

Review of Best Practice and Recommendations
for
Interventions on Physical Activity

**A report for the Premier's Physical Activity Taskforce
on behalf of the
Evaluation and Monitoring Working Group**

August 2003

premier's
physical
activity
taskforce

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Task Force Vision:

"... the individual and community benefits of physical activity will be recognised, valued and supported by community and government; and environmental and policy supports will allow a 5% increase in physical activity levels by 2011."

Task Force Outcomes:

Adults:

to increase the proportion of adults undertaking sufficient levels of physical activity from 58% to 63%

Children:

to be confirmed after completion of State baseline survey being undertaken in 2003/04

EXECUTIVE SUMMARY

This report aims to provide the Premier's Physical Activity Taskforce ('the PATF') with a synthesis of the available best practice and scientific evidence on strategies aimed at promoting physical activity.

A systematic literature search was conducted to identify all published reviews of interventions on physical activity. In addition, government and non-government reports were sought and key individuals within the PATF and the national physical activity network were consulted. The scope of this review incorporated evidence from the health sector as well as other relevant disciplines, such as, transport, urban planning and education. The primary challenge was the development of a suitable summary matrix (Appendix 2) integrating a diversity of strategies and varying types of evidence. The final format presents the evidence in alignment with the PATF Strategic Direction Report and the identified five key outcome areas.

Best practice in the context of this report, identifies evidenced-based strategies that are most likely to be effective in increasing participation in physical activity across Western Australia.

The following principles have been identified as key "factors for success" from a review of national and international experience of best practice models for increasing population levels of physical activity:

- § government leadership;
- § a multi-action approach;
- § action aimed at both short term and long term impact;
- § cross government coordination;
- § workforce development;
- § community involvement;
- § overarching communication and evaluation strategies; and
- § regional involvement.

The review of evidence and best practice identified and summarised the effectiveness of a wide range of strategies aimed at adults and children, the working population and whole communities. Detailed results are presented in Appendix 2. Below are the four key strategies identified as "strongly recommended". For each of these, specific actions suitable for implementation are presented within the main body of the report.

- **Whole-of-Community Approach – involving multiple strategies implemented across different settings, aimed at selected sub-populations** **Strongly recommended**

- **Create or enhance access to places to be physically active combined with information activities aimed at increasing awareness, education and motivation** **Strongly recommended**

- **Develop new policies to address and improve all factors associated with participation in physical activity in different populations** **Strongly recommended**

- **Social support interventions in community settings aimed at building social networks - these could include group activities, ‘buddy’ systems, behavioural contracts** **Strongly recommended**

Recommended Unifying Theme for 2004/2005

Walking is the most common form of physical activity in adults. A cross government **WA Walking Strategy** could incorporate a selected number of recommended actions reported in Tables 1-3 of this report. There is strong evidence that success in increasing population levels of physical activity is dependent on efforts aimed at awareness, education, skill development, and a supportive social and physical environment implemented in synergy over a sustained period of time. Isolated actions will not achieve the PATF’s goals.

INTRODUCTION

This report aims to provide the Premier's Physical Activity Taskforce ('the PATF') with a synthesis of the available best practice and scientific evidence on strategies aimed at promoting physical activity. It is intended that this report will provide the basis for future strategic planning and be an integral part of the decision making process.

Regular physical activity is effective in reducing the risk of non-communicable diseases such as obesity, cardiovascular disease, type 2 diabetes, osteoporosis, and breast and colon cancer, as well as providing benefits in the management of depression and anxiety. Communities that are more active can benefit not only from the economic impact of reduced health care costs but also increases in levels of community social cohesion, improved productivity and performance at work and school. More walking and cycling will mean less reliance on motor vehicles for transport and thus provides benefits for the environment.

BEST PRACTICE

The best practice approach has its historical origins in the desire to promote effective and efficient programs to achieve a specific objective (Bauman et al. 2002, p.33). Best practice in the context of this report, identifies strategies that have been shown to be effective and thus are most likely to be suitable for increasing participation in physical activity across Western Australia.

EVIDENCE AND COST EFFECTIVENESS IN HEALTH PROMOTION

There is a political imperative to consider the evidence on health, social and economic impact, as well as cost effectiveness, to guide policy and resource decisions across all levels of government. Health promotion interventions aimed at improving health and preventing disease report on a variety of outcomes but have yet to establish common methods to communicate effectiveness.

Interventions aimed at increasing levels of physical activity are only recently responding to this need. Thus, there is limited data available on cost effectiveness of specific interventions. More commonly, evidence is presented in terms of change in behaviour. Where possible, data on cost has been included in this report. Cost data should be considered in combination with the community reach and long term sustainability of increased levels of activity.

BACKGROUND AND METHODS

This report was undertaken to provide the PATF with an up to date synthesis on the current evidence of what works and what doesn't in population based approaches to increasing participation in physical activity.

A systematic literature search was conducted to identify all published reviews of interventions on physical activity. Government and non-government reports were sought via direct contact with representatives. In addition key individuals within the PATF and the national physical activity network were consulted. The aim was to identify the most recent evidence and consensus on the effectiveness of interventions on physical activity aimed at youth and adults, in all major settings (workplace, schools, health care etc) addressing both the individual and environmental determinants of participation. The scope of this review of strategies was not limited to the health sector literature, but incorporated evidence from other relevant disciplines, such as, transport, urban planning and education.

The report draws heavily on recent key publications addressing the issue of interventions on physical activity. For example, given the recent publication of a major systematic review undertaken in the USA (Kahn et al. 2002) and the availability of other recent reviews by leading experts in Australia (Bauman et al. 2002; Salmon et al. 2000), it was not necessary to repeat this work but rather include their findings and extend the search for evidence to fill missing gaps where possible.

The primary challenge in synthesizing the diverse literature was the development of a suitable summary matrix (Appendix 2). The final matrix aims to assist policy makers in their process of strategic planning for a comprehensive approach to raising levels of physical activity in Western Australia.

The format of the summary matrix is closely aligned with the previous work of the PATF and specifically the Strategic Direction Report and the identified five key outcome areas. It also specifically includes the proposed actions listed in the PATF 4 Year Plan. Where possible, published evidence on the effectiveness of these proposed strategies was summarised. In addition, the summary matrix includes evidence on other actions and strategies represented in the published research literature or underway in current practice.

Although there was adequate up-to-date information on what works and what doesn't across a number of areas, there are gaps in our knowledge. Selecting and implementing actions in these areas may still be recommended, particularly as demonstration projects, based on their potential impact and reach.

OUTCOMES

This report aims to:

- Provide recommendations on best practice across a wide range of potential interventions suitable for implementation in whole communities or in specific settings (e.g., work sites, health care sites, schools) aimed at whole populations or target priority groups such as children and youth, older adults;
- Provide recommendations on best practice for interventions aimed at the following key impact areas: awareness and education, skill development, social and physical environment, and policy;
- Provide information on key decision making criteria including reach, time needed to implement and cost;
- Provide evidence on both actions already proposed in the PATF 4 Year Plan as well as other strategies not included but for which there is published evaluation; and
- Identify the key players and potential partners from other sectors.

FACTORS FOR SUCCESS

The following 10 key principles should underpin the decision making process of selecting the best combination of strategies. These are derived from national and international experience of best practice models for physical activity.

- **Multi-Focus:** Select a mix of actions aimed at different settings and populations and key impact areas;
- **Impact:** Select and implement a combination of actions aimed at producing positive impact in both the short term and long term;
- **Multisectoral Approach:** Cooperation between and within a wide range of sectors including health, planning and infrastructure, sport and recreation and education;
- **Leadership:** Identify leadership for each specific action and provide leadership and coordination mechanisms across all actions;
- **Workforce Development:** Include actions aimed at developing and maintaining a committed and skilled workforce to implement actions;
- **Regional Involvement:** Identify actions that can be implemented or adapted for regional relevance;
- **Community Involvement:** Consider ways to maximise community engagement to build community support and ownership and thus the durability of increased levels of physical activity;

- **Communications:** Implement ongoing communication strategies aimed at parents and family, whole community, professional workforce and leadership;
- **Evaluation:** Maintain ongoing evaluation and monitoring of process and impact of PATF; and
- **Commitment:** Develop and secure a stable funding support base for core leadership and administration functions of the PATF, as well as each Government department represented on the Taskforce.

CURRENT CONTEXT OF THE PATF

The PATF was launched in June 2001 and provides the structural framework for integrated cross government action aimed at reversing the downward trend in levels of physical activity amongst Western Australians. Three subcommittees, the Evaluation and Monitoring Working Group, Local Government Working Group and the Communications Working Group exist and work to-date includes an adult survey on physical activity (completed), youth survey (commenced May 2003), pedometer project involving politicians and leading public figures in WA (completed), public awareness media campaign "Find 30", and a planned National Conference on Physical Activity (November 2003).

The Taskforce has been initiated during a time of significant structural reform across Government (e.g. Machinery of Government, Functional Review) and notable budgetary pressures. To date, these circumstances have reduced the capacity to direct new resources to support this policy area. In short, there remains considerable work to be done to achieve the necessary awareness of the impacts that will surface from the current trends of physical inactivity within the Western Australian community.

MODEL FOR BEST PRACTICE

The WA PATF Framework for Outcomes and Strategies (see Figure 1) is viewed nationally and internationally as a leading conceptual model for cross government approach to increasing levels of physical activity.

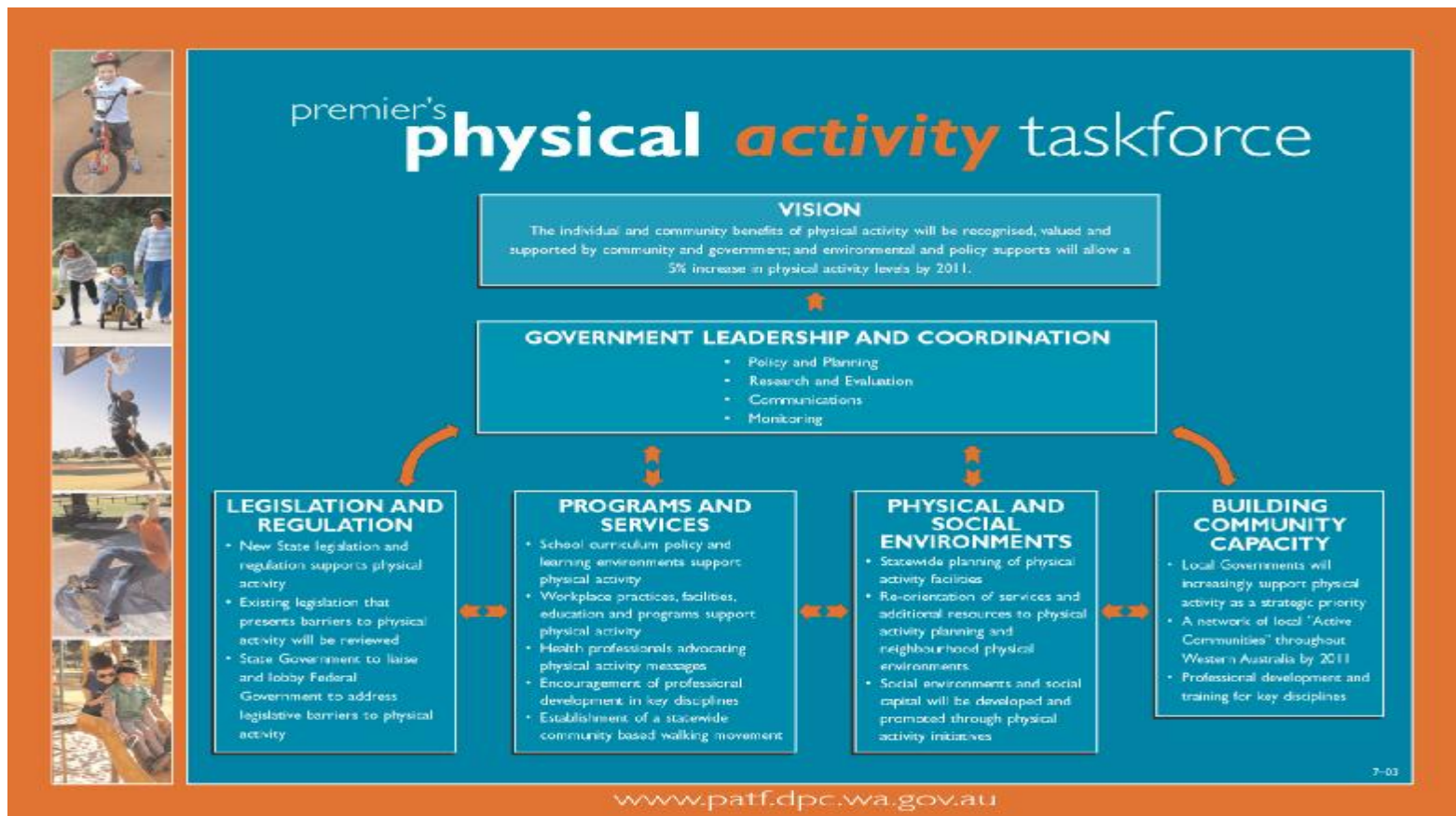


Figure 1: Western Australian PATF framework for outcomes and strategies

RECOMMENDATIONS

There is strong support from international and Australian experts on the need for a comprehensive, integrated cross government approach to physical activity with overarching activities addressing Government Leadership, Advocacy and Communication, Coordination, and Evaluation (WHO).

- **Recommendations on “State Government Leadership and Coordination” - Outcome Area 1 of the PATF Strategic Direction Report.** These recommended strategies will provide overarching support for, and maximise the effectiveness of PATF program actions.

1. Maintain commitment to communication and public relations activities using media, website, publications, presentations, sponsorship and other innovative strategies;
2. Continue cross government linkage through involvement and leadership in planning and implementing PATF actions, including communication initiatives, workforce development, and evaluation and monitoring. In particular, it would be highly desirable to identify one or two strategies that will develop and encourage true collaborative work between partners;
3. Maintain ongoing monitoring and evaluation of all PATF actions and progress towards key outcomes to assess short term and long-term impact;

- **Recommendations on “Building Community Capacity” - Outcome Area 2 of the PATF Strategic Direction Report.**

4. Implement training forums for key professionals across government to increase understanding of and commitment towards the objectives of the PATF and population-based approaches to increase PA;
5. Improve quality of planning and implementation of actions by PATF by providing increased knowledge, skills and commitment through workforce development e.g., for school and district teachers and administrators, for general practitioners, for sports leaders, coaches, for local government;
6. Develop and enhance capacity at the local level by supporting the development of local area “physical activity action plans” through partnerships between local and state government followed by collaboration on local area initiatives; and
7. Continue PATF linkage with relevant partners including the WA Pedestrian Advisory Committee and the WA Bicycle Committee.

Recommendations for Outcome Areas 3 to 5 of the PATF Strategic Direction Report

The summary matrix of evidence and best practice in Appendix 1 provides the key findings across a substantial list of strategies aimed at increasing physical activity. The following summary presents a short list of the key evidence-based recommendations with examples of relevant actions either already proposed in the PATF 4 Year Plan or actions identified as “recommended” or “strongly recommended” in the evidence base review.

Table 1 Recommended Actions to Build Supportive Physical and Social Environments (PATF Outcome Area 3)

| Action | Evidence Rating |
|---|------------------------------------|
| <ul style="list-style-type: none"> • Create or enhance access to places to be physically active combined with information activities aimed at increasing awareness, education and motivation | <p>Strongly recommended</p> |
| <p>Relevant Activities Proposed in the PATF 4 Year Plan include:</p> <p>Continue the expansion of the Perth Bicycle Network (PBN) and the expansion of country pathways</p> <p>School Design Processes - Implement principles that underpin the development of a school environment that promotes PA.</p> <p>Actions for consideration by PATF that are recommended in the literature:</p> <p>Design new and retro fit old communities to meet Livable Neighbourhoods Guidelines with mixture of housing density and 'mixed-use' zoning</p> <p>Design new and retrofit existing parks and open space to maximise use for physical activity</p> <p>Design new and retrofit existing school playgrounds to maximize use for physical activity</p> <p>Improve and maintain quality and safety of footpaths and pedestrian crossings</p> <p>Create and promote walking trails in close proximity to local communities</p> | |
| Action | Evidence Rating |
| <ul style="list-style-type: none"> • Social support interventions in community settings aimed at building social networks - these could include group activities, 'buddy' systems, behavioural contracts | <p>Strongly recommended</p> |
| <p>Relevant Activities Proposed in the PATF 4Year Plan include:</p> <p>Implement PA initiatives that build social capital, positive community relationships and cohesion and reducing social isolation (no specific programs listed)</p> <p>Actions for consideration by PATF that are recommended in the literature:</p> <p>Increase perceptions of safety for walking and cycling addressing known barriers such as road safety, cycle/path maintenance and upgrade programs, dog security</p> <p>Implement family based programs for parents and children aimed at increasing social support for increasing PA</p> <p>Implement programs to increase community participation and reduce social isolation, particularly in older adults; e.g., promote new and support existing walking groups; use of sponsorship</p> | |

Table 2 Recommended Program Actions (PATF Outcome Area 4)

| Action | Evidence Rating |
|---|------------------------------------|
| <ul style="list-style-type: none"> • Whole-of-Community Approach – involving multiple strategies implemented across different settings, aimed at selected sub-populations | <p>Strongly recommended</p> |
| <p>Relevant Activities Proposed in the PATF 4-Year Plan include:</p> <p>Communications: Implement mass media campaigns - targeting different age groups and sub-populations with a variety of PA messages (e.g., Find thirty, Cycle Instead, Walk There Today to Find thirty)</p> <p>Youth / School: Implement the Fundamental Movement Skills (FMS) Teacher Support Package for teachers of K to years 3</p> <p>Youth / School: Develop and implement modified PE curriculum resources to promote increased time being active in PE classes</p> <p>Alternative Transport: Implement Walking School Bus and TravelSmart programs (household, worksite and school-based) to increase awareness and skills in trip planning, incentives and behaviour change</p> <p>Adults: Implement strategies in partnership with General Practitioners such as, patient assessment and counseling on PA and other lifestyle risk factors using a "lifestyle prescription" e.g. SNAP</p> <p>Older Adults / Falls Prevention: Fund innovative and sustainable programs that promote physical activity aimed at the prevention of falls e.g., programs within SOYFWA</p> <p>Actions for consideration by PATF that are recommended in the literature:</p> <p>Whole Community: Implement "Point of decision" promotional materials to promote stair use</p> <p>Youth / School: Implement 'Safe Routes to School' initiatives</p> <p>Older Adults / Falls Prevention: Implement programs promoting strength and stability as well as walking aimed at the prevention of falls in adults aged over 65 years; targeting different settings (community dwelling, residential aged care and acute care)</p> | |

Table 3 Recommended Policy Actions (PATF Outcome Area 5)

| Action | Evidence Rating |
|---|-----------------------------|
| <ul style="list-style-type: none"> • Develop new policies to address and improve all factors associated with participation in physical activity in different populations | Strongly recommended |
| <p>Relevant Activities Proposed in the PATF 4-Year Plan include:</p> <p>Conduct a review across government of existing legislation and regulations aimed at assessing the impact on and potential scope to improve levels of physical activity.</p> <p>Promote and facilitate implementation of planning policies from a pedestrian perspective.</p> <p>Establish a Physical Activity Impact Assessment; link with other new or existing impact assessment procedures such as health impacts, sustainability agenda.</p> <p>Promote policies and regulations which facilitate bike use and pedestrian access in urban environments.</p> <p>Develop whole-of-school approaches to strengthen physical activity outcomes for students.</p> <p>Actions for consideration by PATF that are recommended in the literature:</p> <p>Implement school PE curriculum policy aimed at increasing time spent being active in PE Class</p> <p>Revise existing design guidelines / requirements to ensure all new public buildings have easy access to stair wells</p> | |

Recommended Unifying Theme for 2004/2005

Walking is the most common form of physical activity in adults. A cross government **WA Walking Strategy** could incorporate a selected number of recommended actions stated above under a unifying theme. A WA Walking Strategy would be consistent with the objectives of a number of government agencies.

There is strong evidence that success in increasing levels of physical activity is dependent on simultaneous efforts aimed at awareness and education, skill development, and a supportive social and physical environment implemented in synergy over a sustained period of time. Isolated or sporadic actions will not facilitate achieving the PATF's goals.

Modification of existing, and development of new policies across all government areas that have an impact on the provision of, or support for physical activity, will determine the long-term durability of programs and maintenance of increases in levels of physical activity in Western Australia.

Recommendations for PATF Grant Schemes

The PATF 4 Year Plan highlighted several proposed grant scheme projects. In addition to the recommendations made above, below are additional suggestions for specific strategies or general areas that could be the focus of such schemes:

School/Community Partnership Grants

Support applications that aim to develop, implement or disseminate programs with a clear focus on

- Adolescents, in particular girls;
- Enhancing enjoyment of physical activity;
- Improving school-community links for the successful transition of students from school to community-based activities; and
- Increasing opportunities for physical activity in out-of-school hours through school/community partnerships.

Local Activity Grants Program

- Developing local area “physical activity action plans”;
- Projects that place emphasis on the building of positive community relationships, community cohesion and trust;
- Strategies aimed at improving the safety and perceptions of safety for walking and cycling (addressing key barriers such as road safety, pedestrian crossings, shared paths and footpath maintenance and upgrade programs, and care of dogs programs);
- Design new and retrofit old parks, open space and school playgrounds to maximise use for physical activity; and
- Efforts to build and maintain footpaths, shared use paths and trails.

Recommendation for Future Research

The tables of evidence (Appendix 2) show the current knowledge base of what works across a range of settings and populations. The findings illustrate the clear need for further research to enable better decision making and resource allocation towards actions aimed at increasing levels of physical activity.

In all but a few areas there is a need for more research along the continuum of efficacy studies (showing that strategies work under ideal conditions), effectiveness studies (showing that strategies can work under usual “real world” conditions), demonstration projects and dissemination projects (research on implementation on a broad scale). Cost effectiveness studies also remain a high priority.

Although it would be ideal to base decisions on strong evidence from across the continuum of research, for each strategy this is unrealistic. Research should be encouraged to address the critical gaps in knowledge with the appropriate study design. An excellent list of recommended research areas can be found in *Getting Australia Active* (Bauman et al. 2002) and in an article in the *American Journal of Preventive Medicine* (Kahn et al. 2002).

APPENDIX 1

ACRONYM LIST

| | |
|--------|--|
| PATF | Premier's Physical Activity Taskforce |
| PA | Physical Activity |
| SIGPAH | Strategic Inter-Governmental forum on Physical Activity and Health |
| DOH | Department of Health |
| DSR | Department of Sport and Recreation |
| DPI | Department for Planning and Infrastructure |
| DOE | Department of Education |
| DPC | Department of the Premier and Cabinet |
| WAPAC | Western Australian Pedestrian Advisory Committee |
| WAGPAC | Western Australia General Practice Advisory Council |
| SIGNAL | Strategic Inter-Governmental Nutrition Alliance |
| NGO's | Non-government Organisations |
| NHF | National Heart Foundation |
| Cancer | Cancer Foundation of Western Australia |
| GPs | General Practitioners |
| LG | Local Government |
| WALGA | Western Australia Local Government Association |
| MRWA | Main Roads Western Australia |
| CSRFF | Community Sport and Recreation Facilities Fund |
| DEP | Department of Environmental Protection |
| RADGPS | Royal Australian Division of GPs |
| SNAP | Smoking Nutrition, Alcohol, Physical Activity (SNAP- a framework for supporting General Practice through integrated approaches to behavioural riskfactor management) |
| SOYFWA | Stay On Your Feet WA – an initiative of the Department of Health |

APPENDIX 2

Summary Matrix of Evidence of Best Practice on Interventions aimed at Physical Activity

KEY TO ACCOMPANY THE SUMMARY MATRIX

Cost:

\$=under 50K;
\$\$= 50-100K;
\$\$\$=100K-2000K; and
\$\$\$\$=>2000K.

Time frame:

ST = within 1 year;
MT = 1-2 years; and
LT = >2 years.

Potential durability of outcome over time without ongoing input of resources:

Low = least likely to lead to long lasting / sustained increases in behaviour;
Medium = more likely to lead to long lasting / sustained increases in behaviour; and
High = most likely to lead to long lasting / sustained increases in behaviour.

| OUTCOME 3. Physical and Social Environment | | | | | | | | | |
|---|---|--|--|--|-------------------------------------|---|-----------------------|---|-------------------------------|
| | Actions Proposed in PATF 4 Year Plan | Actions & Interventions assessed in the published literature | Type and scope of supporting evidence* | Target Population of Intervention | Timeframe for Implementation | Potential durability of outcome over time without ongoing input of resources | Potential Cost | Recommendation for Implementation with evaluation of impact | Potential Partnerships |
| Physical Environment | | Create or enhance access to places to be physically active combined (e.g., public areas) with information activities aimed at increasing awareness, education and motivation | Findings from a number of studies overseas and in Australia show strong association with need for 'destinations' | Whole - community | ST-MT | High | \$\$ -\$\$\$\$ | A2 Probable benefit therefore Recommended for implementation with evaluation | LG, DPI, DSR, WALGA, DOH |
| | | Design new and retro-fit old communities to increase street connectivity / permeability | Findings from a number of cross sectional studies overseas and in Australia showing strong association as well as case study examples of local changes Australia | Whole - community | LT | High | \$\$ - \$\$\$\$ | A2 Probable benefit therefore Recommended for implementation with evaluation | DPI, DOE |
| | Design new and retro fit old communities to meet Livable Neighbourhoods Guidelines with mixture of housing density and 'mixed-use' zoning | | Findings from a number of cross sectional studies overseas and in Australia assessing the association between PA and characteristics similar to those included in WA Livable Neighbourhood | Whole - community | ST - LT | High | n/a | A2 Probable benefit therefore Recommended for implementation with evaluation | DPI, LG, WALGA |
| | Continue the expansion of the Perth Bicycle Network (PBN) and the expansion of country pathways | | Findings from a number of similar projects overseas (mostly Europe) and in Australia | Whole - community | ST - ongoing | High | \$\$\$\$ | A2 Probable benefit therefore Recommended for implementation with evaluation | DPI |

| Actions Proposed in PATF 4 Year Plan | Actions & Interventions assessed in the published literature | Type and scope of supporting evidence* | Target Population of Intervention | Timeframe for Implementation | Potential durability of outcome over time without ongoing input of resources | Potential Cost | Recommendation for Implementation with evaluation of impact | Potential Partnerships |
|--|---|--|------------------------------------|------------------------------|--|-----------------|---|------------------------|
| Assess implementation of standards for access to local physical infrastructure | | Industry Best Practice Guidelines | Whole - community | ST - ongoing | High | \$\$-\$ | B Insufficient evidence to conclude | DSR, LG |
| Assess best practice in facility development and management | | Industry Best Practice Guidelines | Whole - community | ST - ongoing | Medium | \$\$-\$ | B Insufficient evidence to conclude | DSR, LG |
| | Design new and retro-fit existing parks and open space to maximise use for physical activity | Results from a small number of observational studies | Whole - community | MT-LT | High | \$\$\$\$- | A3 Possible benefit therefore Recommended for implementation with evaluation | LG, DSR, DPI |
| | Build dedicated walking trails | Findings from a number of demonstration and intervention studies overseas | Whole - community | MT | High | \$\$ - \$\$\$\$ | A2 Probable benefit therefore Recommended for implementation with evaluation | LG, DPI |
| | Improve and maintain footpaths | Results from a number of cross sectional and qualitative (focus group) studies | Whole - community | ST - ongoing | Medium | \$\$ - \$\$\$\$ | A2 Probable benefit therefore Recommended for implementation with evaluation | DPI, LG |
| | Implement strategies to increase perceptions of safety (addressing key barriers such as road traffic, dogs and strangers) | Findings from a number of quantitative (focus group) and qualitative studies overseas and in Australia | Whole - community | ST-MT | Medium | \$\$ - \$\$\$ | A2 Probable benefit therefore Recommended for implementation with evaluation | DPI, DOH, LG |
| School Design Processes - Implement principles that underpin the development of a school environment that promotes PA. | Provide supportive environment for PA in school | Qualitative research and Expert Opinion based on Local and Overseas Experience | School-based youth and adolescents | ST - LT | High | \$\$ - \$\$\$ | B Insufficient evidence to conclude | DOE, DOH, DSR |

| | Actions Proposed in PATF 4 Year Plan | Actions & Interventions assessed in the published literature | Type and scope of supporting evidence* | Target Population of Intervention | Timeframe for Implementation | Potential durability of outcome over time without ongoing input of resources | Potential Cost | Recommendation for Implementation with evaluation of impact | Potential Partnerships |
|---|--|---|---|---|------------------------------|--|-----------------|--|------------------------|
| | | Promote the provision of end-of-trip facilities in workplaces (e.g., showers, change facilities) | Qualitative research and Expert Opinion based on Local and Overseas experience including "Travelsmart" workplace programs | Workforce | MT - LT | High | \$\$ | A2 Probable benefit therefore Recommended for implementation with evaluation | Industry, DOH, |
| Social Environment | | | | | | | | | |
| | Implement initiatives that place emphasis on building social capital, positive community relationships and cohesion and reducing social isolation; [examples could include walking groups; sponsorship programs to increase community participation] | Social support interventions in community settings - aimed at building social networks could include group activity, "buddy" systems, behavioural 'contracts' | Systematic Review of intervention trials | Whole - community | ST | Low | \$ - \$\$\$ | A2 Probable benefit therefore Recommended for implementation with evaluation | DOH, DSR, LG |
| | | Family based programs for parents and children aimed at increasing social support for increasing PA | Systematic Review of intervention trials and consistency with potential nutrition and obesity related agenda | School-based youth and adolescents and parents / caregivers | MT | Low | \$-\$\$\$ | A3 Possible benefit therefore Recommended for implementation with evaluation | DOH, DSR, LG |
| OUTCOME 4. Programs and Services | | | | | | | | | |
| Whole Community | | | | | | | | | |
| Combined Program Approach | Implement a PATF Walking Strategy with local community, school and workplace based initiatives | Whole-of-Community campaigns - multiple strategies in different settings, aimed at various sub-populations | Systematic Review | Whole community | ST-MT | Medium | \$\$ - \$\$\$\$ | A1 Good evidence of benefit therefore Strongly Recommended for implementation with evaluation | DOH, DSR, DPI, LG, DOE |

| | Actions Proposed in PATF 4 Year Plan | Actions & Interventions assessed in the published literature | Type and scope of supporting evidence* | Target Population of Intervention | Timeframe for Implementation | Potential durability of outcome over time without ongoing input of resources | Potential Cost | Recommendation for Implementation with evaluation of impact | Potential Partnerships |
|--|--|--|---|-----------------------------------|------------------------------|--|----------------|---|------------------------|
| Communication, Advocacy and Awareness | Mass media campaigns - targeting different age groups and sub-populations with PA messages | Mass media campaigns | Quantitative research assessing changes in awareness based on Local and Overseas Experience | Whole - community | ST | Low | \$\$\$\$ | A1 Convincing evidence of impact on increasing awareness therefore Strongly Recommended but not recommended to increase behaviour | DOH, DSR, DPI, DOE |
| | Support the "Find 30" message through a campaign and support materials that target all staff in government schools. / Develop a PA communication strategy for Government schools | | Expert Opinion | Education / school workforce | ST | Low | \$ - \$\$\$ | A2 Probable benefit therefore Recommended to increase awareness but not recommended to increase behaviour | DOH, DOE |
| | Increase employees' and employers' awareness of the core messages that support physical activity. | | Expert Opinion | Workforce | ST | Low | \$ - \$\$\$ | A2 Probable benefit therefore Recommended to increase awareness but likely to have limited effect on long term increases in behaviour | DOH, Industry |
| | Cycle Instead program - awareness and educational program aimed at encouraging cycling as a recreational and transport option | | Quantitative research assessing changes in awareness based on Local and Overseas Experience | Whole Community | ST - ongoing | Low | \$ - \$\$\$ | A2 Probable benefit therefore Recommended to increase awareness but not recommended to increase behaviour | DPI, LG, DSR, DOH |

| | Actions Proposed in PATF 4 Year Plan | Actions & Interventions assessed in the published literature | Type and scope of supporting evidence* | Target Population of Intervention | Timeframe for Implementation | Potential durability of outcome over time without ongoing input of resources | Potential Cost | Recommendation for Implementation with evaluation of impact | Potential Partnerships |
|-----------------|---|---|---|---|------------------------------|--|----------------|---|------------------------|
| | Walk There Today - a program of promotional activities aimed at raising awareness and encouraging walking as a recreational and healthy local transport option | Walk to Work Day | Expert Opinion based on Local and Overseas Experience | Whole Community | ST - ongoing | Low | \$ | A2 Probable benefit therefore Recommended to increase awareness but not recommended to increase behaviour | DPI, LG, DSR, DOH |
| Programs | | Individually-adapted community-based health behavior change programs often including educational sessions and based on behavioural theory | Systematic Review of intervention research | Usually targeted at sub populations in the community, reach depends on access and provision | ST | Low | \$ - \$\$\$ | A1 Good evidence of benefit therefore Strongly Recommended for implementation with evaluation | DOH, DSR, LG |
| | | "Point of decision" promotional materials to promote active option e.g., stair use | Systematic Review of intervention research | Whole community | ST | Medium | \$ - \$\$ | A1 Good evidence of benefit therefore Strongly Recommended for implementation with evaluation | DOH, DSR, DPI, LG, DOE |
| | "TravelSmart" (household) - an individualised educational program including awareness, motivational interviewing, skills in trip planning and incentives | | Independent evaluation of demonstration projects in WA and overseas | Whole community | ST - ongoing | Medium | \$\$\$\$ | A1 Good evidence of benefit therefore Strongly Recommended for implementation with evaluation | DPI, DOH |
| | Club Development Scheme - aimed at improving community based sporting clubs management and function aimed at increasing levels of participation | | No specific literature found | | ST - ongoing | Medium | \$\$\$ | B Insufficient evidence to conclude | DSR, LG, DOH |

| | Actions Proposed in PATF 4 Year Plan | Actions & Interventions assessed in the published literature | Type and scope of supporting evidence* | Target Population of Intervention | Timeframe for Implementation | Potential durability of outcome over time without ongoing input of resources | Potential Cost | Recommendation for Implementation with evaluation of impact | Potential Partnerships |
|--|---|--|--|---|------------------------------|--|----------------|---|------------------------|
| Youth and Schools | | | | | | | | | |
| Communication, Advocacy and Awareness | | Provision of information materials on PA to parents | Small number of research projects | School-based youth and adolescents and parents / caregivers | ST | Low | \$ - \$\$\$ | B Insufficient evidence to conclude | DOE, DOH, DSR, LG |
| Curriculum-based initiatives | Undertake formative research and develop curriculum resources to promote PA for children. | Implement modified PE curriculum aimed at increasing time spent being active during PE Classes | Systematic Review of intervention research | School-based youth and adolescents | ST | Medium | \$ - \$\$\$ | A1 Good evidence of benefit therefore Strongly Recommended for implementation with evaluation | DOE, DOH, DSR |
| | Continue and build on existing work in implementing the Fundamental Movement Skills (FMS) Teacher Support Package for teachers of K to years 3. | Implementation of Fundamental Movement Skills in Primary Schools | Expert Opinion based on Local and Overseas Experience | Primary school children | ST - ongoing | Medium | \$\$ - \$\$\$ | A2 Probable benefit therefore Recommended for implementation with evaluation | DOE, |
| | | Classroom based health education focussed on reducing TV watching and video playing including a "turn off TV" challenge; | Small number of intervention studies undertaken overseas | School-based youth and adolescents | ST | Medium | \$\$ - \$\$\$ | A2 Probable benefit therefore Recommended for implementation with evaluation | DOE, DOH |
| | | Classroom based health education focussed on information provision and skills related to decision making | Small number of intervention studies undertaken overseas | School-based youth and adolescents | ST | Medium | \$ - \$\$\$ | B Insufficient evidence to conclude | DOE, DOH |

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|-------------------------------|---|--|--|---|-------------------------------------|---|-----------------------|---|-------------------------------|
| | Promote activities for all age groups, with a specific focus on adolescents | Develop PA programs with a focus on adolescents, in particular girls | Expert Opinion | Adolescent girls | ST | Low | \$ - \$\$\$ | A3 Possible benefit therefore Recommended for implementation with evaluation | DOE, DOH, DSR, LG |
| | | Emphasise participation and enjoyment in PA rather than competition | Expert Opinion | School-based youth and adolescents | ST | Medium | \$ - \$\$ | A2 Probable benefit therefore Recommended for implementation with evaluation | DOE, DSR, LG |
| | "TravelSmart" schools program - an education program with behaviour change school challenge - curriculum and student-led activities | | Expert Opinion based on Local Experience | School-based youth and adolescents and parents / caregivers | ST - ongoing | Medium | \$\$ - \$\$\$ | A3 Possible benefit therefore Recommended for implementation with evaluation | DPI, DOE, DOH |
| School-community links | Walking School Bus - a program aimed at parents to initiate and lead walk to school routes | Provide environment for alternative modes of transport - walking/cycling to school | Evaluation of demonstration projects in Australia and overseas | School-based youth and adolescents and parents / caregivers | ST | Medium | \$ - \$\$ | A2 Probable benefit therefore Recommended for implementation with evaluation | DPI, DOE, DOH, DSR, LG |
| | Increase physical activity opportunities through school/community partnerships out of school hours. | Improve school-community links for the successful transition of students from school to community-based activities | No specific literature found | School-based youth and adolescents | ST - MT | Medium | \$ - \$\$\$ | A3 Possible benefit therefore Recommended for implementation with evaluation | DOE, DSR, LG, DOH |
| | Implementation of physical activity initiatives in partnerships with local governments and community groups (metro and country) | Examine opportunities for collaboration with local government/community youth groups | No specific literature found | School students/work force and community | ST - MT | Medium | \$ - \$\$ | A3 Possible benefit therefore Recommended for implementation with evaluation | |

| | Actions Proposed in PATF 4 Year Plan | Actions & Interventions assessed in the published literature | Type and scope of supporting evidence* | Target Population of Intervention | Timeframe for Implementation | Potential durability of outcome over time without ongoing input of resources | Potential Cost | Recommendation for Implementation with evaluation of impact | Potential Partnerships |
|------------------|---|---|---|-------------------------------------|------------------------------|--|----------------|--|--|
| | | College (university) based health education curriculum and supervised physical activity classes | Small number of intervention studies undertaken overseas | Tertiary-based young adults | LT | Low | \$ - \$\$ | C. Evidence of lack of benefit | |
| | | Promotion of PA at tertiary education institutions | Small number of intervention studies undertaken in Australia and overseas | Tertiary students and workforce | ST | Low | \$ - \$\$ | B Insufficient evidence | |
| | Work with the Royal Australian Division of GPs and investigate establishment of 3 Step Plan for physical activity included in schedule of fees. | Patient assessment and counselling on PA by GP, often using a "lifestyle prescription" | Systematic Review | General Practice Patient population | ST-MT | Medium | \$\$ - \$\$\$ | A1 Good evidence of short term benefit therefore Recommended for implementation with evaluation | DOH, Commonwealth Dept of Health, Dept of General Practice, RACGP, Divisions of GP WA, LG |
| | | Patient assessment and counselling on PA by practice nurse or allied health practitioner | Small number of intervention studies undertaken in Australia and overseas | General Practice Patient population | MT | low | \$\$ - \$\$\$ | A3 Possible benefit therefore Recommended for implementation with evaluation | DOH, Commonwealth Dept of Health, Dept of General Practice, RACGP, Divisions of GP WA, allied health professionals, LG |
| Workplace | | | | | | | | | |
| | | One-on-one or small group educational and motivational programs in worksites | Systematic Review of intervention research | Workforce, | ST - MT | low | \$ - \$\$\$ | B Insufficient evidence | DOH, LG, DSR |

| | Actions Proposed in PATF 4 Year Plan | Actions & Interventions assessed in the published literature | Type and scope of supporting evidence* | Target Population of Intervention | Timeframe for Implementation | Potential durability of outcome over time without ongoing input of resources | Potential Cost | Recommendation for Implementation with evaluation of impact | Potential Partnerships |
|---------------------------------|---|---|---|------------------------------------|------------------------------|--|----------------|--|-------------------------|
| | Implementation of work-based physical activity initiatives in partnerships with peak bodies, unions and employers. Grants may be offered to encourage initiatives. | Programs of activity offered through the workplace - often group activities | No specific literature found with partnership; systematic reviews of employer provided workplace programs | Workforce | ST - MT | low | \$\$ - \$\$\$ | A3 Possible benefit therefore Recommended for implementation with evaluation | |
| | "TravelSmart" Workplace Program - a comprehensive program addressing awareness and education among employees and supportive policies and environment in the workplace | | Expert Opinion based on Local Experience | workforce | ST - ongoing | medium | \$\$ - \$\$\$ | A3 Possible benefit therefore Recommended for implementation with evaluation | DPI, Industry, DOH, DSR |
| Older Adults | | | | | | | | | |
| | Fund local innovative and sustainable programs that promote physical activity for falls prevention e.g., SOYFWA | Programs promoting strength and stability and falls prevention, such Tai Chi; target different settings (community dwelling, residential aged care, and acute care) | Systematic Review | Older adults | ST - ongoing | Low | \$ - \$\$\$ | A1 Good evidence of benefit therefore Strongly Recommended for implementation with evaluation | |
| People with Disabilities | | | | | | | | | |
| | | Home-based resistance training for people with a disability | Small number of intervention studies | People with disability | ST | Low | \$ - \$\$ | B Insufficient evidence | |
| OUTCOME 5. Policy | | | | | | | | | |
| | Develop whole-of-school approaches to strengthen physical activity outcomes for students | Develop policies to address and improve all factors relating to PA | National and International Expert Opinion | School-based youth and adolescents | LT | High | \$\$-\$\$\$\$ | A2 Probable benefit therefore Recommended for implementation with evaluation | |

| Actions Proposed in PATF 4 Year Plan | Actions & Interventions assessed in the published literature | Type and scope of supporting evidence* | Target Population of Intervention | Timeframe for Implementation | Potential durability of outcome over time without ongoing input of resources | Potential Cost | Recommendation for Implementation with evaluation of impact | Potential Partnerships |
|--|--|---|------------------------------------|------------------------------|--|----------------|---|------------------------|
| Leadership in policy initiatives within DOH that address existing regulations relating to PA within the workplace. | | No specific literature found | Workforce | ST | High | - | B Insufficient evidence | |
| Include moderate intensity 30 minutes of physical activity in Occupational Health and Safety policies and workplace plans. | | No specific literature found | Workforce | MT - LT | High | - | B Insufficient evidence | |
| School PE curriculum policy aimed at increasing time spent being active in PE Class | | National and International Expert Opinion | School-based youth and adolescents | MT - LT | High | - | A1 Good evidence of benefit therefore Strongly Recommended for implementation with evaluation | |
| Review of existing legislation and regulations at all levels of government to assess impact on physical activity | | National and International Expert Opinion | Whole Community | ST | NA | - | A2 Probable benefit therefore Recommended for implementation with evaluation | |
| Develop protocols for new legislation and regulations to ensure positive physical activity impact. | | National and International Expert Opinion | Whole Community | MT | High | - | A2 Probable benefit therefore Recommended for implementation with evaluation | |
| Promote and facilitate implementation of planning policies from a pedestrian perspective. | | National and International Expert Opinion | Whole Community | ST - LT | High | - | A2 Probable benefit therefore Recommended for implementation with evaluation | |
| Promote polices and regulations which facilitate bike use and pedestrian access in urban environments. | | National and International Expert Opinion | Whole Community | ST - LT | High | - | A2 Probable benefit therefore Recommended for implementation with evaluation | |

| | Actions Proposed in PATF 4 Year Plan | Actions & Interventions assessed in the published literature | Type and scope of supporting evidence* | Target Population of Intervention | Timeframe for Implementation | Potential durability of outcome over time without ongoing input of resources | Potential Cost | Recommendation for Implementation with evaluation of impact | Potential Partnerships |
|--|--|---|---|--|-------------------------------------|---|-----------------------|---|-------------------------------|
| | Develop policy to facilitate the development of sustainable communities (Liveable Communities) | | Findings from cross sectional studies and National and International Expert Opinion | Whole Community | ST - ongoing | High | - | A2 Probable benefit therefore Recommended for implementation with evaluation | |
| | Develop a strategy for regional planning in the South West Urban System (Greater Perth) | | No specific literature found | Whole Community | ? | High | - | Na | |

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