Supportive environments for physical activity and the local government agenda: a South Australian example

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Abstract

In the promotion of moderate physical activity it is increasingly argued that a supportive physical environment is a key factor, and that local government is ideally placed to play an important role. This study reports on the factors that led one local government to take such a leading role. A semi-structured interview was conducted to find out why a chief executive officer of a local government decided that the creation of supportive environments for physical activity was the core business of council. The results show that key ingredients were that local government should take a strategic rather than an operational focus on the issue, that there should be open organisational structures to allow the various functions of local government to work together, and that there must be appropriate leadership. The findings suggest ways for engaging local government as a key partner in promoting supportive environments that are consistent with literature on policy, organisational structure and leadership theory.

Emerging perspectives on physical activity

Physical activity and health

Current health promotion policy uses the US Surgeon General's Report on physical activity and health to argue that all adults need to undertake regular, moderate physical activity, which can be accumulated during the day (U.S. Department of Health and Human Services 1996). The Report argued that the best epidemiological evidence for health benefits is for the prevention of cardio-vascular disease and the reduction of all-cause mortality among those who are physically active, compared with those who are sedentary. Evidence is also strong in the prevention of colon cancer, reducing the incidence and complications from diabetes, and in having a positive effect on blood pressure, relative body weight and HDL cholesterol levels. Other benefits probably include a benefit in stroke prevention, a possible role in some other cancers, osteoporosis prevention and in fostering social and mental health. Physical activity may also be an adjunctive therapy for many with clinical depression or anxiety. Although physical activity has a role in weight maintenance, more sustained and vigorous activity may be needed to achieve long-term weight loss among the obese and overweight (Bauman 1997).

In Australia during the 1980s and 1990s a series of epidemiological studies divided population samples into those who were sedentary/low activity, moderate activity and vigorous activity (Bauman 1987; Bauman, Owen & Rushworth 1990; Bauman & Owen 1991). The resultant public health interventions were directed towards

increasing the participation in physical activity of people who are sedentary or have low activity levels, without necessarily specifying a minimum level of activity that is associated with health benefits. Over a number of years in Australia the public health goal in relation to physical activity has been to build on what people already do and achieve small increases in physical activity (Bauman, Owen & Rushworth 1990; Bauman & Owen 1991; Owen & Bauman 1992). For example, in the document setting out the Commonwealth government's goals and targets for health, it was argued that

"… the greatest health benefits to the community are likely to result from encouraging those who are sedentary to participate in regular moderate exercise, rather than persuading those who are already active to exercise more" (Commonwealth of Australia 1994 p. 54).

When Sallis & Owen (1999) review interventions to promote physical activity in communities and populations, they note the strengths and limitations of mass reach campaigns, describing their impact in Australia as modest. Conclusions from mass communication, behavioural science, marketing theories and the findings of large-scale committee based heart disease prevention from United States and Europe suggest that mass media can play four main roles in promoting health behaviour change:

1. As an educator to introduce new ideas.
2. As a supporter to reinforce old messages or maintain change.
3. As a promoter to attract attention to existing programs.
4. As a supplement to community-based interventions.

There is increasing evidence of the lack of effectiveness of programs focussing mainly on lifestyle change. One example is the results of the Multiple Risk Factor Intervention Trial in the United States. Men in the top 10% risk for coronary heart disease (who would seem to have the most motivation for change) were persuaded to make only minimal changes in eating and smoking despite six years of intensive programs (Syme 1996). Even if lifestyle programs do meet with some success with high-risk people there will be others who adopt risk behaviours because "…we have done nothing to influence those forces in society that caused the problem in the first place" (Syme 1996 p 22).

Researchers are now reflecting on the implications for health promotion of the current emphasis on recommendations for moderate physical activity built in to life, rather than vigorous episodes added to life. Because there are many more daily opportunities to engage in moderate activity than in vigorous activity, it is now necessary to consider a much wider range of policies and settings. It is argued that we now need to consider ways in which government and private sector policy and environmental change may be planned to make it easier for people to incorporate physical activity, primarily walking, into their daily lives (Booth 1997). This argument fits with Sallis & Owen (1999), who note that there is now broad interest in environmental influences in health promotion generally and for physical activity promotion in particular.

Ecological models of health behaviours can be used to guide new environmental and policy interventions. While it is widely recognised that social and physical environments can influence health behaviours, few studies have directly applied ecological models to understanding or intervening in physical activity. Sallis & Owen (1999) describe *behaviour settings* as a key concept to aid understanding of the potential impact of social and physical environmental influences. Behaviour settings are critical to understanding physical activity, because some places have characteristics that make it easier for people to be active, while other places make it hard to be active. argue that few studies have documented the effects of environmental interventions on physical activity, and thus have proposed a simple ecological framework which they hope will be useful in stimulating further investigation in this area. This framework is being adopted in North America by such organisations as the Centers for Disease Control (Centers for Disease Control and Prevention 1997).

There is now a growing body of Australian research linking the environment to the ability to incorporate physical activity into daily life. In Western Australia, research concluded that, while proximity and accessibility of free and pay recreational facilities are important, they alone do not explain the patterns of use of facilities. Other factors included age and ability, urban design features and attractiveness, for example tree coverage, greenery and maintenance of parks (Corti, Donovan & Holman 1996). Similarly, focus groups in rural New South Wales argued that there was insufficient infrastructure for unstructured activities such as walking and cycling compared with infrastructure for sport; an observation confirmed by an analysis of land use (Hahn & Craythorn 1994).

A recent Australian study examined the association between geographical proximity to the coast and physical activity participation levels. The study noted that the potential influence of the physical environment on physical activity is increasingly recognised, yet the nature of this relationship is not well understood (Bauman, Smith, Stoker, Bellew & Booth 1999). From a social ecology perspective in health behaviour research, health behaviours are the product of a dynamic relationship between personal characteristics and facets of the social and physical environment. The study provides descriptive data which can indicate the contribution of physical environmental variables by examining the relationship between proximity to the coast and various measures of physical activity using data from a telephone survey of 16,178 people in New South Wales, Australia. A logistic regression model examined the effect of location of residents on physical activity, after adjusting for gender, employment status, education and country of birth. Proximity to the coast was independently associated with higher levels of physical activity. People who lived in a coastal postcode were 23% less likely to be classified as sedentary, 27% more likely to report levels of activity that are considered adequate for health and 38% more likely to report high or vigorous levels of physical activity than those who lived inland (Bauman, Smith, Stoker, Bellew & Booth 1999).

The Supportive Environments for Physical Activity project

We have been involved in the *Supportive Environments for Physical Activity* (SEPA) project in South Australia, which drew on a community health survey that linked satisfaction with local facilities and perceptions of the environment with levels of physical activity (MacDougall, Cooke, Owen, Willson & Bauman 1997). The first stage of SEPA was a qualitative project exploring the relationships between environments and physical activity in Marion, a southern local government area of Adelaide with a population of 78000 people. The research, involving a partnership between the National Heart Foundation, Flinders University, City of Marion, the Commonwealth Department of Health and Family Services and the University of South Australia (Wright, MacDougall, Atkinson & Booth 1996) led to an Australia wide action research project (Wright, Atkinson, Cox, Dunn & Ferguson 1999).

The first SEPA research on supportive environments for physical activity used focus groups, interviews and field studies to discover peoples' experiences of building walking or cycling into the daily activities of work, shopping, child care and leisure (Wright, MacDougall, Atkinson & Booth 1996). The conclusions pointed to the importance of agencies outside the health sector taking a leading role in policy development and argued that local government, not the health sector, was ideally placed to drive the study's recommendations. The study recommended supportive environments characterised by community spirit, social support, and destinations to which people can walk or cycle safely and where pedestrians and cyclists share the road system with motor vehicles.

The City of Marion was a partner in the research and subsequently decided on a number of actions to address the research findings. These included developing a set of guidelines to focus the efforts of its key departments to implement these findings (City of Marion 1997 November), involving the SEPA project in the redevelopment of a drive-in theatre to a residential site (City of Marion 1997 July 25) and approving the planning of a bicycle track that was suggested by a focus group in the research (City of Marion 1996 April 9).

Local government, public health and physical activity

Local government has been an important focus for public health interventions since the nineteenth century. In both Britain and Australia, legislation gave local authorities the powers to remedy insanitary conditions and to require drainage and sanitation. Local government remains important as a host and catalyst for structural changes to enable the environment to support healthy choices. For example, Cape Town in South Africa has initiated a healthy settings approach which simultaneously uses the World Health Organisation's Healthy Cities framework and the local government's Local Agenda 21 (Baum 1998).

A recent study into local government's capacity for partnership with the health sector in New South Wales noted that one component of a comprehensive strategy to promote participation in physical activity is to ensure that the physical environment makes being active an easy, attractive and rewarding choice (King, Hawe & Corne 1999). Such a strategy requires collaboration across sectors and the involvement of local government. From semi-structured interviews with elected members and staff of a council that was involved in a physical activity project in New South Wales, King et al (1999) concluded that local government has the capacity to collaborate

with the health sector through their commitment to the environment and the community and their structures, resources and practical skills. They called for further research to explore how to mobilise that capacity.

One framework to use to operationalise King et al's (1999) question is *agenda setting* from the policy literature, which likens the way potential and actual policy issues are managed to the setting of an agenda, for example:

"...in which government attempt to prevent policy issues from emerging, to influence the public perception of issues and to shape or delete issues on the current agenda of policy making."(Harding 1985 p. 224).

The metaphor of an agenda, however, does not imply that an issue such as local government's involvement in physical activity a can be considered seriously in the policy process at the stroke of a pen, indeed:

"...very few episodes of policy making occur in a climate of calm contemplation… Little is known of the way the policy agenda is formed, how items come to find their priority listing, nor why some things appear to move rapidly up the agenda and into action, while others languish at the edge of attention" (Considine 1994 p. 138).

King et al's (1999) paper raises the interesting question of what it takes for a rational proposition to be translated from the status of a worthy idea to a consistent presence on the policy agenda. In this article, we take a successful example from South Australia in which the health and university sectors developed a partnership with local government that translated research into supportive environments for physical activity into local government's practice. From an interview with the chief executive of the local government involved, we propose factors that could be used to promote local government's involvement in comprehensive physical activity strategies.

Method and results

Our research and subsequent action took place in Marion, a southern metropolitan local government area in Adelaide, South Australia covering an area of nearly 55 square kilometres with a population in 1996 of 78,000, making it the fifth largest council area in South Australia.

In a semi-structured interview with the Chief Executive Officer of the City of Marion at the time, Jeff Tate, we (CM and CW) asked what it takes for local government to play a leading role in creating supportive environments for physical activity (Tate 1997). In particular, we were interested to explore how issues initially of interest to the health sector came to prominence on the agenda of local government.

According to the chief executive officer, there were four factors that were important in the City of Marion's role in taking a lead in developing supportive environments for physical activity: framing the issue as core business, taking a strategic rather than operational focus, creating open organisational structures and leadership.

Framing the issue as core business

The chief executive officer argued that providing infrastructure is the core of local government business and that the goal of supporting physical activity can be framed as a new way of looking at infrastructure. In the process, local government benefits by association with the reputations of health agencies and universities whose logos and authority could add to the amenity and appeal of the area to residents. Similarly, developers and urban planners who negotiate with local government are always seeking new ideas for planning and marketing new housing developments and urban renewal projects.

When considering how to frame issues, an important question is for whom are they core concerns? For example, if the health sector uses the Ottawa Charter for Health Promotion to determine what is core, the issues selected and the language used to describe them may not appeal to the local government's view of what is core. However, if the health sector also uses the Local Agenda 21 framework, there can be significant overlaps with local government's agenda. One example is a project in Johannesburg, South Africa, which uses both the labels of a Healthy Cities project and a Local Agenda 21 project (Baum 1998).

It has been argued that a fundamental ideological conflict exists about the goal of health promotion. "Should the goal be improved health status (individual and collective) - health as an end? Or should the goal be social justice - health as a means?" (Robertson & Minkler 1994 p. 297). On this point, the Ottawa Charter (1986) is very clear:

Good health is a major resource for social, economic and personal development and an important dimension of quality of life. Political, economic, social, cultural, environmental, behavioural and biological factors can all favour health or be harmful to it. Health promotion action aims at making these conditions favourable through advocacy for health" (World Health Organisation 1986).

This suggests the value of reframing issues that arise within the health sector to emphasise their contribution to the broader social, economic and personal dimensions. By doing this, we may make it easier for sectors such as local government and transport to accept the issues as core for them. Importantly, efforts should be made to avoid *healthism,* which operates on the questionable assumption that everyone should work and live to maximise their health (Metcalfe 1993) and can recast health as a moral value (Peterson 1994), because.

"If health becomes the analytical lens through which all social issues are seen, it may dilute and obfuscate not only health related efforts but other social and political efforts as well " (Robertson and Minkler 1994 p. 299).

A strategic rather than operational focus

In order to establish the creation of supportive environments as core business on the local government's agenda, the chief executive officer recommended that they be framed as a strategic, rather than an operational, focus. He described an operational focus as when engineers view roads and paths as engineering problems, planners look at planning regulations and other staff look only at what happens inside parks and gardens. A strategic focus asks the questions in a different way, for example: "How does the infrastructure relate to its surroundings?"

This strategic versus operational focus is similar to the distinction in policy formulation between *instrumental* and *developmental* approaches (Considine 1994). Instrumental approaches to policy produces short-term decisions, programs and other outcomes about specific projects which stakeholders value. Developmental approaches allow for a series of decisions, each building on the other, which in the longer term involve relationships, the communication of ethical and moral norms and the building of trust and solidarity between stakeholders. In relation to physical activity, a strategic or developmental focus asks how a number of local government decisions about such things as parks, gardens, recreation and planning can be viewed across departments and over time as together contributing to the surroundings in a way that enhances amenity and in the process supports the choice to build physical activity into the day.

Open organisational structures

To maintain a strategic focus, the chief executive officer recommended a structure in the organisation to enable it to look across all the various functions and departments, ask the strategic questions and work together to change the way things are done. In this case there was a strong policy function driven from the chief executive officer's office and an Integrated Local Area Planning Process to co-ordinate developments across the city.

The classical organisational structure, often drawn as a triangle or pyramid, promotes an operational focus because labour is specialised, staff are grouped into departments and attention is paid to how control, authority and responsibility are delegated within a clear command structure. The classical, triangular, structure has been criticised because it is rigid, hierarchical, inward looking and exercises power by using rewards and coercion. Within such organisations, it is difficult to achieve the organisation's goals that require co-ordination of functions because the departmental structure has been likened to "water tight compartments" (Rakich, Longest & Darr 1992). In contrast, contemporary approaches to management recommend a more collaborative organisation that promotes autonomy, collaboration, empowerment, diversity and change. This organisational form is characterised by loosely coupled networks and alliances and is outward looking (Limerick & Cunnington 1993). This has been called the *network organisation structure,* described as a small core unit that relies on a network of market relationships with a range of other organisations, enabling flexible responses to external conditions. The structure is often drawn as a series of connected circles (Stoner, Yetton, Craig & Johnston 1994) and has been recommended as appropriate forms for organisations advocating a 'settings' approach to health promotion (Baum 1998).

Leadership

Leadership, according to the chief executive officer, is required to enable senior management to believe in and drive these changes, especially by creating the organisational structures, endorsing strategic thinking and taking a leading role in negotiations. Change does not automatically flow from a plan or structure; it has to be driven by people who champion the cause.

Leadership styles vary according to the type of change required. Change can be collaborative or directive, incremental or transformative. Directive transformation is recommended when the organisation is out of fit with its environment or requires substantial change (Dunphy & Stace 1990). An Australian study concluded that high level endorsement is required in order to open up health bureaucracies to participation by communities and stakeholders (Putland, Baum & MacDougall 1997). It is thus reasonable to suggest that directive leadership and high level endorsement is essential if local government is to consider the creation of supportive environments as core business.

Conclusion

King et al (1999) demonstrated the potential for local government to play an important role in comprehensive strategies to promote environments that support physical activity. If we are to promote intersectoral action, we need to work out how to take advantage of this potential so that health and local government can elevate supportive environments on to the crowded policy agenda. Our analysis suggests that, in order to move an issue like healthy settings on to the crowded local government agenda, it is important first to frame the issue as core business of the sector. In order to keep the issue on the agenda, it is essential to provide the appropriate leadership and organisational structures.

References

Baum F 1998, *The new public health: An Australian perspective*. Melbourne, Oxford University Press.

Bauman A 1987, "Trends in exercise prevalence in Australia." *Community Health Studies*, vol 11, pp190-196.

Bauman A 1997, "Increasing physical activity participation in NSW." *New South Wales Public Health Bulletin*, vol 8 no 3, pp11-17.

Bauman A & Owen N 1991, "Habitual physical activity and cardiovascular risk factors." *Medical Journal of Australia, January* 22-28: pp154.

Bauman A, Owen N & Rushworth RL 1990, "Recent trends and socio-demographic determinants of exercise participation in Australia." *Community Health Studies*, 14: pp19-26.

Bauman A, Smith B, Stoker L, Bellew B & Booth M 1999, "Geographical influences upon physical activity participation: evidence of a coastal effect." *Australian and New Zealand Journal of Public Health*, 23,: pp322-324.

Booth M 1997, "Physical activity: What's afoot?" *Australian and New Zealand Journal of Public Health*, vol 21 no 6, pp557-558.

Centers for Disease Control and Prevention 1997, *Guidelines for school and community programs to promote lifelong physical activity among young people - Mortality and Morbidity Weekly Report,* pp1-36.

City of Marion 1996 April 9, *Cycling-proposed local area bike plan*. Adelaide, South Australia.

City of Marion 1997 July 25, *Memorandum about the Marion Drive-In Plan Amendment Report*. Adelaide, South Australia.

City of Marion 1997 November, *Guidelines for environmental support for physical activity.* Adelaide, South Australia.

Commonwealth of Australia 1994, *Better health outcomes for Australians*. Canberra, Australian Government Publishing Service.

Considine M 1994, *Public policy: A critical approach.* Melbourne, MacMillan.

Corti B, Donovan RJ & Holman CDA 1996, "Factors influencing the use of physical activity facilities: Results from qualitative research." *Health Promotion Journal of Australia*, vol 6 no 1, pp16-21.

Dunphy D & Stace D 1990, *Under new management: Australian organisations in transition*. Sydney, McGraw Hill.

Hahn A & Craythorn E 1994, "Inactivity and the physical environment in two regional centres." *Health Promotion Journal of Australia*, vol 4 no 2, pp43-45.

Harding A 1985, "Unemployment policy: A case study in agenda management." *Australian Journal of Public Administration*, vol XLIV no 3, pp224-246.

King L, Hawe P & Corne S 1999, "What is local government's capacity for partnership in promoting physical activity? A Case Study." *Health Promotion Journal of Australia*, vol 9 no 1, pp39-43.

Limerick D & Cunnington B 1993, *Managing the new organisation: A blueprint for networks and strategic alliances*. New South Wales, Business and professional publishing.

MacDougall C, Cooke R, Owen N, Willson K & Bauman A 1997, "Relating physical activity to health status, social connections and community facilities." *Australian and New Zealand Journal of Public Health*, vol 21 no 6, pp631-637.

Metcalfe A 1993, "Living in a clinic: the power of public health promotions." *Anthropological Journal of Australia*, vol 4 no 1, pp291-297.

Peterson AR 1994, *In a critical condition: Health and power relations in Australia.* Sydney, Allen & Unwin.

Putland C, Baum F & MacDougall C 1997, "How can health bureaucracies consult effectively about their policies and practices? Some lessons from an Australian study." *Health Promotion International,* vol 12 no 4, pp299-309.

Rakich JS, Longest BB & Darr KD 1992, *Managing health services organizations*. Baltimore, Maryland, Health Professions Press.

Robertson A & Minkler M 1994, "New public health movement: A critical evaluation." *Health Education Quarterly,* 21,(3): pp295-312.

Stoner JAF, Yetton PW, Craig JF & Johnston KD 1994, *Management*. Sydney, Prentice Hall.

Syme SL 1996, *To prevent disease: The need for a new approach. Health and social organisation*. D Blane and E Brunner (eds). London, Routledge. Tate J 1997, Interview.

U.S. Department of Health and Human Services 1996, *Physical activity and health: A report of the Surgeon General*. Atlanta, GA, Centers for Disease Control.

World Health Organisation 1986, "Ottawa Charter for Health Promotion." *Health Promotion*, vol1 no 4, ppi-v.

Wright C, Atkinson R, Cox R, Dunn S & Ferguson K 1999, *Supportive environments for physical activity: Guidelines for local government*. Adelaide, National Heart Foundation.

Wright C, MacDougall C, Atkinson R & Booth B 1996, *Exercise in daily life: supportive environments*. Adelaide, Commonwealth of Australia.