Planetary Health
Safeguarding health in the Anthropocene

Professor Tony Capon
Director, Planetary Health Platform
This talk

1. The Rockefeller Foundation–*Lancet* Commission on planetary health

2. Relevance of planetary health to the 2030 Agenda for Sustainable Development

3. Framing climate change as a public health issue
Safeguarding human health in the Anthropocene epoch: report of The Rockefeller Foundation–Lancet Commission on planetary health

Commissioners:

Prof Chris Beyrer
Dr Fred Boltz
Prof Anthony Capon
Dr Alex Ezeh
Prof Gong Peng
Prof Sir Andy Haines (Chair)
Dr Richard Horton
Dr Sam Myers

Dr Sania Nishtar
Dr Steve Osofsky
Prof Subhrendu Pattanayak
Dr Montira Pongsiri
Dr Agnes Soucat
Dr Jeanette Vega
Dr Derek Yach
Dr Sarah Whitmee
(Commission Researcher)

Building on previous work including the Brundtland Commission, IPCC, MA, One Health, Eco Health, CBD, Tony McMichael
Hippocrates

circa 400 BC
Waiora is the Maori word for wellbeing

Composed from ‘wai’ meaning water and ‘ora’ meaning life
By almost any measure, the human population is healthier than ever before (World Bank, 2011)
But to achieve this, we’ve exploited the planet at an unprecedented rate.
Planetary boundaries
(Steffen et al Science 2015)
What is Planetary Health?

“Put simply, planetary health is the health of human civilisation and the state of the natural systems on which it depends.”
Relationships between environmental change and human health
(Millennium Ecosystem Assessment, 2005)

Environmental changes and ecosystem impairment
- Climate change
- Stratospheric ozone depletion
- Forest clearance and land cover change
- Land degradation and desertification
- Wetlands loss and damage
- Biodiversity loss
- Freshwater depletion and contamination
- Urbanisation and its effects
- Damage to coastal reefs and ecosystems

Examples of health effects

Direct health effects
- Floods, heatwaves, water shortage, landslides, exposure to ultraviolet radiation, exposure to pollutants

Ecosystem-mediated health effects
- Altered infectious disease risk, reduced food yields (undernutrition, stunting), depletion of natural medicines, mental health (personal, community), effects of aesthetic or cultural impoverishment

Indirect, deferred, and displaced health effects
- Diverse health consequences of livelihood loss, population displacement (including slum dwelling), conflict, inappropriate adaptation and mitigation
Effects of multiple environmental changes on food availability and quality

- Climate change
- Temperature/extreme events
- CO₂ fertilization
- Pests, mold and fungi
- Land degradation and soil erosion
- Water scarcity (from overconsumption, diversion to non-food crops, climate change and changes to ecosystem function)
- Loss of pollinators
- Overfishing/Ocean acidification
Estimates of air pollution deaths

(WHO 2014; Lim et al, Lancet 2012)

- Ambient particulates: >3 m deaths p.a.
- Household from solid fuels: >4 m deaths p.a.
- >7 million in total
Annual average global mortality (1997–2006) due to landscape fire smoke

Reproduced from Johnston and colleagues 2012; by permission of Environmental Health Perspectives.
Emerging diseases
Meeting the challenges
Developing sustainable and healthy cities

- Active travel/public transport
- Reduced fine particulate air pollution
- Green spaces – biodiversity, reduced heat island and mental health benefits
- Watershed conservation
- Access to healthy food
- Increased resilience to floods, storms and droughts
Multiple approaches for meeting increased food requirements

- Sustainable intensification
- Efficient use of water and fertiliser
- Reduced food waste
- Sustainable aquaculture
- Support for subsistence farmers
- New sources of nutrition + diversification
- Biofortification
- Change of diets and redirect landuse back to food

![Graph showing total global cereal production](image-url)
Circular economy

- Raw materials
- Design
- Production remanufacturing
- Recycling
- Residual waste
- Collection
- Circular economy
- Distribution
- Consumption use, reuse, and repair
Solutions lie within reach and require a redefinition of prosperity to focus on quality of life and improved health for all, together with respect for the integrity of natural systems.

- Conceptual challenges (e.g. genuine progress measures)
- Research and information challenges (e.g. transdisciplinary)
- Governance challenges (e.g. wellbeing of future generations)
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PLANETARY HEALTH

Achieving the Sustainable Development Goals (SDGs) and meeting UNDP’s vision to eradicate poverty and reduce inequalities and exclusion, requires new ways of working: identifying co-benefits across targets, encouraging effective cross-sector action, and ensuring policy coherence.

Planetary Health, a new trans-disciplinary field, calls for simultaneously safeguarding human health and the natural systems that underpin it. Its focus is more expansive and holistic than traditional environmental health, bringing to the forefront inter- and intra-generational equity dimensions and calling for integrated approaches to address social, environmental and economic impacts of increasing pressures on our planet.

Key Facts

- Climate change could push 100 million people into poverty by 2030. Between 2030 and 2050, it is expected to kill an additional 250,000 people annually, from malnutrition, malaria, diarrhoea and heat stress.

- In 2012, almost one quarter of global deaths were attributed to unhealthy environments. Of the 12.6 million deaths, children and the elderly were disproportionately impacted.

- The increased frequency of natural disasters is a clear threat to health particularly for women who accounted for 70–80% of fatalities in the 2004 Indian Ocean tsunami, and 91% in the 1991 cyclone in Bangladesh.
• e-journal
• open access
• monthly

http://www.thelancet.com/journals/lanplh/issue/current
Our planet, our health

We're committed to understanding and tackling the threat to our health posed by a dramatically changing world. We also want to ensure that any solutions protect, nurture and sustain our planet.

Our planet, our health has been a strategic priority for us since late 2015.

Why it's a priority for us

Our health is closely linked to the environment we live in. But we're placing too many demands on our planet. Natural systems that we rely on – from clean air to fresh water, biodiversity to a stable climate – are under threat.

As researchers discover more links between our health and the environment, we become better equipped to come up with ways to reduce these threats. There are already opportunities for change, but more research and action is needed.

We're well placed to act, because:

- we're an established and respected funder of population and other health research
We are delighted to invite you to a public lecture about planetary health by Richard Horton, Editor-in-Chief of The Lancet, and the launch of the University of Sydney’s new Planetary Health Platform by Helen Clark, former Prime Minister of New Zealand (1999-2008) and Administrator of the United Nations Development Programme (2009-2017).

Planetary Health is about safeguarding the health and wellbeing of current and future generations through good stewardship of the natural world.

DATE AND TIME
Thu. 14 December 2017
5:30 pm – 7:30 pm AEDT
Add to Calendar

LOCATION
Charles Perkins Centre Auditorium
THE BIOLOGY OF CIVILISATION
understanding human culture as a force in nature

STEPHEN BOYDEN
Planetary health is about safeguarding the health and wellbeing of current and future generations through good stewardship of Earth’s natural systems, and by rethinking the way we feed, move, house, power and care for the world.

How we manage ourselves to leave no one behind:
values, education, regulation, economic system

The big five pathways:
- How we feed the world
- How we move the world
- How we house the world
- How we power the world
- How we care for the world

Our future depends on the health of the natural world.
Climate change is a public health issue

• Makes it urgent

• Makes it personal

• There is a positive story to tell