

A GUIDE FOR POPULATION-BASED APPROACHES TO INCREASING LEVELS OF PHYSICAL ACTIVITY:

**IMPLEMENTATION OF THE
WHO GLOBAL STRATEGY ON
DIET, PHYSICAL ACTIVITY
AND HEALTH**



**World Health
Organization**

WHO Library Cataloguing-in-Publication Data

A guide for population-based approaches to increasing levels of physical activity : implementation of the WHO global strategy on diet, physical activity and health.

1.Exercise. 2.Life style. 3.Health promotion. 4.National health programs - organization and administration. 5.Guidelines. I.World Health Organization.

ISBN 92 4 159517 5
ISBN 978 92 4 159517 9

(NLM classification: QT 255)

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Printed in Switzerland

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INTRODUCTION

Background

This guide was initially developed by participants at the World Health Organization (WHO) Workshop on Physical Activity and Public Health, 24-27 October 2005, Beijing, China. The aims of the workshop were to: examine the evidence for health benefits of physical activity; review best practice interventions for physical activity and public health; and prepare a draft guide to population-based approaches for physical activity promotion. A list of workshop participants can be found in Annex I.

Mandate for physical activity

Chronic disease is estimated to account for 60% of all deaths in 2005 and 80% will occur in low and middle income countries (1). In most countries a few major risk factors account for much of the morbidity and mortality. The most important risk factors for chronic disease include: high blood pressure, high concentrations of cholesterol, inadequate intake of fruit and vegetables, overweight and obesity, physical inactivity and tobacco use. Five of these risk factors are closely related to physical activity and diet. Taken together the major risk factors account for around 80% of deaths from heart disease and stroke (2).

Recognizing the burden of chronic disease, at the Fifty-third World Health Assembly (May 2000) physical inactivity was affirmed as a key risk factor in the prevention and control, and a resolution (WHA53.17) was adopted encouraging the WHO to provide leadership in combating physical inactivity and associated risk factors (3).

In 2002, the Fifty-fifth World Health Assembly requested the development of a Global Strategy on Diet, Physical Activity and Health (DPAS) within the framework of the prevention and control of noncommunicable diseases (resolution WHA55.23) (4). To establish the content and structure of this strategy, six regional consultations were held with Member States, organizations of the United Nations system, and other intergovernmental bodies and advice was provided by a reference group of independent international experts. The final strategy was endorsed at the Fifty-seventh World Health Assembly in May 2004 (resolution WHA57.17) (5).

The guiding principles underpinning DPAS recommend the use of evidence and existing science to guide and inform decision-makers and stakeholders of the problem; to use knowledge and evidence on determinants, and interventions to develop national physical activity action plans and policy; and to work with stakeholders to assist with the development process and implementation.

The underlying determinants of chronic disease risk factors – the “causes of the causes” – reflect the major forces driving social, economic and cultural change. The impact of globalization, urbanization and rapid aging on levels of physical activity is not clear. However, it is estimated that 1.9 million deaths are attributable to low levels of physical activity and these are projected to increase as the wider changes continue unless action is taken to stop the decline and increase physical activity levels in the whole population (6).

National, population based approaches to physical activity describe the measures to promote physical activity that are essential to prevent disease and promote health, quality of life, and general wellbeing.

Purpose of this guide

This guide will assist WHO Member States and other stakeholders in the development and implementation of a national physical activity plan and provide guidance on policy options for effective promotion of physical activity at the national and sub-national level.

In the development process a number of factors need to be given consideration, including: national capacities for physical activity practices, prevailing patterns of physical activity, the health status of the population and existing physical activity promotion, education and transport systems as well as urban design practices. This guide includes general principles and examples of possible areas of action for the promotion of physical activity. The guidance in this document is based on evidence and current practice as reported by key informants, and the review undertaken by the WHO (7).

A national action plan on physical activity should include specific goals, objectives, and actions, similar to those outlined in the DPAS (5). Of particular importance are the elements needed to implement a plan of action, including: identification of necessary resources and national focal points (i.e. key national institutes); collaboration between the health sector and other key sectors such as education, urban planning, transportation and communication; and monitoring, evaluation and follow-up.

GUIDING PRINCIPLES FOR A POPULATION- BASED APPROACH TO PHYSICAL ACTIVITY

The following important elements of successful policies and plans have been identified from a review of peer-reviewed literature and shared experiences from Member States with existing physical activity plans at national and sub-national level. Success from both developed and developing countries has informed a set of important characteristics associated with implementing a population-based approach to the promotion of physical activity. It is desirable that countries consider the following elements in the development and implementation of a national physical activity action plan.

Important elements of successful policies and plans

High-level political commitment

Political commitment from government (e.g. from the Prime Minister, King, ministers and/or high ranking officers within ministries of health, education and/or sports) is crucial, as it may facilitate physical activity promotion on the political agenda, particularly if the commitment is officially announced to the public.

Integration in national policies

A national policy in which physical activity has a central place may foster the implementation of a national physical activity plan. This should include a formal statement that defines physical activity as a priority area, states specific goals and provides a strategic plan for action. A policy on physical activity may be a stand alone document or be integrated within policies addressing the prevention and control of noncommunicable disease, or health promotion. The action plan should state the specific strategies of institutions in the government, non-government and private sector that will be undertaken to promote physical activity in the population within a specified time period. Ideally, the plan would specify the accountability of the involved partners and resource allocation.

Identification of national goals and objectives

Identification of national goals and objectives will differ from country to country according to the type of physical activity promotion issues to be addressed. Some general goals are suggested below.

Overall health goals

- To increase and maintain adequate levels of health enhancing physical activity for all people.
 - To contribute to the prevention and control of chronic, noncommunicable diseases.
 - To contribute to the achievement of optimal health for all people, the complete physical, mental and social wellbeing and not merely the absence of disease or infirmity.
-

Objectives

Stated goals should be complimented with a set of specific objectives. These can be stated at the national, regional, or local level. It may also be useful to distinguish short-, medium- and long-term objectives. The following serve as examples:

- to conduct national monitoring of levels of physical activity using standardized surveillance tools such as the Global Physical Activity Questionnaire (GPAQ) (8);
- to raise awareness and knowledge of the health benefits of physical activity in the adult population by 10%;
- to increase physical activity in adults from 15% to 20% by 2010;
- to implement transport and land-use policies that create appropriate conditions for safe walking and cycling;
- to increase awareness of the importance of physical activity among key stakeholders;
- to increase the percentage of communities that have passed urban design plans that facilitate physical activity;
- ascertain commitments from local councils or governments to increase the amount of parks and recreational facilities for physical activity.

The objectives of a national plan to increase levels of physical activity should be clear and specify a measurable outcome in a set time period. The SMART (Specific, Measurable, Achievable, Relevant and Timely) approach should be used to establish a set of clear objectives. Examples could include:

- increase physical activity levels in adults from 15% to 20% by 2010;
- increase the proportion of trips made by bicycle or walking from 10 to 20% in adults, and 40 to 60% in children and adolescents by 2015;
- increase the proportion of children and adolescents that participate in daily school physical education by 2% year on year until 2020.

Funding

Allocation of financial resources to implement physical activity policies and plans is the basis for any actions towards the promotion of physical activity and indicates the degree of national and organizational commitment. Funding may come from governmental, nongovernmental, and/or private sectors and should be sufficient and sustainable for the type and scale of policy or plan being pursued. As governmental sources may be limited, other funding sources from nongovernmental organizations, particularly from the private sector (9), need to be fully explored. Although new funds are ideal, mobilization or reallocation of existing funds should also be considered.

Support from stakeholders

A network of relevant stakeholders (e.g. ministries, private sector organizations, nongovernmental agencies, sports associations, schools, employers, parents, local community groups) and effective collaboration is necessary for implementing physical activity programmes in specified settings (e.g. school, community, workplace) and to disseminate health messages on physical activity 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 that bring value to all stakeholders. A list of the stakeholders can be found in Annex II.

Cultural sensitivity

National policies and plans on physical activity should be socially inclusive and participatory. In particular, successful implementation of physical activity promotion strategies will depend on whether cultural ties, groups and customs, as well as family ties, gender roles, social norms, languages and dialects have been taken into account.

For example, Singapore is a multi-ethnic country with three main ethnic groups: Chinese, Malays, and Indians. The Singapore National Healthy Lifestyle Programme (NHLP) has adopted community-based physical activity programmes customized for specific ethnic groups that are conducted in collaboration with mosques, Malay Muslim organizations, and Indian temples. Moreover, print material provided by the Health Promotion Board to parents on the Trim and Fit (TAF) programme for schoolchildren are produced in four languages (Chinese, English, Malay, and Tamil) to facilitate communication between teachers and children/parents.

Integration of physical activity within other related sectors

National policies and plans on physical activity should be coherent with, and complimentary to national policies and action plans addressing other areas such as child health, smoking, diet, and environment if existing.

While the promotion of physical activity can require direct interventions (single-risk factor intervention), there are advantages to working with opportunities to promote physical activity through indirect or complimentary interventions such as those aimed at preventing noncommunicable disease or obesity, or addressing other lifestyle risk factors such as diet, smoking, alcohol consumption, and stress management (multiple-risk factor intervention).

A coordinating team

A national action plan on physical activity requires leadership and multisectoral coordination. Where possible, this could draw on existing mechanisms or structures; otherwise, a coordinating team may be established with relevant stakeholders. Broad representation on the coordinating team is recommended.

The appropriate roles for the coordinating team should be identified according to the local context and may include those suggested below:

- to coordinate actions of different sectors and stakeholders;
- to create an environment for stakeholders to pursue their strategies and actions;
- to facilitate the development and implementation of a national action plan and programmes, including resource mobilization;
- to monitor programme implementation;
- take responsibility for developing coordination between different administrative levels (i.e. national, regional, local).

Multiple intervention strategies

National policies and plans on physical activity should comprise multiple strategies aimed at supporting the individual and at creating a supportive environment. Combinations of different actions and programmes are likely to be needed in different settings to reach and target populations. Possible strategies include: community-wide mass media campaigns to raise awareness on the importance and benefits of physical activity in the whole population and disseminate messages promoting physical activity; enhanced access to places for physical activity, i.e. provision of local play facilities for children, building walking trails; transport to work (cycling and walking) strategies for the working population; provide advice or counsel in primary care to reach older persons; formation of social networks that encourage physical activity.

Target whole population as well as specific population groups

A national action plan should include large-scale interventions to reach the whole population and enhance physical activity at population level. In addition, some interventions (e.g. exercise programmes, educational counseling) may be tailored to specific population groups, such as adults, children, older persons, employees, people with disabilities, women, men, cultural groups, people at risk to develop non-communicable diseases.

Two examples of tailored exercise programmes for specific population groups include:

- Exercise activities at workplaces. An initiative in Thailand that is supported by national and local governments, where a number of private sector companies and state enterprises provide their employees with training and time to engage in various types of physical activities.
- Due to sensitive traditional customs and gender specific roles in society, the Republic of Marshall Islands have endorsed the KIJLE (Kora in Jipan Lolorjake Ejmour/Women for Health) women's club, which organizes weight loss competitions, physical activity programmes, and workshops specific for women.

Clear identity

A national action plan and the strategies it includes can be linked-by developing a clear programme identity. This could be established through the use of a common programme name, a logo, a mascot and/or other sorts of branding. This has been a highly successful strategy in other countries and can support the dissemination and adoption of physical activity promotion. It is particularly useful for promotion strategies aimed at awareness raising using mass media (e.g. television, radio, newspaper).

Implementation at different levels within "local reality"

Although a national action plan should be focused on achieving increased levels of physical activity in the whole population it must consider implementation from the perspective of sub national, regional/state and local level. Implementation should occur within "local reality" which may differ depending on financial resources, staff, know-how, infrastructure, and physical environment. Successful local implementation may be facilitated by people's grass-roots experiences and knowledge of what works in the community setting.

Leadership and workforce development

Leadership is vital among key individuals involved in the implementation of a physical activity plan. Leadership may come from individuals within leading agencies (e.g. high ranking officers in ministries) as well as from local programme coordinators in the intervention settings, including community, workplace and schools. Leadership tasks may involve: setting up organizational structures; staff development of relevant skills, with the aim to establish a trained workforce on physical activity needs; managing communications with and information from other stakeholders; and motivating and rewarding local initiatives for their achievements.

Dissemination

Wide dissemination of the national action plan and the associated programmes and strategies is necessary to reach and promote physical activity in a large proportion of the population. Dissemination of the primary messages and materials may occur through various channels including: print media, electronic media, regional/local events, influential individuals, role models, famous/popular individuals, advocates.

Some examples of dissemination practices include:

- Health exercise ambassadors in Hong Kong Special Administrative Region (Hong Kong SAR), China, where famous local athletes are invited to promote the Healthy Exercise for All Campaign;
- The Soul City initiative is a media-based health promotion initiative by Sport and Recreation South Africa, which disseminates physical activity posters and education in newsletters that are distributed to over 1000 Soul Buddyz clubs (clubs promoting health and well-being among youth);
- The Learn to Live Longer Campaign in Pakistan involved a twice-daily television program of 4-5 minutes duration promoting participation in regular physical activity. The program aired during prime time, on five successive days for a total duration of three months;
- Several countries have utilized Mega-events on specific national (e.g. Agita Galera/Active Community day in Brazil, National Power of Exercise Day in Thailand, Move for Health Campaign in Fiji) or international (e.g. World Health Day) celebration days that are designed to mobilize a large proportion of the population and raise awareness of physical activity.

Monitoring and evaluation

Evaluation and on-going monitoring of the process and outcomes of actions for the promotion of physical activity is necessary in order to examine programme success and to identify target areas for future plans of action. Outcome evaluation may occur through national surveys and monitoring systems by including standardized measures of physical activity. Process evaluation records the implementation and may include documentation of types of programmes and actions, for example: mass media based promotions, dissemination of educational materials to schools/worksites, provision of local physical activity programmes, provision of training sessions.

WHO has recently established a document that aims to provide an approach for Member States to measure the implementation of DPAS, and to assist in the identification of specific indicators to monitor the progress of activities in the area of promoting a healthy diet and physical activity (10). The proposed framework and indicators are intended to be simple and reliable tools when planning and setting up national surveillance and monitoring activities. The indicators provided in the document offer examples that can be adapted as appropriate. That is, after adjusting to country context and coordination with ongoing national monitoring and surveillance initiatives.

National physical activity guidelines

National guidelines or recommendations on physical activity for the general population or specific population groups (e.g. children, adolescents, adults, and older people) are important to educate the population on the frequency, duration, intensity and types of physical activity necessary for health. WHO is currently in development of global recommendations on physical activity. It is intended that these recommendations may form the basis of Member States' national physical activity guidelines. Member States that have already developed national physical activity guidelines for adults include: Australia, Canada, Fiji, New Zealand, the Philippines, Switzerland, and the United States of America), which are generally based on the United States Surgeon General's recommendations for physical activity (11).

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A STEPWISE FRAMEWORK FOR PLANNING AND IMPLEMENTATION

The WHO Stepwise framework provides a flexible and practical approach to assist ministries of health in balancing diverse needs and priorities while implementing evidence-based interventions.

The Stepwise framework includes three main planning steps and three main implementation steps (1). Planning steps involve assessing the current risk factor profile of the population, formulating and adopting a relevant policy approach and identifying the most effective means of implementing this policy. The chosen combination of actions can be considered as the levers for putting policy into practice with maximum effect.

Planning is followed by a series of policy implementation steps:

- **Core:** feasible with existing resources.
- **Expanded:** possible with realistic increase/reallocation of resources.
- **Desirable:** actions beyond reach with existing resources.

The chosen combination of interventions for core forms the starting point and the foundation for further action. The following table shows a hypothetical stepwise implementation for urban design and transport related to physical activity.

Implementation step		Suggested milestones
Step 1	Core	Leaders and decision-makers in urban design and transport sectors are informed of the impact that design and transport can have on physical activity patterns and chronic diseases.
Step 2	Expanded	Review urban planning/town planning and environmental policies (national and local level) to ensure that walking, cycling and other forms of physical activity are accessible and safe.
Step 3	Desirable	Future urban planning, transport design and construction of new buildings are conducive to active transport and physical activity.

EXAMPLES OF AREAS FOR ACTION

Areas for action	Examples	Level of action
National physical activity guidelines	1. Develop and implement national guidelines for health-enhancing physical activity.	National population
Policy	2. Develop or integrate into national policy the promotion of physical activity, targeting change in a number of sectors. 3. Review existing policies to ensure that they are consistent with best practice in population-wide approaches to increasing physical activity. 4. Review urban planning/town planning and environmental policies (national and local level) to ensure that walking, cycling and other forms of physical activity are accessible and safe. 5. Ensure transport policies include support for non-motorized modes of transportation. 6. Review labour and workplace policies to ensure they support physical activity in and around the workplace. 7. Encourage sports, recreation and leisure facilities to take up the concept of sports (and physical activity) for all. 8. Ensure school policies support the provision of opportunities and programmes for physical activity (consider staff as well as children). 9. Explore fiscal policy that may support participation in physical activity.	National population National population National and sub-population National population Sub-population Sub-population Sub-population National population
Advocacy	10. Develop a national programme identity and common message branding. 11. Identify channels and audiences for advocacy work (e.g. mass media, role models community/religious leaders, politicians, lay leaders). 12. Consider the role of health events and national days on physical activity and integrate with other health (and non-health) agendas where appropriate.	National and sub-population National population National and sub-population
Supportive environments	13. Implement strategies aimed at changing social norms and improving community understanding and acceptance of the need to undertake physical activity in everyday life.	National and sub-population

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	14. Encourage environments that promote and facilitate physical activity, supportive infrastructure should be set up to increase access to, and use of, suitable facilities.	National and sub-population
Partnerships	15. Ministries of health should take the lead in forming partnerships with key agencies, and public and private stakeholders. 16. In partnership, draw up jointly a common agenda and work plans aimed at promoting physical activity. 17. Form networks and action groups to undertaken advocacy activities and promote access and opportunity for physical activity. 18. Create multi-sectoral collaborations. 19. Develop shared work plans for strategy implementation with community groups and sports and religious organizations, as appropriate. 20. Develop guidelines for appropriate public-private partnership to promote physical activity.	National population National population National and sub-population National and sub-population National and sub-population National population
Awareness and education	21. Use mass media to raise awareness of the benefits of physical activity and to disseminate messages promoting physical activity behavior. 22. Provide clear public and culturally relevant messages on physical activity.	National and sub-population National and sub-population
Local and community-based programmes/ initiatives	23. Consider school-based programmes to support the adoption of physical activity. 24. Review how schools provide health information, improve health literacy, and promote healthy diets and other healthy behaviors. 25. Encourage schools to provide students with daily physical education. 26. Review if schools are equipped with appropriate facilities and equipment. 27. Consider primary health care and other (social) services to support the adoption of physical activity. 28. Consider workplaces that encourage physical activity. 29. Consider community based events aimed at raising awareness increasing participation through promoting and supporting local health oriented programmes and initiatives with a physical activity component. 30. Undertake health-promoting programmes and health education campaigns.	National population National and sub-population National and sub-population Sub-population National and sub-population National and sub-population Sub-population National and sub-population

Surveillance	31. Commence monitoring and surveillance of levels of physical activity using standardized, valid and reliable tools.	National and sub-population
Monitoring and evaluation	32. Develop and implement an evaluation programme to assess the implementation and impact of the national (and where appropriate regional and local) action plan and programmes on physical activity.	National and sub-population
Research	33. Support research, especially in community-based demonstration projects and in evaluating different policies and interventions.	National and sub-population
	34. Communicate research findings to inform policy, budget and actions.	National population
	35. Develop research expertise by supporting research development at national and local level.	National and sub-population
	36. Conduct research into the reasons for physical inactivity; on key determinants of effective intervention programmes; and on the efficacy and cost-effectiveness of programmes in different settings.	National and sub-population
	37. Conduct an assessment of the health impact (and impact on physical activity) of policies in other sectors.	National and sub-population
Capacity building	38. Develop workforce capacity for planning, implementing, monitoring and evaluating physical activity promotion and interventions.	National and sub-population
	39. Include physical activity in existing training and professional development courses.	National and sub-population
Funding	40. Identify resources or action on reallocation of existing resources within health and other relevant areas.	National population
	41. Develop mechanisms to identify and obtain sustainable sources of funding for physical activity promotion (e.g. health promotion foundations, national lottery, private sponsorship).	National and sub-population

ANNEX I

Contributors

This document was initially developed by the participants of the Workshop on Physical Activity and Public Health (please see annex II) and it has been prepared by Timothy Armstrong, Fiona Bull, Costan Magnusson and Ann Persson.

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ANNEX II

List of participants

Temporary advisers

Professor Adrian Bauman	Director, NSW Centre for Physical Activity and Health, School of Public Health, University of Sydney, Sydney, Australia
Dr Fiona Bull	Researcher, Physical Activity and Health, School of Sport and Exercise Sciences, Loughborough University, Loughborough, England
Dr Tan Mui Chan	Coordinator of Health Promotion Division, Center for Disease Control and Prevention, Health Bureau, Macao SAR, China
Ms Debbie Futter	Health and Physical Education Adviser, Ministry of Education, Rarotonga, Cook Islands
Dr Shahzad Khan	Senior Research Officer, Heartfile, Islamabad, Pakistan
Professor Estelle Lambert	MRC/UCT Bioenergetics of Exercise, Research Unit, Dept. of Human Biology, University of Cape Town, Medical School, Sports Science Institute of South Africa, Newlands, South Africa
Dr Somchai Leetongin	Director, Division of Physical Activity and Health, Department of Health, Ministry of Public Health, Royal Thai Government, Nonthaburi, Thailand
Professor Guansheng Ma	Vice-Director, Institute for Nutrition and Food Safety, Chinese Center for Disease Control and Prevention, Beijing, China
Dr Nguyen Thi Hong Tu	Deputy Director, Viet Nam Administration of Preventive Medicine, Ministry of Health, Hanoi, Viet Nam
Mr Manasa Niubaleirua	Head, National Centre for Health Promotion, Ministry of Health and Social Welfare, Suva, Fiji
Dr Viliami Puloka	Senior Medical Officer, Health Promotion, Ministry of Health, Nuku'alofa, Tonga
Ms Christine Quested	Principal Nutritionist, National Nutrition Centre, Ministry of Health, Apia, Samoa
Dr Thomas Schmid	Senior Scientist, Centers for Disease Control and Prevention, Division of Nutrition and Physical Activity, Atlanta, United States of America
Dr Hermanto Setia Hadi	Chief, Sub-Directorate of Sport Health, Directorate of Community Health, Directorate-General of Public Health, Ministry of Health, Jakarta, Indonesia
Dr Achyuta Nanda Sinha	Chief Medical Officer (Hospital Adm.), Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India, New Delhi, India
Dr Lakshmi Somatunga	Director, Noncommunicable Diseases, Ministry of Health, Colombo, Sri Lanka
Dr Chaisri Supornsilaphachai	Director, Bureau of Noncommunicable Diseases, Department of Disease Control, Ministry of Public Health, Nonthaburi, Thailand
Ms Ayurzana Unurjargal	Responsible Officer, Health Education, Health Promotion, Sports and Physical Fitness, Ministry of Health, Ulaanbaatar, Mongolia
Professor Gilda Uy	Dean and Associate Professor, College of Human Kinetics, University of the Philippines – Diliman, Quezon City, Philippines
Ms Yoke Yin Yam	Manager, National Healthy Lifestyle Programme, Health Promotion Board, Singapore
Dr Guangyu Yang	Deputy Director, Division of Sport for All, Department of Sport for All, General Administration of Sport, Beijing, China

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Observers

Dr Toshihito Katsumura	Professor and Director, Tokyo Medical University, Department of Preventive Medicine and Public Health, WHO Collaborating Centre for Health Promotion through Research and Training in Sports Medicine, Tokyo, Japan
Dr Shigeo Kono	National Hospital Organization, Kyoto Medical Center, WHO Collaborating Centre for Diabetes, Treatment and Education, Kyoto, Japan
Ms Mary Lewicka	Physical Activity Policy Researcher, Centre for Physical Activity and Health, University of Sydney, Sydney, Australia
Ms Stephanie Schoeppe	Physical Activity Policy Researcher, Centre for Physical Activity and Health, University of Sydney, Sydney, Australia

Observers from China

Dr Hua Fu	Professor, School of Public Health, Fudan University, Shanghai, China
Dr Xuejuan Jin	Associate Professor, Shanghai Institute of Cardiovascular Diseases, WHO Collaborating Centre for Research and Training in Cardiovascular Diseases, Shanghai, China
Dr Lingzhi Kong	Director, Division for Noncommunicable Diseases Control, Department for Disease Control, Ministry of Health, Beijing, China
Dr Keji Li	Professor, School of Public Health, Peking University, Beijing, China
Ms Mei Wang	Professor, China Institute of Sport Science, China
Dr Fan Wu	Associate Professor/Director, Center for Noncommunicable Disease Control and Prevention, Chinese Center for Disease Control and Prevention, Beijing, China
Dr Yangfeng Wu	Professor, National Center for Cardiovascular Diseases Control and Research/Institute of Cardiovascular Disease, Chinese Academy of Medicine, Beijing, China
Dr Fengying Zhai	Professor/Deputy Director, National Institute of Nutrition and Food Safety, Chinese Center for Disease Control and Prevention, Beijing, China
Dr Wenhua Zhao	Professor, Chinese Center for Disease Control and Prevention, International Life Sciences Institute focal point in China, Beijing, China
Dr Yamin Bai	Center for Noncommunicable Disease Control and Prevention, Beijing, China
Dr Yang Li	School of Public Health, Fudan University, Shanghai, China
Dr Bing Zhang	Professor, National Institute for Nutrition and Food Safety, Chinese Center for Disease Control and Prevention, Beijing, China

Secretariat

WHO Centre for Health Development	
Dr Guojun Cai	Coordinator, Ageing and Health Programme, Kobe, Japan
Dr Tomo Kanda	Technical Officer, Ageing and Health Programme, Kobe, Japan
WHO headquarters	
Dr Timothy Peter Armstrong	Technical Officer, Surveillance and Population-based Primary Prevention, Noncommunicable Diseases and Mental Health, World Health Organization, Geneva, Switzerland
WHO regional offices	
Dr Tommaso Cavalli-Sforza	Regional Adviser, Nutrition and Food Safety, Regional Office for the Western Pacific, Manila, Philippines
Dr Gauden Galea	Regional Adviser, Noncommunicable Diseases, Regional Office for the Western Pacific, Manila, Philippines
Dr Jerzy Leowski	Regional Adviser, Noncommunicable Diseases, Regional Office for South-East Asia, New Delhi, India
WHO Office in China	
Dr Hendrick Bekedam	WHO Representative, Beijing, China
Dr Cristobal Tunon	Senior Programme Management Officer, Beijing, China
Dr Yanwei Wu	Programme Officer, Beijing, China

ANNEX III

Stakeholders

Possible stakeholders involved in promoting increased participation in physical activity are listed below. At the national level, each country should make an assessment of its relevant stakeholders.

Public sector

- Ministry of Health - Public health and health promotion
- Ministry of Education - School curriculum, teacher and other professional training, research and scientific leadership
- Ministry of Social Development - land reform, housing, employment
- Ministry of Labour - worksite programmes
- Ministry of Transport - non-motorized travel, public transport
- Ministry of Environment/Land Development - open spaces, pollution, facilities, housing
- Ministry of Women
- Ministry of Science and Technology
- Ministry of Parks and Forestry - facilities
- Ministry of Public Works/Planning - land use, housing, urban design, facilities
- Ministry of Sports/Leisure/Culture/Recreation/Arts - programmes, facilities

Private sector

- leisure/recreation service providers
- health and fitness clubs
- equipment suppliers – sports, bicycles, footwear
- sports associations
- media, e.g. journalist associations, specialist health/fitness/leisure magazines
- financial institutions
- schools and worksites

Nongovernmental organizations/civil society

- health promotion organizations (heart, cancer, diabetes, osteoporosis, arthritis, child health, women's /men's health)
- health professionals' groups (doctors, nurses, midwives, physiotherapists, nutritionists)
- traditional healers
- alternative health groups
- patient groups
- consumer groups
- parent-teacher associations
- sport groups/associations
- walk/cycle groups
- alternative transport groups
- child care organizations
- faith-based organizations

International organizations

- WHO, Food and Agriculture Organization of the United Nations (FAO), United Nations Development Programme (UNDP), United Nations International Children's Emergency Fund (UNICEF), World Food Programme (WFP), United Nations' Educational, Scientific and Cultural Organization (UNESCO)
- World Bank
- regional economic groups
- bilateral donors
- international health organizations (World Heart Federation, World Federation for Mental Health, International Diabetes Federation)

ISBN 92 4 159517 5



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