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# If you don't know how can you plan? Considering the health impacts of climate change in urban planning in Australia

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### ABSTRACT

Climate change is likely to adversely affect population health through its impacts on diseases already of concern. How cities respond will largely determine its impact on the community.

Results of 42 interviews with urban planners in Australia show that while they are aware of climate change as a general concern, they are not aware of the various ways in which it may impact on human health. Planning for climate change tends to focus on impacts on infrastructure (i.e. sea level rise) with little or no planning aimed at human health adaptation for city residents. Australia risks overlooking key public health opportunities that would address both contemporary health concerns and future health risks from climate change.

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## 1. Introduction

Virtually from the very beginnings of settlement planning, the health of the population has been a central theme. This concept is underlined in the introduction to the book 'Health and Community Design' with a quote from Aristotle circa 350 B.C. "*We ought to plan the ideal of our city with an eye to four considerations. The first, as being the most indispensable, is health.*" (Frank et al., 2003). Further,

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public health reforms of the late 19th century Europe and North America are behind urban planning reforms such as segregated zoning<sup>1</sup> that continue to underpin many of the existing land use practices seen in modern cities (Ferriman, 2007; Bankoff, 2001; Thompson, 2007; McCue and Thompson, 2012). However, from these land-use practices have sprung unintended consequences, what may be described as public health or planning maladaptations. The segregation of workplaces from housing, when incorporated with the increasing affordability of motor vehicles and the prioritisation by planners of mobility over accessibility has led to an over reliance on the private motor vehicle. This example of planning maladaptation has contributed to climate change and reduced walkability and daily physical activity while increasing the susceptibility of urban dwellers to the impacts of climate change (Haines, 2008; British Medical Association, 2012; Saelens et al., 2003; Owen et al., 2007).

While there is evidence that suggests those involved with health recognise the “crucial part played by urban planners and engineers in health improvement” through “the sanitary revolution” (Ferriman, 2007; Rao et al., 2007) there appears now to be a significant disconnect between urban planning and health (Corburn, 2004; Barton and Grant, 2006). This disconnect is not new and continues to manifest itself in Australia, where cities are often planned around the dominant priorities of transport (private automobiles) and the economics of new suburban growth (Newman, 1992) rather than the health and well being of people who live in them. Thus active transport infrastructure like footpaths and cycle paths are not seen as essential for transport or health and well being of the community but rather a cost on development. However the recent development of the “Healthy Spaces and Places” guideline and associated professional training package [a reference tool for planners that assists them to incorporate healthy and active living design principals] is a step towards the profession reengaging the health and well being of the community through planning (Planning Institute of Australia, 2009).

This reengagement with public health is perhaps now more important than ever when climate change, described as a public health threat on a scale with tobacco smoke (Nilsson et al., 2012) is introduced. In this context, it is the way that cities respond to and adapt to climate change that will have a major influence on how the health of their populations will be affected (Bambrick et al., 2011). But is urban planning up to the task? What do urban planners understand about the health impacts of climate change? How will our cities adapt to climate change and, more importantly how will they, the cities, help their residents cope with climate change?

Climate change is unlikely to cause new health problems for city populations, rather it will exacerbate existing urban health problems (Bambrick et al., 2008; Friel et al., 2011). The health impacts of climate change will be influenced by a range of factors such as environment, socioeconomic circumstances (at country, regional and personal level), infrastructural and institutional resources, underlying physical vulnerabilities and local preventive (adaptive) strategies.

This will be particularly significant in Australia which already experiences climate extremes in temperature and rainfall that are projected to become even more extreme (Climate Commission, 2011; Bureau of Meteorology, 2012; CSIRO, 2007; Climate Commission, 2013) and which is one of the most highly urbanised countries in the world with over 89% of the population living in cities (Commonwealth of Australia, 2010). With the Australian population projected to grow 40% to 35 million by around mid-century (Commonwealth of Australia 2010.) the way Australian cities perform environmentally, socially, economically and physically will determine the magnitude of the health impacts from climate change. While the health system will have its role to play in planning services to mitigate these health impacts (Burton et al., 2014; Ebi et al., 2006), it will be those who are tasked with planning our cities, working in collaboration with public health officials, who may yet have the greatest role in mitigating the health impacts of climate change (Capon, 2010; Frumkin, 2002). Bambrick et al. (2011) identified that cities “provide adaptation opportunities to improve on today’s public health and not simply reduce negative health consequences [of climate change].” (Bambrick et al., 2011).

We present a study detailing awareness of and attitudes towards climate change among Australian urban planners, in particular their awareness of the potential health impacts of climate change, and their willingness and capacity to incorporate climate change into their plans. This study identifies a

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<sup>1</sup> An example of segregated zoning is the separation of polluting industrial development from residential dwellings.

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