It's more than just walking!

The value-adding impact of the Walking School Bus program on local environments and communities

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VicHealth

Published by the Victorian Health Promotion Foundation
PO Box 154, Carlton South 3053, Victoria, Australia
Telephone: + 61 3 9667 1333 Fax: + 61 3 9667 1375

This report was developed by Dr John Grant, J. A. Grant & Associates May 2007.
Copies of this publication may be obtained from the Victorian Health Promotion Foundation.
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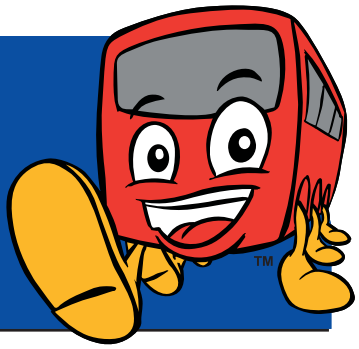


Executive summary

This report identifies the 'value-adding' impacts of the Walking School Bus (WSB) program on local environments and local communities in Victoria.

The WSB program in Victoria and elsewhere commenced in response to a range of problems, including the dramatic reduction in walking and cycling to school in recent decades and the resultant increase in traffic congestion and perceived danger near schools. In addition, the children who walk and cycle to and from school gain health benefits and it is evident that many more benefits accrue to school communities, local residents and the broader community.

One of the significant added benefits to come from the WSB program in Victoria is a range of infrastructure improvements. The development of new WSB routes means that increasing numbers of the approach routes to schools are audited by local councils. Since the introduction of WSB in local areas, many participant councils have become more alert to the importance of creating safe walking routes to schools. The WSB groups also act as the 'eyes on the street' for local councils by reporting unsafe conditions for pedestrians.

Numerous council officers have commented that the WSB route audit process identified deficiencies in infrastructure and maintenance (such as missing footpaths and pram ramps, and overhanging foliage or persistent graffiti) and that "they were things that should have been fixed anyway" and are now part of the council's normal maintenance and operations procedures. In many councils, infrastructure works that assist sustainable transport for all, but especially for students, have become a high priority.

Based on data received from council officers at 18 councils it is estimated that these councils have spent approximately $1.5 million over the past three to four years on works that are associated with the WSB program in their areas. In some cases work was done as the result of the WSB route audits, and in others the WSB program (and the routes) was a major contributor to justifying expenditure on new infrastructure supporting active transport. However, this data is an underestimate of the true costs of works, as many councils do not allocate works to a specific WSB budget.

This report also illustrates what has been done within schools to market the WSB and active transport and shows how some schools have changed the whole school culture; now active transport is included in both curriculum and attitudes to travel. These successful schools have also nurtured a close and beneficial relationship with their local council. The changes that have taken place both within and outside schools have increased the levels of benefits for the school community.

The research also identified the strengths and the weaknesses of the WSB program. The breadth of strengths, particularly the social benefits and improvement to the built environment, is impressive. However, there are some inherent weaknesses in the program. The program is reliant on volunteers and these operational volunteers walk the children to and from school with dedication and care. However, it has been shown that the expansion rate of the program is very slow, because there is a lack of volunteers in many areas and the retention of volunteers over lengthy periods is a rare occurrence. Schools that take on the program also do it voluntarily; therefore, children in schools that are not part of the program miss out on participating.

Other weaknesses to the current model include the long 'implementation chain', the limited funding and reliance on council cooperation to effect real change in the environment outside the school. School staff involvement is a major influence on the success of both the WSB and the broader active transport agenda.

In Victoria and elsewhere, there is a high level of awareness of health, obesity, climate change, fuel prices, congestion, liveability and other problems associated with a car-dependent society. The current confluence of factors may never be better to enable and encourage a comprehensive approach to active transport to school, including the take-up of the WSB program.

The benefits of WSBs and active transport are known and 'solutions' exist. However, at the current rate of expansion it will take many years for the WSB program and good practice in active transport to school to filter through the school systems, by which time many problems will worsen. Therefore, a range of recommendations to increase the importance of active transport for school children have been identified and highlighted in this report.

1 Introduction

There are many reasons why it was necessary to 're-invent' walking to school in the 21st century. The dramatic decline in walking to school over the past three decades, increased levels of childhood obesity, traffic congestion and safety issues around most schools during 'drop-off' and 'pick-up' times, and the loss of children's road safety and neighbourhood navigation skills are a few. In response to this situation VicHealth, in consultation with the Lead Agency Committee on Physical Activity, introduced the Walking School Bus program to Victoria in 2001.

Improving the pedestrian environment for school children, and increasing their (and their parents') willingness and ability to walk safely to school has implications for everyone. If it is not considered safe for able-bodied, young people to walk (or cycle, or use other sustainable modes), then the benefits that can accrue from 'active transport communities' are lost to us all. These benefits are becoming well known in terms of health, environmental, economic and quality of life measures.

The development and implementation of VicHealth's WSB program has taken place in a changing and evolving context where there are:

- dramatic increases in chauffeuring to school of children of all ages, over the last 30 years;
- significant increases in childhood obesity and reduced health levels;
- public perceptions of reduced safety around schools, covering both traffic congestion and personal dangers;
- recognition and understanding of the impact of greenhouse gas emissions and climate change;
- increasing levels of car ownership and use, especially in the 'transport-poor' suburbs;
- rising fuel prices, which are important to many family budgets.

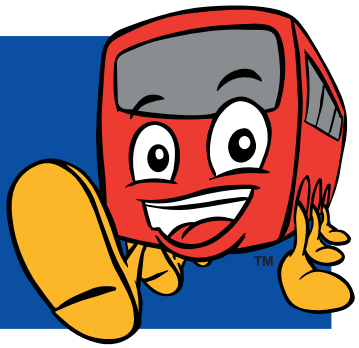
The issue of 'walking' and the encouragement of walking (and using bicycles, and other sustainable modes) for the journey to school has only relatively recently emerged onto the policy agenda for most levels of government and other organisations in Australia.

However, there are a number of trends and issues to which the current Victorian State Government (and governments in most developed countries) are paying increased attention. They include:

- increasing health problems (including obesity) in the community;
- urban sprawl, car dependency, traffic congestion and insufficient choice of more sustainable modes of transport;
- air pollution, greenhouse gas emissions and climate change;
- an ageing population;
- the equity implications of current development patterns and transport systems.

A policy shift towards promotion and support for walking, and making places more walkable, has been significant over the past decade. It has occurred in response to a range of emerging problems in the health, transport, environment and planning sectors.

The introduction of the 50km default speed limit and the 40km speed limit near schools and in some retail areas demonstrated the Victorian Government's acceptance that traffic speed is a major safety issue, especially for pedestrians and parents' perceptions



of a safe road environment for their children. Streets can, and should be, made safer for pedestrians. The 50km limit has reduced pedestrian accidents by 22% in Melbourne since its introduction in 2001 . (See VicRoads (2005), Review of Victorian Speed Limits.)

In 2001 the Victorian Greenhouse Strategy funded the first round of the School Travel Planning program. One million dollars was made available to assist 33 schools to develop and implement School Travel Plans – focusing on a wide range of initiatives that would encourage and enable more students to walk, cycle or travel to school in more sustainable ways. In some of those schools significant increases in the rates of sustainable travel to school have been achieved.

People are increasingly recognising that designing or re-engineering places to make them walkable also produces the types of places that most people want to live. These places:

- are safe and convenient;
- have lower operating costs;
- are liveable for children and people with a disability, and
- are supportive of local business and services.

However, it still remains true that the comparative level of resources devoted to walking, sustainable transport and travel behaviour change lags well behind that devoted to supplying more roadspace and the support of existing trends towards increasing car use.

Better walking conditions support all types of walkers – the elderly, people walking dogs, pushing prams, and those walking purely for recreation and health – as well as those going to and from school. In spite of the fact that walking is the most popular form of recreation, the recognition of its wider benefits and the need to support and encourage this activity is still developing.

Between 1974 and 2003 the proportion of students walking to schools in Melbourne declined from 45% to 20%, while car travel to school increased from 25% to 70%. In part this has been due to the reduced cost of owning and running cars – the 'motorisation' of society – as well as planning and transport policies that focused almost exclusively on supporting increased car use.

The VicHealth WSB program is the best-known and most high-profile initiative to promote and support increased levels of children walking in Victoria. The program commenced in 2001 covering four council areas; by 2007 the program covered 60 council areas and has experienced considerable success within and around many of the schools within which WSBs operate.

The basic concept of the program is to get adult volunteers (usually parents of school students) to escort groups of students to walk safely all or part of the way to and from school. It is simple and effective in overcoming parental fears about the physical and personal safety of their children on the school trip.

VicHealth has devoted considerable resources ($4.5 million committed to councils 2001–11) to the development of the WSB system. VicHealth, in partnership with councils, provides funds to cover some or all of the costs of employing a WSB coordinator, promoting the program, recruiting schools, engaging volunteers, training volunteers, and auditing/establishing WSB routes.

One of the conditions of funding is that audits of prospective WSB routes are undertaken so that the routes are safe for groups of students to walk to school.

These route audits and the safety concerns of parents and schools have prompted some local councils to take more interest in making the built environment safer for all residents, including school children.

The major aim of this research was to identify the breadth and scale of the value-added benefits of the introduction of WSBs on the built environment. It investigated how the benefits were achieved, and the lessons that can be learned from the most successful schools, so that benefits are maximised for all schools. However, during the research it became clear that many other benefits are achieved in addition to improvements to the physical environment.

Simultaneously the weaknesses of the program also became evident. Therefore the report showcases the impact of WSB on the built environment as well as the extended benefits and inherent weaknesses of the program. Recommendations for creating a mode shift to sustainable, healthy and active transport to school are also made in this report.

2 The research process

The research process for this project involved a comprehensive investigation of how the WSB program system operates in practice in schools and councils.

All WSB coordinators (52) involved in running WSBs at schools throughout the state were contacted. Each coordinator was asked to complete an 'open-ended' questionnaire seeking information on the numbers of schools operating WSBs in each area, contacts for other council staff involved in the program and the coordinators' views on a range of issues (see Appendix 1 for a copy of the questionnaire).

Thirty-three questionnaires were received and analysed and, where appropriate, further information was obtained by:

- Contacting respondent coordinators to discuss their questionnaire and obtain further information and insights into the local operation of the WSB system;
- Contacting councils to attempt to identify the value of infrastructure works done either directly as the result of the WSB route audits or works done that were stimulated by the WSB;
- Contacting a number of the volunteer WSB school coordinators, and visiting a number of schools in those areas that appeared to offer insights into 'best practice' either by coordinators, volunteers, schools or councils. Fourteen case study councils/coordinators and 25 schools were visited. The school visits involved discussions with school principals, lead teachers and WSB route coordinators, (many of whom doubled as WSB route 'drivers'.) See Appendix 2 for a list of schools visited.

3 The benefits

There are numerous types of benefits that accrue to a range of members of the community through the introduction and implementation of the WSB program. The benefits are listed below as they apply to students, to parents, to all members of the school community, to local residents and the broader community.

Many of the benefits identified are difficult to measure and/or quantify, yet they represent recurring themes identified via the research. Respondents believed that even where it is not possible to measure or quantify them that these benefits are valuable and need to be acknowledged.

3a For students

To those who participate in WSBs

Health

- Children love to walk/cycle together rather than being in a car.
- They enjoy the exercise.
- They have improved personal fitness.
- They are still 'full of beans' when they get to school.
- WSBs encourage cycling and scootering to school, as well as other sustainable travel.
- They learn that they can walk for distances of 1–2km or 20–30 min duration, and that this is not too far.

Social

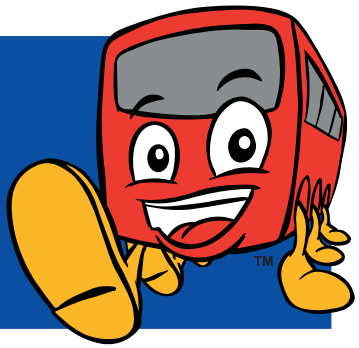
- There is increased social interaction between children of different ages/school classes and the building of friendships.
- Contacts and friendships reduce the potential for bullying.
- Children get to know neighbouring children/parents and their houses, and these become 'safe houses' if or when they are needed.

Educational

- They learn road safety and how to behave on the roads.
- They learn the geography of the school/home area.
- They are eager to contribute to greenhouse gas reduction, through a variety of means, as their knowledge of environmental issues increases.
- Walking to school instills a sense of pride and achievement.
- WSBs have reduced late arrival at school, and sometimes absenteeism.

For other students

- The WSB program highlights the 'benefits' of active transport/walking to school and this encourages other students to participate.
- Infrastructure improvements due to the WSB audits and ongoing improvements make walking/cycling safer and easier for all students, whether they join a WSB, walk independently or cycle.
- There are increased numbers of supervised crossings around some schools, due to WSBs so it is safer for all.
- WSB schools generally participate more successfully in walk/cycle 'events' from which all students benefit.



3b For parents and volunteers

For those whose children use WSBs

- Reduced cost of car driving.
- Reduced need to walk to school with child.
- Confidence that child will get to school safely and on time.
- Confidence that child is supervised, taught road rules and appropriate behaviour when walking to school.

For volunteers on WSBs

- Improved health, of themselves and their own children (as 'passengers' or accompanying WSB).
- Heightened sense of contribution to the school community.
- Parental 'ownership' and involvement in school active transport policy.
- Getting to know children and other parents in their area/on their route.
- Improved social contacts between parents on routes and between all volunteers and participants.
- Fulfill their commitment to environmental, safety and other concerns.

For other parents

- Reduced traffic on local streets.
- More 'eyes on the streets' and confidence for parents whose children walk independently.

3c For schools

- The WSB schools demonstrate leadership and environmental responsibility within the local community.
- Schools participate in 'sustainability' building and environmental awareness, with the WSB as a lead example.
- The WSB is often used as a positive promotional and 'marketing tool' by the school.
- The WSB creates a positive relationship between schools and local government.
- The WSB can assist in creating positive relationships with local business/community groups.

3d For local residents

- A nearby school with WSBs can reduce local traffic congestion and parking.
- Residents can walk more safely due to improved crossings, reduced speed limits and other improvements (pram crossings, footpaths, light responsiveness, tree maintenance, and so on).

3e For the broader community

- The WSB is a tangible example of 'sustainable transport' that encourages other initiatives within the community.
- The cumulative effect of the many major and minor improvements around schools and along WSB routes (sometimes 1–2km from a school) improves the walk environment for all residents.
- More people walking and cycling improves driver awareness of pedestrians and cyclists and thus makes the roads safer for all users.
- There are reduced greenhouse gas outputs.
- There is reduced morning peak hour traffic in areas close to successful WSB schools.

It is the breadth of the above-mentioned benefits of the WSB program that gives it strength. All schools had their own perceived unique set of benefits.

4 Infrastructure changes

Within many schools there have been changes of attitude to sustainability, the natural and built environments and towards increased active transport. Some schools have created a 'new culture' within the school so that walking, cycling and public transport use is the preferred way for students to get to school.

There are a large number of initiatives that have been taken by different schools and all of these initiatives have contributed to the success of the program in enhancing increased active transport to school.

Outside of the schools, many of the participating councils have adopted pro-walk to school, pro-active transport policies, and significantly altered the environment around schools to support all types of walkers. Some councils have employed sustainable transport officers who are responsible for a range of activities, including the WSB. The extent of change to the built environment has varied widely. In some areas the WSB routes have been designed to follow routes that minimised the amount of new infrastructure or modifications to existing infrastructure, possibly resulting in less than optimal or direct walking routes.

In other cases the level of expenditure has been substantial. Often, the WSB, through the required audits, or through the subsequent growth in pedestrian and cyclist numbers (as it becomes safer to walk and cycle) has acted as a major catalyst in generating change.

This research attempted to quantify the cost of infrastructure improvements as a result of the WSB program. However, the availability of 'cost' data from councils varies widely:

- Some councils do not record expenditure/ improvements relating to the WSB route audits.
- Some councils select routes so that no expenditure is needed.
- Some councils provided data based on reasonably accurate estimates.
- Some provided data based on recorded expenditure around each school, as the result of the WSB audits.
- In some cases the WSB was a 'catalyst' for expenditure, and the improvements implemented benefited both the WSB and other users.
- The providers of infrastructure may be outside organisations; for example, VicRoads, private schools, VicTrack (rail crossings) or utilities (gas, electricity, water for correcting uneven/dangerous pit covers) and cost data are thus unavailable.

The total estimated expenditure made as a result of the WSB has been received from 18 councils and is calculated at over $1.5 million over the past three years. This figure is an underestimation as the costs do not include items such as: the costs to councils of undertaking the WSB audits; the costs to councils/ VicRoads of payments for school crossing supervisors (at approximately $10,000 per annum per supervisor); and other council staff time dealing with WSB issues.

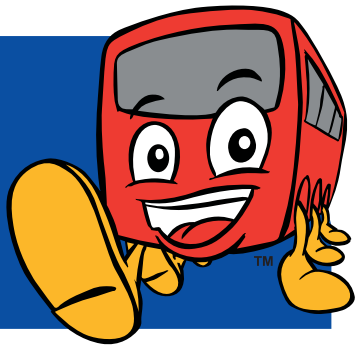


Table 1

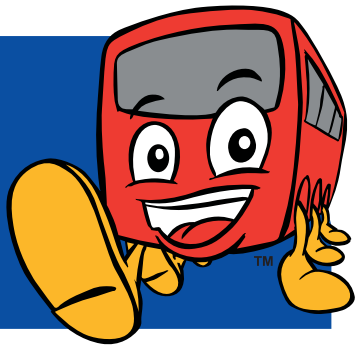
Estimates of the value of infrastructure and maintenance improvements due directly, or stimulated by, the introduction of WSBs

Council area	Summary of changes around schools	Cost data received
Bass Coast 3 schools	Emphasis on shared paths and support for both walking and cycling	$40,000 on WSB routes $2m on shared paths, with $420,000 from Council
Bayside 8 schools	Elsternwick PS: multiple works Cheltenham PS: new entrance, improved rail crossing Beaumaris N PS: need for new crossing identified Sandringham PS; need to upgrade to supervised crossing. St Joan of Arc PS: negotiations ongoing for crossing of roundabouts in area Greenlight project work	Conservative estimate of $150,000 Elsternwick PS alone
Boroondara 5 schools and growing	Works include: fencing, walksafe treatments, new crossings proposed	Conservative estimate of $40,000
Brimbank 8 schools	All schools have had minor improvements to walk environment resulting from audits. Overnewton School in Keilor has had substantial new works	Overnewton: $151,000 spent by council, and new footpath funded by school $100,000 = $250,000 total
Cardinia 5 schools	New footpaths, two new supervised crossings and minor improvements to pram crossings and grass slashing etc	Estimated $25,000–30,000 pa for the past 3 years = $90,000
Casey 5 schools	New supervised crossing at Cranbourne West PS Improvements at other schools include speed humps, new crossings, and changed drop-off zones	Estimated $100,000 over 3 years
Central Goldfields 3 schools	Council adopts WSB routes so that improvements are not needed	Nil
East Gippsland 8 schools	New pram crossings for Paynesville PS New pedestrian crossing at Lucknow PS New bike shed at Bairnsdale 754 PS	Estimated $50,000
Geelong 7 school	Minor works around many schools	$3000–4000
Glen Eira 5 schools	Minor works	Not available
Grampians/ Pyrenees 9 schools	Minor works	Not available
Greater Dandenong 7 schools	Minor works only; pruning, grinding of pram ramps, etc	$2000
Kingston 3 schools	Minor works and two new supervised crossings applied for	Not available

Knox 3 schools	Installation of new road median, and extensive works inside school car park collection area. Possible new intersection redevelopment	$27,000
Macedon Ranges 6 schools	Two new unsupervised school crossings	Estimated $2000 – 4000
Melton 2 schools	New crossing with supervisor Footpath extension, completed which has been essential to viability of WSB	Approx. $74,000
Moonee Valley 11 schools	Signage, pram crossings, improved footpaths, rephasing of traffic lights. New design and reconstruction of intersection possible	Not available
Moreland 5 schools	Minor works	$1800
Murrindindi 3 schools	No new infrastructure required	Nil
Port Phillip 7 schools	New tram stop at Albert Park PS. Numerous 'Greenlight' sites Intersection redesign in preparation	Approx. $500,000
Shepparton Greater 1 school	One unsupervised school crossing installed; rural footpath developed along a portion of WSB route; various general maintenance, footpath repair, tree trimming. Currently under review: zebra crossing audit; separating of light rotations/green man at major intersection	$17,000
Stonnington 3 schools	WSBs use 'available' routes	Nil
Surf Coast 4 schools	Shire committed to extensive development of 'pathways' many of which are designed to link to schools with WSBs	Shire spending more than $500,000 pa on pathways over next decade
Swan Hill 7 schools	Maintenance where needed	Not available
Wellington 8 schools	Maintenance where needed	Not available
Werribee 5 schools	No works needed along selected routes	Nil
Whitehorse 4 schools	Improved pram ramps, footpaths, signage and rephasing of traffic lights	$42,300
Whittlesea 1 school	Minor works, footpath improvements	Not available
Wodonga 2 schools	No works undertaken	Nil
Yarra City 5 schools	Extensive works: footpath improvements, new school crossings, pedestrian fencing, kerb outstands, bike racks	Over $100,000
Yarra Ranges 6 schools	New pathways, improved maintenance, signage	$20,000

It can be seen that recorded levels of expenditure due to the needs of WSB users vary widely. It also shows that many changes to the built environment need not be expensive in order to be effective. A list of the changes to the built environment around WSB schools, together with a number of illustrations, follows.

5 Illustrations of infrastructure changes



The following improvements have been implemented (mainly) by councils, although reduced speed limits and new crossings need to be approved by VicRoads, and some works are funded by VicRoads.

The following illustrations provide the basis of a 'best practice manual' of what has been done in some locations and what could be done in others. WSB coordinators and school volunteers can use these examples to expand the suite of improvements that could be applied to increasing numbers of schools.

5a Slower speed limits/zones

VicRoads introduced the policy of reducing speed limits on all roads where there were school entrances, to make the environment safer for students, whether they were walking, cycling or delivered by car.

The new, lower speed limits (a full-time 40km/h, a time-based 40km/h or 60km/h limit) depended on whether the 'normal' posted speed was 50km/h, 60km/h or above. This has, in itself, produced many benefits for the school and local area populations as traffic has been slowed and speed limits enforced.

Most of the new lower limits were not the direct result of WSB routes. However, there are some cases where a new WSB route has lead to the installation of a new supervised school crossing and the establishment of a full-time 40km/h speed zone even where there is no school entrance; for example, at Elsternwick PS, on Cochrane Street (see figure 1).

figure 1

There are very few suburban areas that have a 'blanket' 40km/h speed limit zone. However, a new 40km/h zone was introduced in the area which includes Spensley Street PS, in the City of Yarra (see figure 2).

figure 2

5b New school crossings

School crossings and supervisors are justified on the basis of 'warrants' (sufficient people crossing a road where vehicle numbers are also high).

In recent years, reduced numbers of children walking to school have meant that the number of supervisors and some crossings have been removed. This trend is now being reversed, with WSBs providing the warrants for many new crossings.

There are numerous cases where WSBs have lead to the installation of new or improved crossings near schools and along WSB routes (see figure 3).


figure 3

They can take three forms:

1 New unsupervised crossings
2 New supervised crossings
3 Previously unsupervised crossings where a supervisor has now been employed.

5c Pram ramps improved/installed

One of the most common forms of infrastructure improvement has been the upgrade of pram crossings, so that students/WSB drivers can safely step on/off the road without tripping. Usually these assist older people too, especially those using 'walkers' or electric carts. Frequently they are done in combination with improvements to adjacent footpaths (see figure 4).


figure 4

5d New and improved shared paths

Both Bass Coast and the Surf Coast shires have embarked on the construction of 'shared paths', and many were designed to enable students and WSB routes to walk and/or cycle to school (see figure 5).

These paths accommodate both school students and other local residents.


figure 5

5e Greenlight suite of improvements

The Greenlight suite of improvements includes:

- The adoption of a pedestrian crossing speed of 0.7 metres per second to determine the crossing time at pedestrian crossings on major roads used by school travel groups.
- Automatic call-up at the pedestrian phase as part of the signal cycle operation. Where automatic call up is not appropriate, the introductions of a two-second early green-advance for pedestrians over vehicles performing turn movements across the cross walk to allow pedestrians to establish crossing priority.
- Continuing to eliminate staged pedestrian crossings.
- Continuing the presence of crossing supervisors at school crossings on major roads for all signalised crossing locations on WSB routes.

5f Improved access to or over public transport services

For many students at both primary and secondary school, public transport is a realistic and sustainable option for travel to school. The City of Port Phillip has pioneered the development of new tram stops, where the road is raised to footpath and tram step height, and traffic is stopped when the tram stops. Traffic is required to travel over the ramping between the tram stop and the footpath (see figure 6).

figure 6

5g Better organisation of drop-off areas

It is inevitable that some parents will wish, or need, to 'drop-off' students. These situations are real and safe arrangements are needed for 'pick-up' and 'drop-off'. At Spensley Street PS there is a small, 'no-stopping' drop-off area, designed to allow parents to safely access the school entrance (see figure 7).

figure 7

Controlling the behaviour of drivers, and making the school environment safer for all users is important, as long as improvements to drop-off areas do not encourage more chauffeuring. Speed reduction and pedestrian priority can be achieved in conjunction with drop-off areas (see figure 8).

figure 8

5h Assist cycling/scootering as part of the active transport system

Some schools discourage cycling and scootering due to safety concerns. However, most students (and many parents) have bicycles, cycling is faster than walking, and where the environment is good for pedestrians it is also usually good for cyclists.

Some schools have 'pedal pods' (cycling school buses) as part of the WSB/active transport program and at many schools cycle parking has been improved. At Spensley Street there is now a small cycle parking area for parents and siblings who accompany students to school (see figure 9)

figure 9

as well as an improved cycle parking area for students. Other new amenities for cyclists include a new cycle lane in a side street in Alphington (see figure 10), and expanded, secure, covered parking for bicycles at Newhaven PS.

figure 10

5i Redesign of road intersections

The redesign of road intersections, to assist pedestrians, slow traffic and make the environment safer for all, is often important. A prime example is a new roundabout at the intersection of Head and Murphy Streets, close to Elsternwick PS (see figure 11).

figure 11

The roundabout has the following characteristics:

1. It is engineered to slow vehicles to under 50km/h, including raised pavements where the zebra crossings have been installed.
2. There are splitter islands on all four approaches.
3. There are zebras lines (on raised pavements) on all four crossings, set back far enough to allow a car to stop at the zebra lines when it is exiting the roundabout.
4. There are 'yellow legs' on all approaches and exits to the roundabout.
5. There are pram ramps (Disability Discrimination Act-compliant) at sides of roads and at islands.
6. Tactile plates are on all four crossings.
7. Pedestrian warning signs are approximately 50m before the roundabout.

These types of roundabouts are illustrated in VicRoads *Cycle Notes 15* and are now capable of being installed in many locations, especially near schools. Near the Elsternwick PS roundabout, two previously existing roundabouts have been modified to comply with the Head/Murphy Street design, to facilitate walking to school by secondary school students.

5j Other infrastructure/maintenance initiatives

Most of the improvements to the walking environment are low cost and are identified when the routes are walked (by both students and 'experts') and attention is paid to detail. They include 'trips and slips', raised parts of footpaths, poor or inadequate signage, 'blind' corners, badly managed crossovers, inadequate tree and grass trimming and the like. Numerous examples of improvements to these small but important elements have been identified, and where rectified they have made a major contribution to the safety, and the perceived safety, of the walking environment.

To date much has been achieved in improving the physical environment around many WSB schools. The above illustrations are only a small sample. Councils, their engineers, VicRoads and others have become increasingly supportive in implementing change, in line with government policy and the wishes of many parents and students. However, much remains to be done to make all schools safe and accessible to people on foot, on bicycles and on public transport.

6 Case studies

The following initiatives have been implemented by schools, which show a high level of imagination and ingenuity in the marketing, management and planning of active transport to school, including the WSB. While the initiatives and approaches illustrated are not a comprehensive set of all of the examples seen at all schools, they provide the basis of a 'best practice manual' of what could be done.

Marketing is seen as an important means of getting momentum into the local WSB system and beginning to change the school culture. Observable during the case study visits to schools was extreme variability in the visibility of promotional material 'selling' the WSB message. At Beaconsfield PS, amongst others, the WSB poster was in the window at the front entrance. Ashby PS has a large WSB notice board, with a range of photographs of volunteers, maps of the area around the school showing walk distances, copies of press articles and other information in a visible and prominent location (see figure 12).

figure 12

In addition two nearby schools had produced a DVD and other promotional material, for use in advertising the WSB to new parents/students and other Geelong area schools.

Positive and pro-active attitudes from the principal, teachers, parents and students towards improving the quality of the environment and the safety and sustainability of the school trip are vitally important. In some cases this has occurred spontaneously. In others it needs to be generated. In some schools the culture has changed dramatically and sustainable transport has become a way of life, embedded in the curriculum, supported by staff (including the principal), encouraged by parents and supported by local residents and business. In the best cases (Elsternwick and Albert Park primary schools) the percentage of students being driven to school has dropped from 70% to approximately 35%, while the balance now walk, cycle and catch public transport. On 'event' days almost all students walk or cycle.

There are numerous ways that the messages about the benefits of active transport can be promoted to parents and students, and about how easy walking to school can be.

Many students have a poor understanding of the local geography of their area (particularly if they are driven everywhere). At Elsternwick PS a map of the school environs was produced, showing local landmarks of interest to students, how close people lived to school, and what safe walking routes they could take (see figure 13).

figure 13

Other practices and innovations that can be adopted, or adapted, by schools include:

- The holding of school events and involvement in statewide events or programs such as 'Walk to school day' 'Ride2School', 'WOW' (Walk on Wednesdays), Walktober events, Smogbuster days and the like.
- Student involvement in TravelSmart Education and related environmental programs, including calculating the distances walked by students, greenhouse gas savings, fuels cost savings and the like.
- Involvement of students in identifying new/safe WSB routes.
- The development of a comprehensive 'School Travel Plan' which examines all options and may identify the introduction of WSBs.
- In the less densely populated areas the establishment of drop-off points within 1–2 km of a school (park and stride) can compensate for larger catchment areas.

The following case studies show the willingness of teachers and principals to embark on a culture change process.

CASE STUDY 1

Advice from a teacher at one successful school to a teacher at a school considering embarking on the WSB/active transport program.

Dear X,

We've been doing it for about five years and it is only now part of the 'embedded' culture.

How did we start?

We had one day when we recorded the data of how the students travelled to school (hands up method in each classroom) and then my class tallied the data. The next week we asked the students (and parents) to make a concerted effort to travel to school without using the car, and again we tallied the data. The difference was huge!

From there we moved on to holding a special 'Smogbuster' day and asked for 100% no car trips to school, and as an incentive we supplied breakfast for the whole school. (Letters to local traders for donations of bread and fruit were very helpful. So from those Smogbuster days we started Walking School Buses (a large group of students walking to school together) and travel buddies (a couple of students) and published photos of the students in the newsletter celebrating their commitment to looking after the earth and looking after their own health.

It was quite a snowball effect. However, the most successful part of the program was when we started recording the data daily (when the teacher marks the roll each morning they also note how each student travelled to school). Then my class would calculate the data on a Friday and work out the most sustainable class in the school. The winning class was announced each Monday at assembly and it became

'competitive'. The most sustainable class at the end of the term received a movie ticket for each student as a prize and this has been the driving force behind changing travel habits. We don't offer the prizes any more, just the acknowledgement each Monday at assembly now appears to be enough of an incentive.

How I got the kids involved:

- To start with, they made posters for Smogbuster days.
- Then they wrote the letters to the local traders asking for donations for Smogbuster days, and posted them.
- They wrote the thank you letters after the Smogbuster days.
- They were the photographers, taking photos of the students eating breakfast (for the year book and the newsletter) on the Smogbuster days.
- They wrote the newsletter articles publicising Smogbuster days and then wrote the 'round-up' report.
- They did all the maths with the tallied data.
- They calculated how far away each student lived from the school, and what route would be quickest for them to travel so they could travel sustainably.
- They worked out who lived near each other so they could travel to school with someone.
- They organised a day for a guy from the local bike shop who did an audit on the bikes to make sure it was safe to ride to school.
- They designed the bike racks for the bike shed (that we had to have built because more kids started riding their bikes to school).

This example illustrates a number of major points, including the importance of:

- Getting the students involved;
- Instilling the importance of environmental issues;
- Obtaining data on mode change; and
- Incorporating the results and the process of change in the curriculum.

CASE STUDY 2

Active Transport Working Group

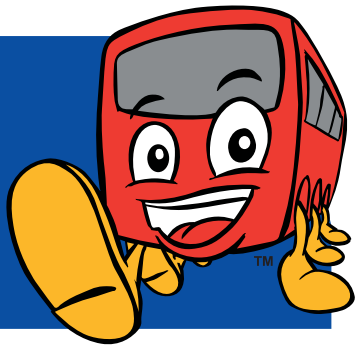
At Spensley Street PS there is an active school/parent group which has recently changed the name of its Traffic Working Group to the Active Transport Working Group. It holds monthly meeting to examine all aspects of travelling actively and sustainably to school.

Active Transport Working Group – Minutes of Meeting 19th February 2007

Proposed activities for 2007

The following activities have been proposed for 2007. Their timing was discussed. A planning document containing the schedule needs to be drawn up and distributed.

- Bike Club – Set up a group of kids to champion Active Transport.
- Create scooter parking.
- Schools Network – Develop a link with other local schools.
- Jog-Along Smog Be-Gone – Develop into special term events.
- Increase bike parking and improve access.
- Bike Users Groups – Develop links with Yarra and Darebin.
- Walking School Bus – Extend to include new families – extend to include new routes/days as required.
- Bike Ed – Train teacher(s) – deliver to students.
- Hot Spots – Conduct survey – work with VicRoads, City of Yarra/Darebin to rectify.
- Curriculum – Link into 'Energy' curriculum topic where possible.



- Kids on the Move – Investigate education package; implement if suitable.
- Parent information/awareness sessions.
- Signage e.g. at back gate, drop zone, bike racks.

Active Transport policy

Draft up an Active Transport policy document.

Bike Club

Twenty nine children have shown interest in being part of a 'Bike Club'. It is anticipated that they will meet approximately fortnightly and discuss ideas re promoting active transport.

Scooter parking

Places for scooters to be stored need to be created to remove the inconvenient and perhaps dangerous clutter from the class areas. Ideas for format need to be sought.

Schools network

Look into developing a link with local schools via the Sustainable Schools network.

Organise the celebration for Ride2School day on Wed 28th March. Ask for adult volunteers to be present that morning to randomly check helmets and bikes.

Active Transport data

The Bike Club students to be responsible for collecting and entering the monthly 'hands up' data. Next possible collection date is Tuesday 6th March.

Bike parking/access

Ensure bike parking and access gets put on the Environment Committee's agenda for this year.

Bike Users Groups

Contact Yarra and Darebin BUGs to see how we might link in with them, e.g. junior members.

Walking Bus

New passengers and volunteers are currently being sought to start in term 2 via an information package in the Bulletin.

Bike Ed

So far, one staff member has shown interest in attending the course for Bike Ed trainers to be held in April.

Hot spots

Discuss what might be done to improve the safety of the bike path where it goes down the big hill and under Heidelberg Rd, e.g. mirror at the corner.

7 A review of the program

According to research participants, there is no doubt that the WSB program has many strengths and has been a success from a number of perspectives, because:

- The concept is simple and attractive and responds to the fears of many parents for the safety of their children on the school trip.
- Few people oppose the idea of children being able to walk safely to school. It has raised the profile of the problem and identified many of the solutions.
- It is a free service which saves parents the time and cost of driving or the time of walking their own children to school.
- It enables large numbers of students to walk in groups to school.
- It acts as a 'training process' for students to learn to walk or cycle to school on their own.
- It requires and encourages improvements to local walk/cycle environments which then benefit all other existing or potential walkers.
- It encourages councils to act to improve sustainable transport generally.
- It can be the catalyst for developing a sustainable transport culture in schools.
- It provides a wide range of benefits to students, parents, schools and the community (as outlined in section 3).

Despite these strengths, weaknesses of the program as it currently exists have been identified. They can be categorised under the following headings:

7a Voluntary initial involvement

- Initial council and school involvement in the program is voluntary. Some councils and schools hold the view that student safety on the school trip is best achieved through parental chauffeuring.
- Many schools see involvement in the 'school trip' as outside their responsibilities, and an additional and unwanted burden on their resources.
- Schools in the private sector generally believe the program is suited only to state schools, because private school catchments are wide and parents can afford to drive children to school.
- There is no requirement by the school system for involvement in active transport to school, leaving it to the discretion of principals to participate or not.
- In some schools that participate in the program the level of principal/teacher participation is 'passive' rather than proactive.

7b A long 'implementation chain' usually dependent on volunteers

- The role of a council WSB coordinator is difficult task. To operate a successful program the coordinator depends on:

  (a) attracting schools to participate;

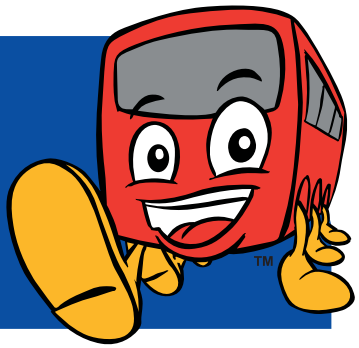
  (b) attracting the support of the Principal and staff;

  (c) attracting/enrolling individual school WSB coordinators;

  (d) attracting/enrolling a coordinator for each WSB route; and

  (e) the ability of school or route coordinators to attract sufficient volunteers/students for each route.

This is a long implementation chain and, other than the council coordinator, the positions are filled by volunteers.



7c Reliance on receptiveness of councils to 'active transport planning' and WSB users' needs

- While some areas around schools are already safe for pedestrians, most are in need of improvement, especially when additional walking and cycling is encouraged. The receptiveness of local traffic engineers to the needs identified through the audits can vary widely and it may, or may not, be possible for the WSB coordinators and/or the schools to influence them sufficiently to make the necessary changes.
- In some areas councils are prepared to make funds available for physical environment improvements but in others it is difficult to do so. What is common practice in some areas is much more difficult to achieve in others. In one council a changeover of engineering staff greatly reduced the level of cooperation as new staff were less willing to implement new approaches to active transport planning than their predecessors.

7d Catchment issues

- Some WSB routes and school catchments cross council boundaries and this requires inter-council cooperation.
- Some schools attract students from outside normal catchments and this extends the length of walking routes and/or makes walking very difficult.
- In the private sector the school catchments can be extensive and there is often the perception that active transport is not appropriate for their students.

7e School issues

- Teachers are vital in promoting active transport events, positive environmental attitudes and incorporating data collection, analysis and evaluation into the curriculum. However, teachers are already extremely busy with curriculum-related activities.
- There is inevitable school staff turnover and new staff not involved from beginning of the process of culture change may not participate.
- There is very limited access to funds for works, events, prizes, etc.
- Few schools collect data on travel to school and monitor the impacts of WSBs or other programs.
- Often there is limited school-based promotion of WSB, and the need for volunteers and coordinators is not heavily promoted.
- Active and involved students and parents leave schools as they get older.
- Cycling to school is often discouraged – due to safety concerns and/or lack of secure bike parking.

7f Limited funding and staff turnover

- The program provides funding for mainly part-time coordinators within councils.
- There appears to be a high staff turnover, as coordinators seek alternative employment or leave for other reasons. Continuity of contacts up and down the implementation chain and skills/ knowledge can be difficult to maintain.

In addition, it was understood from schools that the Department of Education is not an active participant in promoting non-vehicle access to schools. While it does support school buses and has developed the Kids on the Move traffic safety education kits for schools, it has yet to become widely involved in promoting and supporting walking and cycling to school. This could be seen as a missed opportunity given the fact that nearly 850,000 students travel to and from school for most weeks of the year.

8 Conclusion

The increasing price of fuel, obesity issues and climate change are major community issues. The policy context within Victoria has changed significantly since the year 2000 and sustainable transport appears high on the agenda. However, funding for change is limited, compared with the ongoing spending on road construction and other large-scale infrastructure.

The WSB program is one of a number of programs assisting the encouragement of walking/cycling to school. The Department of Infrastructure's TravelSmart is a complementary program, but it too has limited funding within the scale of overall expenditure on transport.

Moreover, in some areas there is still a lack of recognition and reluctance by some local traffic engineers and VicRoads officers to focus their attention on the importance of creating and assisting better environments for active transport. Rather, there is heavy focus in assisting the flow of traffic and maximising parking availability. Some councils still discourage pedestrian crossings at roundabouts. Others remove supervised crossings as soon as pedestrian flows drop below the warranted numbers in order to save on the cost and organisational burden of operating the crossings. Some others see additional short-term parking near schools as the answer to increased traffic congestion around schools.

Many councils, however, have embraced the concepts of sustainable and active transport to school. The more successful schools have developed a positive and supportive relationship with the local traffic engineers and the other relevant council officers and established their credentials and the validity of the whole sustainable transport agenda. The establishment of WSB routes and the subsequent audits of those routes is a simple but effective way of illustrating what can, and should, be done to make routes and environments safe for children and in establishing school–council connections.

The research shows that the introduction of the WSB has been a major contributor to reducing the daily chauffeuring of students to school, especially where volunteers can be found and the school community is receptive to the ideas of sustainability. In the schools where most change has occurred in the growth of sustainable transport, a range of other factors, such as the contribution of school staff, council officers and others have contributed to a shift in attitudes, and the quality of the external environment, so that active and sustainable transport becomes part of the culture of the school.

The 'value-added' benefits to local communities due to the WSB program are impressive, particularly the improvement to the built environment. The initial audits and the increases in numbers of students walking and cycling have, as a result, led to ongoing needs for improvements to the local environment. However, the expenditure figures for infrastructure changes presented in this report significantly undercount total expenditure, as some councils have not recorded much of the expenditure against the WSB program, nor what is spent by non-local agencies, or what is incurred as councils change maintenance programs as a result of the stimulus of the WSB program.

In addition to making it *possible* to walk/cycle to school through safety and other physical/environmental improvements, it is also necessary to encourage students and children to start walking.

Some of the best-practice schools have embarked on impressive programs of support and encouragement of students and parents, of councils/council officers, of volunteers and others, to change the whole culture of a school, where sustainable transport is embedded, and where the WSB has often served as a major catalyst and front-runner of change.

The development of the WSB program is a simple concept which brings large numbers of benefits to those school students who participate in it, as well as to parents, other students, the schools and local communities. However, its reach is limited to approximately 12–15% of all schools in Victoria. Simultaneously the number of participating schools are also growing steadily. The key weakness of the program is the recruitment and retention of volunteers long term.

It is evident from the research that there are a number of 'necessary conditions' that need to be fulfilled in order to significantly reduce the amount of chauffeuring of children, and encourage the mode shift to sustainable, healthy, active transport to school. Therefore, to create an ideal situation:

1 Decision makers and the general public need to appreciate the scale of 'journey to school' problems, the benefits of travel mode shift and the fact that these problems can be tackled effectively and efficiently at reasonable cost.

2 VicHealth investment alone cannot change the current rates of children being driven to school. The development of and investment in programs and policy to support active travel to school needs to be increased.

3 Schools and their school communities should be supported to develop and foster a culture that encourages and supports active transport. Leadership and cooperation needs to be shown by the Department of Education, school principals, teachers and parents. All schools should be supported to develop 'Active School Travel Plans'.

4 The areas around schools (1–2km) should be made safe and convenient for WSB users and all other pedestrians, cyclists and public transport users on the school trip. This requires the involvement and cooperation of councils, council officers and other agencies responsible for the 'external environment', and a budget to carry out the identified infrastructure changes.

Appendix 1 – Coordinator's questionnaire

Value-adding to local communities through the walking school bus

JA Grant and Associates
Dr John Grant

Please respond to the questions as comprehensively as you can, and email before 1st December 2006.
Thank you.

Background

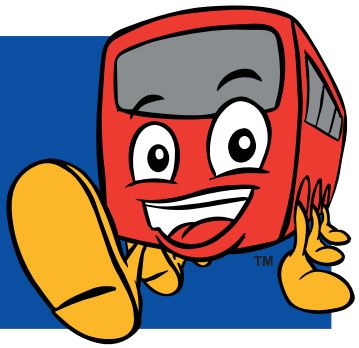
The objective of this Study is to demonstrate and illustrate the breadth and type of impact that the introduction of WSBs have had in terms of 'value-adding' to local walking and cycling environments, not only for the benefit of school students, but also to the rest of the local community.

The study will explore, examine and articulate a wide range of case studies to show that the introduction of WSB has influenced Councils or VicRoads to install/improve infrastructure.

The Elsternwick Primary School roundabout in Bayside is a classic case where the Council invested over $100,000 to assist the school, spurred on by the WSB – but there have been lots of other local spin-offs – better traffic management near the school, happier residents, local people using the footpaths and crossings more, slower traffic, safer environment for all, etc. etc. This was also the first time that VicRoads acknowledged the concept of 'latent demand' for a pedestrian crossing.

It is difficult to forecast the volume, extent and quality of the data/information that will emerge. However, anecdotal information suggests that there are numbers of Councils where the WSB has changed Councillor, Council Officer, School and Community attitudes and priorities towards active transport and the transport needs of young (and older) people and that new infrastructure has been installed as a consequence of the commencement of the WSBs.

The following questionnaire seeks information, links to other people and suggestions for case studies.
I thank you in anticipation of your co-operation.



WALKING SCHOOL BUS COORDINATOR'S SURVEY/QUESTIONNAIRE

1. Contact Information

1.1. Your Name:

Local Council/Organisation with which you work:

Contact details (phone, email):

1.2. Please list all of the schools in your Council area that have WSBs (or cycling school buses) in operation, together with name of the primary WSB contact person in each school and an email contact address for that person.

School a:

Contact person:

School b:

Contact person:

School c:

Contact person:

1.3. Please identify the person or people in your Local Council who have dealt with issues such as auditing the WSB Routes, designing and implementing any new infrastructure along those routes, or have had other input into making the WSB a success in your area.

Person 1:

Name and Job Title:

Contact details (email, etc):

Person 2:

Name and Job Title:

Type of input

Contact details (email id):

2. Your opportunity to provide data and identify potential 'Case Studies'

Please read all of this section before commencing your response

Based on anecdotal information there are numerous ways that WSBs have contributed to improvements to the physical environment around schools, which have benefited not only WSB users, but other children at both WSB and other schools, local residents, and the community in general.

I have used some of this anecdotal information in the following questions that will assist you in identifying potential case study schools:

Is there evidence of new or improved 'infrastructure' around (but outside) schools – such as new pedestrian crossings, improved pram ramps, improved footpaths, extension of the 40km/h zones, rephasing of the traffic lights to allow more crossing time, new supervised school crossings/additional crossing supervisors, changes to the parking arrangements outside schools, new/improved signage etc. Do you know where these types of changes have taken place near WSB schools? Have these types of improvements happened near non-WSB schools, as a result of the changing interest of the local council?

Have there been changes to the facilities inside schools – such as increased cycle parking, better access to the school for pedestrians e.g. the opening of new entrances. Do you know of cases where this has happened?

Has there been increased involvement of schools in events such as 'walk to school day' or other similar events, and other indicators of new attitudes to active transport that could be attributed to the development of WSBs. Have you any evidence that this has happened in your area?

Is there a demand from non-WSB schools to commence their own WSBs – do independent WSBs exist in your area?

Has walking or cycling to school increased within your council area, as the result of the publicity and the experience of WSBs?

Is there any evidence that the local council attitude towards walking or cycling to school has changed, and that improvements have been made outside other schools?

Have any community or resident groups acknowledged the benefits of WSBs and the possibly reduced levels of school traffic in their area?

Can you think of any other direct or spin-off benefits of the WSB program worth further investigation?

I am looking for evidence that the WSB has had an impact on both the physical and the cultural environment within your council area.

Based on the above discussion and the issues it raises, I need your input on suggestions for 'case studies' of schools where I can further explore the evidence available.

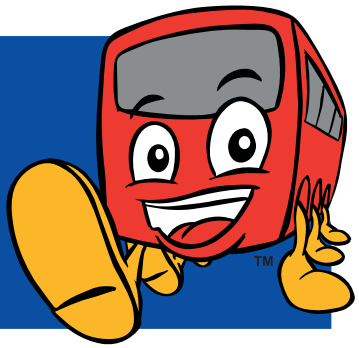
Please provide a brief written statement below of any case studies you think I should pursue, outlining the rationale for your nomination of the school/s, the types of value adding impacts on the community, and identifying the main contact people involved.

I will follow up on the case studies, and may get back to you for further information.

Thanks you for your assistance.

Dr John Grant

Appendix 2 – List of schools visited or inspected



Schools where on-site meetings and inspections took place:

- Newhaven PS
- Elsternwick PS
- Camberwell PS
- Camberwell South PS
- Overnewton College (Keilor)
- Garfield PS
- Beaconsfield PS
- Antonio Park PS
- Upwey PS
- Ashby PS Geelong
- St Patrick's PS Geelong
- Heaney Park PS Knox
- Rowville PS
- St Therese's PS Essendon
- Albert Park PS
- Alphington PS
- Spensley Street PS
- Cranbourne West PS

Schools where inspections were conducted externally:

- Cowes PS
- Cheltenham PS
- St Joan of Arc PS (Bayside)
- Our Lady of Victories PS (Camberwell)
- Augustines PS (Keilor)
- St Kilda PS
- Torquay PS

Victorian Health Promotion Foundation
PO Box 154
Carlton South Victoria 3053 Australia
Phone: +61 3 9667 1333
Fax: +61 3 9667 1375
Email: vichealth@vichealth.vic.gov.au

August 2007

www.vichealth.vic.gov.au