

7. OPPORTUNITIES FOR HEALTH PROMOTION IN THE TRANSPORT SECTOR

"Transport is a public health issue just as much as clean water and clean air. The health damaging effects of transport are experienced by everyone, but mostly by disadvantaged groups who are more likely to live in areas of high traffic density."

Steensburg, 1997

The adverse impacts of transport upon public health cannot be dismissed. Deaths and injury from traffic accidents are readily apparent while there is a growing body of evidence linking vehicle emissions, noise and reduced levels of physical activity with increased health risk.

The environmental consequences of current transport activity can affect the health of both current and future generations, in the shorter term through their impact on physical illness, and in the long term through their effect on the food chain, ecology and climate of the planet. The present transport system is, therefore, not sustainable in that it compromises the choices and the freedom of future generations (Great Britain Royal Commission on Environmental Pollution, 1994).

Traffic growth and, in particular, the unrestrained use of the car, is the single most important factor influencing the magnitude of these damaging effects. By constantly increasing road capacity, transport policy has effectively promoted the use of motor vehicles and, in so doing, contributed to the growth in traffic and the adverse health impacts it has spawned.

Transport policy makers and planners have been slow to recognise the health implications of their decisions. Environmental concerns about urban air pollution have focused attention on improving vehicle emission standards, vehicle operating efficiency and fuel technologies but consideration of transport-health links has rarely extended beyond road trauma.

While improving the environmental performance of the vehicle industry is needed from a health as well as an environmental perspective, benefits gained are likely to be swamped by the forecast growth in vehicle usage. Traffic restraint is essential if further damage to our health, quality of life and environment is to be avoided.

Unlike public policy on new chemicals and pharmaceuticals, there is no requirement for scientists to prove that vehicle emissions are harmless before people are widely exposed. While epidemiology may not be able to prove causal associations in an absolute sense, there is sufficient evidence to suggest that the costs of failing to take preventive action on vehicle emissions could be very high in terms of deaths, ill-health and treatment. The lessons of smoking and asbestos are that prevention of environmentally-caused disease cannot always wait for our complete understanding of the mechanism of causation and the provision of scientific proof 'beyond doubt'.

"In dealing with scientific uncertainty in either occupational or environmental risk, we have to choose between giving the benefit of scientific doubt to people and the planet, or to the substance or process that may give rise to harm, whilst waiting for further research to hopefully reduce uncertainty."

Gee, 1997

Where the costs of being wrong are large and unfairly distributed in comparison to the costs of precaution, then the benefit of scientific doubt should be given to people, not substances. In the case of vehicle emissions, the costs of the false negative (that is, not curbing traffic when emissions turn out to be harmful) are severe, even life threatening, and are distributed unevenly, with the burden falling heaviest on the young, elderly and sick (Gee, 1997). Research conducted by the Department of Applied Economics at Cambridge University found that the economic benefits of reducing traffic flow by

25% far outweighed the costs (Johnston, 1995). In these circumstances, failing to apply the precautionary principle and take action to curb traffic growth and associated emissions makes little economic or social sense.

In this light, it is particularly disturbing, given the epidemiological evidence available on the damaging effects of particulate matter on health, to see the construction of road tunnels occurring in Sydney and Melbourne without adequate air filtering or treatment systems. This is in spite of the fact that air treatment technology is already available overseas and operating in countries such as Norway, Japan and Germany (Australian Broadcasting Corporation, 1999b).

Given that public health is concerned with the prevention of disease, the prolonging of life and the promotion of quality of life of human populations, the health sector has a role to play in preventing the damaging health effects of transport, rather than just dealing with the consequences through the provision of hospital and medical services for victims. Health agencies must impress upon the departments of transport and others the effects of their policies on public health, particularly those that promote car dependence, and work with those departments to develop policies that nurture health through physical exercise, community activities and reduced susceptibility to a number of diseases.

In the past, when public ill-health was proven to result from uninformed individuals' actions, public policies were enacted, public money spent and individuals' rights curtailed for the sake of the public good. The history of the increasingly effective measures against drunk driving in Victoria and the large scale improvements to road safety show that positive outcomes are possible with political will and determination to effect change.

Changing transport policy priorities and tackling car dependence is certain to be seen by some policy makers as politically unpopular. But in all the case studies done on cities which have tried to move away from car dependence over the past 30 years, it has proved to be good politics (Newman, 1999b).

Examples from the Netherlands, Austria and Germany show that decision-makers can

underestimate the willingness of citizens to restrict their car use and/or promote public transport, by as much as a factor of 4 to 10 (OECD, 1997b). In Australia, a survey of people driving their cars into Perth CBD showed that 50% were contemplating using an alternative mode and that car drivers have very favourable attitudes towards the environment and their own health (for example, 95% agreed that it is everybody's responsibility to help control air pollution). A similar survey in the UK showed that 37% of car commuters were contemplating using an alternative mode (TravelSmart, 1998).

OECD work on individual travel behaviour has found that messages encouraging change in individual travel behaviour appear to be more relevant, and therefore more effective, if they are framed in terms of safety, health and quality of life rather than emissions of specific pollutants (OECD, 1997b).

While public health can be a significant contributor to re-shaping transport policy, it is unlikely to be sufficient in itself. The transport lobby based around the automotive industry has a large investment in ensuring that the motor vehicle continues to be used. However, health concerns are well placed to achieve a convergence of social interests.

Policy arguments based on concerns for environmental protection, equity and social justice are in line with recognition of the effects of traffic growth on health – all demand a reduction in traffic and the availability and use of more sustainable travel alternatives to the private car. Building an alliance between public health and the environment would ensure the achievement of synergies between strategies used to reduce greenhouse gases and those for reducing pollutants of health concern (for example, particulate emissions from diesel engines). It would also increase the political influence of the health argument and extend the financial resource base available for implementing change. It is a course of action that has had success overseas.

It may be a matter of time, but it is no longer out of the question that a class action could be brought against car makers for their wilful injury to health in a similar way that class actions have been brought against cigarette manufacturers.

"If we consider the many adverse health impacts of car-dominated urban transport systems, and if we could reduce them to a bottom-line estimate of public health impact, then doubtless we would confirm the widespread, growing view that this is not a healthy way for an urban society to live."

McMichael, 1997

7.1 What role could health promotion organisations play?

While Victorian government transport policy and strategy documents indicate concern for the projected growth in motor vehicle use, there is some distance between ideological and practical policy. The impacts of that growth have not yet become problems that politically have a 'crisis' character.

With the costs of congestion predicted to treble in Melbourne between 1995 and 2015; the number of kilometres travelled per car increasing by 2.5% - 3% each year; Melbourne's air pollution levels ranking only just behind those of Sydney; and mortality from respiratory and other illnesses related to air pollution estimated to be in the order of 200 – 220 people annually; the city has reached a point where immediate intervention to curb travel demand is essential if an escalation in health damage is to be avoided.

Whether because of inertia, insufficient knowledge, or lack of political will in the absence of community pressure, the Victorian government has not taken the initiative. There is the need for an organisation(s) to extend the environment argument to include health and to raise the profile of transport-health links both within government and the community.

There are four areas of activity in which Health Promotion organisations could become involved: advocacy and research; education and awareness; supporting conduct of feasibility studies and pilot projects; and securing of sponsorship.

1. Advocacy and research

For public health impact to be an important criterion in transport policy formulation across many sectors of government, policy-makers in transport, environment, planning, industry, and education need to be made aware of the often fundamental impact of their policies upon public health.

To do this, it will be essential to have good studies of the health impacts; to learn how to evaluate and deal better with the uncertainties that surround the science; to use formal risk assessment to clarify and quantify the nature and magnitude of the public health impact; and to convey the results of the assessments clearly and simply (Steensburg, 1997).

Health promotion organisations could take a role in:

- (a) **compiling and publicising findings of existing research** and bringing it to the attention of both policy-makers and the public.
- (b) **identifying gaps in knowledge** and promoting research into the health effects of transport which have not yet been clarified or where evidence is incomplete (for example, noise; diesel engine emissions – especially fine and ultrafine particles; combined effects of pollutant mixtures inside vehicles, on footpaths and on bicycles; effect on infants of continued exposure to pollutants inside vehicles). The Victorian government has announced that it will be contributing \$50,000 over three years to undertake collaborative research into the health impact of pollutants. The research will involve exchange of data between Melbourne, European and American researchers. The precise details of the research is unknown but given that the results will be used to review air quality standards, it appears likely that research into non-airborne causes of pollution (for example, noise) will not be undertaken.
- (c) **encouraging and implementing the carrying out of health impact assessments.** The European governments in their Charter on Transport, Environment and Health, have requested the WHO in conjunction with UN/ECE, the United Nations Environment Program and other

relevant organisations, develop guidelines for making health impact assessments of policies, strategies, programs, projects and legal measures with implications for transport and mobility (World Health Organisation, 1999a). The presence of guidelines would help to simplify and standardise the assessment process. Health Promotion organisations could either await production of the WHO guidelines or commission their own. It is important to ensure that public health authorities are involved in the assessments at all levels and that, within their own organisations, they take full account of the impact on both transport and health of their own policies.

- (d) **assessing the public health impacts of different modes of transport** in terms of health benefits and disbenefits. Particular attention could be given to quantifying the consequences for public health of increasing levels of physically active modes of transport, notably walking and cycling (ibid).

"We need to ensure that government policies...take health into account to maximise the health and economic benefits. I think that most people care more about their health than about their cars."

*JE Asvall
WHO Regional Director for Europe
World Health Organisation, 1999b*

In advocating that health becomes an important criterion in transport decision-making, Health Promotion organisations should seek the Victorian Government's agreement to incorporate into policies with relevance to transport, the principles and approaches of sustainable development adopted by the European governments and outlined in the 1999 WHO Charter on Transport, Environment and Health:

- sustainability;
- the precautionary principle;
- prevention;
- protection and promotion of health and safety;
- the "polluter pays" principle, including internalisation of externalities;
- multisectoral integration of environment and health requirements and involvement of health authorities in decision-making on transport, land use and infrastructure policies;
- equity;
- public participation;
- subsidiarity;
- efficiency.

To promote and formalise integration of health and environment concerns into transport, Health Promotion organisations could investigate the potential for the development of environmental health action plans at the national and state level. At the local level, a growing number of municipalities (for example, Port Phillip, Moreland, Albury Wodonga) are already pursuing a more comprehensive, social determinants based approach to public health planning or, what is increasingly termed, 'community wellbeing'.

2. Education and awareness

The public is generally not aware of the different impacts of transport on health and of the importance of taking individual action to alleviate the problems of motorised traffic.

The range and magnitude of external and hidden costs imposed on society by motor vehicle usage are not well known. Most car drivers are not cognisant of the operating costs of their vehicle, much less the effects of emissions inside the car on their children, or the soil and water contamination of oil runoff from roads or fuel spillages at the petrol pump. As the external costs of car use have not been internalised through road pricing, fuel charges, vehicle registration or other initiatives, the car driver bears only a very small proportion of these costs. In fact, rather than being taxed to compensate for the external costs which it generates, car use is subsidised under our

current tax system. In these circumstances, it is not surprising that Australia has such high car usage.

Experience has shown that people are much more responsive to travel behaviour change if they are fully informed of the impacts of different transport decisions. In the Central Region of Scotland, residents reversed their transport priorities after being provided with information about the impacts of different transport options on their quality of life. This resulted in a shift of expenditure from 90% on roads to only 33%, with 18% on pedestrian facilities, 13% on traffic calming, 12% on buses, 9% on rail and 4% on cycling and parking (OECD, 1997c). Part of the effectiveness of the individualised marketing approach used in WA and SA can be attributed to the feedback received by households on the consequences (in terms of pollution, time etc.) of different travel options.

As indicated above, research has shown that messages promoting more sustainable travel behaviour are most effective when couched in terms of quality of life and health. There is particular concern for the health of children. Market research undertaken in the early phase of the Smogbusters program indicated that the most successful way of capturing public attention on the issue of air pollution was to highlight the damage it was doing to children's health.

The Victorian EPA already conducts a public information campaign to create a broader understanding of air quality issues and what individuals can do to promote cleaner air. In June this year, the Victorian Government announced an additional allocation of \$280,000 to allow the EPA to continue this campaign. Placing a greater emphasis on health could not only increase the effectiveness of the campaign but establish the basis for a synergistic and longer term relationship between the health promotion sector and the EPA.

The dissemination of information to transport users on the financial, social and environmental impacts of transport has been identified as a specific initiative in the National Greenhouse Strategy (NGS). There is a major opportunity for health promotion to play a key role in the development of an education campaign that will provide individuals with the necessary

information and motivation to rethink travel choices.

The project, which is being co-ordinated by the Department of Transport and Regional Services, will require development of creative ways for delivering the 'car use is bad for your health' message in the public arena that are both informative and empowering. Already observers in Europe have drawn analogies between the passive smoking problem of tobacco use and the 'passive mobility problem' of unrestricted car use.¹ The project also provides an opportunity to promote the benefits of physical exercise as part of the journey to work or travel for other purposes. Focusing on practical and positive alternatives to current patterns of travel behaviour has been identified by the OECD as a key element of an effective message for change (OECD, 1997b).

Given the synergies that exist between the environment, physical activity and health in the area of transport, it may be possible to develop the project in partnership with these sectors under an 'Active Travel' or similar banner, working in concert with the *Active Australia* and *Smogbusters* programs and emphasising the importance of more active forms of transport in terms of personal and community benefits. This would be in line with the support for an intersectoral approach provided in the *Active Australia framework* (Commonwealth Department of Health and Family Services, 1998).

There are a number of other activities that could be considered as part of more general awareness raising:

- Advice on healthy transport options could be provided as part of events access information.
- Production of guides and fact sheets providing information on how to develop more active forms of travel in the school, workplace or community. This could be done in partnership with other agencies (for

¹ Based on the findings of a study commissioned by the EPA in Sydney, the level of air pollutants in Melbourne on Smog Alert days is estimated to be equivalent to smoking 6-10 cigarettes a day (Smogbusters personal communication).

example, health, environment, education and industry).

- An annual award recognising schools, workplaces and communities for innovative work in promoting healthier forms of travel and supporting alternative modes of transport to the car.
- Introduction of a Schools Challenge (along the lines of the Safe and Sound Challenge in the UK) inviting schools across Victoria to develop innovative schemes to promote healthy and safe travel to school. Backing could be sought from appropriate State agencies (for example, Human Services, Education, Infrastructure, and Environment) to enable the awarding of cash prizes to winning schools.

3. Supporting feasibility studies and pilot projects

An important part in moving from strategy to practice is the trialling of ideas to determine what works and what is not so effective. Governments are often slow to take this step because projects proposed are frequently small scale, perceived to be risky, or because there are no suitable funding structures available. As a result, many innovative projects with social equity or other objectives do not receive funding from conventional sources and remain untried and unproven.

The promotion of pilot projects has been identified in the WHO Charter on Transport, Environment and Health as a key strategic element in moving towards transport sustainable for health and the environment (World Health Organisation, 1999). By funding sustainable transport projects it would be possible to enable replication in Victoria of projects that have been successful elsewhere in Australia or overseas, or extend existing projects to different Victorian localities, communities and settings. Financial assistance for the conduct of feasibility studies could be provided as a first step for new projects that have not previously been trialled in Australia (for example, car sharing schemes).

Preference could be given to projects that meet the expressed needs of a community or neighbourhood, that reduce transport and health inequalities, and that have a potential positive

health outcome in terms of, for example, increased physical activity, reduced vehicle emissions, greater community interaction and reduced social isolation.

Changing transport practices to reduce car use and vehicle kilometres travelled is critical to improve health outcomes from transport. Projects aimed at changing travel behaviour by informing travel decisions and encouraging alternatives to single occupant car travel are in their early stages in Australia but initial results suggest that support for work in this area is warranted. The Victorian Environment Protection Authority and community environmental organisations have expressed interest in implementing projects of this nature in Victoria in partnership with transport and health agencies.

Intervention to change travel behaviour can occur in a variety of settings, for example, educational institution, business, government agency, neighbourhood or community. Projects can be targeted to specific groups or locations; they can entail a high degree of community (or participant) involvement and ownership; they raise awareness and demonstrate practical action; and they present opportunities for increasing individual fitness and wellbeing while at the same time improving the environment and health prospects of the community at large.

Two settings that warrant particular consideration are schools and workplaces. Children and adolescents are an important audience for policy messages as they are forming patterns of travel that they will carry with them through their adult lives. Childhood, adolescence and other points of life change are times when people are most receptive to modifying their behaviour (OECD, 1997b). Children also play an important role in influencing their parents' behaviour as has been shown in the environmental area.

Workplaces generate a significant number of trips, usually made using a motor vehicle, to and from home or for business-related purposes during the day. Travel habits established while at work generally extend into non-work hours and in turn influence children's travel experiences and choices. As yet workplace intervention to influence travel demand has only occurred in a very small number of sites in Victoria.

Expansion of the *Smogbusters Way to Work program* in Victoria to include additional workplaces and the piloting of other workplace initiatives is warranted. Widespread application of employer transport plans is unlikely in the current economic climate in Australia where regulatory requirements are absent and a tax environment exists which promotes motor vehicle use. A mix of 'carrots' and 'sticks' has proved useful elsewhere to encourage firms to rethink transport practices.

The application of travel behaviour projects to rural areas is more problematic because of the lack of transport choices available. Projects aimed at creating more transport options for those without access to personal transport (for example, creative use of public or private buses or vans to provide a flexible 'on-call' service may be more appropriate). On-demand and guaranteed ride home transport initiatives may also be of benefit in outer suburban areas where public transport services are limited and social isolation can be greater.

4. Securing sponsorship

The number and variety of projects that could be undertaken, as well as their duration, could be increased with the securing of sponsorship from the private sector or from larger public organisations.

7.2 Partners and stakeholders

There are a range of potential stakeholders and partners in Victoria in the areas of health, environment and transport. These include:

State Government

Human Services Victoria

Victorian Department of Infrastructure

Victorian Environment Protection Authority

VicHealth

VicRoads

Local Government

Local Councils

Municipal Association of Victoria

NGO's

Bicycle Victoria

Environment Victoria

Green Jobs Unit/Australian Conservation Foundation

National Heart Foundation

Victorian Council of Social Services

Public Transport Users Association

Public Transport Companies

Public Transport operators (Bayside Trains Corporation, Hillside Trains Corporation, V-Line Passenger Trains Corporation, Swanston Trams Corporation, Yarra Trams Corporation)

The key stakeholders at the national level are:

Australian Greenhouse Office

Commonwealth Department of Health and Aged Care

Commonwealth Department of Transport and Regional Services

Environment Australia

The above list is not exhaustive or prescriptive. Choosing which partners or stakeholders are most appropriate will depend on the nature of the project selected.

7.3 Potential sources of funding/support

To a certain extent, the identification of funding sources will be dependent on the nature of the project being proposed. In most cases, it is likely that funding for a particular project will come from a variety of sources given the intersectoral nature of some of the initiatives canvassed.

Potential sources of funds or other support which have been identified are:

- (a) *Victorian Environment Protection Authority (EPA)* – the EPA will be responsible for managing expenditure of \$100,000 allocated this financial year for a travel behaviour initiative. The EPA is interested in working in partnership with other organisations with an interest in, and funds to contribute to, the project. The agency has also been allocated \$280,000 to continue a public information campaign to increase awareness and understanding of the effect of individual actions on air quality and what individuals can do to contribute to cleaner air.
- (b) *Natural Heritage Trust* – funding from the Trust has been allocated to projects aimed at improving air quality (for example, Smogbusters).
- (c) *Australian Greenhouse Office* – the AGO has received an allocation of \$10m for projects aimed at reducing greenhouse gases and is under pressure to spend the funds. The AGO is responsible for co-ordinating implementation of the National Greenhouse Strategy (NGS). Projects identified in the NGS are already underway or are to commence in the year 2000. NGS initiative 5.13 (the dissemination of information to transport users on the impacts of transport) is in the planning stages and will be carried out next year by the Department of Transport and Regional Services. It is important to ensure that synergistic effects are achieved between strategies pursued to reduce greenhouse gas emissions and those to reduce other air pollutants of health concern.
- (d) *Active Australia* funding may be provided through this framework at some point in the future.
- (e) *Agenda 21* – Agenda 21 funds may be available for projects involving local government.
- (f) *Public Transport Corporation/public transport operators* – there are overseas precedents of public transport companies providing financial and other incentives to encourage public transport usage. The new franchisees of the Victorian public transport system have been given sizable incentives to increase patronage and may be interested in helping to fund initiatives that promise a boost in passenger use.
- (g) *Large companies* – those with an interest in becoming good corporate citizens or developing their environmental image, or those facing critical parking shortages, may be potential subjects for financing workplace schemes such as Cycling 100 or Green Transport Plans. Large CBD-based retail, insurance or banking institutions could be possible targets.
- (h) *Universities, Hospitals* – both RMIT and Melbourne University are faced with very limited space and a large population of staff and students. Consideration may be given to projects aimed at increasing cycling or other initiatives to reduce private car use (for example, car share schemes). The development of 'Healthy Transport Plans' would be an appropriate response of the large city based hospitals to increasing demand for parking and growing traffic congestion. As well as meeting the needs of staff, patients and visitors, the hospitals have to provide ready access for emergency vehicles. Excessive traffic and overspill parking can cause annoyance to local residents. Both the universities and major hospitals are of a large enough scale to negotiate discounts for employee travelcards with the new public transport operators.
- (i) *Councils* – given their responsibility for traffic engineering and management as well as land use planning, Councils are important partners in projects aimed at changing travel patterns. Although many Councils state they have limited funds for new initiatives, Melbourne City Council and some inner city municipalities have shown an interest in projects that will help to create a more livable environment for their residents and visitors. Local government interest in measures to manage travel demand and reduce traffic will become more widespread if State governments require Councils to take on air quality management

responsibilities as has occurred overseas. The 'TravelWise' awareness campaign in the UK was initially developed by a Council and now has central government support and more than 60 local authorities in England and Wales on board.

7.4 The next steps

The relationship between health and transport is gaining more recognition as the consequences of our current car-dominated transport system become more transparent. However, the difficulty of changing that system, the fragmented structure of political and bureaucratic apparatus, and vested interests are all acting as deterrents to action. As one transport commentator has noted: "Our hearts may be warm, but they are cooled by an examination of our purse" (Steensberg, 1997).

If the health of the young, the old and the ill and that of future generations is to be protected from the damage being caused by transport practices, the pace of change must be increased. In the absence of an external shock, political action is most likely to come in response to strong community pressure. This will only occur if the public are openly informed of the potential damage to their health if the current growth rate in motor vehicle use continues, and if policy-makers are receptive to new approaches and ideas.

Where the pressures are greater from denser settlements, where there is sufficient wealth to enable the capacity to act, and where there is a tradition of democratic action, there has already been significant innovation – as shown in the examples cited earlier from northern European countries.

As Australia's most densely populated State, Victoria or at least the region of greater Melbourne, meets these pre-conditions.

During preparation of this paper, a large number of organisations expressed interest and concern

to put health on the transport agenda. Environmental agencies view favourably an alliance with health interests as a means of raising the importance of dealing with air pollution while organisations such as the National Heart Foundation see the potential for incorporating exercise into the daily travel routine as very promising. What is absent is an organisation that can act as a catalyst to bring together the various interests and harness their energies.

At the Commonwealth level, there is evidence of interest in both health and transport departments to develop a more collaborative working relationship. A similar interest has been expressed within health and environmental bureaucracies in Victoria. It remains to be seen whether there is sufficient motivation and knowledge within the bureaucracies to challenge transport planning orthodoxy. However, with transport policy in transition, it could not be a better time for external organisations to influence future directions.

This paper highlights the key issues and outlines directions and examples of transport policy and practice both here and overseas. It does not provide an analysis of transport needs of different groups or areas. It is important that any refocusing of transport policy ensures equality of access and service to all people. Particular consideration should be given to assessing the needs and providing transport options for those without, or with very restricted access to, a private motor vehicle. This includes older people and people with disabilities living at home or in other forms of accommodation who are unable to drive or use conventional public transport; young people who cannot drive and who live in outer city areas which are poorly served by public transport, particularly in the evenings and on weekends; and people in rural and remote areas where there is no or very limited public transport.

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