

The George Institute Research Seminars

Topic: Urbanisation and non-communicable disease risk in Tamil Nadu, India: exploring the relationship between urbanicity and NCD risk factors applying a quantitative measure of the urban environment

Speaker: Dr Steven Allender, Senior Researcher, Department of Public Health, University of Oxford

When: 1.00 – 2.00pm, Wednesday 4 March 2008

Where: The George Institute – Wynyard 1, Level 6, 341 George St, Sydney (visitors, please head to reception on Level 7)

RSVP: seminars@george.org.au

ABSTRACT:

The health effects of a demographic shift to urban societies are poorly understood because current dichotomous measures of 'urbanicity' limit the potential to investigate the relationship between the process of urbanisation and non communicable disease (NCD).

Methods: Measures of the urban environment for seven areas using a seven item scale were constructed using data from the Indian Census 2001. The measure was used in conjunction with data collected from 3,705 participants in the 2003 WHO STEPS risk factor surveillance survey in Tamil Nadu to analyse the relationship between the urban environment and major NCD risk factors.

Findings: For men, an association was observed between increasing urbanicity and smoking (OR 3.54), low physical activity (OR 3.26), high BMI (OR 7.32) and high blood pressure (OR 1.92). For women an association was observed between increasing urbanicity and low physical activity (OR 4.13) and BMI (OR 6.48). There was association between mean portions of fruit and vegetables consumed per day and urbanicity for both men and women ($p < 0.05$) with consumption increasing with increasing urbanicity.

Interpretation: This study demonstrated the construction and application of a quantitative measure of the urban environment to identify the relationship between the urban environment and chronic disease factor risk. These differences in urbanicity are associated with an increase in prevalence of a number of risk factors for NCD which would inform policy makers and determine the direction of public health action to tackle the rise of NCDs in low and middle income countries resulting from increasing urbanisation.