Be Active Australia

A Framework for Health Sector Action for Physical Activity 2005–2010

Developed by:

The Strategic Inter-Governmental forum on Physical Activity and Health (SIGPAH) of the National Public Health Partnership.

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Foreword

There is overwhelming evidence on the health benefits of physical activity, yet less than half of all adult Australians are sufficiently active for a health benefit. There is also evidence to suggest children are participating less in sport and incidental activity and spending a considerable proportion of their time in sedentary leisure activities. The significant and inequitable impact of physical inactivity on health outcomes requires urgent action.

The National Public Health Partnership agreed, in March 2003, to the development of a national action plan to raise the profile of physical inactivity as a major health issue, facilitate coordination and guide investment. There are many benefits to be gained by increasing levels of physical activity. First, the improved health and well being for individuals and reduced health care costs, and second, the potential for improvements in a range of social, environmental, economic and community indicators.

Be Active Australia: A Framework for Health Sector Action for Physical Activity 2005–2010 provides a national framework for coordinated and comprehensive health sector action over the next five years. It aims to add value to the work at jurisdictional levels, as well as identifying clear links and opportunities for united approaches through other national strategies, including work on healthy weight, nutrition, chronic disease prevention, falls prevention, healthy ageing, child health and Aboriginal and Torres Strait Islander peoples' health.

Reversing the trend towards inactivity is a long-term challenge. Causes of physical inactivity are complex and so too are the solutions. *Be Active Australia* recognises that many of the determinants of physical inactivity are outside the control of the health sector and that action is required by a variety of sectors, as well as public, private, non-government and community organisations. *Be Active Australia* has a strong focus on partnerships between the health sector and other sectors to collectively redress this common problem.

Mike Daube
Chair
National Public Health Partnership

Dr David Filby
Co-Chair
Strategic Inter-Governmental Forum on Physical Activity for Health

Physical Activity Recommendations for Children and Youth

1. Children and youth should participate in at least 60 minutes of moderate- to vigorous-intensity physical activity every day.
2. Children and youth should not spend more than two hours per day using electronic media for entertainment (eg computer games, Internet, TV), particularly during daylight hours.

National Physical Activity Guidelines for Australians

1. Think of movement as an opportunity, not an inconvenience.
2. be active every day in as many ways as you can.
3. Put together at least 30 minutes of moderate-intensity physical activity on most, preferably all, days.
4 If you can, also enjoy some regular, vigorous exercise for extra health and fitness.

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Figures and Tables

Executive Summary

Be Active Australia: A Framework for Health Sector Action for Physical Activity, 2005–2010 has been developed by the Strategic Inter-Governmental forum on Physical Activity and Health, a sub-committee of the National Public Health Partnership. The Framework responds to evidence of growing levels of physical inactivity and the contribution this is making to a diminished level of health and wellbeing for Australians of all ages.

The Framework aims to increase awareness and understanding of the health and related benefits of participation in physical activity, and provide the structure that will assist individuals to develop the necessary skills that are central to a physically active and healthy lifestyle.

The determinants of physical activity are addressed, along with ways to improve public policy for physical activity, by promoting, developing and supporting policy that facilitates and encourages physical activity for health.

The Framework provides a strategic focus to increase access to physical and social environments which support people to be active and to strengthen the capacity for communities to take part in physical activity. To achieve this, implementation of the Framework will encourage individuals, communities and organisations to influence social and cultural norms to develop and improve the range of community-based physical activity programs and initiatives, and assist individuals and communities to overcome barriers to physical activity.

The importance of building the health sector's capacity for sustained and coordinated public health action on physical activity is emphasised through strengthening skills, competencies, systems and infrastructure, including funding, workforce numbers, leadership and organisational support.

Specific indicators and timelines will be developed as part of the Implementation Plan for the Framework.

The Framework seeks to consolidate the current investment of government, non-government and private organisations and ensure that it is spent strategically. The significance of inactivity in Australia, however, warrants additional funding to that currently being invested. The Framework clearly identifies the priorities for action that require commitment if the community is to be effectively supported to achieve appropriate levels of physical activity.

Introduction

Be Active Australia: A Framework for Health Sector Action for Physical Activity 2005–2010 (BAA) has been developed by the Strategic Inter-Governmental forum on Physical Activity and Health (SIGPAH), a sub-committee of the National Public Health Partnership (NPHP). SIGPAH is a collaborative body established to provide national leadership for government action in physical activity and health issues, and coordination of a national approach across Australia. SIGPAH's work assists the NPHP in its aim to protect and promote the health of all Australians. SIGPAH comprises representation from all state, territory and the Australian Government health departments as well as invited experts.

The NPHP through SIGPAH has a major role in leading and coordinating the implementation of *Be Active Australia*.

The document describes the BAA Framework; Strategic Focus; and Partnerships for Action.

The **BAA Framework** section provides information on the: Vision; Goal; Guiding Principles; Strategic Intent; and Priority Populations.

The **Strategic Focus** section outlines:

Settings

- Community Environments and Organisations;
- Health Services;
- Child Care and Out of School Hours Care;
- Schools; and
- Workplaces

Overarching Strategies

- Communication and Community Education
- Workforce Capacity
- Evidence, Research, Monitoring and Evaluation; and
- Strategic Management and Coordination

Priority Populations

- Aboriginal and Torres Strait Islander Australians; and
- Populations With Special Needs

Each of the sub-sections under the Strategic Focus includes: a Rationale for their inclusion; Evidence for Interventions; Key Outcomes sought; Strategic Links; and a list of Actions.

Partnerships for Action and Monitoring and Evaluation are also discussed.

Context and Rationale

Evidence

Increased physical activity is beneficial to improvements in various aspects of health including cardiovascular disease, musculoskeletal health and diabetes. Physical activity may also assist in the reduction on symptoms of depression and reduced risks of developing some cancers (AIHW 2002).

The Getting Australia Active II (GAA II)[1] report provided an update of the epidemiological evidence regarding the impact of physical activity on health and confirmed there is clear evidence that physical activity confers health benefits and reduces the risk of ill health.

Further the review confirmed that maximal risk reduction is observed amongst those who are inactive and move to becoming at least moderately active. There are however additional benefits from vigorous activity and generally there is a dose response effect, though this is stronger for men than women.

Evidence of impact varies for different conditions with stronger evidence for the prevention of cardiovascular disease, diabetes, colon and breast cancer. It remains difficult to interpret the evidence regarding stroke, and the evidence in relation to mental health benefits is mixed, however, a number of studies have concluded that the use of exercise for depression and anxiety is supported by the available evidence.[2,3]

The major recent development in the literature is the good evidence about the effectiveness of preventing diabetes onset in people at risk through lifestyle change. This is convincing and has been replicated in several large studies.

Adults and Older People

In adults and older people there is good evidence to show that sufficient physical activity can:

- decrease the risk of premature death from cardiovascular disease, diabetes, colon and breast cancer;
- lower the risk of diabetes and prevent diabetes onset in people at risk;
- increase muscle and bone strength;
- prevent osteoporosis and reduce the risks and consequences of arthritis;
- prevent functional decline in middle aged and older people, especially through resistance training;
- improve health outcomes for people who are overweight or obese;
- assist people with established disease to manage their disease (eg lower high blood pressure and elevated lipid levels) and prevent further decline;
- prevent falls though the relative contributions of strength training, balance and gait training; and
- increase the ability of people with certain chronic, disabling conditions to perform activities of daily living.

There is mixed evidence in relation to the prevention of stroke and some cancers (eg lung, prostate) as well as the role of physical activity in benefiting mental health.

Children and Young People

Although we know comparatively little about children's levels of physical activity there is sufficient evidence to show that it is insufficient compared with the national physical activity recommendations for children and young people, and declining.[4]

In children and young people there is good evidence to show that physical activity can:

- have beneficial effects on adiposity and skeletal health;
- benefit psychological indicators including depression, self esteem, anxiety, stress and self concept[5]; and
- have a positive correlation with behaviours such as not smoking.

For a more detailed summary of the evidence around physical activity and health, see Appendix 1: Physical Activity and Specific Population Groups.

Links With Other National Health Strategies

The importance of physical activity in relation to different health-related conditions and issues, population groups, settings and communities makes it important for BAA to link with, and add synergy to, other national strategies and frameworks including:

- *Eat Well Australia*[6]
- *Healthy Weight 2008 – Australia's future: the national action agenda for children and young people and their families*[7]
- *Preventing Chronic Disease: A Strategic Framework*[8]
- *National Injury Prevention Strategy* (currently being revised) and especially falls prevention[9]
- Plans related to National Health Priority Areas including diabetes, cardiovascular disease, cancer, injury (see above), mental health, arthritis and musculoskeletal conditions[10]
- The *National Environmental Health Strategy*[11]
- Population groups including the *Developing a National Public Health Action Plan for Children*, *National Public Health Action Plan for an Ageing Australia*[7], *National Framework for Aboriginal and Torres Strait Islander Health*[13] and others.

A summary of current structures and programs for physical activity is provided in Appendix 2.

The Determinants of Physical Activity

BAA recognises the vast number of variables that impact both positively and negatively on health, as well as on levels of physical activity.

BAA identifies 'upstream actions' that focus on population wide influences, such as public policy and the creation of physical activity friendly social and physical environments. There are also 'downstream interventions' that assist individuals and specific groups to develop the personal skills to build physical activity into their lives.

These actions and interventions include:

- Broad public policy
- Social, economic and environmental determinants
- Socio-cultural factors (or interpersonal)
- Psychosocial factors (or intrapersonal)
- Individual biological determinants, and/or
- Health service use

A more detailed list of the determinants of physical activity is provided at Appendix 3.

The Costs of Physical Inactivity

There is work in progress updating the costs of physical inactivity to the health care system. However, current evidence suggests:

- The direct health care costs due to physical inactivity, based on mid-1990s costings, are around $400m per year.
- Physical inactivity causes more than 8000 deaths annually, including 77,000 premature potential years of life lost.[14]
- The annual total direct cost of heart, stroke and vascular disease was estimated in 1993/94 as $3,719 million, representing 12% of the total health care costs for all diseases. Inactivity is one of four leading risk factors for cardiovascular disease.[10]
- The true costs of obesity have been estimated as $1.3 billion and rising fast; physical inactivity is a major cause of obesity.[7]
- Physical inactivity is responsible for about 6% of the total burden of disease in males and 8% in females and is a major contributor to high blood pressure (5% of burden) and obesity (4% of burden).[15]

The BAA Framework

The Vision

All Australians enjoying the benefits of physical activity as a part of everyday life.

The Goal

To improve the health and well being of all Australians and reduce inactivity and related disease and disability by increasing levels of physical activity across the population.

More specifically the intention is to ensure all Australians meet relevant National Physical Activity Guidelines.* [16]

Guiding Principles

BAA actions are based on the following principles:

- Helping those most in need and closing the health gap between different population groups as a result of geography, ethnicity, and socio-economic status;
- Initiating and supporting partnerships between health sector agencies at all levels of government and between the health and other sectors, public, private and non-government organisations, families and the community;
- Concentrating on solutions and strengths, not problems;
- Focusing on long-term and sustainable solutions that recognise behaviour change is complex, difficult and takes time;
- Recognising and addressing the multiple determinants of physical activity as well as the inter-relationships between physical activity and other health issues;
- Building and using the evidence base to inform effective actions;
- Ensuring a population focus that embraces a public health approach and systematic planning of physical activity actions;
- Supporting a comprehensive range of strategies including policies, programs and services for individuals and communities;
- Focusing on capacity building, including research, monitoring and evaluation, leadership, resourcing and workforce development.

Strategic Intent

There are three main areas of Strategic Focus which underpin this Strategy. They are (1) Settings; (2) Overarching Strategies; and (3) Priority Populations.

BAA will address the determinants of physical activity and contribute towards the long-term goal through health sector action to:

* At present there are only national physical activity measurement instruments for adults. Guidelines for children and young people have recently been developed (see page iv). The development of measurement tools for children and young people is a priority action. Guidelines and tools need to be developed for older people as a priority.

Build public policy for physical activity

Promote, develop and support public policy that facilitates and encourages physical activity, including high-level commitments, legislation, finance and taxation options, regulation and guidelines, supportive strategic plans, broad advocacy and resource allocation.

Create supportive environments

Promote, develop, support and initiate actions for increased and equitable access to physical and social environments which support people to be active, including walking and cycling networks, public awareness, promoting positive role models and settings which make it easy to be active in safe and pleasant environments, and the provision of services that are accessible.

Strengthen the capacity of communities for physical activity

Promote and support individuals, communities and organisations to encourage and influence social and cultural norms that support physical activity, develop and improve the range of community-based physical activity programs and initiatives, and which assist individuals and communities to overcome barriers to physical activity.

Build personal skills

Increase awareness and understanding of the health and related benefits of participation in physical activity, develop skills to be active as part of daily life and support individuals, families and communities to overcome barriers to physical activity.

Increase health sector capacity for action on physical activity

Building the health sector's capacity for sustained and coordinated public health action on physical activity by strengthening skills, competencies, systems and infrastructure, including funding, workforce numbers, leadership and organisational support.

Specific indicators and timelines will be developed as part of the Implementation Plan.

Strategic Focus

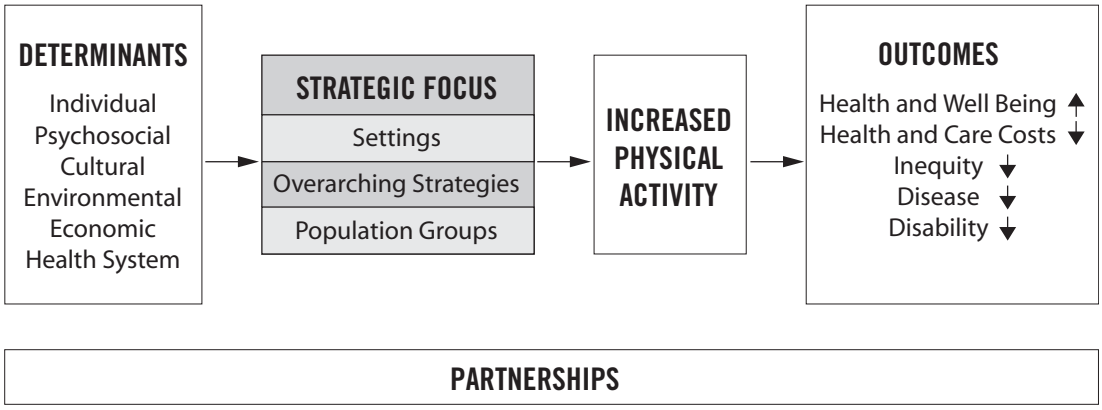

Figure 1: Overview of determinants and outcomes from increased physical activity

Introduction

BAA contains three areas of Strategic Focus: Settings, Priority Populations, and Overarching Strategies. Each of these areas of focus contain Action Areas. Each of the Action Areas provides detailed information on what evidence based actions need to be undertaken to achieve BAA's goal of increased physical activity for improved health outcomes.

Settings

There is clear evidence that settings, typically geographical areas or institutions with a large captive audience, can either support or fail to support people to be physically active.

Working through a range of settings provides the opportunity to work with communities and organisations, influence policies, practices and programs and to create environments that encourage people to be active.

Action Areas under Settings include:

- Community environments and organisations
- Health services
- Child care and out of school hours care
- Schools
- Workplaces

Overarching Strategies

To effectively implement BAA and address physical activity in a long-term and sustainable way there is a need for increased health sector capacity for action, and to convey information and influence community attitudes and knowledge regarding physical activity for health.

The availability of regular, reliable, relevant data about a variety of factors related to physical activity including levels of physical activity and its various determinants (knowledge, attitudes, health outcomes) is necessary to inform practice and enhance accountability.

Building partnerships with other sectors is also integral to the success of BAA.

Action Areas under Overarching Strategies include:

- Communication
- Workforce capacity
- Research, evaluation, monitoring and surveillance
- Strategic management

Priority Populations

Public health strategies require a focus on the whole population, as well as paying attention to the needs of population groups that have additional needs.

BAA includes Action Areas which focus specifically on Aboriginal and Torres Strait Islander Australians and Populations with Special Needs. Actions related to other priority populations, including Children, Adults and Older People, and people who are insufficiently active for health benefit, are included throughout the BAA Framework.

People who are insufficiently active for health benefit

The greatest public health gains will be achieved by getting those people who are inactive or insufficiently active to be more active and to move towards the recommended minimum of 30 minutes of moderate intensity physical activity on most days of the week.[17] All BAA actions are relevant for this population group.

Children, Adults and Older People: Populations through the Life Course

BAA recognises that the needs of children and young people, adults and older people can best be met through the different environments in which people live, work, study and play, as well as through the influence of overarching strategies.

Aboriginal and Torres Strait Islander peoples

With the worst health status, high levels of disadvantage and a range of barriers to physical activity, BAA has a particular focus on Aboriginal and Torres Strait Islander peoples and includes specific actions throughout.

Populations with special needs

Evidence shows that those people who have the worst health outcomes are those of lowest socio-economic status (relatively socially or economically deprived)[18] or those with special needs, including culturally and linguistically diverse communities, people with a disability or chronic condition such as mental illness or arthritis or those who are socially or geographically isolated. These Australians require specific attention, as well as priority in all areas of action.

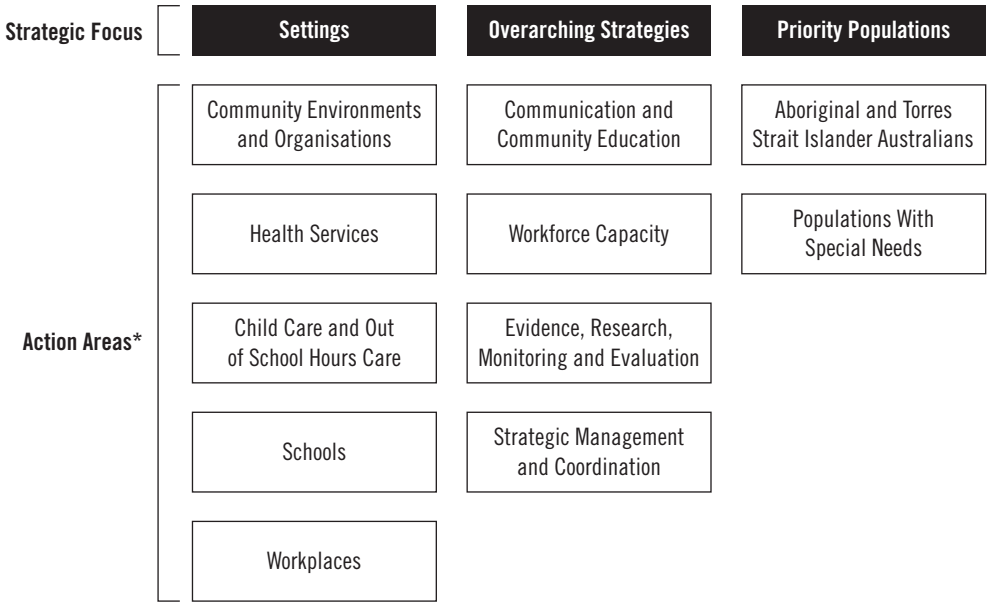

Figure 2: A summary of the BAA Framework in terms of Strategic Focus and identified Action Areas

1. Settings

Priority Settings in BAA are:

1.1 Community environments and organisations

1.2 Health services

1.3 Child care and out of school hours care

1.4 Schools

1.5 Workplaces

1.1 Community Environments and Organisations

Rationale

Ideally the places in which people live, work, study and play should support physical activity and help make the healthy choice the easy choice.

This includes:

- **Physical environments** that are safe, supportive and encourage physical activity including connected street networks, well maintained footpaths, adequate lighting, playgrounds, accessible national, state and local parks and other open spaces;
- **Active transport** opportunities through walking and cycling networks, quality public transport systems, bicycle parking and change facilities. Additionally, reduced car use through increased walking and cycling has been shown to decrease greenhouse gas emissions and other types of pollution;
- **Community organisations** that provide accessible, affordable and diverse opportunities for physical activity, services and programs provided through sport, recreation and leisure clubs, fitness and community centres, playgroups, group programs – especially for those who are inactive or disabled or require culturally appropriate leisure activities. In addition to the benefits for individuals, participation in sport and physical recreation provides benefits such as national pride, role modelling and volunteer opportunities[19];
- **Public policies** that encourage and support people to be physically active.

Achieving these outcomes requires long-term sustainable approaches that predominantly are outside of the direct control of the health sector. However, the health sector can play a role by ensuring it has a coordinated approach and through initiating, responding to, and working in partnership with other sectors, including transport, local government, sport, recreation and fitness and urban and transportation planning to achieve common outcomes.

Of particular concern are changes in legal liability rules and its limitation on community physical activity opportunities, for example public events, signage suggesting people use stairs, and out-of-hours use of school facilities. This has an impact on all areas of BAA and is a priority area for action.

Community organisations that support those people who need, or want, assistance are a vital part of the solution to inactivity.

Whole of Community Demonstration Programs

An integrated multi-strategy approach to supporting healthy lifestyles, including physical activity in identified communities, offers promise in achieving good outcomes. Key characteristics include: community involvement; implementation of good practice strategies; involvement of different sectors; the development of locally appropriate policies; programs for individuals and groups; supportive environments; and infrastructure in terms of information;

and, workforce. Strong partnerships are essential, and if done effectively and in a sustainable way there is great potential for positive improvement for Aboriginal and Torres Strait Islander peoples as well as with other groups with special needs.

Evidence For Interventions

Research and interventions related to the impact of environments on levels of physical activity are only now being studied extensively and there is a need for more long-term rigorous research.

Findings are promising, though they come mostly from correlational studies. McCormack et al (2004) found that:

- both perceived and objectively measured physical environmental attributes appear to be associated with walking and moderate and vigorous intensity activity;
- the functionality, for example street or urban design, traffic and the presence of paths, aesthetics (trees, views) and destinations (shops, facilities and transport) in neighbourhoods appear to be correlated with physical activity – though evidence related to safety is mixed;
- although physical activity is correlated with physical environments, causality cannot be implied. People may choose environments that support their physical activity patterns, or the environment may support active behaviour.[20]

Other Studies Show:

- There are a range of evidence-based interventions which can encourage active transport including policy and legislation, local, state and national programs and infrastructure.[21]
- There is good evidence on the health benefits of active commuting, with a Danish study showing those who cycled to work for three hours per week had a 30% lower all cause mortality risk.[22]
- There is good evidence for point of decision prompts for example signage to encourage the use of stairs.[23]
- Individually adapted health behaviour change programs which are tailored to the person's readiness for change, or their specific interests or circumstances, and which focus on behavioural skills (goal setting and monitoring, social support and problem solving) are effective.[23]
- Building social networks (buddy systems, walking groups, contracts) that support behaviour change for physical activity is effective.[23]
- Enhancing access to community facilities for physical activity, including fitness centres and/or equipment, walking, cycling and exercise clubs, pools and trails can encourage physical activity.[23,24]

Community wide interventions reach large numbers of people and can achieve increases in participation, but must be well resourced and have trained staff to ensure they are adequately implemented and evaluated.[24]

Key Outcomes

1. Policies, programs and built environments, relevant to local communities, support individuals and groups to overcome barriers to physical activity.
2. Local community organisations provide accessible, relevant and appropriate physical activity options.
3. The health sector has a more coordinated approach to its actions related to supportive environments, community organisations and physical activity, including community demonstration programs.

4. Sustainable partnerships with other sectors support a more coordinated intersectoral approach to the development, delivery and evaluation of physical activity initiatives and infrastructure.
5. Improved good practice interventions to support inactive people to be active through innovative action involving all sectors, organisations, population groups and methodologies in a community location.

Strategic Links

- The Sport and Recreation Ministers' Council agreed to work closely with the National Obesity Taskforce to develop a nationally coordinated, collaborative approach to help increase levels of physical activity.[25]
- There are many tools and programs to assist local government to plan supportive environments (NHF's SEPA and SEAL, NSW Creating Active communities, Physical Activity Guidelines for Local Councils, the WA Government's Liveable Neighbourhood Guidelines for Developers) and many more. Strategically and systematically encouraging uptake of these guidelines is important.
- The 1999 WHO Charter on Transport, Environment and Health provides impetus for action in relation to active transport.[26]
- There is considerable action to support active transport initiatives designed to encourage people to regularly walk or cycle, or to catch public transport to destinations.
- The Adelaide Workshop recognised the way in which recreation, fitness, sports, active living, parks, arts and culture all contribute to social and emotional well being, enhance quality of life and contribute to the development of skills and health and weight control. It also identified the need for the provision of accessible and acceptable services for both urban and rural Indigenous Australians and also the need for trained and supported community workers in sport, recreation and fitness.[27]
- Australian Health Ministers have supported the recommendation of the National Obesity Taskforce to establish whole of community demonstration areas in all states and territories, including at least two Aboriginal and Torres Strait Islander communities. Evaluation is a crucial component to build the evidence about what works well and why.

Actions: Community Environments and Organisations

1. Seek joint calls to action with key Ministers and associations (Local Government, Sport and Recreation, Transport, Planning, Environment and Health Ministers) and key non-government organisations (Australian Local Government Association, Planning Institute of Australia) to encourage environments which support people to be active.
2. Review options and opportunities to support physical activity through healthy public policy, beginning with the issue of legal liability, but that also consider supportive codes and standards, legislation, financial (dis)incentives, and health impact assessment tools. Ensure particular consideration of the needs of Aboriginal and Torres Strait Islander communities.
3. In collaboration with other sectors develop a nationally coordinated, sustainable approach to promoting and supporting active transport initiatives. Ensure the health sector provides timely and relevant information about the health impact of physical inactivity and advocates for a comprehensive approach to active transport.[28]

4. Seek commitment from relevant agencies, including Indigenous sports organisations to a national approach to support Aboriginal and Torres Strait Islander communities to be active, including:
   - innovative strategies to support the provision of community facilities (pools, courts, equipment);
   - funding and structures to support the coordinated and sustainable provision and evaluation of affordable community-based programs and support resources targeting different groups (older people, young women, diabetics) and differing abilities and interests and which are relevant to social and community needs (dance, traditional games, camps, walking);
   - a broad range of sports programs which build individual physical and leadership skills (coaching, team building, umpiring, organisation);
   - building workforce capacity, including adequate funding to recruit and train sport and recreation officers, on-going support and training and access to specialist expertise;
   - guidelines for mainstream services to ensure they are culturally acceptable and welcoming.

5. Support collaborative national partnerships with relevant sectors (local government, sport, recreation, fitness, transport, parks) and public, private and non-government organisations to identify, implement and evaluate innovative and best practice policies, programs, facilities and environments that support inactive people to be active and which meet the needs of populations with special needs.

6. Seek opportunities for collaborative national approaches to support the identification, implementation and evaluation of promising behaviour-support programs and initiatives for active, disadvantaged adults (individuals and groups) including those with chronic conditions.

7. Advocate for, and support the adoption of, planning guidelines by state/territory and local governments that support physical activity (walking and cycling networks, street connectivity, integrated planning for 'mixed-use localities' and the availability of swimming pools in rural areas).

8. Seek opportunities to research and address issues related to safety (real and perceived) and physical activity.

9. Support the establishment and evaluation of comprehensive, community-wide demonstration programs in each state and territory (including at least two Aboriginal and Torres Strait Islander communities) which include, but are not limited to, a strong focus on multiple evidence-based physical activity related strategies and ensure high quality physical activity input in all phases of the demonstration programs. Ensure the results are widely and effectively disseminated and that they inform policy and interventions, both within health and other sectors.

1.2 Health Services

Rationale

There are many health professionals based in primary health care services, community controlled Aboriginal and Torres Strait Islander health services as well as hospitals and specialised services in government, private and non-government organisations who have regular contact with large numbers of inactive people of all ages including those:

- with special health needs (newly diagnosed diabetics, those living with cancer or a particular physical condition, including a disability, injury or weight problem and inactive older people);
- at crucial life points (ante and post-natal, or post cardiac event).

BAA aims to encourage moderate physical activity – something that is achievable by most Australians. Clearly, health professionals of all types are potentially well placed to provide assessment, practical information, support and referral for individuals and communities who may need assistance to get started, or to maintain regular physical activity.

Providers need assistance to make appropriate and informed referrals to both community-based and commercial services. This assistance comes in the form of services such as: health and fitness assessment; walking or cycling groups; gyms; sport clubs; Aboriginal and Torres Strait Islander specific sports programs; fitness programs; and, help lines. Assistance is also available through health workers with specialised skills such as physiotherapists and exercise physiologists. Recognition of financial and other social impediments to using such services is also critical, and to be useful, information must be appropriate to the individual's stage of change.

It is recognised however that health professionals face limitations on what can be done given the pressures (time, money, legal liability and others) and the need to be adequately funded and supported with clear guidelines for action. Primary health care practitioners also play an important role in building partnerships for action within school and community settings. In addition, clarification of the roles of different parts of the health system will assist in further strengthening action.

Evidence for Interventions

In reviewing the evidence related to the promotion of physical activity through primary health care settings Smith (2004) found few interventions have been tested within the time and resource constraints of routine practice and interventions.[29] However:

- There is good evidence that brief and intensive interventions delivered to patients in primary health care can achieve short term (at least six month) increases in physical activity;
- Advice should include verbal instruction about physical activity (often written down for patients) as well as written materials, and be based on behaviour change theory;
- Priority should be given to advising patients with health problems (hypertension, elevated blood pressure/cholesterol, overweight or obesity, glucose intolerance or depression) about the health benefits of increased physical activity;
- Longer term success may be increased by the involvement of other practitioners such as exercise scientists and health educators;
- Cyarto et al (2004)[30] found that it is possible to increase physical activity for older people (at least in motivated volunteers) with multi-element programs tailored to the needs and circumstances of participants and involving long term intensive contact with trained practitioners;

- There is now evidence that the onset of Type 2 diabetes can be prevented or delayed with improvements in lifestyle following intensive advice and support – though the tested interventions are costly and time-intensive[31];
- There is potential to achieve behaviour change using two or more forms of mediated interventions (print materials plus phone or internet advice) but more information is needed before moving to these less personal forms of counselling[32];
- Programs in primary care settings can be a way to assist adolescents to be active especially if they include family members as support and role models.[33]

Key Outcomes

1. The health sector, at all levels, has a strong commitment to addressing physical inactivity through all relevant policies, plans, programs and environments and provides leadership as well as sufficient funding and resources to address this issue.
2. All Australians, but particularly those who are inactive, have access to appropriate physical activity assessment, advice, information, referral and/or support programs through the health system.
3. Health care professionals have the knowledge, confidence, skills and resources to routinely promote physical activity to their inactive clients and refer appropriately.
4. Sustainable partnerships within the health sector and with other sectors, support a more coordinated approach to the development, delivery and evaluation of physical activity initiatives.

Strategic Links

- There is considerable work in this area and the challenge is to build good partnerships to support the expansion of effort and to minimise duplication.
- The *SNAP (Smoking, Nutrition, Alcohol and Physical Activity) Framework for General Practice* includes strategies to address risk factors including physical inactivity.[34] The Royal Australian College of General Practitioners (RACGP) has developed a Practice Guide to SNAP outlining the organisational strategies and appropriate clinical interventions that may be used within general practice to support patients to reduce risk factors.
- A number of jurisdictions have general practice based initiatives that include physical activity oriented components.
- The 2003–2004 Focus on Prevention Package Australian Government Budget initiative is aimed at raising awareness for the role of health professionals in prevention, and building a national approach to lifestyle prescriptions.[35]
- Queensland Health has commenced work on defining the role of all health services in relation to physical activity.
- The *National Guide to a Preventive Health Assessment in Aboriginal and Torres Strait Islander Peoples* includes a significant section on the importance of and strategies for, supporting Aboriginal and Torres Strait Islander people to be active.[36] The Adelaide Workshop also recognised the importance of supporting health workers to support healthy weight.[27] Medicare now provides a rebate for GPs undertaking the health assessment of Aboriginal and Torres Strait Islander clients.

Note: Actions broadly related to building the capacity of health sector workers are covered under Capacity Building. Workforce Actions specifically related to encouraging individuals to be active are addressed above.

Actions: Health Services

1. Promote the (proposed) Statement on the Importance of Physical Activity throughout the health sector and urge all health organisations to commit to, and adequately fund, the promotion of physical activity.
2. Building on the work of Queensland Health, define and disseminate appropriate roles and indicators for health care services, including Aboriginal and Torres Strait Islander health services in promoting and supporting physical activity.
3. Explore options to remove or reduce funding and financial barriers to health services and providers supporting physical activity.
4. Building on current initiatives, support the coordinated development and expansion of physical activity related lifestyle prescription initiatives within General Practice especially for high need groups and customise prescriptions to meet and respect physical and cultural differences.
5. Explore options and alternative models to expand the prescription of physical activity to other health professionals including Aboriginal Health Workers.
6. Support General Practitioners to undertake the adult health assessment of Aboriginal and Torres Strait Islander people (15–54 years) including the physical activity component.
7. Ensure lifestyle interventions for Aboriginal and Torres Strait Islander peoples (prevention of diabetes, maintenance of healthy weight) and mainstream programs that include accurate information on physical activity.
8. Support the development and dissemination of good practice guidelines to support health workers to appropriately assess, inform and refer patients to community-based physical activity support services.
9. Trial an Australian version of the diabetes prevention programs based on the successful intensive lifestyle advice programs.
10. Trial innovative interventions to provide physical activity advice to individuals using new and emerging technologies such as Internet and automated phone systems.
11. Advocate for the inclusion of best practice standards into aged care accreditation, and funding of frameworks and the writing of guidelines.

1.3 Child Care and Out of School Hours Care

Rationale

Child care (centre based care and family day care) preschools or kindergartens and out of school hours care services play an important role in supporting and encouraging children to be healthy and active. They should complement the role of families.

It is important that physical environments maximise opportunities for activity, that staff are supported to assist and encourage children to be active and that child care policies and guidelines support the importance of physical activity.

The health sector can assist the child care sector and staff to develop and run physical activity-related programs and contribute to training and the development of high quality, accessible resources. A focus on reducing sedentary behaviour through structured and unstructured opportunities is important and needs to be provided. Programs should cater for a range of skills, abilities and interests and be age appropriate. They should also maximise integration with local community and sporting organisations and facilities. There is some opportunity to reach parents through this setting.

Why is this setting important?

In June 2002, 83% of four year olds were in formal child care, including preschool, with 9% of 5–11 year olds going to before and after school care.[37] Carers and the child care setting are often a source of advice and information to parents. In relation to out of school hours care programs (Norton, 2003) found that one of the best predictors of fitness and fatness in children is their physical activity pattern in the two hours immediately after the formal school day. Action through this setting also has the advantage of addressing parents' concerns about fear of strangers and traffic risks.[38]

Attendance at child care services by Aboriginal and Torres Strait Islander children, those living in rural and remote regions and others with special needs may be lower than average, making action in other settings important for these population groups. However opportunities need to be explored for innovative partnerships with key organisations to develop culturally appropriate programs and resources for those children who are in child care.

Evidence for Interventions

The literature review (Bull et al 2004)[1] showed few evaluations on physical activity oriented interventions with young children, probably reflecting the focus in the past on school age children and the difficulty in collecting reliable data. The evidence related to school age children is included under the section on Schools.

Key Outcomes

1. The health sector provides coordinated support to the child care sector in relation to physical activity.
2. Sustainable partnerships between the health and child care sector.
3. Child care sector staff have increased knowledge and skills about promoting physical activity.
4. Children (and their parents/carers) are supported to be active through the child care sector.

Strategic Links

- Arrangements related to licensing, administrative and regulatory standards vary across Australia, however there are opportunities for joint action. Integration with nutrition and healthy weight initiatives will be essential.
- The *Building a Healthy, Active Australia* schools initiative provides a major boost for outside schools hours care physical activity programs.[40]
- The focus on children within *Healthy Weight 2008* offers a clear opportunity for joint initiatives. The National Child Care Accreditation Council provides high level benchmarks and supports for the child care sector and there are opportunities to support their work.
- Several jurisdictions are developing resources or piloting preschool and out of school hours care programs.

Actions: Child Care and Out of School Hours Care

1. Map and review physical activity related child care sector interventions being undertaken through the health sector; disseminate information and share resources (training packages, resources, policy guidelines).
2. Seek to: establish partnerships with key national child care organisations to address gaps, develop and promote good practice and culturally appropriate physical activity programs and policies; progress collaborative action consistent with accreditation and funding requirements and which is integrated with related nutrition programs; and, consider options for children not attending child care services.
3. Finalise, disseminate and promote widely the *National Physical Activity Guidelines for Children and Young People* and complementary support resources to children and their families.[5]
4. Ensure health sector support for the *Healthy Active Australia* outside school hours care initiative and encourage integration with current initiatives.
5. Advocate for the provision of physical environments and the removal of barriers to providing environments which support children to be active.[41]

Refer to Schools Section for Actions relevant to children.

1.4 Schools

Rationale

Schools, including primary and secondary, public, independent and catholic schools and preschools, play a vital role in providing physical and social environments that support children, their parents and the whole school community to enjoy an active life and reduce sedentary behaviour.

By working collaboratively with the education sector, there is an opportunity to provide physical activity options for all children, but particularly those who are inactive for reasons such as weight, disabilities, ethnicity, gender, income or because they have working parents.

The health sector can also help facilitate effective partnerships with education, sport and recreation, transport and local government. The Health Promoting Schools approach underpins health sector action in this setting.[42]

Evidence for Interventions

(Timperio, Salmon and Ball, 2004) reviewed the limited number of recent high quality school and non-school interventions.[33] They found:

- The most successful interventions were comprehensive in nature and included contact with families, as well as having a school component;
- Interventions that seek to decrease time watching television show some promise;
- School programs that had whole-of-school approaches including curriculum, policy and environmental strategies were more effective than single strand interventions;
- Many school interventions were complemented by supports including social marketing, family information and teacher training.

The United States Review of Physical Activity Interventions also supports the modification of curricula and policies to increase the amount of time spent in moderate or vigorous physical activity as part of physical education classes. This includes longer and new or additional classes, as well as more vigorous activities.[23] There is also some evidence for[43]:

- Supportive physical environments for example space, more equipment and prompts for physical activity;
- Policy support for physical activity supervision and school-based physical education time requirements;
- Curriculum strategies, for example classroom based health and physical education focused on information provision and skills related to decision-making as well as programs focused on reducing TV watching and video playing;
- Active transport to and from school;
- Combined in and out of school approaches for children and adolescents based on school-community links.

There are few and limited studies directed at young adults with mixed results.[33]

Key Outcomes

1. Improved and more coordinated health sector support for children, young people and families in relation to physical activity.
2. Sustainable partnerships between the health and the education sector that results in policies, programs and environments that support children to be active and to participate in planning for physical activity.
3. Increased knowledge and skills of children, young people and parents/carers about physical activity.

Strategic Links

1. BAA is committed to facilitating opportunities to add value to, and work with, other organisations and national strategies with a focus on children and young people. *Healthy Weight 2008* offers a clear opportunity for joint initiatives. Links with the *CHIP National Public Health Action Plan for Children and Young People* and *Eat Well Australia* nutrition initiatives will be essential.

- Many government and non-government health sector agencies in jurisdictions are working in partnership with the education sector and developing a number of exciting initiatives.
- The *Building a Healthy, Active Australia* schools initiative includes a legislated minimum of two hours of physical activity per week for primary and junior secondary students as well as expanded after school care programs.[40]
- In July 2003 the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) endorsed the need for a national, collaborative, cross-agency strategy on physical activity in the school and early childhood sectors to link with the work of the National Obesity Taskforce. Where possible, it will be important for the health sector to collaborate with this work.
- The *National Strategic Framework for Aboriginal and Torres Strait Islander Health* recognises the importance of schools developing healthy and culturally appropriate school environments that contribute to improved education and health outcomes.[33]
- The *National Physical Activity Guidelines for Children and Young People* provide an important opportunity to work with the education sector.[5]

Actions: Schools

1. Seek a joint National Call to Action with relevant Ministers including: Education; Youth; Sport and Recreation; Children and Family Services; and Health Ministers on the importance of physical activity.

2. Finalise, disseminate and promote widely the *National Physical Activity Guidelines for Children and Young People* and complementary support resources to children, young people and their families.[5]

3. Map and review physical activity related interventions for children and young people being undertaken through the health sector and disseminate and progress collaborative national approaches for the identification, implementation and evaluation of promising programs and initiatives, as well as the sharing of training packages and resources.

4. Work with the education sector, and other sectors as appropriate, to develop a national collaborative, cross agency approach to support physical activity in the school and early childhood sectors, which should:
   a. be based on, and supportive of, the needs of the education sector regarding the promotion of physical activity;
   b. take account of the specific needs of disadvantaged, Aboriginal and Torres Strait Islander and special needs children and their families;
   c. include the coordinated development, testing and implementation of innovative and best practice strategies covering:
      - model school physical activity related policies;
      - programs for Aboriginal and Torres Strait Islander and other special needs students, including the further development and promotion of Indigenous games resources, use of role models (elite athletes, disabled people and 'local heroes') and appropriate curricula guidelines and resources;
      - programs/ideas to build skills (physical, sports, life skills, self efficacy) and knowledge for being active and participating in planning and implementing physical activity initiatives;
      - programs to reduce excessive sedentary recreation (television watching and computer games);
      - guidelines for supportive school environments for physical activity;
      - effective and innovative curricula and resources including appropriate links with nutrition and other issues;
      - comprehensive school and family programs;
      - school community links with sport and recreation organisations, *Active Australia* schools network and local government programs for young people;
      - support for education sector leaders and staff.

5. Support the development of school oriented active transport initiatives.

1.5 Workplaces

Rationale

Worksites offer a way to reach large numbers of adults and young people in a single setting, including those on low incomes. A number of workplaces have determined that a physically active workforce can result in significant savings and benefits including a reduction in common workplace reasons for absence[5,17,44], though the evidence for these claims is limited, possibly due to the lack of quality research.[45] Nonetheless, given that many people spend much of their week at work, and lack of time is a common reason for being insufficiently active, it makes sense to support physical activity to, from, and at work.

Workplaces can encourage and support individuals to take responsibility for physical activity and develop initiatives such as:

- Policies including Green Travel Plans that encourage walking, cycling and public transport use, financial incentives (gym membership, flexible working hours, providing alternative forms of transport to cars, information about public transport, support for a holistic work-life balance).
- Programs, for example, TravelSmart programs, pedometers, individual or group programs tailored to stage of change and buddy programs.
- Infrastructure such as showers, changing facilities, bike racks, lockers, fitness facilities, and signs encouraging the use of stairs.
- Integrating physical activity with other health issues (sun protection and healthy eating) may also be appropriate.

Evidence for Interventions

While Marshall's[32] review of evidence since 1998 found little evidence to support the long term effectiveness of workplace physical activity programs there is some promise from:

- Strategic comprehensive approaches including 'multi-strategy interventions that incorporate individually-tailored behaviour-change techniques, mass reach approaches (electronic and print media), and social support strategies'.[32]
- Gaining management support and integration into organisational structure and culture.
- Programs that incorporate behaviour change theory with organisational change issues.
- Promotion of incidental workplace activity (including prompts for stair use), social support for physical activity and active transport initiatives.[45]

Changing behaviour in workplace settings is difficult given concerns over the 'bottom line' and entrenched organisational cultures. For this reason BAA has a focus on health sector workplaces over the next five years. Partnerships with the transport sector, infrastructure, environment and unions will support this move.

Key Outcomes

1. Health service workplace policies, programs and environments that support inactive people to be active.
2. Inactive people have access to appropriate physical activity advice, information and programs in the workplace.
3. Physical activity is built into existing workplace health promotion programs.

Strategic Links

- The Transport sector has an interest in active transport initiatives related to workplaces (travel to and from work as well as during work).
- Many health departments and other organisations provide training or conduct their own programs including pedometer programs, lunchtime activities, information on musculoskeletal health, support for community activities (fun runs, gym memberships). The challenge is to learn from, build on, and support these programs.
- Canada has a major focus on this area with its Active Living at Work program.[44]

Actions: Workplaces

1. Health departments and agencies provide leadership in developing and evaluating workplace policies, programs and infrastructure that support physical activity, and assist workers to be active in their work, travel and home lives.

   This should include active transport initiatives integrating physical activity into other workplace health promotion programs and encouraging other employers to support physical activity in their workplace.

2. Review options to provide incentives (financial and non-financial, regulatory, rewards, occupational health and safety) and reduce barriers (public liability) for workplaces to encourage and support physical activity and recommend future actions.

3. Commission the development of guidelines and practical suggestions for physical activity friendly workplaces and trial and evaluate them in health units.

2. Overarching Strategies

Overarching Strategies in BAA are:

2.1 Communication and community education

2.2 Workforce capacity

2.3 Evidence, research, monitoring and evaluation

2.4 Strategic management and coordination

2.1 Communication and Community Education

Rationale

The general public needs access to consistent physical activity information that is evidence based, easily understood, reviewed regularly and widely available. There is support for the view that sustained campaigns, including mass media, are an important supplementary strategy in broad population based approaches to increasing physical activity as described in BAA. They also can assist in changing behaviour.[32]

A Western Australian study revealed only 54% of adults were aware that 30 minutes of daily physical activity was required for a health benefit suggesting there is potential to further increase understanding about the physical activity guidelines of how much and how often to be active.[46] Most people (88%) believe their health could be improved by being generally more active[47]; the fact that this does not result in higher levels of physical activity suggests the need to be more focused on skills, fun, motivation and practical information on how to be active. It also reinforces the need to: complement communication strategies with more targeted interventions; support individuals and communities; and, create supportive environments.

Information, through a range of media support services can be used (social marketing, web sites, public relations, community education) and should be appropriate for, and reflect, different cultures and population groups including those who are: inactive or have particular health related needs; have low levels of literacy; and which include reference to a variety of low-cost physical activity options, and the value of short bouts of exercise. It should also cover information on where to get help.

Clarity and consistency of message and image between all partners in physical activity is important to avoid public confusion and to maximise awareness of a national 'brand'.

Evidence for Interventions

(Marshall's, 2004)[32] review of evidence suggests:

- Mass media programs can result in significant recall of slogans and messages, but have limited impact on behaviour unless supplemented by strategies such as walking groups, community events, print materials and promotion by health professionals.
- The WHO recommends campaigns be conducted over many years to continuously reinforce messages to the public.
- Well planned combinations of two or more media (print materials, web sites, phone based counselling) plus community-based initiatives may have the potential to produce sustained effects by delivering effective advice, motivational prompts and practical guidance to large numbers of people, at low cost.[32]

In addition, large scale, high intensity, community-wide campaigns with sustained high visibility complemented by support groups, counselling, risk factor screening and community events are recommended by the United States Guide to Preventive Services as effective in increasing measures of physical activity.[23]

Key Outcomes

1. All Australians, but particularly those who are inactive and those with special needs have sufficient skills, knowledge and understanding of the importance of, and options to be active resulting in increased levels of physical activity.
2. A committed, sustained, consistent and coordinated health sector approach to community education about physical activity.

Strategic Links

- The National Obesity Taskforce has included support for families and community-wide education as a key action area. This includes a focus on physical activity along with nutrition and healthy weight.
- Opportunities for collaboration with groups addressing complementary messages such as nutrition, healthy weight and active transport have been supported through consultation.
- Various community and private sector organisations are keen to work in partnership to implement communication strategies.
- A number of states and territories have developed their own media strategies and coordinated approaches to achieve efficiencies. Recognising jurisdictional preferences is important.

Actions: Communication and Community Education

1. Develop and commence implementation of a comprehensive, national, five-year social marketing plan for physical activity, including a common identity and image for all physical activity community education initiatives building on current initiatives around Australia. Ensure comprehensive evaluation is included.

2. Seek collaborative opportunities to further develop, disseminate and promote *National Physical Activity Guidelines* and/or appropriate complementary resources for:
   - specific population groups (older people, children, young people and parents (in progress), inactive people, those with special needs and multicultural groups).
   - those with specific needs (for those who are overweight and obese, suffer dementia, mobility or sensory problems).
   - specific issues (diabetes, prevention of falls, living with cancer etc).

3. Determine and develop an acceptable effective form of communicating the *National Physical Activity Guidelines* to Aboriginal and Torres Strait Islander Australians.

4. Investigate options to increase the positive profile of physical activity in media, advertising and promotions.

5. Review options for high profile public recognition of innovation in promoting active living across the full range of settings (awards programs).

2.2 Workforce Capacity

Rationale

There is potentially a large workforce in the health sector as well as in other sectors and within the community who can help support and encourage inactive Australians to be active.

However, a 2003 national survey of (primarily) government capacity to address overweight and obesity, undertaken as part of the development of *Healthy Weight 2008*, found 'Overall ...

there exists only a very limited strategic readiness to take on the difficult challenge of halting and reversing an epidemic of overweight and obesity among Australians'.[1] The coverage and strategic capacity in relation to physical activity is clearly limited across Australia compared to the significance of the issue of inactivity and the complexity of responses required.

Building workforce capacity in the health sector includes a number of components:

- those with specialist skills (for providing assistance to individuals with specific requirements such as Exercise Physiologists, Physiotherapists);
- generalists (including those able to provide general advice about physical activity and health);
- those in other sectors who may be in a position to encourage people to be active; and,
- Planning, coordination and leadership for physical activity population health programs should fall to those with appropriate skills.

Ensuring supply and distribution of workers and clarity of role is important to ensure there are sufficient people in the right locations to undertake the necessary and defined roles (see also Health Services).

Training and Workforce Development

Both formal (University, TAFE, VET) and informal training (short courses, mentoring) programs are necessary, but it is important that they are accessible to diverse workers in varied settings, for example able to be accessed by rural and remote health professionals.

Professional support and resources: websites, journals, conferences, networks, resource packages etc. should support staff to share good practice, research information and current actions.

Organisational commitment and leadership: commitment to such things as the importance of physical activity; partnerships; the needs of workers and funding is an essential prerequisite. Workers in sectors other than health are also likely to benefit from many of these initiatives, so partnerships will be essential in progressing this area.

Building workforce capacity falls largely to states, territories and regions. BAA identifies actions which will assist all jurisdictions and which are best done collaboratively.

The workforce includes all those who are in a position to assist or support individuals and groups to be active, as well as those providing policy, planning and infrastructure support. Health workers can also assist to build the capacity of workers in other sectors (the fitness industry, community workers, sport and recreation officers, teachers, child care workers) and the community (volunteers, walking group leaders, carers) to provide effective advice, programs and support for physical activity and healthy lifestyles. Equally they can learn about effective physical activity practice from other sectors. Clarity regarding legal indemnity is also an important issue.

Key Outcomes

1. Strengthened capacity of health workers to promote and support Australians to be active.
2. Improved knowledge, confidence, skills and resources to enable health care professionals to routinely promote physical activity with their clients and the community and refer appropriately.
3. Sustainable partnerships within the health sector and with other sectors to support a more coordinated approach to workforce development.
4. Sustainable structures to support health and other workers in their physical activity role.

Strategic Links

- Workforce capacity is a critical issue for Aboriginal and Torres Strait Islander Communities. Key principles identified in the Adelaide Workshop Report[27] are:
- Increase the availability of appropriately accredited on site/local training and professional development;
- Increase participation of Aboriginal and Torres Strait Islander health professionals in accredited training and professional development; and
- Ensure alignment with the objectives in the Aboriginal and Torres Strait Islander Health Workforce National Strategic Framework.[13]
- The recommendations from the Workshop have been incorporated throughout BAA.
- Some states have funding for specialist physical activity coordinators while some organisations in other sectors (Fitness Australia) have developed programs to support their workforce. There are excellent opportunities for partnerships to progress actions in this area.

Actions: Workforce Capacity

1. In partnership with key groups undertake a review of the physical activity related workforce in the health sector (numbers, location, role, organisations, qualifications and training needs) and develop a workforce plan which includes key competencies and expectations.
2. Increase the number of physical activity related positions (specialists and generalists) in the health sector.
3. Increase the number of Aboriginal and Torres Strait Islander health professionals in specialist positions in physical activity and contribute to strategies designed to address issues related to Aboriginal and Torres Strait Islander health worker positions (across government and non-government agencies).
4. Monitor legal indemnity issues and contribute appropriately.
5. Explore options for the development of a suite of training programs and options (stand alone, units within existing courses) to meet current and predicted needs. Ensure relevance for, and delivery to, Aboriginal and Torres Strait Islander health workers and people working with Aboriginal and Torres Strait Islander communities and other special needs groups. Develop, disseminate and maintain a catalogue of relevant training opportunities.
6. Work in partnership with other sectors to ensure the non-health workforce (teachers, fitness leaders, aged care and community development workers) and interested community members can access appropriate health-related training to support their role in physical activity. This includes training relevant to different population groups (older people, people with disabilities, of culturally and linguistically diverse communities) and in different settings (schools, aged care);
7. Scope options for the establishment (or addition to an existing structure) of a physical activity clearinghouse function to disseminate up-to-date information on physical activity issues and initiatives (research, current initiatives, media information) to support health workers and those in other sectors.

8. Explore options and seek funding to provide ongoing support, networking, information sharing and professional development including training and education on physical activity for Aboriginal and Torres Strait Islander professionals.

9. Develop best practice guides for community workers to assist in implementation of good practice for individuals and communities, including a focus on low income and inactive people.

2.3 Evidence, Research, Monitoring and Evaluation

Rationale

The availability of regular, reliable, relevant data about a variety of factors related to physical activity including levels of physical activity and its various determinants (knowledge, attitudes, health outcomes) is necessary to inform practice and enhance accountability. Ongoing commitment to, and resources for, research, evaluation and dissemination are also important in informing directions.

Like nutrition, policy development, program planning, evaluation and reporting are hampered by inadequate and inconsistent data collections systems.[6] Australia needs a strategic approach to this issue to ensure the health system, alone and in partnership with other sectors, builds the physical activity evidence base. Measurement of the impact of BAA relies in part on monitoring levels of physical activity.

The *Active Australia Survey* is a reliable and valid tool for measuring leisure time physical activity for adults 18–75 years and there is baseline and trend data for all states. There is however a significant lack of data on children and older people, as well as other important components of physical activity, for example household physical activity, active transport and occupational physical activity.

In reviewing international and national plans (Bull et al, 2003) confirmed:[1] Physical activity intervention research is characterised by small sample sizes, including self report measures only, no long-term follow up, not having physical activity as the main focus and being unpublished. It rarely includes high need groups and it is under-resourced in relation to the size of the problem.

Research needs included:

- The needs and issues of at-risk populations, including Aboriginal and Torres Strait Islander Australians and low socio-economic groups and inclusion of these groups in all physical activity related monitoring and evaluation systems;
- Developing the evidence base on the relationship between physical activity and mental health;
- Development of reliable measures of occupational, incidental and transport related physical activity;
- A culturally appropriate tool to monitor physical activity levels in remote Aboriginal and Torres Strait Islander communities;
- The relationships between social and environmental factors and physical activity;
- The benefits of different types of physical activity for older (including very old and frail) people, for example gardening, the acceptability, adherence and maintenance of participation among older people and the efficacy of home and community-based strength training on a range of health outcomes.

Key Outcomes

1. Comprehensive, regular and consistent information about physical activity levels, knowledge, attitudes, intentions and behaviours across all age groups as well as social and physical environments to inform physical activity related policy, programs and environments.
2. High level understanding by the health sector and other sectors of the determinants and consequences of physical (in)activity and the effectiveness of potential interventions.
3. Health sector workers have reliable, relevant and timely information to influence decision making.
4. Sustainable partnerships within the health sector and with other sectors to support a more coordinated and strategic approach to research, evaluation and monitoring.

Strategic Links

- Measurement and information was a major component of the recommendations from the Adelaide Workshop.[27] Principles included the need to empower the community, to build the capacity of the community to conduct and utilise research for themselves and to use culturally appropriate models. Recommended actions included the importance of supporting local data collection as well as research, evaluation, surveillance and information management and strategies incorporated above.
- Please note data on physical activity levels is one important component of judging the effectiveness of BAA, but a comprehensive evaluation plan will be developed.

Actions: Evidence, Research, Monitoring And Evaluation

1. Work with key stakeholders to develop a longer-term plan for the development and implementation of a comprehensive, regular, coordinated national, state and regional physical activity monitoring and surveillance system and support of practical implementation with a view to increasing collaboration across Australia in standardising data collection. Include consideration of the *Active Australia Survey* (core of eight questions), in the *National Health Survey*, and state survey tools.
2. Scope and develop specifications for a comprehensive and standard set of validated indicators (core indicators and additional periodic indicators) including key behaviours, environments and social factors related to physical activity which are culturally appropriate and can be used for monitoring at national, state, regional, local levels and across settings.
3. Develop and validate a set of indicators on occupational physical activity, active transport and household chores.
4. Develop a reliable and valid tool for monitoring the national prevalence of physical activity by: children; young people; older people; Aboriginal and Torres Strait Islander Australians; which potentially includes strength and balance, and review its applicability for different cultural groups.
5. Collaborate with other sectors on the routine collection and use of non-health physical activity related data, for example active transport and environmental data.
6. Conduct strategic and policy research to inform decision-making and fast track the dissemination and application of new research evidence Australia-wide.

7. Establish mechanisms to assist health workers (expertise, human resource and financial) to effectively research physical activity programs including process and outcome measures, and to give special consideration to the needs of those involved in research related to Aboriginal and Torres Strait Islander Australians.
8. Support the development of well designed and evaluated studies related to all settings and population groups included in BAA.
9. Support and/or develop partnerships to encourage research relevant to the health sector and to other sectors and promote more investment in high quality, collaborative physical activity research

2.4 Strategic Management and Coordination

Rationale

The implementation of BAA by the health sector requires strategic leadership and commitment at the national level, as well as a coordinated approach at national, state and local levels with good communication between all key stakeholders. There must also be an integrated approach with the many relevant national health strategies that provide opportunities for joint action, and leverage on physical activity-related issues and options for funding and resources.

Partnerships with other sectors underpin BAA. This might involve mechanisms such as annual planning and review workshops, working groups on different issues or components of BAA comprising members from different organisations and/or project based partnerships. SIGPAH and the NPHP are well placed to lead this process and ensure implementation of BAA.

Key Outcomes

1. A strategic, planned, collaborative integrated approach to promoting physical activity across Australia.
2. Public policy supports all Australians to be physically active.
3. Structures and management ensure leadership and coordination for physical activity at national levels, within health and with other sectors.
4. Clear and strong health sector commitment to, and leadership for, physical activity.
5. Sustainable partnerships within the health sector and with other sectors to support a more coordinated and strategic approach to physical activity planning, implementation and evaluation.

Strategic Links

- All states and territories have established or are considering intersectoral leadership groups and have, or are developing, state strategies.
- SIGPAH commissioned a report on the feasibility of establishing a national intersectoral taskforce.[48] SCORS has committed to undertaking an audit of all existing, national networks and partnerships related to the issue of physical activity and developing a nationally coordinated, collaborative, cross-sector approach to increasing levels of physical activity.
- BAA is strongly aligned with the *Healthy Weight 2008 Plan*. It will be vital that implementation is coordinated

Actions: Strategic Management and Coordination

1. Ensure the widespread dissemination and promotion of BAA within the health sector and to other interested groups.
2. Develop a sustainable mechanism to support, monitor, inform and influence the development of national policy directions to ensure they promote and support people to be active.
3. Support SIGPAH to oversee the implementation of BAA.
4. Establish effective mechanisms to ensure the involvement of, and commitment to, implementation of BAA by key Aboriginal and Torres Strait Islander stakeholders and other priority groups.
5. Establish effective structures and seek resources to ensure sustainable, integrated approaches with other national health-related initiatives with relevance to physical activity (in adults as well as children, young people and older people).
6. Establish effective partnerships with other sectors to assist with implementation of BAA and work towards the establishment of a National Physical Activity Intersectoral Task Force.
7. Establish effective mechanisms to ensure integrated planning, implementation and evaluation of BAA, as well as role clarity, between SIGPAH, state and territory physical activity taskforce representatives (or equivalent), key non-government and private sector organisations, Aboriginal and Torres Strait Islander organisations and other significant intersectoral partners. Undertake a process of prioritisation of actions using public health tools.
8. Investigate opportunities to engage with the private sector for the promotion of physical activity.
9. Seek high level endorsement of a National whole-of-government Physical Activity Statement on the importance of physical activity and commitment to action to address the needs of priority population groups.
10. Support strategies to build leadership for, and commitment to, physical activity by key decision makers in government, non-government and the private sector, as well as political leaders and Aboriginal and Torres Strait Islander organisations and leaders, with a view to increasing their support for physical activity.
11. Seek opportunities to gain and harness funding for BAA implementation including collaboration with other partners.
12. Prepare a detailed Implementation Plan for BAA including timelines, priorities, indicators and responsibilities and monitor all indicators outlined in BAA in collaboration with the *Healthy Weight 2008* process. Provide regular updates on implementation on the SIGPAH website and to NPHP, AHMAC and SCATSIH.
13. Commission an external and culturally appropriate evaluation of the achievements of the Framework and implementation progress in 2008 and make recommendations for future action.

3. Priority Populations

Priority Populations in BAA are:

3.1 Aboriginal and Torres Strait Islander Australians

3.2 Populations with special needs

3.1 Aboriginal and Torres Strait Islander Australians

The appalling health status of Aboriginal and Torres Strait Islander Australians is well documented, as is the significant level of disadvantage including poverty, unemployment, poor community facilities, lower education rates and reduced access to culturally appropriate health services. Much of the health burden is due to preventable diseases including diabetes, renal and cardiovascular disease, that can be reduced in part by increased level of physical activity.

The National Strategic Framework for Aboriginal and Torres Strait Islander Health outlines a clear commitment to improving the health of Aboriginal and Torres Strait Islander Australians but notes the solutions are complex requiring a 'coordinated, collaborative and multisectoral approach' supported by Aboriginal and Torres Strait Islander health stakeholder organisations at all levels of government.[13] *The National Strategic Framework for Aboriginal and Torres Strait Islander Health Framework for Action by Governments* recognises the potential health gains to be made from improving physical activity and nutrition and identifies physical activity actions.[13] BAA now provides additional detail to this Framework.

There is considerable scope to form collaborative and empowering partnerships between key Aboriginal and Torres Strait Islander health groups and other sectors of society in the coordination, delivery and funding of physical activity and health programs.

Examples of barriers to physical activity faced by Aboriginal and Torres Strait Islanders include:

- **Policy:** lack of funding for programs, services and infrastructure; poorly coordinated program development within health and across sectors; and, disparate approaches to strategic planning and research.
- **Environments:** physical conditions including hot, dry, dusty or wet conditions or humidity; unsafe communities; lack of facilities and infrastructure; services and programs; dominance of cars; and, limited income.
- **Socio-cultural:** services which are culturally inappropriate or unwelcoming; trans-generational issues which don't support physical activity; limited role models; racism; and competing influences (television, gambling).
- **Psychosocial:** high rates of: depression; disempowerment; sense of hopelessness; lack of motivation; lack of knowledge; and, confidence.
- **Individual:** poor health, including sickness; excess weight; inadequate nutrition; or limiting physical conditions.
- **Health Services:** limited time for prevention; lack of referral to sport or other physical activity programs; and, limited funding for health related physical activity programs.

Most of the actions in BAA are relevant to, and should assist in, increasing levels of physical activity by Aboriginal and Torres Strait Islander Australians. In addition, there are a number of specific recommendations throughout BAA that have been developed in response to consultations with Aboriginal and Torres Strait Islander peoples. This section identifies overarching actions.

The Actions are based on consultations with Aboriginal and Torres Strait Islander stakeholders and the general consultations for BAA, the Adelaide Workshop[27] and other national documents.

Physical activity recommendations for Aboriginal and Torres Strait Islander Australians

Recommended levels of physical activity for Aboriginal and Torres Strait Islander adults and children are the same as for all Australians.

How active are Aboriginal and Torres Strait Islander Australians?

There is a lack of reliable data on physical activity levels of Aboriginal and Torres Strait Islander Australians and as yet no reliable and valid instrument for measuring physical activity.[32]

In the 2001 *National Health Survey*, around 43% of Aboriginal and Torres Strait Islander adults living in non-remote areas reported 'no leisure-time physical activity', compared with about 30% of other Australians in the same areas.[49]

The benefits of physical activity for Aboriginal and Torres Strait Islander Australians

The high levels of preventable chronic disease, of which physical inactivity is a major risk factor, suggest there are considerable benefits in increasing levels of physical activity by Aboriginal and Torres Strait Islander Australians.

In addition, it is now clear that a range of psychosocial factors (depression, social isolation and lack of social support) contribute significantly to coronary heart disease.[50] Since Aboriginal and Torres Strait Islander Australians are also likely to suffer many co-morbidities (obesity, peripheral vascular disease and depression) which can also be influenced by physical activity, the potential health gain by increasing activity levels is considerable.

Evidence for Interventions

There are few published studies specifically related to physical activity of Aboriginal and Torres Strait Islander communities to guide good practice[51], though there are a number of programs operating throughout Australia which address physical inactivity directly (programs related to sport or traditional activities) or indirectly (such as healthy weight programs). There is evidence to suggest programs should be consistent with the following Key Principles:

- **Cultural respect** – all physical activity programs and services must respect the diverse views and values of Aboriginal and Torres Strait Islander peoples.
- **A holistic approach** – physical activity must be addressed within the context of other physical health issues such as nutrition as well as spiritual, cultural, emotional and social well being.
- **Health sector responsibility** – all health services should support Aboriginal and Torres Strait Islander people to be active as a routine part of their services.
- **Community control of primary health care services** – community controlled health services play a major role in supporting people to be active and developing strong partnerships with other services (sport and recreation).
- **Working together** – government, non-government and private sector organisations both in health and in a range of other sectors including environment, transport, sport and recreation must form collaborative and empowering partnerships with each other and with communities to develop sustainable solutions to inactivity.
- **Localised decision making** – local ownership and control will ensure services and physical activity programs are appropriate to community issues and needs, culture and values and that capacity for long-term action is sustained.
- **Promoting good health** – BAA supports a focus on physical activity to promote good health, prevent illness and to also assist people to better manage existing health conditions.

- **Building the capacity of health services and communities** – BAA includes actions to build the capacity (expertise, funding, infrastructure, leadership) of services, communities and individuals to support physical activity and build a culture of success.
- **Accountability** – BAA aims to support organisations (community controlled, mainstream) to provide effective physical activity programs, infrastructure and policies in partnership with individuals and communities.

Source: National Strategic Framework for Aboriginal and Torres Strait Islander Health.[8]

Key Outcomes

1. A detailed plan to support physical activity for Aboriginal and Torres Strait Islander Australians including integration with other relevant strategies.
2. Increased support for implementation of BAA including on the ground programs.

Strategic Links

- Links related to implementation of *Healthy Weight 2008 – Australia's future: the national action agenda for children and young people and their families*[7] and the *National Aboriginal and Torres Strait Islander Nutrition Strategy and Action Plan 2000–2010 (NATSINSAP)*[52] are critical.

Actions: Aboriginal and Torres Strait Islander Australians

1. Develop, in further consultation with a broad range of Aboriginal and Torres Strait Islanders, a detailed implementation plan for BAA.
2. Ensure the inclusion of physical activity into Framework Agreements being developed in all jurisdictions.
3. Develop practical strategies to assist community controlled health services and mainstream health services to encourage Aboriginal and Torres Strait Islanders to be active.
4. Consider options for providing national strategic leadership, partnerships and coordination on physical activity across government for Aboriginal and Torres Strait Islander Australians.
5. Consider options to increase funding, support and recognition for the development, implementation and evaluation of local physical activity best practice programs that are: • Designed, implemented and owned locally, using community development processes, and which are supported nationally; • Aimed at building the leadership and capacity for sustained action by individuals and the community in the area of physical activity and other issues; • Relevant to local issues, needs, cultures and conditions; • Based on, and supportive of, the knowledge, skills, experience and resources of the community; • Consistent with best practice principles including a holistic approach to health; • Focussed on overcoming barriers to physical activity for individuals and communities.
6. Actively seek opportunities to integrate physical activity into relevant national, state and local policies, programs and initiatives (in the health sector and other relevant sectors including sport and recreation, planning) particularly in relation to nutrition (NATSINSAP), healthy weight, chronic disease prevention and community development.

7. Explore the potential for partnerships with other sectors and private industry (mining, employment, sport and recreation) with a view to supporting physical activity programs and initiatives and creating broad support for physical activity as well as win/win outcomes such as income earning opportunities.

8. Support appropriate research into the barriers and facilitators of physical activity for Aboriginal and Torres Strait Islander communities.

3.2 Populations With Special Needs

There are many Australians who face additional barriers to being active.

This includes, but is not limited to:

- People on low incomes;
- Those who have a chronic condition (mental illness, arthritis, cancer, diabetes, obesity, dementia or other condition);
- Culturally and linguistically diverse Australians. In 2001 approximately 25% of Australians were born in an overseas country and many more have overseas born parents[53];
- People with a disability (defined as any limitation, restriction or impairment, which has lasted, or is likely to last, for at least six months and restricts everyday activities), who represent 20% of the Australian population;[54]
- People who face social or geographic barriers such as isolation or are living in rural or remote locations where distances, lack of services and infrastructure pose additional barriers.

A range of policy and legislative frameworks related to disability discrimination and equal opportunity underpin the need to ensure groups with special needs have equitable access to services and programs that encourage physical activity.

Barriers to physical activity and the use of services include: religious and cultural sensitivities; language; racial and religious discrimination; economic barriers; lack of service providers with specific skills; and, limited appropriate and accessible services.

Physical activity can provide opportunities for social interaction that helps to build community networks, reduce isolation and exclusion, and build social cohesion[55].

Clear information about which barriers are significant for particular groups and ways of overcoming these would inform the development of more appropriate actions.

There are significant opportunities to develop partnerships with organisations representing a variety of special needs groups including culturally and linguistically diverse Australians, the disability sector and the mental illness field. A number of activities are already in place and consultations showed enthusiasm for progressing such partnerships.

Physical Activity Recommendations

The *National Physical Activity Guidelines* for adults provides evidence based recommendations for physical activity. However it is true that any increase in physical activity for those who are inactive or insufficiently active is to be encouraged and supported; some people, for various reasons, may not meet the guidelines.

People with a physical disability can also benefit from physical activity though specific recommendations, but the amount and type will vary with individual circumstances.

Levels of Physical Activity

Australia has only limited information on the physical activity levels of those with particular needs:

- In 2000, people who usually spoke a language other than English at home were more likely than people who spoke only English at home (64% compared with 54%) to report lower than recommended levels of physical activity.[56]
- Persons born in non-English speaking countries had a participation rate of 10.3% compared to 22.0% for those born overseas in the main English-speaking countries and 26.8% for those born in Australia.[57]
- People with a disability have extremely low levels of participation in physical activity and poor levels of health, and die of preventable diseases 20 years younger than the general population.[58]

Table 1 shows that those with lower levels of education are less active.

Table 1: People who were not sufficiently active, by education level

Population Subgroup (Education Level)	Men %	Women %	Persons %
Did not complete secondary school	63.1	59.3	60.6
Completed secondary school	49.5	54.3	51.6
TAFE/tertiary	49.2	52.7	50.8

Australian Institute of Health and Welfare (AIHW) 2004. *Heart, Stroke and Vascular Diseases – Australian Facts* 2004. AIHW Cat. No. CVD 27. Canberra: AIHW and National Heart Foundation of Australia (Cardiovascular Disease Series No. 22)[59]

The Benefits of Physical Activity

There is little evidence in this field, however the benefits of physical activity seem likely to be the same in terms of reduced risk of illness and premature mortality for those with special needs, but may also include social and community benefits.

For those with a disability there is evidence to suggest lower rates of hospital admission, fewer secondary health problems and some decrease in psychological problems. Independence and quality of life can also be improved.[43]

Evidence for Interventions

There is little in the way of research to inform specific program recommendations for groups. Good processes however will be essential, including recognising diversity, partnerships with community and key groups, ensuring equitable access (which may require innovative solutions in country areas) and good communication. The provision of trained professionals who can provide appropriate, affordable and readily accessible advice to, and support for, those with special needs is also vital.

Key Outcomes

1. Policies, programs and environments support populations with special needs and those at risk of disadvantage to be active.

Actions: Populations With Special Needs

1. Ensure all BAA actions include a focus on populations with special needs.
2. In conjunction with key organisations, research needs, issues and options for innovative and best practice action to increase levels of physical activity for different population groups with special needs, including a thorough consultation process.
3. Advocate for national leadership and coordination, strong policy support, and increased resources for the development of policies, programs, environments and infrastructure, which supports and encourages populations with special needs to be active.
4. Share information about effective programs and strategies for special needs groups through the proposed physical activity clearinghouse.
5. Develop or disseminate service provision guidelines to improve access to physical activity programs and services for groups with special needs.
6. Explore options to use equity impact assessment tools in physical activity policy, planning and program development.

Partnerships for Action

BAA acknowledges that most of the factors that impact on levels of physical activity are outside the direct influence of the health sector and addressing the significant levels of inactivity by Australians requires a long-term, well coordinated, intersectoral approach.

The health sector cannot address physical inactivity alone. This requires the health sector, along with other interested and concerned sectors, to build partnerships to influence the many determinants of physical activity.

Nonetheless, if the health sector is to improve the health of the population and reduce inequities in health, it is crucial that it ensure it comprehensively and consistently addresses inactivity in every way possible through all its policies, programs and structures while at the same time initiating, developing and supporting intersectoral partnerships.

BAA identifies a number of actions that are the responsibility of the health sector as well as actions where the health sector can add value to, support and complement the work of other sectors. Partnerships will involve the public, private and non-government sectors as well as the community working together to find solutions to complex problems, including inequalities, in a more efficient, effective and sustainable way.[60]

What do we mean by the Health Sector?

The health sector includes those individuals and organisations with a role in the promotion and protection of good health, prevention, treatment and management of illness and rehabilitation. This includes government, non-government and private sector organisations; hospital and community based services; generalist services; those with a focus on specific health issues or population groups; the full range of multi-disciplinary professionals and their organisations; those dealing with individuals as well as addressing the needs of groups and communities; and, community groups working with health organisations to address health issues. Academic and Research Institutes also play a vital role.

Others with a role in influencing physical activity

Education, Academia, Transport, Local Government, Environment, Urban Planning, Tourism, Arts, Media, Advertising, Sport and Recreation, Fitness Industry, Employers, Workplaces, Occupational Health and Safety, Parks, Child Care, Aged Care, Retail, Architecture and Building Development, Motor Industry, and more can all contribute to influencing physical activity.

What is the role of the health sector in addressing physical activity?

The health system can support increased levels of physical activity by:

- Developing or influencing health-related public policy.
- Developing health enhancing environments within the health sector.
- Ensuring the health system routinely and systematically promotes physical activity to individuals and the community.
- Building the knowledge, skills and motivation of individuals to be active.
- Supporting communities to take action for physical activity.
- Identifying and promoting the extensive range of factors which influence levels of physical activity.

- Collecting and analysing the evidence about the epidemiology of physical activity and the effectiveness of approaches to support people to be active.
- Ensuring a strategic and coordinated approach to physical activity at national, state and local levels.

The health sector can work with, and support the work of, other sectors by actions such as:

- Providing up-to-date information about the health impact of physical (in)activity or the effectiveness of interventions.
- Referral or joint case management of individuals with community based services.
- Collaboratively developing projects.
- Providing technical support, information or training for other professionals.
- Providing sponsorship or funding for programs.
- Forming coalitions.
- Developing formal agreements, joint policy or high level statements.
- Advocating for legislative or policy change.

BAA consultations revealed considerable enthusiasm to work collaboratively, as well as strong support for an intersectoral national physical activity plan and coordinating structure. The health sector is committed to working with other key agencies to progress this aim.

Monitoring and Surveillance

BAA presents a framework for national action by the health sector over the coming five years. A more detailed implementation plan will be developed by SIGPAH outlining timelines, lead organisations, indicators and key milestones to inform an evaluation plan and other details.

A Monitoring and Reporting Framework will also be prepared, published on the NPHP website (www.nphp.gov.au) and regularly updated to maximise accountability for implementation progress. BAA will be evaluated after three years to inform progress, future directions and the next stage. In addition, BAA will be distributed and promoted widely.

Funding

National and state governments, non-government and private sector organisations already fund a range of physical activity programs and initiatives. BAA seeks to consolidate this investment and ensure that it is spent strategically. The significance of inactivity in Australia however, warrants significant additional funding to that currently being invested. BAA clearly identifies the priorities for action that require investment and commitment, if physical activity is to be addressed in Australia.

References

1. Bull F, Bauman A, Bellew B, Brown W. Getting Australia active II – An update of Evidence on Physical Activity. Melbourne: NPHP 2004.
2. Jorm AF, Christensen H, Griffiths KM, Rodgers B. Effectiveness of complementary and self-help treatments for depression. Medical Journal of Australia. 2002(176):84–96.
3. Jorm AF, Christensen H, Griffiths KM, Rodgers B. Effectiveness of complementary and self-help treatments for anxiety disorders. Medical Journal of Australia. 2004(181):29–46.
4. Trost S. Discussion Paper for the development of recommendations for Children's and Youths' Participation in Health Promoting Physical Activity (unpublished): Australian Department of Health and Ageing; 2003.
5. Department of Health and Ageing. Physical activity recommendations for children and youth. Canberra: DoHA; 2004.
6. National Public Health Partnership. Eat well Australia. Melbourne (Vic): NPHP; 2001.
7. Department of Health and Ageing. Healthy weight 2008 – Australia's future: the national action agenda for children and young people and their families. 2004 [cited Accessed April 8 2003]; Available from: www.nphp.gov.au
8. National Public Health Partnership. Preventing Chronic Disease: A Strategic Framework Background Paper. Melbourne: National Public Health Partnership; 2001.
9. National Public Health Partnership. National Injury Prevention Plan: Priorities for 2001–2003 Implementation Plan. Canberra: National Public Health Partnership; 2001.
10. Department of Health and Ageing. National Health Priority Action Council. 2004 30 September 2002 [cited 2004 16 July 2004]; Available from: http://www.health.gov.au/pq/nhpa/index.htm
11. enHealth Council. The National Environmental Health Strategy Implementation Plan. Canberra: Department of Health and Aged Care; 2000.
12. National Public Health Partnership and Positive Ageing Task Force. National Public Health Action Plan for an Ageing Australia (unpublished). Melbourne: NPHP; 2003.
13. National Aboriginal and Torres Strait Islander Health Council. National strategic framework for Aboriginal and Torres Strait Islander health: framework for action by governments. Canberra (ACT): AGPS; 2003.
14. Mathers C, Penm R. Health system costs of cardiovascular diseases and diabetes in Australia 1993–94. AIHW cat. No.-HWE 11 Canberra (ACT): AIHW; 1999.
15. Mathers C, Vos T, Stevenson C. The burden of disease and injury in Australia. Canberra (ACT): AIHW; 1999. Report No.: AIHW Cat No PHE 17.
16. Department of Health and Aged Care. Developing an active Australia: a framework for action for physical activity and health. Canberra (ACT): AGPS; 1998.
17. Australia Post. Australia Post Annual Report 2002–03. 2003 [cited 2004 22 July 2004]; Human Resources: Available from: http://www.auspost.com.au/annualreport2003/human_health.asp
18. Glover J, Harris K, Tennant S. A social health atlas of Australia, Volume 1. Australia; 2nd edition, PHIDU 1999.
19. Australian Sports Commission. Personal communication. In; 2004.
20. McCormack G, Giles-Corti B, Lange A, Smith T, Martin K, Pikora T. An update of recent evidence of the relationship between objective and self-report measures of the physical environment and physical activity behaviours. Journal of Science and Medicine in Sport 2004;7(1) Supplement):81–92.

21. National Public Health Partnership and Strategic Intergovernmental forum on Physical Activity and Health. Promoting Active Transport: An intervention portfolio to increase physical activity as a means of transport. Melbourne: NPHP; 2001.

22. Bauman A. Updating the evidence that physical activity is good for health: an epidemiological review 2000–2003. Journal of Science and Medicine in Sport 2004;7(1) Supplement):6–19.

23. Kahn EB, Ramsey LT, Brownson RC, Heath GW, Howze EH, Powell KE, et al. The effectiveness of interventions to increase physical activity: A systematic review. American Journal of Preventive Medicine 2002;22(no S4):73–107.

24. Garrard J, Lewis B, Keleher H. Planning for healthy communities: reducing the risk of cardiovascular disease and type 2 diabetes through healthier environments and lifestyles. Melbourne: Department of Human Services; 2004.

25. Sport and Recreation Ministers' Council. Minutes. In: Meeting Communique 12 September; 2003.

26. World Health Organization Regional Office for Europe. Charter on transport, environment and health. In: Third Ministerial Conference on Environment and Health. Copenhagen: WHO Regional Office for Europe; 1999.

27. Department of Health and Ageing. Healthy and Active National Obesity Taskforce Aboriginal and Torres Strait Islander Workshop – 10 and 11 September 2003. [Available at http://www.healthyandactive.health.gov.au/] 2003 [cited Accessed on 8 April 2004]

28. Mason C. Transport and health: en route to a healthier Australia. Medical Journal of Australia 2000(172):230–232.

29. Smith B. Promotion of physical activity in primary health care: update of the evidence on interventions. Journal of Science and Medicine in Sport 2004;7((1) Supplement):67–73.

30. Cyarto E, Moorhead G, Brown W. Updating the evidence relating to physical acitivity intervention studies in older people. Journal of Science and Medicine in Sport 2004;7(1) Supplement):30–38.

31. Miller Y, Dunstan D. The effectiveness of physical activity interventions for the treatment of overweight and obesity and type 2 diabetes. Journal of Science and Medicine in Sport 2004;7(1) Supplement):52–59.

32. Marshall A, Owen N, Bauman A. Mediated approaches for influencing physical activity: update of the evidence on mass media, print, telephone and website delivery of interventions. Journal of Science and Medicine in Sport 2004;7(1) Supplement):74–80.

33. Timperio A, Salmon J, Ball K. Evidence-based strategies to promote physical acitivity among children, adolescents and young adults: review and update. Journal of Science and Medicine in Sport 2004;7(1) Supplement):20–29.

34. Department of Health and Ageing. Improving population health outcomes through partnership with General Practice. [Available from http://www.health.gov.au/pubhlth/about/gp/index.htm] 2004 [cited Accessed April 13 2004]

35. Minister for Health and Ageing. A focus on prevention. Budget 2003–2004 May. [http://www.health.gov.au/budget2003/fact/hfact3.htm] 2003 May 2003 [cited Accessed 13 April 2004]

36. National Aboriginal Community Controlled Health Organisation. National guide to a preventive health assessment in Aboriginal and Torres Strait Islander Peoples. in press; 2003.

37. Australian Bureau of Statistics. Child care, Australia. Canberra (ACT): ABS; 2003. Report No.: Cat No 4402.0.

38. Norton K, Dollman J. Decreasing physical activity levels? Beyond reasonable doubt! ACHPER Matters 2003;ed 2.

39. Booth M, Okely A, Chey T, Bauman AE. Epidemiology of physical activity participation among New South Wales school students. Aust NZ J Pub Health 2002(26):371–374.

40. Australian Government. Building a healthy, active Australia. 2004 29/6/04 [cited 2004 20 July 2004]; Available from: http://www.healthyactive.gov.au/index.htm

41. NSW Commission for Children and Young People and Commission for Children and Young People QLD. A head start for Australia: An early years framework. [Available at http://www.kids.nsw.gov.au/files/headstart_full.pdf] 2004 [cited Accessed on 8 April 2004]; Available from:

42. World Health Organization. School and youth health. 2004 [cited 20 July 2004]; Available from: http://www.who.int/school_youth_health/en/

43. Bauman A, Bellew B, Vita P, et al. Getting Australia active: towards better practice for the promotion of physical activity. Melbourne (Vic): National Public Health Partnership; 2002.

44. Health Canada. Active living at work trends and impact the basis for investment decisions. 2004 8 January 2004 [cited Accessed July 20 2004]; Available from: http://www.hc-sc.gc.ca/hppb/fitness/work/trends_e.html

45. Marshall A. Challenges and opportunities for promoting physical activity in the workplace. Journal of Science and Medicine in Sport 2004;7(1) Supplement):60–66.

46. McCormack G, Milligan R, Giles-Corti B, Clarkson J. Physical activity levels of Western Australian adults 2002: Results from the adult physical activity survey and pedometer study. Perth (WA): Western Australian Government; 2003.

47. Armstrong T, Bauman A, Davies J. Physical activity patterns of Australian adults. Canberra (ACT): AIHW; 2000.

48. DarlisonRowe Consultants. The feasibility of establishing a National Intersectoral Physical Activity Taskforce (unpublished). Melbourne: National Public Health Partnership and Department of Health and Ageing; 2002.

49 Australian Bureau of Statistics. National Health Survey 2001: Aboriginal and Torres Strait Islander results, Australia. ABS cat. No. 4715.0. Canberra: ABS 2002.

50. Bunker S, Colquhoun D, al. MEe. "Stress" and coronary heart disease: psychosocial risk factors National Heart Foundation of Australia position statement update. Medical Journal of Australia 2003;6(178):272–276.

51. Shilton T, Brown W. Physical activity among Aboriginal and Torres Strait Islander people and communities. Journal of Science and Medicine in Sport 2004;7(1) Supplement):39–42.

52. National Public Health Partnership. National Aboriginal and Torres Strait Islander Nutrition Strategy and Action Plan 2000–2010; 2001.

53. Australian Institute of Health and Welfare. Australia's health 2004. Canberra: Australian Institute of Health and Welfare; 2004.

54. Australian Bureau of Statistics. Disability, ageing and carers, Australia: Summary of findings, ABS, Canberra, 2004. Report No:4430.0.

55. Coggins A, Swanston D, Crombie H. Physical activity and inequalities: A Briefing Paper. London (UK): Health Education Authority; 1999.

56. Australian Institute of Health and Welfare: Holdenson Z, Catanzariti L, Phillips G & Waters A-M. A picture of diabetes in overseas-born Australians. Bulletin No. 9. AIHW Cat. No. AUS 38. Canberra: 2003.

57. Australian Bureau of Statistics, 2001. Involvement in organised sport and physical activity, ABS, Canberra (ACT) 2001. Report No:6285.0.

58. Dr Paul Collier National Disability Advisory Council. In; 2004.

59. Australian Institute of Health and Welfare. Heart, stroke and vascular diseases – Australian facts 2004. Canberra: AIHW and National Heart Foundation of Australia; 2004. Report No.: Cat. No. CVD 27.

60. E Harris, Wise M, Hawe P, al. e. Working together: intersectoral action for health. Canberra: AGPS; 1995.

61. Australian Bureau of Statistics. Children's participation in cultural and leisure activities. Canberra (ACT): ABS; 2004.

62. Seaton J, Wall S. A summary of walker's and walking in the Perth metropolitan region in Australia. In: Walking the 21st century conference; 2001; Perth; 2001.

63. Sport and Recreation New Zealand. An Introduction to Active Movement, Koringa Hihinko. Wellington; 2004.

64. Zubrick S, Silburn S, Gurrin L, al e. Western Australian child health survey education health and competence. Perth (WA): Australian Bureau of Statistics and the TVW Telethon Institute of Child Health Research; 1997.

65. Australian Bureau of Statistics. 2001 health risk factors Australia. Canberra: ABS; 2003. Report No.: 4812.0.

66. Hill J. Physical activity and obesity. The Lancet 2004;Vol. 363,(Iss. 9404):182.

67. Reilly J, Jackson D, Montgomery C, Kelly L, al e. Total energy expenditure and physical activity in young Scottish children: mixed longitudinal study. The Lancet 2004;363(9404):211.

68. Magarey A, Daniels L, Boulton J. Prevalence of overweight and obesity in Australian children and adolescents: reassessment of 1985 and 1995 data against new standard international definitions. Medical Journal of Australia 2001;174:561–564.

69. Australian Government Department of Health and Ageing. National Physical Activity Guidelines for Australians. Canberra (ACT): AGPS; 1999.

70. National Health and Medical Research Council. Clinical practice guidelines for the management of overweight and obesity in adults. Canberra (ACT): NHMRC; 2003.

71. Australian Institute of Health and Welfare: Bennett SA, Magnus P & Gibson D 2004. Obesity trends in older Australians. Bulletin No. 12. AIHW Cat. No. AUS 42. Canberra: AIHW.

72. Sherrington C, Lord S, Finch C. Physical activity interventions to prevent falls among older people: update of the evidence. Journal of Science and Medicine in Sport 2004;7(1) Supplement):43–51.

73. Australian Sports Commission. Active Australia a national participation framework. Canberra (ACT): ASC; 1997.

74. Stephenson J, Bauman A, Armstrong T, et al. The cost of illness attributable to physical inactivity in Australia. Canberra (ACT): Commonwealth Department of Health and Aged Care and the Australian Sports Commission; 2000.

75. Ministerial Council on Education E, Training and Youth Affairs. Minutes 10–11 July 2003. In. Perth (WA); 2003.

76. World Health Organization. Integrated prevention of non-communicable disease. Draft global strategy on diet, physical activity and health. Geneva (Switz): WHO; 2003. Report No.: EB111/44 Add 1.

77. Centre for Disease Control. Energize your Life. 2003 [cited 2004 22 July]; Available from: http://www.cdc.gov/nccdphp/dnpa/physical/terms/index.htm

78. Centers for Disease Control and Prevention. Physical activity and health: a report of the Surgeon General. Atlanta: U.S. Department of Health and Human Services; 1996.

79. Department of Health WA. Find 30 It's not a big exercise. 2003 [cited 2004 Accessed on 8 April 2004]; Available from: http://www.find30.com.au/

Appendix 1: Physical Activity and Specific Population Groups

Children and Young People

There are many reasons to provide children and young people of all ages access to a wide range of physical activity options including play, sport, dance, walking and cycling, games and the development of fundamental movement skills.

From a health perspective it is 'intuitively sensible and biologically plausible that preventive health measures such as fostering a physically active lifestyle should begin early rather than later in life' [4]. Importantly, physical activity in its many forms can, and should, be fun, and be a vital part of childhood.

However, things such as increased car ownership and use, concerns about neighbourhood and street safety, competing sedentary alternatives for leisure time, increased parental working hours and the resultant reduction in free play time and increasing demands on school curriculum help to create obesogenic environments that encourage sedentary behaviour. It therefore makes sense to encourage and support children to be less sedentary and more active in daily life.

Clearly children and young people have different requirements at different ages, and programs and policies should reflect these changing needs. The early years (0–8 years) is a key time for 'laying the foundations for emotional, social, cognitive and physical well being' [41], though within this period children have a vast range of needs. As children grow older the emphasis moves from a focus on the role of parents and caregivers, to building the skills and motivation of the children and young people themselves to make healthy decisions. Programs and initiatives need to be age, and stage, appropriate and evidence based.

*Physical Activity Recommendations for Children and Youth**

1. Children and youth should participate in at least 60 minutes of moderate- to vigorous-intensity physical activity every day.
2. Children and youth should not spend more than two hours per day using electronic media for entertainment (eg computer games, Internet, TV), particularly during daylight hours.

How active are children and young people?

Australia lacks accurate population level physical activity monitoring and surveillance data for children and young people. This is a priority for action for BAA.

There have been a number of surveys but there is little comparability. However:

- In the 12 months to April 2003, an estimated 38% of Australian children aged five to 14 years did not participate in any organised school, club or planned sport or physical activity outside of school hours[61];
- 42% of those who lived within a 10 minute walk from primary school in Western Australia walked to school[62];
- 20% of New South Wales students in grades eight and 10 engaged in only low levels of physical activity and 60% have moderate to poor fundamental motor skills. Students of low socio-economic status (ses) performed worse that those from high ses[39];

* There was insufficient evidence to develop Guidelines for children under five. For more information on physical activity and young children see New Zealand's An Introduction to Active Movement, Koringa Hihinko. Wellington; 2004.[63]

- 64% of 12 to 16 year old Western Australian young people will not have engaged in any aerobic activity on two to three of the past seven days[64];
- Almost one quarter or 22% of 15–24 year olds reported no physical activity at all in the two weeks preceding the 2001 National Health Survey[65];
- Overseas evidence suggests even children under five years of age appear to be increasingly sedentary[66,67];
- In 1995 approximately 1.5 million young people aged 2–17 years or 21% of boys and 23% of girls[68] were overweight or obese.

While children of all ages are almost certainly more active than adults, the increasing rates of obesity in children is clearly linked to levels of physical activity as well as eating patterns. The consequent increasing rates of onset of Type 2 diabetes in young people is reason enough to support action to encourage children and young people to be active.

The benefits of physical activity for children and young people

Trost (2003) in a review of the relatively scant evidence in this field[4] confirms that physical activity can assist children and young people in:

- Building and maintaining healthy bones, muscles and joints;
- Helping achieve and maintain healthy body weight;
- Reducing adiposity or body fat;
- Protecting against cigarette smoking, alcohol use and illegal drug use; and
- Improving psychological indicators including depression, self esteem, anxiety, stress and self concept in children.

There are some risks of injury and inappropriate weight loss in participation, especially with intensive levels of physical activity, however these risks are outweighed by the benefits.

There are a number of reported, though not always agreed upon, related benefits for active children and young people, including improved skills development, movement competence and confidence, interaction with peers, academic performance and teamwork, a greater sense of community belonging, and a reduction in antisocial behaviours.

Adults

The greatest population gains in relation to physical activity will be achieved by increasing levels of activity among adults who are sedentary and in moving them to the point where they reach the recommended levels of physical activity.

Cyarto et al (2004) comment that demographic change will mean an increase in the proportion of the Australian population aged 65 years and older from approximately 13% in 2002 to about 20% in 2021.[30] Considering the strong links between inactivity and the development of many chronic conditions and that almost 60% of 'current' 45–60 year olds are insufficiently active for health benefit, it is likely that this group will place a large burden on the health system in the next two decades.

If current levels of inactivity persist within this age group the combined effect of increasing prevalence of chronic disease attributable to inactivity and a rise in the number of overweight and obese people in this age group, will have a major and costly impact on health services over the next 20 to 30 years. Intervention through health services, workplaces and community settings is therefore critical.

The National Physical Activity Guidelines for Australians[69]

The Guidelines outline recommendations for the minimum level of physical activity required for good health for adults. They are:

- Think of movement as an opportunity, not an inconvenience;
- Be active everyday in as many ways as you can;
- Put together at least 30 minutes of moderate intensity physical activity on most, preferably all, days of the week;
- If you can, also enjoy some regular, vigorous exercise for extra health and fitness.

Examples of moderate intensity activity are brisk walking, swimming, doubles tennis and medium paced cycling. More vigorous activity includes jogging and aerobics. Activity can be accumulated in blocks of 10 to 15 minutes.

There is not widespread agreement on how much physical activity is necessary for weight reduction, but it seems likely to be around 60 minutes of moderate intensity (or lesser amounts of vigorous activity)[43] as well as lifestyle based changes which incorporate walking to active transport and reducing sedentary behaviour.[70] This needs to be complemented by dietary changes.

How active are adults?

- Leisure time physical activity participation data (Refer to Table 2) shows that more than half of adults did not achieve sufficient levels of physical activity in 2000. This increased from 49.1% in 1997.
- Sedentary behaviour – that is, undertaking no leisure-time physical activity – increased from 14% in 1997 to 16% in 2000. This rise was due to an increase in the proportion of men who reported being sedentary.[53]

Table 2: People who were not sufficiently active, by age group

Population Subgroup (Age Group)	Men %	Women %	Persons %
18–29	39.6	44.8	42.2
30–44	58.5	57.6	58.0
45–59	58.1	59.4	58.7
60–75	56.8	56.0	56.4
Ages 18–75 (ASR)	**53.7**	**54.8**	**54.2**

Australian Institute of Health and Welfare (AIHW) 2004. *Heart, stroke and vascular diseases – Australian facts* 2004. AIHW Cat. No. CVD 27. Canberra: AIHW and National Heart Foundation of Australia (Cardiovascular Disease Series No. 22).[59]

Based on self-reports; data for ages 18–75 years; all rates other than the age-specific rates are age-standardised (ASR) to the 2001 Australian population; 'Sufficient' physical activity is at least 150 minutes of activity accrued over at least five separate sessions in the previous week.

The benefits of physical activity for adults

A review of recent literature again demonstrated convincing evidence that regular moderate physical activity improves health and reduces the risk of illness, disability and premature death.[22]

Bauman (2003) concluded that benefits of physical activity include, but are not limited to:

- Reduction in all cause mortality by around 30% for those achieving at least moderate intensity physical activity on most days of the week;
- Reduction in risk of cardiovascular disease incidence and mortality of around 30%;
- Reduction of cardiovascular risk factors including hypertension and lipid levels;
- Protection against ischaemic stroke, particularly amongst males;
- Reduction in Type 2 diabetes incidence and better diabetes management through improved insulin sensitivity, increased glucose metabolism and weight management. This includes high-risk groups with impaired glucose tolerance;
- Reduction of cancer risk for colon cancer (30 to 40% risk reduction) and breast cancer (20 to 30% risk reduction);
- Protection against osteoporosis and a reduction in the risk and consequences of arthritis with moderate physical activity;
- Reduction in the risk of hip fractures through falls;
- Helping people with chronic, disabling conditions to perform activities of daily living, therefore improving functional status; and,
- Assisting people to achieve and maintain healthy body weight if coupled with good nutrition and physical activity.

Evidence is mixed regarding the mental health benefits of physical activity. However, a number of studies have concluded that the use of exercise for depression and anxiety is supported by available evidence.[2,3] It should be noted that the diversity of mental health outcomes, for example anxiety and depression, and the limitations in the quality and quantity of published research impacts on the conclusions that can be made regarding the relationship between physical activity and mental health benefit.

Older People

The ageing of the Australian population as well as increasing rates of obesity and its consequences suggest there will be significant health and economic benefits from inactive older people becoming more active. Benefits will accrue no matter what age and older people are likely to value 'the sense of purpose and meaning in life' from being active.[43]

Aside from individual physical and psychological factors such as poorer health and fear of injury, older people can face additional barriers to physical activity such as transport, cost and access to age appropriate programs.*

* It is not considered necessary to specifically define the age of 'older people' as people who are in their fifties may have similar requirements to those in their eighties and the actions are relevant to people as they age. There are a number of national initiatives and plans relevant to older people, for example, National Health Priority Action Council plans related to diabetes, arthritis and musculoskeletal conditions, Veterans Affairs programs, Council on the Ageing initiatives, strategies on mental health promotion and falls prevention, social issues and those related to settings such as residential care. These provide an opportunity to work in partnership to further develop innovative and best practice programs and initiatives but the focus must be on inactive older people, particularly those who are disadvantaged through reduced access or have special needs because they are, for example, socially isolated, have dementia or live with a limiting condition.

Physical activity recommendations for Older People

The National Physical Activity Guidelines for adults recommends at least 30 minutes of regular moderate intensity physical activity on most days of the week but does not differentiate requirements for older people.

The development of specific guidelines for older people is a BAA priority and is likely to also cover strength and balance components.

How active are older people?

The *National Physical Activity Guidelines* are not met by 56.4% of people aged 60 to 75 years.[59] There are also one million older Australians who are obese.[71]

The benefits of physical activity for older people

In addition to the benefits listed for adults, physical activity confers benefits for older people including:

- Ameliorating the age related decline in physical function (balance, mobility, and ability to complete everyday tasks);[43]
- A positive influence on chronic disease (improved glycaemic control and reduced dosage of medication for those with Type 2 diabetes) through progressive resistance training although the appropriate dosage and the specific benefits need further research;[30] and
- Prevention of falls among older people in the community.[72]

Appendix 2: Structures and Programs for Physical Activity

Local

At the local level many individuals and organisations are supporting people to be physically active and to develop health-promoting environments in their region.

Be Active Australia supports local action by articulating national actions that will assist and complement local action, and by providing a framework that may also be useful at the local level.

States and Territories

Most states and territories are considering, or have established, intersectoral structures and the development of associated strategies, to improve coordination and leadership of physical activity. Usually this involves government, non-government and community members and has in recent years significantly increased progress on physical activity at the state and territory level.

BAA will support and strengthen this approach by providing a framework for national health sector coordination and by ensuring national recognition of the importance of physical activity and progressing actions that work collaboratively at the national level to support the efforts of state and territory organisations.

All state and territory health departments have physical activity as a priority issue. It is expected BAA will inform and complement health sector physical activity plans and programs.

National Level

Nationally BAA aims to build on work undertaken in the past as well as influencing current activities at the national level through development of a strategic approach to supporting Australians to be active.

Table 3: Milestones in the Promotion of Physical Activity in Australia

Year	Key Milestones
1996	• *Active Australia* launched by Australian Sports Commission
1997	• *Active Australia – A National Participation Framework* released by Australian Sport and Health Ministers[50]
1998	• *Developing an Active Australia: a framework for action for physical activity and health* – the Australian Government's response to Active Australia[16]
1999	• Strategic Inter-Governmental forum on Physical Activity and Health (SIGPAH) formed and key reports supported over coming years[15,43,74]
2001	• *Active Australia* reoriented to focus on participation in structured physical activity
2002	• *Getting Australia Active* released by NPHP[43]
2003	• *National Strategic Framework for Aboriginal and Torres Strait Islander Health* recognises importance of physical activity[13] • NPHP agrees to development of *National Physical Activity for Health Action Plan* • Education[75] and sport and recreation[25] sectors commit to importance of a national approach to physical activity • *Healthy weight 2008 – Australia's future: the national action agenda for children and young people and their families* includes key physical activity strategies[7]
2004	• *Building a Healthy, Active Australia* program to promote healthy eating and to increase the level of physical activity among Australian children, including school curriculum guidelines for physical activity, Active after-school communities program and information for families[40]

International

In 2003 the World Health Organization (WHO) released the Draft Global Strategy on Diet, Physical Activity and Health clearly identifying physical inactivity and unhealthy diets as key contributors to the growing burden of non-communicable disease throughout the world. The report confirms the importance of individuals engaging in adequate levels of physical activity throughout life and identifies the responsibility of member states to develop and support the implementation of national strategies on both physical activity and nutrition. It states that while further research is needed regarding successful interventions, 'current knowledge warrants urgent public health action' [76].

Appendix 3: The Determinants of Physical Activity: A Social-Ecological Model

A number of factors can help or hinder levels of physical activity in the community. These are:

Public Policy

This includes:

- Laws, for example legal liability barriers, cycling or road related legislation;
- Policies such as public transport, urban planning and development, housing, education, economic, welfare, health, justice, organisational and relating to use of community facilities.
- Government and public attitudes to physical activity in general. The role of government and the role and responsibility of individuals.

Environmental Determinants

This includes:

Social

- Practices, rules and policies regarding physical activity in organisations such as schools, child care and the workplace;
- Community perceptions compared with the reality of safety;
- Sports, fitness and recreation opportunities and services;
- Level of competitiveness of sport;
- Access to healthy food to support activity; and
- Advertising messages.

Economic Determinants

- Income available for expenditure on physical related activities and the cost/fees to the user;
- Employment; and
- Education.

Physical Environment Determinants

- Functionality, including level of sprawl or density, land use mix, street accessibility;
- Urban and neighbourhood design of suburbs, cul-de-sacs and connectivity of streets;
- Walking surface characteristics;
- Street width, presence of footpaths and width (wider means further from traffic);
- Age and 'walkability' of neighbourhoods;
- Public open space, access to parks and playgrounds;
- Walking and cycling networks;
- Aesthetics of the environment – cleanliness, wide variety of sights;
- Climate, for example hot, dry, dusty, humid or wet weather;
- Access to public transport and transport networks both for active transport and for participation in formal activities that require travel;
- Destinations and proximity to things such as shops and the post office;

- Traffic volume, speed;
- Design and access to buildings;
- Provision of lighting; and
- Proximity to the beach.

Socio-Cultural (Interpersonal) Factors

- Family, community, cultural and social values, norms, attitudes, beliefs, values and perceptions;
- Rules about sedentary behaviour that affect, for example, TV watching, computer, games, or whether children ride to school;
- Social and family support including someone to be active with (friends, children, partner support, family), or the level of isolation; Family arrangements (one parent families);
- Child care or domestic responsibilities;
- Social networks and social connectedness;
- Physical activity levels by siblings, parents, role models;
- Occupation (sedentary or active);
- Social, geographical or location relevant isolation or mobility;
- Social capital in the community;
- Racism, discrimination/alienation;
- Language and cultural barriers;
- Low socio-economic status and levels of education;
- Dislocation of communities and families from home and land;
- Access to, and support from, health services;
- Encouragement and advice from a GP or other important person;
- Culturally inappropriate services or poor cross-cultural communication;
- Information about where and how to participate;
- Role models.

Psychosocial Factors (Intrapersonal)

- Motivation;
- Self efficacy and fear of personal failure, for example, in a competitive situation;
- Self esteem and perceptions of body image;
- Resilience, coping skills and sense of control;
- Stress levels;
- Depression;
- Decision making skills and knowledge;
- Beliefs, perceptions (already active enough) and expectations;
- Enjoyment of physical activity and previous experiences;
- Time (real and perceived) and working hours;
- Skills to participate;
- Lack of interest and other preferences for time;
- Desire to improve health or to lose weight;
- Lack of energy and/or tiredness;

Individual Biological Determinants

- Age;
- Gender;
- Health status for example experiencing obesity, high/low blood pressure, injury or physical impairment. All, or any of these may deter physical activity; and
- Genetics.

Health Services Determinants

- Accessible, available, affordable physical activity advice, support and referral to appropriate services;
- Use of preventive health services;
- Public health programs; and
- Availability of trained and supportive workforce.

Appendix 4: Commonly Used Terms and Definitions

"In a nutshell, physical activity is something you do. Physical fitness is something you acquire – a characteristic or an attribute one can achieve by being physically active. And exercise is structured and tends to have fitness as its goal."

Michael Pratt, MD, MPH
1993 CDC Division of Nutrition and Physical Activity References[77,78]

Active transport

Relates to physical activity undertaken as a means of transport. It includes travel by foot, bicycle and other non-motorised vehicles. Use of public transport is also included in the definition as it often involves some walking or cycling to pick-up and from drop-off points. Active transport does not include walking, cycling or other physical activity that is undertaken for recreation.[21]

Travel Access Plans

Travel Access Plans or workplace travel plans are other names used to describe green transport plans. They are workplace travel plans and provide a framework for initiatives the workplace can take to encourage active/sustainable transport. Issues that a plan could address include car parking constraints facing staff, lack of awareness of public transport services near the workplace, staff concern about bicycle facilities and opportunity for active transport to benefit staff health.

Exercise

Is physical activity that is planned or structured. It involves repetitive bodily movement done to improve or maintain one or more of the components of physical fitness – cardiorespiratory fitness, muscular strength, muscular endurance, flexibility, and body composition. Sometimes the word exercise is used to communicate with the public because it is better understood than physical activity, for example "Find thirty: It's not a big exercise".[79]

Fitness

It comes with being more active and through it people usually develop cardiorespiratory fitness (heart, lungs and circulatory systems) as well as muscular strength, stamina, flexibility and body composition (a reduction in the percentage of body fat). It is determined by a combination of regular activity and genetically inherited ability. It takes a different type of physical activity to improve things like power, speed, reaction time and coordination, but these are not necessary for good health.

Household physical activity

Includes activities such as sweeping floors, scrubbing, washing windows and raking the lawn.

Inactivity

Describes not engaging in any regular pattern of physical activity beyond daily functioning.

Kilocalorie

The amount of heat required to raise the temperature of 1 kg of water 1°C. Kilocalorie is the ordinary calorie discussed in food or exercise energy-expenditure tables and food labels.

Leisure-time physical activity

Is physical activity that is performed during exercise, recreation or any additional time other than that associated with one's regular job duties, occupation, or transportation.

Moderate intensity physical activity

Generally requires sustained rhythmic movements and individuals should feel some exertion but should be able to carry on a conversation comfortably during the activity. It refers to a level of effort equivalent to:

- a 'perceived exertion' of 11 to 14 on the Borg scale;
- three to six metabolic equivalents (METs);
- any activity that burns 3.5 to seven calories per minute (kcal/min); or
- the effort a healthy individual might expend, for example, walking briskly, mowing the lawn, dancing, swimming, or bicycling on level terrain.

Occupational or workplace physical activity

Is activity completed regularly as part of one's job. It includes activities such as hauling, lifting, pushing, carpentry, shovelling, and packing boxes.

Physical activity

Is any bodily movement produced by skeletal muscles that results in an expenditure of energy. The World Health Organization states physical activity includes 'all movements in everyday life, including work, recreation, exercise and sporting activities'. It can include:

- Active recreation, for example bush walking, skateboarding and surfing.
- Sport, for example netball, soccer and volleyball.
- Dance, such as line dancing, ballet, ballroom dancing.
- Exercise, for example strength training, balance exercises, Tai Chi and flexibility activities.
- Active play, using playground equipment and skipping.
- Active living, where physical activity is integrated into everyday life such as using the stairs, energetic housework and gardening. Some occupations also involve physical activity.
- Active transport, for example walking to public transport, walking or cycling to locations.

Regular physical activity

Is a pattern of physical activity that is regular and if activities are performed:

- most days of the week, preferably daily;
- five or more days of the week if moderate-intensity activities are chosen; or
- three or more days of the week if vigorous-intensity activities are chosen.

Sedentary

In scientific literature, sedentary is often defined in terms of little or no leisure time physical activity. A sedentary lifestyle is a lifestyle characterised by little or no physical activity.

Sports

These are one type of exercise, but unlike physical activity it is usually planned, competitive and includes particular rules or guidelines.

'Sufficient' activity

There are two ways of calculating 'sufficient' activity for health based on the Australian Guidelines. These are: 'sufficient time' (at least 150 minutes per week of moderate intensity physical activity) and 'sufficient time and sessions' (at least 150 minutes of moderate-intensity physical activity accrued over at least five sessions per week). For population-monitoring purposes, sufficient time (down to 10 minutes) and number of sessions can be beneficial as well, provided they add up to the required total over the week.[30]

Vigorous-intensity physical activity

Generally requires sustained, rhythmic movements and refers to a level of effort equivalent to:

a 'perceived exertion' of 15 or greater on the Borg scale;

- greater than six metabolic equivalents (METs);
- any activity that burns more than seven kcal/ min; or
- the effort a healthy individual might expend while doing activities such as jogging, mowing the lawn with a non-motorised push mower, chopping wood, participating in high-impact aerobic dancing, swimming continuous laps, or bicycling uphill.
- Vigorous-intensity physical activity that is intense enough to represent a substantial challenge to an individual and results in a significant increase in heart and breathing rate.

Appendix 5: Acronyms and Abbreviations

ABS	Australian Bureau of Statistics
AHMAC	Australian Health Ministers' Advisory Council
AIHW	Australian Institute of Health and Welfare
ASC	Australian Sports Commission
BAA	*Be Active Australia: A National Framework for Health Sector Action 2005–2010*
CHIP	*National Public Health Action Plan for Children and Young People*
DOHA	Commonwealth Department of Health and Ageing
GPs	General Practitioners
SCATSIH	Standing Committee on Aboriginal and Torres Strait Islander Health
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs
NATSINSAP	National Aboriginal and Torres Strait Islander Nutrition Strategy and Action Plan
NSW	New South Wales
NHF	National Heart Foundation of Australia
NPHP	National Public Health Partnership
PA	Physical activity
SCORS	Standing Committee on Recreation and Sport
SEAL	Supportive Environments for Active Living
SEPA	Supportive Environments for Physical Activity
SIGNAL	Strategic Inter-Governmental Nutrition Alliance
SIGPAH	Strategic Inter-Governmental forum on Physical Activity and Health
SIPP	Strategic Injury Prevention Partnership
SNAP	*Smoking, Nutrition, Alcohol and Physical Activity Framework for General Practice*
WHO	World Health Organization