

HEALTH CARE'S CLIMATE FOOTPRINT

HOW THE HEALTH SECTOR CONTRIBUTES TO THE GLOBAL CLIMATE CRISIS AND OPPORTUNITIES FOR ACTION

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ARUP

Health Care Without Harm
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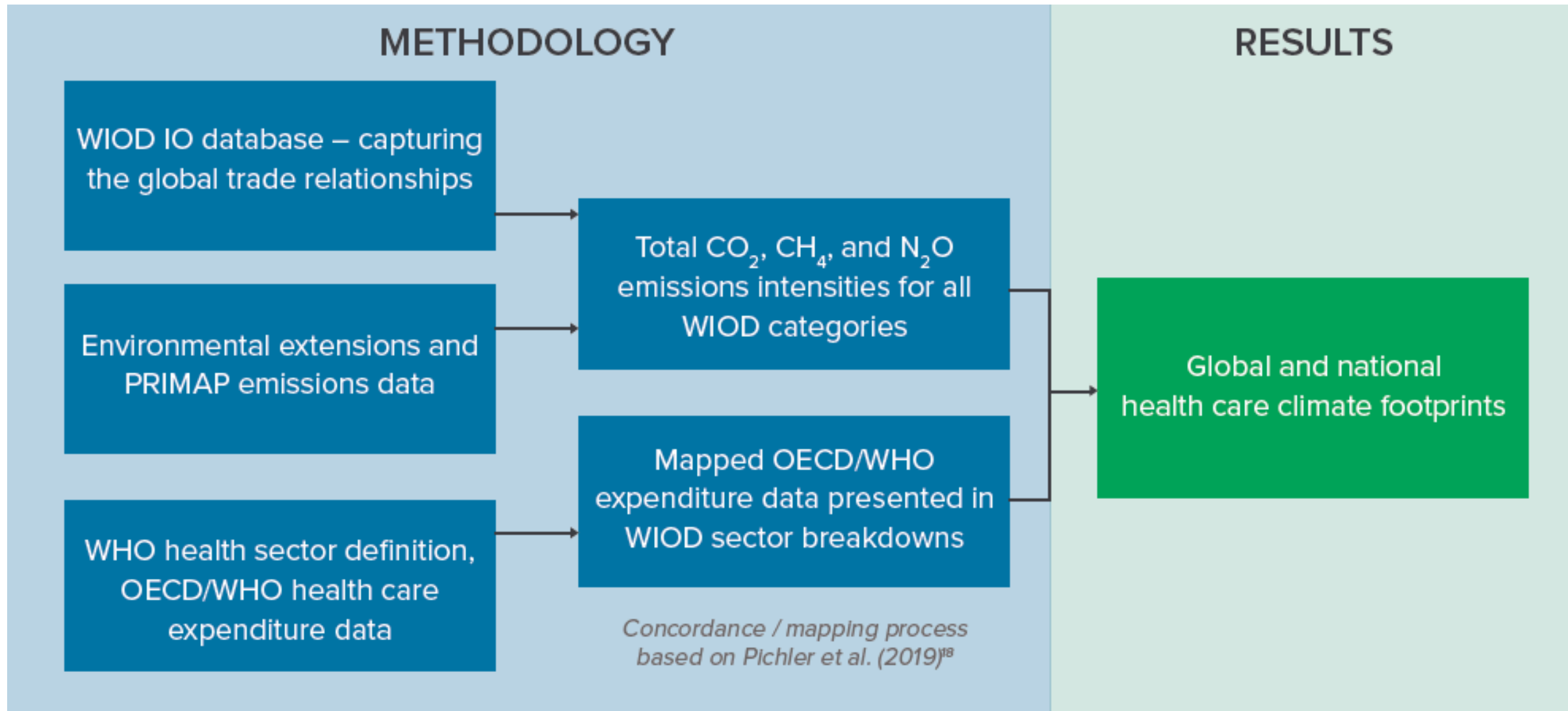
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THIS PAPER

- Establishes the first-ever global estimate of health care's climate footprint.
- Is based on full global coverage of spending data, together with detailed information from 43 countries.
- Identifies key sources of health care emissions while allowing for a comparison between nations and among many regions of the world.
- Makes a set of recommendations to align global health goals with global climate goals.

STUDY METHODOLOGY



Study limitations

- Granularity
 - Lack of data for Africa and Middle East
 - Limited data on many low income and middle income countries
- Alignment of data sources
 - WIOD and GHGP scopes
- Undocumented footprint
 - Anesthetic gases
 - Metered dose inhalers
 - Patient transport



FINDINGS: HEALTH CARE'S GLOBAL CLIMATE FOOTPRINT

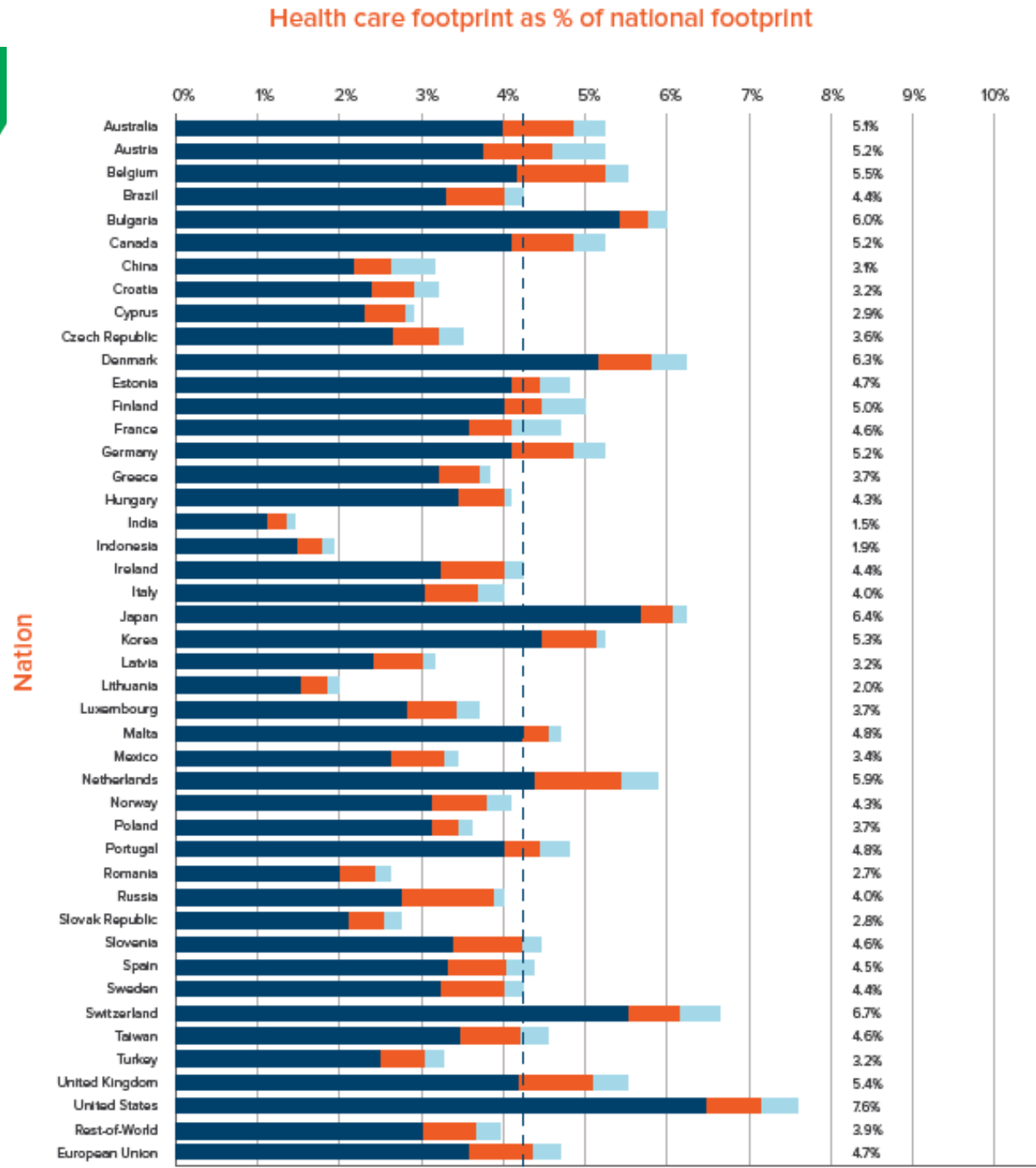
1. Health care is a major contributor to the climate crisis

“Health care’s climate footprint is equivalent to 4.4% of global net emissions”



FINDINGS: HEALTH CARE'S GLOBAL CLIMATE FOOTPRINT

1. Health care is a major contributor to the climate crisis



FINDINGS: HEALTH CARE'S GLOBAL CLIMATE FOOTPRINT

2. More than half of health care's footprint comes from energy use

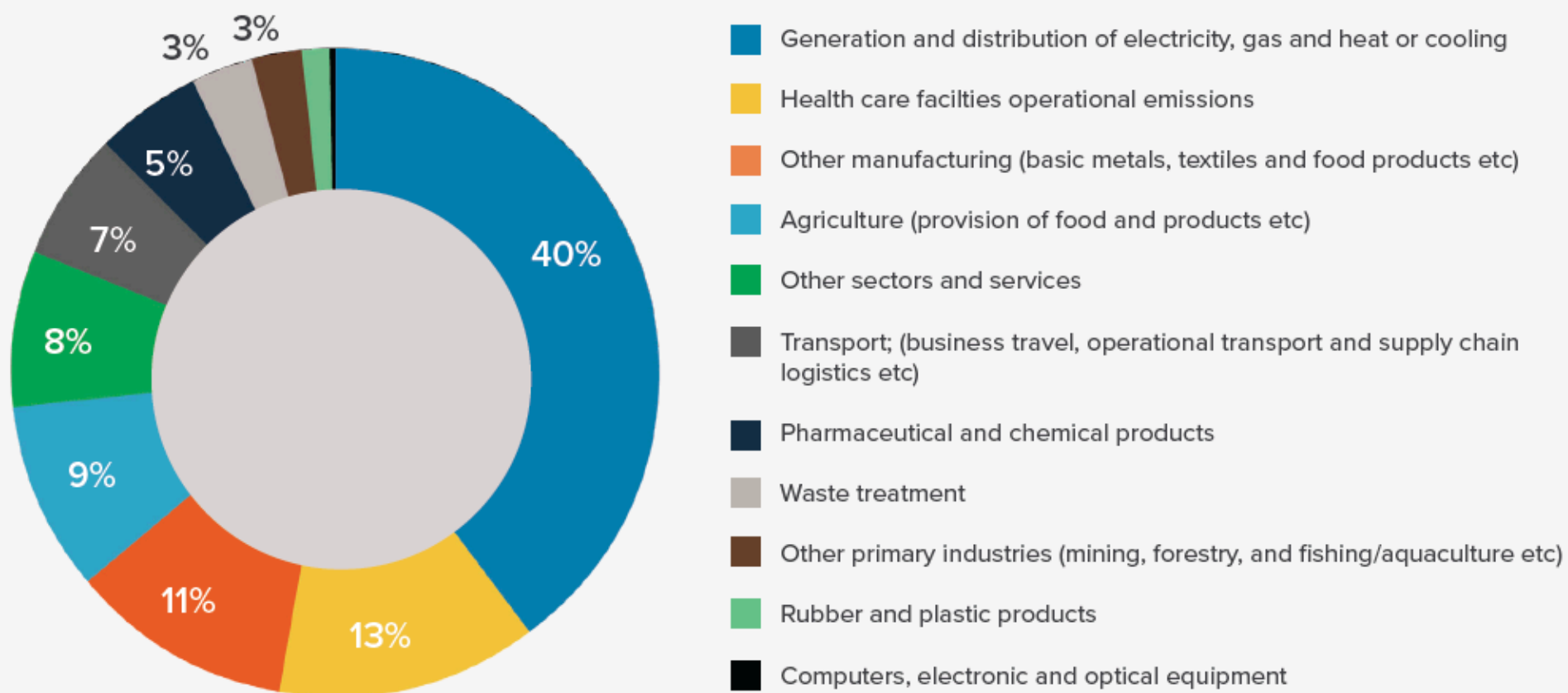


Figure 6: Global health care emissions split by production sector. Definitions of categories used in the legend are provided in Appendix B. ^{c25}

FINDINGS: HEALTH CARE'S GLOBAL CLIMATE FOOTPRINT

3. Health care's climate footprint generally reflects overall national emissions patterns

Health care emissions per capita by country				
Top emitters: (over 1t per capita)	Major emitters (between the 0.50t and 1t per capita)	Higher than average emitters (between global average 0.28t and 0.50t per capita)	Lower than average emitters	Unknown
Australia	Austria	Bulgaria	Brazil	Rest of World (ROW)
Canada	Belgium	Cyprus	China	
Switzerland	Denmark	Czech Republic	Croatia	
United States	Estonia	France	Hungary	
	Finland	Greece	India	
	Germany	Italy	Indonesia	
	Ireland	Malta	Latvia	
	Japan	Poland	Lithuania	
	Korea	Portugal	Mexico	
	Luxembourg	Slovenia	Romania	
	Netherlands	Spain	Slovak Republic	
	Norway	Sweden	Turkey	
	Russia	European Union		
	Taiwan			
	United Kingdom			

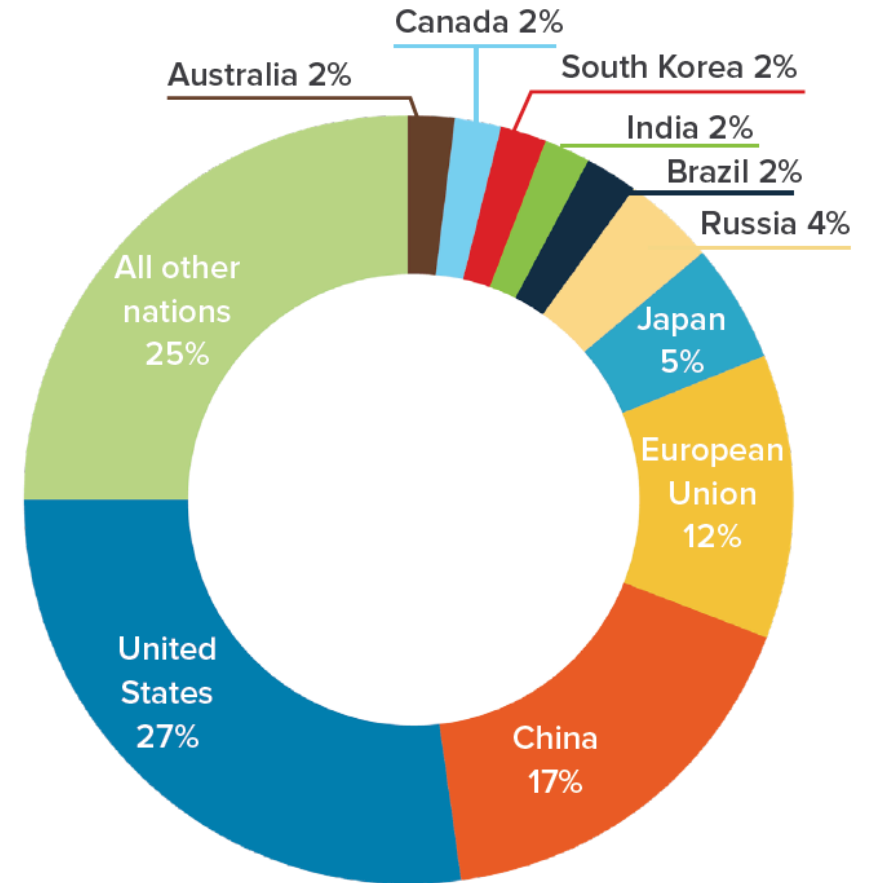
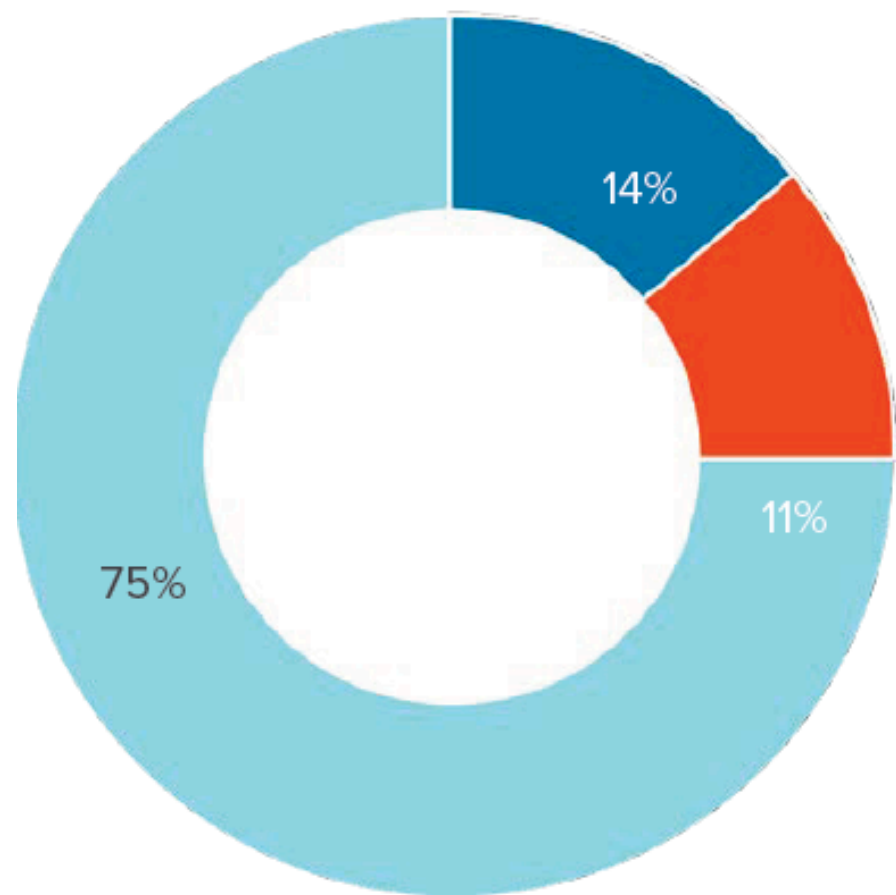


Figure 8: Top ten emitters plus all other nations as percentage of global health care footprint.

FINDINGS: HEALTH CARE'S GLOBAL CLIMATE FOOTPRINT

European Union



European Union health care	Value	Unit
Climate footprint	249	MtCO ₂ e
Emissions per capita	0.49	tCO ₂ e/ capita
Emissions as % of national footprint	4.7	%
Expenditure per capita	3668	USD
Expenditure as percentage of GDP	10.0	%
Health sector footprint equivalence to coal power plant emissions ³²	64	coal-fired power plants in one year

FINDINGS: HEALTH CARE'S GLOBAL CLIMATE FOOTPRINT



28 European Union countries in order Health Care Emissions

Germany 57.51 MtCO ₂ e	Belgium 9.30MtCO ₂ e	Finland 3.51MtCO ₂ e	Estonia 0.86MtCO ₂ e
United Kingdom 42.50 MtCO ₂ e	Austria 5.04MtCO ₂ e	Romania 3.08MtCO ₂ e	Croatia 0.80MtCO ₂ e
France 28.98 MtCO ₂ e	Sweden 4.50MtCO ₂ e	Ireland 2.83MtCO ₂ e	Lithuania 0.50MtCO ₂ e
Italy 21.31 MtCO ₂ e	Denmark 4.40MtCO ₂ e	Bulgaria 2.70MtCO ₂ e	Latvia 0.50MtCO ₂ e
Spain 16.72 MtCO ₂ e	Greece 4.15MtCO ₂ e	Hungary 2.55MtCO ₂ e	Luxembourg 0.47MtCO ₂ e
Netherlands 13.32 MtCO ₂ e	Czech Republic 3.71MtCO ₂ e	Slovak Republic 1.19MtCO ₂ e	Cyprus 0.34MtCO ₂ e
Poland 13.02 MtCO ₂ e	Portugal 3.61MtCO ₂ e	Slovenia 0.93MtCO ₂ e	Malta 0.20MtCO ₂ e

FINDINGS: HEALTH CARE'S GLOBAL CLIMATE FOOTPRINT

4. Decarbonizing health care's supply chain is critical

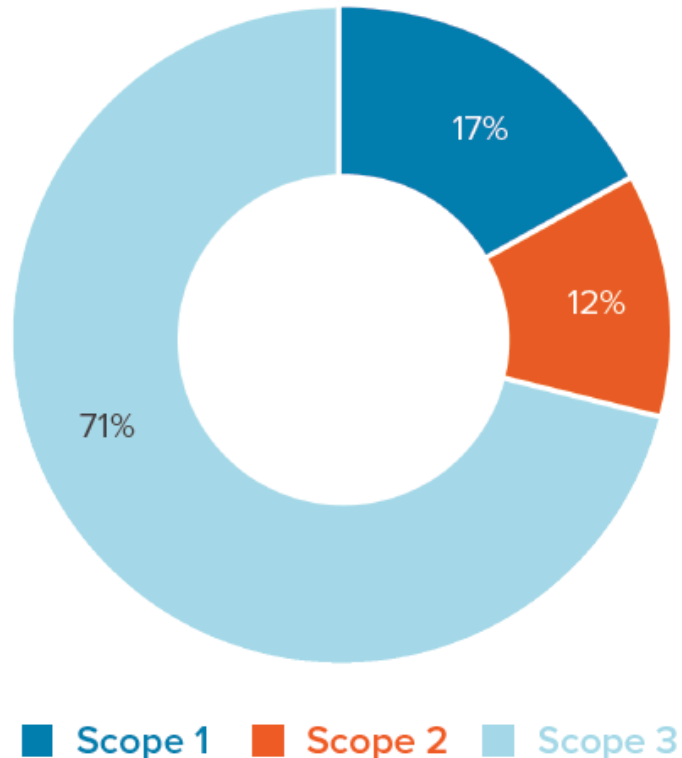


Figure 5: Global health care footprint split by GHGP Scopes

Relationship of GHGP categories to WIOD emissions sources

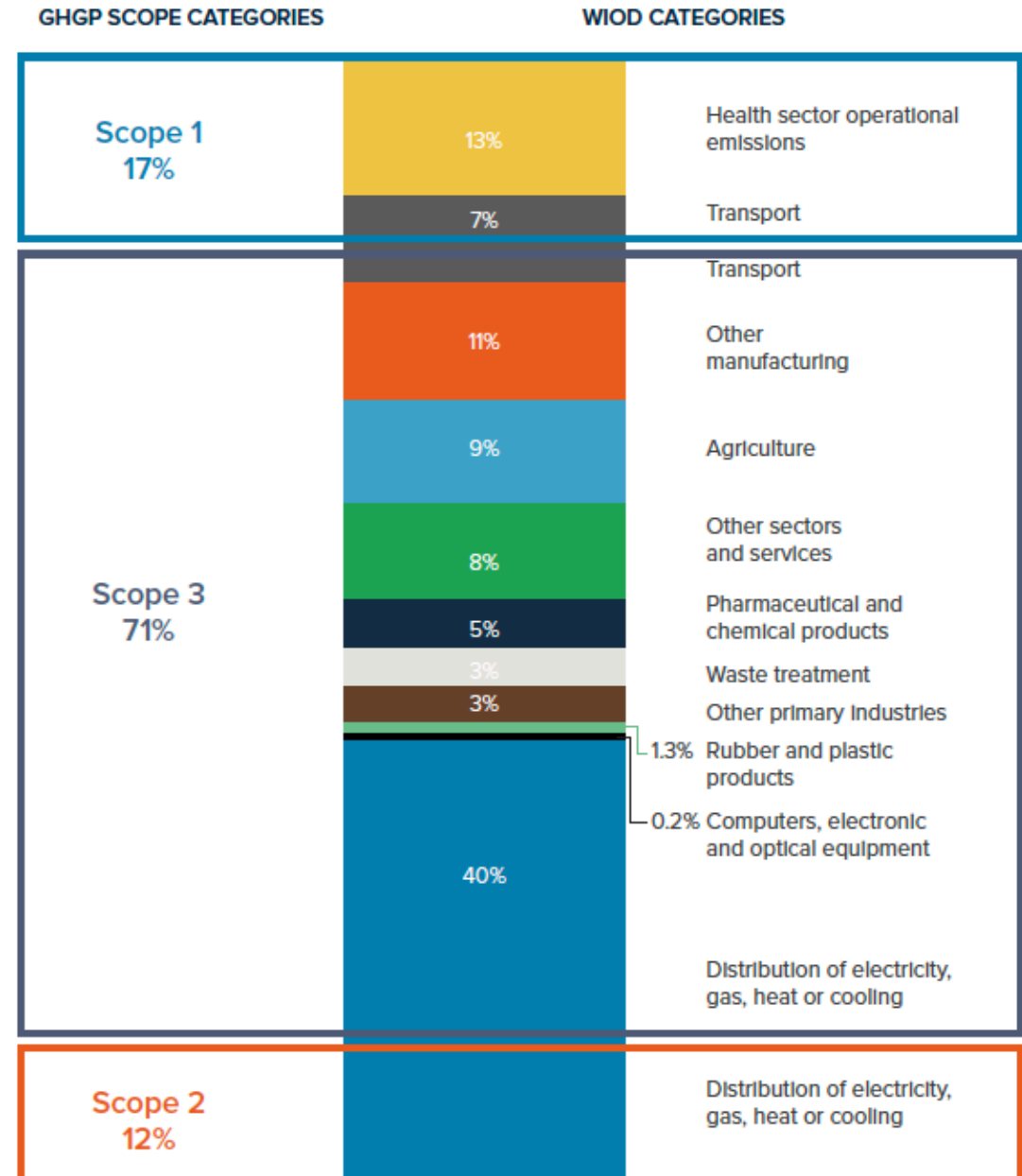


Figure 6a shows the proportion of WIOD emissions sources attributable to GHGP Scopes 1, 2 and 3.

FINDINGS: HEALTH CARE'S GLOBAL CLIMATE FOOTPRINT

5. Fossil fuel combustion is at the heart of health care's climate footprint



FINDINGS: HEALTH CARE'S GLOBAL CLIMATE FOOTPRINT

6. Health care spending and the sector's growth is an important factor in emissions

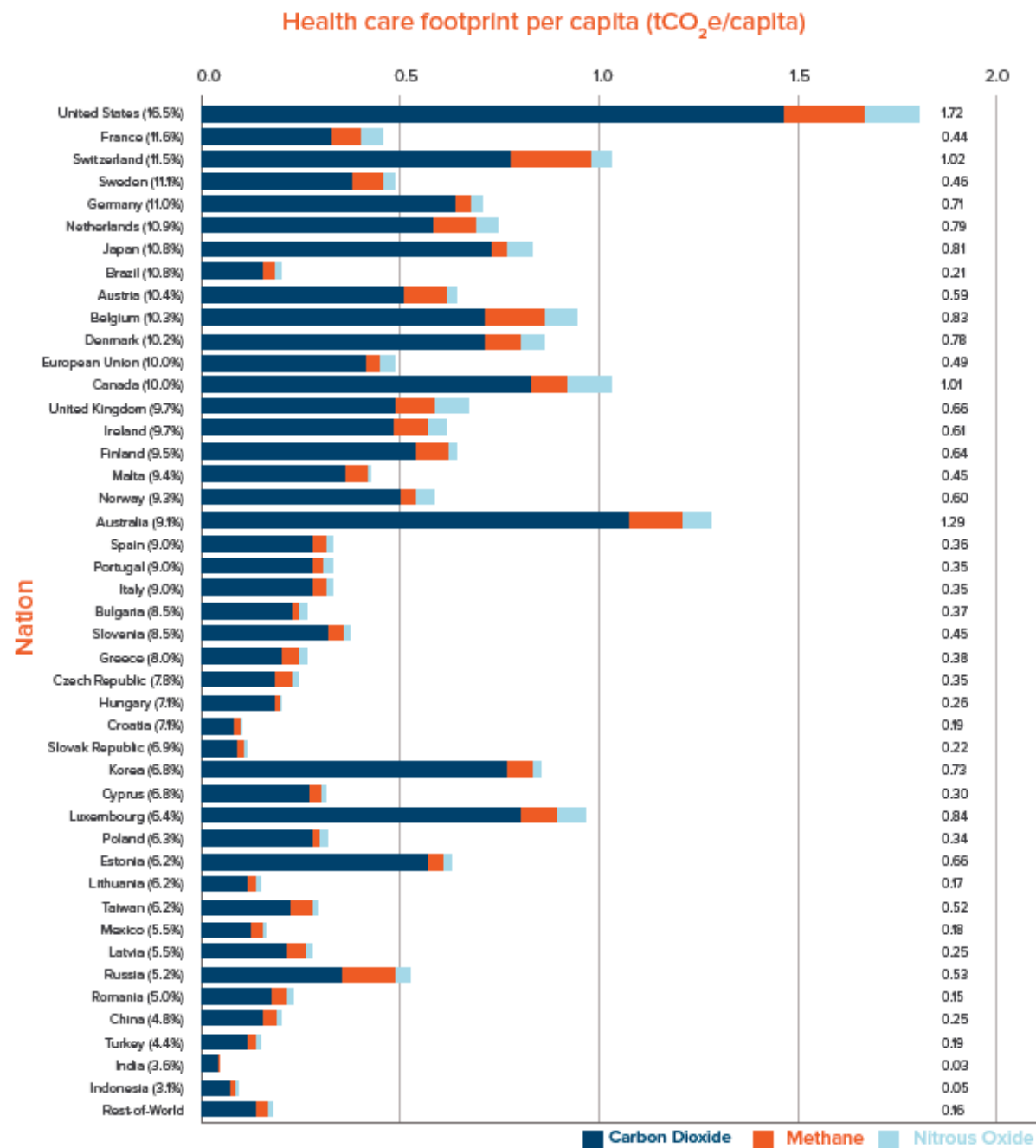


Figure 10: Health Care footprint per capita ordered by percentage of GDP spent on health care

CONCLUSION

- Health, as with every sector of society, has the responsibility to align its actions and development trajectory with the Paris Agreement in order to stave off the worst impacts of climate change.
- Given its mission to protect and promote health, the sector also has a responsibility to implement the Hippocratic Oath to “first, do no harm” as it relates to its own climate footprint, while influencing other sectors to do the same.

POLICY RECOMMENDATIONS

SIX ACTIONS FOR CLIMATE-SMART HEALTH CARE

Action 1

Reduce health care's climate footprint now. Actors at all levels in the health sector can build on the ongoing work of thousands of hospitals and health systems already addressing their climate footprint to forge parallel and related paths toward net zero emissions. Key steps can be based on the Greenhouse Gas Protocol and should include:

Scope 1: Take immediate action to reduce health care facility emissions.

Scope 2: Invest in and advocate for the decarbonization of local and national energy systems and the implementation of clean, renewable energy.

Scope 3: Set and implement criteria for low-carbon or zero-emissions procurement so as to begin to decarbonize the supply chain.

Action 2

Support a societal transition to clean, renewable energy. The health sector in every country should advocate for a rapid phase-out of fossil fuels and a transition to clean, renewable energy so as to help move health care energy consumption to net zero emissions while also protecting public health from both local pollution and global climate impacts.

Action 3

Chart the course for zero emissions health care by 2050. A coherent global road map is necessary to identify key pathways forward, while establishing timelines and frameworks for action. The road map should be based on principles of global equity for climate and health, a unified, climate-smart approach to mitigation and resilience, and an approach that fosters action at all levels.

POLICY RECOMMENDATIONS

Action 4

Make development assistance for health climate-smart. Bilateral aid agencies, multilateral development banks, other health funding agencies, and philanthropies should integrate climate-smart principles and strategies into their health aid, lending, and policy guidance for developing countries. Those funding climate mitigation and adaptation should integrate health into their programs. This should be undertaken in alignment with the outcomes of the UN Secretary General's 2019 Climate Action Summit.

Action 5

Establish and implement government action plans for climate-smart health care. National and sub-national governments should build on existing initiatives to establish action plans to decarbonize their health systems, foster resilience, and improve health outcomes. Implementation should contribute to government climate policy and nationally determined contributions to the Paris Agreement. The countries most responsible for the problem should lead the way.

Action 6

Deepen research on health care and climate change. Further research is necessary to better understand trends in the interplay of health care and climate change, including an analysis of the future trajectory of health care emissions, in-depth analysis of the supply chain and its climate impact, national and sub-national level health care climate footprinting, economic and health analysis of the costs and benefits of transitioning to climate-smart healthcare, and more.

Health care taking climate action



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GREENING THE HEALTHCARE SECTOR FORUM 2019

Posted by Emma Keech 22sec on July 08, 2019

Melbourne: Monday 23rd & Tuesday 24th September, 2019

Presented by the Climate and Health Alliance, Western Health, and the Institute of Healthcare Engineering Australia.

The *Greening the Healthcare Sector Forum 2019* will explore the big picture changes needed in Australia's healthcare system to address climate change and environmental sustainability, as well as what can be done in individual hospitals and health services to reduce healthcare's environmental impacts. The forum will engage discussion around the intersection between environmental sustainability, infection prevention, and occupational health and safety in pursuing high quality healthcare.

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