



Inquiry into Environmental Design and Public Health AMA Victoria

Introduction

Good human health depends on the health of the environment in which we live – clean air, water and food are clearly essential. Accordingly built environments must be designed in a way that protects the natural environment and promotes the health and well being of the public.

Current health issues and built environments

In many developed countries, including Australia, populations are experiencing high rates of chronic disease; typically cardiovascular disease, cancer, diabetes, asthma, and depression.¹ Multiple factors have and continue to contribute to this trend including an ageing population, more sedentary lifestyles and diets high in processed foods containing fat, salt and sugar. It has been widely argued that governments should allocate more resources and formulate more effective policies to address these factors and their associated effects.² Governments can minimise the factors contributing to the rate of chronic disease yet their capacity to do so is sometimes underestimated.³

While AMA Victoria recognises that individuals are largely responsible for their own health through their behavioural and lifestyles choices, these choices are made within environments that are either supportive or destructive of good health outcomes.⁴ The challenge for the government is to design communities in a way that promotes physical and mental well-being.⁵

The connection between population health and the built environment is important – especially in the context of chronic disease. A poorly designed physical environment can mean that people's health suffers;⁶ whereas a well-designed built environment is capable of reducing the risk of injury, infectious diseases and environmentally associated harms.⁷

Encouraging physical activity and good nutrition

Data collected in 2004 showed that 14.3% of men and 14.7% of women in Victoria were classified as obese, while 42% of men and 23% of women were overweight.⁸ It is clear that our population must be encouraged to become more active, and to integrate sport and exercise into their daily routine.

¹ Gostin, L O, 'Law and ethics in population health' (2004) 28(1) *Australian and New Zealand Journal of Public Health* 9.

² Magnusson, R S, 'Rethinking global health challenges: towards a 'global compact' for reducing the burden of chronic disease' (2009) 123 *Public Health* 265.

³ Reynolds, C 'Legal Issues in Public Health', In: K Heggenhougen and S Qua, ed *International Encyclopedia of Public Health*, (2008 San Diego: Academic Press;) vol 4 p 53.

⁴ *Ibid*, 54.

⁵ Gostin, L O, 9.

⁶ Collins Perdue, W, Stone, L A, Gostin, L O (2003) 'The built environment and its relationship to the public's health: the legal perspective' *American Journal of Public Health*, p 1391.

⁷ Gostin, L O, 9.

⁸ http://www.cancervic.org.au/preventing-cancer/weight/obesity_aust.



Evidence shows that the nature of people's habitual environment can influence their level of physical activity.⁹ Effectively designed built environments can facilitate more active lifestyles while simultaneously increasing social interactions.¹⁰

There are a number of possible measures to achieve these aims. Governments can design communities with accessible walking paths, cycle paths, parks and recreational facilities, local and accessible shops, and greater street connectivity.¹¹ Planned distances between car parking and shops are also good examples of how to encourage community participation in some forms of physical activity.¹² These measures may also be very cost effective in terms of reducing future costs of cardiovascular disease and reducing the overall burden on the health system.¹³ Physical environments which encourage walking and exercise are also more environmentally sustainable for communities.¹⁴

The Government must ensure that children have adequate access to playgrounds and safe exercise facilities.¹⁵ A lack of safe places discourages a child's play and exercise and arguably a 'culture of fear' means that many parents do not allow children to walk to school and restrict their free play.¹⁶

It has been suggested that communities which lack green areas lack a sense of community and experience increased acts of violence relative to communities that have green space.¹⁷ It is critical therefore that the government ensures the ongoing provision and protection of green spaces in metropolitan and outer-suburban areas of Victoria.

There is an emerging body of evidence that indicates a positive correlation between fruit and vegetable consumption and proximity to grocery stores and supermarkets, and also an association between access to supermarkets and lower body mass index.¹⁸ We suggest that urban planning regulations be drafted to ensure that new housing developments make provision for local access to retail outlets for fruit and vegetables.

Reducing exposure to toxic conditions

Chronic respiratory diseases and cancer can be caused by toxic conditions. The incidence of asthma, a chronic respiratory disease, can be increased by outdoor pollutants – to which automobiles and factories contribute significantly. It has been found that when traffic was reduced in Atlanta for the Olympic Games, peak ozone concentrations decreased 27.9% and the number of asthma emergency medical events simultaneously fell by 41.6%.¹⁹

⁹ Walsh, J.M., and Murphy, D.J., 2007, "Weight and pregnancy" *British Medical Journal*, 335, 169.

¹⁰ Gostin, L O, 9.

¹¹ National Institute for Health and Clinical Excellence, 2008, *Promoting and creating built or natural environments that encourage and support physical activity*, NICE Public Health Guidance 8, January 2008.

¹² Dietz W. Canada on the move: A novel effort to increase physical activity among Canadians. *Canadian J of Pub Health* 2006; 97 Supp 1: s3-4.

¹³ By a factor of 4 to 1 in some cases. See, National Institute for Health and Clinical Excellence, 2007. *A rapid review of economic literature related to environmental interventions that increase physical activity levels*. NICE 2007.

¹⁴ Reynolds, C, 56.

¹⁵ Collins Perdue, W et al, 1391.

¹⁶ Stanton R, Who will take responsibility for obesity in Australia?, 2009, *Public Health* 123 (2009) 280-282, p 280

¹⁷ Collins Perdue, W et al, 1391.

¹⁸ Gebel, K, King, L, et al, 2005.

¹⁹ Collins Perdue, W et al, '1391.



In light of these and similar statistics elsewhere, the government should minimise the public's exposure to toxic conditions where possible. Cycling, walking and use of public transport not only promote health through exercise, but reduce accidents and air pollution;²⁰ communities should be designed in such a way as to reduce reliance on automobiles.²¹

Addressing socio-economic factors

The disadvantaged in society are more likely to experience poor health. This can result from their material disadvantage, greater exposure to toxic physical environments and social contexts that influence risk behaviours.²² For instance people in places with poor or no public transport are less able to participate fully in the life of the community and its associated health impacts.²³ The government should keep this in mind when designing built environments for local communities.

Involving health professionals

AMA Victoria believes that health professionals can make a significant contribution to the planning processes for built environments. Health professionals are able to provide insight into the health benefits associated with various community planning strategies.²⁴

In addition, planning systems will be more sensitive to health needs if they become part of the formal criteria. Assessing human health concerns should be an integral stage in the decision-making processes for built environments.²⁵

Legislative provisions which incorporate these principles might be useful and an effective example is embodied in the New Zealand Land Transport Management Act 2003. Section 12 of this Act specifically includes both the protection and promotion of public health and ensuring environmental sustainability as important considerations in the planning process required under the Act.²⁶

²⁰ WHO Europe. (2nd Ed). The Solid Facts: Social determinants of health.2003.

²¹ Collins Perdue, W et al, 1392.

²² Gostin, L O, 9.

²³ WHO Europe. (2nd Ed). The Solid Facts: Social determinants of health.2003.

²⁴ Collins Perdue, W et al, 1394.

²⁵ Reynolds, C, 46.

²⁶ Reynolds, C, 56.