

Human Health and Social Impacts Node

Environmental footprint assessment of NSW healthcare system



In Australia, health care has contributed to 7% of our carbon footprint. To help policy-makers devise strategies that reduce the environmental impact of the NSW health care system, an environmental footprint of the system is required.

We are starting to recognise the effects of the changing climate on health. According to the World Health Organisation, 'Climate change poses a major, and largely unfamiliar, challenge.' The 2018 report of the Lancet Countdown on health and climate change claimed: '...climate change is the biggest global health threat of the 21st century'. The effects of climate change related shocks, such as heatwaves, on public health are getting increasing attention and the healthcare system itself contributes to climate change (as documented by studies quantifying the carbon footprint of healthcare at a national level in Australia, the USA and UK). However, the environmental impacts of the healthcare system are yet to be fully quantified.

Carbon emissions from the NSW healthcare system have not been quantified before. Nor have impacts across broader environmental indicators such as water and energy use. This project fills this knowledge gap through an environmental footprint assessment of NSW healthcare system using the hybrid life-cycle assessment approach. In this project, we will use the Australian Industrial Ecology Virtual Laboratory (AUS IELab), which is a cloud-computing environment that allows for the construction of customised sub-national input-output tables for Australia.

Research outcomes

- Direct and indirect environmental impact estimates for NSW healthcare system for indicators such as carbon emissions, water use and energy use.
- Specific environmental footprint results according to economic sectors that provide inputs to the NSW healthcare system.
- Detailed supply chain diagrams showing the locations of environmental impacts of the NSW healthcare system.

Who will use this information?

- NSW state and local government
- Health system entities (e.g. hospitals and local health districts)
- Researchers

Human Health and Social Impacts Node

Building on current sources of health and climate change information, the Human Health and Social Impacts Node supports the NSW Government by:

1. delivering robust, sector-specific information targeting the health system, vulnerable communities and government agencies
2. establishing baselines for monitoring, evaluation and analysis of adaptation programs that seek to protect and promote health, and strengthen the delivery of health services, in the face of a changing climate
3. improving understanding of vulnerability in the context of exposure, sensitivity and adaptive capacity
4. providing practical information on building resilience in communities and in the health sector.

The work program of the Node is informed by eco-social understandings of relationships between climate change and health. The approach taken acknowledges the range of environmental, social and economic consequences of climate change, including regional variation in impacts and vulnerability.

The Node is a partnership between:

- **NSW Department of Planning, Industry and Environment**
- **University of Sydney**
- **NSW Health**

For more information:

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Cover photo: Delta Electricity power station generator, Mt Piper, generator, fossil fuel use (Rosie Nicolai/DPIE)

Published by:

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ISBN 978-1-922431-43-1; EES 2020/0275 July 2020