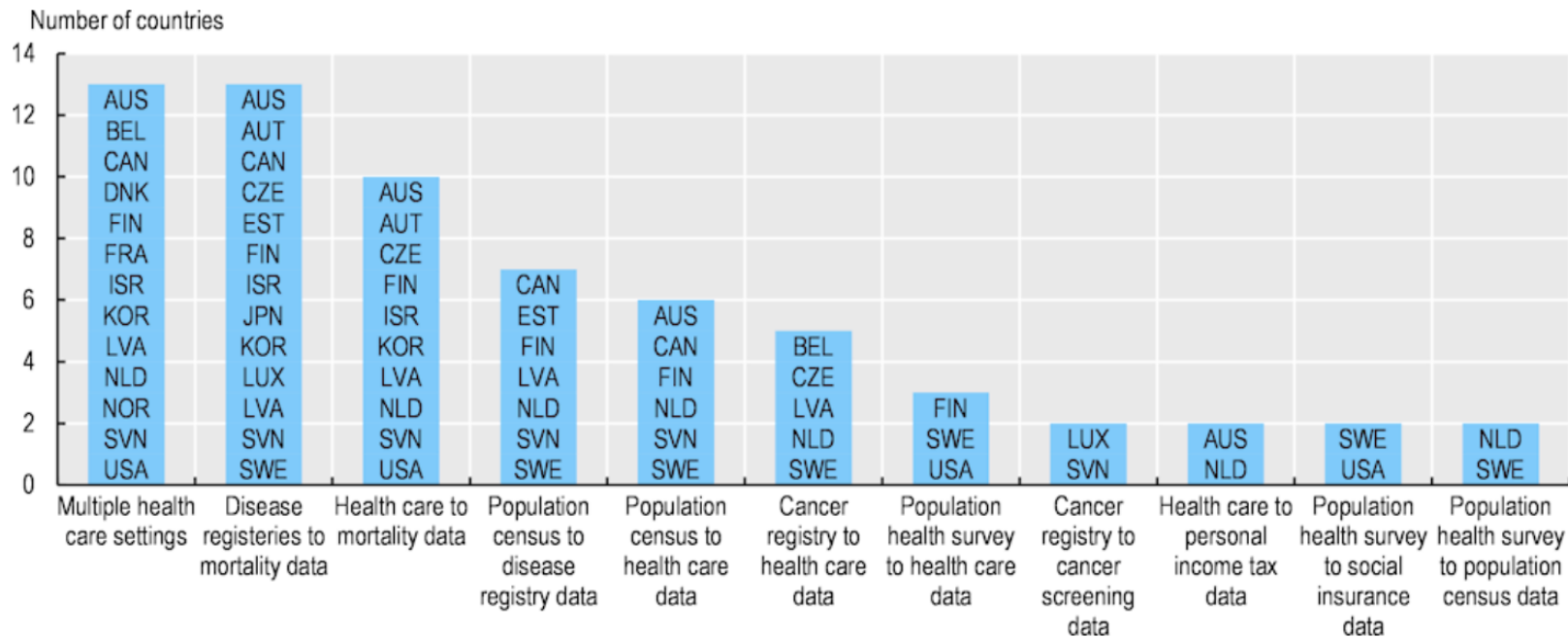
# Number of health and social care employees vs excess mortality

Note: The quadrant chart shows the association between the health and social care workforce and excess mortality. The x-axis shows how much a country is above or below the OECD average for total health and social employment in 2019 (per 1 000 population); the y-axis shows a country's distance from the OECD average excess mortality rate for 2020-21. Note that this analysis does not adjust for other factors; nor does it necessarily infer causality.

Source: OECD (2022[3]), OECD Health Statistics, <https://doi.org/10.1787/health-data-en>.

# Prior to the pandemic, data infrastructure within the health system was fragmented

Figure 1.4. OECD countries able to link data across multiple settings before the pandemic



Source: Adapted from Oderkirk (2021[24]), "Survey results: National health data infrastructure and governance", <https://doi.org/10.1787/55d24b5d-en>.

- Only 13 OECD countries were able to link data across multiple settings within the health system.
- A smaller number had real-time data available for some data collections.



# The pandemic provided lessons on what worked

- OECD countries implemented **whole-of-society responses**, including through containment and mitigation measures.
- **Surge capacity for critical care was raised** – an 8% increase in critical care beds occurred in 2020 – while other care, such as elective surgery, was deferred.
- **Health data availability and timeliness improved.**
- **Flexibility and agility in the health care workforce** facilitated new care models and increases in crucial activities such as critical care and vaccination.
- **Telehealth** was a positive transformation, with a dramatic increase in the proportion of adults who had a medical consultation online or by phone. By early 2021, almost one in two adults had consulted their physician remotely in 22 reporting OECD countries.

# Still struggling to recover - The legacy of the pandemic could endure for decade

However, populations and health systems in many countries are **struggling to recover fully as 2023 begins**. Disruptions in care, COVID-19 infections and the challenge of post-COVID-19 syndrome or “long COVID” continue to burden health systems.

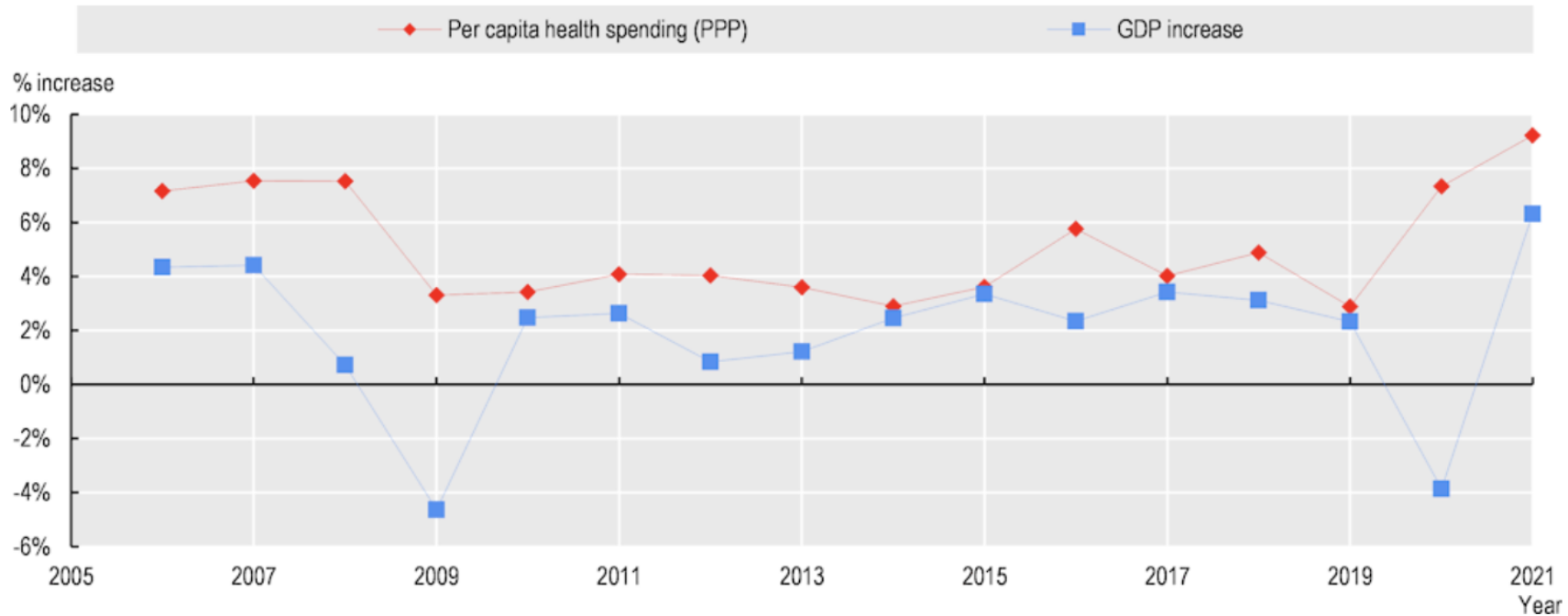
Three major vulnerabilities weakened health system resilience.

- Health systems were **underprepared**.
- Health systems were **understaffed**.
- Health systems suffered from **underinvestment** (Boosting the resilience of health systems requires an annual targeted investment of 1.4% of GDP across OECD countries relative to expenditure in 2019. The major investment, approximately half, should be in the health workforce.)



# Increase in per capita health spending

Figure 1.7. **Increases in health expenditure as the shock of the pandemic was absorbed in OECD countries, 2020**



Note: Only OECD countries (20) with data for the complete series are included in the analysis. An unweighted average of the annual percentage increase for OECD countries was calculated. 2021 figures are provisional. Current purchasing power parity (PPP) was used for health spending increase calculations.

Source: OECD (2022[3]), OECD Health Statistics, <https://doi.org/10.1787/health-data-en>.

# Six policy recommendations to improve health system resilience (1-2)

## 1. Promote health of the population: vulnerable populations make for vulnerable health systems

**Promoting healthier lifestyles** and addressing wider determinants of poor health – including poverty and unemployment – are critical to mitigating the impact of future shocks on health systems. A **strong primary care system** offering universal health coverage helps to improve health prior to a crisis.

## 2. Promote workforce retention and recruitment: staff are the key to making systems resilient

A proportionally larger number of health and social care workers in an OECD country was associated with relatively better outcomes.

# Six policy recommendations to improve health system resilience (3-4)

## 3. Promote data collection and use: without the right data, decision makers are flying blind

Prior to the pandemic, digital infrastructure was fragmented. **Investing in digital infrastructure** will also improve health system performance between crises. For future crises, **data will need to be collected and linked beyond the health system**, taking into account the interdependencies that arise during a crisis.

## 4. Promote international co-operation: responses will be better together than alone

A **stronger international surveillance system** with continuous information gathering, risk assessment and rapid co-ordination of responses would have facilitated a quicker response. Credible governance frameworks, enforceable commitment mechanisms, and stable long-term funding would facilitate the equitable distribution and use of essential products (personal protective equipment, vaccines, surveillance).

## six policy recommendations to improve health system resilience (5-6)

### 5. Promote supply chain resilience: getting products and services when and where they are needed

The lack of personal protective equipment was devastating. **More detailed information on supplies, suppliers** and countries of origin of finished products and key inputs are needed to better assess risks and prepare for crises. **Investing in more resilient supply chains** will not only improve outcomes during crises but also encourage predictability and reliability between times of disruption.

### 6. Promote governance and trust: without trust, whole-of-society responses are less effective

Governance structures need to reflect the reality that the whole-of-society is involved in addressing large shocks. **Trust in institutions is necessary for whole-of-society responses.** Misinformation and disinformation have the potential to undermine societal responses.

# Resilience is a function of system performance – beyond healthcare

- Resilience is a function of system performance and **cannot be engineered in silos**. Improving one domain without the others may not improve resilience.
- All resilience analysis requires **stakeholders to adopt a perspective that recognises the connections between systems** - interdependency - and the need to go beyond risk, to absorb, recover from and adapt to disruption.
- Multiple **sub-systems must work together** for any system to be resilient. A generic conceptualisation of the sub-systems includes, but is not necessarily limited to, the following domains:
  1. physical – equipment and facilities
  2. information – data
  3. cognitive – understanding and decision making
  4. social – interactions between actors.