



FORGING AHEAD: WHAT WORKS



Effective communication strategies

The emphasis of public health within society, and the considerable resources allocated to it, has typically focused on interventions to change individual lifestyle behaviours, with less attention given to interventions that change the social and physical environment or government directed policy.¹ The problem with such an emphasis is that the bulk of resources attempt to change the minority of the population as opposed to the majority. A shift in focus to environmental or policy related interventions may prove to be more cost-effective overall, as behaviour shifts (even if small) of the majority population could outweigh those of the minority population in terms of the impact on such things as health benefits and related health care costs. This approach can be applied to the promotion of increased physical activity. Changes to increase support of social and physical environmental (in all key setting - work, school, home, health care, and in the community) and policy interventions at a governmental level that address risk factors, barriers, and inequities in society will inevitably contribute to behaviour change among individuals. A combination of these types of interventions may prove useful.

These types of interventions were evaluated in a systematic review of interventions for increasing physical activity, undertaken by the Task Force on Community Preventive Services in the United States (supported by the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention). This review systematically examined the extensive studies available in the literature and determined the effectiveness of the interventions. The Task Force concluded that three types of interventions are *highly recommended* or *recommended* as effective.^{2,3} These include informational interventions, environmental and policy interventions, and social and behavioural interventions with the purpose of increasing physical activity. Within each of these three broad sections, six specific interventions are recommended. They are further discussed in the following summary, along with how they can relate to the key settings of home, school, work, community, and the health system.

Informational interventions to increasing activity

Informational approaches to increasing activity involve the provision of information with the ultimate goal of increasing awareness about physical activity and its benefits and motivating the public. This can include general information, information about the benefits of physical activity, skill development, information on where, when, why, or how to be active and so on. Within this approach, the Task Force on Community Preventive Services recommended two interventions as effective for increasing activity. These are:

Point-of decision prompts

These interventions prompt individuals to make an active choice over a less active choice at key locations, such placing prompts at elevators to promote increased stair use. The studies reviewed demonstrated the effective use of prompts in a variety of settings. This recommendation was reflected in the development of the initiative entitled, *Stairway to Health*, developed by the Public Health Department of the City of Ottawa. In 2003, Health Canada and the Canadian Council for Health and Active Living at Work launched the *Stairway to Health* program, as a promotion to motivate physical activity in the

workplace. Their web site ([http://www.hc-sc.gc.ca/pphb-dgspst/sth-
evs/english/index.htm](http://www.hc-sc.gc.ca/pphb-dgspst/sth-
evs/english/index.htm)) provides promotional material including brochures and posters, information on the benefits of physical activity, resources, research, case and success studies, and tools for planning, budgeting, and evaluating purposes. Recent data from the Canadian Fitness and Lifestyle Research Institute reveal that although half of Canadian companies report that they have easily accessible stairwells, a mere 6% of companies actually post signs to encourage the use of stairs. This is an intervention that can easily be adopted by workplaces at a relatively low cost, as only print material is required. Due to the fact that most working Canadians (74%) are aware that their workplace has easily accessible stairs,⁴ this may be an effective environmental approach to promote activity among the majority of the population, leading to sizable public health returns.⁵ Promoted stair use can result in a 6-15% increase in stair use,⁵ and it can also provide an easy way to build incidental activity into the daily lifestyle of most Canadians. **Error! Bookmark not defined.** Therefore:

- ✓ Make changes in the environment that do not require individuals to make “active” decisions.⁶ These types of passive or point-of-decision interventions can include making stairs accessible, attractive, and convenient. This can be used in a variety of settings including workplaces, educational facilities, shopping malls, libraries, or in the built environment of the community.
- ✓ Post motivational signage encouraging stair use nearby elevators and escalators.⁷
- ✓ Designate streets in local communities as walking or bicycling only, and encourage mixed land use (business, residential, shopping, etc.) in new community developments, thereby promoting commuting actively to local facilities.⁶

Community wide campaigns

These strategies can involve multiple components, including individually targeted components, education, and environmental components. Although they can include the promotion of physical activity messages through media, including television, radio, print material and internet, an important dimension of these types of interventions is that they may include components such as counselling, trail and facility promotion, or promotion and development of community events.

Provincial and territorial governments have adopted strategies involving these components (see examples in the previous section in this report entitled “Samples of current communications strategies by governments”). In addition, the federal, provincial and territorial governments are currently developing an Integrated Pan-Canadian Healthy Living Strategy (see http://www.hc-sc.gc.ca/english/lifestyles/healthyliving/pdf/hl_backgrounder.pdf). This Healthy Living Strategy is a framework examining several health issues, including physical activity, healthy eating, and healthy weights. Essentially, the goal of this strategy is to improve the health of Canadians by encouraging positive health decisions through supports in the social, economic and physical environment.⁸ Effective community-wide campaigns can include:

- ✓ Promote community wide campaigns through television, radio, newspaper, or movie trailers.
- ✓ Invest significant funds for creating a comprehensive Physical Activity Strategy including public education campaigns for increasing physical activity, similar to the \$500 million invested for public education of tobacco cessation. This figure has been recommended by the Coalition for Active Living.⁹
- ✓ Integrate a research and surveillance system to understand effective strategies and Canadians trends in physical activity and to incorporate these into policy, plans and practice to increase physical activity.
- ✓ Produce messages that are appropriate to specific populations (e.g., gender-, cultural-, age-, location-based).
- ✓ Use technology when implementing physical activity interventions. For national and provincial governments and organizations who promote population-based interventions, it is important to communicate cost effectively to a population.¹⁰ An effective strategy for communicating with the population, especially those who are insufficiently active, may be to use a “proactive” approach, directly contacting individuals and offering a particular service, through the Internet.
- ✓ Address barriers to physical activity, including those specific to key settings.
- ✓ Emphasize the common health benefits of physical activity, including current awareness of its role in longer life expectancy, reduced chronic diseases, better self-esteem, and feeling healthy, energized, revitalized and less stressed.
- ✓ Understand which activities and what characteristics of these activities are perceived as being fun for different target groups within the population (see earlier topics in this report “Popular activities among adults”, “Popular activities among youth”). Promote those aspects that are universal in broad-based campaigns, and promote more population-specific aspects through targeted and customized communications.
- ✓ Promote those immediate aspects of physical activity that make it a pleasant experience such as enjoyable scenery, increased feelings of energy and reduced feelings of stress.
- ✓ Stress the importance of incorporating physical activity into everyday routines in order to reduce the perception of physical activity as inconvenient, boring, painful, or difficult (see topic entitled “Attitudes towards physical activity” in this report).
- ✓ Promote community-wide coalitions (including parks and recreation and public health departments, schools, YW-YMCA, community centres, hospitals, etc.) to integrate physical activity opportunities into a variety of systems.

- ✓ Use a multi-component strategy that includes the generation of, or increased access to, suitable places for physical activity, combined with educational outreach activities.
- ✓ Link Canadians to appropriate resources, including leisure guides, calendars, toolkits, web sites that describe the physical activity opportunities available locally, and telephone numbers providing information on current programs and registration details.

Social and behavioural interventions to increasing activity

Social and behavioural interventions focus on providing a social environment which is supportive of physical activity. These social supports can manifest themselves in the home (family, friends), workplace (co-workers and managers), community (friends, neighbours), school (school mates, teachers, counsellors), and health care system (physician, other health care professionals). The Task Force recommends that three interventions are effective for increasing physical activity.

School-based physical education

Schools play an important role in promoting physical activity through physical education, physical activity programming and other curricula. A school environment that is nurturing and supportive of physical activity would provide support and foster activity among children and youth.

- ✓ Ensure that physical education programs are taught by physical education specialists or other teachers qualified through appropriate training in physical education.
- ✓ Ensure physical education programs increase time spent in activities that have a moderate or vigorous intensity. This may include the substitution of more active activities for those requiring less activity.
- ✓ Promote physical activity programs and physical education classes that teach lifelong skill-building and confidence-building behaviours to children and youth,¹¹ including decision-making skills, teamwork, discipline, leadership, self-esteem, equity, lifelong physical activity, participation, and fair play.
- ✓ Provide a variety of activities including both structured and non-structured types of activities as well as competitive and non-competitive activities. This will encourage participation by children of all skill, development, and confidence levels, and will promote lifelong physical activity. This is particularly important for preadolescent and adolescent girls.¹²
- ✓ Provide more opportunities at recess to increase children's physical activity levels. Research shows that children spend much of their recess time being inactive.¹³ This research also suggests that modifications to school policies—such as increasing the frequency of recesses, providing suitable facilities, and educating staff to prompt physical activity—may contribute to higher physical activity levels.

- ✓ Provide adequate training for personnel who teach physical activity to students.
- ✓ Encourage school personnel to be physically active during recess, lunch hours, and before and after school.
- ✓ Encourage and provide examples of physical activity relevant to different sexes, cultures and abilities or disabilities.¹⁴ Ensure that students participating in physical activity programs are free from discrimination, harassment, and intimidation.¹⁵
- ✓ Establish policies which ensure availability of appropriate facilities, equipment, supplies, and supervision for physical activity to support the physical activity needs of all students.¹²
- ✓ Ensure a variety of facilities, as a lack of facilities are considered a barrier to the participation of adolescents in physical activity. The physical activity of children is positively related to the access to convenient spaces, facilities and equipment.¹⁶
- ✓ Ensure that the spaces and facilities for physical education and physical activity are safe, clean and well lit. Also, ensure that the facilities and equipment, including playgrounds and gymnasiums, meet current safety regulations.

Social support interventions in community settings

Social support within the community plays a very important role in building, supporting and maintaining the physical activity of Canadians. Support can include partnerships or linkages with facilities and programs available in the community, local physical activity and sports organizations and workplace supports.

- ✓ Encourage Canadians to establish a buddy system to support each other when participating in physical activities.¹⁴
- ✓ Promote the social benefits of physical activity—such as the opportunity to participate in physical activity with other individuals and to enjoy the social interaction with members of physical activity groups, such as a walking or hiking clubs—particularly to older adults and women.
- ✓ Provide outreach to individuals who do not currently participate in company physical activity programs.¹⁷
- ✓ Determine why employees do not engage in workplace physical activity programs.
- ✓ Encourage role modeling of active behaviour. Such role models include managers in the workplace, teaching staff and personnel in the school system, or parents at home.

- ✓ Provide social rewards or reinforcement for Canadians who participate in physical activities. This can include a public event, verbal praise, success stories on appropriate web resources, or a bulletin board at work or school.

Individually adapted health behaviour change

Interventions focusing on individual-based behaviour change provide instruction and skills development to enable people to incorporate desired behaviours into their life. It is based on specific interest, motivation, and readiness to change behaviour. **Error!**

Bookmark not defined. To facilitate increases in individual physical activity:

- ✓ Provide messages targeted to individual risk factors, attitudes, stage of change and interests or media usage. Tailoring to particular target segments and using appropriate media can be useful.
- ✓ Promote physical activities that are currently prevalent to build on existing skills and self-efficacy. Tailor promotions to reflect activities that are currently popular or becoming popular with different age segments.
- ✓ Incorporate targeted strategies to increase physical activity behaviours, based on readiness to change, tailored specifically to children, especially when promoting physical education classes.¹⁸ Provide specific messages when dealing with children and youth. For example, when customizing messages for youth, focus on physical activity as “cool”; for children, focus on physical activity as “fun”.
- ✓ Tailor strategies using proven resources. For example, *Saskatchewan In Motion* is working with physicians in Saskatchewan to implement CFLRI’s PACE Canada program (provider-based assessment and counseling on exercise). In turn, family physicians are able to use the tools to assist in "prescribing" physical activity to patients (see <http://www.saskatchewaninmotion.ca/physicians/>).

Environmental and policies interventions to increasing activity

This is the third type of intervention recommended by the Task Force for Community Preventive Services. It includes the development of supportive environments for physical activity through public policies. These types of interventions are targeted towards the population as opposed to the individual, and may include modifications to urban design and transportation systems.

Enhanced access to environment and information

These interventions occur at the local level and can include the incorporation of features and maintenance of the built environment (including, trails, paths and green spaces) to enhance physical activity, and reduce barriers to physical activity.

In the community...

- ✓ Encourage the creation of mixed use neighbourhoods in the development and revitalization of communities.

- ✓ Improve the accessibility and convenience of programs through family-oriented scheduling and through reduced fees for low-income families and individuals.
- ✓ Promote and support the use of facilities not specifically designed for physical activity, especially in rural or small communities that do not have access to many physical activity facilities. Communities can make use of schools outside of traditional school hours for other types of activities, including walking clubs, dance classes, aerobics, team sports, etc.
- ✓ Reduce or eliminate user fees, especially for those who find this a barrier.
- ✓ Provide safe and well-maintained routes for physical activity. Ensure adequate lighting on paths, bike patrols on bicycle paths, and well-maintained sidewalks or paths, and perform safety audits on streets or trails.
- ✓ Examine transportation policies and ensure a balance between trails and paths for active commuting and public transportation routes. Consider whether the current infrastructure allows an individual to get off public transportation a couple of stops earlier and walk the rest of the way, whether it supports commuting by bicycle, and whether there are problem areas in the transit and traffic patterns on a network of roads that prevent walking or bicycling.
- ✓ Encourage and support commuting by bicycle by providing lanes separated from vehicle traffic, designated bicycle lanes, preferential signage, and signage reminding motorists to share the road. Facilitate longer bicycle commutes through the public transportation system by providing bike racks on buses for those who use both means of transportation to commute. Provide secure bicycle parking in business areas and throughout the community.
- ✓ Develop changes in the community environment, include making stairs accessible and convenient, and restricting some streets to walking or bicycling only. Encouraging mixed land use (business, residential, shopping, etc.) in new community developments supports active commuting to local facilities.⁶
- ✓ Create supportive environments for physical activity in conjunction with urban planners. Provide linkages with residential, business, and retail areas with a system of well-networked paths and trails.
- ✓ Promote the attractiveness and user-friendliness of neighbourhoods to encourage active commuting and recreational walking and bicycling.

In the workplace ...

- ✓ Support workers by offering comprehensive physical activity programming. This could include physical activity opportunities and programs in the early morning, during breaks, at lunch, after work, or during the weekends.

- ✓ Establish policies to ensure appropriate facilities, equipment, and supplies for physical activity are available to support the physical activity needs of workers. They can be either on-site at the workplace or off-site in the broader community. Ensure that there are opportunities for physical activity year-round.
- ✓ Encourage workers to actively commute to and from work.
- ✓ Ensure that facilities such as sidewalks, lanes, trails, and their lighting are maintained according to safety standards. One study suggests that a trail with favourable environmental factors, such as a pleasant environment, convenience, and safety provides employees in a nearby industrial park with a good opportunity to walk or exercise during the workday. It also found that this trail was used most frequently during the weekdays, early in the morning and during the late afternoon.¹⁹
- ✓ Ensure that on-site physical activity facilities are suitable for the employee population. It is important to note, however, that the fitness facilities at work have not been shown to actually increase physical activity. Moreover, it is suggested that these types of facilities are more suitable for larger workplaces (>1,000 employees).²⁰
- ✓ Ensure that facilities for physical activity are convenient, affordable, and safe.²¹ Ensure secure areas at the workplace for employees to store bicycles.
- ✓ Provide on-site facilities such as showers, lockers, and change rooms to support physical activity and active transportation. Ensure that these facilities are clean and adequate for the number of employees.
- ✓ Consider using off-site facilities in the community that are not specifically designed for physical activity. These can include community centres, schools, or halls within places of worship.

In the school system ...

- ✓ Provide access to school facilities for groups participating in physical activity outside of school hours. Consider offering physical activity programming on the weekends, before and after school, in the evenings, and during the summer months.
- ✓ Promote active commuting of students to and from schools. Schools can draw from existing programs such as Go for Green's National Active & Safe Routes to School program, which encourages the use of active modes of transportation to get to and from school.²²
- ✓ Ensure that the hours and location of community programming and facilities for physical activity meet the needs of students for participating in physical activity outside of school hours.
- ✓ Encourage the use of facilities *not specifically designed* for children's physical activity, especially in rural or small communities that do not have access to many

physical activity facilities. For example, meeting rooms in places of worship or community centres offer opportunities to support and encourage physical activity.

References

- ¹ McKinley, J. & Marceau, L. (2000). U.S. public health and the 21st century: diabetes mellitus. *Public health quintet. Lancet*; 356: 757-761.
- ² Center for Disease Control and Prevention (2001) Increasing physical activity: a report on recommendations of the Task Force on Community Preventive Services. *Morbidity and Mortality Weekly Review*, 50(RR-18), 1-18.
- ³ Spence, J.C. (with Shephard, R.J., Craig, C.L., McGannon, K.). (2001). Compilation of evidence of effective active living interventions: A case study approach. A Report submitted to Health Canada on behalf of the Canadian consortium of health promotion research. Health Canada. Ottawa, ON.
- ⁴ Cameron, C., Craig, C.L., Stephens, T., & Ready, T. (2002). *Increasing physical activity: Supporting an active workforce*. Ottawa, ON: Canadian Fitness and Lifestyle Research Institute.
- ⁵ Health Canada and the Canadian Council for Health and Active Living at Work. (Accessed July 2004). Stairway to Health. [On-line] Available: <http://www.hc-sc.gc.ca/pphb-dgspst/sth-evs/english/index.htm>.
- ⁶ King, A.C., Jeffery, R.W., Fridinger, F., Dusenbury, L., Provence, S. Hedlund, S.A. & Spangler, K. (1995). Environmental and policy approaches to cardiovascular disease prevention through physical activity: Issues and opportunities. *Health Education Quarterly*, 22(4), 499-511.
- ⁷ Center for Disease Control and Prevention (2001) Increasing physical activity: a report on recommendations of the Task Force on Community Preventive Services. *Morbidity and Mortality Weekly Review*, 50(RR-18), 1-18.
- ⁸ Health Canada. Accessed: (2003). *Taking action on Healthy Living: Background information on the integrated Pan-Canadian Healthy Living Strategy* [On-line]. Available: http://www.phac-aspc.gc.ca/hl-vs-strat/pdf/html/hl_backgroundunder.html
- ⁹ Coalition for Active Living. (Accessed: July 2004). *Towards a Pan-Canadian Physical Activity Strategy*. [On-line]. <http://www.activeliving.ca/resources/calibrbrief.pdf>
- ¹⁰ Marcus, B.H., Owen, N., Forsyth, L.H., Cavill, N.A. (1998). Physical activity interventions using mass media, print media, and information technology. *American Journal of Preventive Medicine*, 15(4), 362-378.
- ¹¹ Kulinna, P.H., & Krause, J. (2001). Teaching students to achieve and maintain a health-enhancing level of physical fitness. *Journal of Physical Education, Recreation, and Dance*, 72(8), 30-33.
- ¹² Stone, E.J., McKenzie, T.L., Welk, G.J. & Booth, M.L. (1998). Effects of physical activity interventions in youth: Review and synthesis. *American Journal of Preventive Medicine*, 15(4), 298-315.
- ¹³ McKenzie, T.L., Sallis, J.F., Elder, J.P., Berry, C.C., Hoy, P.L., Nader, P.R., Zive, M.M., & Broyles, S.L. (1977). Physical activity levels and prompts in young children at recess: A two-year study of a bi-ethnic sample. *Research Quarterly for Exercise and Sport*, 68(3), 195-202.
- ¹⁴ U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Nutrition and Physical Activity. (1999). *Promoting physical activity: A guide for community action*. Champaign, IL: Human Kinetics.
- ¹⁵ Health Task Force of the Canadian Association for Health, Physical Education, Recreation and Dance. (1996). Towards healthy, active living through Quality School Health: A position paper of CAHPERD. Canadian Association for Health, Physical Education, Recreation and Dance.
- ¹⁶ Wechsler, H., Devereaux, A.B., Davis, M. & Collins, J. (2000). Using the school environment to promote physical activity and healthy eating. *Preventive Medicine*, 31, S121-S137.
- ¹⁷ Shephard, R.J. (1999). Do work-site exercise and health programs work? *The Physician and Sportsmedicine*, 27(2), 48-71.
- ¹⁸ Wright, M.T., Patterson, D.L., & Cardinal, B.J. (2000). Increasing children's physical activity. *Journal of Physical Education, Recreation, and Dance*, 71(1), 26-29.

-
- ¹⁹ Neff, L.J., Ainsworth, B.E., Wheeler, F.C., Krumwiede, S.E. & Trepal, A.K. (2000). Assessment of trail use in a community park. *Family Community Health*, 23(3), 76-84.
- ²⁰ Kelly, F. (1999). WHO European Centre for Environment and Health. Guidelines on improving the physical fitness of employees. Copenhagen, Denmark.
- ²¹ Sallis, J.F., Bauman, A. & Pratt, M. (1998). Environmental and policy interventions to promote physical activity. *American Journal of Preventive Medicine*, 15(4), 379-395.
- ²² Go for Green. (Accessed: 2003). *Active & Safe Routes to School* [On-line]. Available: http://www.goforgreen.ca/asrts/program_e.html