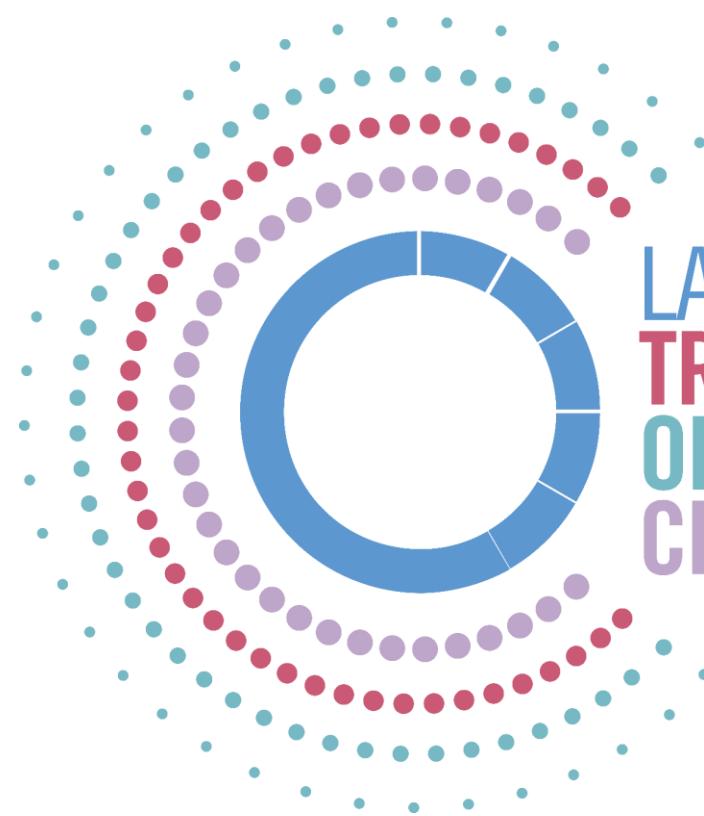
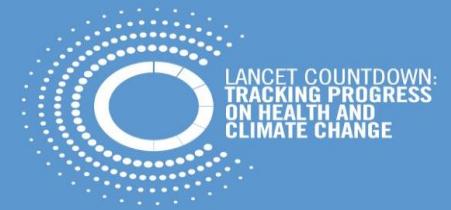


The Lancet Countdown on Health and Climate Change

AdaptNSW – Annual Forum
Sydney, 26 November 2017

Dr Nick Watts | Executive Director
[@LancetCountdown](https://twitter.com/LancetCountdown)

The Lancet Countdown



LANCET COUNTDOWN:
TRACKING PROGRESS
ON HEALTH AND
CLIMATE CHANGE

Lancet Countdown Partners



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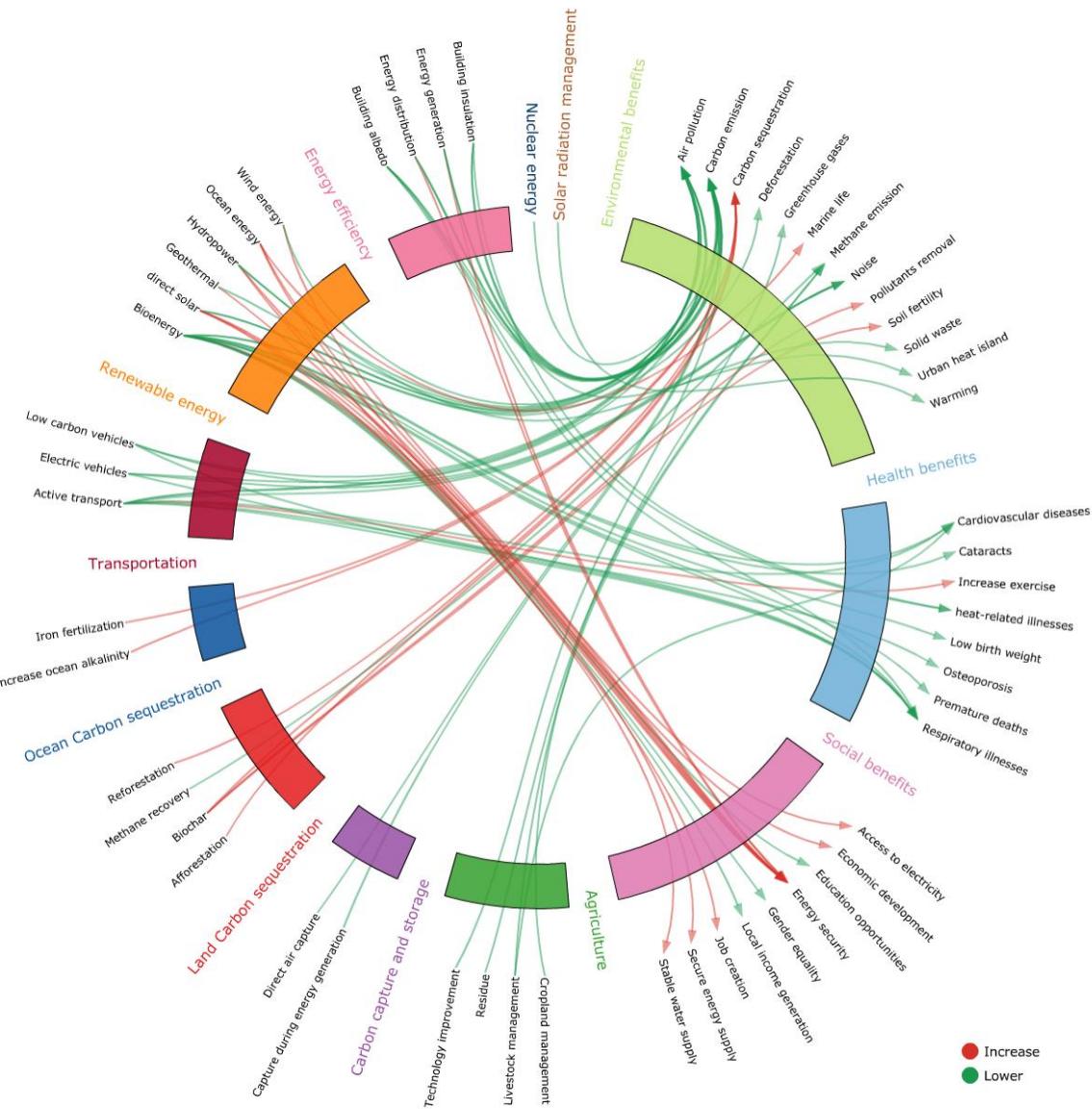
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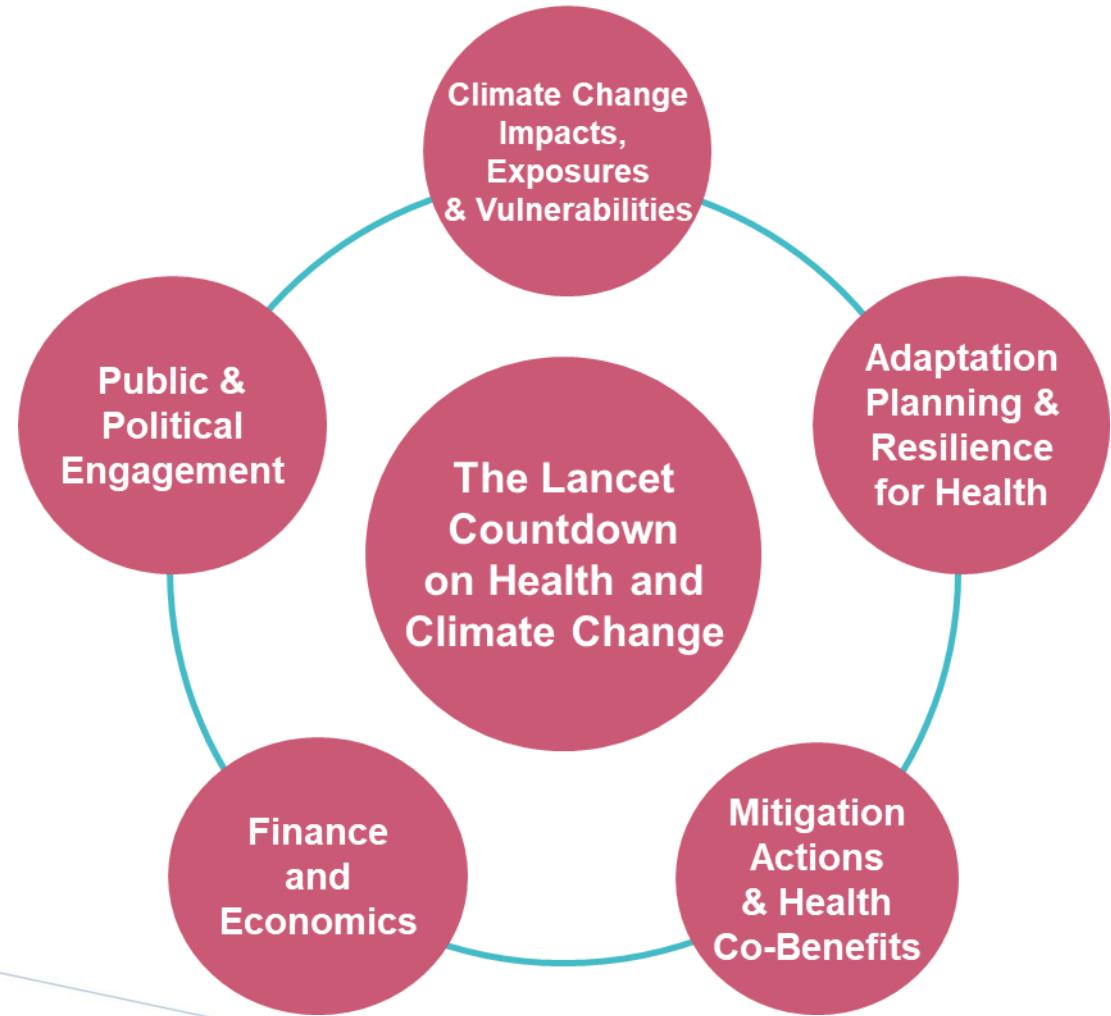
Health, Climate Change & The Lancet



The image shows the front cover of a special issue of The Lancet journal. The title "THE LANCET" is prominently displayed at the top in large, serif capital letters. Below the title is a dark blue horizontal bar containing the text "October, 2017" on the left and "www.thelancet.com" on the right. The main headline reads: "The 2017 report of the Lancet Countdown: from 25 years of inaction to a global transformation for public health". Below the headline is a photograph of two young boys in blue shirts and dark pants riding a red bicycle on a dirt road. The background shows a rural landscape with some greenery and other people in the distance. At the bottom of the cover, there is a smaller version of the Lancet Countdown logo and the text "A Review by The Lancet".



The Lancet Countdown's Working Groups



Indicators of Progress

Thematic Group	Indicators	
1. Climate Change Impacts, Exposures and Vulnerability	1.1. Health effects of temperature change	
	1.2. Health effects of heatwaves	
	1.3. Change in labour capacity	
	1.4. Lethality of weather-related disasters	
	1.5. Global health trends in climate-sensitive diseases	
	1.6. Climate-sensitive infectious diseases	
	1.7. Food security and undernutrition	1.7.1. Vulnerability to undernutrition
		1.7.2. Marine primary productivity
2. Adaptation Planning and Resilience for Health	1.8. Migration and population displacement	
	2.1. National adaptation plans for health	
	2.2. City-level climate change risk assessments	
	2.3. Detection, preparedness, and response to health emergencies	
	2.4. Climate information services for health	
	2.5. National assessment of vulnerability, impacts and adaptation for health	
3. Mitigation Actions and Health Co-Benefits	2.6. Climate-resilient health infrastructure	
	3.1. Carbon intensity of the energy system	
	3.2. Coal phase-out	
	3.3. Zero-carbon emission electricity	
	3.4. Access to clean energy	
	3.5. Exposure to ambient air pollution	3.5.1. Exposure to air pollution in cities
		3.5.2. Sectoral contributions to air pollution
		3.5.3. Premature mortality from ambient air pollution by sector
	3.6. Clean fuel use for transport	
	3.7. Sustainable travel infrastructure and uptake	
	3.8. Ruminant meat for human consumption	
	3.9. Healthcare sector emissions	

Indicators of Progress

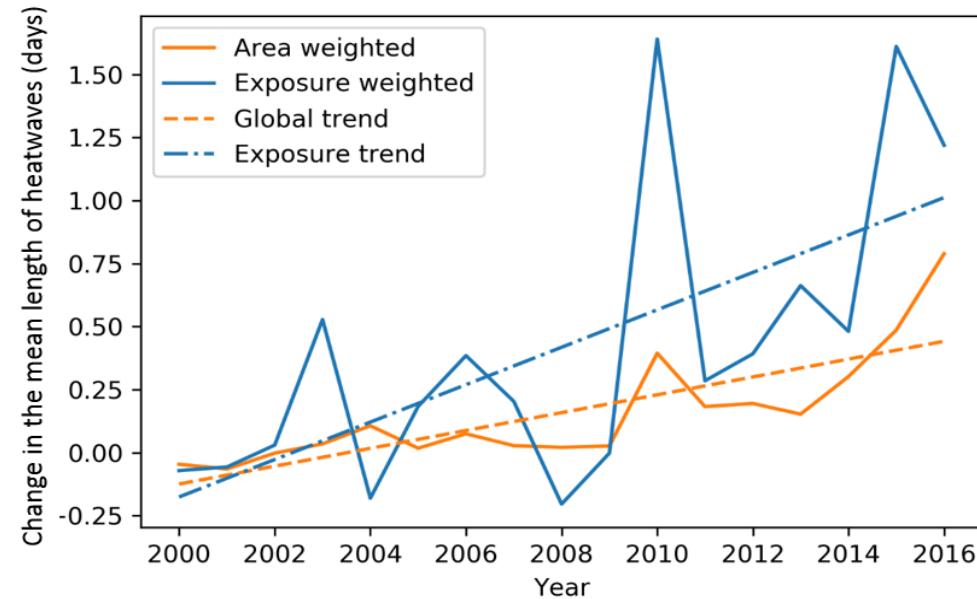
4. Economics and Finance	4.1. Investments in zero-carbon energy and energy efficiency	
	4.2. Investment in coal capacity	
	4.3. Funds divested from fossil fuels	
	4.4. Economic losses due to climate-related extreme events	
	4.5. Employment in low-carbon and high-carbon industries	
	4.6. Fossil fuel subsidies	
	4.7. Coverage and strength of carbon pricing	
	4.8. Use of carbon pricing revenues	
	4.9. Spending on adaptation for health and health-related activities	
	4.10. Health adaptation funding from global climate financing mechanisms	
5. Public and Political Engagement	5.1. Media coverage of health and climate change	5.1.1. Global newspaper reporting on health and climate change
		5.1.2. In-depth analysis of newspaper coverage on health and climate change
	5.2. Health and climate change in scientific journals	
	5.3. Health and climate change in the United Nations General Assembly	

Key Message: Impact

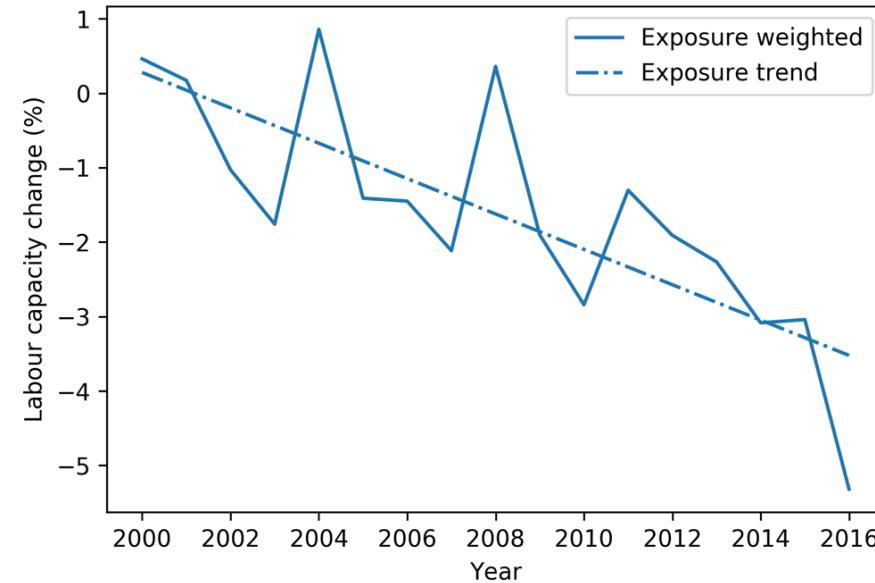
“The human symptoms of climate change are **unequivocal and potentially irreversible** – affecting the health of populations around the world, today.”



1.2 and 1.3. Health Effects of Heat



1.2. Headline Finding: The number of vulnerable people exposed to heatwave events has increased by around 125 million.



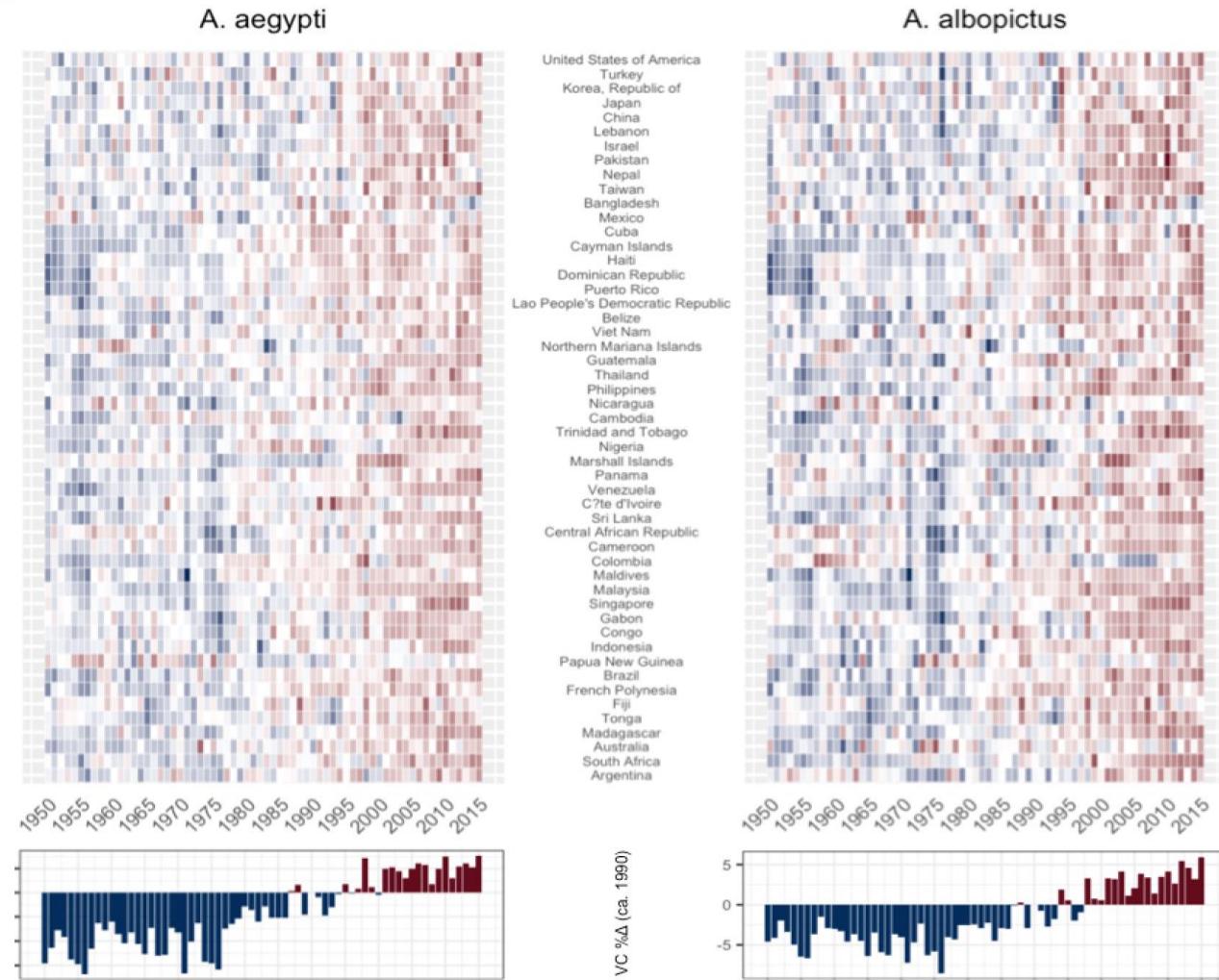
1.3. Headline Finding: Global physical labour capacity in populations exposed to temperature change has decreased by around 5.3%.

1.6. Climate-Sensitive Infectious Diseases



Headline Finding:

Vectorial capacity for the transmission of dengue has increased by 9.4% (*Aedes aegypti*) and 11.1% (*Aedes albopictus*) due to climate trends since the 1950s.



1.8. Population Displacement

Headline Finding:

Climate change alone has directly forced at least 4,400 to migrate, globally.

Over 1 billion people may be at risk of migration by the end of the century, without further action.

Location	Population	Notes on causes
Carteret Islands, PNG	1,200	Migrating due to sea-level rise
Alaska (need to migrate as soon as possible)*		Migrating due to changing ice conditions leading to coastal erosion and due to permafrost melt, destabilising infrastructure
Kivalina	398-400	
Newtok	353	
Shaktoolik	214	
Shismaref	609	
Alaska (need to migrate gradually)*		Migrating due to changing ice conditions leading to coastal erosion and due to permafrost melt, destabilising infrastructure
Allakaket	95	
Golovin	167	
Hughes	76	
Huslia	255	
Koyukuk	89	
Nulato	274	
Teller	256	
Unalakleet	724	
Isle de Jean Charles, Louisiana	25 homes	Coastal erosion, wetland loss, reduced accretion, barrier island erosion, subsidence, and saltwater intrusion were caused by dredging, dikes, levees, controlling the Mississippi River, and agricultural practices. Climate change is now bringing sea-level rise

Key Message: Delay



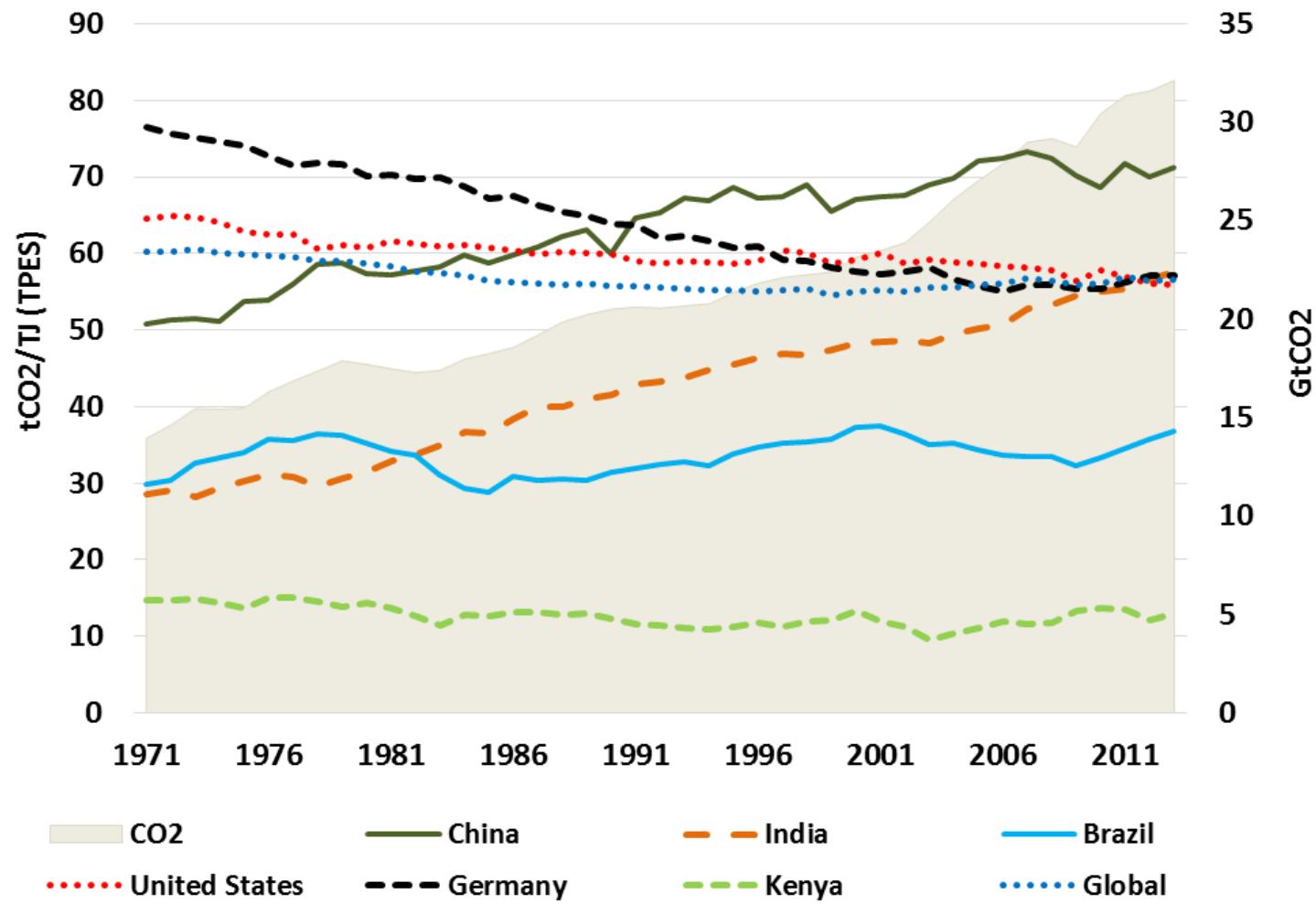
“The delayed response to climate change over the past two decades has jeopardised human life and livelihoods.”

3.1. Carbon Intensity of the Energy System



Headline Finding:

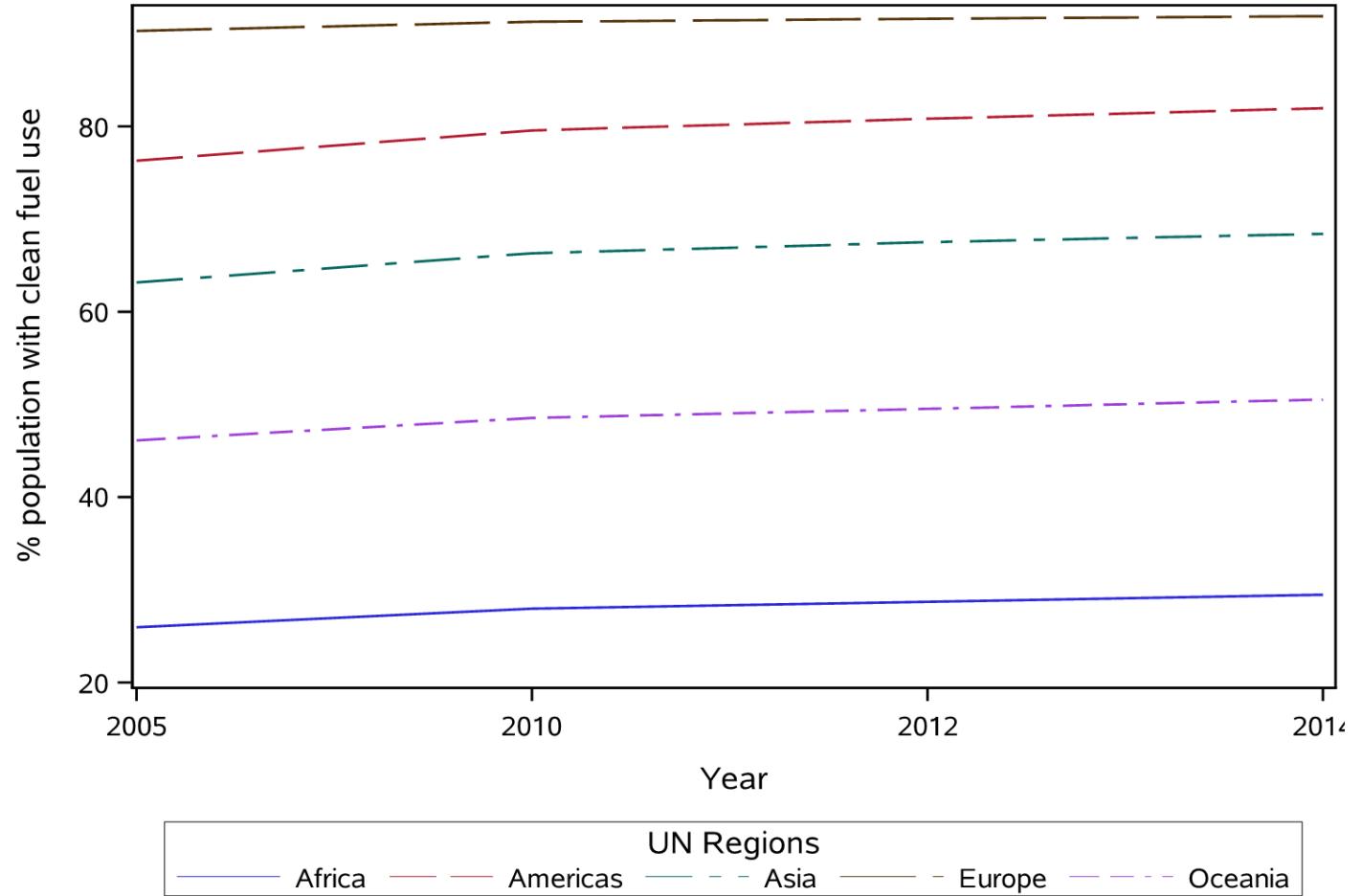
Globally, the carbon intensity of total primary energy supply (TPES) has remained stable since 1990, between 55-56 tCO₂/TJ, reflecting the significant global challenge of energy system decarbonisation.



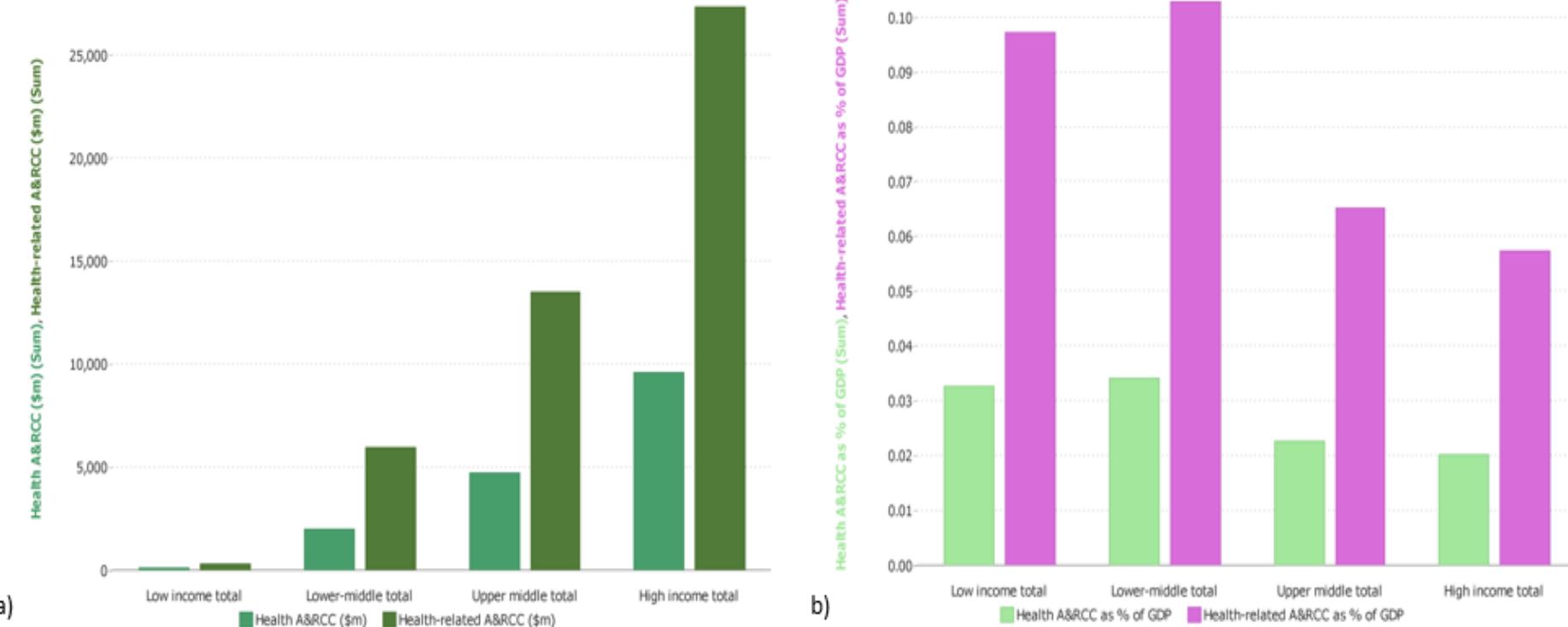
3.4. Access to Clean Energy

Headline Finding:

In 2016, 1.2 billion people did not have access to electricity, with 2.7 billion people relying on the burning of unsafe, unsustainable, and inefficient solid fuels.



4.9. Spending on Health Adaptation



Headline finding: Out of the world's total adaptation spend just 4.63% (\$16.46 billion USD) is on health and 13.3% (\$47.29 billion USD) on health-related adaptation.

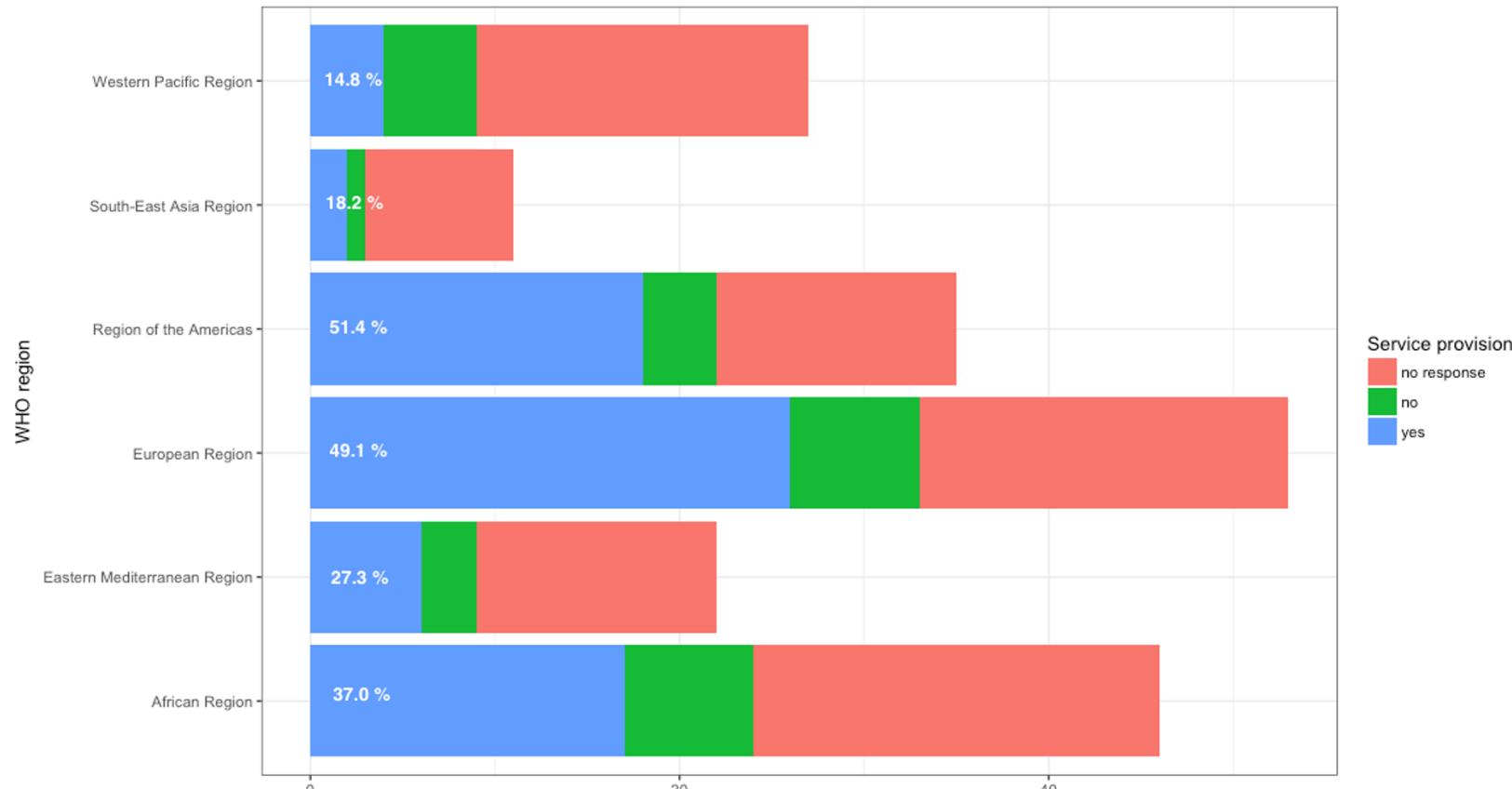
0.96% of total adaptation funding for international development, was dedicated to health adaptation.

Key Message: Optimism



"Although progress has been historically slow, the past 5 years have seen an accelerated response, and in 2017 **momentum is building across a number of sectors**; the direction of travel is set, with clear and unprecedented opportunities for public health."

3.4. Climate Information for Health



Headline Finding:
 Out of the 100 WHO Member States responding to the WMO Survey, 73% report providing climate information to the health sector in their country.

2.3. Adaptation Capacity of Health Systems

Headline Finding:
National capacities relevant to climate adaptation and resilience have increased markedly from 2010 to 2016 in all world regions.

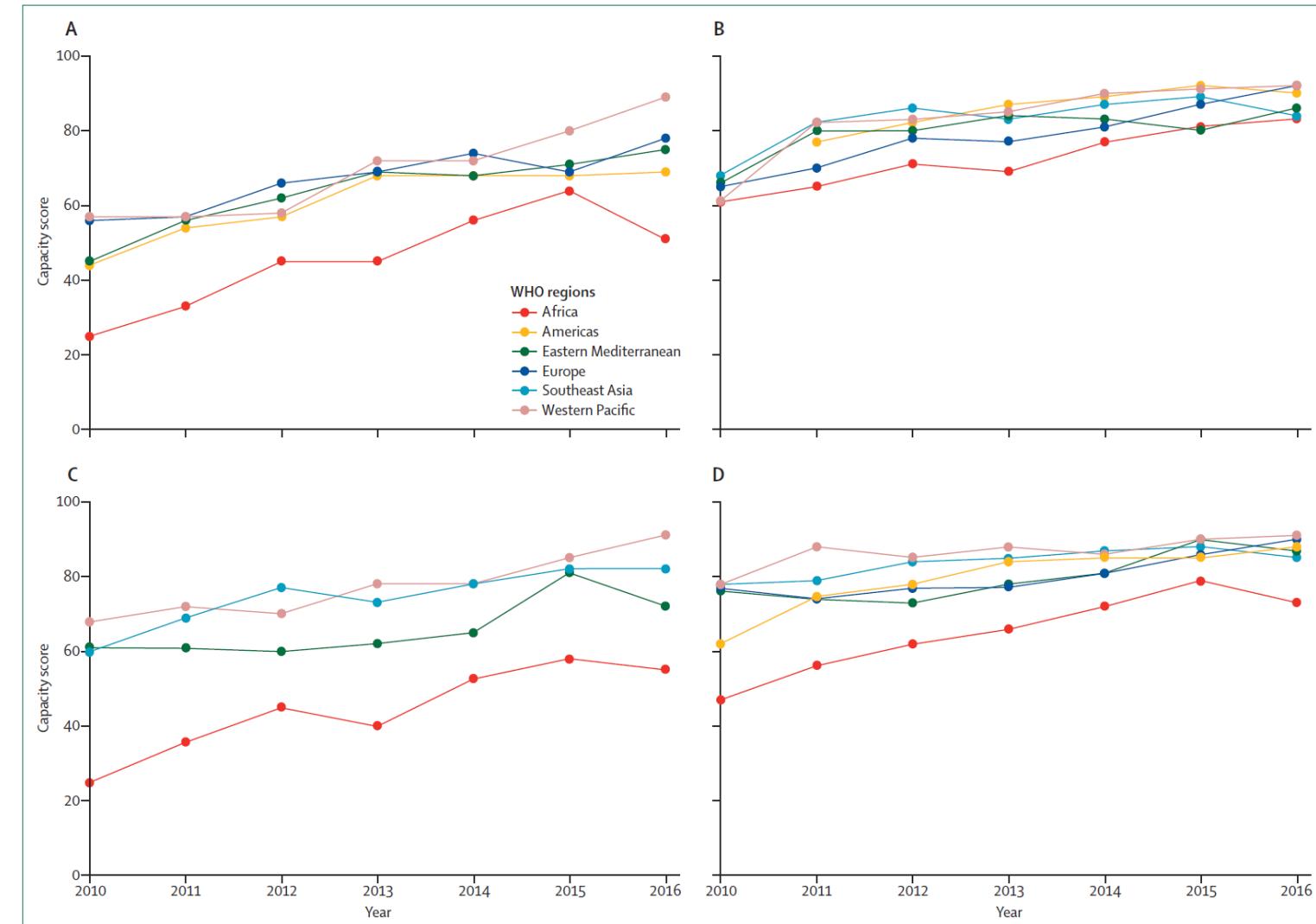
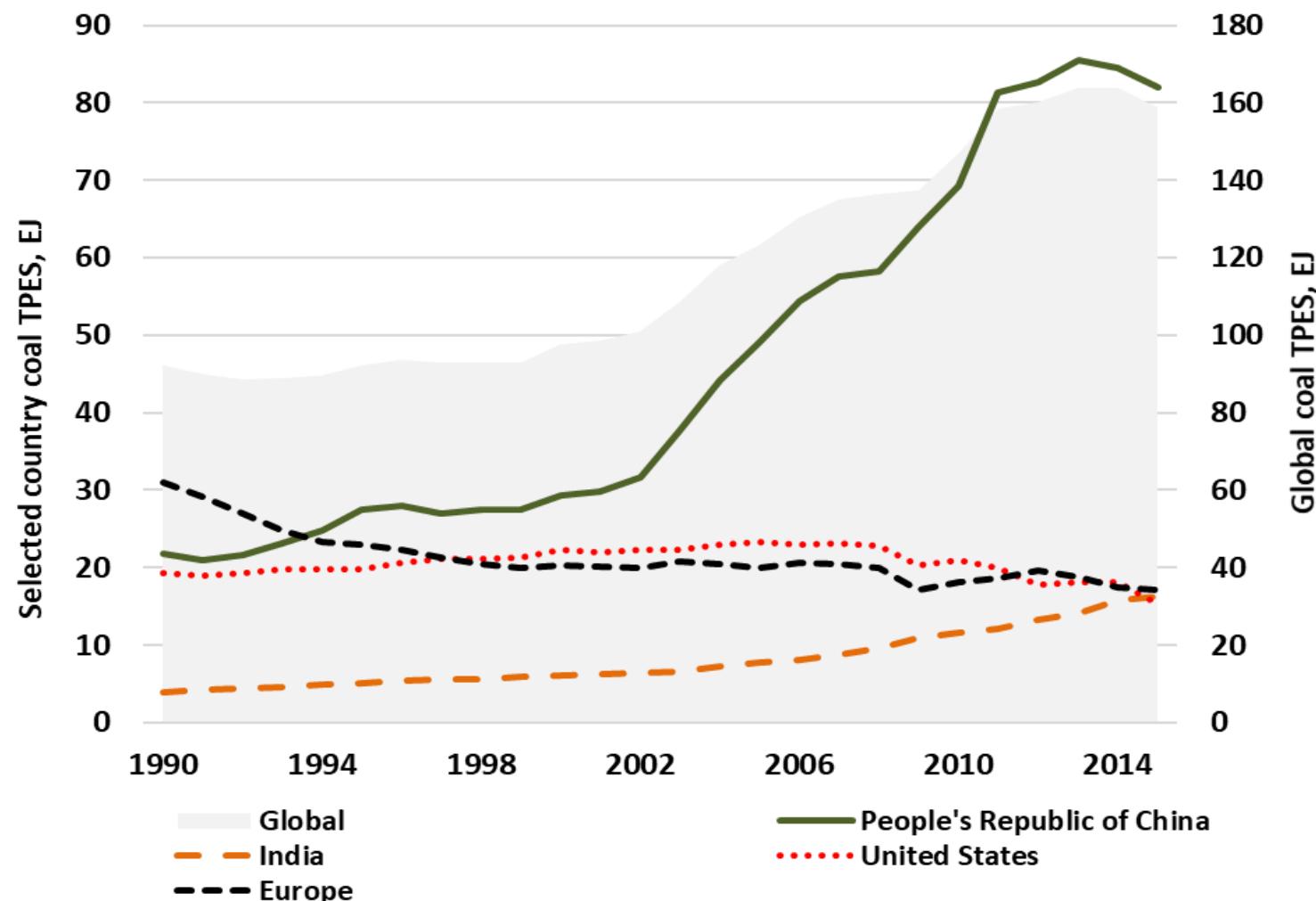


Figure 13: International Health Regulations capacity scores by WHO region
(A) Human resources capacity score. (B) Surveillance capacity score. (C) Preparedness capacity score. (D) Response capacity score.

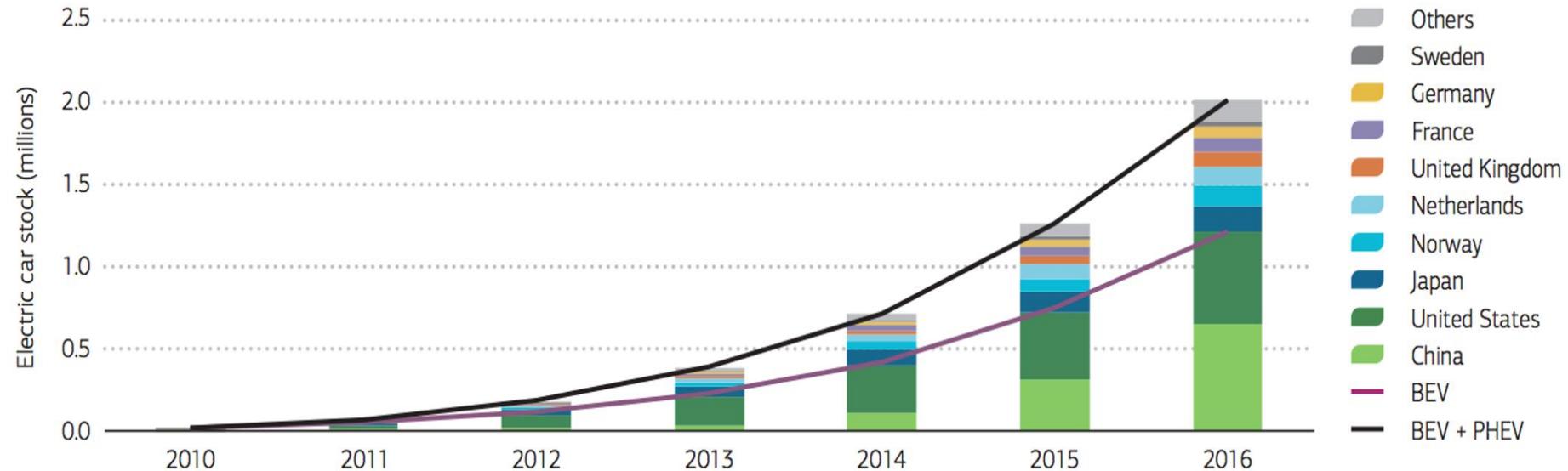
3.2. Coal Phase-Out

Headline Finding: Total Primary Energy Supply of coal peaked in 2013 and has been rapidly declining since then.

Between 2016 and 2017, the amount of additional coal capacity planned for construction, halved.



3.6. Clean Fuel Use for Transport

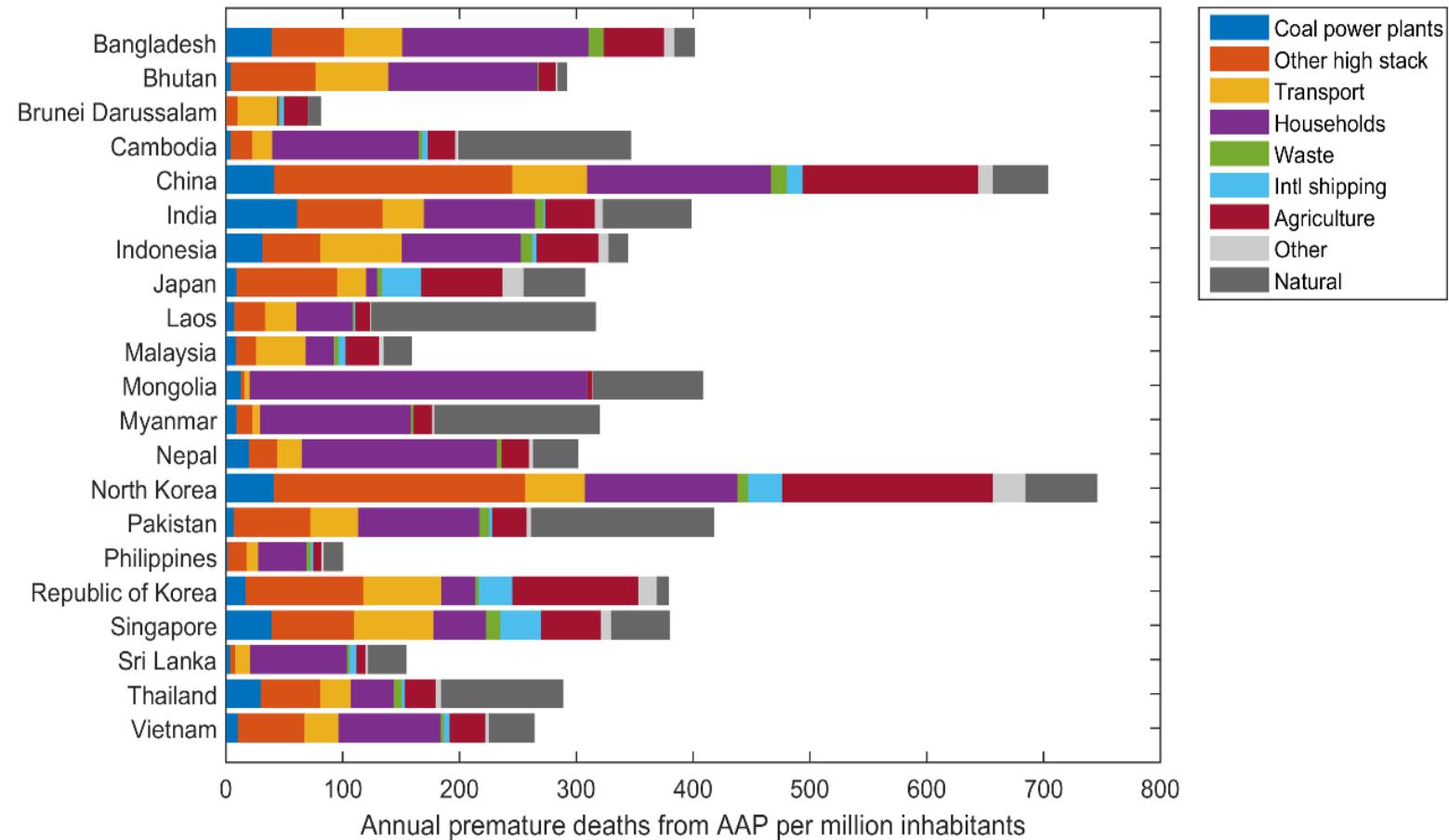


Headline Finding: Electric vehicles are poised to reach cost-parity, with more than 2 million electric vehicles being sold between 2010 and 2016.

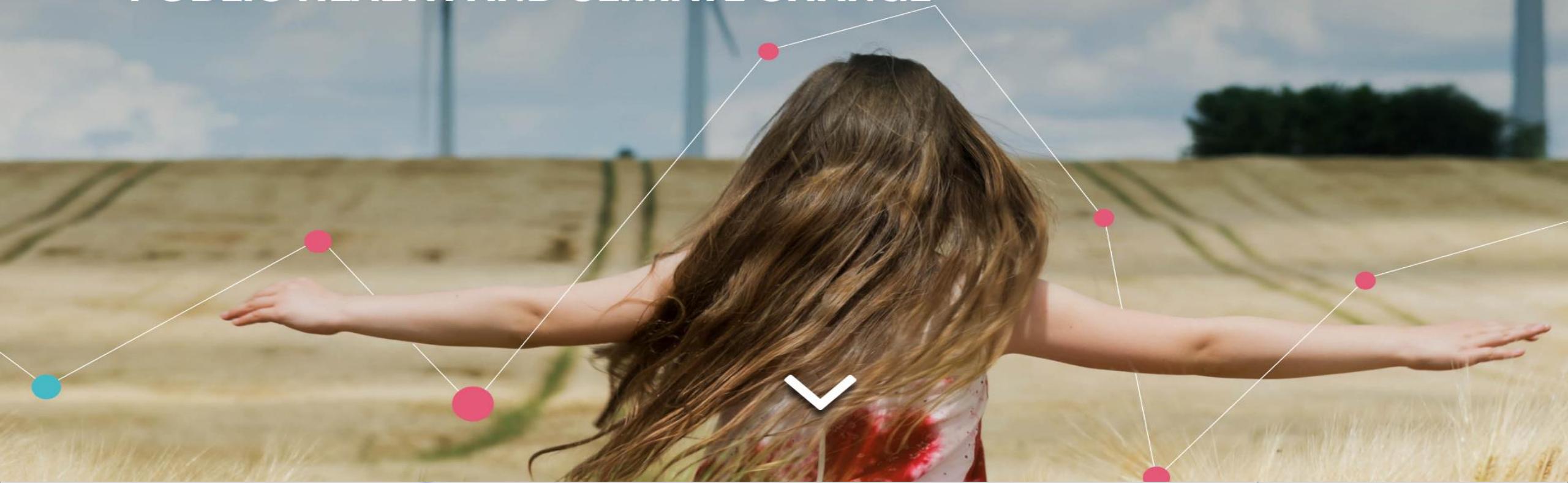
3.5. Premature Deaths from Air Pollution

Headline

Finding: In South East Asia, 1,900,570 people died prematurely as a result of ambient air pollution in 2015.



TRACKING THE CONNECTIONS BETWEEN PUBLIC HEALTH AND CLIMATE CHANGE



Thank You



Dr Nick Watts
Executive Director

www.lancetcountdown.org
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