

The development of a Health and Wellbeing Climate Adaptation Plan (H-CAP)

An overview of the issue, stakeholders, risks, and responses



CLIMATE^{AND}
HEALTH
ALLIANCE

Who is leading this work?

National Climate Change Adaptation Research Facility (NCCARF)

Climate and Health Alliance (CAHA)

engaged by the Department of the Environment and Science (DES) to develop a health and wellbeing climate adaptation plan (H-CAP)

in partnership with those providing healthcare, childcare and aged care in Queensland.



Who is the health and wellbeing community (target audience)?

Who are we talking to in development of plan?

- Steering Committee includes Queensland Health, QCOSS, NRMQRQ (Regional Groups Collective)
- Stakeholders include: hospitals, primary health services, public health, aged care and childcare services, health unions, researchers, academics, and you!



What we hope to achieve

- A **high level framework** to guide health and wellbeing sector decision-making in addressing climate change and associated health impacts
- **Innovation and resilience** in managing the risks associated with a changing climate
- **Harness the opportunities** provided by action to respond
- Build on existing policy & establish **key directions for future**

One of those existing policy frameworks

FRAMEWORK FOR A
**NATIONAL STRATEGY
ON CLIMATE, HEALTH AND
WELL-BEING FOR AUSTRALIA**

June 2017



- A high level framework to guide government policy and decision-making
- Intended to support the development of policy responses to help Australia mitigate and adapt to minimise the threats to health from climate change
- Provides a framework against which to report against the Lancet Countdown indicators
- Supports Australia to meet its commitments under the Paris Agreement

Launch in Parliament House in Canberra – July 2017

Framework for a Climate Health and Wellbeing Strategy for Australia



What do we know about climate change and the health and wellbeing sector?

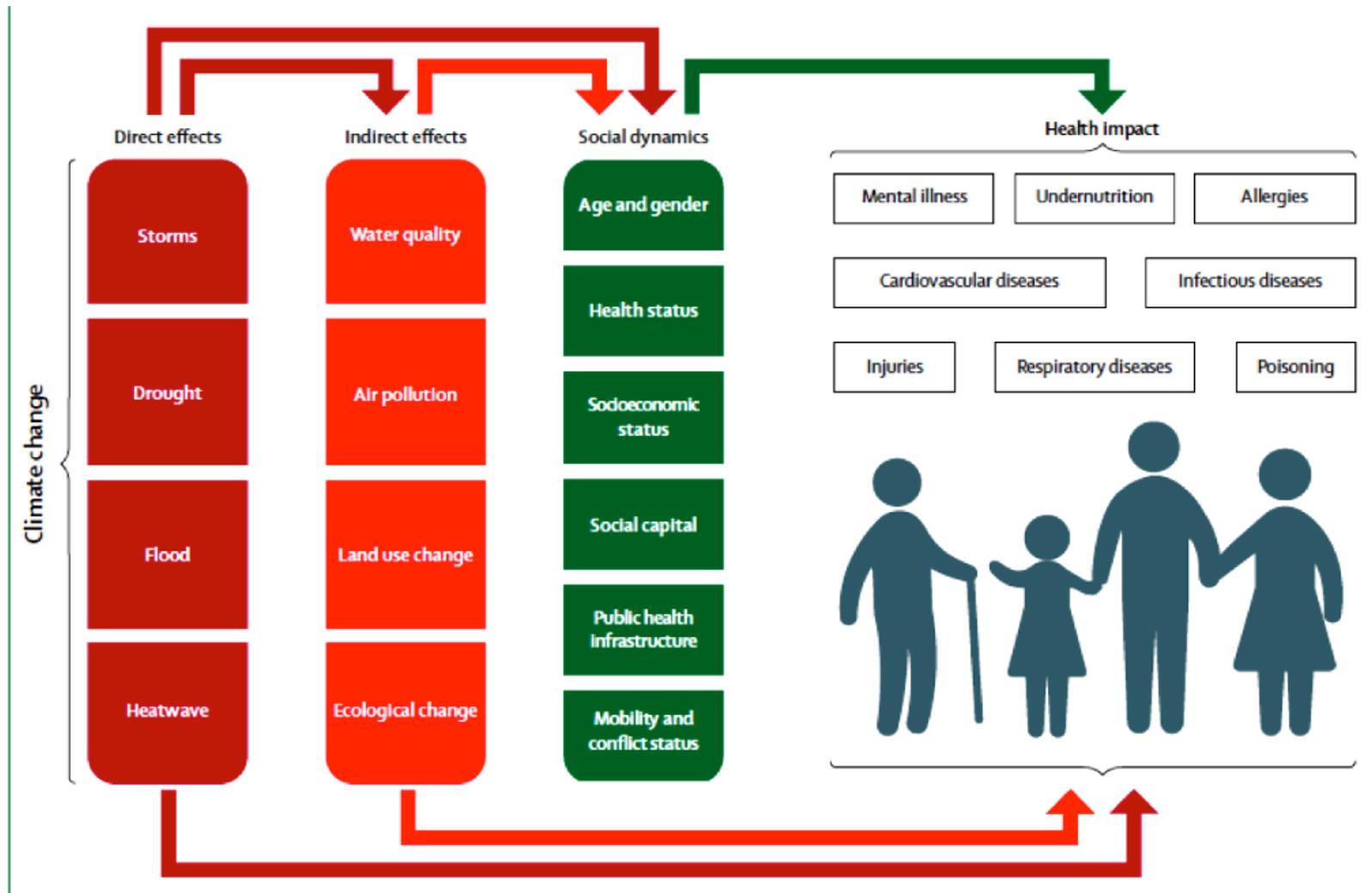


Figure 2: The direct and indirect effects of climate change on health and wellbeing

Health and well-being services in Qld are vulnerable

- Extreme weather can cause interruptions to essential services (eg Cyclone Larry in 2006 caused closure of Innisfail Hospital)
- Heatwaves cause surges in demand – increases in heat stress, heart attacks
- Post event trauma often a significant health impact – family violence, mental health (eg 2011 floods ‘intangible’ costs \$7.4 billion)

What have we heard so far?

We've heard from:

- Primary health care services, community health, women's health, academic institutions, aged care, childcare (60% over 100 staff)
- 64% highly aware of health risks from climate change; 33% some level awareness)
- 5% have undertaken any risk assessment
- 34% concerned about risks to assets; 43% concerned re risks to safety and quality of care
- 50% said biggest challenge managing complex interactions
- Lack of awareness / information preventing best possible decisions
- 62% engaged in some adaptation activities

Recent literature on infrastructure vulnerability

- Underfunded building and infrastructure maintenance and capital works
- Poor road access for new patients and back-up medical supplies
- Generators built in basements prone to flooding
- Lack of accommodation for staff trapped on site
- Poor coordination with other emergency and health agencies such as aged care
- Access roads being cut off
- Health facilities managers being excluded from disaster management and planning
- Many processes that actually help services cope are informal and not built into plans

Loosemore, M, and Chand, A. Barriers To Building Resilience To Extreme Weather Events In Australian Hospitals, UNSW. Available at: <http://www.arcom.ac.uk/-docs/proceedings/6f43d85eb7a4398cc685ba4988a57e28.pdf>



Costs of Paris Agreement outweighed by health savings

Publicly released: Sat 3 Mar 2018 at 1030 AEDT | 1230 NZDT

The global cost of the Paris Agreement could be zero once the savings on air-pollution-related health are factored in, according to international researchers. They modelled the impacts of doing nothing, continuing current policies, and three different strategies for implementing and funding the Paris Agreement, by combining emission estimates, the costs of air pollution-related deaths, and the costs of climate change mitigation for those signed up in Paris (including the US). Overall, they estimate implementing the agreement would cost US\$22–42 trillion to meet the 2°C warming target, but would prevent 100 million air pollution deaths between 2020–2050, a reduction of a quarter.

Journal/conference: The Lancet Planetary Health

Organisation/s: Basque Centre for Climate Change, Spain

Funder: This study was funded by the European Union's Horizon 2020 research and innovation programme

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Volume 2, No. 3, e126–e133, March 2018

Articles

Health co-benefits from air pollution and mitigation costs of the Paris Agreement: a modelling study

Prof Anil Markandya, PhD, Jon Sampedro, MSc, Steven J Smith, PhD, Rita Van Dingenen, PhD, Cristina Pizarro-Irizar, PhD, Prof Iñaki Arto, PhD, Prof Mikel González-Eguino, PhD

Open Access PlumX Metrics

DOI: [https://doi.org/10.1016/S2542-5196\(18\)30029-9](https://doi.org/10.1016/S2542-5196(18)30029-9) | CrossMark



Article Info

Summary Full Text Tables and Figures References Supplementary Material

Summary

Jump to Section Go

Background

Although the co-benefits from addressing problems related to both climate change and air pollution have been recognised, there is not much evidence comparing the mitigation costs and economic benefits of air pollution reduction for alternative approaches to meeting greenhouse gas targets. We analysed the extent to which health co-benefits would compensate the mitigation cost of achieving

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COMMENT
The health and economic benefits of climate mitigation and pollution control
Open Access

Risk assessment

- Risk assessment is vital for evaluating scale and extent of risk – including assessment of vulnerable populations (can be done at state-wide as well as regions and local catchment)
- Legal implications – the recent Hutley legal opinion states that directors of boards (including health sector boards) who fail to account for climate risk in their strategic and operational plans could be found *personally liable* in a court
- Lack of guiding policy and few risk assessments being conducted means services don't know what they don't know

Adaptation must also include mitigation

- Hospitals and health services are contributing to climate change (e.g. health sector is responsible for 7% of national emissions)
- Building resilience / adaptation to climate change must also include transitioning to low carbon operations (state commitments to net zero emissions by 2050 cannot begin in 2030 or 2040...)
- Choose no regrets/ win-win-win options

Examples of how (some) hospitals and health services are responding

GLOBAL GREEN and HEALTHY HOSPITALS
Acting Together for Environmental Health

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Ten Goals

- Overview
- Leadership
- Chemicals
- Waste
- Energy
- Water
- Transportation
- Food
- Pharmaceuticals
- Buildings
- Purchasing

The Agenda

Join the Network

Joining the Global Green and Healthy Hospitals network is a fluid and easy process. Following these three steps to become a member today!

STAGE 1: Join

- Send us a letter of intent to join and wait for your welcome packet

STAGE 2: Get started

- Log on with the Username and Password you received in your welcome packet
- Update your personal profile with basic information about your hospital/health system/health organization

STAGE 3: Track progress

- Provide an update on the steps you've taken to work towards your sustainability goals: successes, challenges, goals reached, goals for the coming year, etc.

Global Green and Healthy Hospitals Network

Free to join!

Only Health Care members

- Hospitals
- Health Systems
- Health Care Organisations

Request to be a member via:

www.greenhospitals.net



Examples of how (some) hospitals and health services are responding

- Australian and New Zealand hospitals and health services that are part of the Global Green and Healthy Hospitals network are building resilience, reducing emissions, and promoting public health by:
 - Securing their energy supply
 - Improving energy efficiency
 - Promoting healthier, low emissions transport
 - Raising awareness with staff engagement programs
 - Minimising waste, recycling, influencing suppliers
 - Undertaking risk assessment



Members of the Global Green and Healthy Hospitals network contribute case studies to inform others and spur progress towards a global best practice for low carbon, climate resilient healthcare (seen here in AHHB)

THE AUSTRALIAN
HOSPITAL HEALTHCARE
BULLETIN SUMMER 2018

SUSTAINABLE HEALTH CARE
Innovative, cost effective & environmentally friendly

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National standards relaunch

INFECTION CONTROL
Sustainable infection prevention

LEADERSHIP
GSI Australia CEO Maria Palazzolo

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Case Study 1
Anaesthetic gases – greenhouse gas reductions
Western Health, Melbourne, Australia

About Western Health
Western Health, Melbourne, has approximately 700 beds and 19 operating rooms. It is a general hospital (no cardiac surgery, minimal neurosurgery) with a large maternity section.

Hospital goal
To reduce hospital greenhouse gas emissions by changing the type of anaesthetic gases used.

The Issue
Like most hospitals, Western Health uses a variety of general anaesthetic gases, primarily sevoflurane, desflurane and ⁷⁰2D (low global warming potentials compared with sevoflurane for sevoflurane). Moving away from desflurane and ⁷⁰2D can considerably reduce environmental footprint.

Sustainability strategy implemented
The majority of the Anaesthetic Department voluntarily reduced their desflurane and nitrous oxide use and attempted to use lower flows of gases in general. There was little appetite within the department to create using desflurane and ⁷⁰2D completely.

Progress achieved
• Financial benefits: approximately \$20000 per year.
• Environmental emissions per

Case Study 2
Reducing waste from operating theatres
Royal Melbourne Hospital

About Royal Melbourne Hospital
Royal Melbourne Hospital is part of Melbourne Health, Victoria's largest public health services, which also includes North Western Mental Health, North West Coast Service and Victorian Infectious Disease Reference Laboratory. Employing over 8000 staff across our services, Melbourne Health manages over 1400 beds.

Hospital goal
• Reduce waste to landfill.
• Reduce carbon footprint.

The Issue
Much of the equipment used in operating theatres is disposable for reasons of safety, leading to a great deal of waste. Much of the waste was put into clinical waste bins costing \$3 a piece more to dispose of.

Sustainability strategy implemented
Starting small, 6 large and 12 small bins were placed around the department. This was followed by introducing cardboard and paper recycling bins, co-mingled glass and plastic bins, aluminium bins, battery bins, PVC bins and bins for recycling steel or hard tools.

Other measures:
• Clinical waste bags were not opened until the end of each operation to discourage people from putting general waste in clinical waste bins.
• Staff re-educated on which items go into sharps disposal bins.
• Polypropylene cups in the team room were replaced with paper cups.
• Companies delivering items in polystyrene packaging asked to remove the packaging after delivery.
• Contents of custom packs were changed to remove items regularly discarded.
• Staff encouraged to shut down computers and turn off lights at the end of the day.

Progress achieved
• Environmental benefits: reduced clinical waste resulted in \$200,000+ cost savings since 2013.
• Environmental benefit: 165 tonnes of clinical waste eliminated.
Human health benefit: clinical waste is

Case Study 3
Community energy efficiency program
UnitingCare Community and Blue Care

About UnitingCare
UnitingCare Community is the community services arm of Uniting Care Queensland, with 2600+ staff, 6000+ volunteers and over 280 service state-wide.

The Issue
Energy is the most significant sustainability challenge for UnitingCare Community (UCC) and Blue Care (BC), with stationary energy comprising over 50% of the organisation's carbon footprint. It is also the most significant financial consideration, with money spent on operating costs reducing the funding available for important community services.

The federal government's Community Energy Efficiency Program (CEEP) provided a funding catalyst to enable UCC and BC to allocate highly skilled staff to funding towards energy efficiency, and to retrofit works that would not have otherwise been afforded.

Sustainability strategy implemented
Energy audits conducted, identifying energy saving opportunities. Energy efficiency activities were subsequently completed in 27 sites, including:

- general electrical lighting upgrades, lighting controls, de-lamping
- water logic system air-conditioning upgrades, ceiling fans, ceiling insulators
- management controls (remote metering, chilled water meters, general appliance timers, time delay switches, zip-binder timers)
- water systems (low pump hot water system upgrades, efficient shower heads, pool pump timer)
- Energy efficiency workshops for staff and volunteers.
- Marketing and communications were distributed across UCC and BC's state-wide network. Specific to energy-saving, a sign was created an identifying mascot to theme all communication resources.

Progress achieved
• Total energy saving across all sites: 33%.
• Cost savings \$86,000+ in 2015 for UCC and BC. Average cost saving per site retrofitted is \$3000 per year, with 10 sites producing savings greater than this.
• Energy consumption savings: 154,059 kWh

Case Study 4
Environmentally friendly cups.
Below: Members of the team bearing about the new program.

20 THE AUSTRALIAN HOSPITAL HEALTHCARE BULLETIN SUMMER 2018 hospitalhealth.com.au

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long-haul flights from Melbourne, Australia to London, UK.

- Human health benefits: waste anaesthetic gases can be harmful to staff if not properly exhausted.

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waste and increasing recycling a reduction in chemical use and landfill is achieved, reducing greenhouse gas emissions and pollution.

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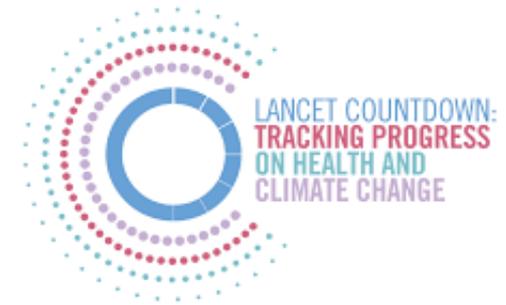
What do we know - and what don't we know

- The evidence suggests (most) health services are not yet preparing to adapting to climate change – despite being impacted
- This poses risks to safety and quality and continuity of care
- Australia is lagging behind other nations in responding to the health impacts of climate change
- CAHA consultation revealed serious concerns

Policy recommendations from national Framework

- Evaluate the economic savings from additional health benefits associated with a range of emissions reductions strategies
- Ensure health professionals are able to recognise, prepare for and respond to the health impacts of climate change through education and training
- Include evaluation of climate risks, where relevant, in health policy development (federal, state and municipal levels) including areas such as health infrastructure, population and community health, the health workforce and safety and quality of care

Indicator categories & examples (country level)



1. Climate Change Impacts, Exposures and Vulnerability
 - E.g. health effects of heatwaves, Change in labour capacity,
2. Adaptation Planning and Resilience for Health
 - E.g. Detection and early warning, preparedness for climate health emergencies; Climate information services for health
3. Mitigation Actions and Health Co-benefits
 - E.g. Healthcare sector emissions, Clean fuel use for transport
4. Economics and Finance
 - E.g. Economic losses due to climate related extreme events, Spending on adaptation for health and health related activities
5. Public and Political Engagement
 - E.g. media coverage of health and climate change