CLIMATE CHANGE HEALTH AND VULNERABILITY ASSESSMENT

PROJECT SUMMARY

The impacts of climate change on people's health are predicted to become more frequent and intense. This is especially the case for socially and economically disadvantaged populations who may have more limited means to counter the effects. Health services play a critical role in helping to level this playing field and climate change's changing demands on health service resources, workforce and infrastructure.

Through stakeholder mapping, workshops and document reviews, this scoping project has developed a climate change health and vulnerability impact assessment framework to assess potential health impacts on vulnerable populations and inform health service responses.

- Developed the *Climate Change Vulnerability Health Impact Assessment* (CCVHIA) conceptual framework to assist assessment and evaluation
- A scoping review of the role of health services in addressing climate change vulnerability (in progress)

The problem

It is expected that climate change will continue to have increasingly detrimental impacts on human health. These impacts are not only limited resulting from increased intensity of heat waves, more frequent flooding and droughts, and an elevated risk of disasters. Changes to the urban landscape (e.g. a continued shift towards higher-density living) are also predicted to magnify and exacerbate these climate impacts.

While these effects of climate change are expected to be indiscriminate, they are by no means universal. Disadvantaged populations are potentially disproportionally affected, compounding the social and economic inequalities they already experience. Local Health Districts (LHDs) need information on how these varying impacts are affecting their local populations to effectively plan health service resources, workforce and infrastructure in response.

LHDs are already actively engaged in trying to plan for and address the impacts of climate change on vulnerable communities. However, this action tends to occur in silos within organisations with particular areas of focus (e.g. emergency admissions to ED from extreme heat events, climate proofing infrastructure). There is interest in having a tool and process to systematically assess potential impacts and develop a response.

Our research

Through stakeholder mapping, workshops and document reviews, this project conducted the first application of health impact assessment (HIA) approaches to the impacts of climate change.

HIA is a systematic process that considers the potential health impacts of a proposal during the planning stages and offers recommendations to mitigate harms and maximise benefits. As a scoping exercise, we were able to conduct the first two stages – Screening, and Scoping – to develop the CCVHIA framework.

The CCVHIA can be integrated into future HIAs to complete the remaining five stages of a full HIA: Identification; Assessment; Decision-making and recommendations; Reporting; and Evaluation and monitoring.

Translational impacts targeting health practices and policies

This scoping study has made progress towards impact in the following ways:

1. *Understanding end-user needs and contexts*. Engaging stakeholders from Local Health Districts in the development of the framework has led to the identification of five key functions that the framework would need to accommodate:
    i. Demonstrate evidence of climate change impacts on vulnerability.
    ii. Utilise both quantitative data and powerful stories, for example, through stories from consumer representatives.
    iii. Prompting health services to move beyond consideration of proximal impacts to consider structural, systemic and wider determinates of health.
    iv. Enable health services to assess:
        a. impacts on health services and
        b. vulnerable populations
    v. Support the development of plans for health services to address climate change impacts on vulnerable groups
2. *Set up the CCVHIA Framework for future integration* into and development of a scalable intervention.
3. *Development of new cross-sectoral collaboration*. The collaborative team of two LHDs and two universities will explore avenues to continue the development of the framework's implementation and evaluation.

The findings of this project will have translatable impacts into policy and practice, by identifying:

- the potential health impacts of climate change vulnerability of particular population cohorts;

- the potential implications of these impacts on health services (e.g. heat related illness) and the role of the health service in mitigating and responding to the impacts and health service delivery; and
- the needs and availability of – and useful, appropriate methods to obtain – data that can inform and support decision-making and evaluation.

Our findings also influence policy, practice and academic discussions through our contributions to public enquiries and publications:

- Haigh, F. (2021, October 21). Panel Discussion: Addressing economic inequality in the face of health and climate emergencies. In *Health and Human Rights in the Climate Crisis: Charting Challenges and Solutions*.
- Haigh, F. (2021). Vulnerability risk assessment in the context of climate change – the need for interdisciplinarity. *European Journal of Public Health*, *31*(Supplement_3).
- Haigh, F., Crimeen, A., & Harris-Roxas, B. (2020, October 19). Addressing Climate Change Vulnerability through Health Impact Assessment: A framework for Health Services. In *Australian Public Health Conference 2020*.
- Haigh, F., Harris-Roxas, B., & de Leeuw, E. (2020). Understanding vulnerability in the context of climate change – a Health impact Assessment Framework. In *16th World Congress of Public Health* Vol. 30 (pp. S5-ckaa165.513).
- Harris-Roxas, B., Haigh, F., & Charlesworth, K. (2020). *Submission to Climate Health WA Inquiry*. Perth: Government of Western Australia.

Future agenda

In the medium term (2022) we expect to pilot the framework in at least one local health district (preliminary discussions and agreement in principle has occurred with one LHD). This will potentially impact on the practice of the LHD resulting in impacts for the climate vulnerable groups within that local health district (total population 640k).
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Project partners

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- South Eastern Sydney Local Health District
- University of Technology Sydney
- University of New South Wales

Project team

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The Healthy Urban Environments (HUE) Collaboratory

The HUE Collaboratory exists to improve the health of Australians living in urban environments

We achieve this by facilitating partnerships between those who shape and have an impact on cities.

These partnerships undertake research and activities to build our understanding of how urban environments can deliver better, more equitable health outcomes.

We'll use this understanding to inform government policy and practice in the planning and development of urban areas.