

Neighbourhoods and Health project

The Neighbourhoods and Health project began in 2004, seeking to better understand neighbourhood variations in health.

The objectives for **2004-07** were:

- To measure community resource access at the meshblock using geographic information system (GIS) methods.
- To measure social fragmentation of urban neighbourhoods.
- To determine the association of neighbourhood community resource access, social fragmentation and social capital with morbidity and mortality, controlling for time lags, migration and varying individual-level composition of neighbourhoods.

Geographic information system (GIS) methods were used to successfully map neighbourhood access to community resources. A measure of social fragmentation has been developed (the Index of Neighbourhood Social Fragmentation). Both measures have been used in analyses conducted on census, linked census-mortality and health survey data. Many publications have resulted on the association of social properties of neighbourhoods and community resource access with mortality and health (see below).

The findings have raised more questions, in part because of the counter-intuitive relationships sometimes revealed and also because further understanding was limited by the methodology. This prompted us reconsider how best to push ahead neighbourhoods and health research internationally and (particularly) in New Zealand. Consequently, a review of relevant neighbourhoods' literature and projects in New Zealand, and emerging themes in the international literature was undertaken in 2007-08, highlighting in particular that

- The obesity epidemic, and sustainability agenda, has created a focus on how the local environment (including the neighbourhood) may influence nutrition and physical activity.
- 'Traditional' multi-level approaches to neighbourhoods and health research that are reliant on fixed geographical boundaries and proxy measures have reached their limits.
- There is a growing emphasis on neighbourhoods as one of many settings.
- Methodological advances are required; direct and innovative measurement of neighbourhood properties (e.g. econometrics), strategic use of already collected administrative data; a more nuanced conceptualisation, and categorisation, of neighbourhoods, e.g.: using peoples' own conception of neighbourhoods and allowing multiple memberships of social groupings (neighbourhood plus workplace).

In 2008-11, we will focus on physical activity (PA) in and beyond neighbourhoods, using in-depth qualitative and quantitative research methods by collaborating with the Understanding the Relationship between Activity and Neighbourhoods (URBAN) research project.

The *Neighbourhoods and Health - URBAN* collaboration aims “to determine strengths of association between detailed measures of neighbourhood built environment with PA and body size measures in adults and children, based on data collected according to a common protocol in the international collaborative study.” The research samples adults and children living in diverse neighbourhoods located in four NZ cities (North Shore, Waitakere, Wellington, and Christchurch). We will be using PA as a case study of understanding how environmental factors interact with individual factors to become intermediary pathways to inequalities – both as drivers and as part of the solution.

The objectives for **2008-11** are:

- *Wellington extension to URBAN*: Adding 12 neighbourhoods in Wellington to the URBAN project and adding questions on preferences for type of neighbourhood lived in and food outlets. Developing a comprehensive composite measure of PA related resources.
- *In-depth case studies*: In-depth qualitative case-studies in four neighbourhoods, to answer:
 - *Social practices*: How are neighbourhood environments used as social and physical activity spaces? What are the social practices that reinforce engaging in PA?
 - *Selection*: Do people live where they do because of its conduciveness to physical activity (built, natural and social factors)? Does this matter for their PA?
 - *Scale*: What influences people’s decision making on the location of physical activity within/without their neighbourhood?
- *Triangulation*: Bringing above N&H and URBAN objectives together for richer understanding