

Climate Change and Human Health

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in Pacific on the WMA Declaration of Helsinki

November 30, 2023

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INTERGOVERNMENTAL PANEL ON climate change

Climate Change 2022

Impacts, Adaptation and Vulnerability

Summary for Policymakers

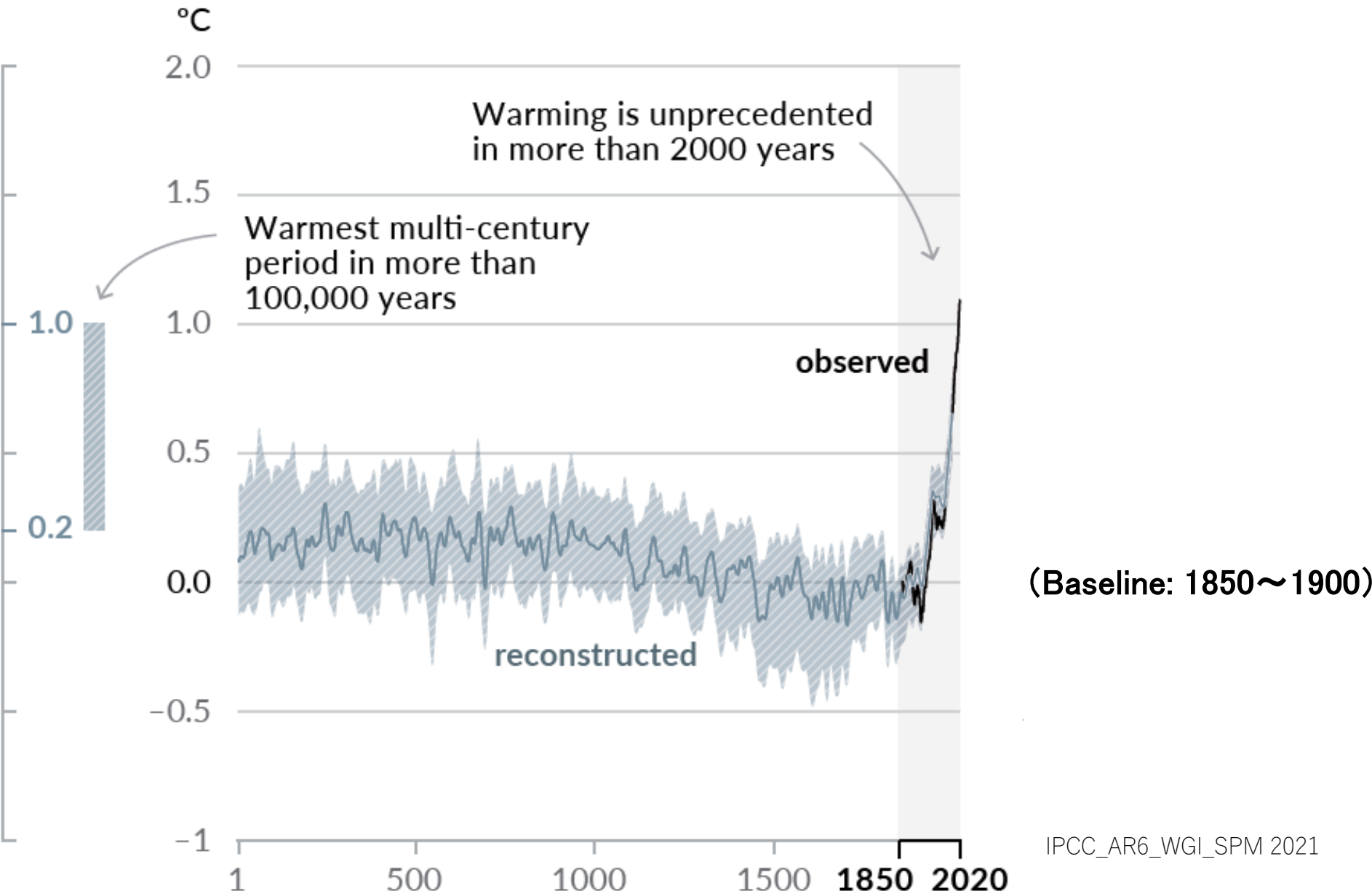


WGII

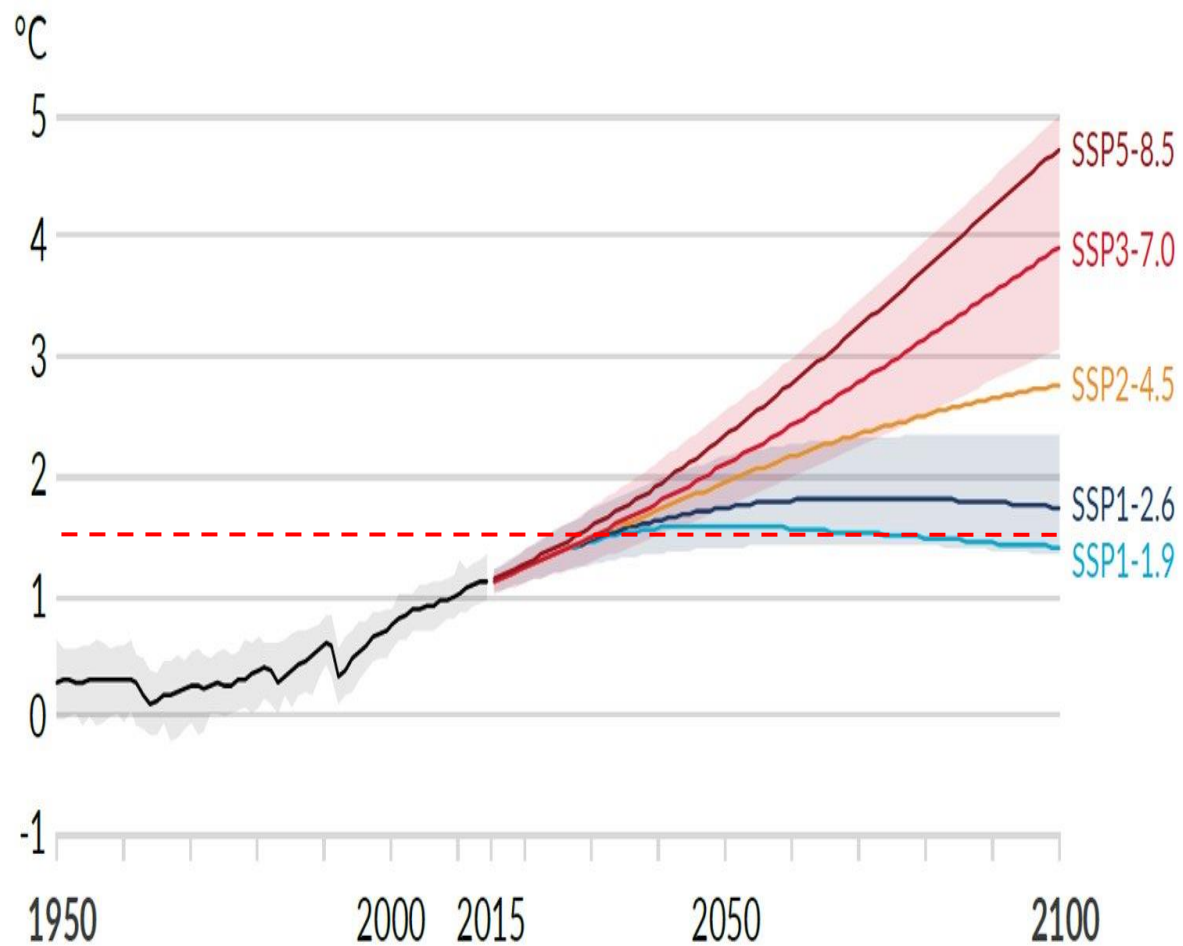
Working Group II contribution to the
Sixth Assessment Report of the
Intergovernmental Panel on Climate Change



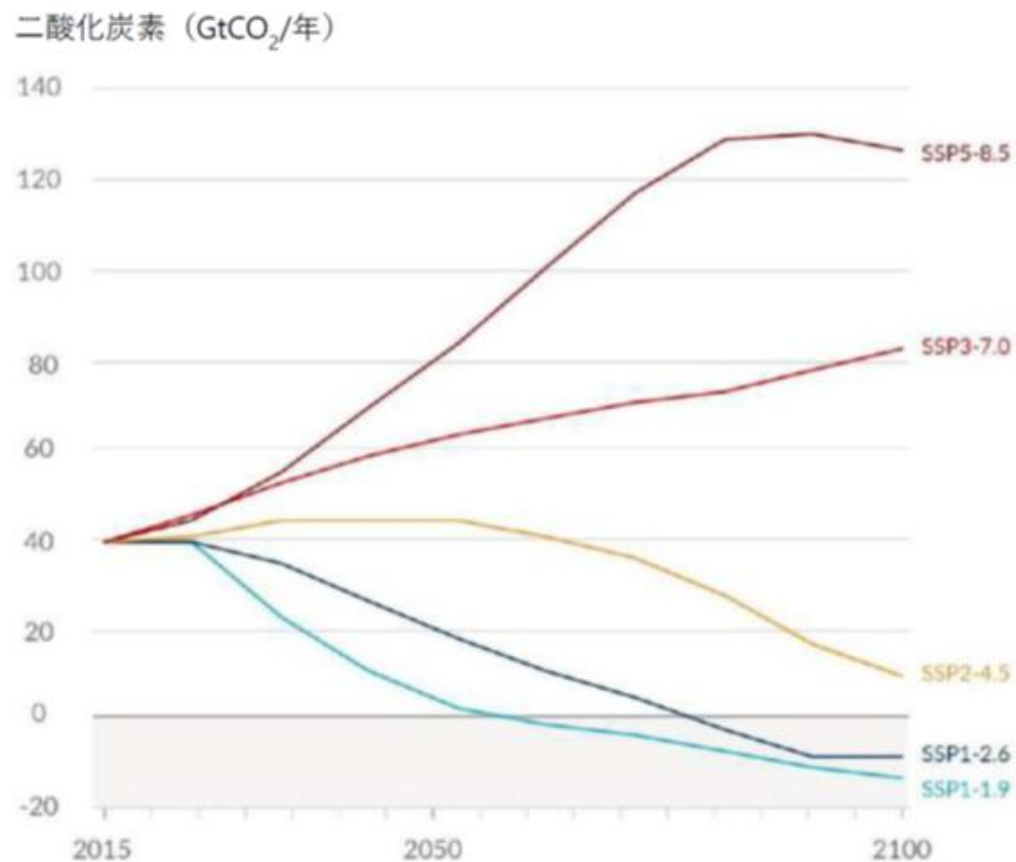
(a) Change in global surface temperature (decadal average) as **reconstructed** (1-2000) and **observed** (1850-2020)



Global surface temperature change relative to 1850-1900

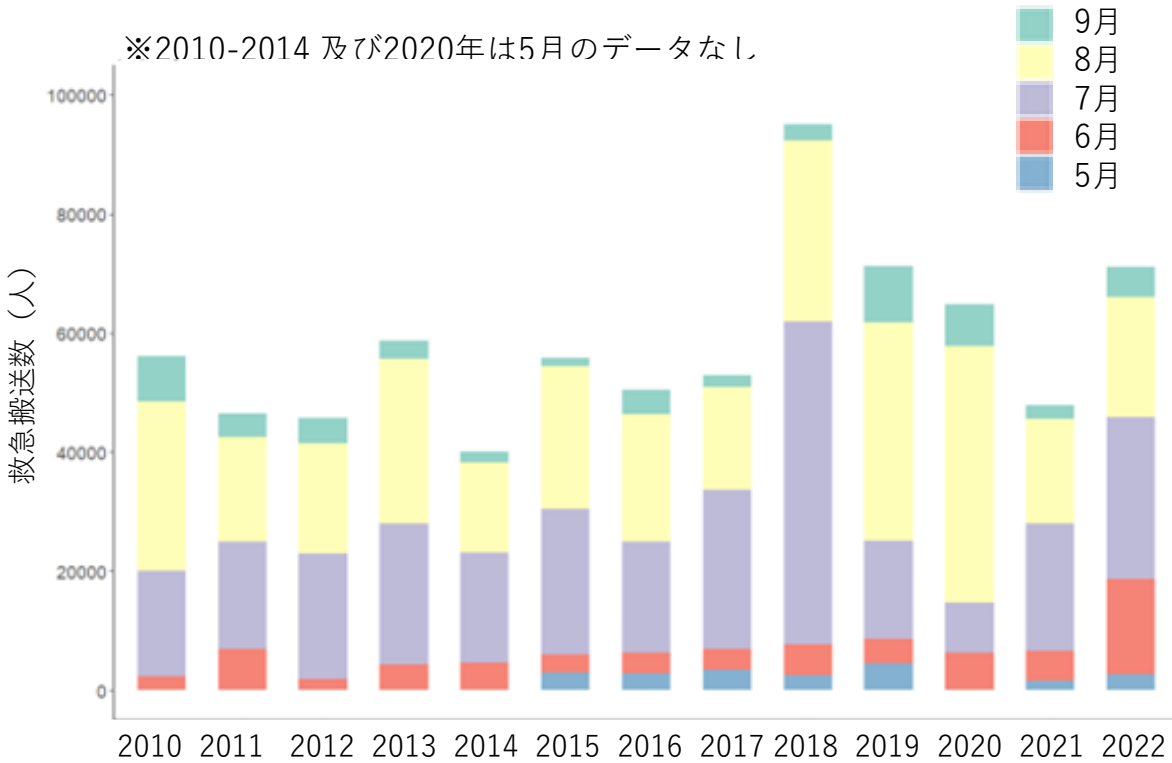


Future annual emissions of CO₂ across five illustrative scenarios



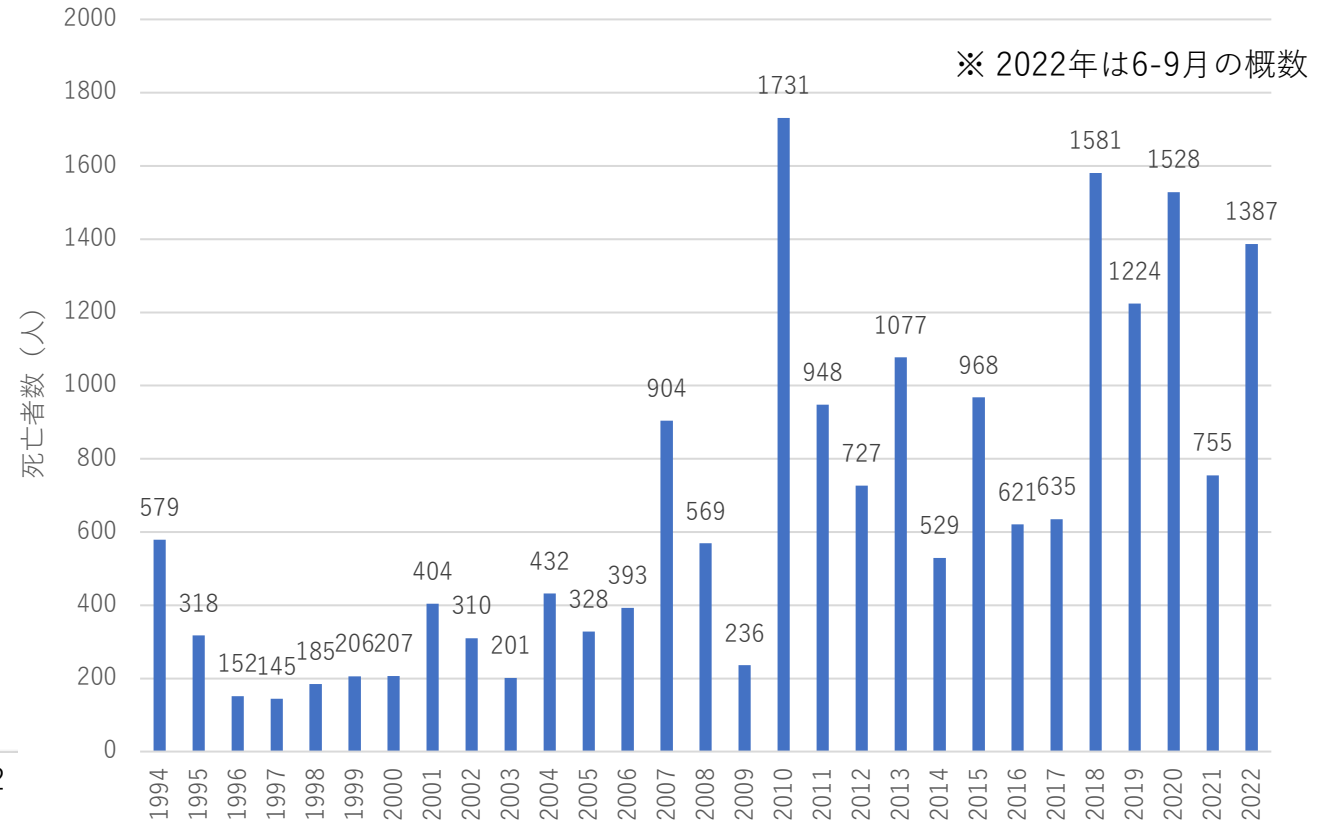
Heat stroke ambulance transport

Approx. **70,000/year** on average in 2018-22

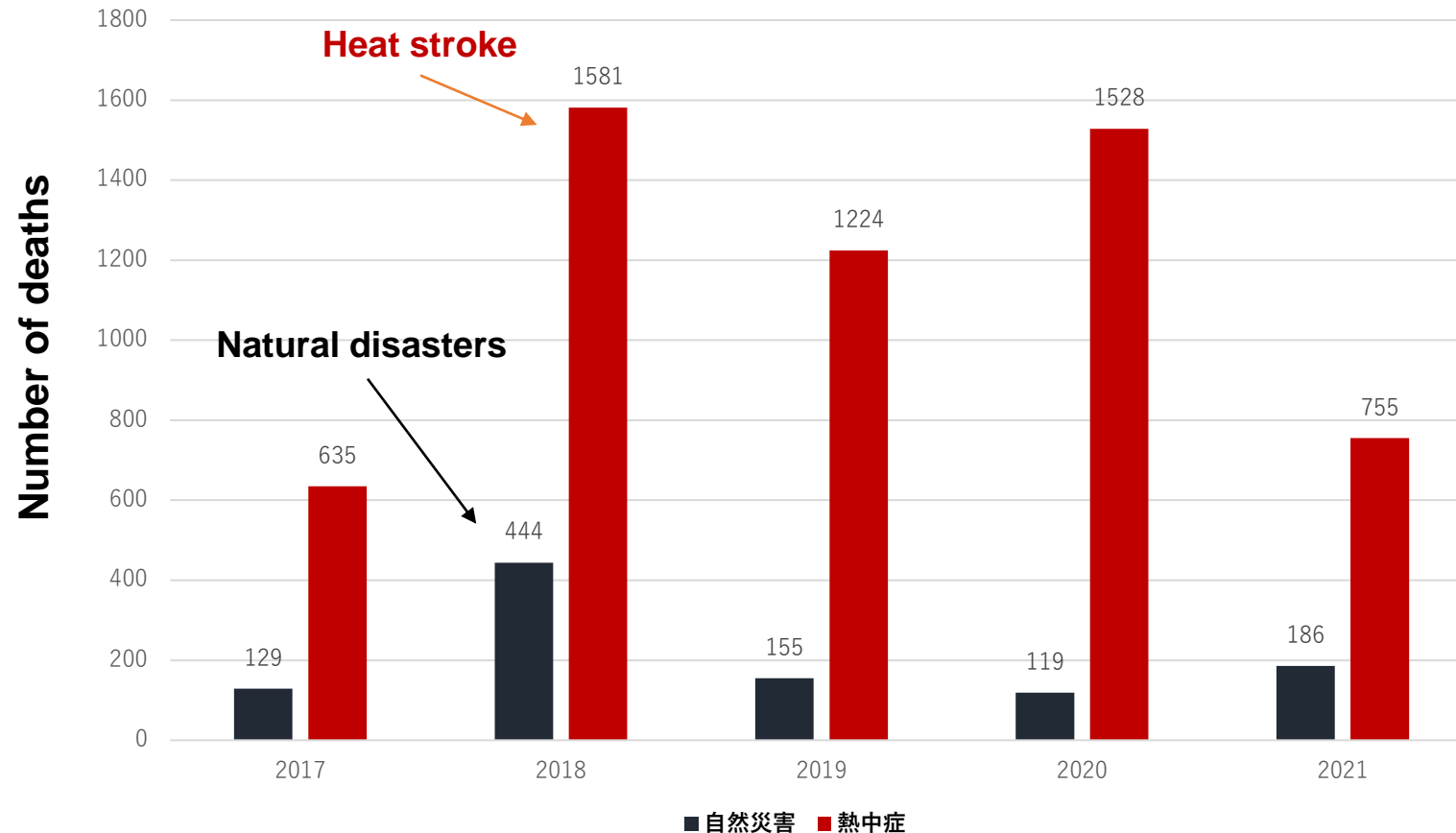


Deaths from heat stroke

- **Increasing trend**
- **1295/year** on average in 2018-22
- **Elderly people account for 80%**



The number of deaths from heat stroke is 5.5 times higher than the number of deaths from natural disasters (2017~2021 total)



Natural disasters: heavy rain (landslides), typhoons, heavy snow, earthquakes, volcanic eruptions, etc.

出典：令和4年防災白書および人口動態統計より作図

Future projection of heat stroke ambulance transport

base period 1981-2000 (MIROC5)

RCP2.6

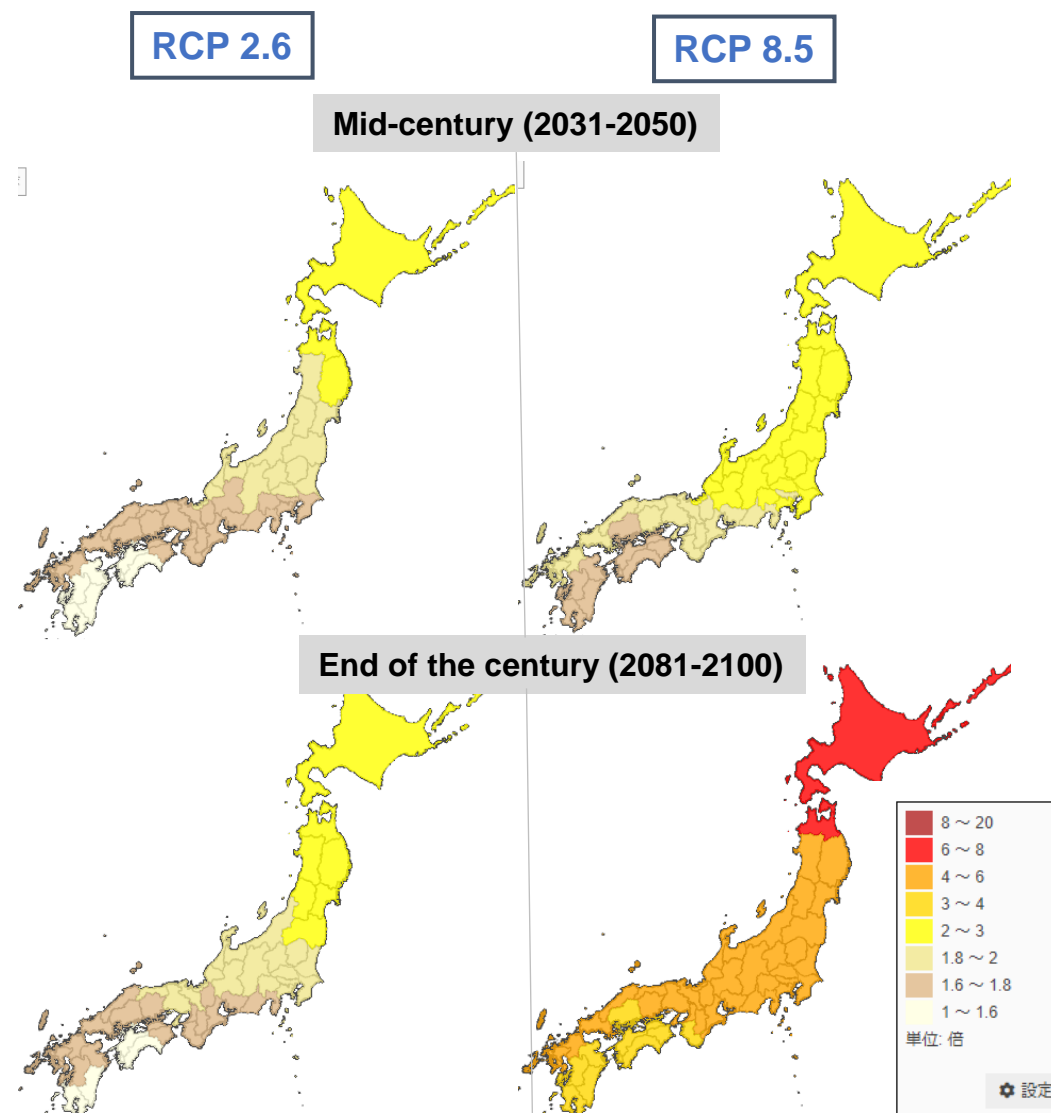
Mid-century: 1.7 times

End of the century: 1.8 times

RCP8.5

Mid-century: 1.7 times

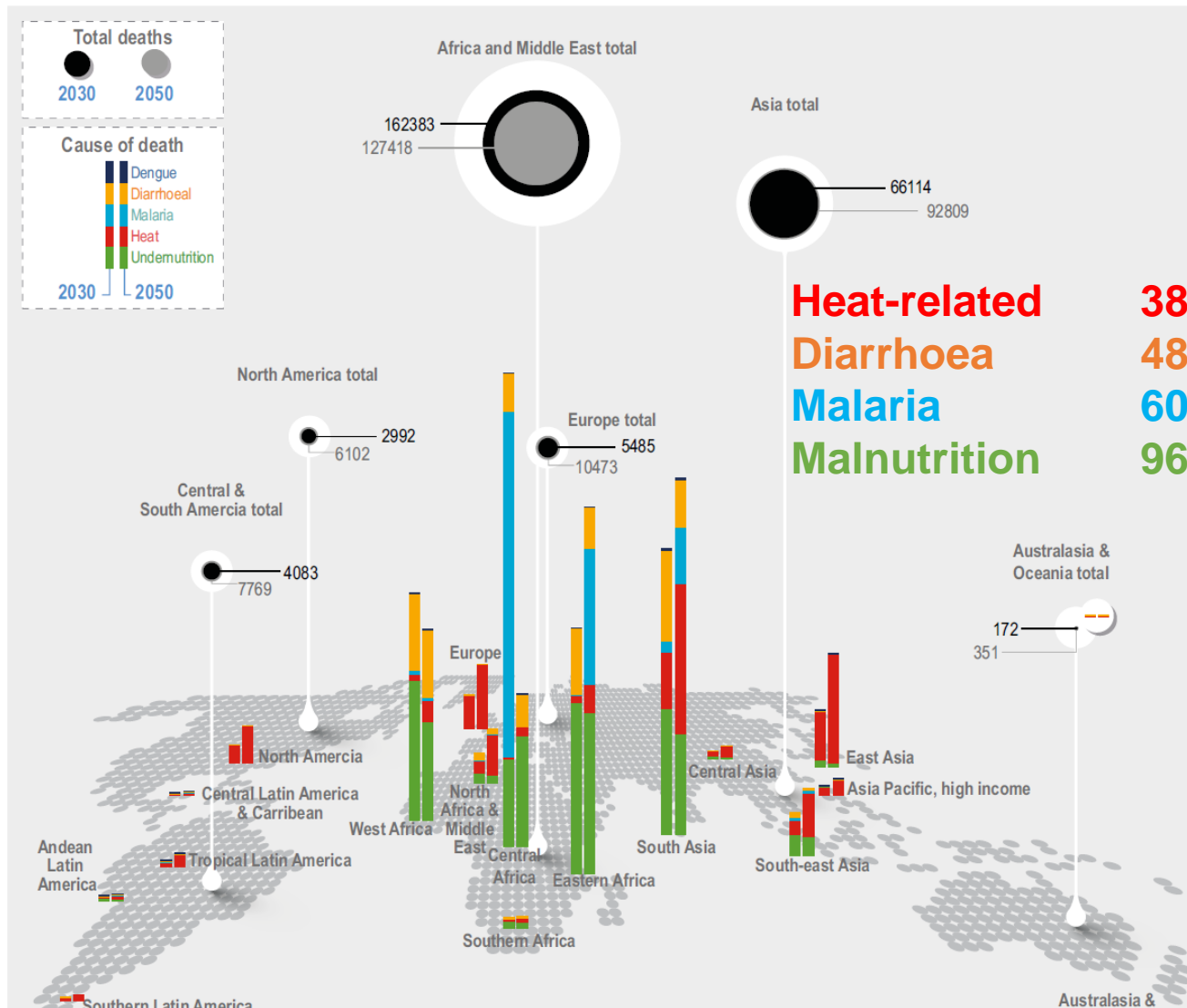
End of the century: 4.5 times



Additional deaths due to climate change

Projected annual additional deaths attributable to climate change, in 2030 and 2050 compared to 1961–1990

■ Heat in elderly people ■ Diarrhoeal disease in children under 15 years ■ Malaria ■ Dengue ■ Undernutrition (stunting)



2030-2050

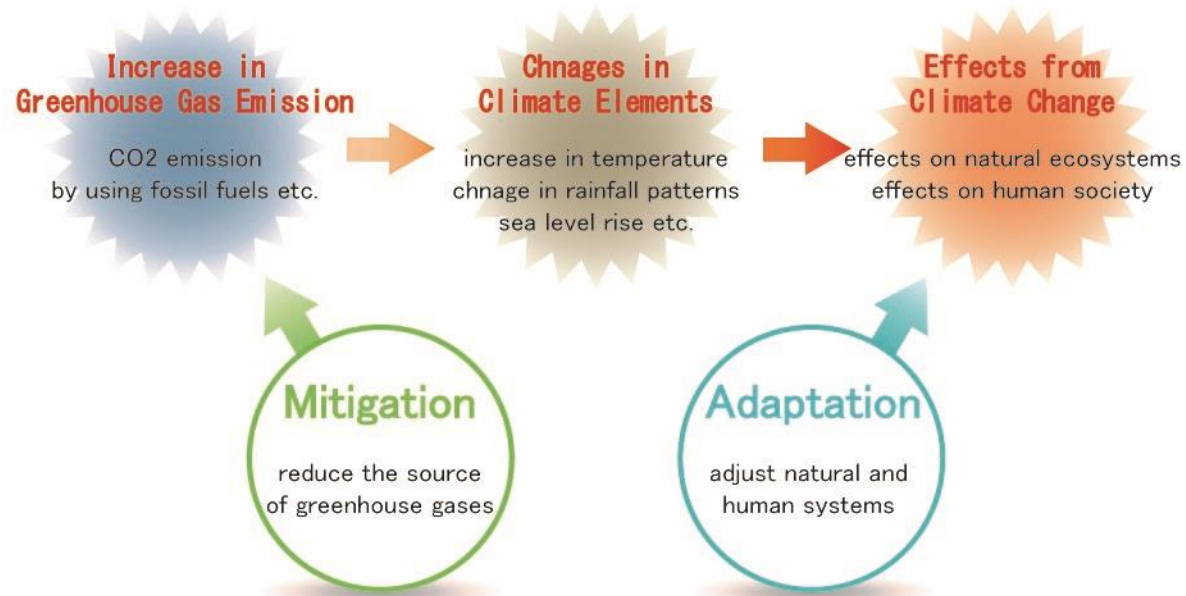
250,000 additional deaths (A1b)

- Vulnerable populations
- Children
- Older people
- Low-income countries
- Urban poor (slum dwellers, etc.)
- People with traditional lifestyles
- Coastal residents in small island countries

Mitigation and adaptation

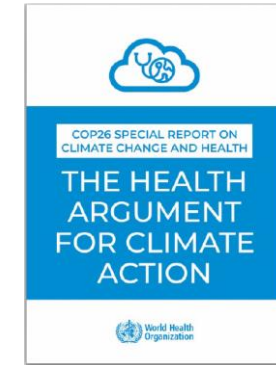
Environmentally sustainable and climate resilient

Two fundamental measures to address Climate Change:
Adaptation and Mitigation



COP26 United Nations Climate Change Conference

in Glasgow, UK 2021



COP26 Health Programme

Commitment 1: Climate resilient health systems

Commitment 2: Sustainable low carbon health systems

Commitment 1

- Vulnerability and adaptation assessments
- Health national adaptation plan
- Access to climate change funding for health

Commitment 2

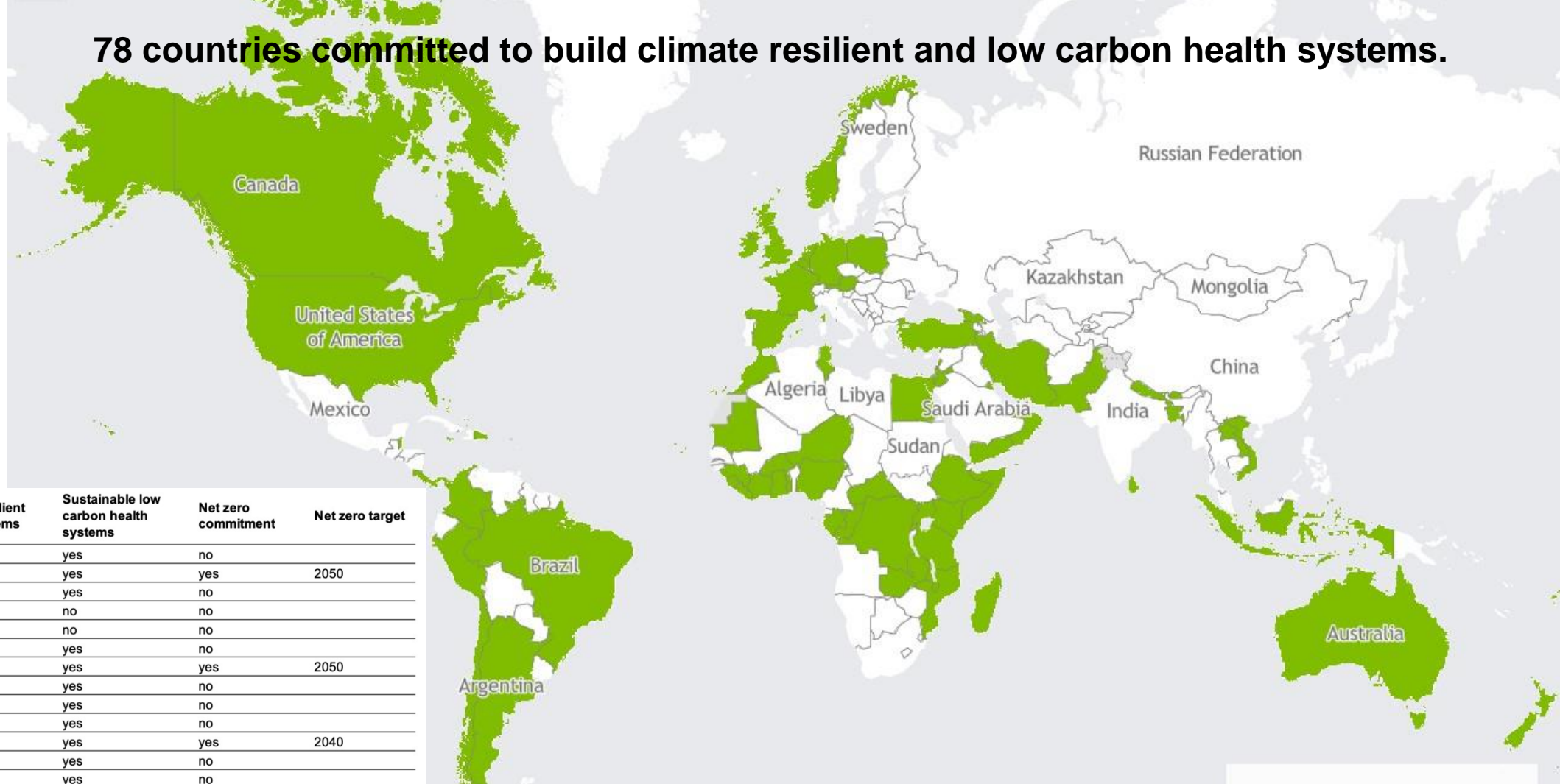
- Health system net zero emissions (ideally by 2050)
- Baseline assessment of GHG emissions of the health system
- Action plan or roadmap

The Alliance for Transformative Action on Climate Change and Health (ATACH) was born as a WHO-led mechanism to support delivery on the COP26 health commitments.

It provides a platform for coordination; knowledge and best practice exchange; networks and access to support and link up to existing initiatives; tackling common challenges; and monitoring global progress.

ATACH

78 countries committed to build climate resilient and low carbon health systems.



	Climate resilient health systems	Sustainable low carbon health systems	Net zero commitment	Net zero target
Argentina	yes	yes	no	
Australia	yes	yes	yes	2050
Austria	yes	yes	no	
Bahamas	yes	no	no	
Bahrain	yes	no	no	
Bangladesh	yes	yes	no	
Belgium	yes	yes	yes	2050
Belize	yes	yes	no	
Bhutan	yes	yes	no	
Brazil	yes	yes	no	
Burkina Faso	yes	yes	yes	2040
Canada	yes	yes	no	
Cape Verde	yes	yes	no	
Central African Republic	yes	yes	no	
Chile	no	yes	no	
Colombia	yes	yes	no	
Congo	yes	yes	yes	2035
Costa Rica	yes	yes	no	
Democratic Republic of the Congo	yes	yes	yes	
Dominican Republic	yes	yes	no	
Ecuador	yes	yes	no	
Egypt	yes	no	no	
Ethiopia	yes	yes	no	
Fiji	yes	yes	yes	2045
France	yes	yes	yes	2050
Gabon	yes	no	no	
Georgia	yes	yes	yes	2050
Germany	yes	yes	no	

<https://www.who.int/initiatives/alliance-for-transformative-action-on-climate-and-health/country-commitments>



Leaders spotlight the critical intersection between health and climate ahead of COP-28 first-ever Health Day

Mitigation

Health care footprint as % of national footprint

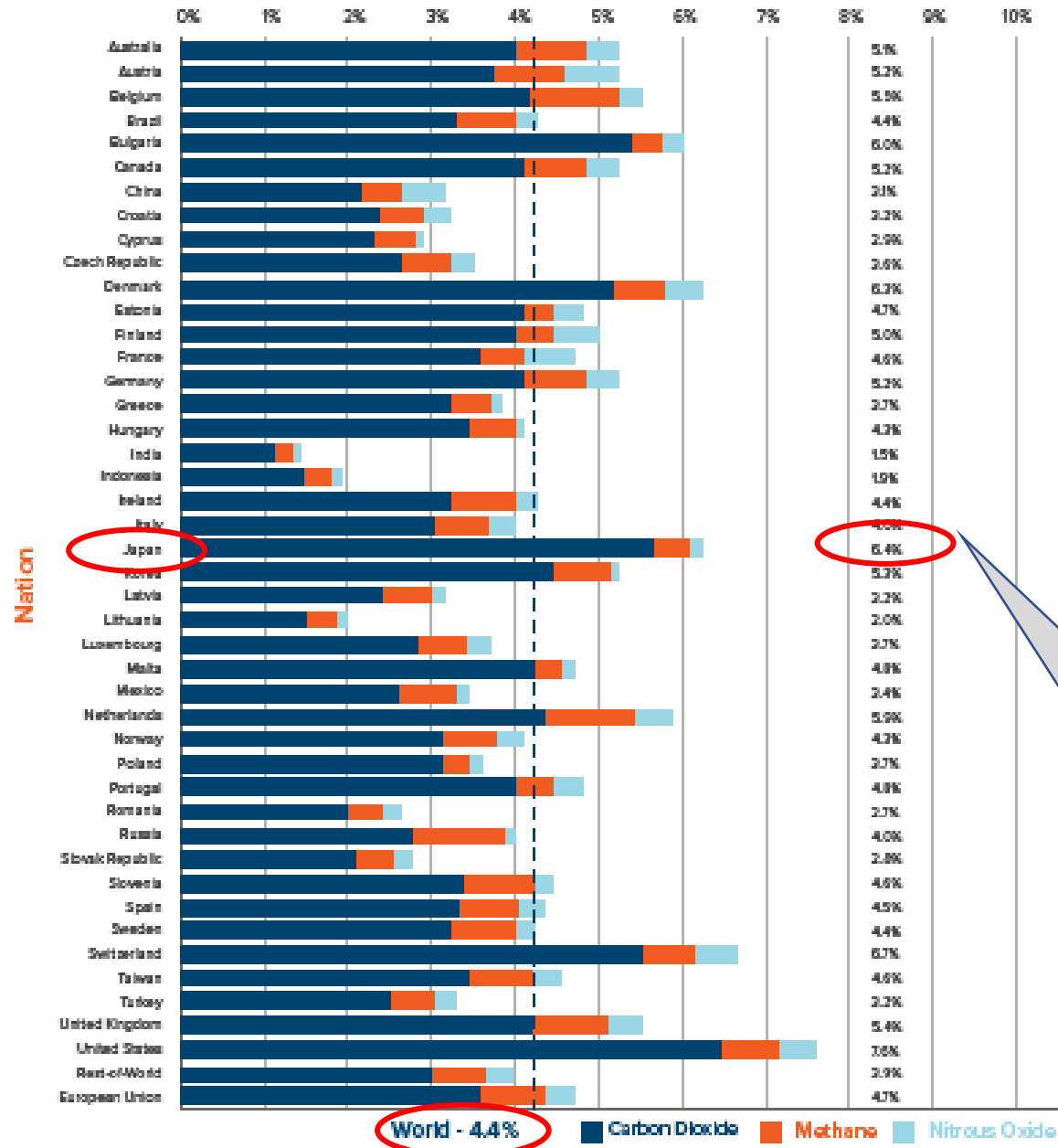


Figure 7: Health care footprint as a percentage of national emissions for all nations and regions covered in this study

Japan as third biggest health care carbon footprint (excluding EU)

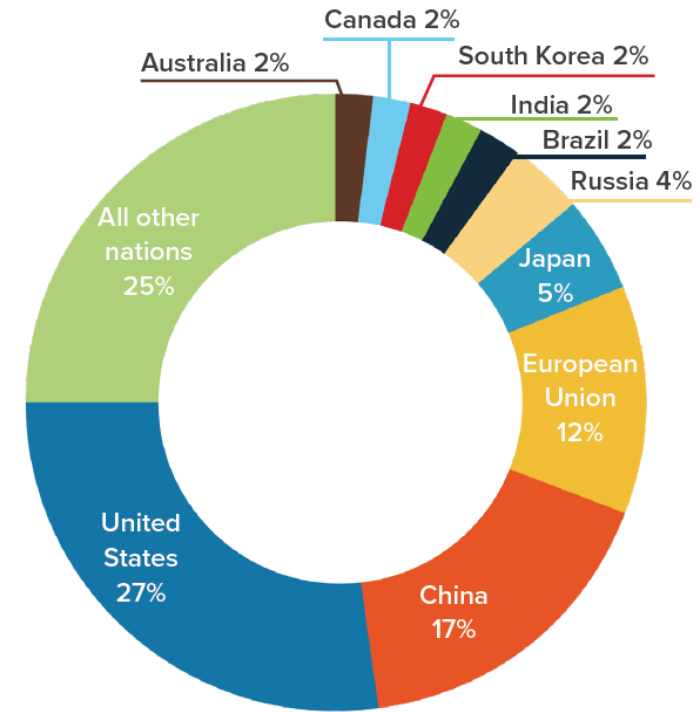
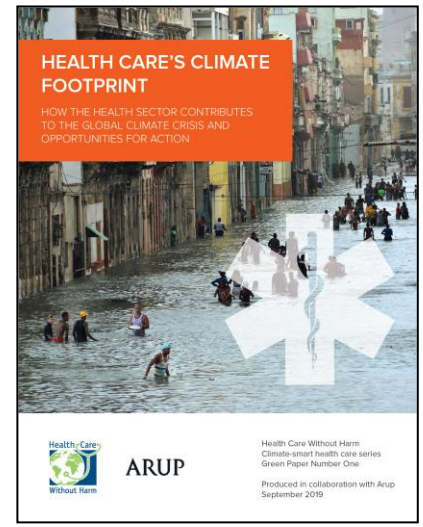
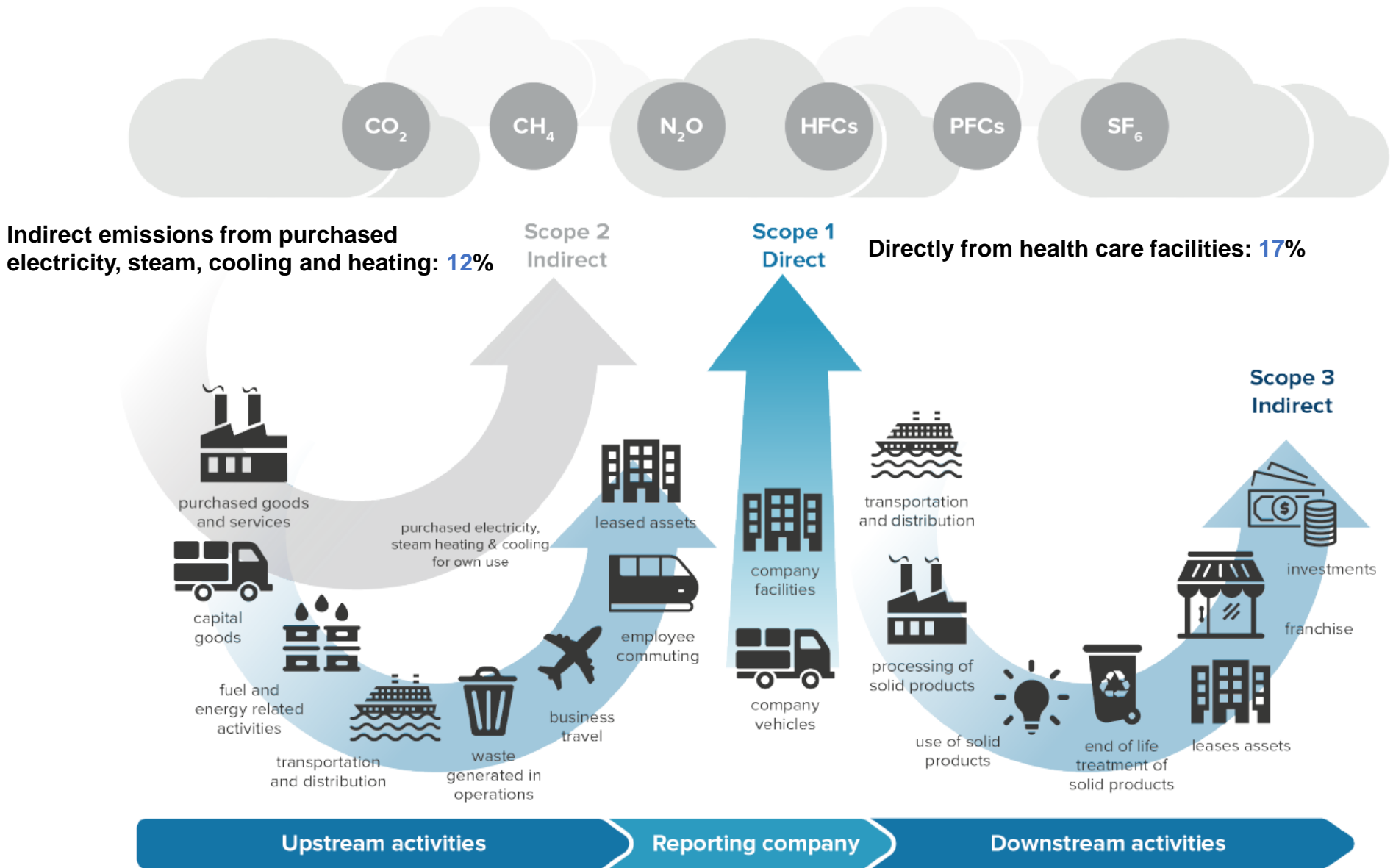


Figure 8: Top ten emitters as percentage of global health care footprint.

Japan's health care carbon footprint
6.4%

Mitigation



Health care supply chain — the production, transport, use, and disposal of goods and services: 71%

Figure 3: Greenhouse Gas Protocol Scopes 1, 2, and 3. (Source: Greenhouse Gas Protocol)

Health Care Decarbonization

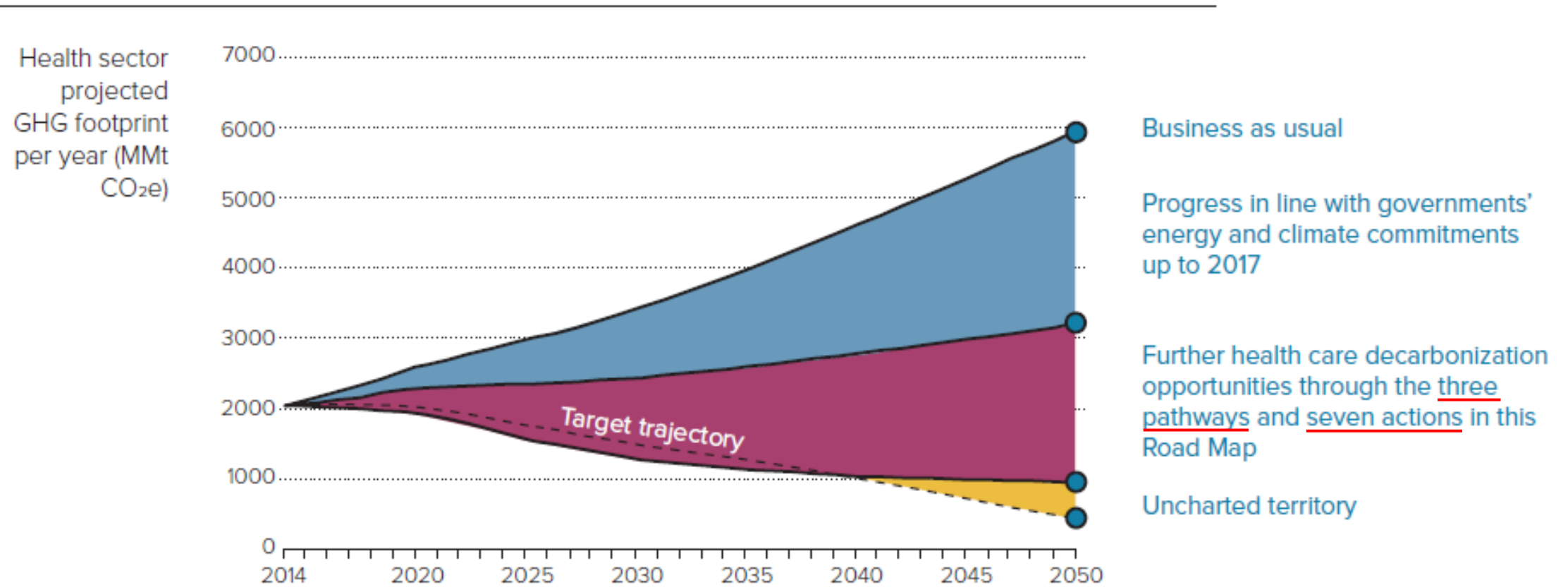


Figure I. Health Care Without Harm and Arup Global Road Map for health care decarbonization.

Charting a course toward zero emissions

Three Pathways

- **Pathway 1:** Decarbonize health care delivery, facilities, and operations.
- **Pathway 2:** Decarbonize health care's supply chain.
- **Pathway 3:** Accelerate decarbonization in the wider economy and society.

Seven High-Impact Actions

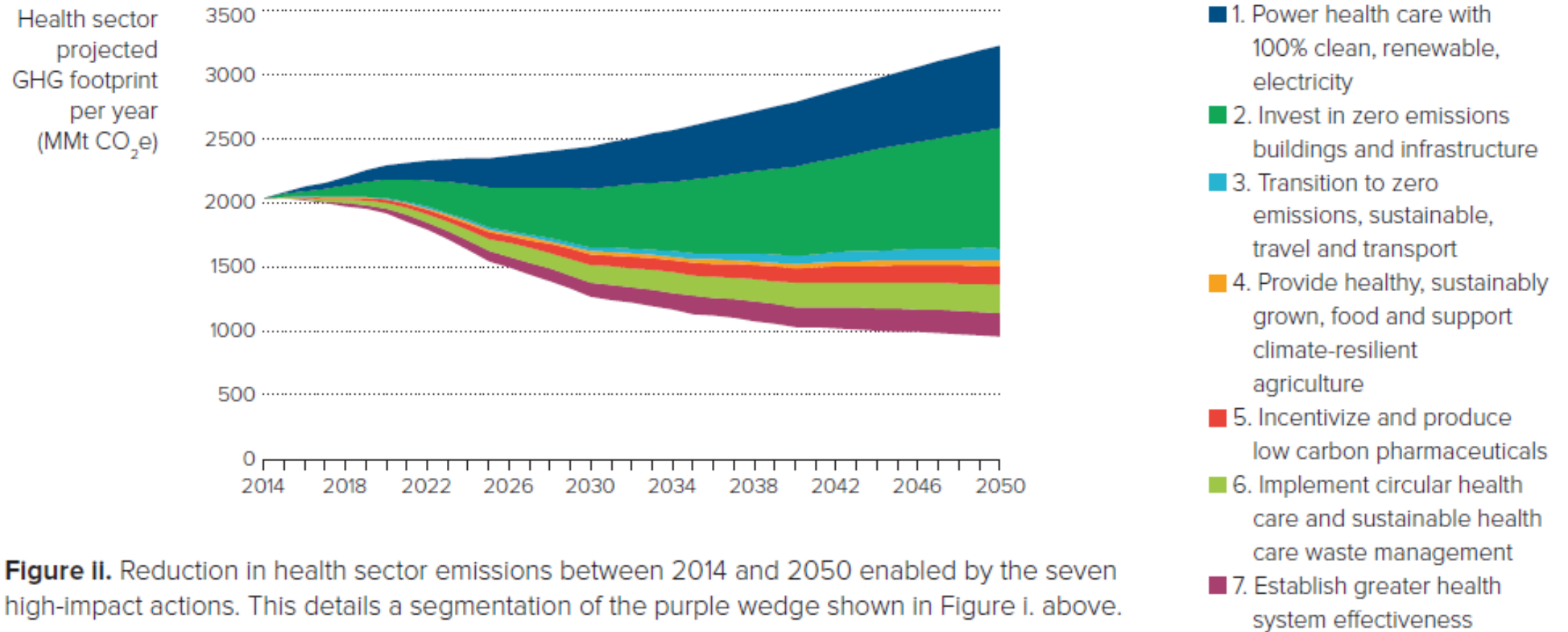
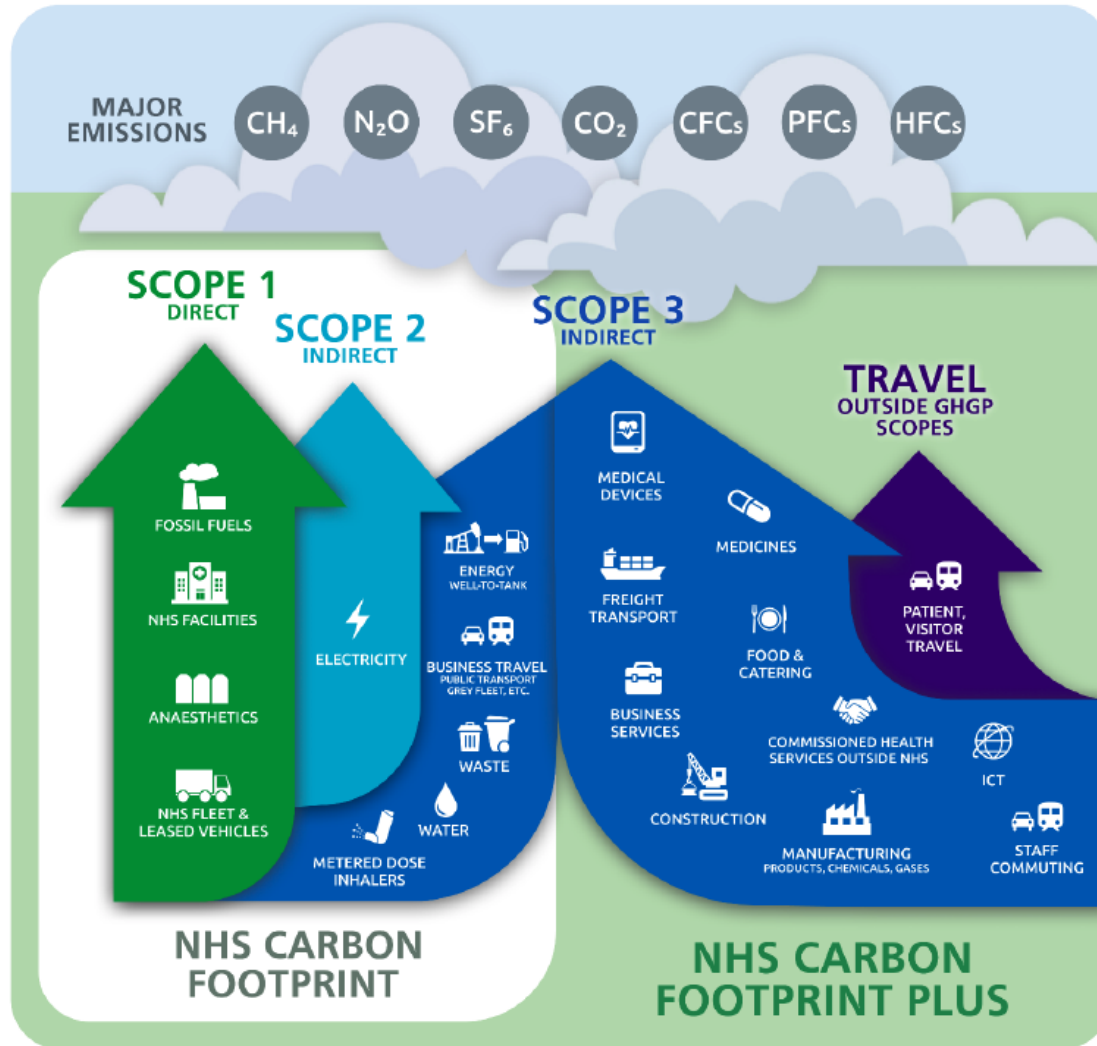


Figure II. Reduction in health sector emissions between 2014 and 2050 enabled by the seven high-impact actions. This details a segmentation of the purple wedge shown in Figure i. above.

Greenhouse Gas Protocol (GHGP) in the context of the NHS



net zero by 2040

net zero by 2045

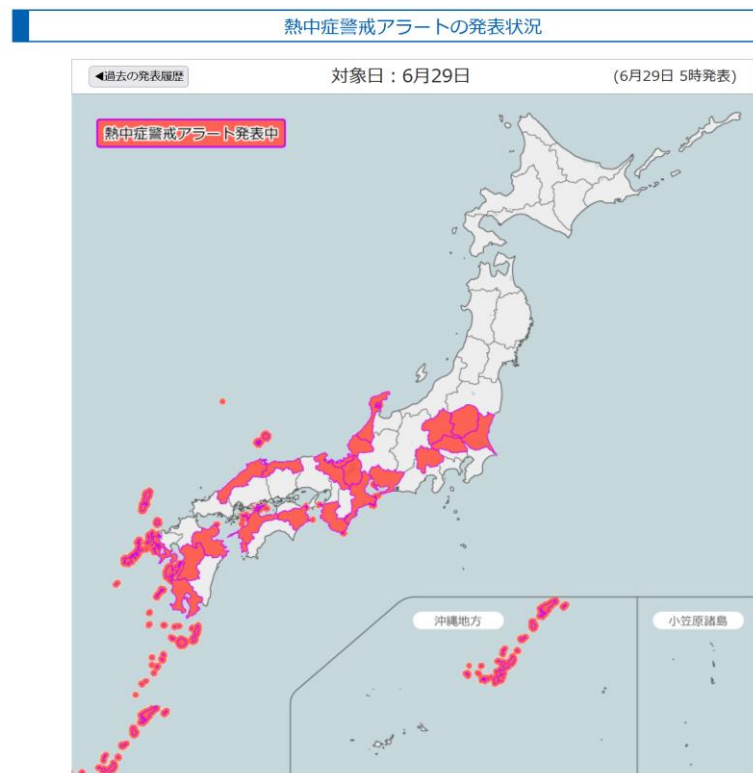
Delivering a 'Net Zero' National Health Service



Heat-Health Warning Systems

■ Heat Stroke Alert in Japan

- Announced at 5p.m. on the previous day and 5 a.m. on the same day.
- Email distribution services are available.



<https://www.wbgt.env.go.jp/en/>



出典: 気象庁HP

Better Health for All

Global viewer for climate change adaptation
to waterborne diseases

LAUNCH VIEWER

Diarrheal pathogens

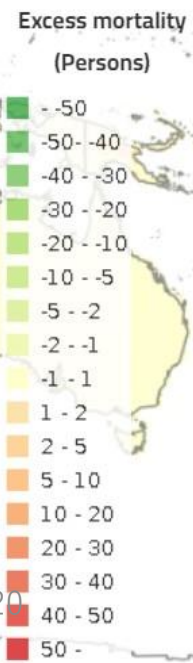
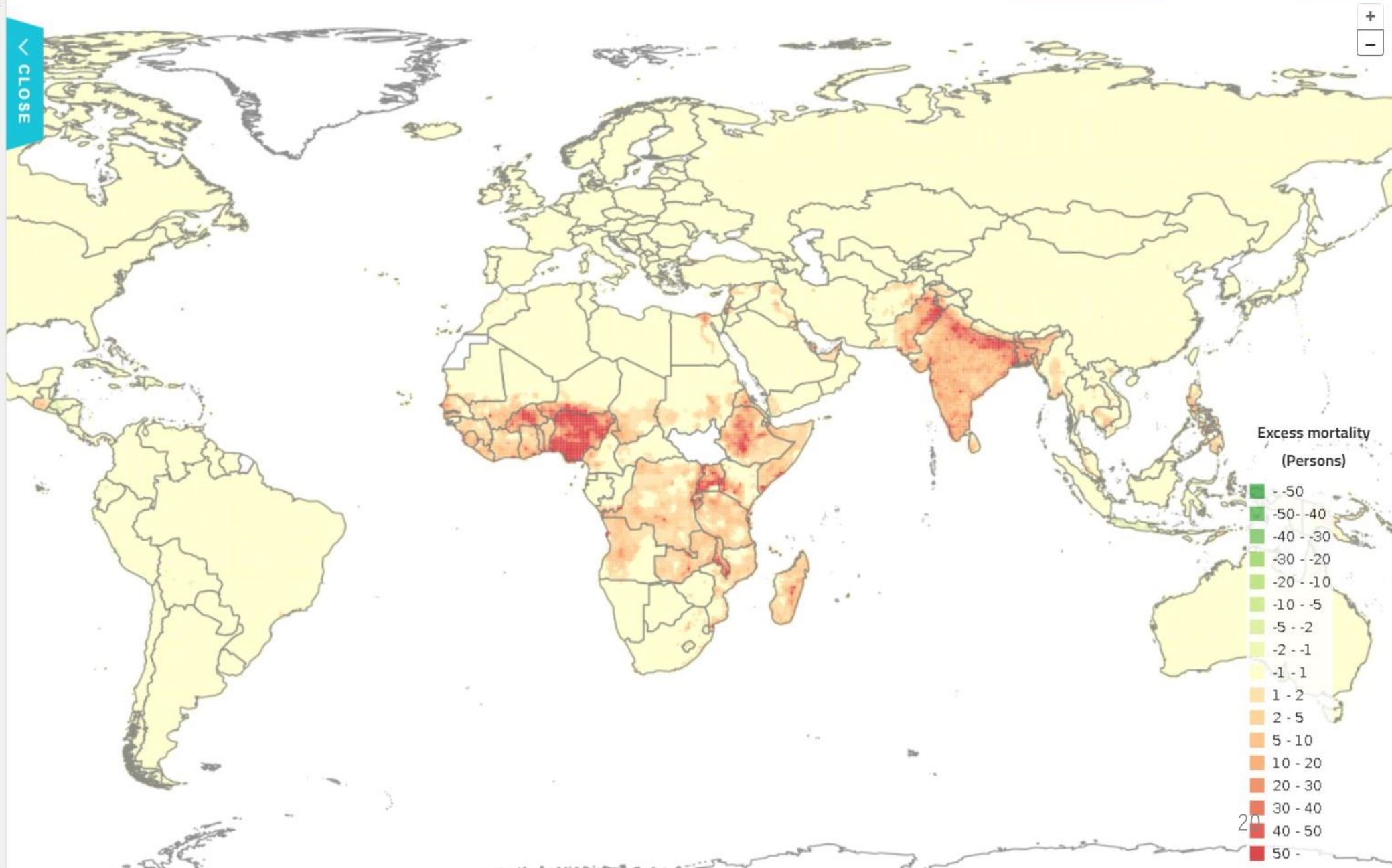
- Total
 - Virus
 - Norovirus
 - Rotavirus
 - Bacteria
 - Shigella
 - Typhoid
 - Campylobacter
 - Cholera
 - Non-typhoidal Salmonella
 - Enteropathogenic E. coli
 - Enterotoxigenic E. coli
 - Protozoa
 - Cryptosporidium
- [Terminology.](#)

Future scenarios

- Pessimistic (RCP6.0)
- Moderate (RCP4.5)
- Optimistic (RCP2.6)

Period (avg.)

- 2026-2050
- 2051-2075
- 2076-2100



Global Map

Philippines

Region

Country Map

Cost Estimation

Philippines

Total Population:2030s
3,963,544

Diseases

Rotavirus

Scenario

+2.0°C (SSP1-2.6)

Ages

All ages

Excess mortality / rate

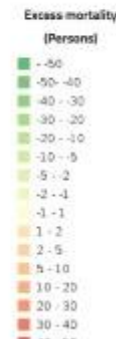
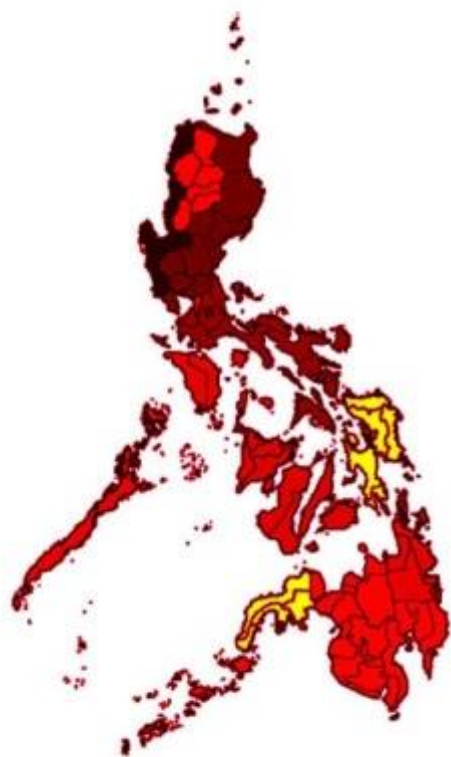
No additional adaptations

28 **2.0**
Persons %

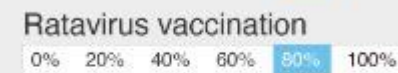
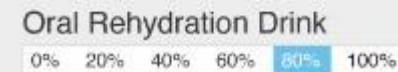
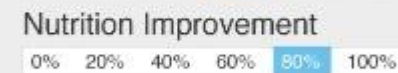
With Additional adaptations

16 **0.5**
Persons %

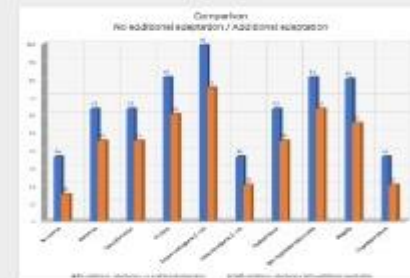
Decreased excess mortality / rate
12 **1.5**
Persons %



Adaptation options



CSV Download



G7 HIROSHIMA 2023

Nagasaki Health Ministers' Meeting

Promote global solidarity to advance health-system resilience: proposals for the G7 meetings in Japan

The world is facing challenges emerging from multiple crises, including pandemics, wars and conflicts, and climate change. Against this backdrop, the Government of Japan hosts the Group of Seven (G7) Summit in Hiroshima and the G7 Health Ministers' Meeting in Nagasaki, Japan, in May, 2023. Japan's foreign policy prioritises the security of individuals and communities by adopting a human security approach as a complement to national security. This approach protects people from public health and security threats, develops their capacity to cope with challenging situations, and guides efforts to address structural inequities. In January, 2023, Japanese Prime Minister Fumio Kishida set out his vision of human security and health coverage (UHC) as core principles at the G7 Summit.¹ UHC is essential for health because it safeguards the health of people irrespective of socioeconomic status.²

The Hiroshima G7 Global Health Task Force, a multi-stakeholder, cross-disciplinary group convened to guide G7 Summit talks on the global health agenda and organised by the Japan Center for International Exchange, identified two global health challenges that G7 leaders must urgently address. The first is to advance the resilience of health systems so they can flexibly tackle public health emergencies and multiple threats to health. The second is to enhance global solidarity by transforming and strengthening the global health architecture in the context of geopolitical tensions and shifts. As the Hiroshima G7 Global Health Task Force, we offer the following key recommendations for G7 action to address these two challenges through a human security approach and a transformation of global health architecture.

Our first recommendation is to enhance resilience to public health emergencies by boosting country-led efforts to achieve UHC. We recommend the G7 support the efforts of low-income and middle-income countries (LMICs) to integrate pandemic prevention, preparedness, and response (PPPR), including efforts to address antimicrobial resistance (AMR), with their national UHC strategies. Front-line health worker capacity; community networks; disease surveillance, health, and laboratory

infrastructure; water, sanitation, and hygiene; and supply chains should be strengthened to detect early signs of disease outbreaks and respond promptly to increased demands for services. The focus should be on primary health care, with a gender transformative approach,³ as a common foundation for UHC and health security.⁴ Addressing non-communicable diseases (NCDs) that interact with infectious diseases in the context of steep inequalities is a crucial prerequisite for PPPR.⁵ The G7 must confront not only the increasing burden of NCDs, but also structural inequities in society through rights-based approaches⁶ to make the health systems more resilient.

given increasing pressure on limited local space due to inflation and growing debt burdens. This persistent problem can be addressed by the development of a roadmap to promote the harmonisation of evaluation processes, including monitoring by aid agencies, and the creation of accountability mechanisms to track progress. To support country-led efforts collectively, we recommend the G7 explore the possibility of creating a global knowledge hub on sustainable and efficient UHC financing, including domestic resource mobilisation.

Second, to strengthen resilience to public health threats, we recommend a comprehensive approach to advance timely and equitable access to life-saving medical countermeasures as common goods.⁷ As part of PPPR, long-term investments in research and development (R&D) must be scaled up to address existing health threats, including AMR. These efforts need to focus on vaccines, diagnostics, and therapeutics⁸ across the entire value chain. To guarantee timely access to countermeasures, global coordination among public and non-profit R&D funders for global priority pathogens⁹ should be enhanced. Collaboration among regulatory authorities and global platforms for clinical trials should also be strengthened through regulatory alignment and global R&D harmonisation. Concretely, the G7 can call on its members' R&D funders and



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For the Hiroshima G7 Global Health Task Force see <https://www.jcie.org/programs/global-health-and-human-security/execute-committee-on-global-health-and-human-security/2023-g7-ghtaskforce/>

regulators to agree on a detailed collaboration plan for facilitating R&D, clinical trials, and approval processes for medical countermeasures. The G7 can develop a common access framework for public R&D funding that stipulates public access requirements for the resulting products.

Diversification and capacity expansion in manufacturing and procurement of medical countermeasures should be prioritised in the G7 policy agenda. Voluntary licensing and technology transfer are two actions that can be promoted. We urge the G7 to launch an access initiative and facilitate discussions on how to link accelerated R&D with timely delivery and equitable access to medical countermeasures, including financing arrangements, and formalising delivery partnerships. This initiative must be inclusive, engaging international

of the global systems that health depends on.¹⁰ The G7 should strengthen their commitment to climate-resilient and low-carbon health systems advocated in the Conference of Parties (COP26).¹¹ In addition, to address the interconnection between the health of humans, animals, plants, and the environment, the G7 can establish a One Health track to monitor and promote multisectoral collaboration on the One Health Joint Plan of Action.¹⁴

Japan's 2023 G7 presidency provides an important opportunity to create an enabling environment to address multiple crises collectively and promote global solidarity for advancing health-system resilience. Attention must be given to both human security and UHC to promote more peaceful, prosperous, and stable societies around the world.

The G7 should strengthen their commitment to climate resilient and low-carbon health systems advocated in the Conference of Parties (COP26).

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promote a multilateral approach to global health governance, including financing, that facilitates effective collaboration among state and non-state actors beyond the health sector at global and regional levels. Further, the G7 can push for agreement on norms for PPPR in all discussions of the WHO accord on PPPR¹⁰ and in any amendment of the International Health Regulations. To sustain global commitment to UHC and health security, the G7 can support the creation of high-level governance towards the UN General Assembly high-level meetings on PPPR, UHC, and tuberculosis on Sept 20–22, 2023. Innovative ways to secure sustainable funding for PPPR, including surge financing, should be discussed through close collaboration with the G20 Joint Finance and Health Task Force.

Given the gaps that emerged during the COVID-19 pandemic, we also recommend strengthening regional hubs to advance health-system resilience for more effective surveillance, strengthening of the health emergency workforce,¹¹ and an expansion of manufacturing and procurement, as well as coordination among public health leaders. The G7 can advance global solidarity by ensuring that data systems and processes at the regional level are standardised and interoperable.

G7 efforts to advance global solidarity also must recognise how climate change has increased the fragility

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Thank you!



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