The 2017 Report of The Lancet Countdown on Health and Climate Change:



From 25 years of inaction to a global transformation for public health

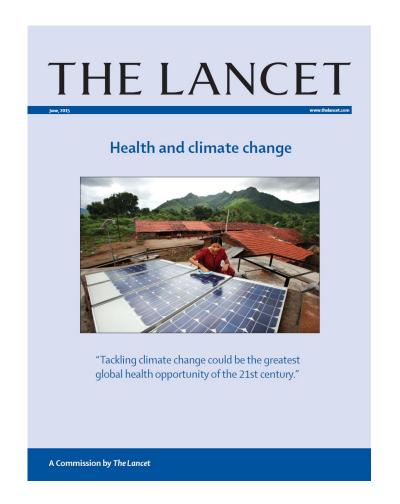
CHILDREN'S HOSPITAL OF EASTERN ONTARIO OTTAWA, 02 NOVEMBER 2017

KRIS MURRAY PHD, ECOLOGICAL HEALTH @LancetCountdown

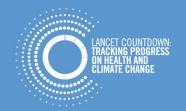
## Health, Climate Change & The Lancet

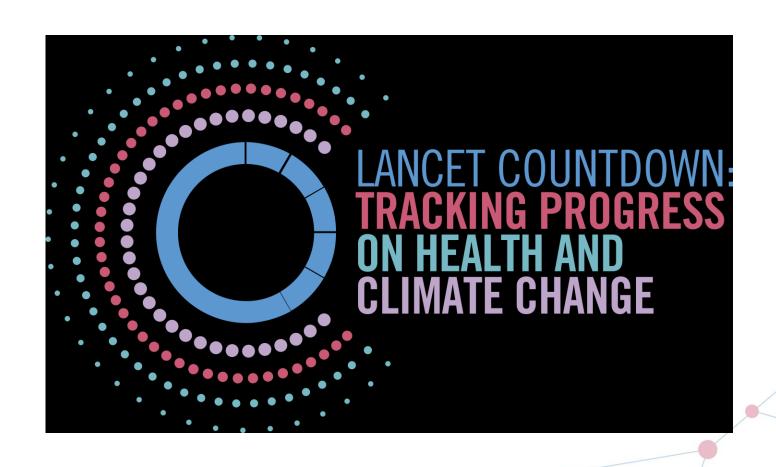






### **The Lancet Countdown**





#### **Lancet Countdown Partners**





## **Indicators of Progress**



Thematic Group	Indicators		
1. Climate Change	1.1. Health effects of temperature change		
Impacts, Exposures and	1.2. Health effects of heatwaves		
Vulnerability	<ul><li>1.3. Change in labour capacity</li><li>1.4. Lethality of weather-related disasters</li><li>1.5. Global health trends in climate-sensitive diseases</li><li>1.6. Climate-sensitive infectious diseases</li></ul>		
	1.7. Food security	1.7.1. Vulnerability to undernutrition	
	and undernutrition	1.7.2. Marine primary productivity	
	1.8. Migration and population displacement		
2. Adaptation Planning	2.1. National adaptation plans for health		
and Resilience 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		
	2.6. Climate-resilient health infrastructure		
3. Mitigation Actions and	3.1. Carbon intensity of the energy system		
Health Co-Benefits	3.2. Coal phase-out		
	3.3. Zero-carbon emission electricity		
	3.4. Access to clean energy		
	3.5. Exposure to	3.5.1. Exposure to air pollution in cities	
	ambient air	3.5.2. Sectoral contributions to air pollution	
	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	5.1. Media	5.1.1. Global newspaper reporting on health and climate	
Engagement	coverage of	change	
	health and	5.1.2. In-depth analysis of newspaper coverage on health and	
	climate change	climate change	
	5.2. Health and climate change in scientific journals		
	5.3. Health and climate change in the United Nations General Assembly		

## **Key Messages: Impact**



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

Whilst these effects will disproportionately impact the most vulnerable in society, every community will be affected."



## **Key Messages: Delay**





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

## **Key Messages: Opportunity**





"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 being set."

# Working Group 1: Climate Change Impacts, Exposures, and Vulnerabilities

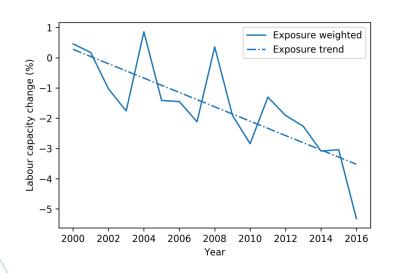


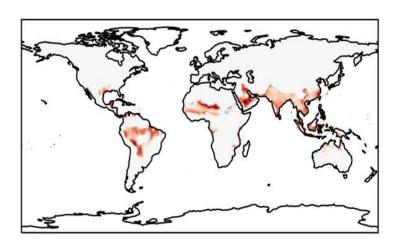


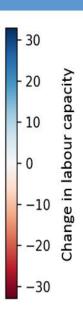
- 1.1. Health effects of temperature change
- 1.2. Health effects of heatwaves
- 1.3. Change in labour capacity
- 1.4. Lethality of weather-related disasters
- 1.5. Global health trends in climatesensitive diseases
- 1.6. Climate-sensitive infectious diseases
- 1.7. Food security and undernutrition
- 1.8. Migration and population displacement

## 1.3. Change in labour capacity









#### **Headline Finding:**

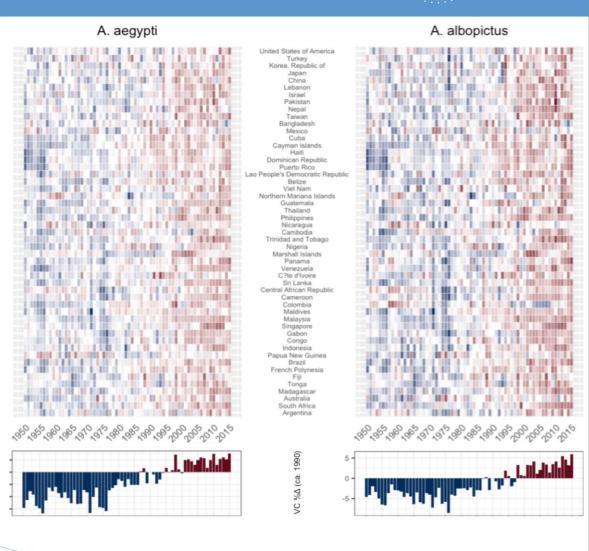
Global physical labour capacity in populations exposed to temperature change has decreased by around 5.3% between 2000 and 2016.

### 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.



# Working Group 2: Adaptation Planning & Resilience for Health





- 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
- 2.6. Climate-resilient health infrastructure

# Working Group 3: Mitigation Actions & Health Co-Benefits





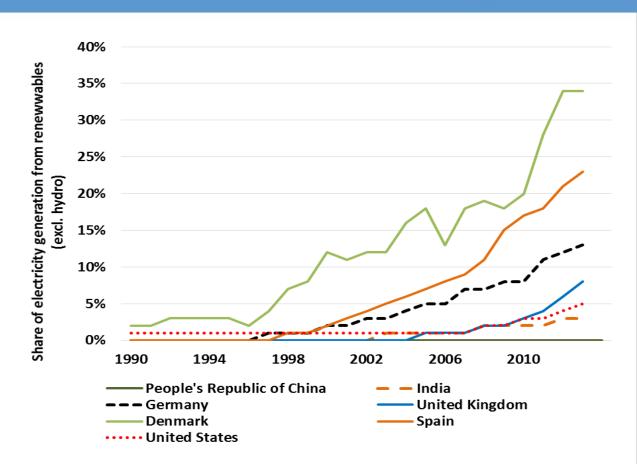
- 3.1. Carbon intensity of the energy system
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- 3.6. Clean fuel use for transport
- 3.7. Sustainable travel infrastructure and uptake
- 3.8. Ruminant meat for human consumption
- 3.9. Healthcare sector emissions

## 3.3. Zero-carbon emission electricity



#### **Headline Finding:**

Globally, renewable electricity as a share of total generation has increased by over 20% from 1990 to 2013



### **Working Group 4: Finance and Economics**





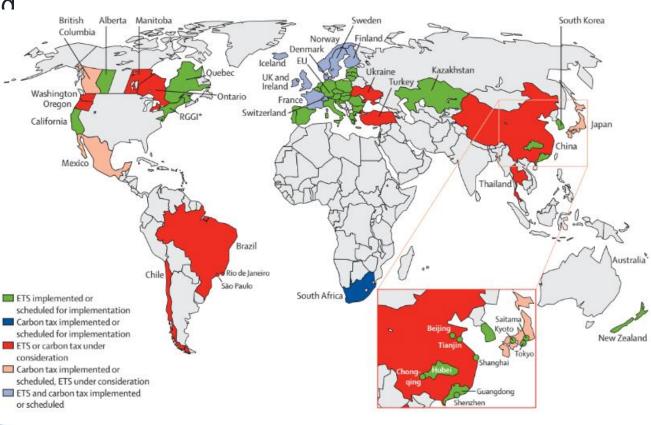
- 4.1. Investments in zero-carbon energy and energy efficiency
- 4.2. Investment in coal capacity
- 4.3. Funds divested from fossil fuels
- 4.4. Economic losses due to climate-related extreme events
- 4.5. Employment in low-carbon and high-carbon industries
- 4.6. Fossil fuel subsidies
- 4.7. Coverage 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

# 4.7. Coverage and strength of carbon pricing



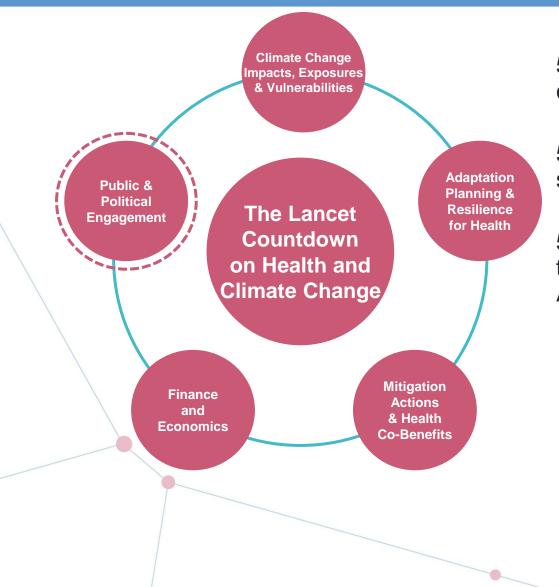
**Headline Finding:** 

So far in 2017, various carbon pricing mechanisms covered 13.1% of global anthropogenic CO<sub>2</sub> emissions, up from 12.1% in 2016.



# Working Group 5: Public and Political Engagement





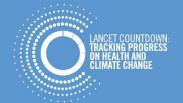
- 5.1. Media coverage of health and climate change
- 5.2. Health and climate change in scientific journals
- 5.3. Health and climate change in the United Nations General Assembly

## 2017 Key Messages



- 1. IIMPACTS: "The human symptoms of climate change are unequivocal and potentially irreversible affecting the health of populations around the world, today. Whilst these effects will disproportionately impact the most vulnerable in society, every community will be affected."
- 2. DELAY: "The delayed response to climate change over the past 25 years has jeopardised human life and livelihoods."
- 3. PROGRESS: "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."

## **Tracking Progress from 2017 to 2030**





Annual publications in The Lancet:

- Strengthen Indicators through an iterative and adaptive process
- Communications, outreach, and policy engagement
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### Thank You



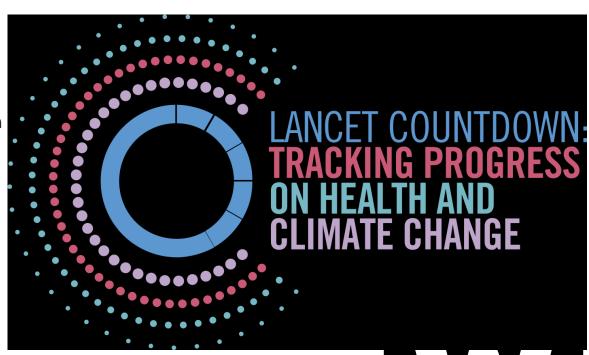
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