Review of Best Practice in Interventions to Promote Physical Activity in Developing Countries

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This background document was prepared by: A. Bauman, S. Schoeppe and M Lewicka (Center for Physical Activity and Health, School of Public Health, University of Sydney, Australia), in collaboration with T. Armstrong, V. Candeias and J. Richards (WHO Headquarters, Geneva, Switzerland), for the WHO Workshop on Physical Activity and Public Health, Beijing, China, held on 24–27 October 2005.

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Executive summary

Background: Physical inactivity, along with other lifestyle-related health risk factors (e.g. unhealthy diet, tobacco use, alcohol consumption), is becoming increasingly prevalent in developing countries which face rapid economic and social development, urbanization and industrialization. Associated noncommunicable diseases (NCDs) such as cardiovascular diseases, diabetes and cancer have risen in prevalence rapidly in transitional countries, and their prevention and control is now a major challenge for leading governmental and nongovernmental organizations (NGOs).

The importance of physical activity as a means of NCD prevention and control is recognized in developing countries, as well as the need for suitable programmes, policies and guidelines. However, the evidence base on implementing physical activity interventions in the developing country context is sparse. The same applies to the development of national physical activity policies and guidelines.

Purpose of the review: This review aims to address the evidence gap by describing physical activity interventions in developing countries (current practice), and compiling case studies of those interventions thought to be successful (current best practice), for example, in terms of raising awareness of the benefits of physical activity and increasing participation in physical activity. This information will then support WHO initiatives towards the development of guidelines for implementing physical activity interventions in developing countries.

The main focus of this review was interventions initiated by ministries of health, sport and/or education and conducted on a large scale (national, state, province level). However, intervention implementation usually includes components at the local level (community, school, workplace).

In addition, the review contributes to documentation of national physical activity guidelines as well as policies on physical activity (or NCD disease prevention/obesity prevention/health promotion including physical activity) in developing countries. This provides valuable information on the context in which physical activity interventions take place.

Methodological approach: For the review, developing countries were defined by exclusion, with countries excluded if they were OECD high-income countries. Physical activity interventions were defined as systematic approaches to increase any of the various domains of physical activity (occupation, transport, domestic chores, leisure-time), using a range of intervention strategies (e.g. raising awareness, education, skill development, increasing physical activity practice), either

focusing on physical activity promotion in particular, or healthy lifestyle promotion with physical activity as one component in addition to other lifestyle factors (e.g. diet, tobacco use, alcohol consumption). Best practice was considered as the evidence of which interventions work in the "real world" setting, rather than limited to evidence from experimental intervention designs. Such evidence is garnered from the "grey" literature, expert opinions and personal experiences, and it relates to the context (e.g. resource base, political commitment, support from key stakeholders, guiding policy, social and physical infrastructure) and issues of implementation (e.g. feasibility, barriers and drivers). In this review, the elements of best practice in interventions to promote physical activity in developing countries were identified after synthesis of existing physical activity interventions, not beforehand.

Two methodologies were employed for conducting the review: a systematic synthesis of the peer-reviewed literature and a comprehensive consultation process with key stakeholders in developing countries. Peer-reviewed published articles on physical activity interventions in developing countries were searched in electronic databases including Medline, CINAHL and Embase. The search strategy was restricted to English language papers published between January 1980 and March 2005. In addition a review of the "grey" literature was carried out to obtain a broader range of information from developing countries.

However, most detailed information on physical activity interventions in developing countries was gained through a comprehensive consultation process undertaken in 2005 with key stakeholders in developing countries in all WHO regions. This included:

- identification of key stakeholders in developing countries as well as regional and international agencies;
- survey (by e-mail, mail, telephone) of 160 key stakeholders in 63 countries regarding current and best practice interventions to promote physical activity in developing countries;
- compilation of 37 country case studies on current and best practice physical activity interventions, and their approval for publication by the key stakeholders involved in programme implementation.

Results and conclusion: Interventions are either designed to focus on physical inactivity only, or are multiple risk factor interventions including other lifestyle factors (e.g. unhealthy diets, tobacco use, alcohol consumption, psychosocial stress). In general, physical activity interventions carried out in developing countries include strategies to:

- **raise awareness** of the importance and benefits of physical activity among the population,
- **educate** the whole population and/or specific population groups;

- **conduct local physical activity programmes and initiatives**;
- **build capacity** among individuals implementing local physical activity programmes through training of potential programme coordinators;
- **create supportive environments** that facilitate participation in physical activity; and
- **give recognition/awards** to individuals who live a healthy lifestyle, engage in regular physical activity, and encourage others to do so.

The impact of physical activity interventions in developing countries needs to be better explored through a systematic process and outcome evaluation. To date, process and/or outcome evaluation takes place or is planned in some developing countries (e.g. Brazil, China (Hong Kong SAR), Colombia, Fiji, India, Islamic Republic of Iran, Malaysia, Pakistan, Philippines, Republic of Marshall Islands, Singapore, Slovenia, South Africa, Thailand).

Physical activity interventions, particularly those that adopt best practice approaches, were mostly identified in middle-income countries (e.g. Brazil, Colombia, Islamic Republic of Iran, Malaysia, Philippines, Poland, Republic of Marshall Islands, South Africa, Slovenia, Thailand), whereas fewer interventions were identified in low-income countries (e.g. Bangladesh, Bhutan, Cambodia, countries in the WHO African Region).

Intervention design (e.g. using awareness raising and educational, as well as capacity building approaches) and messages (e.g. recommending 30 minutes of moderate-intensity physical activity most days a week) are not different to those used in physical activity interventions in developed countries.

Several developing countries (e.g. Fiji, Mauritius, Pakistan, Samoa, South Africa, Thailand, Tonga) initiated their interventions as part of the implementation of a national action plan or strategy, such as for NCD prevention and control, health promotion, or physical activity promotion in particular. Some developing countries set up specific committees on physical activity promotion within a leading governmental agency (e.g. the ministry of health, sport and/or education) or NGO.

The review identified the most essential prerequisites for large-scale physical activity programmes in developing countries. Other important factors which contributed to good programmes were also determined. These are shown below.

Essential prerequisites are:

- high level political commitment/guiding national policy
- funding
- support from stakeholders, and

- a coordinating team.

Other important factors are:

- clear programme objectives
- integration of physical activity within other related interventions
- multiple intervention strategies
- target the whole population as well as specific population groups
- clear identity for the programme
- implementation at different levels
- implementation within the "local reality"
- leadership
- dissemination of the intervention
- evaluation and monitoring, and
- national physical activity guidelines.

A mix of essential and other important factors is necessary for physical activity programmes in developing countries. These factors form the basis of a checklist of best practice characteristics for assessing the quality of large-scale interventions in developing countries.

1. Background

This report provides a review of examples of best practice in interventions to promote physical activity in developing countries, with a particular emphasis on countries in the WHO South-East Asia and Western Pacific Regions. Currently, many developing countries are in economic, political and social transition. Their progress in economic development is accompanied by urbanization, motorization, industrialization, globalization of markets, and rising disposables incomes. Along with these demographic and socioeconomic changes come lifestyle changes including low physical activity levels, unhealthy diets, as well as increased tobacco use and alcohol consumption (Bell, Ge & Popkin, 2002; Kim, Symons & Popkin, 2004).

1.1 Noncommunicable diseases, physical (in)activity and health

There is a growing body of evidence showing noncommunicable diseases (NCDs) are no longer solely the province of developed countries. A recent WHO review examining the prevalence of NCDs and NCD risk factors in developing countries shows increases in cardiovascular disease, diabetes, cancers (particularly of the colon, breast and prostate) as well as an increased mental health disease burden (WHO, 2005). The spread of cardiovascular disease in developing regions has been described as one of three particularly neglected global epidemics (WHO, 2003) and alarmingly, by the year 2030 some 366 million people globally will have diabetes, with the greatest relative increases occurring in India, sub-Saharan Africa and the Middle Eastern Crescent (Wild et al., 2004).

These NCD increases in developing countries are in part driven by economic development and urbanization. Research shows associations between such markers of development and increasingly sedentary lifestyles. For example, urbanization has been associated with decreases in population walking levels as a means of transport in Cameroon (Sobngwi, Gautier & Mbanya, 2003), while increasing car ownership has been associated with weight gain in China (Bell, Ge & Popkin, 2002). In addition to changes in the physical environments, changes in individual thinking about lifestyle and the social environment may support the adoption of developed-country lifestyles in developing countries, leading to further decreases in physical activity levels.

The beneficial effects of physical activity are well known in developed countries. The epidemiological evidence of the positive effects of physical activity on health has been widely reported and confirmed in recent global reviews (Bull et al., 2004; Bauman, 2004; Department of Health, 2004). However, until now, the epidemiological evidence base has not been clear for developing countries. Recent research undertaken by WHO and the University of Sydney, Australia, suggests similar health benefits of physical activity in developing countries (WHO, 2005). Although

the epidemiological evidence base is substantially smaller in developing countries, there is reasonable to good evidence from countries in transition showing that physical activity reduces all-cause mortality and the risks for developing diabetes and cardiovascular diseases. With regard to cancer the evidence indicates positive effects of physical activity in relation to colon and breast cancer. Moreover, the evidence base from developing countries confirms that physical activity positively influences other chronic disease risk factors such as blood pressure, lipid levels and obesity. These data, in concert with the epidemiological transition in NCDs, provide the rationale for implementing physical activity programmes and actions in developing countries.

1.2 Interventions to promote physical activity at population level

Many developed countries have initiated physical activity interventions at national, state and the community level (e.g. ParticipACTION and SummerActive in Canada, Fit for Life in Finland, Push Play in New Zealand, the Netherlands on the Move! VERB in the United States of America). There is evidence from developed countries, based on a review of the published scientific literature, of the effectiveness of particular physical activity interventions (Centers for Disease Control, 2001; Kahn et al., 2002; Bull, 2003; Bull et al., 2004a; Health Development Agency, 2005). The studies were assessed for programme effectiveness, rather than generalizability, but do provide a typology of effective interventions in the developed country setting. The review identified the following as effective settings for physical activity programmes (Kahn et al., 2002):

- **Point-of-decision prompts** – signage placed by elevators and escalators to encourage stair use.
- **Community-wide campaigns** conducted on a *large scale*, including *multiple components* (e.g. self-help and support groups, physical activity counseling/regular contact with an exercise specialist, risk factor screening and health education, community events, mass media campaigns, the creation of walking trails), as well as targeting *different population groups* (e.g. adults, children and youth, older people, disabled people, indigenous people) and *settings* (e.g. worksite, schools, community).
- **School-based physical education** including modification of curricula as well as school policies and environments to increase the amount of physical activity during and outside physical education (PE) classes.
- **Social support interventions in community settings** involving the development and maintenance of social networks that provide supportive relationships for behaviour change (e.g. setting up a "buddy" system, making contacts with others to jointly engage in physical activity, setting up walking or other groups that provide friendship and support).
- **Individually-adapted health behaviour change programmes** tailored to individuals' specific needs, preferences, and readiness for change. Programmes are based on health behaviour change

models e.g. social cognitive theory (Bandura, 1986), health belief model (Rosenstock, 1990), transtheoretical model of change (Prochaska & DiClemente, 1984).

- **Creation of access to places for physical activity** (physical environmental, structural and policy-changing interventions e.g. building trails and facilities; reducing fees; changing operating hours of facilities) combined with informational activities aimed at increasing awareness, education and motivation.

Several developed countries have also initiated national physical activity policies (e.g. Australia, Canada, Finland, Netherlands, New Zealand, Scotland, Switzerland) and disseminated national physical activity guidelines for adults (e.g. Australia, Canada, New Zealand, Switzerland, USA) as well as for children and youth (e.g. Australia, Canada) (Bull et al., 2004b). The guidelines for adults are consistent with the United States Surgeon General's Report (1996) of engaging in moderate-intensity physical activity for at least 30 minutes, most preferably every day of the week, in either a continuous or accumulated way (USDHHS, 1996). For children and youth, for example, Canada recommends starting with 30 minutes of moderate activity "more" per day and steadily accumulating more minutes.[1] Australia recommends the accumulation of at least 60 minutes of moderate to vigorous physical activity per day, starting with 30 minutes a day if the child is inactive.[2]

In contrast to developed countries, the evidence base on implementing physical activity interventions in developing countries is sparse. The same applies to the development of national physical activity policies and guidelines, and the integration of physical activity into other related policies and guidelines (e.g. for NCD prevention or obesity control). Such national approaches are in their early stages, particularly in developing countries. However, the importance of physical activity for NCD prevention and obesity control is becoming increasingly recognized in transitional countries, as well as the need for suitable programmes, policies and guidelines.

1.3 Global Strategy on Diet, Physical Activity and Health

At the Fifty-seventh World Health Assembly on 22 May 2004, the World Health Organization endorsed the Global Strategy on Diet, Physical Activity and Health (DPAS) for 2005–2007 (Resolution WHA57.17, 2004). The Global Strategy is "to improve public health through healthy eating and physical activity". It reflects international recognition of the worldwide changes in physical activity levels and dietary habits as a consequence of countries' demographic and socioeconomic development, and globalization.

[1] Available from: http://www.phac-aspc.gc.ca/pau-uap/paguide/child_youth/
[2] Available from: http://www.health.gov.au/internet/wcms/publishing.nsf/Content/health-pubhlth-strateg-active-recommend.htm

This review is conducted in the context of the implementation of the Global Strategy on Diet, Physical Activity and Health. It supports the implementation process by providing an evidence base on the design and implementation of physical interventions in developing countries. It particularly contributes to DPAS implementation in the WHO South-East Asia and Western Pacific Regions where technical information on effective and suitable physical activity interventions is particularly needed, given that these regions have the most rapid increases in NCDs and obesity. The findings of the review may encourage information sharing and networking among developing countries on current best practice in interventions to promote physical activity.

Summary of the WHO Global Strategy: Physical activity focus

The WHO global strategy had four main objectives: to reduce NCD risk factors, increase awareness of diet and inactivity, to implement national programmes and to monitor progress (WHO GSDPA #18). Strategies to increase physical activity should be comprehensive, address all population groups and use multisectoral approaches. National plans and policies were recommended to guide country-level actions. It was suggested that WHO and other organizations would contribute to capacity building to support action in nations that were committed to developing programmes. It was also suggested that Member States would learn from each others' experiences, and form alliances for the dissemination of appropriate messages about physical activity.

The mandate for addressing physical inactivity generally emanates from the health ministry, but also resides within the ambit of transport, education, urban planning, and sport and recreation ministries, as well as other relevant agencies and NGOs. The WHO report recognized that changes would be slow, and required sustained efforts to build population level behaviour change to reverse the adverse trends in NCDs in many countries.

1.4 Purpose of the review

Currently, the evidence base on the existence, design and impact of physical activity interventions in developing countries is sparse. However, given the increasing NCD prevalence in developing countries, and cumulative recognition of physical activity as an important preventive measure for NCDs and their risk factors (e.g. hypertension, obesity), more expertise around physical activity programmes, policies and guidelines is needed.

Therefore, this review aims to:

1. Identify and document interventions in developing countries which promote physical activity at the population level (current practice case studies).
2. Compile a set of case studies of those interventions which have been successful, for example, in terms of raising awareness of the importance and benefits of physical activity, increasing participation in physical activity, and/or successful implementation (best practice case studies).
3. Investigate any national or regional physical activity guidelines and recommendations in developing countries.
4. Contribute to WHO initiatives towards the development of guidelines for implementing physical activity interventions in developing countries.

In addition, the review contributes to the identification and documentation of national policies on physical activity (or NCD prevention/weight control/health promotion strategies including physical activity) in developing countries. This is valuable information as it reveals the policy context in which a physical activity intervention takes place.

The main focus is on interventions initiated by ministries of health, sport and/or education, conducted at a large scale (national, state, province level). However, intervention implementation usually involves the local level (community, school, workplace).

2. Methodological approach

Two methodologies were employed for conducting the review: a systematic synthesis of the peer-reviewed literature and so-called "grey" literature, and a comprehensive consultation process with key stakeholders in developing countries. Key terms were defined to outline the conceptual approach of the review.

2.1 Definition of key terms

The following definitions of developing countries, physical activity interventions and best practice were applied in this review.

2.1.1 Developing countries

There is no universally recognized definition of a “developing country”. Classifying countries according to their developmental status is complex because many factors may influence a nation’s progress. Definitions differ depending on the scope and aims of the projects for which they are conceived. For this review a definition of exclusion was applied. All nations not classified as high-income members of the Organisation for Economic Co-operation and Development (OECD) were considered “developing” (see Annex 1; World Bank, 2004). These high-income OECD countries are largely those identified as having an established market economy according to the 1993 World Development Report (except for Iceland, Luxembourg, and the Republic of Korea) (see Annex 2; World Bank, 1993). However, interventions from non-OECD high-income countries i.e. China, China Hong Kong Special Administrative Region (SAR), and Singapore were also included in the review.

In total, physical activity interventions (or NCD/weight control/health promotion interventions including physical activity) from countries in seven geographic regions were included in the review:

i. The former socialist economies of Europe (from the former Czechoslovakia to the former Soviet Union)
ii. Latin America and the Caribbean
iii. China
iv. India
v. Countries from the middle-eastern crescent (including north Africa, the Middle East, Pakistan, Central Asia)
vi. Republics of the former Soviet Union
vii. Sub-Saharan Africa
viii. Remaining Asian and Pacific Island nations

Using this "developing country" definition a number of countries facing economic, political and social transitions were eligible for review of best practice in interventions to promote physical activity. This type of definition of exclusion has been used successfully in previous research (Murray & Lopez, 1997; Mendis et al., 2003).

2.1.2 Physical activity interventions

For the purpose of the review a physical activity intervention was defined as:

- A systematic approach to increase physical activity in any of these domains: occupation/workplace, transport/active commuting, domestic duties (household chores, yard work) and leisure-time (exercise, recreation, sport).
- It may include several approaches such as increasing awareness, education and skill development, as well as influencing physical activity or sedentary behaviour, and influencing the social and physical environment.
- It may be physical activity promotion only, or a specific physical activity component as part of a broader programme (e.g. in the area of NCD prevention, obesity prevention, transport).
- The focus is primarily on promoting physical activity for health ("active living") based on the widely promoted recommendation of engaging in moderate-intensity physical activity for at least 30 minutes on five or more days a week, in either a continuous or accumulated way.
- Besides that, interventions might also focus on increasing "sport" or "fitness" participation aimed at enjoyment and social integration.

2.1.3 Best practice

What constitutes best or good practice in public health interventions is not generally defined. It relates to evidence gained from "grey" literature, expert's opinions, personal experiences and observation. It is about what works in the "real world" setting, not in experimental or quasi-experimental interventions. It focuses more on the context (e.g. resource base, political commitment, support from key stakeholders, guiding policy, social and physical infrastructure) and issues of implementation (e.g. feasibility, barriers and drivers) (Kahan & Goodstadt, 2001; Bull, 2003).

This review focuses on best practice in interventions to promote physical activity in the developing country context. This conceptual approach is different from approaches used in systematic reviews on the effectiveness of physical activity interventions in developed countries, conducted for example by the Health Development Agency in the United Kingdom of Great Britain and Northern Ireland (2005) and the Task Force on Community Preventive Services in the USA (CDC, 2001;

Kahn et al., 2002). These reviews provide evidence on the effectiveness of interventions gained from peer-reviewed published literature with evaluations that used predominantly experimental and quasi- experimental study designs.

In this review, the elements of best practice in interventions to promote physical activity in developing countries (section 3.3) were identified by the authors of this report only after synthesis of existing physical activity interventions through consultation with key stakeholders involved in programme implementation, not before. They are based on individual programme experiences rather than scientific research design evidence.

2.2 Peer-reviewed published literature

Relevant peer-reviewed published articles on physical activity interventions in developing countries were searched in electronic databases including Medline, CINAHL and Embase. Additional papers were identified via hand searching. The search strategy was restricted to English language papers published between January 1980 and March 2005. Search terms used in database searches are shown in Table 1.

Table 1
Terms used in database searches

Physical activity	Intervention	Best practice	Developing country
Exercise	*Program*	*Good practice*	*Developing world*
Physical fitness	*Programme*	*Effectiveness*	*Economic transition*
Sport	*Project*	*Effective*	*Europe, Eastern*
Sports	*Initiative*	*Successful*	*Africa South of the Sahara*
		Guideline	*Pacific Islands*
		Framework	*Asia*
		Case study	*India*
		Example	*Middle East*

[2]

Additional information on physical activity interventions was gained by auditing various web sites. This involved a review of the "grey" literature (e.g. organizations' web sites, reports, media releases, news) to obtain a broad range of available information from developing countries.

2.3 In-country consultation process

Most detailed information on physical activity interventions in developing countries was gained through a comprehensive consultation process conducted in 2005 with key stakeholders mostly in developing countries in all WHO regions. This included:

1. Identification and listing of key stakeholders in countries as well as regional and international agencies, using contacts identified through the preliminary literature review; previous conferences organized by the WHO Regional Office for the Western Pacific; NCD, diabetes and nutrition focal points in that Regional Office, WHO Headquarters and other WHO regional offices; and collaborators and participants of the physical activity workshops conducted in 2004 and 2005 by the Secretariat of the Pacific Community (SPC).
2. Survey (by e-mail, mail, telephone) of identified key stakeholders[3] regarding current and best practice interventions to promote physical activity using a:
    a. *Screening letter* (e.g. introducing the project, providing the physical activity intervention definition, asking whether there are any of these physical activity interventions in the country and who is the responsible contact person),
    b. *Follow-up letter* for details on identified physical activity interventions (population level, target group, intervention model, physical activity guidelines, policy context, local circumstances, funding, timeframe, stakeholders, dissemination, evaluation, success story, barriers and drivers).

    Some key stakeholders surveyed by the screening letter indicated they are or were directly involved in implementing physical activity interventions. These key stakeholders then received the follow-up letter for details of the intervention. Other key stakeholders were not directly involved in the implementation of physical activity interventions but could create linkages to the relevant stakeholders involved, who were then contacted with the screening and follow-up letter.

3. Compilation of country case studies on current and best practice interventions to promote physical activity, based on the information received from key stakeholders. This included further information, editing and approval of the case study descriptions from the stakeholders involved in programme implementation. It also involved a collection of statements from key stakeholders regarding their "key experiences" in implementing the physical activity interventions. "Key experiences" could address anything, for example, building alliances, intervention drivers or barriers, specific activities or events that had a great impact, coordinating committees, supporting policies, powerful individuals, evaluation findings.

Using the screening and follow-up letters, 160 key stakeholders in 63 countries were contacted, as well as regional and international agencies (e.g. SPC, International Life Science Institute, Physical Activity Network of the Americas/RafaPana, International Diabetes Federation) and WHO regional

[3] Stakeholders were identified using known international contacts, WHO staff, regional lists of physical activity focal point contacts in WHO regions.

offices. The focus was particularly on developing countries in the South-East Asia and Western Pacific Regions but also in the other WHO regions (African Region, Region of the Americas, European Region, and the Eastern Mediterranean Region, when quality interventions could be identified).

Most stakeholders were located in ministries of health, sports and/or education; some were identified in other organizations (e.g. Singapore Sports Council, National Fitness Council/Malaysia, Chinese Centre for Disease Control, Heartfile/Pakistan, PASOO/Philippines, All India Institute of Medical Sciences, Thai Health Promotion Foundation, Fundación FES Social/Colombia, universities, research centres).

In total 160 stakeholders were contacted during the consultation process, on average two times initially before they responded. Of these, 82 stakeholders responded with information on physical activity interventions (or NCD/obesity prevention interventions including physical activity), and/or provided contact details of relevant people involved.

A comprehensive communication process (by mail, e-mail, fax, telephone) took place with the 82 responding stakeholders, particularly with those who are or were directly involved in physical activity interventions in developing countries. On average, these key stakeholders were contacted a further eight times by e-mail to:

- provide them with further background information about the review
- receive detailed information on physical activity interventions in developing countries
- obtain further information for, as well as editing and approval of, compiled country case studies to be published in the review.

In order to develop effective and valuable communications and information sharing with the country stakeholders, an intensive, lengthy communication process was sought. In total, this involved approximately 1000 e-mails sent out to key stakeholders, as well as contacts by fax and telephone. As a result, 37 country case studies on physical activity interventions in developing countries were compiled for the review, and approved for publication by the key country stakeholders involved in programme implementation.

3. Results

Some large scale physical activity interventions (or NCD prevention/weight control/health promotion interventions including physical activity) were identified through the peer-reviewed and "grey" literature (e.g. in Brazil, China (Hong Kong SAR), Islamic Republic of Iran, Malaysia, Pakistan, Philippines, Singapore, Thailand). These were followed up through consultation of the key individuals involved. However, most of the physical activity interventions identified in electronic databases (Medline, CINAHL, Embase) are small-scale interventions using an experimental or quasi-experimental study design. As these types of interventions were not the main interest of this review they were not pursued further.

Through consultation of key stakeholders physical activity interventions in both large and small developing countries, mainly in the WHO South-East Asia and Western Pacific Regions but also in other WHO regions, were identified and reviewed in detail. Overall, the detailed reviews included 31 developing countries, as shown in Table 2.

Table 2
Developing countries providing detailed interventions for review

WHO Region	Countries
African Region	Mauritius, South Africa
Region of the Americas	Brazil, Colombia
South-East Asia Region	Bangladesh, Bhutan, India, Indonesia, Sri Lanka, Thailand
European Region	Belarus, Czech Republic, Kazakhstan, Poland, Slovenia
Eastern Mediterranean Region	Islamic Republic of Iran, Pakistan
Western Pacific Region	China, including Hong Kong SAR and Macao SAR, Cook Islands, Fiji, Malaysia, Mongolia, Palau, Philippines, Republic of Marshall Islands, Samoa, Singapore, Solomon Islands, Tonga

2.4 Physical activity interventions in developing countries

All developing countries represented in the country case studies acknowledge the importance of initiatives to promote physical activity as a means to reduce the alarming rates of NCDs (particularly cardiovascular diseases, diabetes, cancer) and associated health risk factors (hypertension, hypercholesterolemia, hyperglycaemia, overweight and obesity) in their country. The increased prevalence of NCDs provides the rationale for countries' actions to develop interventions that promote physical activity. Interventions are either designed as single-risk factor interventions focusing on physical inactivity only, or multi-risk factor interventions including other lifestyle factors (e.g. unhealthy diets, tobacco use, alcohol consumption, psychosocial stress). Several developing countries (e.g. Fiji, Malaysia, Mauritius, Pakistan, Thailand, Tonga) initiated their interventions as part of the implementation of a national action plan or strategy, such as for NCD

prevention and control, health promotion, or physical activity promotion in particular. Some developing countries set up specific committees on physical activity promotion within a leading governmental agency (e.g. the ministry of health, sport and/or education) or NGO.

2.5 Country case studies – overview of current practice

Many developing countries engage in the promotion of physical activity but their experience and progress in implementing physical activity interventions on a large scale is currently in its early stages. However, the following short case studies on current practice in interventions capture developing countries' current efforts towards physical activity promotion. They provide the evidence that physical activity promotion takes place in developing countries.

2.5.1 Bangladesh

The **Community-Based Intervention for Non-communicable Disease Risk Factor Control programme** in urban Dhaka was initiated in 2002 by two government organizations, the National Institute of Preventive and Social Medicine (NIPSOM) and the Institute of Epidemiology, Disease Control and Research (IEDCR). Following a successful a pilot study, the programme was implemented over two years through a specially formed local community-based committee, comprising key stakeholders from the political, health, education, and local community sectors (e.g. political and administrative workers, teachers of education institutes, NGOs, local associations and clubs, the media, and the local community). It was targeted at the middle socioeconomic stratum of the population in Dhaka, a population of about 290 000, covering an area of 7.7 km^2. The programme was funded by the World Health Organization.

The intervention broadly aimed to control and reduce NCD risk factors among the urban Dhaka population. The programme's objectives were: i) to develop, implement and evaluate a model of community involvement within the Non-communicable Disease Risk Factor Control programme for the Dhaka population; ii) to implement and evaluate stakeholder involvement; iii) to raise awareness of the importance of addressing NCDs amongst different stakeholders; and iv) to advocate for the development of health-promoting environments (e.g. the development of clubs and gyms) amongst elected members of local government, elected members of housing societies, NGO members, local business people, government officers and political leaders residing in the urban Dhaka area.

Components of the intervention included the formation of local exercise groups, which involved local residents carrying out one hour of daily exercise led by a trainer; a community mobilization component which included forming committees and volunteer groups; organizing sessions in schools and organizing awareness-raising rallies attended by schoolchildren, key stakeholders and committee members; development of physical activity facilities/health promoting environments; and development and distribution of health education messages printed on leaflets (5000) and

stickers (10 000). In addition to addressing issues of physical activity, other NCD risk factors such as tobacco use and healthy dietary practices were covered.

Intersectoral collaboration between key stakeholders was important for programme development and implementation. This included forming a 15-member community coordination committee, a core working group and three teams of volunteers. Stakeholders involved included political groups such as Ward Commissioners of the Dhaka City Corporation, health-services providers, school, college and university teachers from educational institutes, local NGOs providing services targeted to the community, members of local associations and clubs, such as the cricket and football clubs, local health providers such as doctors from urban primary health care centres, local businesses (e.g. shop owners), IEDCR, and volunteers from the local community.

To date the Community-Based Intervention for Non-communicable Disease Risk Factor Control programme in urban Dhaka was successful in forming a community coordination committee, working groups and volunteer teams, NCD risk factor awareness-raising activities (e.g. dissemination of pamphlets and stickers, rallies) and creation of a gymnasium and adjacent playground. Formal evaluation of the programme will take place in 2006.

Identifying key personalities from the community, selecting dedicated staff for the project and collaborating with NGOs and elected members of the local government were necessary for intervention success. Additionally, selection of appropriate volunteers, successfully engaging religious leaders and identification of appropriate facilities in the community were important issues.

2.5.2 Belarus

The **State Programme for the Formation of Healthy Lifestyle among the population of the Republic of Belarus 2002–2006** and the **State Programme for Health of the People 1999** are national strategies for health maintenance and promotion as well as prevention of NCDs in Belarus. Initiatives of these programmes include a number of activities aimed at the creation of supportive physical activity environments such as, media campaigns, establishing sporting facilities and local exercise programmes, and educational training. These are variously targeted at adults, children and adolescents and are implemented through collaboration with schools, kindergartens, polyclinics, industrial enterprises, as well as Institutions of the Ministry of Health, the Ministry of Sport, the Ministry of Education, the Ministry of Culture, the Ministry of Information, Health Care Departments of regional executive committees, public organizations (e.g. the Society "Knowledge", Trade Unions, the Belarusian Republican Union of Youth, the Association of Doctors, the Association of Nurses, the Belarusian Federation of Body Builders) and Belarusian TV and radio companies.

The Countrywide Integrated Non-communicable Diseases Intervention (CINDI) Belarus Programme also helps create favourable conditions for promoting a healthy lifestyle and increasing awareness of the benefits of physical activity for health and quality of life in Belarus. Initiatives include development of physical activity recommendations for medical staff and creation of Centres for Primary Prevention of Cardiovascular Diseases (at polyclinics), which aim to increase physical activity levels within the framework of primary and secondary prevention of cardiovascular diseases.

2.5.3 Bhutan

In line with the WHO Move for Health Day 2002, the Honorable Lyonpo Sangay Ngedup, Minister of Health and Education in Bhutan, undertook a 560 km Move for Health Walk for a period of 15 days. The event generated great awareness of the benefits of physical activity among the Bhutanese population. The Minister spread health messages on the importance of healthy living. He talked to the population about the importance of physical activity, as well as other health issues (e.g. sanitation, nutrition, breast-feeding, and alcohol consumption). The sponsored walk became a milestone in the country's history as people from all walks of life participated physically, financially and spiritually in the walk.

2.5.4 China

In 1996, the Chinese Government released a Plan of Action for Sport for All to improve the fitness and health status of Chinese people. Setting up space and facilities for sport is one of the major tasks listed in the Plan of Action. The Path to Health programme was approved by the China National Sport Commission in 1997 and since then has been implemented nationwide by the State Sport Administration as part of the national Sport for All programme. The main activity within Path to Health is to set up physical exercise equipment in public places in rural and urban communities to facilitate physical activity at the community level.

In the past ten years, about 30 000 Paths to Health have been set up in urban residential areas and rural villages and are greatly welcomed by local residents; elderly people particularly use the exercise equipment regularly. Funding for Path to Health comes mainly from China's Sports

Lottery Fund. The programme is ongoing. It functions more as community welfare, not specifically as an intervention to promote physical activity for the prevention of NCDs. Thus, the health sector was not involved in the initiation of Path to Health, although currently efforts exist on the part of the health sector to join in the programme.

Another intervention promoting physical activity was the **World Bank Health Promotion Project**, implemented between 1996 and 2004 in seven cities across China (Beijing, Chengdu, Liuzhou Luoyang, Shanghai, Tianjin and Weihai). The project aimed to reduce mortality, morbidity and disability due to NCDs, HIV/AIDS and injury. Physical activity was one component of the NCD-related intervention. Physical activity interventions included for example, 1) physical activity training courses, 2) increased allocation of time for sports courses in schools, 3) physical activity breaks for employees in various institutions, as well as 4) integration of physical activity into patient treatment for hypertension and diabetes. In collaboration with NGOs such the Committee for Elderly and the Labor Union, initiatives were conducted to enhance physical activity in the community; for example, mountain climbing trips and tours to the countryside. Moreover, the Chinese Government supported multisectoral action to create facilities and space for physical activities in the communities. Evaluation findings indicate that the World Bank Health Promotion Project successfully increased population levels of physical activity.

2.5.5 China, Macao SAR

In July 2003, the Government of Macao SAR of the People's Republic of China initiated the territory-wide **Macao Healthy Lifestyle Programme**. Since the declaration of the Macao Healthy City Policy in June 2004, the Macao Government is highly committed to improve the quality of life of Macao residents. The Healthy Lifestyle Programme has therefore been incorporated into the Macao Healthy City Policy.

Physical activity promotion is one component of the Healthy Lifestyle Programme, in addition to the promotion of healthy diet, stress management and tobacco control. The ongoing programme is targeted to the general population. It aims at enhancing the quality of life of Macao people and encouraging them to engage in regular exercise. The daily recommendation is to walk 10 000 steps, or to accumulate 30 minutes of moderate intensity physical activity. The programme's slogan is "exercise enhances our physical and mental health".

A number of physical activity promoting initiatives are implemented under the Healthy Lifestyle Programme:

- Information on the benefits, type and safety of physical activity is disseminated via posters, educational leaflets, street banners, giant wall billboards, web sites, health education lectures and group sessions, as well as advertisements in the media (newspapers, television, radio).
- Promotional events for the general public are organized in line with different celebration days (e.g. World Challenge Day, Healthy City Promotional Day, World Blood Donor Day, World Heart Day).
- A six-month long award scheme called "good health originates from walking" is implemented to build up walking habits among Macao residents. The benefits of physical activity and ways of being active are disseminated through giant wall billboards, web sites, booklet, poster and public transportation. An electric device (pedometer) is provided to participants to record their daily steps. The participants' records are published monthly on the programme's web site, and those who perform well in physical activity within six months receive prizes.
- A school-based programme is implemented to promote exercise within the Health Promoting School framework.
- A community-based programme promoting brisk walking and cycling is implemented in collaboration with the Committee for the Prevention of Cardiovascular Disease, the Committee for the Prevention of Diabetes and NGOs.
- The Sport for All Programme is implemented by the Sports Development Board by setting up interesting classes (e.g. tennis, skating, taiji, yoga, dance, gymnastics) for the public.
- Summer activities (e.g. swimming, basketball, football, tennis, yoga, dance) for students during summer holidays are organized by the Education and Youth Affairs Bureau and the Sports Development Board.
- Exercise facilities have been set up in gardens and recreational areas by the Civic and Municipal Affairs Bureau.
- Several sports facilities have been set up by the Macao Fourth East Asian Games committee (e.g. indoor swimming pool, outdoor and indoor stadiums, recreational centre, hockey centre, grand water sport centre and several sports pavilions).

The Health Bureau is the main driver and advocator of the Healthy Lifestyle Programme. The Director of the Health Bureau is the Health Ambassador and a medical professional role model for being physically active. Other key stakeholders involved in the implementation and funding of the programme are the Civic and Municipal Affairs Bureau, the Education and Youth Affairs Bureau, the Sports Development Board, the Social Welfare Bureau, the Macao Fourth East Asian Games committee as well as NGOs (e.g. Macao Residential Association, Macao Workers Association, Macao Women Association).

Two key experiences were gained from the implementation of the Healthy Lifestyle Programme:

- The "good health originates from walking" scheme has successfully involved the usually hard-to-reach population groups, and has raised their awareness and interest in performing regular physical activities.
- Good networking within government sectors and NGOs could be established through the activities within the Healthy Lifestyle Programme.

2.5.6 Cook Islands

The **Newstart Programme** was a pilot project aiming to address obesity through physical activity in a population of schoolchildren aged 5–16 years in the Cook Islands. The pilot was initiated in 2004 as a collaborative effort of the Cook Islands Ministry of Education/Health Education Advisor, the Ministry of Health/Nutritionist and Papaaroa School on the Island of Rarotonga. The Papaaroa School named the project "NEWSTART", an acronym for the elements of the programme:

N Nutrition
E Exercise
W Water
S Sunshine
T Temperance
A Air
R Rest
T Trust in God

During the development of the Newstart Programme, in what was a first for the Pacific, a memorandum of understanding (MOU) was signed between the Ministry of Education and the Ministry of Health. This mutual agreement was fundamental in allowing the two ministries to collaborate on the project, fully utilizing the strengths of both organizations while also respecting the differences.

Eighty schoolchildren participated in the programme, which involved developing with the staff lon-term plans for health education physical education. The focus of the Newstart Programme was enjoyment, confidence building, full participation and skill development in the areas of physical activity and health. Health education was taught during every school term for 3–4 weeks, with 3–4 lessons per week during that time. Physical education sessions were conducted three times a week all year, including two lessons on skill development and one on school sports. Daily fitness sessions were conducted for 15 minutes immediately before lunch. The programme was funded by SPC and was implemented over 10 months between February 2004 and December 2004.

To facilitate programme implementation a long-term plan of teaching programmes/units of work covering physical activity and health education topics was developed in collaboration with the

Ministry of Health, the Ministry of Education and the pilot school. This included the creation of specialized teacher resources such as a Health and Physical Education curriculum document and teacher planning resources, covering topics including aquatics, large and small ball skills and physical fitness. Professional development opportunities in physical activity were held for teachers of the pilot school, and teachers from other schools in the community. The purchase of physical education equipment and cooking equipment for preparation of healthy alternatives in the school canteen further supported programme implementation.

Special care was taken to tailor the programme to schoolchildren; this included recognizing the pilot school's religious beliefs/foundation and sensitivity needed when addressing the issue of overweight and obesity in the Cook Islands.

Information on the Newstart rationale and programme goals was disseminated in the mass media via television interviews with teachers, who gave a programme overview and reported on the activities carried out. Within the education sector, information was disseminated to other Cook Islands schools through articles in the National Educational Gazette and in the PIN magazine, a publication of the Secretariat of the Pacific Community. Raising the parent community awareness of the programme was accomplished through school newsletters and church announcements. In addition, photo boards, information posters and displays of the children being active were presented at parent– teacher meetings.

Anecdotal evidence suggests that physical activity levels increased in the pilot school as a result of Newstart and these increases have been sustained following programme completion. Formal evaluation examining changes in student's health status (height, weight, blood pressure, and waist circumference), activity levels, dietary intake, dietary preferences and attitudes to healthy choices is planned in collaboration with the Ministry of Health, Ministry of Education and The Papaaroa School. Baseline and follow-up data have been collected by the Public Health Department of the Ministry of Health.

In addition to the implementation of Newstart, other capacity building in the area of physical activity is also currently occurring in the Cook Islands. Work on raising awareness of physical activity through teacher training has recently commenced. The first National Health and Physical Education Conference was conducted in 2005, with two representatives from every school in the Cook Islands in attendance. The conference was run by the Cook Islands Health and Physical Education Advisor, in collaboration with organizations involved with physical activity in the Cook Islands including the lecturer in Health and Physical Education at the Cook Islands Teachers Training College, the Ministry of Health nutritionist and the Head of Department of Physical Education at the Cook Islands National College.

International organizations also facilitate physical activity interventions in Pacific Island countries. For example, the South Pacific Sports Programme was established as a partnership between the Australian Sports Commission, the Department of Foreign Affairs and the Australian Agency for International Development in 1994. The programme supports in-country governmental and NGO partner organizations to enrich the lives of people in the Pacific through sport, games and physical activity. As a result of common priorities expressed in the majority of Pacific countries (identified in a Pacific Sporting Needs Assessment), two regional interventions specifically aiming to increase physical activity levels have been developed in collaboration with Pacific partner organizations: the **Pacific Junior Sport Programme** and the **Pacific Sport Ability Programme**.

The Pacific Junior Sport Programme aims to improve the health and well-being of children aged 6–12 years in the Pacific Islands by facilitating accessible, fun, safe sport and physical activity opportunities. The programme is delivered by trained community coaches and is supported by a coach training package and games activity cards. This newly developed programme will be implemented in primary schools and community organizations in Cook Islands, Fiji, Kiribati, Nauru, Niue, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu during 2005 and 2006.

The Pacific Sport Ability Programme is a games-based, inclusive sports programme that raises awareness of the importance of access to physical activity for everyone in the community, including people with a disability. It is currently being used in rural and urban areas of Fiji, Papua New Guinea, Samoa, Solomon Islands, and Tonga.

Both the Pacific Junior Sport Programme and the Pacific Sport Ability Programme aim to build the capacity of the community to provide physical activity participation opportunities by building partnerships, providing resources, facilitating training and professional development opportunities, and developing networks. Consulting a wide range of stakeholders, including the end users, in the programme development process has been essential to increase local ownership and optimize the quality of the programmes.

2.5.7 Czech Republic

Future advocacy and capacity building for the systematic promotion of physical activity in the Czech Republic is planned by organizations such as the Department of Recreology, Palacky University. This will include collaboration with international organizations (e.g. WHO, Health Enhancing Physical Activity (HEPA) Europe), to gather information about physical activity, as well as technical support for Czech initiatives towards physical activity promotion.

Challenge Your Heart to Move was a nationwide physical activity challenge implemented during the three summer months of 2003 and 2004. The challenge aimed to increase awareness and participation in physical activity across all age groups in the Czech Republic, and to promote the benefits of active lifestyles and the enjoyment of participating in physical activity. Challenge Your Heart to Move included a social marketing component, which advocated the benefits of physical activity, and a nationwide physical activity challenge, designed to motivate the general population to increase their activity levels. The format of the physical activity challenge was based on a similar programme developed in Poland. In the Czech Republic, the programme was funded by the Ministry of Health and the National Institute of Public Health, and was implemented by the National and Regional Institutes of Public Health as a component of the WHO CINDI Programme. The Challenge Your Heart to Move intervention successfully engaged 1530 participants, and interest in the general population was also observed, evidenced through the volume of phone calls and e-mails received.

2.5.8 India

The **Indian Diabetes Prevention Programme** is an intervention (randomized control trial) using lifestyle modification and/or pharmacological agents for the primary prevention of type two diabetes in subjects with impaired glucose tolerance (IGT). The three-year programme commenced in 2001 and was targeted at non-diabetic adults aged 35–55 years with IGT. It was funded and implemented by the Diabetes Research Centre, a WHO Collaborating Centre for Research, Education and Training in Diabetes, Royapuram, Chennai, India, in a sample of 531 adults (241/531 study subjects participated in the lifestyle modification) working in governmental organizations and NGOs in Chennai city, such as the railways, TamilNadu Electricity Board, Port Trust (a service organization) and the police service.

Participants of the Indian Diabetes Prevention Programme were randomized into four groups, comparing the effectiveness of: 1) lifestyle modification; 2) a pharmacological agent (metformin); 3) a combination of the lifestyle modification and the pharmacological agent; and 4) a comparison group with no lifestyle modification or treatment. The lifestyle modification component of the intervention involved providing advice once a month on physical activity enhancement and motivational messages to participants. Brisk walking for at least 30 minutes for 5 days a week, cycling, and heavy occupational physical activities for a minimum of 3 hours per day were among other advised activities. Implementation of the programme involved individual counseling to the subjects and sustained motivation.

Specific activities for raising awareness of the Indian Diabetes Prevention Programme, with physical activity components, included 1) a Global Walk, organized on 14 November 2004, World Diabetes Day, Fight Against Obesity; 2) a 30-second documentary film entitled “Sweet Life”,

produced in a number of Indian languages and telecast on popular television channels; and 3) an awareness programme for schoolchildren to fight against obesity.

Evaluation of the Indian Diabetes Prevention Programme showed lifestyle modification was effective in preventing diabetes in non-obese Asian Indian pre-diabetic individuals. There was a 26.6% reduction in the relative risk of conversion of a subject with IGT to diabetes mellitus. Evaluation of the impact of awareness-raising initiatives is planned.

To date, the programme results have been disseminated through scientific literature. Future dissemination of programme success will be through short animated movies via the mass media with health promotion messages.

2.5.9 Indonesia

In 2003, a national policy and strategy for NCD prevention and control was developed in Indonesia and the Ministry of Health set up a number of initiatives in this area:

1) The Sub-Directorate of Healthy Sports will be responsible for the development of non-competitive sports among schoolchildren and physical activity in the community.
2) The Centre for Health Promotion will be responsible for the promotion of healthy lifestyles in the community.
3) The National Institute of Health Research and Development, in collaboration with WHO, has been developing a pilot community-based intervention in Depok Municipality targeting common risk factors of major NCDs.

A National NCD Network of stakeholders from related ministries, private sectors and NGOs has also been established in order to facilitate communication and information dissemination in the NCD area. In 2005, the Directorate General of Communicable Disease Control was changed to Directorate General of Disease Control and in 2006, a Directorate of NCD will be established as one of the subordinates.

2.5.10 Kazakhstan

Promoting healthy lifestyles is one of the priorities of the Strategy for Kazakhstan Development to 2030 and the Government Programme of Health System Reform and Development 2005–2010. As part of this, the national programme **"Healthy Lifestyle" – Strategy for Development of Physical Activity and Sport (2005–2010)** was developed by the National Centre for the Problems of Healthy Lifestyle Development/Ministry of Health to promote physical activity and participation in sports among the general population, with a particular emphasis on children and adolescents. Programme implementation involves intersectoral collaboration between the National Centre for the Problems of Healthy Lifestyle Development/Ministry of Health and the Academy of Sport and

Tourism/Ministry of Information, Culture and Sport, international organizations (e.g. WHO, ZdravPlus project of the US Agency for International Development), medical organizations (e.g. organizations of primary health care such as polyclinics, family ambulatory centres, centres for health promotion, medical academics), educational organizations (e.g. schools, universities, colleges), workplaces (e.g. factories and plants) and mass media providers (e.g. magazines such as 'Valeologe', 'Zdorovie' and 'Densaulic' and television coverage on KTK, 31 Channel, Rahat).

Components of the programme include:

- Awareness raising of benefits of physical activity through educational seminars on physical activity for regional coordinators.
- Development of educational materials (e.g. booklets, posters) for the whole population and for specific target groups (e.g. regarding the prevention of cardiovascular diseases and diabetes for patients).
- Dissemination of physical activity mass events (e.g. The Festival of Health) and physical activity information in the mass media including television coverage, newspaper and magazine articles and radio coverage on EuropePlus, KazakhRadio, Radio 31, Autoradio.
- Promotion of physical activity on healthy lifestyle web sites for targeting youth.
- Development of physical activity centres within the framework of WHO projects for health-promoting schools, health-promoting hospitals, healthy universities and healthy cities.

Evaluation of "Healthy Lifestyle" – Strategy for Development of Physical Activity and Sport Intervention is conducted at 3-year intervals as part of the 'National Social Survey', which includes 25 000 people from all regions in Kazakhstan. Previous evaluation suggests that the programme led to population-wide increases in physical activity levels and positive attitudes to physical activity. Successful stakeholder collaboration, growing public attendance at mass events, and capacity building in the area of physical activity promotion have also been observed. Data from the most recent evaluation is currently being analysed. Sufficient funding and administrative support were important elements for implementation of the national "Healthy Lifestyle" – Strategy for Development of Physical Activity and Sport Intervention.

2.5.11 Mauritius

In 2004, the Mauritian Government launched a three-year National Plan of Action on Physical Activity (2004–2006), prepared by the Ministry of Health and Quality of Life. The National Plan was developed in line with the Global Strategy on Diet, Physical Activity and Health. Its overall objective is to foster a culture of physical activity and to promote physical activity practice in Mauritius. Mauritians are urged to undertake some form of physical activity for at least 30 minutes daily. The implementation of the National Plan is currently in its early stages. Several physical

activity intervention strategies are planned within the implementation of the National Plan, for example:

- **Community-based activities** (e.g. setting up local health clubs and health tracks) to provide opportunities to the Mauritian community including specific target groups (e.g. NCD patients) to practise physical activities regularly.
- **Information, education, communication activities and a media campaign** to create awareness of the need for practising physical activities. This includes a media strategy using various media (e.g. television, radio, newspaper inserts, video films, posters, pamphlets), as well as the broadcasting of morning shows on television to train the population on techniques for the practice of physical activities at home.
- **A national awareness campaign** to mobilize the population and stress the importance of physical activities. In line with WHO's "Move for Health" Day, the awareness campaign will comprise mass demonstration sessions on the practice of physical activities and the organization of an Annual Physical Fitness Day.
- **Capacity building** of health professionals, teachers and education officers as well as other trainers to provide them with specific skills to practise physical activity. This occurs through Training of Trainer (TOT) courses on physical activity, training programmes on physical fitness counseling, as well as the inclusion of physical fitness education in the training curriculum of health professionals.

Funding for the implementation of the physical activity interventions comes from several ministries (particularly the Ministry of Health and Quality of Life) as well as WHO. A Task Force on Physical Activity was set up by the Ministry of Health and Quality of Life, including representatives from various ministries, NGOs and private sector organizations, to coordinate the intervention strategies. Evaluation of the impact of the physical activity interventions will occur in the form of regular assessments of physical fitness levels of Mauritians, using a specific battery of tests developed for Mauritians aged 12 years and above. The physical fitness assessments will be accompanied by a National Fitness Award which will be introduced for the fittest Mauritian of the year. It is expected that the National Fitness Award will motivate the population to engage in physical fitness activities.

2.5.12 Mongolia

In 2002, the Mongolian Government launched a **National Fitness Programme** (2002–2008), with the aim of decreasing mortality and morbidity associated with physical inactivity. This is to occur through physical fitness education of the population and the development of a physical activity culture within Mongolian society. Initiatives under the National Fitness Programme are implemented at national and state as well as at local level (e.g. every administrative unit – Soum –

of Mongolia has a physical activity methodologist). Initiatives are mainly targeted at children and youth, but also to elderly people. Key programme initiatives are, for example, a media campaign (e.g. a 20-minute exercise programme is telecast on UB television every Saturday), local exercise programmes, educational training, as well as annual sports competitions in various types of sports (e.g. volleyball, basketball, football, table tennis, running, aerobic exercise). The sports competitions are organized at the local and state level, as Mongolia has a nationwide infrastructure for sport which is coordinated by the State Committee on Sport and Physical Culture including several sub-committees in provinces and cities. Other organizations involved in the implementation of the National Fitness Programme are the Mongolian Government, state-wide and local NGOs and private organizations (e.g. in the fields of health, education and sport). Funding comes mainly from the Mongolian Government, and occasionally from private clubs. Dissemination of the initiatives under the National Fitness Programme takes place through various media (e.g. television, radio, newspapers). An annual monitoring is conducted by the Ministry of Health to assess programme progress. Key challenges to date are to enhance supportive environments for physical activity (e.g. walking paths, parks, physical activity facilities).

Physical culture and sport has been an action area of the Mongolian Government for many years, and sports competitions have been held regularly over the last few years. In addition, physical culture education programmes are compulsory in primary and secondary schools. However, physical inactivity among the general population remains an issue in Mongolia. For that reason, and in reflection of the Global Strategy on Diet, Physical Activity and Health, the Ministry of Health recently developed a National Strategic Plan for the Integrated Prevention and Control of Non-communicable Diseases to be submitted to the Mongolian Government in 2005. The promotion of physical activity at population level is a priority area of action within the National Strategic Plan. More physical activity interventions are planned as part of the implementation of this plan; for example, a community-based social marketing programme on healthy lifestyles including physical activity, the establishment of supportive physical environments that facilitate physical activity, as well as local health promotion/physical activity programmes conducted in the school and workplace setting. The Ministry of Health is also planning to develop national physical activity guidelines.

2.5.13 Palau

Palau In Motion (PIM) is a concept that was created by the Ministry of Health to provide a framework for coordinating all physical activities in the Republic of Palau. The concept is that all people in Palau are “in motion” whether at home, at work or leisure sites. The focus is on daily physical activity for fitness and health, rather than sports only. In 2004, Palau In Motion (PIM) was operationalized through the Physical Activity Health Promotion Project. Within this project, body mass index and stage of change related to physical activity was measured among 307 Ministry of Health employees. Following data analysis and reporting, a diet programme and various physical activities were organized, using FITT, a Singaporean guideline on Frequency, Intensity, Time and

Types of physical activities. A follow-up survey was conducted to reveal changes in body mass index and stage of change related to physical activity. Preliminary survey findings show that individual weight decreased significantly and stage of change with regards to physical activity has changed positively.

2.5.14 Samoa

In the last ten years, the Samoan Ministry of Health has implemented a nationwide **Physical Activity Programme**. The programme was initiated after survey findings from 1978, 1991 and 2002 revealed that obesity and NCD rates in Samoa were high and increasing. For example, the 2002 STEPS Survey showed that 57% of the population was obese. Moreover, the 2002 survey findings indicated that rates of diabetes and hypertension were high (23.1% and 21.4% respectively), and that population levels of physical activity were low. Of the population, 21% engages in very little or no physical activity and people in the urban area of the capital city Apia are more likely to be inactive (28%) than people in rural areas (15%). Also, physical inactivity occurs more among women (27.3%) than men (14.8%).

The national Physical Activity Programme is coordinated in the context of the implementation of "Samoa's National Non-communicable Disease (NCD) Strategy and Plan of Action 2004-2008: For the Primary Prevention of Non-communicable Diseases", launched by the Ministry of Health. The national NCD Strategy includes physical activity promotion as one important component in addition to healthy diet, and alcohol and tobacco control. A range of initiatives are conducted within the national Physical Activity Programme in order to promote physical activity in Samoa:

- **Regular exercise sessions** (e.g. walking and aerobic exercise) are conducted for employees in the Ministry of Health, vendors at the local food market and people attending church conferences.
- **Train the trainer programmes for community groups** – the local health promotion team conducts a two-week training programme focusing on the benefits of physical activity and skills building. It aims to train people from community groups who have been selected as trainers. At the end of the two weeks the community group is given an aerobics tape and the trainers are expected to continue with the programme. To date over 30 village women's groups and 15 churches have taken part in the train the trainer programmes.
- **Workplace awareness programmes** – these awareness programmes focus on the main NCD risk factors and promote physical activity as part of a healthy lifestyle. Over 30 workplace organizations have been involved in the programmes and several organizations have started their own interventions at the workplace.

- **Physical activity** is promoted through mass media such as television and radio spots, a health radio programme, posters, pamphlets, newsletter articles, notice boards, as well as the Ministry of Health's calendar events.
- **Special promotional events** are held that promote physical activity through walking and aerobic activities (e.g. National NCD Week 2004 – Fogapoa Village Savaii Aerobics Programme), speeches and press releases, educational and promotional materials (pamphlets, tee-shirts, banners).
- **A home gardening programme** is implemented aiming to promote physical activity in addition to a healthy food supply.
- **A school physical exercise curriculum** is compulsory in all Samoan schools.

All physical activities promote 30–60 minutes of physical activity on most days of the week.

The Health Education and Promotion Services – located within the Health Promotion and Preventive Division of the Ministry of Health – coordinate the initiatives under the Physical Activity Programme. Other key stakeholders involved in implementation are health staff, churches, women's groups, workplaces, media, government ministries (Education, Women, Environment, Agriculture) and the general public. Programme funding comes from the Ministry of Health, the World Health Organization and the Australian Agency for International Development (AusAID).

Systematic evaluation of the several physical activity programmes has not been carried out. However, some key experiences were gained during the ten years of programme implementation:

- The most suitable types of physical activity in the Samoan context are walking, home chores, swimming and sports at village level because they are low-cost activities, can be done at any time and done privately if necessary.
- Programmes are negatively affected by the lack of supportive environmental infrastructure and legislation (e.g. no footpaths, no dog control).
- Successful programmes include political support and policies, detailed planning and management, strong networks and partnerships, convincing role models, effective leadership and adequate funding. Lack of these elements has often impeded the sustainability of programmes.
- It is very useful to include NCD screening in awareness programmes as it motivates people to take up physical activity.

In addition, the Ministry of Education, Sports and Culture (Sports Division) also engages in **physical activity promotion**. It is currently developing a National Sports Policy to provide a framework for promoting sports in Samoa. This policy framework is anticipated to strengthen efforts towards the implementation of interventions that promote sport and physical activity within

the country. In the meantime physical activity and sport initiatives undertaken by the Ministry of Education, Sport and Culture include the development of Physical Education and Health Curricula for primary and secondary schools which include various physical activity programmes for schoolchildren.

Since 2004 the Sports Division has coordinated workshops to accredit physical education teachers with coaching certificates in specific types of sports (e.g. rugby, netball, volleyball). This initiative, known as the Coaches Accreditation Scheme, enables teachers to coach children in not only specific sports but also inclusive games which enable everyone to participate.

The Ministry also funds the upgrading of sports fields in villages and schools. This has improved accessibility of the infrastructure for all, and has encouraged a lot more people to play sport and use the facilities. In the context of schools, it is interesting to note that the Education Department has decentralized most primary and secondary schools in Samoa. As a result, many students now walk to school, whereas previously most of the schools were centralized in the town area and students took the bus or were taken to school by car.

Some Samoan Government Ministries (e.g. Ministry of Education, Sports and Culture) have initiated walking groups after work in order to promote health, with the effect that now most Government employees walk regularly after work along a local seawall. In Samoa, many people consider playing sports and walking as physical activity, rather than daily physical activities undertaken in household chores and the usual labouring work in Samoa, such as farming on plantations or fishing. Thus, Samoans engage in physical activity but are not necessarily aware of it. It is also interesting to note that the Samoan culture may contribute to physical inactivity among older age groups; because of the respect that is accorded the older population, the young people do the household chores and the elderly are encouraged to rest.

2.5.15 Solomon Islands

The Solomon Islands Government and the Solomon Islands Ministry of Health increasingly recognize the importance of physical activity. Within the Solomon Islands, the Non-communicable Diseases Programme and Health Promotion Department of the Ministry of Health have an active role in promoting physical activity. Initiatives include awareness-raising via radio, such as a 15-minute health message aired daily between 18:45–19:00 and 'The Lifestyle Radio Spot' a 1-minute radio spot aired nationwide four times a day over a year with a health message read in Solomon Islands Pidgin English:
"Wakabout hemi good for Helt blong Yu, Long wanfala Dei walkabout fo 30-40 minit", meaning "Walking is very important for good health, walking is one of a suitable form of physical activities, walk at least 30–40 minutes a day". Health message articles have been printed in the Solomon Star

newspaper and physical activity topics included: the benefits of physical activity; walking an active way of life for all; and move for health. School health talks, which include messages on diabetes prevention through gardening, sport and walking, are conducted by the provincial NCD coordinators at primary and secondary schools across the Solomon Islands. Other physical activity awareness-raising activities, such as health talks (covering topics including physical activity) and screening (e.g. blood pressure, weight, height and blood glucose measures) are carried out by request at mass events and campaign days in villages, government ministries and churches. Organized sporting events in workplaces and in the community have also been arranged, such as aerobics classes, netball and volleyball. Sufficient funding and strong leadership from stakeholders is necessary for the promotion of physical activity in the Solomon Islands.

2.5.16 Sri Lanka

In Sri Lanka, a Diet and Physical Activity component is integrated into the Healthy Lifestyle Programme. This programme is part of Sri Lanka's **National Non-communicable Disease Prevention Programme** initiated by the Ministry of Health (Non-communicable Disease Unit), with the objective to promote healthy lifestyle to prevent major NCDs. The Diet and Physical Activity programme was jointly initiated by the Ministry of Health and the Ministry of Education. Its implementation takes places mainly in the school setting, thereby targeting children and youth. Interventions strategies pursued in the school setting are, for example, a 20-min early morning exercise programme, dissemination of health messages in school clubs, as well as training of school teachers on physical activity and health. Outside the school setting, "Move for Health" programmes are arranged for youth clubs, and education materials (e.g. leaflets and CD Roms on regular exercises) are disseminated at youth programmes and seminars. Media seminars are held for media personal, and physical activity is incorporated in NCD prevention training programmes conducted for health professionals. The message "engage in moderate physical activity for 30 minutes every day" is disseminated through health-care providers and media materials, in addition to other healthy lifestyle messages such as "mind your diet" and "avoid tobacco".

Funding for the National NCD Prevention Programme including the Diet and Physical Activity Programme comes from the Sri Lankan Government and the World Health Organization. With technical support from the WHO South-East Asia Regional Office, the Ministry of Health is planning to develop a national action plan to promote diet and physical activity in the country through a multisectoral approach involving all relevant stakeholders within and outside the health sector.

2.5.17 Tonga

In 2004, the Tongan Ministry of Health launched the National Strategy to Prevent and Control Non-communicable Diseases in Tonga (2004–2009). Physical activity is a key action area of this national strategy. A subcommittee on physical activity was set up within the Ministry of Health to implement physical activity interventions outlined in the national strategy. The **Ma'alahi Health Promotion Programme** and the **'Auhani Workplace Programme** are the key interventions currently being implemented by the Ministry of Health (Health Promotion Unit). The objective of both programmes is to increase population levels of physical activity in Tonga. Community-based interventions initiated as part of the Ma'alahi ("Promotion of healthy lifestyles") Programme are, for example, radio and television programmes on health, local aerobic exercise and walking programmes, as well as regular weighing. The whole population is reached through the radio and

television programmes on health. The Ma'alahi Programme is funded by the Ministry of Health, whereas the educational workplace programme 'Auhani is funded through donations, particularly from local institutions (e.g. banks, insurance companies) in which the programme takes place. 'Auhani means 'to prune something to allow growth and development'; with regards to the workplace programme it means pruning the body through reduction of weight and body fat in order to achieve health. To date, 'Auhani has been targeted to about 274 employees. The workplace programme involves physical measurements (e.g. height, weight, blood pressure, body fat), health talks delivered by doctors at the workplace, as well as aerobic exercise programmes and walks for health.

2.6 Country case studies – current best practice

In addition to the physical activity interventions presented in the short case studies in Section 3.2, some interventions were identified that may illustrate current best practice in promoting physical activity in developing countries. These interventions were selected on the basis of sufficient information being available, as well as some elements of best practice. The elements of best practice evolved through the findings from the country consultation process, as well as the literature on best practice in health promotion, and existing guidelines on physical activity interventions from developed countries (Foster, 2000; Kahan & Goodstadt, 2001). Thus, physical activity interventions that are considered to be best practice interventions are those that:

- reach a **large proportion of the population**, or of a defined population group;
- have **mid to long-term experience/sustainability** (at least 1–3 years);
- are targeted to the **whole population as well as specific population groups** (e.g. adults, children, senior citizens, employees, disabled people, women);
- define **clear objectives** (e.g. raising awareness on the importance/health benefits of physical activity, increasing population levels of physical activity);
- have **political commitment** or a **guiding policy**;
- have a **coordinating team** (e.g. programme coordination, delivery, administration, research/evaluation, dissemination);
- receive **support from stakeholders** (e.g. ministries, private sector organizations, NGOs, sports associations, schools, employers, parents, local community groups);
- provide a **clear identity** (e.g. name, logo, mascot, branding);
- are **implemented within the "local reality"** (sources, infrastructure, cultural groups);
- **distributed** the intervention components using various channels (e.g. print media, electronic media, events, powerful individuals, advocates);
- include **some clear evaluation of the programme or its elements**.

2.6.1 Brazil

Agita São Paulo

Agita São Paulo is an ongoing multistrategic, community-wide intervention implemented in São Paulo, Brazil, a state with 34 million inhabitants in 645 municipalities. The programme was launched in 1996 by the Centre for Laboratory Studies on Physical Fitness of São Caetano do Sul (CELAFISCS), an independent non-profit scientific institution, and the State Secretary for Health Department. It started as a grass-roots initiative, with volunteer participation of exercise scientists

and physicians. The aims were to promote physical activity and develop a multitude of interacting and synergistic interventions to encourage physical activity at the community level. Since then, Agita São Paulo has spread and became a model for similar programmes across the country (Agita Brazil), the Americas (similar programmes around physical activity in many South American countries, including Argentina, Colombia, and Mexico, have led to the development of the regional RAFA (La Red de Actividad Fìsca de las Amèricas)/PANA (The Physical Activity Network for the Americas) and a worldwide NGO (Agita Mundo) which initially developed the annual Move for Health initiative, launched by WHO on World Health Day 2002.

Agita São Paulo aims to increase knowledge and awareness of the benefits of an active lifestyle, and enhance physical activity participation among the São Paulo population (**objectives**). The whole population is **targeted** with a particular emphasis on students, workers and older adults. The programme strategies have included mass media, especially incidental rather than paid media, using mass physical activity events for example in schools and worksites, and professional education and capacity building. The programme is run by coalitions and partnerships of regional Health and Education authorities, academics and researchers from CELAFISCS, and other agencies. There is comprehensive quantitative evaluation of each element of the programme, and region-wide representative population surveys to track effectiveness over time.

The United States Surgeon General's (1996) **physical activity guideline** which recommends at least 30 minutes of moderate-intensity physical activity on most, preferably all, days of the week, in either a continuous or accumulated way (in sessions of 10–15 minutes) is used in Agita São Paulo. For that reason, the mascot of the programme is the "half-hour man". For youth, an alternative message is to engage in at least 20 minutes of sustained vigorous physical activity on three days a week. The programme uses the "one-step-ahead-model" including messages that encourage sedentary people to become more active; the somewhat active to be regularly active; and those who are already very active to remain active without injuries. The focus is more on "active living" and "physical activity for health" than on "sport" and "fitness". Therefore, everyday and lifelong physical activities such as walking, gardening, home chores and active transport are the most recommended activities. As Brazilians love to dance recommended leisure activity largely focuses on dancing.

Intervention model

People's home, workplace (including transport to the workplace) and leisure places have been regarded as the most feasible settings for intervention. Agita São Paulo addresses these settings through three types of intervention strategies:

Permanent actions by local organizations to promote the physical activity message in the community:

Example 1: The programme Family School was developed in collaboration with the State Education Authority, providing access to sporting facilities in 6000 public schools of São Paulo State to members of the school community and neighbourhood.

Example 2: With the help of the Youth Men Christian Association Agita Verão ("Move Summer"), a summer festival at beaches, was initiated to deliver the physical activity message to people on vacation. Over 100 000 car, bus, and truck-drivers and families received Agita flyers at toll stations on highways going to the beaches.

Example 3: Walking programmes in hospitals, health centres, city halls.

Supportive actions by other institutions (e.g. dissemination of the physical activity message on electricity company bills, in a soccer stadium, and at metro stations).

Mega-events to mobilize a large portion of the population to engage in physical activity (e.g. the annual Agita Galera Day/Active Community Day delivered in 6000 public schools involving over 6 million students; Active Worker Day, Active Elderly Day conducted in centres for elderly individuals).

Agita São Paulo adopts a holistic approach by not focusing on the individual only but also on their environment that comprises relatives, teachers, peer groups, community values and media. The name Agita ("movement") was selected advisedly; it represents not only the desire for physical activity but also includes considerations of the mind, social health and citizenship. The "half-hour man" is the mascot of the campaign, reflecting the attention to cultural aspects, since fun is a crucial factor for Brazilians. A "half-hour woman", a "half-hour cowboy" and a "half-hour seashoreman" were additionally created, attempting to adapt to gender and regional cultures.

The leading agency is CELAFISCS which provides the organizational structure to coordinate the programme, but building partnerships is a key component of the Agita São Paulo concept. During the nine-year experience of the Agita São Paulo programme, strategic partnerships with key **stakeholders** have been developed. Firstly, intellectual partnerships of national and international organizations were built to establish a scientific committee that made the case for change and developed a framework for action. The scientific committee includes experts in the area of physical activity and public health (e.g. physicians, physical education teachers, physical therapists, social workers). Secondly, an intersectoral executive committee was initiated to decide on joint activities, a schedule of events, and collaboration strategies. It comprises more than 300 governmental organizations and NGOs, as well as private industry from the health, education, sports and environment sectors.

Funding for Agita São Paulo comes from three sources: 1) the State Secretariat of Health (principal source) to cover salaries of professionals involved in the programme, and expenditures for the promotional and educational materials; 2) partner institutions to fund joint actions and programmes; and 3) businesses to produce educational and promotional materials. There is also a large volunteer component of academics and professionals who donate their time to the research and organization of Agita activities.

Evaluation of Agita São Paulo includes monitoring by central office and outside groups, and contains measurements of population levels of physical activity, physical activity knowledge, barriers, attitudes, behaviour stage, as well as awareness of the Agita São Paulo programme. Several evaluation studies of community-based interventions and mega-events reveal that Agita São Paulo has been very successful in raising public awareness of the programme, disseminating the programme's message and encouraging people to become physically active. A survey conducted in 2002 in the city of São Paulo showed that 52.9% of the people interviewed knew about Agita São Paulo. Another survey conducted in 2002 in the São Paulo Metropolitan Area (using IPAQ) revealed that the percentage of people walking for at least 30 minutes per day, five or more days a week, increased from 23% in 1999 to 28% in 2002.

Key experiences

- Longitudinal and long-term data collection and community-wide interventions over the long term, such as in the island of Ilhabella.
- Key adoption and dissemination of a central social marketing mascot, the "half-hour man"
- Visit by Gro Harlem Brundtland on World Health Day 2002 (the then WHO Director-General) – created a climate of interest for the programme locally, and encouraged partnerships and increased the international profile.

- Support from state and regional agencies as well as international partners, such as the United States Centres for Disease Control and Prevention and the Physical Activity Network of the Americas development.

2.6.2 China, Hong Kong SAR

The Healthy Exercise for All Campaign

The territory-wide Healthy Exercise for All Campaign was launched in 2000 by the Leisure and Cultural Services Department (LCSD) and the Department of Health (DH) of the Hong Kong SAR Government when the LCSD was newly set up. It is a joint initiative by the LCSD and the Central Health Education Unit (CHEU) of the DH. The idea of this ongoing campaign was originally endorsed by the Healthy Living and Disease Prevention (HLDP) Committee which previously launched a three-year Healthy Living into the 21st Century Campaign in 1998 to promote healthy lifestyles in Hong Kong SAR.

The Healthy Exercise for All Campaign is to enhance public awareness on the importance of doing regular exercise and encouraging the public to pursuit active lifestyles (**objective**). Since its launch in 2000, about 8000 programmes for about 460 000 participants have been organized.

The campaign is targeted to the general population in the community (**target group**). The slogans "daily exercise keeps us fit, people of all ages can do it" and "30 minutes of exercise a day does wonders to your health" are to encourage people of all ages to engage in regular physical activity. Specific programmes are tailored to senior citizens, people with disabilities and children. In view of the diversity of the Hong Kong SAR population, some activities were conducted to cater for the different people (different ages, abilities) and to give them more choices so as to stimulate their interest in doing more physical activities.

**"Daily exercise keeps us fit,
people of all ages can do it"**

Intervention model

To enhance publicity for the Campaign, local famous athletes are invited to be **Healthy Exercise Ambassadors** to promote the Campaign. Besides that, various means of publicity have been adopted such as posters, leaflets, booklets, banners, giant wall banners, VCDs, videotapes, web sites, newspaper supplements, newspapers and magazine advertisements.

The campaign consists of various components such as:

- **Major promotional events** with seasonal themes for the general public (e.g. Water Sports

Carnival, Outdoor Activities Carnival, Indoor Sports Carnival).
- **Fitness programmes** targeting specific groups (e.g. children, senior citizens, people with disabilities).
- **Walking schemes** (e.g. hiking, "quali-walk"/brisk walking).
- **Stair climbing scheme** promoting daily physical activity.
- **Roving sports demonstrations** featuring selected sports for promotion.
- **"Dance for Health" programmes** in districts (e.g. social and modern, children's' dance classes).
- **Rope skipping activities** (e.g. Rope Skipping Promotion Day/ Rope Skipping Challenge Day/ Rope Skipping Workshop/ Rope Skipping Performance cum Carnival).
- **Roving exhibitions** in swimming pools, sports centres, shopping centres, centres for the elderly, and schools to widely disseminate the "physical activity for health" message to the community.

In addition, the **Active Living Charter** was introduced targeting people in workplaces and schools. About 246 corporations, community organizations and schools signed up to the Charter and received a booklet with information on the Healthy Exercise for All Campaign, as well as resources to organize activities in their own settings. To date, some signatory organizations have carried out various activities such as physical tests, meritorious award schemes, large scale campaigns, competitions, training classes for physical activities as well as exhibitions, distribution of leaflets, a video show and information corner.

Funding for the Healthy Exercise for All Campaign comes from DH and LCSD. They are the leading departments jointly organizing the campaign. Apart from these, other organizations are involved in implementation such as the National Sports Associations, the Physical Fitness Association of Hong Kong, China, the Hong Kong Rope Skipping Association, the Hong Kong Dance Federation, the Hong Kong Dance Sport Association, the Hong Kong Table Tennis Association, the Hong Kong Wushu Union, the Hong Kong Badminton Association, the Gymnastic Association of Hong Kong, China, the Hong Kong Amateur Fencing Association etc., as well as professional bodies such as the Physiotherapy Association, the Hong Kong Baptist University and the Countryside Heritage Society of Hong Kong.

Every year, programmes organized as part of the Campaign are **evaluated** in order to revise or to improve them to meet the needs of local residents. For example, in the Hiking Scheme activities, feedback from event organizers was collected and programmes were modified accordingly to meet the needs of the participants.

Key experiences

► The Healthy Exercise for All Campaign was successful in raising public awareness of the importance of regular physical activities. Participation in physical activity for health became widely accepted by the local community. The campaign committee continues to motivate the general public to do regular exercise by enhancing awareness, providing suitable facilities and organizing exercise programmes for different age groups with different levels of ability. Efforts have been made to involve various stakeholders in the community to implement the campaign. The involvement of

community groups can definitely help to infiltrate the spirit of doing regular exercise into all walks of life.

2.6.3 Colombia

Muevete Bogotá

In 1998, Muevete Bogotá was initiated by the District Institute for Sports and Recreation (Instituto Distrital para la Recreación y el Deporte, IDRD), an institution located at the municipal government of the Capital District of Bogotá. Muevete Bogotá is primarily a Workplace Physical Activity Promotion Programme conducted in the capital city of Bogotá with a population of almost 8 million inhabitants and divided into 20 localities. The ongoing programme is based on international experience and the Brazilian programme Agita São Paulo. Its overall goal is to improve quality and expectancy of life for Bogotá citizens. This is to be achieved (**objectives**) by informing the public about the health benefits of physical activity and promoting physical activity primarily in the workplace setting but also in other settings such as schools, health-care institutions and the community.

Muevete Bogotá is **targeted** to employees (e.g. administrators, workers, managers, directors) located in institutes, associations, public and private schools and universities, business and health-sector organizations, as well as local neighbourhood groups who want to implement physical activity programmes in their community. It thereby covers population groups from 7 to 60 years of age.

The United States Surgeon General's (1996) **physical activity recommendation** of accumulating at least 30 minutes of moderate-intensity physical activity on most days a week was adopted by Muevete Bogotá and this message was developed in consultation with programme coordinators of Agita São Paulo. The focus of Muevete Bogotá is on physical activity in leisure time through the use of the parks system of the city to increase regular physical activity in the population on a large scale.

Intervention model

The Muevete Bogotá Workplace Physical Activity Promotion Programme comprises four key components:

- An **educational media campaign** to provide technical expertise and information to new potential partner companies to encourage them to conduct physical activity programmes at the workplace (e.g. talks on basic concepts about physical activity and healthy lifestyles, logistic support when organizing activities in the

community and the workplace). Media used are pamphlets, posters, a guide of physical activity for each sector (business, education, health), videos and CDs.

- **Advisory services** for potential partner companies that want to develop physical activity programmes at the workplace. The partner companies may be represented through company directors or unions and worker associations. The advisory services include but are not limited to the following strategies:

1. **Training and capacity building sessions** are conducted twice a year for potential "physical activity promoters" among the employees of partner companies (e.g. managers, coordinators responsible for occupational health, representatives of occupational insurance sectors). The training sessions provide them with basic knowledge (e.g. recommendations) and skills (e.g. how to perform physical activity and exercise with a minimum risk) to develop a physical activity programme at their workplaces.

2. **Continuous process evaluation** is conducted during the implementation of the workplace physical activity programmes to reveal employees' participation in physical activity, stages of behavioural change, perceived barriers and physical activity preferences.

Some companies that successfully implemented physical activity programmes at the workplace have included physical activity as part of their worksite policies. For example, one partner company spends a proportion of its total budget to its physical activity programme Muevete Alqueria. Another partner company has also designated a budget to its physical activity programme Camina Policia, and extended the programme nationwide, thereby reaching approximately 150 000 employees. Another company dedicates 10 minutes of the workday five times a week to stretching and calisthenics exercises, as part of its programme Muevete Levapan. It has also initiated a promotional campaign encouraging employees to use the bicycle for transportation to work. As a result, an increasing number of employees now cycle to work, thereby spending 10–45 minutes on active transport.

Programme **funding** comes from the Major Office of the city through IDRD, which is the leading agency implementing Muevete Bogotá. An implementation team was set up by the District Institute including a:

- Muevete Bogotá coordinator
- Muevete Bogotá facilitators (persons who recruit potential partner companies)
- Muevete Bogotá quality control assistant
- Wellness Department coordinator and representative of the Occupational Health Departments within the partner companies
- Manager of the sports or health programmes in the partner companies
- Scientific committee of physical activity experts from the fields of medicine, nursing, psychology, physical therapy, physical education or nutrition.

Many other organizations (**stakeholders)** have been involved in the implementation of Muevete Bogotá, as for example, the Secretary of Health of Bogotá, the Colombian Heart Association, the Colombian Diabetes Association, university departments, the Fundación FES Social/Bogotá,

CELAFISCS in São Paulo, Brazil, the United States Centres for Disease Control and Prevention as well as the Pan-American Health Organization.

Muevete Bogotá has received important institutional support from the directors of IDRD due to its extensive local and national **dissemination**. The number of partner companies participating in Muevete Bogotá has grown significantly from 25 in 2000 to 163 in 2005. The educational media campaign and direct contacts with the partner companies are the principal strategies to disseminate Muevete Bogotá. Other events used for programme dissemination include capacity building workshops on physical activity, academic forums and seminars on physical activity, the "Month of the Active Employee" (May) and the World Day of Physical Activity (Move for Health Day, 6 April). Most of the participating companies named their physical activity programmes after the word "Muevete", thus spreading the message of Muevete Bogotá.

Evaluation is an integral part of all Muevete Bogotá worksite programmes. An evaluation committee was set up including the Muevete Bogotá coordinator, the Muevete Bogotá facilitators and the Muevete Bogotá quality control assistant. Evaluation findings from 2004 showed that to date about 1521 employees from the business sector have been trained as physical activity promoters within their company. Of the 163 partner companies, 49 enrolled in Muevete Bogotá have initiated physical activity promotion strategies at the workplace and 21 companies have developed their own programme, logo and physical activity message. This action is considered to be important as it creates a sense of belonging among the programme participants, thereby contributing to the adoption of physical activity practice. Twelve companies have baseline data on employees' levels of physical activity, participation in the physical activity programmes, stage of behavioural change, perceived barriers and physical activity preferences. Futhur evaluations remain to be undertaken to reveal an increase of physical activity levels among employees.

Since its initiation in 1998, Muevete Bogotá has achieved a great impact and created linkages with other national and regional physical activity programmes, policies and networks. For example, in 2001 Muevete Bogotá programme coordinators provided consulting services to programme coordinators of other community-based, workplace and school physical activity programmes in Colombia (e.g. Risaralda Activa, Cundinamarca Siempre Activa, Cauca Activa, A Moverse Digame). International consultations on implementing physical activity programmes in other Latin American countries took place, for example, for the programmes Movamonos Costa Rica and Venezuela en Movimiento. In 2002, the Colombian Network of Physical Activity (Red Colombiana de Actividad f'isica) was created, and Muevete Bogotá actively participates and supports this network and the different activity programmes from the country. It also became a member of the regional Physical Activity Network for the Americas. In 2003, the National Ministry of Social Protection and National Coldeportes developed the national strategy "Colombia Activa Y

Saludable" ("Active and Healthy Colombia"), based on the structure and experience of Muevete Bogotá.

Key experiences

► Muevete Bogotá has been successfully disseminated among private sector companies as well nationally and internationally to other physical activity programmes. However, more funding and human resources are needed in order to improve and increase the interventions in partner companies. Moreover, more efficient and aggressive strategies need to be developed to promote leadership among employees for implementing the physical activity programmes at the workplace.

2.6.4 Fiji

Move for Health Fiji

In 2004, Fiji initiated the nationwide Move for Health Fiji project to be conducted between 2004 and 2008. Implementation takes place in the context of Fiji's National NCD Strategic Plan (2004–2008) which includes promotion of physical activity as a key action area, coordinated by a subcommittee on physical activity within the Ministry of Health.

The goal of Move for Health Fiji is to implement a comprehensive population-based strategy to increase physical activity in Fiji. **Objectives** are: 1) to implement effective multiyear physical activity related social marketing and communication strategies; 2) to create awareness of the importance and benefits of physical activity among the public; 3) to mobilize the community to create supportive environments for physical activity; and 4) to develop a centre that provides resources and support for physical activity. The whole population is **targeted** by interventions within Move for Health Fiji, with a particular focus on specific population groups (women aged 35 years and above, people living in urban areas, Indo-Fijians) that were identified from the 2002 Fiji NCD STEPS Survey (Fiji Ministry of Health, 2005) as the least active population groups in Fiji.

A National Physical Activity Guide for Fiji was recently developed by the Ministry of Health, based on national **physical activity guidelines** from Australia, Canada and the USA. The recommendation is to engage in at least 30 minutes of moderate-intensity physical activity on most, preferably all, days of the week (either continuously or accumulated over the day). In addition, some regular vigorous physical activity is recommended for extra health and physical fitness.

Intervention model

The Move for Health Fiji project includes various intervention strategies in the areas of community awareness, education and supportive environment.

Community awareness: A comprehensive media campaign promoting physical activity is planned utilizing several communication channels (e.g. mass media; "word of mouth"; posters; scientific literature; information, education and communication (IEC) material; multimedia presentations). To date, an annual **Move for Health campaign** including an **Olympic Fun Run/Walk** has been initiated to raise awareness of the importance of physical activity. In addition, local physical activity initiatives and programmes will be conducted in community and workplace settings.

Education: A National Physical Activity Guide Fiji for adults was developed to form the basis of educational activities in the community. Educational materials will be developed, in collaboration with the National Centre of Health Promotion (NCHP), for training and education purposes and used to conduct series of training programmes for professionals in the Ministry of Health's divisions and sub-divisions. A training programme designed by SPC will follow.

Supportive environment: The promotion of supportive environments is a major part of the Move for Health Fiji project, through partnerships with municipalities, community and civil society groups as well as nongovernmental organizations. For example, Move for Health walkways will be set up for the promotion of walking in the community. In addition, open spaces in municipalities are to be utilized for local physical activity programmes.

The Ministry of Health is the main funding body of Move for Health Fiji. However, to assure project sustainability other **funding** sources will be sought such as WHO and the Australian Agency for International Development (AUSAID). The Ministry of Health (subcommittee on physical activity) is also the leading agency implementing Move for Health Fiji, in collaboration with other organizations (e.g. Sports Fiji, the National Centre of Health Promotion, the Fiji Association of Sports and National Olympic Committee, the Suva City Council, the Fiji Sports Council, the Fiji School of Medicine, the Fiji Disabled Association, hospitals and health centres, corporate sector organizations). In the future, the establishment of a resource and demonstration Centre for Physical Activity is planned, in partnership with existing centres (e.g. the Fiji Sports Council Fitness Centre). It aims to facilitate incorporation of health components into local fitness programmes and capacity building for counseling and educational activities on physical activity and health.

The Move for Health Fiji project will be widely disseminated among the public, using social marketing, communication and mobilization strategies. For example, this includes a media campaign promoting physical activity using various **dissemination** channels (e.g. mass media, "word of mouth", posters, and scientific literature). The previously-held Move for Health campaign including the Olympic Fun Run/Walk is another example of an event disseminating the Move for Health message.

Process and outcome **evaluation** of the Move for Health Fiji project is planned, involving a 'before and after' evaluation design of process and outcome indicators. Process evaluation will occur

through qualitative surveys and continuous documentation of physical activity intervention strategies. Outcome evaluation will take place through measurement of physical activity in the population, using the Fiji NCD STEPS Survey 2002 as baseline data.

Key experiences

► The Olympic Fun Run/Walk organized under the Move for Health Campaign was generally successful as it involved a large number of people each year.

► The creation of the Move for Health Walkway along the front shores of Suva City has led to an observed increase in the number of walkers daily, and also great partnership-building with the local municipality – the Suva City Council

► The initiation of "Cycle for Health" and "Vude (dance) for Health" under the banner of "Move for Health" from NGOs was very encouraging. There is even a jingle created by a group which was played during the Fiji Day Walk for Health (the mass walking is a regular part of the programme for Fiji Day for the last two years).

► The Ministry of Health is more visible in DOING physical activity and not just educating about it. The Head Office has regular walks and an Annual Sports Day was organized in 2005.

2.6.5 India

Workplace-based Health Education Intervention

The workplace-based Health Education Intervention (a component of the 'Sentinel Surveillance for CVD in Indian Industrial Population' project) is a multi-industry-based health educational intervention. It aims to increase awareness of the importance of physical activity, and increase physical activity levels, as part of the overall objective to increase awareness and move towards healthier lifestyles amongst industrial employees and their family members. The intervention was developed and coordinated nationally by the Initiative for Cardiovascular Health Research in Developing Countries (IC Health) and the All India Institute of Medical Sciences. It was implemented in ten locations across India by individual medical colleges and industries over a period of two years commencing in May 2003. The intervention was **targeted** at industrial employees and members of their families aged 10–69 years. The workplace-based Health Education Intervention was funded by the Ministry of Health and Family Welfare, the Government of India and WHO (India Country Office).

A total of 19 973 people participated in the workplace-based Health Education Intervention which addressed physical activity, skill-oriented knowledge and motivational messages, and other NCD risk factors such as unhealthy diets, tobacco use, and high blood pressure.

Intervention model

The Health Education Intervention material was based on: 1) qualitative feedback from the respondents at the various target industries collected by research staff; 2) strategies which used theories of behaviour modification – projecting desirable behaviours as pleasurable, motivational enhancements, personal responsibility typology, social cognitive theory, social marketing and social network theory; and 3) identification and physical activity interventions targeting individuals rising in socioeconomic status (a high risk population).

The following process for modifying participant's behaviour was implemented: 1) a **"skill-oriented knowledge phase",** during which the target community was sensitized to the advantages/benefits and methods/skills in everyday life to be more physically active; 2) a "**behaviour phase"** when the intervention material used projected pleasurable aspects of desirable behaviours and created aspirations for them, which prevented people from ceasing to be physically active as they rose in socioeconomic status.

Components of the intervention included:
1) The placement of motivational posters at strategic locations within the industries.
2) Dissemination of health messages: The distribution of educational booklets and handouts; one 15-minute film and five 30-second spots covering all CVD risk factors were broadcast on average twice a week for three months; and via a local cable television network (with messages on: cycling, walking, Yoga, climbing stairs, dancing, outdoor games, household chores done in Indian households).
3) One-to-one interactions between intervention staff (doctor/nutritionist) and industrial employees when collecting individual clinical biochemistry reports,
4) A series of interactive lectures/group sessions involving a brief presentation and question and answer session, conducted by physicians or intervention investigators.

Anecdotal evidence suggests the combination of educational/behavioural booklets, films and one-on-one interactions was successful in increasing motivation to increase physical activity. Formal **evaluation** of the Health Education Intervention assessed changes in perceived levels of physical activity in a subsample of 3219 randomly-selected participants. At one year follow-up 17.1% of respondents reported they had made a conscious effort to increase physical activity levels.

Creating culturally appropriate, context- and content-specific educational materials and interactions, and projecting physical activity as pleasurable, were vital to the intervention's success. Study materials were translated into seven languages (Hindi, Tamil, Malyalm, Telugu, Kannad, Assamese, Marathi) and the language content was simple and adapted to Indian culture (for example, the concept of family in the Indian culture goes beyond the father, mother and children to the grandparents, and moving from wearing saris to western dresses connotes a better weight profile

amongst urban and semi-urban women). The skill-orientated content was applicable to everyday real-life situations (e.g. cycling, using the staircase, doing household chores). In addition to coverage of health education messages on television, the intervention results will be disseminated through the scientific literature.

Key experiences

► Projecting the pleasurable aspects of desirable behaviours, creating aspirations about the desirable behaviours within their social networks, using modern communication strategies and presentations in terms of real-time powerful good-quality photographs, colour and design was important.

► In materials, text should be minimal and communication should have a strong visual content. All this has to be based on scientific theory of behaviour change.

► Active participation and ownership by the industrial medical officers, employees, trade union leaders and staff was important.

► Many people in India tend to give up some of their routine physical activities as they move up the socioeconomic ladder. These need to be identified and appropriately targeted.

► Training the intervention staff in behaviour modification could have further improved the impact of the intervention, but this was not built into our project and could not be done.

2.6.6 Islamic Republic of Iran

The Isfahan Exercise Project

The Isfahan Exercise Project is a five-year community-based intervention **aiming** to increase physical activity levels among the **general population** of rural and urban residents of Isfahan and Najafabad, with a population of 1 895 956 and 275 084 respectively. The **overall goal** of the Isfahan Exercise Project is to improve knowledge, attitude and practice related to physical activity. It was initiated in 2001 as one of eight interventions conducted as part of the Isfahan Healthy Heart Programme, a comprehensive integrated community-based programme for cardiovascular disease prevention and control, aiming to reduce various health risk factors e.g. hypercholesterolemia, hypertension, tobacco use and physical inactivity.

Intervention model

The Isfahan Exercise Project operates at the individual, group and community level. The "30 minutes of daily moderate-intensity physical activity" message used in the project is promoted through a number of strategies including mass media campaigns, local exercise programmes, educational training and the creation

and enforcement of regulations for physical exercise. Sensitivity to the social environment was important in planning and implementing these strategies.

Components of the The Isfahan Exercise Project include:

Mass Media: Isfahan Radio and Television Broadcasting Service is used to convey educational physical activity messages. This includes televising weekly physical activity training programmes.

Special events: A number of special events are carried out as part of the Isfahan exercise project.
For example, **car-free days** are designated days where motor vehicle traffic is prohibited in one of the main city streets. These aim to help promote the culture of using public transport within the population. Other initiatives are run in unison with the car-free days, such as healthy heart exhibitions, painting exhibitions for children and health heart stations. **Exercise rallies** are also held on car-free days, public holidays and religious feast days. These rallies occur in collaboration with a number of stakeholders including the Isfahan Province Public Exercise Committee, Isfahan Municipality Welfare and Recreation Organization and various NGOs, especially the Iranian Association of Heart Friends. **Walking rallies** on the last Friday of every month are also arranged by NGOs.

In collaboration with **women** and **worksite physical activity intervention projects**, a number of exercise groups and networks have been formed in neighbourhoods and workplaces, as well as healthy heart sports clubs. **The educational curricula of sports instructors** have been amended to include a course on lifestyle modification for prevention of NCDs.

The importance of creating supportive environments has been recognized through the **enforcement of physical exercise regulations** in departments and the **passing of new regulations**, in collaboration with the provincial physical exercise task group. **New bicycle parks and bicycle tracks** have been developed in city streets to allow people greater access to environments for physical activity.

Implementation of the Isfahan Exercise Project involves intersectoral collaboration between the Isfahan Cardiovascular Research Centre, Provincial Health Office, Provincial Physical Organization, Isfahan Municipality, Disciplinary Force and NGOs. The engagement of community leaders as active participants in the project resulted in gradual change of the environment to support risk reduction and community planning for programme continuation.

Dissemination of the intervention at a national level is planned following completion of the demonstration phase in 2006. Evaluation of the Isfahan Exercise Project occurs through process evaluation of the intervention in Isfahan and Najafabad. Outcome evaluation will be conducted to compare population levels of physical activity in Isfahan (intervention area) with those in a control area, Arak. Preliminary results (after three years) suggest that some components of the intervention have been successful such as car-free days, healthy heart exhibition, weekly physical activity training programmes on television and worksite physical activity in some organizations. Results of

the formal evaluation will be available following completion of the present demonstration phase. In addition as part of the wider Isfahan Healthy Heart Programme, outcome evaluation will be conducted. Baseline risk factor levels and associated behaviours were measured before programme initiation and will be reassessed at six years follow-up in the intervention and control communities.

2.6.7 Malaysia

Healthy Lifestyle Campaign/Non-communicable Disease Prevention Programme

The Malaysian Ministry of Health launched a nationwide Healthy Lifestyle Campaign in 1991 with three campaign phases. The first phase (1991–1996) focused on chronic diseases (e.g. cardiovascular diseases, diabetes, and cancer). The second phase (1997–2002) addressed lifestyle factors (e.g. healthy diets, exercise and physical activity, safety and injury prevention, mental health, healthy family, healthy environment). The third and current phase (2003–2008) focuses on continuous prevention of health risk factors such as unhealthy diets, physical inactivity, smoking and psychosocial stress, using the setting approach (e.g. workplace, school, community). The Healthy Lifestyle Campaign was implemented based on the National Strategy on Cardiovascular Disease Prevention and Control. Two complementary approaches have been used: the population approach and the individual or high risk groups approach. The reason for this is that reduction of NCDs, particularly cardiovascular diseases, is most likely to be successful when both approaches are pursued simultaneously.

With regard to physical activity, the **objectives** of the Healthy Lifestyle Campaign are: 1) to promote exercise as a norm and culture within the community; 2) to disseminate the message on the benefits of exercise; and 3) to increase by 5% the proportion of people who exercise adequately. The motto of the campaign is "Bersenam bersama Negara" ("Exercise with the Nation") and the slogan is "Senaman Asas Kesihatan" ("Exercise for Health"). The campaign is **targeted** to the whole population and the focus is mainly on aerobic exercise, games and recreational activities. In addition, for population groups at particular risk of developing NCDs, specific physical activity counseling and exercise prescriptions are provided in the clinical setting.

Physical activity guidelines for the general population were produced as part of the health promotion intervention package in all phases of the Healthy Lifestyle Campaign. Previous physical activity guidelines emphasized 30 minutes of exercise on three days a week. However, since 2003, the United States Surgeon General's (1996) recommendation of accumulating at least 30 minutes of moderate physical activity on most days a week has been incorporated into the intervention strategies related to physical activity.

Intervention model

The Healthy Lifestyle Campaign promotes physical activity through various intervention strategies:

Dissemination of health education information related to physical activity through print media (e.g. posters, wall charts, booklets) and electronic media (television, radio), often broadcast in the four major languages (Bahasa Melayu, Tamil, Mandarin, English). For example:

- **Talks, interviews, and trailers** on healthy lifestyles including physical activity are aired on television and radio through courtesy and purchased airtime.
- In collaboration with editors of popular local magazines and dailies **advertorials on the promotion of physical activity are published in magazines and newspapers** in conjunction with special health days (e.g. World Heart Day, World Health Day).

Exhibits on healthy lifestyle with emphasis on exercise and physical activity are produced on CD and sent to statewide health education units to support them to produce their own sets of exhibits.

A **training manual** on the promotion of healthy lifestyles including physical activity was developed for health staff, the school community, and trainee teachers to provide them with skills and knowledge on healthy lifestyles and physical activity.

Special campaign events are conducted including health talks, forums, seminars and discussions on exercise and physical fitness.

- The **Malaysia Fitballrobic and Jump Rope Competition** started in 2003 to encourage staff in fitness-related organizations, schools and health-care institutions to use fitball and jump rope for physical fitness activities.
- **Mass aerobic exercises** and **mass cycling programmes** are organized in cooperation with multisectoral organizations (e.g. Ministry of Youth and Sport, Ministry of Education, National Heart Association, Malaysia Diabetes Association) to raise awareness and interest in physical activity fitness programmes in the community.

Non-communicable Disease Risk Factor Intervention clinics have been implemented at the primary care level in all states in Malaysia. Physical activity assessments and interventions are conducted in the clinical preventive services in these clinics. The physical activity assessments are based on the WHO STEPwise Approach to NCD Surveillance (STEPS) questionnaire, and sub-maximal physical fitness tests adopted from the American College of Sports Medicine.

The Healthy Lifestyle Campaign is carried out at the national, state, and community level which includes various settings such as schools, workplaces and health clinics. Therefore, a number of NGOs (e.g. the National Heart Foundation, the Malaysian Society for the Study of Obesity/MASSO, the Fitness Association, the Diabetes Association) take part in the implementation (**stakeholders**), whereas the Ministry of Health is the leading agency responsible for campaign planning, implementation and evaluation at national level. **Funding** for the campaign comes mainly from the Malaysian Government. However, participating NGOs as well as private agencies (e.g. Malaysia Telecom Co, Tenaga National Berhad, ESSO, Motorola) bear their own funding.

The Healthy Lifestyle Campaign has been simultaneously **disseminated** at the national and state level using various mass media (television, radio, Internet, newspapers, magazines). Process **evaluation** is conducted through the use of registries, reports and feedback documenting the number and types of: 1) educational materials disseminated; 2) media activities implemented (e.g. talks, programmes and commercials on television and radio, articles in newspapers and magazines, newspaper advertisements); 3) educational training sessions conducted for professionals in health care, school and community organizations; and 4) physical activity programmes carried out in the community. Outcome evaluation of the national Healthy Lifestyle Campaign is carried out through national surveys: the National Health Morbidity Survey (NHMS) and the National Noncommunicable Disease Surveillance using the Malaysia Health Status Surveillance System (MyHeSS). The National Health Morbidity Survey is conducted every ten years and the National Noncommunicable Disease Surveillance every three years. Prior to the introduction of MyHeSS, the Ministry of Health had applied the National Physical Fitness Test, introduced in the mid-1980s by the Ministry of Youth and Sport, to assess physical fitness in the population.

Key experiences

► Very good networking and full cooperation between more than 1000 Ministry of Health institutions (e.g. health clinics, hospitals, health offices), other ministries, agencies, NGOs and the community contributed greatly to the success of the physical activity interventions within the Healthy Lifestyle Campaign.

2.6.8 Marshall Islands

The Nutrition and Diabetes Prevention Programme (NDPP)

Since 2000, the Nutrition Unit of the Ministry of Health has implemented the national Nutrition and Diabetes Prevention Programme (NDPP). The programme is conducted as part of the Ministry of Health's 15-year Strategic Plan (2001–2015). This plan will be revised in the near future in support

of more specific NCD prevention measures (e.g. around physical activity, healthy diet, alcohol consumption, tobacco use).

All projects under the NDPP are initiated at national level, and implemented at state and local level. For the Marshall Islands this includes 23 atolls (out of 29) that are reached by programme coordinators by car, plane or boat. In each atoll a population of about 200–800 people is targeted per site visit, and depending on the population size of the atoll (the number of islands to visit per atoll), a site visit may take 7–14 days.

The overall goal of the NDPP is "Wellness Promotion", by means of promoting healthy diets, physical activity, smoking cessation, and maintaining a healthy weight (**objectives**). As a national programme, it is **targeted** to the whole population but deals with specific population groups according to intervention, such as young people (15–25 years of age), women, men, church leaders, young mothers, community health councils, school teachers (preschool, primary school and high school), overweight and obese people, as well as people with diabetes and their family members. Due to sensitive traditional customs and gender specific roles in society, there is sometimes the need to separate men and women when conducting physical activity interventions.

Intervention model

Projects under the NDPP are implemented on a yearly basis depending on needs (national indicators) and demands (by community groups). The following projects related to physical activity have been implemented as part of the NDPP:

- **Weight loss competitions** to reduce overweight/obesity in all population groups, particularly among women. This includes aerobic exercise sessions twice a week, individually designed physical activity programmes (including walking, gardening, house chores), as well as monthly weight measurements and awards at the end of each year (women's category, men's category, most weight loss, highest % of fat loss).

- **Move for Health activities** which include sports competitions (e.g. softball, lawn tennis and volleyball), walking teams, walk-a-thons, women's canoe racing, community gardening projects, and at the individual level, house chores, swimming and dancing.

- The **KIJLE (Kora in Jipan Lolorjake Ejmour/Women for Health) women's club** organizes weight loss competitions, an aerobic exercise programme, a walking programme, a women's softball tournament, and contributes to the coordination of diabetes prevention training and workshops.

- **Pacific Diabetes Today (PDT) Project[4].** Three PDT training workshops were conducted, and as a result, three community diabetes working groups were established that organize diverse projects such as traditional food gardening, weight loss competitions, school sports competitions, annual walks for health. For example, in celebration of World Diabetes Day 2001 a 1–4 mile walk-a-thon was organized engaging diabetics and non-diabetics. The Ebeye PDT group, called the Ebeye Health Awareness Task Force, coordinated a Walk for Health event to celebrate the National Health Month in April 2002. The walk for health event involved people with diabetes, young people, the mayor of Ebeye Island as well as other key national and traditional leaders (e.g. chief family members of Ebeye Island, the Commander of United States Army Kwajalein Atoll (USAKA), local government officials).
- **Healthy Living in the Pacific Islands Project (HLPI)** aims to promote physical activity as well as traditional food processing and preservation methods, using local foods and traditional cooking methods.
- The **Sports Play Active Recreation for Kids (SPARK) Project[5]** was initiated to promote physical activity at school through specifically-trained teachers. Activities were organized using locally-made sporting equipment accessible in the Marshall Islands; for example, spray-painted coconuts for markers in place of the cones, balls made from coconut fronds, jumping ropes made from vines that grow wild around the shores, bean bags made from sand and beans, and ribbon made from scrap material.
- **Theme song: "Have you heard the good news"**. Marshallese people love to sing and dance. Therefore, a song composed by local singers was created for the NDPP to promote movement of the whole body in order to prevent diabetes.

The NDPP is partly **funded** by federal grants from the United States Centres for Disease Control (CDC), WHO, the Healthy Living in the Pacific Islands Project (through the College of the Marshall Islands Land Grant Programme), the Pacific Diabetes Today Resource Centre, SPC, and in-kind contributions from local private sector and community organizations.

Programme implementation takes place in collaboration with multisectoral organizations (**stakeholders**) including governmental organizations (e.g. Ministry of Education, Ministry of Internal Affairs, Ministry of Resources and Development, Ministry of Justice, the College of the Marshall Islands, local governments) and NGOs (e.g. Salvation Army, Youth to Youth in Health, Ebeye Community Health Task Force, KIJLE women's club, Jaluit Diabetes Working Group, WUTMI).

[4] The Pacific Diabetes Today (PDT) Project was originally adapted from the United States Centres for Disease Control Division of Diabetes' Translation Diabetes Today Model and modified by the Pacific Diabetes Resource Centre at Papa Ola Lokahi in Hawaii.

[5] The Sports Play Active Recreation for Kids (SPARK) Project was offered by San Diego State University in California, USA (http://www.foundation.sdsu.edu/projects/spark).

NDPP messages are **disseminated** through weekly newspaper articles, radio spots and a quarterly newsletter. NDPP activities such as the annual Walk for Health and health fairs correspond to other international events (e.g. International Women's Day, World Health Day, World No-Tobacco Day, World Population Day, World Food Day, World Breastfeeding Week, World Diabetes Day, World AIDS Day, Children with Special Health Care Needs Day). These events are utilized to disseminate the message of the importance of physical activity and maintaining a healthy life free of disease. They also facilitate communication and interaction between NDPP coordinators and other governmental agencies, outer island health centres, community health councils, and community groups.

The NDPP annual reports (process **evaluation**) reveal that a growing number of people participate in the health events, weight loss competitions and screening measures each year, and that the increases are noticeable mostly in young people, males, and healthy individuals interested in maintaining good health, whereas previously mostly adult females aged 30 years and above, and people with diabetes, hypertension or who were overweight participated.

Key experiences

► The success of the activities coordinated within the NDPP results from complete cooperation and collaboration from all stakeholders. We have still a long way to go towards improving national health indicators such as reducing the incidence of NCDs but we are heading in the right direction. We will continue to work with the people for the people.

► The demand for more information on nutrition, smoking cessation and physical activity is increasing with the awareness that NCDs such as diabetes can be prevented through increased physical activity, good nutrition and smoking cessation. Today Marshallese people want to know how to stay healthy.

2.6.9 Pakistan

The NEWS Heartfile Public Awareness Campaign and the Learn to Live Longer Campaign

In 1999, the NGO Heartfile was set up in Islamabad, Pakistan, to engage in the area of chronic disease prevention, health promotion and health education. The organization worked initially in the area of health communication in Pakistan; established low-resource settings, suited chronic disease prevention programmes in demonstration settings and actively engaged in advocacy in order to move mainstream chronic disease on to the national health agenda. Later it took a lead role in the development and implementation of the National Action Plan for Prevention and Control of Non-communicable Diseases and Health Promotion in Pakistan. The National Action Plan was launched in 2003 as a result of a public-private partnership initiative between the Ministry of Health, WHO

and Heartfile. It provides an Integrated Framework for Action in the area of NCD prevention and risk factor control, including the promotion of physical activity.

Heartfile has launched two nationwide health education campaigns promoting physical activity for the prevention of cardiovascular disease. The print media campaigns; NEWS, JANG and US Heartfile Public Awareness Campaigns, were implemented in 1999 and are currently ongoing. The Learn to Live Longer Campaign, based in electronic media, is being implemented in 2005. Promoting regular physical activity is one theme addressed in the campaigns, in addition to others such as promoting healthy diet, preventing obesity, lowering of blood cholesterol and blood pressure, as well as quitting smoking. The **objective** of both the print-based and electronic-based campaigns is to influence people to adopt healthy lifestyles that have implications for prolonging life. With regards to physical activity this includes raising awareness of the importance of physical activity and motivating the population to engage in regular exercise.

The ongoing NEWS, JANG and US Heartfile Public Awareness Campaigns are **targeted** to the urban, mostly literate population of Pakistan; whereas the currently-implemented Learn to Live Longer Campaign reaches out to about 90% of Pakistan's general population, targeting people at the grass-roots level. Both campaigns employed the United States Surgeon General's (1996) **physical activity recommendation** of engaging in at least 30 minutes of moderate-intensity physical activity (e.g. brisk walking, walking for transport, aerobic exercise) on most days a week.

Intervention model

The content of both campaigns draws on the principles of social marketing using printed and electronic mass media.

The NEWS, JANG and US Heartfile Public Awareness Campaign (1999–present): The NEWS is the largest English daily newspaper in Pakistan with a circulation of over 80 000 and an estimated readership of six persons per copy. Weekly Newspaper articles promoting regular moderate-intensity physical activity were placed regularly in The NEWS in combination with the Heartfile identifiable logo and a campaign mascot. To date, 260 articles have been published; 10% of these are devoted to physical activity as a standalone theme whereas most refer to it as a cross-cutting intervention. Through the adaptation of individual stories as well as the reporting of scientific facts the newspaper articles provided: (1) information on the benefits of regular physical activity (e.g. health, happiness, social integration, productivity at work); and (2) advice on the types, frequency and duration of physical activity (e.g. doing 30 minutes of aerobic activity daily, taking stairs instead of the elevator, walking or playing games with friends or family). A parallel campaign was launched in JANG (the largest Urdu daily in Pakistan with a circulation of over 500 000) and the weekly youth magazine US which accompanies the NEWS magazine.

The Learn to Live Longer Campaign (2005): Learn to Live Longer consists of 4–5-min television programmes, aired on Pakistan Television during prime time, on five successive days, twice a day, for a total duration of three months (initially). In the programmes related to physical activity, people are encouraged to engage in regular physical activity (e.g. programmes show people walking and jogging for recreation in parks, children being active on playgrounds). In addition, a single aspect of a disease (e.g. cardiovascular diseases, diabetes) from a specific prevention-related perspective is highlighted and linked to healthy behaviour such as regular physical activity. All messages of the television campaign achieve a critical balance between humour and emotion.

Both campaigns were implemented with support from private-sector **stakeholders**. For example, for the NEWS Heartfile Public Awareness Campaign Pakistan's newspaper group JANG donated space in their newspaper The NEWS. The Learn to Live Longer Campaign was initiated as part of Heartfile's Corporate Social Responsibility Programme which specifically aims at harnessing support from corporate sector partners for improving health outcomes in Pakistan. For this campaign Heartfile developed strategic partnerships with corporate sector partners (e.g. the telecom sector, where there is no conflict of interest) and corporate partners contribute to airing and production costs of the campaign. In return Heartfile provides them 45 seconds commercial time free of cost, and acknowledges the name(s) and the logo of the corporate sector partners by placing a visual statement in the 7-sec closing credit of the pubic service programme. **Funding** for both campaigns is mainly raised through strategic partnerships between private sector organizations and Heartfile. In addition, the overhead costs of the NEWS, JANG and US campaigns were supported by bilateral agencies (Canadian International Development Agency and United Kingdom Department for International Development).

Both the NEWS Heartfile Public Awareness Campaign and the Learn to Live Longer Campaign have been widely **disseminated** among Pakistan's population. A cross-sectional telephone survey was conducted in 2001 in the city of Islamabad to **evaluate** changes in knowledge and attitudes as intermediate measures of the community impact of the NEWS Heartfile Public Awareness Campaign. The survey findings indicate that the campaign was successful in increasing knowledge of the benefits of regular exercise and promoting participation in physical activity among the population. Evaluation of the impact of the Learn to Live Longer Campaign at the population level over a given period of time is planned. Heartfile has evolved a continuous evaluation mechanism that will link the outcomes of the television-based Learn to Live Longer Campaign to Pakistan's national NCD surveillance data. For example, baseline levels of people's awareness of the benefits of physical activity and physical activity practice have already been established through a nationally representative survey conducted in 2005 in the urban and rural Rawalpindi District (population of about 3.6 million). The baseline levels were measured using the physical activity module from the

WHO STEPwise Approach to NCD Surveillance/STEPS (Global Physical Activity Questionnaire/GPAQ).

Key experiences

► Mobilizing resources for chronic disease prevention and control is a challenge in developing countries where health systems prioritize communicable disease and reproductive health services.

► Managing partnerships requires skillful articulation of arguments, and implementation of programmes which bring value to both partners – only then can partnerships be truly sustainable.

► Behaviour change must be fully exploited to improve the performance of health systems in developing countries. We must go beyond the public service announcement approach; learn to utilize lessons from behavioural research that the advertising field uses; capitalize on the strengths of social marketing and bring new desired concepts to existing values held by individuals. We must also counterbalance the negative effects of commercial marketing, and develop a balance between fostering the adoption of health-related practices and de-marketing of risky behaviours. We must also reorient behaviour change to impact the behaviour of all actors in the health system.

2.6.10 Philippines

The National Healthy Lifestyle Programme and the Mag HL Tayo Campaign

The Philippine Department of Health has a history regarding the promotion of physical activity at population level. In 1994, the Department of Health initiated the Great Filipino Workout or "Hataw", a colloquial term that stands for "moving/doing/striking" forcefully. Hataw became recognized as a term used to denote exercise. The Great Filipino Workout was launched by the former President Fidel Valdez Ramos as the major advocate. A mascot named "E'Di Exercise" ("So, then let's exercise") was created, using the same nickname of the President and looking similar to him. Since the launch of Hataw, the regional health offices of the Department of Health usually hold mass aerobics exercise – which introduced new aerobic routines to the population – as a major part of the annual Heart Month Celebrations in February. In 2003, the Philippine Department of Health declared once again the promotion of healthy lifestyles as a priority area of action and part of its mandate. As a result, the National Healthy Lifestyle Programme was launched with a five-year timeframe for implementation. As part of the implementation process, the Department of Health initiated the nationwide Mag HL Tayo Campaign which is currently being implemented with the aim to reach the grassroots/community level. Mag HL Tayo literally stands for "Let's practice Healthy Lifestyle" and is designed as an information, education, communication and advocacy campaign.

Physical inactivity is one health risk factor addressed in the National Healthy Lifestyle Programme and the Mag HL Tayo Campaign, in addition to unhealthy diet, tobacco use, alcohol consumption,

and psychosocial stress. The **objective** is to reduce the prevalence of these risk factors in order to prevent NCDs, particularly cardiovascular diseases, cancer, diabetes and chronic obstructive pulmonary diseases. The physical activity component of the National Healthy Lifestyle Programme is **targeted** to the whole population including those people who have already developed NCDs. Target groups of the Mag HL Tayo Campaign are adults and older people, and this campaign is to be generic and involve all cultural or religious groups in the Philippines.

The Filipino Pyramid Activity Guide, developed by the Philippine Association for the Study of Overweight and Obesity (PASOO), is used to spread the message of accumulating at least 30 minutes of moderate-intensity physical activity on at least five days a week (**physical activity guidelines**). The guide provides specific recommendations on the frequency, duration and types of physical activity illustrated in form of a pyramid. For example, day-to-day activities (e.g. taking stairs instead of the elevator, walking for transport, doing household chores) are recommended as often as possible. Aerobic exercise (e.g. brisk walking, running, bicycling, swimming) and recreational activities (e.g. dancing, basketball, tennis) should be undertaken regularly (3–5 times a week for at least 30–45 minutes). Leisure-time activities (e.g. golf, bowling) and exercise for strength and flexibility (e.g. stretching, Yoga, Tai Chi) should be practised often (2–3 times a week for at least 30–45 minutes). Sedentary time (e.g. watching TV, playing cards or computer games) should be minimal (a few times a month).

Intervention model

Implementation of the physical activity interventions within the **National Healthy Lifestyle Programme** takes place in key areas of action outlined in the Ottawa Charter for Health Promotion (1986):

1) **Creating a supportive environment**. This includes national and local policies promoting physical activity and a physical environment which encourages more physical activity such as open spaces, parks, walking/bicycle lanes, gymnasiums.

2) **Changing lifestyles** by raising consciousness about the benefits of physical activity and hazards of physical inactivity, as well as providing guidelines on physical activity.

3) **Reorienting health workers** to assess health risks related to physical inactivity in all patients seen in health facilities.

In the **Mag HL Tayo Campaign** physical activity is promoted nationwide through various mass media (e.g. brochures, posters, exercise videos, television spots), using an identifiable campaign logo. A major awareness-raising event was a mass aerobic class, initiated by the Department of Health on 16 February

2003. The event was organized in three major cities (Manila, Davao, Cebu). In Manila, 48 188 people participated in aerobic exercise simultaneously; it was documented as a Guinness World Record under the category of "Largest Aerobics Demonstration/Class".

The Philippine Government provides the **funding** for the National Healthy Lifestyle Programme and the Mag HL Tayo Campaign, whereas the Department of Health has the mandate for implementation. Implementation occurs in collaboration with the Philippine Coalition for the Prevention and Control of Non-communicable Diseases which includes about 41 organizations from academia, professional and medical societies, governmental organizations and NGOs (**stakeholders**). It occurs through the Coalition organization's specific advocacy activities, where physical activities such as fun runs, aerobics and walk-a-thons are organized as part of the highlights of their various activities. For example, during the annual Heart Month Celebration in February the Philippine Heart Organization organizes a walk-a-thon, joined by all member organizations of the Coalition. The University of the Philippine College of Human Kinetics is major collaborator in the implementation process. It provides the technical expertise on the development of exercise routines, fitness testing, and is currently leading the Coalition in the development of a national policy which will assure the safety of the public when using fitness clinics, gymnasiums and other physical activity facilities.

The Mag HL Tayo Campaign is disseminated through various media (e.g. television, video materials, brochures, posters), whereas **dissemination** of the National Healthy Lifestyle Programme takes places through a national Training of Trainers (TOT) programme. The objective of the Training of Trainers programme is to develop trainers at national and local level who then train health workers in their localities. The overall goal of the health workers training is to promote healthy lifestyles for them as well as their clients, using the integrated community-based approach for the prevention and control of lifestyle-related NCDs. In particular, it aims: 1) to provide insights into health workers' roles in the prevention and control of NCDs; 2) to provide them with skills in promoting healthy lifestyles and risk modification in the intervention areas of nutrition, exercise, smoking, risk screening and check-ups; 3) to select appropriate health promotion strategies with regard to target clients and practice setting; and 4) to develop health workers' communication skills as well as skills in motivating other health workers and clients, and mobilizing communities to practice a healthy lifestyle.

Evaluation of the Mag HL Tayo Campaign will be conducted in 2005, to reveal the extent of 1) the awareness among the population to the campaign, 2) the understanding of the campaign messages, and 3) the utilization of the campaign media.

Key experiences

► In the early years of our advocacy efforts we worked with a loose network of stakeholders every time we organized advocacy activities. In the Philippines, we follow a certain calendar of activities for public information and health advocacy activities, such as the National Cancer Consciousness Week in January, or the Heart Month in February, or the World No Tobacco Day in May. Each of these advocacy activities is spearheaded by the organization or society involved. The Department of Health is always a major partner, often providing technical assistance, and sometimes funding as well as other logistics. However, when we started to integrate the prevention and control of NCDs through the promotion of healthy lifestyle, we decided to formalize our relationship into a Coalition, so that we would have a more permanent membership and commitment to programme activities towards the realization of common objectives. Harmonizing the work of each of the organizations involved with an overall goal is a major challenge but our experience has shown that when everyone gets together for a common cause, much can be achieved.

2.6.11 Poland

The Revitalize your Heart Intervention

The Revitalize your Heart Intervention (also known as 'Put the Heart on its Feet') was a nationwide physical activity campaign, conducted annually by the CINDI WHO Poland Programme in 2001, 2002 and 2003, during the three-month summer period. It was **targeted** to Polish adults and adolescents aged over 15 years. Key intervention **objectives** were: 1) to educate the population about the health benefits of regular physical activity; 2) to promote participation in exercise for health and quality of life; 3) to mobilize local organizations and politicians to create innovative social and physical environments that support physical activity; 4) to create strong coalitions of NGOs (e.g scientific societies, professional associations, the media), to promote healthy lifestyles including physical activity; and 5) to disseminate successful physical activity promotion elements to other regions (countries) where sedentary lifestyles are prevalent.

Intervention model

The Revitalize your Heart intervention comprised a nationwide education campaign and a physical activity challenge, using social marketing strategies.

Nationwide education campaign

The nationwide education campaign included messages to promote the health benefits of being active, the '30 minutes of moderate-intensity aerobic physical activity on most days' message, practice of regular physical activity, and participation in the nationwide physical activity challenge. The campaign messages were disseminated via interviews during popular national television and radio programmes, and as physical activity radio quizzes and competitions. Programme materials, such as booklets which included detailed information for individuals recommending activity types, doses and intensity, tailored to match age, gender and health status, were developed and disseminated through local collaborators. Articles on physical activity were published in local, regional and national newspapers and popular magazines, and a web page, 'Revitalize your Health' Physical Activity Internet Guide was developed on the CINDI website. A Committee of Honour, consisting of well-known popular individuals, such as distinguished doctors, representatives of Polish culture, science, business and sport was also formed to increase intervention visibility.

Physical activity challenge

The Revitalize your Heart Physical Activity Challenge was designed to help individuals incorporate physical activity into their daily routine. In the nationwide education campaign the general population was encouraged to participate in promotional events, such as physical activity picnics involving sporting competitions, bicycle races and free medical consultations. People were also encouraged to develop and carry out their own physical activity programmes. Physical activity "points" were collected by participants and recorded on challenge coupons, which were available from local collaborators, in local and national magazines and via the Internet. Coupons returned at challenge conclusion were entered into a 100-prize draw, drawn in the presence of local partners including departments of public health in local municipalities, fitness clubs, local CINDI partners, sponsor representatives and the national campaign coordinators. Specialty awards for the oldest participant, best local collaborator and most effective campaign advocate/institution were given. All participants of the Revitalize Your Heart Physical Activity Challenge received congratulatory certificates.

The Revitalize your Heart Intervention was **funded** by commercial sponsors (e.g. The Pfizer Foundation, Polpharma) and WHO and the Ministry of Education. Awards were funded by the local travel agency Logos Travel and other local commercial sponsors. Non-financial contributions, such as facilities for press conferences, were also provided by several institutions (e.g. The Polish Olympic Committee).

The Revitalize your Heart Intervention was nationally coordinated by the CINDI WHO Poland Programme, and implemented in collaboration with various governmental organizations (e.g. the Ministry of Sport and National Education), other organizations and institutions (e.g. the Medical University of Lodz, the Polish Olympic Committee, the Polish Society of Sports Medicine, the Polish Society of Social Medicine, the Polish Cardiac Society, the WHO Healthy Cities Poland Programme), as well as local institutions (e.g. sport clubs, Municipal Centres of Sport and Recreation) (**stakeholders**). The Revitalize your Heart Intervention received strong political support from the Polish President Mr Aleksander Kwasniewski, as well as commitment and participation of famous Polish sportsmen and women, local politicians, authorities and celebrities.

The Revitalize your Heart Intervention was widely **disseminated,** for example**,** via interviews on national television and radio, as well as articles and information published in local, regional and national newspapers and popular magazines. Physical activity quizzes and competitions were held on radio stations, and a specialized web page named Revitalize your Health, Physical Activity Internet Guide, was developed on the CINDI website. Awareness-raising materials (e.g. posters, stands, competition coupons) were disseminated by study collaborators, and a tram was decorated in the campaign slogans and colours, with information about the programme carried inside the tram carriages. An annual press conference was held in Warsaw at the conclusion of the physical activity challenge for presentation of the main awards and prizes.

Intervention dissemination in the scientific arena took place through presentations at international congresses and symposia and publications in the scientific literature, with the effect that similar nationwide campaigns have been implemented in the Czech Republic and Romania.

Process **evaluation** showed that participation of individuals and collaborative centres in the Revitalize your Heart Intervention increased. For example, in 2003, 137 centres (e.g. departments of public health in local municipalities, outpatient clinics, rehabilitation centers, fitness clubs, medical schools, local CINDI WHO centres, etc) collaborated in the intervention; a large increase from the 33 centres in 2001. The Revitalize your Heart Intervention became well recognized among the population and increasing numbers of entries in the physical activity challenge were observed. The number of visits to the campaign web site increased from 4687 in 2001 to 12 668 in 2003. Of a representative sample from the general population (n = >1000), 12% reported having heard about the nationwide education campaign within Revitalize your Heart. Data suggest that the Revitalize your Heart intervention was successful in increasing activity levels, with 15% of the representative population sample reporting having increased their physical activity levels during the campaign period, and 50% of respondents reported knowing at least one person who increased physical activity under the influence of the campaign message.

Key experiences

► Creating an innovative National Physical Activity Campaign in a country with a c. 70% sedentary population was a really fascinating and challenging experience. The idea of moving for health and reducing sedentary lifestyles is now well accepted within the general population, by the media and many powerful organizations and institutions. Sufficient financial support and engagement of creative professional public relations agencies were crucial for ensuring programme success. Building alliances with new partners, including central and local media, was also of particular importance. In future we hope to share our experiences with other partners in order to create a Great International Physical Activity Campaign.

2.6.12 Singapore

The National Healthy Lifestyle Programme (NHLP)

In 1992, the then Prime Minister Goh Chok Tong launched the nationwide ongoing National Healthy Lifestyle Programme (NHLP). The Health Promotion Board (HPB) is the main driver of the National Healthy Lifestyle Programme. Since 1996, a Civic Committee on Healthy Lifestyle which includes representatives from community organizations, professional groups, the media and public and private sectors was formed to harness community involvement and participation in the National Healthy Lifestyle Programme.

The programme's **objective** is to raise awareness among Singaporeans about the importance of adopting a healthy lifestyle and to increase their knowledge and skills to adopt a healthy lifestyle. **Physical activity promotion is one component** of the National Healthy Lifestyle Programme in addition to healthy eating, no smoking and managing stress.

The NHLP is targeted at all Singaporean adults aged 18 years and above with a specific focus on employees and senior citizens (**target group**). Schoolchildren are reached through the Trim and Fit (TAF) Programme (see 3.3.2). Some interventions are customized for specific ethnic groups as Singapore is a multiethnic country with three main ethnic groups Chinese, Malays and Indians. For example, community-based brisk walking and exercise groups are targeted to people with these ethnic backgrounds. Ongoing programmes are conducted in collaboration with mosques, Malay Muslim organizations and Indian temples.

The United States Surgeon General's (1996) **physical activity recommendation** is adopted to promote physical activity for health and well-being. The recommendation is to promote 30 minutes of moderate-intensity physical activity on five or more days a week, accumulated throughout the day. For cardiovascular health benefits, the recommendation is to engage in 20 minutes of vigorous-intensity physical activity at least three times a week.

Intervention model

Every year, **a month-long National Healthy Lifestyle Campaign (NHLC)** is held to raise awareness on the importance of a healthy lifestyle. It involves: an event involving thousands of adults engaging in some form of physical activity led by the Prime Minister; and an intensive mass media education programme and face-to-face education activities such as exhibitions, health fairs and public forums.

Various community- and workplace-based programmes are conducted on a year-long basis to encourage individuals to engage in regular exercise:
For the **workplace-based programs** a framework has been put in place to encourage employers to organize health promotion programmes that achieve desired outcomes such as increase in the numbers of employees

who meet the recommendation for physical activity and reduction in the number of overweight and obese employees, resulting in improved health status of the working population. Employees are the facilitators and the primary movers within their workplaces to encourage participation in physical activity among the employees. Training is conducted by HPB-accredited training service providers to equip them with knowledge and skills to promote physical activity at their workplaces.

Community-based Programmes encourage individuals to incorporate regular physical activity into their daily routine. HPB collaborates with grassroots organizations, voluntary organizations and religious groups to initiate brisk walking and other activities (e.g. cycling, chi gong, kebaya-robics – aerobic workout particularly choreographed for Malays) in the community.

A **Healthy Lifestyle Ambassador Award** was introduced in 2003 to give recognition to individuals who live healthy lifestyles and actively promote physical activity in their community. Regular meetings are held by HPB with the healthy lifestyle ambassadors to update them on health issues and exchange information and tips on how to conduct physical activity programmes.

HPB funds the National Healthy Lifestyle Programme. With high level **political commitment and support** from the Prime Minister and the Minister for Health, HPB adopts a multisectoral approach, involving the government and private sector, employers, employees and community organizations (**stakeholders**) for programme implementation (providing information, skills training, changing the social and physical environment conducive to physical activity).

Due to wide **dissemination** through the mass media and face-to-face activities, Singaporeans are highly aware of the National Healthy Lifestyle Programme.

Programme **evaluation** takes place through regular National Health Surveys (NHS) to reveal changes in the health status of Singaporeans including population levels of physical activity. For example, findings from the NHS in 1998 and 2004 showed that among Singaporeans aged 18–69 years the proportion of people who "exercise regularly" (exercise for ≥ 20 minutes for ≥ 3 days a week) increased from 16.8% in 1998 to 24% in 2004. The prevalence of diabetes fell from 9% in 1998 to 8.2% in 2004, and the prevalence of high blood pressure declined from 21.5% in 1998 to 20.1% in 2004. The proportion of adult Singaporeans with high blood cholesterol decreased from 25.4% in 1998 to 18.7% in 2004.

Key experiences

► The National Healthy Lifestyle Programme has been successful in increasing population levels of physical activity, maintaining the prevalence of obesity and lowering the cardiovascular risk factors among adult Singaporeans.

2.6.13 Singapore

The Trim and Fit (TAF) Programme

To promote awareness of healthy living among all Singaporeans, the Singapore Government implemented the National Healthy Lifestyle Campaign in 1992, spearheaded by the Ministry of Health (MOH). Each Ministry was responsible for developing and implementing strategies to manage obesity and promote a healthy lifestyle. In support of the Campaign, the Ministry of Education (MOE) launched the Trim and Fit (TAF) Programme in Singapore schools.

The objectives were to improve the physical fitness of the student population and to reduce the percentage of overweight students. The TAF Programme was targeted for all students in Singapore schools including primary (6–12 years), secondary (13–16 years) and pre-university (17–19 years) levels.

Intervention model

The Ministry of Education provided schools with a framework, to guide them in implementing the TAF Programme. Physical activity and nutrition were an integral part of the TAF Programme.

Group-based and school-wide programmes: Students were taught during Physical Education (PE), Home Economics and Health Education lessons, about the benefits of healthy nutrition, regular exercise and being involved in physical activities such as games and sports. PE was compulsory from primary school to pre-university levels. In addition, students were encouraged to participate in sports-related co-curricular activities (CCAs). In some schools, physical activities had been incorporated in non-sports related CCAs. The students engaged in mass exercise activities such as mass aerobic workouts, jogs and hikes during the year. To raise awareness about the importance of exercise, schools organised the "All Children Exercising Simultaneously (ACES) Day" annually where staff and students participated in mass fitness workout routines.

Training and resources: Teachers' training and resources were provided by the Ministry of Education and the Health Promotion Board (HPB) to build the teachers' capacity in implementing the TAF programme and other health promotion initiatives.. Teachers themselves were also encouraged to stay active by participating in health promotion programmes (e.g. exercise classes, health talks) and incentive schemes, namely the Ministry of Education Healthy Lifestyle Award which was organised by the Ministry of Education and some schools. Schools also leveraged on the teaching and learning resources (such as posters and instructional packages on fitness and nutrition) produced by the various agencies to help them educate students about healthy living. Parents were informed of their children's involvement in the TAF programme and schools conducted educational sessions for parents. For example, some schools involved parents in the TAF programme activities and reached out to parents through various events and activities (e.g. meet-the-parents sessions, health seminars, Family Day), as well as through publications such as school newsletters and brochures with tips for parents to help their children stay trim and fit.

Facilities: Schools were well equipped with sporting facilities and equipment, outdoor fitness stations, and a health-and-fitness room within the school grounds to facilitate physical activities through convenient access to equipment.

Recognition: An annual National Physical Fitness Award (NAPFA) test was conducted to monitor the physical fitness level of students. Students who did well in their NAPFA test were given certificates according to their individual performance level (Gold, Silver and Bronze). An annual TAF Award was presented by the Ministry of Education to schools that had achieved high levels of fitness and low obesity rates. The Ministry of Education also presented schools that attained the TAF Gold Award for three consecutive years with the Sustained Achievement Award (Physical Fitness) for continued excellence. In addition, the Ministry of Defence recognized the efforts of schools in promoting physical fitness amongst their students through Physical Fitness Performance Awards for Pre-University institutions.

The TAF programme was announced to the public via the press at its initiation. Since then, schools had been provided with regular updates and professional sharing sessions through the annual TAF Awards ceremony, TAF coordinators' meeting and TAF Retreat organised in collaboration with HPB.

HPB provided funding for the production of health education resource materials which focus on a variety of topics including nutrition and physical activity for students, teachers and parents. It also funded the provision of in-service teacher and parent training sessions which aimed to equip teachers and parents with the necessary knowledge and skills to enhance the health of their students and children.

HPB also supported the TAF programme by providing medical assessment for the severely overweight and severely underweight students who were referred by their schools for certification of fitness to participate in physical activities in schools. The medical assessment for the severely overweight and severely underweight students was conducted by doctors from HPB to exclude primary medical causes for severe overweight and severe underweight, to identify the co-morbidities associated with obesity (e.g. hypertension, type II diabetes mellitus), and to assess fitness status for physical activities. It included a complete medical history and physical examination of these students, including measurements of growth parameters (e.g. height, weight), resting blood pressure and heart rate. Fasting blood glucose and fasting blood lipids are two routine laboratory investigations that are conducted for the severely overweight students. In addition, they received nutritional counseling and advice on healthy lifestyle after their medical assessment.

Other collaborators (stakeholders) of the Ministry of Education were the Singapore Sports Council, for the development of the NAPFA test, as well as external vendors. These may be sports associations, NGOs, and private organisations that were engaged to help schools run certain activities for the schools.

Key performance indicators of programme evaluation were students' fitness and obesity levels. From 1992 to 2004, the overall percentage of students who passed the physical fitness test improved from 57.8% to 81.1%, while the overall percentage of overweight students decreased from 14.0% to 9.4%. These findings showed that, overall, the TAF programme had been successful in increasing physical fitness levels and decreasing the obesity levels of schoolchildren and adolescents in Singapore.

In 2000, HPB introduced the ***Ch***ampioning ***E***fforts ***R***esulting in ***I***mproved ***S***chool ***H***ealth (CHERISH) Award to recognise schools which had commendable health promotion programmes in place for their staff and students. The CHERISH Award takes reference from the WHO Health Promoting School (HPS) framework and hence provides an opportunistic platform for schools to link crucial components of curriculum, environment and partnerships to nurture the mental, social, emotional and physical well-being of the school and its many stakeholders. Recognising the close relationship between health and education, HPB embarked on a significant milestone on its CHERISH journey by collaborating with MOE to launch a joint health promoting school award – the HPB-MOE Joint CHERISH Award - from 2008.

In January 2005, the Review of the Trim and Fit Programme Taskforce was formed to review the rationale, relevance and implementation of the TAF Programme. One of the key recommendations from the Taskforce was to introduce a whole-school, inclusive framework to promote physical activity and health in all schools.

The Holistic Health Framework (HHF) is to be introduced to all schools in 2007. The goal of HHF is to broaden health promotion of schools beyond obesity and fitness management by embracing the total well-being for student and developing their intrinsic motivation to lead a healthy lifestyle.

The HHF is underpinned by three guiding principles:

Total Well-Being
Total well-being encompasses the physical, mental and social health of students and not just measures of weight and fitness.

Inclusion
Inclusion advocates that every student be given opportunities to access the knowledge, and develop the skills and attitudes to live healthily.

Quality Delivery

Quality delivery involves building the capacity of teachers through professional development and engaging qualified and competent para-educators to teach holistic health effectively.

With the evolution of the TAF Programme into the Holistic Health Framework, MOE and HPB seek to encourage schools to develop **a shared vision on health** which will culminate in an action plan for effective delivery and resource building. Holistic health will be delivered through both the **formal and non-formal curricula.** Schools will need to form **partnerships with their stakeholders** to support their health promoting efforts as the total well-being of students is a shared responsibility of parents, schools and the community.

Key experiences

► Sustained political will, senior-level government support and funding coupled with a continuous national movement towards a healthy lifestyle through the National Healthy Lifestyle Campaign contributed to the success of the TAF Programme.

► The TAF Programme has been reviewed and a timely evolution has emerged with the introduction of the Holistic Health Framework which will be reviewed and monitored to ensure its relevance and to attain improved outcomes. Given that parents and many other stakeholders play an important role in the holistic development of the young, the garnering of such stakeholder support and involvement continues to be a challenge.

2.6.14 Slovenia

Slovenia on the Move – Move for Health

In 1999 the Slovenia on the Move – Move for Health intervention was initiated by CINDI Slovenia and the Sports Union of Slovenia. The intervention was formulated as a nationwide Health Enhancing Physical Activity (HEPA) Programme and was implemented over a five-year period. The intervention was targeted at adults, senior citizens, women in menopause and younger women. The **objective** was to increase the number of adults and senior citizens participating in at least 30 minutes of moderate-intensity physical activity five times a week by 10% and to lower by 10% the number of sedentary people in the same target population (those who are physically active less than once per week), thereby improving the physical and psychosocial health, as well as quality of life, of adults and senior citizens.

Intervention model

The main components of the Slovenia on the Move – Move for Health intervention included:

1) **Analysis of the situation** concerning the level of physical activity among the adult population and identification of the target groups for physical activity interventions.
2) **Educational training** for health and sports professionals in order to build local capacity in health enhancing physical activity promotion and organize exercise programmes in the community.
3) **National action**, such as implementation of 2 km walk tests (a field test which measures the fitness index of individuals and also promotes health-enhancing physical activity, especially walking) and **media campaigns** to support national and local interventions, as well as campaigns related to specific international celebration days, such as World Health Day, Move for Health Day, Car Free Day, Walk Day,
4) **Development of networks of health and sports workers** called Local Health Promotion/Prevention Groups, which help to arrange events in the community e.g. 2 km walk tests.
5) **National and local media coverage** promoting regular physical activity as an important component of a healthy lifestyle, as well as dissemination of intervention events.
6) **Local exercise programmes**, such as the Rainbow Walking Programme which includes walk tests, a 10-week walking programme, family weekend walking trips and healthy lifestyle lectures, as well as admission of people who attended the 2 km walk test to other physical activity, recreational and sports programmes in local community.

The Slovenia on the Move – Move for Health intervention was **funded** by CINDI Slovenia and the Sports Union of Slovenia through funds from the National Institute of Health Insurance of Slovenia and the Ministry of Education and Sports of Slovenia. In addition to these **stakeholders**, implementation of Slovenia on the Move – Move for Health included collaboration between several community health centres, local sports organizations and other local organizations, brought together by Local Health Promotion/Prevention Groups.

Dissemination of the intervention occurred through: 1) nationwide partnership-building between medical and sports professionals; 2) a nationwide educational process for both professionals in HEPA promotion and 2 km walk test provision; 3) mass media e.g. broadcasts on national and local television and radio and through articles and advertisements in newspapers; 4) awareness-raising materials, e.g. posters in community centres, sports centres and public places, brochures and annual booklets distributed at health education workshops and sports facilities; and 5) scientific publications and presentations at national and international scientific congresses, symposia and press conferences.

Process **evaluation** of Slovenia on the Move – Move for Health Programme shows that 1500 health, sports and other professionals across Slovenia were trained in health-enhancing physical activity

promotion (e.g. conducting walk tests, individual physical activity counseling, joining Local Health Promotion/Prevention Groups). Between 1999 and 2004, more than 70 local organizations carried out 729 walk tests in 140 Slovenian towns and villages. A total of 17 085 people, mainly between 35 and 60 years of age participated in the walk tests and have been counseled in physical activity. The Rainbow Walking Programme was well accepted among senior citizens in the Slovene capital, Ljubljana. Between 2002 and 2004, 505 people participated in the programme, with annual participation numbers steadily increasing over the time period. Anecdotal evidence suggests that Slovenia on the Move – Move for Health improved participants' physical fitness. Additionally, the intervention was well-recognized by Slovene citizens, health and sports professionals, the mass media, as well as governmental organizations and NGOs.

Key experiences

► Situation analysis, integration, capacity building, dissemination and evaluation are crucial elements of the Slovenia on the Move – Move for Health Programme through which CINDI Slovenia and the Sports Union of Slovenia succeeded in building a relatively strong alliance between health and sports professionals and organizations nationwide, as well as attracting media attention during the five-year period. In the same time period intervention partners managed to raise awareness of the importance of regular moderate physical activity in prevention of diseases among adults and senior citizens and to encourage many of them to become more active in everyday life. The 2 km walk test events had an important impact on the general population, because the average adult had a free opportunity to evaluate (and monitor) his/her fitness level, get professional individual physical activity counselling based on the results, and receive information on local exercise programmes.

► Tailoring the intervention to meet the local circumstances of urban and rural participants was also important. For instance, in rural areas organized events (e.g. walk tests) and exercise programmes were held during periods of reduced agricultural work which would facilitate programme participation.

2.6.15 South Africa

Vuka South Africa – Move for your Health Campaign

In 2005, the Minister of Health Dr Manto Tshabalala-Msimang launched the Vuka South Africa – Move for your Health campaign. "Vuka South Africa – Move for your Health" means "Wake up South Africa, move for your health". The campaign was initiated at a time when the policy environment was conducive for adopting the "Move for Health" concept in South Africa. For example, in 2005, Healthy Lifestyles within the National Department of Health established a multisectoral task team comprising Government Departments, NGOs and private sector organizations which began the process of developing the healthy lifestyle strategy for South Africa. The strategy has five key components which include: healthy nutrition; promotion of physical

activity; tobacco control; responsible alcohol consumption; and promoting of safe sexual behaviour. This forms part of the Government's Strategic Priorities for the National Health System 2004–2009, highlighted in President Thabo Mbeki's "State of the Nation" address in 2005, in which he mentioned the importance of promoting a healthy lifestyle including regular physical activity. The Minister of Health Dr Manto Tshabalala-Msimang further supported this in her budget speech in April 2005, where she identified both obesity and physical activity as two important risk factors for chronic diseases, and advocated the "Move for Health" concept. The Minister of Health presented the Vuka South Africa – Move for your Health campaign to the cabinet on a number of occasions in 2005, where it was well-received by the members of Parliament.

Vuka South Africa – Move for your Health sets a good example of a nationwide campaign for physical activity and health in the African continent. This programme is currently being implemented with the aim to promote sustainable physical activity initiatives around the country (**objective**). It is an ongoing campaign promoting regular physical activity among children and youth, adults and older adults (**target groups**), in a variety of settings, and in particular, by "empowering" existing initiatives. The core message of "Move for Health" is to encourage individuals to accumulate 30 minutes of moderate physical activity on most (at least five) days of the week (**physical activity recommendation**).

Intervention model

Under Vuka South Africa – Move for your Health a number of physical activity events and initiatives were celebrated around the country.

For example, on the day of the campaign launch (30 May 2005 in Alexandra, Johannesburg, in the Gauteng province) SABC's Morning Live television broadcast aerobics, body building and Thai Chi demonstrations. The TV station also interviewed the Minister of Health, representatives from the University of Cape Town, the Sports Science Institute, and WHO, about the importance of regular physical exercise. Other guests who participated in the campaign launch included the Deputy Minister of Sports and Recreation, the Gauteng Member of the Executive Council (which is the equivalent to a provincial cabinet) for Health, as well as partners and stakeholders from 18 organizations from the private sector, tertiary institutions, NGOs and community-based organizations. The Minister of Health, guests and community at large undertook a 6 km walk around Alexandra Township, drawing in members of the community as they went along.

Other Move for Health activities included health walks in provinces, physical activities at schools, soccer matches with older citizens and people with disabilities, workshops on lifestyle-related chronic diseases, as well as mass aerobic demonstrations and nutrition exhibitions. The health walks and community-wide screenings for obesity, hypertension, high cholesterol and diabetes, conducted by Health Department staff and partners, became an integral part of all national campaigning and health awareness days.

Although the main campaign launch took place in Alexandra, eight of South Africa's nine provinces celebrated Vuka South Africa - Move for your Health on the 30 May 2005. The provincial activities ranged from fun walks in various communities, physical activities health workers in provincial departments of health, and educational presentations, to soccer games for older adults and people with disabilities.

Subsequent to the launch, the Department of Health has integrated a 5 km health walk and physical activity promotion into the overall Healthy Lifestyle campaign. Various (nodal points and cities, particularly those in the rural and periurban communities) were identified by the Department of Health for either a day-or week-long screening and broad health promotion activities.

Other government departments such as Sport Recreation South Africa have continued to promote mass participation in physical activities and sports, thereby promoting activity as part of their function. For example, Soul City, a media-based health promotion initiative included physical activity posters and education in newsletters, which are distributed to more than 1000 Soul Buddyz clubs (clubs promoting health and well-being among school youth).

South Africa has embraced a partnership approach in implementing Vuka South Africa – Move for your Health. The National Department of Health is the leading agency responsible for coordinating the campaign together with an intersectoral task team. Other key **stakeholders** committed to campaign implementation come from academic institutions and the business sector, as well as the National Department of Education and the Department of Sport and Recreation.

A national workshop on Move for Health was held in September 2005. Dr Victor Matsudo, an expert in physical activity projects from Brazil (CELAFISCS), conducted two workshops, one for policy- and decision-makers with 120 participants representing various stakeholder groups, and one for coaches and those implementing physical activity and health promotion programmes, with at least 400 participants. This workshop was well received and gave delegates useful information and tools to further implement Move for Health in their constituencies. It also attracted additional media coverage (radio, television, print media). The Minister of Health Dr Manto Tshabalala Msimamg, Dr Victor Matsudo and senior officials from the Department of Health were all interviewed by the various media partners (**dissemination**).

Process and outcome **evaluation** of Vuka South Africa – Move for your Health are currently underway. An evaluation framework was developed to examine, for example, accredited physical activity programmes under Move for Health, awareness of Move for Health campaign messages, and prevalence of physical activity behaviour. To date, more than half a million South Africa Rand (ZAR) has been spent on branding and promotion alone on the major launches in 2005. In addition,

in-kind contributions such as time and resources for health risk screening have been provided by more than 30 organizations, NGOs and tertiary institutions.

Juxtaposed with the Vuka South Africa – Move for your Health, work began in 2004 on the development of a **Charter for Physical Activity, Sport, Play and Well-being for all Children and Youth in South Africa** (Youth Fitness and Wellness Charter). It was initiated by the University of Cape Town's MRC Research Unit for Exercise Science and Sports Medicine (ESSM) in collaboration with governmental organizations, NGOs, educational institutions, and the private sector. The Charter is a broad statement that provides a philosophical underpinning for the development of policies and guidelines to promote physical activity, sports and play among South Africa's children and youth, with a particular emphasis on equity, diversity and nation-building. The Charter was adapted through a consultative process involving more than 200 individual partners and stakeholder organizations, and has undergone eight revisions since October 2004. Professor Kader Asmal, MP and Chairperson of the Portfolio Committee on Defence, became the official Patron of the Charter, thereby providing political support for its implementation. An implementation campaign is planned, aiming at: 1) educating governmental departments, schools, parents and care-givers, communities and health services about physical activity, nutrition and wellness; 2) facilitating interventions that are already in place; and 3) providing a support base for intervention programmes at schools and private-service providers. The implementation phase will be piloted in 2006.

Key experiences

► The Vuka South Africa – Move for your Health campaign demonstrated that it has had an intersectoral impact. Subsequent to the Move for Health workshop in September 2005, Sport and Recreation South Africa presented the programme to Sport and Recreation Provincial Coordinators who are based in all the nine provinces and who have access to the wider communities across the country.

2.6.16 Thailand

Physical activity Interventions within Empowerment for Health and Exercise for Health

In 2002, the Prime Minister Thaksin Shinawatra declared policies and targets initiated by the Ministry of Public Health to be the beginning of Building Health for All Thais (2002–2004) under a strategy entitled "Empowerment for Health". Empowerment for Health aimed to stimulate Thai people to realize the importance of health promotion and establish clubs that provide health promotion activities related to the five themes; food, exercise, emotion, environmental health and non-disease. With regards to exercise, the message "Exercise regularly at least 3 days a week, 30 minutes a day" was used.

The current National Health Development Plan (2002–2006) includes physical activity promotion with the **objective** to increase to 60% the proportion of Thai people participating in exercise, irrespective of age, gender or career (**target groups**), and to build exercise trends. For clarity of plan and project, and to provide directions for implementation, the Ministry of Public Health's Master Plan of Exercise for Health (2003–2006) was written, with the aim: 1) to promote "exercise at least 3 days, 30 minutes a day" among at least 60% of Thai citizens at the age of 6 years and above; 2) to create a health club network in communities; and 3) to increase quality of life and reduce NCDs (e.g. cardiovascular diseases, diabetes, cancer).

Since the introduction of these guiding policies, a number of interventions have been initiated by the Ministry of Public Health to promote physical activity in Thailand on a large scale. The focus is on exercise for health. In combination with a memorable logo the message "exercise at least 3 days a week, 30 minutes a day" (**physical activity recommendation**) is disseminated among the Thai population to raise awareness of the importance of physical activity for health and to increase population levels of physical activity.

Intervention model

A number of physical activity interventions have been initiated by the Ministry of Public Health within several guiding policies, such as the national strategy Empowerment for Health, the National Health Development Plan (2002–2006), and the Ministry of Public Health's Master Plan of Exercise for Health (2003–2006):

The **Move for Health Project** started in 2001/2002 promoting exercise through initiation of:

- **Exercise groups** in health promotion clubs and primary care units encouraging people to engage in organized exercise activities "3 days a week, 30 minutes a day".
- **Healthy children schools** promoting physical fitness among schoolchildren.
- **Training courses** nationwide for leaders of health promotion clubs to provide them with knowledge and skills in exercise (e.g. aerobic dance, tichi, qiqong).
- **Public relations under the theme "Move with Doe-Re-Me"** to promote the message "exercise at least 3 days a week, 30 minutes a day". This was supported by a popular female movie star who presented practical ways of exercising for health in various media (radio, television, newspaper, posters, leaflets, concert, and boards on sidewalks in Bangkok).

The **National Power of Exercise Day** has been conducted annually since 2002, including health fairs and nationwide gathering of people to exercise in form of aerobic dancing. The latter has engaged a large

proportion of the population, as for example, 271 873 people in 2002, 8 661 089 people in 2003, and 43 110 643 people in 2004 (including all activities initiated). The mass exercise events received high awareness among the Thai population as they were supported by the Prime Minister and other ministers as well as famous Thai people, and broadcast live on nationwide television and newspapers. A yellow tee-shirt which all participants wore for the events became a symbol of exercise and health promotion.

The **"30" Relay Running Race Project** (2002–2004) was implemented nationwide in 25% of all Thai schools to promote schoolchildren to exercise, play sports and work as a team. The project included a 400-metre relay race engaging a team of 30 children in each school.

Health promotion/exercise for health clubs have been implemented nationwide to encourage people to join local exercise groups and set up sustainable health promotion activities in order to create health promotion networks in the community. The number of clubs increased significantly from 10 638 before 2002 to 75 018 in 2004.

The **Healthy Parks Project** was conducted in 2002 and urged local government organizations to provide parks and places for exercise in 2003, and to persuade the public to use them.

Over the past three years, **training courses** have been held for health officers and leaders of local exercise groups to provide them with knowledge and skills in promoting exercise for health. These included, for example, basic sport science, aerobic dance techniques, yoga, tichi, qiqong, exercise in Thai style such as Aunt Boonmee's exercise with stick.

Exercise activities at workplaces have been initiated by some private sector companies and state enterprises (e.g. Toshiba Thailand, Thai Airways, Electricity Generating Authority of Thailand). Employers provide their employees training and time to engage in various types of exercise such as Japanese dance, aerobic dance, yoga, and stretching.

The Ministry of Public Health (Department of Health by the Division of Physical Activity and Health, and the Bureau of Health Promotion) is the leading agency initiating and implementing interventions to promote exercise. In addition, other governmental organizations and NGOs (**stakeholders**) have been engaged in initiatives for the promotion of physical activity. For example, the Ministry of Education and the Ministry of Tourism and Sports were engaged in the construction of local exercise facilities such as sport fields and sport training centres. Local government organizations have played an important role in creating supportive environments such as public parks, sports grounds and organized community programmes. Local health promotion/exercise for health clubs, schools and private sector companies have been involved in conducting exercise programmes in the school, workplace and community setting. The **funding** for the physical activity interventions comes from various sources, such as the national government (e.g. Ministry of Public Health, Ministry of Education, Ministry of Tourism and Sports), the Thai Health Promotion Foundation and local government organizations.

Social marketing strategies have been adopted using various media (e.g. radio, television, daily newspapers) to **disseminate** several awareness-raising interventions such as the National Power of Exercise Day or the exercise demonstrations under the theme Move with Doe-Re-Me. National surveys indicate that, overall, the physical activity interventions have had an impact on Thailand's population levels of physical activity. National survey data from 2003 and 2004 measuring physical activity behaviour among Thai citizens (using the International Physical Activity Questionnaire/IPAQ - short form) shows that the number of people engaging in physical activity, especially exercise (regardless of intensity) has increased among citizens over fifteen years of age. The 2004 survey also revealed that more than half of the respondents who exercise three days a week for 30 minutes a day have only done so for the last three years. However, total physical activity levels are still high in Thailand because Thai society is still largely an agricultural or semi-industrial society, which consists of many laborers with high work-related physical activity levels. The Ministry of Public Health realizes this fact and makes an effort to maintain this overall physical activity rate as long as possible. Other (process) **evaluation** findings show that the number of health promotion/exercise for health clubs established, a key intervention strategy, has increased rapidly from 10 638 clubs before 2002 to 75 018 clubs in 2004.

Key experiences

► Strong political commitment and leadership of the Minister of Public Health and high-ranking officers in the Ministry of Public Health, both in participating in activities and motivating others to do so, contributed to the success of the physical activity interventions.

► Social marketing: Health promotion in the past did not involve any marketing strategy but in the recent 2–3 years, it was found that there were many mass media campaigns used, including organized events, to build up exercise trends. However, there were questions about sustainability.

► Health Promotion Club: Encouraging people from different settings to join together and do some activities on exercise and health promotion. This makes people get more friends, and activities will be easily expanded.

► Aunt Boonmee's stick as a successful role model: Aunt Boonmee, who can recover from her illness by using a bamboo stick with her invented flexibility exercise, is becoming very famous. This also encourages people to create new types of exercise that can get along with Thai tradition and culture.

► Local government organizations play an important role at local area level by paying attention, cooperating and supporting budgets for organizing activities in local areas. In addition, the process is also coherent with the people's need.

► Funding: The Thai Health Promotion Foundation was established and allocated a high budget for supporting exercise and sport projects.

► The Department of Health is trying to clarify the meaning of “physical activity” instead of formal exercise which is the activity people mostly do. In addition, we believe that activities which become a lifestyle will be sustained for a long time. Thus, physical activity can be sustained if it expresses a lifestyle.

3. Conclusions

Key findings from the review regarding current and best practice in interventions to promote physical activity in developing countries are outlined in this section. In addition, those developing countries that introduced policies on physical activity (or non-communicable disease prevention/ weight control, health promotion including physical activity), as well as physical activity guidelines, are listed. Essential and optimal prerequisites are also presented for implementing physical activity interventions in developing countries.

Current and best practice in interventions to promote physical activity

Interventions are either designed to focus on physical inactivity as a single risk factor, or to include multiple lifestyle risk factors (e.g. unhealthy diets, tobacco use, alcohol consumption, psychosocial stress).

In general, physical activity interventions carried out in developing countries include strategies to:

- **Raise awareness** of the importance and benefits of physical activity among the population. This takes place through large-scale media campaigns disseminated via various channels, such as:
  - print media (e.g. newspapers, magazines, advertisements);
  - electronic media (e.g. television, documentaries, radio, Internet);
  - Face-to-face activities (e.g. exhibitions, health fairs, public forums);
  - Mass events (e.g. mass aerobic exercise events, walks for health), sometimes held in line with national and international celebration days (e.g. National Heart Month, World Health Day, Move for Health Day, World Diabetes Day);
  - Public advocacy by famous individuals (e.g. Prime Minister, high-ranking officers in ministries, sports champions, pop stars).
- **Educate** the whole population and/or specific population groups (e.g. schoolchildren, employees, older people, disabled people, people at risk of developing NCDs, women, men) on the benefits of physical activity and provide them with knowledge of how to be active. This takes place through:
  - dissemination of the message of engaging at least in 30 minutes of moderate-intensity physical activity on most days a week (physical activity guidelines);
  - distribution of educational materials in various languages (e.g. posters, banners, brochures, booklets, leaflets, CDs, videotapes) on the benefits and practice of physical activity;

- educational counselling conducted with specific population groups (e.g. schoolchildren, employees, people at risk of developing NCDs) in various settings (e.g. school, workplace, health centres, sports clubs).

- **Conduct local physical activity programmes and initiatives.** This includes various types of exercise and sports (e.g. walking, hiking, cycling, swimming, dancing, aerobic exercise, rope skipping, basketball, yoga, chi gong), as well as daily physical activities (e.g. gardening, doing house chores, taking stairs instead of the elevator). Local physical activity programmes and initiatives are implemented in collaboration with grass-roots organizations (e.g. local sports clubs, voluntary organizations, health care centres, churches, cultural groups) in various settings (e.g. school, workplace, community).
- **Build capacity** among individuals implementing local physical activity programmes. This occurs through training of potential programme coordinators (e.g. health workers, health/sports professionals, teachers, employees), to provide them with skills (e.g. in motivating people to practice physical activity and healthy lifestyles) and knowledge (e.g. on physical activity and health) for developing local exercise programmes and initiatives in various settings (e.g. school, workplace, community) and to encourage people to participate. Capacity building can target health professionals, NGOs or others who themselves then can develop downstream training, interventions and advocacy.
- **Create supportive environments** that facilitate participation in physical activity. This involves:
  - provision of parks, walking paths and playgrounds, as well as exercise-for-health clubs;
  - provision of physical education at school, as well as opportunities to engage in sports after school;
  - installation of physical activity equipment at schools, workplaces and in the community (e.g. in sports clubs, health centres);
  - commitment of employers to organize physical activities at the workplace.
- **Give recognition/awards** to individuals (e.g. students, individuals in the community) who live a healthy lifestyle and engage in regular physical activity, and encourage others to do so.

Physical activity interventions identified in the country case studies usually involve a combination of these intervention strategies. Multiple and comprehensive strategies were particularly prevalent in physical activity interventions that also involved elements of best practice (large scale intervention; targeted to the whole population as well as specific population groups; with clear objectives, political commitment or a guiding policy, a coordinating team, support from stakeholders, a clear identity; implemented within "local reality"; including dissemination and evaluation; see Section 4.3, page 38).

The impact of physical activity interventions in developing countries needs to be better investigated through systematic process and impact/outcome evaluation. To date, evaluation has been limited. In the developing country context, it is often difficult to design optimal scientific evaluations. Nonetheless, it is important to at least do process evaluation (monitor implementation and uptake of the programme) in as many cases as possible. This is valuable for the further development of physical activity programmes in developing countries as better evaluation will provide a stronger rationale and evidence base for decision-makers and funding agencies to endorse.

To date, process and/or outcome evaluation takes place or is planned in some developing countries (e.g. Brazil, China (Hong Kong SAR), Colombia, Fiji, India, Islamic Republic of Iran, Malaysia, Marshall Islands, Pakistan, Philippines, Singapore, Slovenia, South Africa, Thailand). Some developing countries seem to be successful in raising awareness of the importance and benefits of regular physical activity, or physical activity programmes and campaigns among the public (e.g. Brazil, China (Hong Kong SAR), Colombia, Fiji, India, Islamic Republic of Iran, Malaysia, Marshall Islands, Pakistan, Philippines, Singapore, Slovenia, South Africa, Thailand). However, outcomes, i.e. actual increases in physical activity levels in a large proportion of the population, are observed only in Brazil, Pakistan, Singapore, and Thailand.

Physical activity interventions, particularly those that adopt best practice approaches, were mostly identified in middle income countries (e.g. Brazil, Colombia, Islamic Republic of Iran, Malaysia, Marshall Islands, Philippines, Poland, Slovenia, South Africa and Thailand), whereas fewer interventions were located in low income countries (e.g. Bangladesh, Bhutan, Cambodia, countries in the WHO African Region). Intervention design (e.g. using awareness-raising and educational, as well as capacity-building approaches) and messages (e.g. recommending 30 minutes of moderate-intensity physical activity most days a week) are not different to those used in physical activity interventions from developed countries. The strategies for awareness-raising may be country-specific, based on different forms of media, and different modes of activity being promoted. A first step might be to raise awareness among professional groups, including physicians and health workers, who will play a role in subsequent physical activity message delivery to a range of populations and target groups. These awareness-raising and information strategies are a first step for many countries as the issue needs to be placed firmly on the health agenda, and in the partnership agendas developed with other agencies and government departments.

Guiding policies related to physical activity

Several developing countries (e.g. Fiji, Malaysia, Mauritius, Pakistan, Samoa, South Africa; Thailand, Tonga) initiated physical activity interventions as part of the implementation of a national action plan or strategy; for NCD prevention and control, health promotion, or physical activity promotion in particular. Physical activity promotion is defined as a key action area in these guiding policies. For that reason, some developing countries set up specific committees on physical activity

promotion within a leading governmental or nongovernmental agency (e.g. the ministry of health, sport and/or education, NGO).

Physical activity guidelines

Most developing countries disseminate the United States Surgeon General's (1996) recommendation of accumulating at least 30 minutes of moderate-intensity physical activity on most, preferably all, days a week. Fiji, the Philippines, and Singapore have developed their own physical activity guidelines, in line with the United States Surgeon General's recommendation and targeted to the general adult population. Mongolia is planning to develop national physical activity guidelines.

Prerequisites for implementing physical activity interventions

In the following, essential and optimal prerequisites are presented for implementing physical activity interventions in developing countries. They are based on evidence gained from the country consultation process – namely the country case studies and key experiences stated by key country stakeholders. They result also from elements of best practice in country case studies in this review, and elements of successful physical activity policy identified in previous research (Bull et al. 2004b). The focus is on physical activity interventions conducted on a large scale although the prerequisites may also relate to small-scale interventions.

Essential prerequisites

High level political commitment/guiding national policy: Political commitment from powerful individuals in government (e.g. prime minister, king, ministers and high-ranking officers within ministries of health, education and/or sports) is crucial, as it may drive physical activity promotion on the political agenda, particularly if the commitment is officially announced to the public. Alternatively or in addition, a guiding national policy, within which physical activity promotion is defined as a priority area of action, may foster the implementation of physical activity interventions. A guiding policy may be a national action plan or strategy on the prevention and control of NCD, health promotion or physical activity promotion in particular.

Funding: Allocation of financial resources to implement physical activity interventions is the basis for any actions towards physical activity promotion, and indicates the degree of commitment of organizations/individuals. Funding may come from governmental, nongovernmental and/or private sectors. It should be clear, sustainable and sufficient for the type and scale of intervention pursued. As in general governmental sources are limited, other funding sources from NGOs, and particularly from private industry, need to be better explored to assure sustainable and sufficient funding.

Support from stakeholders: A network of relevant stakeholders (e.g. ministries, private sector organizations, NGOs, sports associations, schools, employers, parents, local community groups) is necessary for implementing physical activity interventions in specified settings (e.g. school, community, workplace) and to disseminate intervention messages through relevant media (e.g. television, radio, newspaper). Such networking and building of partnerships requires shared values, mutual respect and skilful articulation of arguments among stakeholders. It also includes agreement on common objectives to bring value to all stakeholders.

Coordinating team: There needs to be a mandate within an organization to implement physical activity interventions. This includes a coordinating team responsible for implementation (e.g. programme coordination, delivery, administration, research/evaluation, dissemination).

Optimal prerequisites [additional important factors for successful programmes]

Clear objectives: The purpose of physical activity interventions should be clear; for example, raising awareness on the importance and benefits of physical activity or increasing population levels of physical activity.

Integration of physical activity within other related interventions: Physical activity promotion may occur not only through interventions promoting physical activity (single risk factor intervention) but also through interventions preventing NCDs or obesity, or promoting healthy lifestyles, thereby addressing other lifestyle factors such as diet, smoking cessation, alcohol consumption, stress management (multiple risk factor intervention).

Multiple intervention strategies: Physical activity interventions should comprise a combination of several intervention strategies (e.g. raising awareness on the importance and benefits of physical activity, local exercise programmes, provision of facilities for physical activity) including various settings (e.g. workplace, schools, community).

Target the whole population as well as specific population groups: Large-scale interventions should involve the whole population in order to enhance physical activity at population level. In addition, some interventions (e.g. exercise programmes, educational counselling) may be tailored to specific population groups, such as adults, children, senior citizens, employees, disabled people, women, men, cultural groups, people at risk of developing NCDs.

Clear identity: A clear identity, illustrated by a programme name, logo, mascot and/or branding, supports the dissemination of physical activity interventions on a large scale, particularly those which include awareness-raising strategies using mass media (e.g. television, radio, newspaper).

Implementation at different levels: Large-scale interventions must be initiated at national level, whereas implementation should include the state and local levels. Local implementation may be facilitated by people's grass-roots experiences and knowledge of what works in the community setting.

I**mplementation of within "local reality":** The diversity of cultures, social and physical infrastructures, and languages in developing countries, needs to be taken into account. Local implementation of physical activity interventions may depend on financial sources, staff, know-how, physical infrastructure, cultural ties and customs, family ties, gender roles, languages and dialects, cultural groups.

Leadership: Leadership is vital among key individuals involved in the implementation. Leadership may come from individuals within leading agencies (e.g. high-ranking officers in ministries) or local programme coordinators in the intervention settings (e.g. community, workplace and schools). Leadership tasks may involve setting up organizational structures, enabling staff to develop professional skills, managing information from other agencies, delegating authority and accountability, as well as communicating effectively with staff, motivating and rewarding them for achievements.

Dissemination of the intervention: Wide dissemination of physical activity interventions and their educational messages is necessary to promote physical activity in a large proportion of the population. Dissemination may occur through various channels (e.g. print media, electronic media, events, powerful individuals, role models, famous people, advocates).

Evaluation and monitoring: Outcome evaluation may occur through national surveys measuring population levels of physical activity. In addition, process evaluation of the implementation of physical activity interventions is needed to identify which strategies have been implemented effectively or ineffectively. This requires the use of various documentation and research methods (e.g. interviews, focus groups, environmental observation). Continuous evaluation or monitoring of the implementation process and outcomes is recommended.

National physical activity guidelines: National guidelines on physical activity for the general population or specific population groups (e.g. children, adolescents, older people) are important to educate the population on the frequency, duration, intensity and types of physical activity necessary for health.

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Annex 1 – Classification of high-income economies

Classification of high-income economies by OECD* and the World Bank

High-income economies, OECD	Other high-income economies
Australia	Andorra
Austria	Aruba
Belgium	Bahamas
Canada	Bahrain
Denmark	Bermuda
Finland	Brunei
France	Cayman Islands
Germany	Channel Islands
Greece	China, Hong Kong SAR
Iceland	China, Macao SAR
Ireland	China, Province of Taiwan
Italy	Cyprus
Japan	Faeroe Islands
Luxembourg	French Polynesia
Netherlands	Greenland
New Zealand	Guam
Portugal	Isle of Man
Republic of Korea	Israel
Spain	Kuwait
Sweden	Liechtenstein
Switzerland	Malta
United Kingdom	Monaco
United States of America	Netherlands Antilles
	New Caledonia
	Puerto Rico
	Qatar
	San Marino
	Singapore
	Slovenia
	United Arab Emirates
	Virgin Islands (US)

*Organisation for Economic Co-operation and Development (OECD)

Based on the World Bank Development Report 2004

Annex 2 – Established market economies

Nations with established market economies*
Australia
Austria
Belgium
Canada
Denmark
Finland
France
Germany
Greece
Ireland
Italy
Japan
Netherlands
New Zealand
Norway
Portugal
Spain
Sweden
Switzerland
United Kingdom
United States of America

*According to the World Bank Development Report (1993)

Annex 3 – Summary of best practice physical activity interventions in developing countries

Table 1: Best practice physical activity interventions in the WHO Western Pacific Region

Country	Singapore
Intervention	**National Healthy Lifestyle Programme (NHLP)**
Reach	National
Target group	Adults aged ≥ 18 years, specific population groups (employees, senior citizens, specific ethnic groups such as Chinese, Malays, Indians)
Intervention model	A **month-long National Healthy Lifestyle Campaign** to raise awareness of the importance of a healthy lifestyle, including: 1) an event involving thousands of adults engaging in physical activity led by the Prime Minister; and 2) a mass media education programme as well as exhibitions, health fairs, public forums. **Workplace-based programmes:** Training is conducted for employees to provide them with skills and knowledge to initiate participation in physical activity among employees. **Community-based programmes:** In collaboration with grass-roots organizations, voluntary organizations and religious groups, community activities (e.g. brisk walking) are initiated to promote daily physical activity. **Healthy Lifestyle Ambassador Award** to give recognition to individuals who live healthy lifestyles and actively promote physical activity in their community.
Context	
Timeframe	1992–ongoing
Stakeholders	Health Promotion Board (HPB) with a Civic Committee on Healthy Lifestyle (leading agency), Ministry of Health, other governmental and private sector organizations, employers, employees, community organizations
Funding/ Support	Funding comes from the HPB, with high level political commitment and support from the Prime Minister and the Minister for Health.
Evaluation/ monitoring	Through regular National Health Surveys (NHS) to reveal population levels of physical activity. Previous NHSs revealed an increase in regular exercise, decrease of diabetes, high blood pressure and high blood cholesterol prevalence.
Dissemination	Through mass media and face-to-face activities (e.g. exhibitions, health fairs, public forums)
Physical activity guidelines	The United States Surgeon General's (1996) recommendation is adopted, accumulating 30 minutes of moderate physical activity on five or more days a week. For cardiovascular health benefits, the recommendation is 20 minutes of vigorous physical activity at least three times a week.
Further reading	Health Promotion Board: http://www.hpb.gov.sg/hpb/

Table 1: Best Practice Physical Activity Interventions in the Western Pacific Region (WPR)

Country	**Singapore**
Intervention	**Trim and Fit (TAF) Programme**
Reach	National
Target group	All students in Singapore schools including primary (6–12 years), secondary (13–16 years) and pre-university (17–19 years) levels
Intervention model	**Group-based and school-wide programmes** including: 1) physical education during curricula; 2) sports-related co-curricula activities; 3) mass exercise activities (e.g. mass aerobic workouts, jogs, hikes; and 4) an annual "All Children Exercising Simultaneously (ACES) Day" to teach students about the benefits of exercise and engage them in physical activities. **Teacher training and resources** to provide teachers with skills in health promotion programme planning and implementation. Schools leverage on teaching and learning resources (e.g. posters, instructional packages on fitness), and conduct educational sessions for parents. **Sporting facilities, equipment, outdoor fitness stations, and a health-and-fitness room** are provided within the school grounds to facilitate access to physical activities. **Recognition:** An annual National Physical Fitness Award (NAPFA) test is conducted to monitor physical fitness levels of students. NAPFA presented to schools that achieved high rates in the physical fitness tests and low prevalence of overweight students. Students who do well in their NAPFA tests receive certificates (Gold, Silver, Bronze)
Context	TAF Programme was launched in 1992 as part of the National Healthy Lifestyle Programme
Timeframe	1992–ongoing
Stakeholders	Ministry of Education (leading agency), Health Promotion Board (HPB), Singapore Sports Council, sports associations, NGOs and private sector organizations, schools' principals and educators, parents
Funding/support	Funding comes from the Ministry of Education and the HPB
Evaluation/ monitoring	Evaluation takes place through regular monitoring of students' physical fitness and obesity levels. From 1992 to 2004, students' physical fitness levels increased and obesity levels decreased.
Dissemination	Via press at the initiation of the TAF Programme. Since then, schools are provided with regular updates and profession-sharing sessions through the annual TAF Awards ceremony, TAF coordinator's meeting and TAF Retreat.
Physical activity guidelines	
Further reading	Ministry of Education: http://www.moe.gov.sg/cpdd/pe/taf/

Table 1: Best Practice Physical Activity Interventions in the Western Pacific Region (WPR)

Country	**China, Hong Kong SAR**
Intervention	**Healthy Exercise for All Campaign**
Reach	Territory-wide
Target group	Whole population and specific population groups in the community (children, seniors citizens, people with disabilities)
Intervention model	Local famous athletes are invited to be **Healthy Exercise Ambassadors** to promote the campaign. **Major promotional events** with seasonal themes for the general public (e.g. Water Sport Carnival, Outdoor Activities Carnival, Indoor Sports Carnival) **Fitness programmes** targeting children, senior citizens, disabled people **Walking schemes** (e.g. hiking, "quail-walk"/brisk walking) **Stair climbing scheme** promoting daily physical activity through stair use **Roving sports demonstrations** featuring selected sports for promotion **"Dance for Health" programmes** in districts (e.g. social and aerobic dance classes) **Rope skipping activities** (e.g. Rope Skipping Promotion Day, Rope Skipping Challenge Day, Rope Skipping Workshop, Rope Skipping Performance cum Carnival) **Roving exhibitions** in swimming pools, sports, centres, shopping centres, elderly centres and schools to disseminate the "physical activity for health" message to the community **Active Living Charter** targeting people in workplaces and schools. About 246 corporations, community organizations and schools signed up the Charter and received a booklet on how to organize activities in their settings.
Context	Launched when the Leisure and Cultural Services Department (LCSD) was newly set up in 2000
Timeframe	2000–ongoing
Stakeholders	LCSD (leading agency), Central Health Education Unit (CHEU) at the Department of Health (DH), several National Sports Associations, Physical Fitness Association of Hong Kong, professional bodies such as the Physiotherapy Association, the Hong Kong Baptist University and the Countryside Heritage Society of Hong Kong
Funding/support	Funding comes from LCSD, and CHEU at the DH
Evaluation/ monitoring	Every year programmes organized as part of the campaign are being evaluated in order to revise and improve them to meet the needs of local residents
Dissemination	Through posters, leaflets, booklets, banners, giant wall banners, videotapes, web sites, newspaper supplements, newspapers, magazine advertisements, as well as the Healthy Exercise Ambassador
Physical activity guidelines	United States Surgeon General's (1996) recommendation adopted, accumulating 30 minutes of moderate physical activity. The slogans "Daily Exercise keeps us fit, people of all ages can do it" and "30 minutes of exercise a day does wonders to your health" are used to encourage people to engage in regular physical activity
Further reading	LCSD: http://www.lcsd.gov.hk/healthy/en/index.php

Table 1: Best Practice Physical Activity Interventions in the Western Pacific Region (WPR)

Country	**Malaysia**
Intervention	**Healthy Lifestyle Campaign/NCD Prevention Programme**
Reach	National
Target group	Whole population as well as population groups at particular risk of developing NCDs
Intervention model	**Dissemination of health education information related to physical activity** through print and electronic media. For example: 1) talks, interviews/trailers on healthy lifestyles including physical activity aired on television and radio; 2) advertorials on the promotion of physical activity published in magazines/newspapers in conjunction with special health days (e.g. World Heart Day, World Health Day). **Exhibits on healthy lifestyles with emphasis on physical activity** are produced on CD and sent to statewide health education units to support them to produce exhibits. A **training manual on the promotion of healthy lifestyles including physical activity** was developed for health staff, the school community and trainee teachers to provide them with skills and knowledge on healthy lifestyles and physical activity. **Special campaign events** are conducted including health talks, forums, seminars, and discussions on exercise and physical fitness. For example, the **Malaysia Fitballrobic and Jump Rope Competition** started in 2003 to encourage staff in fitness-related organizations, schools and health care institutions to use fitball and jump rope for physical fitness activities. Another example is **mass aerobic exercise and cycling programmes** organized in cooperation with multisectoral organizations to raise awareness and interest in physical activity fitness programmes in the community. **NCD risk factor intervention clinics** have been implemented at the primary care level in all states in Malaysia. Physical activity assessments and interventions are conducted in the clinical preventive services in the clinics
Context	The Healthy Lifestyle Campaign was implemented based on the National Strategy on Cardiovascular Disease Prevention and Control
Timeframe	The Healthy Lifestyle Campaign spanned three campaign phases with the first phase (1991–1996) focusing on chronic diseases (e.g. cardiovascular diseases, diabetes, cancer); the second phase (1997–2002) addressing lifestyle factors (e.g. healthy diets, physical activity, safety and injury prevention, mental health, healthy family, healthy environment; and the third phase (2003–2008) focusing on continuous prevention of the health risk factors unhealthy diet, physical inactivity, smoking and stress
Stakeholders	Ministry of Health (leading agency), National Heart Foundation, Malaysian Society for the Study of Obesity, Fitness Association, Diabetes Association, schools, employers, health clinics
Funding/support	Funding comes mainly from the Malaysian Government. Besides that, participating NGOs as well as private agencies provide additional funding
Evaluation/ monitoring	Process evaluation is conducted through the use of registries, reports and feedback documenting, for example, the number and types of: 1) educational materials disseminated; 2) media activities implemented; 3) educational training sessions conducted; and 4) physical activity programmes carried out in the community. Outcome evaluation is carried out through national surveys: the National Health Morbidity Survey and the National Noncommunicable Surveillance using the Malaysia Status Surveillance System
Dissemination	The Healthy Lifestyle Campaign has been widely disseminated through various mass media (e.g. television, radio, Internet, newspapers, magazines).
Physical activity guidelines	The United States Surgeon General's (1996) recommendation of accumulating at least 30 minutes of moderate physical activity on most days a week is adopted.
Further reading	Ministry of Health/Department of Public Health/Division of Control: http://dph.gov.my/ncd/index.htm and http://dph.gov.my/ncd/scc/index.htm

Table 1: Best Practice Physical Activity Interventions in the Western Pacific Region (WPR)

Country	**Philippines**
Intervention	**The National Healthy Lifestyle Programme and the Mag HL Tayo Campaign**
Reach	National
Target group	National Healthy Lifestyle Campaign: whole population including those people who have already developed NCDs; Mag HL Tayo Campaign: adults, older people
Intervention model	National Healthy Lifestyle Campaign takes place along key areas of action outlined in the Ottawa Charter for Health Promotion (1986): 1) **Creating a supportive environment**: This includes national and local policies promoting physical activity and a physical environment which encourages more physical activity such as open spaces, parks, walking/bicycle lanes, gymnasiums. 2) **Changing lifestyles** by raising consciousness about the benefits of physical activity and hazards of physical inactivity, as well as providing guidelines on physical activity. 3) **Reorienting health workers** to assess physical inactivity-related health risks of all patients seen in health facilities. In the **Mag HL Tayo Campaign** physical activity is promoted nationwide through various mass media (e.g. brochures, posters, exercise videos, television spots), using an identifiable campaign logo. A major awareness-raising event was a mass aerobic class, initiated by the Department of Health on 16 February 2003. The event was organized throughout the country involving 48 188 participants exercising simultaneously. As a result, it was documented as a Guinness World Record under the category of "Largest Aerobics Demonstration/Class"
Context	In 2003 the Department of Health declared the promotion of healthy lifestyles as a priority area of action and part of its mandate. As a result, the National Healthy Lifestyle programme and the Mag HL Tayo Campaign were initiated
Timeframe	2003–2008
Stakeholders	Department of Health (leading agency), University of the Philippines College of Human Kinetics, Philippine Coalition for the Prevention and Control of Noncommunicable Diseases (including 41 governmental organizations and NGOs)
Funding/support	Funding comes from the Philippine Government
Evaluation/ monitoring	Planned for 2005 to reveal the extent of: 1) awareness among the population to the campaign; 2) the understanding of the campaign message; and 3) the utilization of the campaign media (e.g. brochures, posters)
Dissemination	The Mag HL Tayo Campaign is disseminated through various media (e.g. television, video materials, brochures, posters), whereas **dissemination** of the National Healthy Lifestyle Programme takes places through a national Training of Trainers programme. It aims to develop trainers at national and local level who then train health workers in their localities
Physical activity guidelines	Physical Activity Pyramid, developed by the Philippine Association on the Study of Overweight and Obesity, used to spread the message of doing at 30 minutes of moderate-intensity physical activity on most days of the week.
Further reading	Department of Health: http://www.doh.gov.ph/healthylifestyle/healthylifestyle.htm

Table 1: Best Practice Physical Activity Interventions in the Western Pacific Region (WPR)

Country	**Marshall Islands**
Intervention	**Nutrition and Diabetes Prevention Programme (NDPP)**
Reach	National: this includes about 23 atolls (out of 29) that are reached by the programme coordinators by car, plane or boat. In each atoll a population of about 200–800 people are targeted per side visit
Target group	Whole population and specific population groups (e.g. young people 15–25 years of age, women, men, church leaders, young mothers, community health councils, school teachers, overweight and obese people, people with diabetes and their family members)
Intervention model	**Weight loss competitions** to reduce overweight/obesity in all population groups, particularly among women, include aerobic exercise sessions, individually-designed physical activity programmes, as well as monthly weight measurements and awards at the end of each year. **Move for Health activities** which include sports competitions, walking teams, walk-a-thons, women's canoe racing, community gardening projects, and housework, swimming, dancing. **KIJLE (Kora in Jipan Lolorjake Ejmour/Women for Health) women's club** organizes weight loss competitions, an aerobic exercise programme, a walking programme, a women's softball tournament, contributes to the coordination of diabetes prevention training and workshops. **Pacific Diabetes Today (PDT) Project**. Specifically trained community diabetes working groups organize diverse projects (e.g. traditional food gardening, weight loss competitions, school sports competitions, annual walks for health). **Healthy Living in the Pacific Islands (HLPI) Project** aims to promote physical activity as well as traditional food processing and preservation methods, using local foods and traditional cooking methods. The **Sports Play Active Recreation for Kids (SPARK) Project** was initiated to promote physical at school through specifically trained teachers. Activities were organized using locally made sporting equipment (e.g. painted coconuts for markers in place of the cones, balls made from coconut fronds, jumping ropes made of vines around the shores). Marshallese people love to sing and dance. Therefore, the Nutrition and Diabetes Programme has a **theme song "Have you Heard the Good News"** to promote movement of the whole body in order to prevent diabetes
Context	The Nutrition and Diabetes Prevention Programme was initiated as part of Ministry's of Health 15-year strategic plan (2001–2015).
Timeframe	2000–ongoing
Stakeholders	Ministry of Health (leading agency), Ministry of Education, Ministry of International Affairs, College of the Marshall Islands, Salvation Army, Youth to Youth in Health, Ebeye Community Health Task Force, KIJLE women's club, Jaluit Diabetes Working Group, community groups
Funding/support	Funding comes partly from United Centres for Disease Control and Prevention, WHO, The United States Agriculture Development of American Pacific, Pacific Diabetes Today Resource Centre (PDTYC) and the Secretariat of the Pacific Community (SPC)
Evaluation/ monitoring	Annual programme report conducted by the Ministry of Health to monitor the population's participation in the programme activities (e.g. walk for health events, weight loss competitions)
Dissemination	Through weekly newspaper articles, radio spots, quarterly newsletter and annual walks for health organized on international celebration days (e.g. International Women's Day, World Health Day, World Diabetes Day, World AIDS Day)
Physical activity guidelines	
Further reading	

Table 1: Best Practice Physical Activity Interventions in the Western Pacific Region (WPR)

Country	**Fiji**
Intervention	**Move for Health Fiji**
Reach	National
Target group	Whole population as well as specific population groups (women ≥ 35 years, people living in urban areas, Indo-Fijians) identified as the least active population groups in Fiji
Intervention model	**Community Awareness:** A comprehensive media campaign on promoting physical activity is planned utilizing several communication channels (e.g. mass media; "word of mouth"; posters; scientific literature; information, education and communication material; multimedia presentations). To date an annual **Move for Health campaign** including an **Olympic Fun Run/Walk** has been initiated to raise awareness on the importance of physical activity. Besides that, local physical activity initiatives and programmes will be conducted in the community and workplace settings. **Education:** A National Physical Activity Guide Fiji for adults was developed to form the basis for educational activities in the community. In collaboration with the National Centre of Health Promotion, educational materials will be developed for training and education purposes. Using the educational materials a series of training sessions will be conducted for professionals in the Ministry of Health's divisions and subdivisions. **Supportive Environment:** The promotion of supportive environments is a major part of the Move for Health Fiji project through partnerships with municipalities, community and civil society groups as well as NGOs. For example, Move for Health walkways will be set up for the promotion of walking in the community. In addition, open spaces in municipalities are to be utilized for local physical activity programmes
Context	Launched as part of the implementation of Fiji's National NCD Strategic Plan 2004–2008 which includes physical activity promotion as a key action area, coordinated by subcommittee on physical activity within the Ministry of Health
Timeframe	2004–2008
Stakeholders	The Ministry of Health (leading agency), Sports Fiji, the National Centre of Health Promotion, the Fiji Association of Sports and National Olympic Committee, the Suva City Council, the Fiji Sports Council, the Fiji School of Medicine, the Fiji Disabled Association, hospitals and health centres, corporate sector organizations. For the future, the establishment of a resource and demonstration Centre for Physical Activity is planned in partnership with existing centres (e.g. the Fiji Sports Council Fitness Centre)
Funding/support	Funding comes mainly from the Ministry of Health. To assure project sustainability other funding sources will be sought such as from the World Health Organization and the Australian Agency for International Development (AUSAID).
Evaluation/ monitoring	Process and outcome **evaluation** is planned, involving a before and after evaluation design of process and outcome indicators. Process evaluation will occur through qualitative surveys and continuous documentation of physical activity interventions strategies. Outcome evaluation will take place through measurement of physical activity in the population, using the Fiji NCD STEPS Survey 2002 as baseline data
Dissemination	Dissemination is planned to include a media campaign promoting physical activity using various **dissemination** channels (e.g. mass media, "word of mouth", posters, scientific literature). The previously-held Move for Health campaign including the Olympic Fun Run/Walk is another example of an event disseminating the Move for Health message
Physical activity guidelines	A National Physical Activity Guide for Fiji was recently developed by the Ministry of Health, based on national **physical activity guidelines** from Australia, Canada and the USA. The recommendation is to engage in at least 30 minutes of moderate-intensity physical activity on most, preferably all, days a week (either continuously or accumulated over the day). Besides that, some regular vigorous physical activity is recommended for extra health and physical fitness
Further reading	

Table 2: Best Practice Physical Activity Interventions in the South East Asia Region (SEAR)

Country	**Thailand**
Intervention	**Physical Activity Interventions within Empowerment for Health and Exercise for Health**
Reach	National
Target group	Thai people at all age, gender and career
Intervention model	**Move for Health Project** including the initiation of: 1) exercise groups in health promotion clubs and primary care units; 2) Healthy Children Schools; 3) training courses for leaders in health promotion clubs; and 4) public relations under the theme "Move with Doe-Re-Me to promote ways of exercising, broadcasted on television and radio. **National Power of Exercise Day** conducted annually since 2002 including health fairs and nationwide gathering of people to exercise in form of aerobic dancing. These mass exercise events involved millions of Thai people including the Prime Minster, other ministers and other famous Thai people. **"30" Relay Running Race Project** (2002–2004) implemented in 25% of all Thai schools to promote schoolchildren to exercise, play sports and work as a team. It includes a 400-metre relay race engaging a team of 30 children in each school. Nationwide implementation of **health promotion/exercise for health clubs** **Healthy Parks Project** to urge local government organizations to provide public parks and places for exercise. **Exercise activities at workplaces** have been initiated by some private sector companies. Employers provide their employees training and time to engage in various types of exercise (e.g. Japanese Dance, aerobic dance, yoga, stretching)
Context	In several national policies exercise for health is declared as a priority action area and objectives for promoting physical activity are defined. These policies are, for example, the national strategy Empowerment for health (2002–2004), the National Health Development Plan (2002–2006) and the Ministry of Public Health's Chief Plan of Exercise for Health (2003–2006)
Timeframe	Timeframes differ depending on the physical activity intervention. In general, all physical activity interventions outlined above have been initiated since 2002, and either finished by 2004 or are ongoing
Stakeholders	The Prime Minister Thaksin Shinawatra, Ministry of Public Health (Division of Physical Activity and Health), Ministry of Education, Ministry of Tourism and Sports, Thai Health Promotion Foundation, local government organizations, local health promotion/exercise for health clubs, schools and private sector organizations
Funding/support	The national government (e.g. Ministry of Public Health, Ministry of Education, Ministry of Tourism and Sports), Thai Health Promotion Foundation, local government organizations
Evaluation/ monitoring	National surveys indicate that overall the physical activity interventions had an impact on Thailand's population levels of physical activity. For example, survey data from 2002, 2003, 2004 show that the number of people engaging in physical activity has increased among citizens over six years of age. Process evaluation shows that the number of health promotion/exercise for health clubs has increased rapidly from 10 638 clubs before 2002 to 75 018 clubs in 2004.
Dissemination	Social marketing strategies have been adopted using various (e.g. radio, television, daily newspapers) to disseminate several awareness-raising interventions (e.g. National Power of Exercise Day, exercise demonstrations under the theme Move with Doe-Re-Me).
Physical activity guidelines	The United States Surgeon General's (1996) recommendation is adopted and disseminated in form of the message "exercise at least 3 days a week, 30 minutes a day"
Further reading	Ministry of Public Health: http://www.anamai.moph.go.th/engver/intro.html

Table 2: Best Practice Physical Activity Interventions in the South East Asia Region (SEAR)

Country	**India**
Intervention	**Workplace-based Health Education Intervention**
Reach	Nationally coordinated community-wide intervention conducted at large scale in ten locations across India, in which 19 973 people participated in the physical activity-related workplace-based Health Education Intervention
Target group	Industrial employees and members of their families aged 10–69 years
Intervention model	**Behaviour modification strategies** including: 1) an imparting knowledge phase, during which the target community was sensitized to the intervention's educational messages; 2) an imparting skills phase, during which the required skills for practical application of health messages were developed; and 3) a changing behaviour phase, during which the focus of the intervention was promoting healthy behaviours such as physical activity. **Dissemination of educational information** including: 1) placement of motivational posters at strategic locations within intervention sites; 2) distribution of educational booklets and handouts; 3) dissemination of health messages via local television; 4) a series of interactive lectures/group sessions and audio visual sessions
Context	The Workplace-based Health Education Intervention was conducted as part of a Sentinel Surveillance for Cardiovascular Disease in the Indian Industrial Population, which aimed to increase capacity for morbidity and mortality surveillance in the industry context
Timeframe	2 years
Stakeholders	All India Institute of Medical Sciences (leading agency), Government of India, the Ministry of Health and Family Welfare, World Health Organization, employers
Funding/support	Funding came from the Government of India, the Ministry of Health and Family Welfare and WHO
Evaluation/ monitoring	Formal evaluation included an assessment of changes in perceived levels of physical activity in a subsample of 3219 randomly-selected intervention participants. At one year follow-up 17.1% of the respondents reported they had made a conscious effort to increase physical activity levels
Dissemination	Educational materials were disseminated in seven languages. In addition, health education messages were broadcast on television, and intervention results will be disseminated through the scientific literature
Physical activity guidelines	
Further reading	

Table 3: Best Practice Physical Activity Interventions in the Eastern Mediterranean Region (EMR)

Country	**Pakistan**
Intervention	**The NEWS Heartfile Campaign and the Learn to Live Longer Campaign**
Reach	National
Target group	For the Newspaper media-based NEWS, JANG and US Heartfile Campaigns: the urban, mostly literate population of Pakistan; for the television-based Learn to Live Longer Campaign: Pakistan's general population
Intervention model	Several mass media based health education campaigns based on the principles of social marketing: **Newspaper media-based NEWS, JANG and US Heartfile Campaigns:** Newspaper articles promoting regular moderate-intensity physical activity were regularly posted in the largest English daily newspapers The NEWS and the adolescents' magazine US, as well as in the daily Urdu newspaper JANG, accompanied by the Heartfile logo and a campaign mascot. **Television-based Learn to Live Longer Campaign:** 4–5 minutes daily television programmes promoting regular exercise, aired during prime time, on five successive days, twice a day, for a total duration of three months (initially). In the physical activity related programmes people are encouraged to engage in regular physical activity (e.g. walking and jogging for recreation in parks, children being active on playgrounds). Single aspects of a disease (e.g. cardiovascular disease, diabetes) from a specific prevention-related perspective are highlighted and linked to healthy behaviour such as regular physical activity.
Context	All campaigns were initiated as part of the implementation of the National Action Plan for NCD Prevention, Control and Health Promotion which was jointly launched in 2004 by the Ministry of Health, the WHO and Heartfile.
Timeframe	Newspaper media-based NEWS-, JANG and US Heartfile Campaigns: 1999–2004 Newspaper media-based NEWS-, JANG and US Heartfile Campaigns: 2005
Stakeholders	Heartfile (leading agency), Ministry of Health, WHO, corporate partners
Funding/support	Funding for both campaigns is mainly raised through strategic partnerships with private sector organizations. In addition, the overhead costs of the News, JANG and US campaigns were supported by bilateral agencies (Canadian International Development Agency and United Kingdom Department for International Development).
Evaluation/ monitoring	A cross-national survey conducted in 2001 in the city of Islamabad indicates that the NEWS Heartfile Public Awareness Campaign was successful in increasing knowledge of the benefits of regular exercise and promoting participation in physical activity among the population. Evaluation of the Learn to Live Longer Campaign at the population level, over a given period of time is planned. The campaign outcomes will be linked to Pakistan's national NCD surveillance data.
Dissemination	Through printed and electronic mass media (newspapers, television).
Physical activity guidelines	United States Surgeon General's (1996) recommendation adopted, engaging in 30 minutes of moderate-intensity physical activity on most days a week.
Further reading	Heartfile: http://www.heartfile.org Nishtar S (2003). Cardiovascular disease prevention in low resource settings: lessons from the Heartfile experience in Pakistan. *Ethnicity and Disease*, 13(S2):S2/138–148. Nishtar S (2004). Prevention of non-communicable diseases in Pakistan: an integrated partnership-based model. *Health Research Policy and System*, 13, 2(1):7. Nishtar S, et al (2004). Newspaper articles as a tool for cardiovascular prevention programmes in a developing country. *Journal of Health Communication*, 9(4):355–369.

Table 3: Best Practice Physical Activity Interventions in the Eastern Mediterranean Region (EMR)

Country	**Islamic Republic of Iran**
Intervention	**Isfahan Exercise Project/ Isfahan Healthy Heart Programme (IHHP)**
Reach	Community, rural and urban residents of Isfahan and Islamabad (intervention areas), with a population of 1 895 956 and 275 084 respectively
Target group	General population
Intervention model	Community-based intervention/Isfahan Exercise Project involved a number of strategies including mass media campaigns, local exercise programmes, educational training and creation and enforcement of regulations for physical exercise. **Mass Media,** including radio and television, were used to convey educational physical activity messages. **Special events,** such as car-free days, exercise rallies and walking rallies, were held. **Exercise groups** were formed in neighbourhoods and workplaces. **Physical exercise regulations** were developed and enforced, to highlight the importance of creating supportive environments for physical activity
Context	The Isfahan Exercise Project was one of eight interventions conducted as part of the Isfahan Healthy Heart Project, a comprehensive integrated community-based programme for cardiovascular disease prevention and control
Timeframe	2001–2006
Stakeholders	Isfahan Cardiovascular Research Center, Provincial Health Office, Provincial Physical Organization, Isfahan Municipality, Disciplinary Force and NGOs
Funding/support	
Evaluation/ monitoring	Outcome evaluation will take place at programme completion and will compare population physical activity levels in Isfahan (intervention area) with those in a control area, Arak. Preliminary results (after 3 years) suggest some components of the intervention have been successful such as car-free days and weekly physical activity training television programmes.
Dissemination	Dissemination of the intervention at national level is planned following completion of the demonstration phase in 2006
Physical activity guidelines	
Further reading	Cardiovascular Research Centre/ Isfahan University of Medical Science: http://www.ihhp.mui.ac.ir Sarraf-Zadegan N, et al (2003). Isfahan Healthy Heart Programmeme: a comprehensive integrated community-based programme for cardiovascular disease prevention and control. Design, methods and initial experience. *Acta Cardiologica*, 4 (58), 309–320.

Table 4: Best Practice Physical Activity Interventions in the Americas Region (AMR)

Country	**Brazil**
Intervention	**Agita São Paulo**
Reach	Metropolitan region of São Paulo including 34 million inhabitants in 645 municipalities
Target group	Whole population and specific population groups (students, workers, older adults)
Intervention model	Community-wide intervention including three types of intervention strategies: **Permanent actions by local organizations for promoting the physical activity message in the community:** e.g. The programme "Family School" was developed to provide access to sporting facilities in 6000 public schools of São Paulo State to all members of the school community and school neighbourhood. "Agita Verão" ("Move Summer"), a summer festival at beaches, was initiated to deliver the physical activity message to people on vacation. Over 100 000 drivers of cars, buses, trucks and their families received Agita flyers at toll stations on highways going to the beaches. **Supportive actions by other institutions** (e.g. distribution of the message on electricity company bills, in a soccer stadium and at metro stations). **Mega-events** to mobilize a large portion of the population (e.g. the annual **Agita Galera** Day/Active Community Day delivered in 6000 public schools involving over 6 million students, Active Elderly Day delivered to centres for elderly individuals, Active Worker Day) The name "Agita" ("movement") was selected advisedly. It represents not only the desire for physical activity but includes also considerations of the mind, social health and citizenship. Tha "half-hour man" is the mascot of the programme, reflecting the attention to cultural aspects, since fun is a crucial factor for Brazilians. A "half-hour woman", a "half-hour cowboy" and a "half-hour seashoreman" were additionally created, attempting to adapt to gender and regional cultures
Context	Agita São Paulo started as a grass-roots initiative, and then spread and became a model for similar programmes across the country (Agita Brazil), the Americas (Agita Columbia) and worldwide (Agita Mundo)
Timeframe	Ongoing since its launch in1996
Stakeholders	Centre for Laboratory Studies on Physical Activity of São Caetano do Sul (CELAFISCS) (leading agency), State Department of Health, a scientific committee including experts in the area of physical activity and public health (e.g. physicians, physical education teachers, social workers), an intersectoral executive committee including more than 300 governmental organizations and NGOs and the private industry from the health, education, sports and/or environment sectors
Funding/support	Funding comes from the State Secretariat of Health, partner institutions and businesses
Evaluation/ monitoring	Evaluation and monitoring is conducted by the central office and outside groups including measurements of population levels of physical activity (through surveys), physical activity knowledge, barriers, attitudes, behaviour change as well as knowledge about the Agita São Paulo programme. Several evaluation studies of community-based interventions and mega-events were also conducted
Dissemination	Nationally, regionally and internationally disseminated
Physical activity guidelines	United States Surgeon General's (1996) recommendation adopted, recommending at least 30 minutes of moderate-intensity physical activity on most, preferably all, days of the week, either in a continuous or accumulated (in sessions of 10–15 minutes) way. For youth an alternative recommendation is to engage in at least 20 minutes of sustained vigorous physical activity on three days a week.
Further reading	CELAFISCS: http://www.agitasp.com.br Physical Activity Network of the Americas: http://www.rafapana.org

Table 4: Best Practice Physical Activity Interventions in the Americas Region (AMR)

Country	**Colombia**
Intervention	**Muévete Bogotá – The Muévete Bogotá's Workplace Physical Activity Programme**
Reach	Conducted in the capital city of Bogotá, with a population of 7 million inhabitants in 20 localities
Target group	Employees (e.g. administrators, workers, managers, directors) located in institutes, associations, public and private school and universities, business and health sector organizations, as well as local neighbourhood groups who want to implement physical activity programmes in their community
Intervention model	An **educational media campaign** to provide technical expertise to new potential partner companies to encourage them to conduct physical activity programmes at the workplace. Media used are pamphlets, posters, a guide of physical activity for each sector (business, education, health), videos and CDs. **Advisory services** for potential partner companies that want to develop physical activity programmes at the workplace. The partner companies may be represented through company directors or unions and worker associations. **Training and capacity-building sessions** are conducted twice a year for potential "physical activity promoters" among the employees of partner companies (e.g. managers, coordinators responsible for occupational health, representatives of occupational insurance sectors). The training sessions provide them with basic knowledge and skills to develop a physical activity programme at their workplaces. Some companies that successfully implemented physical activity programmes at the workplace have included physical activity as part of their worksite policies. For example, one partner company spends a proportion of its total budget on its physical activity programme Muévete Alqueria. Another partner company has also designated a budget to its physical activity programme Camina Policia, and extended the programme nationally, thereby reaching approximately 150 000 employees
Context	
Timeframe	Ongoing since its launch in 1998
Stakeholders	Occupational health departments within partner companies; manager of the sports and health programmes in the partners companies; professionals in the area of sports medicine, physical therapy and nursing; scientific committee including experts in physical activity
Funding/support	Funding comes from the Major Office of the city through the Institute for Sports and Recreation Bogotá
Evaluation/ monitoring	Process and outcome evaluations of the worksite programmes conducted by an evaluation committee (including an Muévete Bogotá coordinator, Muevete Bogotá facilitators and a Muévete Bogotá quality control assistant). Data sources obtained for example from: 1) databases of the partner companies; 2) IPAQ baseline results and databases of physical activity participation maintained by each partner company; 3) several surveys conducted with partner companies
Dissemination	Most of the participating companies named their physical activity programmes after the word "Muévete", thus spreading the message of Muévete Bogotá. Other dissemination activities are meetings, capacity-building workshops on physical activity, academic events (e.g. forums, seminars on physical activity), as well as events (e.g. Month of the Active Employee, Move for Health Day)
Physical activity guidelines	The United States Surgeon General's (1996) recommendation was adopted and developed in consultation with Agita São Paulo, recommending the accumulation of moderate-intensity physical activity for at least 30 minutes on most days a week
Further reading	

Table 5: Best Practice Physical Activity Interventions in the African Region (AFR)

Country	**South Africa**
Intervention	**Vuka South Africa – Move for your Health Campaign**
Reach	National
Target group	Children, youth, adults, older adults
Intervention model	Broadcasted **aerobics, body building** and **thai chi demonstrations** at campaign launch (30 May 2005), as well as **6 km walk** around Alexandra Township by the Minister of Health, guests and community. **Health walks** in provinces, **physical activities** at schools, **soccer matches** with older citizens and people with disability, **workshops** on lifestyle-related chronic diseases, **aerobic mass demonstrations** and **nutrition exhibitions**. **Community-wide screenings** for obesity, hypertension, high cholesterol and diabetes as part of all national campaigning and health awareness days. 5 km health walk and physical activity promotion activities as part of the South Africa's overall Healthy Lifestyle campaign. **Soul City**, a media-based health promotion initiative by Sport and Recreation South Africa including physical activity posters and education in newsletters, which are distributed to more than 1000 Soul Buddyz clubs (clubs promoting health and well-being among in and out of school youth). Development of **Charter for Physical Activity, Sport, Play and Well-being for all Children and Youth in South Africa**
Context	Physical activity promotion is one action area within the national Healthy Lifestyle strategy which forms part of South Africa's Government Strategic Priorities for the National Health System 2004-2009. President Thabo Mbeki's mentioned the importance of promoting a healthy lifestyle including regular physical activity in the "State of the Nation" address in 2005. The Minister of Health Dr Manto Tshabalala-Msimang identified both obesity and lack of physical activity as two important risk factors for chronic diseases, and advocated the "Move for Health" concept in her budget speech in April 2005. The Minister of Health presented the Vuka South Africa – Move for your Health campaign to the cabinet on a number of occasions in 2005, where it was well received by the members of Parliament
Timeframe	Ongoing since its launch in 2005
Stakeholders	National Department of Health (leading agency), National Department of Education, National Department of Sport and Recreation, academic institutions, business sector organizations
Funding/support	From the South African Government, as well as NGOs and tertiary institutions
Evaluation/ monitoring	Process and outcome evaluation are underway, aiming to examine, for example, accredited physical activity programmes under Vuka Move for Health, awareness of Vuka Move for Health campaign messages, and prevalence of physical activity behaviour.
Dissemination	Through several media (radio, television print media), and national workshop on Move for Health held in 2005.
Physical activity guidelines	The United States Surgeon General's (1996) recommendation was adopted, accumulating moderate-intensity physical activity for at least 30 minutes on most (at least five) days a week
Further reading	

Table 6: Best Practice Physical Activity Interventions in Europe (EUR)

Country	Slovenia
Intervention	**Slovenia on the Move – Move for Slovenia**
Reach	National
Target group	Adults, senior citizens, women in menopause, young women
Intervention model	**Educational training for health and sports professionals**, in order to build local capacity in health enhancing physical activity promotion and organize exercise programmes in the community. **National action**, such as public 2 km walk tests and media campaigns related to specific international celebration days (e.g. World Health Day, Move for Health Day, Car Free Day Walk Day). **Development of networks of health and sports workers**, called Local Promotion/Prevention Groups, which help to arrange events in the community (e.g. 2 km walk tests). **National and local media coverage** promoting regular physical activity as an important component of a healthy lifestyle, as well as dissemination of events. **Local exercise programmes**, such as the Rainbow Walking Programme which includes walk tests, a 10-week walking programme, family weekend walking trips and healthy lifestyles lectures
Context	Slovenia on the Move – Move for Slovenia was initiated within the Countrywide Integrated NCD Intervention (CINDI) Programme Slovenia
Timeframe	1999–2004
Stakeholders	CINDI Slovenia (leading agency), Sports Union of Slovenia, National Institute of Health Insurance of Slovenia, Ministry of Education and Sports, local promotion and prevention groups, community health centres, local sports organizations
Funding/support	Funding came from CINDI Slovenia and the Sports Union of Slovenia through funds from the National Institute of Health Insurance of Slovenia and the Ministry of Education and Sports
Evaluation/ monitoring	1500 health, sports and other professionals across Slovenia were trained in health enhancing physical activity promotion. Between 1999 and 2004, more than 70 local organizations conducted 729 walk tests in 140 Slovenian towns. A total of 17 085 Slovenians have participated in walk tests. Anecdotal evidence suggests that the Slovenia on the Move – Move for Slovenia improved participant's physical fitness. The intervention was well recognized by the Slovenian public, mass media, NGOs and governmental organizations
Dissemination	Intervention dissemination occurred through the mass media (e.g. broadcasts on national and local television and radio, articles and newspapers), awareness-raising materials (e.g. posters in community centres, sports centres and public places, brochures and booklets distributed at health education workshops), and scientific publications and presentations at national and international congresses, symposia and press conferences
Physical activity guidelines	The United States Surgeon General's (1996) recommendation was adopted, recommending at least 30 minutes of moderate-intensity physical activity on five days a week.
Further reading	CINDI Slovenia website: www.cindi-slovenija.net/ [Slovenian]

Table 6: Best Practice Physical Activity Interventions in Europe (EUR)

Country	**Poland**
Intervention	**Revitalize your Heart (also known as "Put the Heart on its Feet")**
Reach	National
Target group	Polish adults and adolescents aged > 15 years
Intervention model	An education campaign and a physical activity challenge using social marketing strategies were used. **Nationwide education campaign,** including messages to promote health benefits of being active, the '30 minutes of moderate-intensity aerobic activity on most days' message and participation in the physical activity challenge. Messages were promoted through the mass media, through educational programme materials, such as information booklets and through a Committee of Honour, consisting of well-known popular representatives of Polish culture, science, business and sport. The intervention received political support from the Polish President Mr Aleksander Kwasniewski. **Physical activity challenge,** a nationwide initiative designed to help individuals incorporate physical activity into their daily routine. The general population was encouraged to participate in promotional physical activity events (e.g. physical activity picnics involving sporting competitions) and to develop and carry out their own physical activity programmes, for which they collected points. At challenge conclusion 100 prizes and specialty awards (e.g. for oldest participant, best collaborating centre) were presented at a press conference in Warsaw. All participants of the intervention received congratulatory certificates
Context	The Revitalize your Heart intervention was initiated within CINDI Poland
Timeframe	Held annually in 2001, 2002 & 2003 during the three month summer period
Stakeholders	The CINDI Poland Programme, The Ministry of Sport and National Education, The Medical University of Lodz, The Polish Olympic Committee, The Polish Society of Sports Medicine, The Polish Society of Social Medicine, The Polish Cardiac Society, The WHO Healthy Cities Poland Programme, local sports clubs and Municipal Centres of Sport and Recreation
Funding/support	Funding came from commercial sponsors (e.g. The Pfizer Foundation), WHO and the Ministry of Education. Awards were funded by local commercial sponsors and non-financial contributions (e.g. facilities) were provided by institutions such as The Polish Olympic Committee
Evaluation/ monitoring	Process evaluation showed a growing number of individuals and collaborative centres participating in the intervention (e.g. 137 centres in 2003, compared with 33 in 2001). The number of entries in the physical activity challenge also increased, as did visits to the campaign web site (e.g. 12 668 in 2003, compared with 4687 in 2001). Evidence suggests the intervention was successful in increasing physical activity levels (e.g. 15% of a representative population sample reported increasing activity levels during the campaign period)
Dissemination	National television, radio, newspapers and popular magazines were used to disseminate intervention information. A specialized web site and awareness-raising materials (e.g. posters) were developed, and a tram was decorated in campaign slogans and colours. Dissemination in the scientific arena included presentations at international congresses and symposia and publications in the scientific literature.
Physical activity guidelines	International Physical Activity recommendations, such as those prepared by WHO, the American Heart Association and the European Society for Cardiology were adopted in the Revitalize Your Heart Intervention.
Further reading	CINDI Poland: www.cindi.org.pl/ [Polish]

Annex 4 – Key stakeholders in country consultations

Many stakeholders from developing countries participated in the in-country consultation process. The following key stakeholders provided valuable information on physical activity interventions, and some contributed to the compilation of country case studies. Their support during the review of best practice in interventions to promote physical activity in developing countries is highly appreciated.

WHO African Region	
Dr Fikru Tesfaye	Department of Community Health, Faculty of Medicine, Tikur Anbessa Hospital, Ethiopia
Mr Dhununjaye Gaoneadry	Administration Unit, Noncommunicable Diseases and Health Promotion Division, Ministry of Health and Quality of Life, Mauritius
Mr Jaysing Heecharan	Noncommunicable Diseases and Health Promotion Division, Ministry of Health and Quality of Life, Mauritius
Mr Sudhir Kowlessur	Community Health Development Organizer, Noncommunicable Diseases and Health Promotion Division, Ministry of Health and Quality of Life, Mauritius
Prof. Estelle V. Lambert	MRC/UCT Bioenergetics of Exercise Research, Department of Physiology University Cape Town, Medical School and Sports Science Institute, South Africa
Ms Zanele Mthembu	Director for Health Promotion, National Department of Health, South Africa

WHO Region of the Americas	
Prof Erinaldo Andrade	Agita São Paulo Advisor, Centre for Laboratory Studies on Physical Fitness of São Caetano do Sul (CELAFISCS), Brazil
Dr Victor Matsudo	Director, Centre for Laboratory Studies on Physical Fitness of São Caetano do Sul (CELAFISCS), Brazil
Ms Rocío Gámez	Programme Coordinator Muévete Bogotá, District Institute for Sports and Recreation (Instituto Distrital para la Recreación y el Deporte (IDRD), Colombia
Dr Luis Fernando Gomez	Director, Fundación FES Social, Colombia
Ms Clemencia Mejia	Coordinator, Physical Activity Network of Colombia (Red Colombiana de Actividad Física/REDCOLAF), Colombia
Ms Diana Parra	CTP, WHO Collaborating Center for Physical Activity and Health Promotion, Division of Nutrition and Physical Activity, Centers of Disease Control and Prevention, Bogotá, Colombia
Dr. Josefa Ippolito-Shepherd	Regional Advisor in Health Promotion & Health Education, Pan American Health Organization, United States of America
Dr Enrique Jacoby	Regional Adviser on Food and Nutrition, Pan American Health Organization, United States of America

WHO South-East Asia Region	
Prof Mahmudur Rahman	Director of the Institute of Epidemiology Disease Control Research (IEDCR), Bangladesh
Mr Sonam Phuntsho	Joint Director, IC Bureau, Ministry of Health, Bhutan
Mr Gyambo Sithey	Programme Manager, Food and Nutrition, Department of Public Health, Ministry of Health, Bhutan
Dr Vivek Chaturvedi	Senior Resident, Department of Cardiology, All India Institute of Medical Sciences, India
Dr Shifalika Goenka	Senior Research Fellow, Initiative for Cardiovascular Health Research in the Developing Countries, India
Mr Panniyammakul Jeemon	Coordinator, Sentinel Surveillance Project, Initiative for Cardiovascular Health Research in the Developing Countries, India
Dr D Prabhakaran	Professor, Department of Cardiology, All India Institute of Medical Sciences, India
Prof A Ramachandran	Director of the Diabetes Research Centre and M.V. Hospital for Diabetes Research Centre, India
Prof K Srinath Reddy	Professor and Head of the Department of Cardiology, All India Institute of Medical Sciences, India
Dr Monica Singhi	Research Fellow, Initiative for Cardiovascular Health Research in the Developing Countries, India
Mr Nawi Ng	Department of Public Health, Gadjah Mada University, Faculty of Medicine, Indonesia
Dr MS Suhardi	National Institute of Health Research and Development, Indonesia
Dr Lakshmi Somatunga	Director Noncommunicable Diseases, Ministry of Healthcare, Nutrition and Uva Wellassa Development, Sri Lanka
Prof. Kallaya Kijboonchoo	Project Investigator Nutrifit, Institute of Nutrition Mahidol University (INMU), Thailand
Dr Somchai Leetong-in	Director of the Division of Physical Activity and Health, Department of Health Building Office, Ministry of Public Health, Thailand
Dr Jerzy Leowski	Regional Advisor, Noncommunicable Disease, World Health Organization, Regional Office for South-East Asia

WHO European Region	
Dr Alexander Grakovich	CINDI–Belarus Programme Executive Director, Director of the Belarussian Centre for Medical Technologies, Computer Systems, Administration and Health Management, Belarus
Associate Prof. Lumir Komarek	CINDI–Czech Republic Programme, Director National Institute of Public Health, Czech Republic
Dr Radim Slachta	Palacky University, Faculty of Physical Culture, Czech Republic
Prof Nicola Vassilevsky	CINDI–Bulgaria Programme Executive Director, Department of Health Promotion and Disease Prevention, National Centre for Public Health, Czech Republic

Dr Botagoz Turdaliyeva	Manager CINDI–Kazakhstan, National Centre of Healthy Lifestyles Development, Kazakhstan
Prof Wojciech Drygas	CINDI–Poland Programme, Director Department of Social and Preventive Medicine, Poland
Dr Zlatko Fras	Leader of the CINDI Slovenia physical activity expert working group, University Medical Centre, Department of Vascular Disease, Slovenia
Ms Andrea Backović Juričan	Occupational therapist, physiotherapist and health leader of the national program Slovenia on the Move - Move for Health, Community Health Center of Ljubljana–CINDI Slovenia, Slovenia
Dr Jozica Maucec Zatotnik	Ministry of Health of Slovenia, Slovenia
Dr Jill Farrington	Noncommunicable Diseases, World Health Organization, Regional Office for Europe
Ms Sonja Kahlmeier	Technical Officer, Transport and Health, World Health Organization, Regional Office for Europe
Dr Aushra Shatchkute	Noncommunicable Diseases, World Health Organization, Regional Office for Europe

WHO Eastern Mediterranean Region	
Dr Katayoun Rabiei	Head of Rehabilitation and Exercise Unit, Isfahan Cardiovascular Research Centre, Isfahan University of Medical Science, Iran
Prof Nizal Sarraf-Zadegan	Director of Isfahan Cardiovascular Research Centre, Isfahan University of Medical Science, Islamic Republic of Iran
Dr Sania Nishtar	President, Heartfile, Pakistan

WHO Western Pacific Region	
Ms Kylie Bates	Community Sports Officer Australia-South Pacific Sports Programme, Australian Sports Commission, Australia
Prof Chen Chunming	International Life Science Institute (ILSI) and Chinese Center for Disease Control and Prevention, China
Prof Ma Guansheng	Deputy Director of the National Institute for Nutrition and Food Safety, Chinese Center for Disease Control and Prevention, China
Dr Yang Li	Preventive Medicine Department, School of Public Health, Fudan University, China
Prof Benchuan Tian	Director of the Centre for Evaluation and Training, National Health Education Institute, Chinese Centre for Disease Control (CDC), China
Ms Linda Chiu	Leisure and Cultural Services Department (LCSD), China, Hong Kong SAR
Mr Samuel Fung	Director of Leisure and Cultural Services, Leisure and Cultural Services Department (LCSD), China, Hong Kong SAR
Dr Eliza Sha	Central Health Education Unit, Department of Health, China, Hong Kong SAR
Ms Debi Futter	Health and Physical Education Advisor, Ministry of Education, Cook Islands

Mr James Puati	Cook Islands Teachers College, Cook Islands
Ms Nisha Khan	Chief Dietician and Nutritionist, Ministry of Health, Fiji
Ms Jimaima Tunidau Schulz	Manager, Pacific component of Obesity Prevention In Communities (OPIC) Study, Fiji School of Medicine, Fiji
Dr Temo K Waqanivalu	Acting National Advisor on Noncommunicable Diseases, Ministry of Health, Fiji
Dr Zainal Ariffin Omar	Deputy Director, Noncommunicable Diseases Control Division, Ministry of Health, Malaysia
Dr Mohammed Ismail Abd. Samad	Principal Assistant Director, Noncommunicable Disease Control Division, Ministry of Health, Malaysia
Ms Julia Alfred	Coordinator, Nutrition and Diabetes Prevention Programme (NDPP), Ministry of Health, Marshall Islands
Dr Lois Englberger	Secretary/Treasurer and Researcher, Island Food Community of Pohnpei, Micronesia
Dr Gombodorj Tsetsegdary	Officer-in-Charge for Noncommunicable Diseases, Policy and Coordination Department, Ministry of Health, Mongolia
Ms Moira Sisilia Talagi	TIC Physical Education Teacher at Niue High School, Niue
Dr Stevenson Kuartei	Chief, Primary Health Care, Ministry of Health, Palau
Ms Frances Prescila Cuevas	Chief, Health Programme Officer, Degenerative Disease Office, Department of Health, Philippines
Dr Rodolfo F Florentino	Director, Food and Nutrition Research Institute, Philippines
Ms Candice Apelu	Senior Sports Officer, Ministry of Education, Sports and Culture, Samoa
Ms Ualesi Falefa-Silva	Principal Health Promoter, Ministry of Health, Samoa
Ms Christine Quested	Principal Nutritionist, National Nutrition Centre, Ministry of Health, Samoa
Dr Teh Kong Chuan	Director of the Sports Medicine and Sports Science Division, Singapore Sports Council, Singapore
Ms Yoke Yin Yam	Manager, National Healthy Lifestyle Programme, Health Promotion Board (HPB), Singapore
Ms Chee Yeong CHNG	National Healthy Lifestyle Programme, Health Promotion Board (HPB), Singapore
Dr Theresa Yoong	Director Adult Health Promotion Division, Health Promotion Board (HPB), Singapore
Ms Nevalyn Laesango	Noncommunicable Disease Coordinator, National Referral Hospital Honiara, Solomon Islands
Ms Naomi P. Inia Fakauka	Health Promotion Officer, Health Promotion Unit, Ministry of Health, Tonga
Dr Viliami Puloka	Head of the Health Promotion Unit, Ministry of Health, Tonga
Ms Gerda Jimmy	Vanuatu Society for Disabled People (VSDP), Vanuatu
Ms Wendy Snowdon	Nutrition Education and Training Officer, Lifestyle Health Section, Secretariat of the Pacific Community (SPC)
Dr Tomaso Cavalli-Sforza	Regional Adviser, Nutrition and Food Safety, World Health Organization, Western Pacific Regional Office
Dr Gauden Galea	Regional Advisor, Noncommunicable Disease, World Health Organization, Western Pacific Regional Office