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Implementing national population based action on physical activity- challenges for action and opportunities for international collaboration

Abstract: This paper summarises recent past and current international developments on physical activity looking at the challenges and opportunities they pose. Key elements of the WHO's Global Strategy on Diet, Physical Activity and Health (GSDPAH) are summarised, focusing specifically on the physical activity components, and by drawing upon recent fora (Atlanta, October 2002; Miami, December 2004; Cascais, February 2005; Beijing, October 2005; Bogotá, November 2005), we outline the barriers and areas of support required for successful development and implementation of national, population-based action on physical activity. These gatherings focused particularly on the needs of developing countries, where to date little has been done to augment physical activity at a population level. Unless swift action is taken, these countries will soon suffer significantly from an increased prevalence of non communicable diseases (NCD). Existing initiatives and opportunities for national and international action on physical activity are identified. Specific actions are proposed for advocacy, communication and dissemination, networks and partnerships, fundraising, policy development and implementation, programme implementation and evaluation, surveillance and capacity building. The development of the Global Alliance for Physical Activity (GAPA) provides a structure for international collaboration.

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The importance of physical activity (PA) to health

Physical inactivity is one of the leading causes of chronic conditions, including obesity, cardiovascular disease, type 2 diabetes mellitus, and certain types of cancer (USDHHS, 1996; Kesaniemi *et al.,* 2001). Inactivity contributes substantially to the global burden of disease, disability and premature death, with heavy resulting economic costs (Pratt, Macera & Wang 2000; Katzmarzyk & Janssen, 2004; WHO, 2002). Other conditions related to physical inactivity, including osteoporosis and the frailty of old age are widespread causes of morbidity (Shephard, 1997). Regular physical activity is also an important facilitator of good mental health and quality of life (USDHHS, 1996).

Global scope of the problem

Recent estimates suggest that at least 60% of the world's population do not undertake sufficient activity to gain health benefits (WH0, 2002; Bull et al., 2005), and in some regions as many as 90% of the population are inactive (Jacoby, Bull & Neiman, 2003). Globally, patterns of transportation and rapid rates of urbanisation heighten concerns about physical inactivity, particularly in countries experiencing economic growth and associated social change. For example, bicycle use for transportation is rapidly being replaced by car and motorbike use in China and elsewhere in South and East Asia (Bell, Ge & Popkin, 2002).

Recognition of need for action

The need for comprehensive national, regional and international public health policies to enhance physical activity has been recognised for some time (Shephard et al., 2004; WHO, 2004) and emphasised again most recently by the World Health Organization's (WHO) report on Preventing Chronic Disease – a vital investment. (WHO, 2005). Moreover, the tools exist for the introduction of successful, evidence-based physical activity interventions in terms of policies, guidelines, training courses, networks, partnerships, and systems of surveillance and evaluation. Also as a response to rising levels of obesity, physical activity is arguably a less contentious method of enhancing population health than the implementation of dietary restrictions.

Despite the scientific evidence base extending from the 1950s until 1996 only a few developed countries had attempted to influence population levels of physical activity, with some of the earliest work commencing in Canada and Finland (Bailey, Shephard & Mirwald, 1976; Karvonen, Kentala & Mustala, 1957; Shephard & Rode, 1991). The publication of the U.S. Surgeon General's report on 'Physical Activity and Health' (USDHHS, 1996), a synthesis of evidence and call for national action, other countries, both developed and developing, started or increased their efforts to address static or declining levels of activity through national campaigns, cross sector partnerships and other diverse programmes (for example;

Australia, Brazil, New Zealand, U.K. and the U.S.A). These efforts gained momentum and more countries commenced activities in part as a result of the World Health Day focus on physical activity in 2002 and the development of 'Agita Mundo,' the on-going celebration of and advocacy for physical activity taking place annually in May (www.who.int/moveforhealth) (for example: Colombia, Germany, Norway, Pakistan, Singapore and Switzerland).

However, to date the policy response and concomitant population level changes in physical activity, within countries and internationally, has been slow, small scale, usually short term and often piecemeal. With few exceptions (notably Canada and Finland) there is little evidence that efforts have been effective. Indeed, even where the proportion of active individuals has increased, as in Canada and Finland, recent data suggest physical inactivity and obesity are rising (Fogleholm, 2004; Tremblay & Williams, 2000).

Overall, there is a huge disparity between the evidence-base for action to increase population levels of activity and the national and international response (Bouchard, Shephard & Stephens, 1994; Kesaniemi et al., 2001; Kahn et al., 2002). The important question is why? We argue that dominant issues are a lack of capacity to respond within ministries of health, sport, education and relevant non-government organisations (NGO) and, most importantly, the lack of political will to provide the means to do so.

The limited capacity of most countries to deliver a comprehensive population-based (public health) physical activity programme is part of a larger failure to mobilise the capacity needed to address chronic disease prevention in general (WHO, 2005). Sixty percent of all deaths are due to chronic disease yet the investment in preventing chronic disease is modest. Implementing effective public health programmes for physical activity may be a pragmatic means of taking the first step to developing a comprehensive NCD prevention effort.

This paper summarises recent international developments on physical activity looking at the challenges and opportunities they pose. We present a summary of the key elements of the WHO's Global Strategy on Diet, Physical Activity and Health (GSDPAH), focusing specifically on the physical activity components, and by drawing upon recent fora, we outline barriers and areas of support required for successful implementation of the GSDPAH recommendations and more broadly the development of national, population-based action on physical activity in developed and developing countries. Existing initiatives are identified and these present both the opportunity and mechanism for responding to the acknowledged needs. In addition, a set of specific actions is proposed, best effected through international collaboration. The development of the Global Alliance on Physical Activity (GAPA) provides the structure for such collaboration and its work programme is outlined.

The international response

Early initiatives to augment physical activity were mostly national or sub-national in scope. At an international level, concerted action only commenced in recent years, reflecting the growing consensus of evidence that physical inactivity is a major risk factor for non-communicable disease (NCD). Early efforts lacked both visibility and sustainability. In 1997, the WHO initiated an 'Active Living' programme. This was built around an international network and several meetings were held, covering policy, advocacy, and programme adaptation for schools and older persons. An ambitious agenda was planned for 1998/99 but only a few events actually happened and thus after an initial period of momentum, the network was disbanded.

More recently, the WHO has renewed its efforts towards correcting the emerging epidemic of physical inactivity and obesity. The 53rd World Health Assembly (WHA, May 2000) reaffirmed that physical inactivity was a key risk factor in the prevention and control of NCD, and a resolution was adopted encouraging the WHO to provide leadership in combating physical inactivity and associated risk factors. In 2002, the 55th WHA requested the development of the GSDPAH within the framework of the prevention and control of NCD (WHA55.23).

The process undertaken to establish a global strategy has been summarised elsewhere (Bauman & Craig, 2005). However, in brief, it included regional consultations with Member States, organisations of the United Nations system, other intergovernmental bodies, the private sector and civil society. Advice was provided by a reference group of independent international experts. The final strategy was endorsed at the 57th WHA (WHA57.17) in 2004.

The development of the GSDPAH, and the concomitant mandate for WHO to support international action on physical inactivity represents an important new window of opportunity for substantive progress. However, this window is time limited. Other strategies or a new epidemic will quickly supersede the prominence that physical inactivity has within the political agenda. It is therefore critical that the momentum achieved via the consultation process, and the interest and intent generated is translated rapidly into action at global, regional and national levels.

Summary of the WHO Global Strategy on Diet, Physical Activity and Health

The overall goal of GSDPAH is to guide the development of an enabling environment that will sustain actions at individual, community, national, regional and global levels, with a resultant reduction in the morbidity and premature mortality associated with physical inactivity. GSDPAH has four main objectives and outlines a set of principles for action to assist the development of regional and national strategies (see Figures 1 and 2).
The task of changing current patterns of physical activity requires the combined efforts of many, and it is recognised that this effort must be sustained over several decades. GSDPAH therefore outlines roles and responsibilities, providing considerable detail on how to combine sound and effective action at local, regional, national and global levels, with necessary monitoring and evaluation. Key roles are presented for WHO itself, which include: leadership; provision of guidelines, norms, standards and evidence-based recommendations; dissemination of information; strengthening regional and national policies; supporting implementation by member States; and promoting research and evaluation.

Figure 1

Global Strategy on Diet, Physical Activity and Health: Four main objectives

1. To reduce the NCD risk factors that stem from physical inactivity and other adverse lifestyles;
2. To increase overall awareness and understanding of the beneficial influences of physical activity and other aspects of an appropriate personal lifestyle;
3. To encourage the implementation, development, and strengthening of global, regional, national and community policies and action plans that enhance physical activity and other aspects of personal lifestyle in ways that are comprehensive, sustainable, and actively engage civil society, the private sector and the media;
4. To monitor key influences on physical activity and other aspects of personal lifestyle; to support research in a broad spectrum of relevant areas, including the evaluation of interventions; and to strengthen the human resources needed in this domain.

Key roles for national governments are stated as stewardship in initiating, developing, implementing and monitoring physical activity promotional strategy, using existing structures and processes where appropriate. A central component is the development of appropriate national policies, with concomitant strategies and action plans and measurable goals and objectives over a defined timeframe. Health ministries are identified as taking specific responsibility for coordinating and facilitating contributions from other ministries and government agencies, and forming appropriate partnerships with NGOs, and other public and private stakeholders. In part, because the solutions (or actions) required are often in sectors outside of health, for example education, transport, local government and planning. Although experience shows that this role may be fulfilled by others. For example, current national efforts are led by the sport and recreation sector in New Zealand and the non-government sector in Pakistan (Sport and Recreation New Zealand, 2004; Nishta, 2004).

Figure 2

Global Strategy on Diet, Physical Activity and Health: Principles for the development of regional and national strategies

- Use of the best available research evidence;
- Comprehensive approach, incorporating policies and action that address physical inactivity in conjunction with other major causes of NCD;
- Multi-sectorial;
- Multi-disciplinary, participatory and consistent with the principles contained in the Ottawa Charter for Health Promotion and confirmed in subsequent conferences on health promotion (www.who.int/healthpromotion);
- Based on a life-course perspective, encouraging regular physical activity from youth into old age and including efforts to reach children in schools, adults in worksites and other settings, and the elderly;
- Form part of broader, comprehensive and coordinated public health efforts.

Drawing on international experience, specific guidance is provided on the components of a national action plan and suggested elements include: national guidelines, clear public health messages; an optimal mix of strategies; policy efforts in multiple sectors. Creating enabling environments that support access to, and use of suitable facilities is recommended along with community involvement and mobilisation in the development and implementation of programmes. The GSDPAH also encourages low and middle income countries to link action on physical activity with the United Nations Millennium Declaration and related national development plans.
In total, the recommendations within the GSDPAH for member states are comprehensive and inclusive. At present, no country is exempt from needing to progress in at least one of the proposed areas. However, the majority of low and middle income member states are starting from a very fragile base and the magnitude of the task of implementing actions on physical activity is seen most sharply from this perspective. Neither the WHO nor national governments can accomplish the task alone. The GSDPAH therefore outlines roles for international partners, civil society and the private sector.

Roles of international partners, non-governmental agencies, civil society, and the private sector

International partners have a key role in supporting national responses and actions on physical activity. Coordinated work and integrated policies are needed among United Nations organisations (such as FAO, UNICEF, ILO, IMF, UNDP, UNESCO, WTO), inter-governmental bodies, non-governmental organisations, professional associations, research institutions and private sector entities. These partners can play an important role, with strengths in areas such as advocacy, resource mobilisation, capacity building, collaborative research and the development of comprehensive inter-sectoral strategies.

The role of civil society and NGOs is particularly important in influencing the behaviour of individuals, organisations and institutions. For example, potential roles include consumer involvement, leading grass-roots mobilisation, advocacy, organising networks and action groups, campaigns and events, as well as monitoring governmental action.

The private sector is recognised as a potential partner in the promotion of physical activity and because many companies operate globally, international collaboration is crucial. Retailers, sporting-goods manufacturers, advertising and recreation businesses, insurance, banking and pharmaceutical companies as well as the media all have influential roles as responsible employers and advocates of healthy lifestyles. Contributions can be through partnership with governments, NGOs and civil society helping in the implementation of programmes, use of consistent and positive messages and the promotion of physical activity in accordance with national and international standards.

Barriers, needs and opportunities

At recent discussion fora[1] key issues and challenges facing developed and developing countries in implementing the physical activity-related components of GSDPAH were reviewed. Several common themes emerged. Seven of the key barriers are summarised below:

1. **Lack of governmental support,** particularly at the ministerial level, is a critical barrier in most regions and countries.

Atlanta, October 2002; Miami, December 2004; Cascais, February 2005; Beijing, October 2005; Bogotá, November 2005.

2. **The low profile of physical activity and a poor understanding of its impact** often underlie the lack of support. Effectively defining physical activity and packaging and communicating clearly to decision-makers the strong evidence linking physical activity to health, well being, and prevention of NCDs is key to effective co-operation and policy development.
3. **A lack of infrastructure** in existing health promotion policy and monitoring of risk factors result in a lack of data to 'make the case' for action and low resource allocation to initiate and sustain a response.
4. A lack of **leadership** and concern over which government department should take responsibility for physical activity initiatives can thwart action.
5. **Inexperience in partnerships** and the absence of incentives (and mechanisms) to work collaboratively, and/or lack of support from other sectors are major obstacles, although the need for multi-sector collaboration is firmly acknowledged.
6. **Competing demands** from malnutrition and communicable disease often dominate the agendas of both governments and international donors in developing countries and limit attention on physical activity. Furthermore, concerns about personal safety, road safety and the prevalence of urban violence complicate and potentially conflict with strategies aimed at augmenting physical activity within the community.
7. **Lack of resources and funding** were identified as barriers. Given the limited resources available for public health in most countries, re-allocating existing resources from both health and non-health ministries, such as transport, local government and education may be a more successful tactic than demanding new funding.
8. **Need for training, guidelines, and programme examples** or case studies of what works, and flexible and modifiable public education materials were some of the immediate and practical barriers to progress. This was true not only for regions such as Africa, Asia and the Eastern Mediterranean, but also for Europe, particularly in the newer European countries.

The challenge to develop and implement the recommendations in GSDPAH may be greatest in countries where all of these issues are present, but almost all countries share at least one of the barriers identified above. Solutions may be complex, but the lessons learned from recent experiences in various countries allows the identification of common needs and tangible actions that will assist many countries in taking appropriate action.

Needs identified

Many countries identify the need for technical assistance and support in order to build infrastructure and make progress on implementation of the GSDPAH. Frequently cited needs include: advocacy skills; 'making the case' for involvement to non-health partners; effective use of the media; and building high level political commitment. Guidelines and 'tool kits' on how to adapt and implement effective interventions were seen as potentially useful.

The need for training is an oft repeated theme. Requests for support include the training of health care workers, training related to the delivery of physical activity programmes, training for evaluation and surveillance of outcomes, and training in advocacy and partnership development. There is also a strong interest in learning from the experience of others, and a call for a mechanism by which to do so.

Opportunities

Along with challenges, opportunities were identified which could help to develop action to support increased levels of physical activity. Specifically, the success of World Health Day events in several regions should be reinforced and exploited in future years. (Matsudo, 2006) Moreover, the opportunity to link physical inactivity with other current agendas, such as urban planning, transportation, sustainable development, inequalities, social justice, and air pollution should be seised. In the developing world, linkages with the World Bank Millennium Declaration and Millennium Goals (particularly Goals 1 and 6) and urban development and renewal programmes should be explored.

To address the need for training, an existing physical activity and public health course initiated in collaboration between the Centers for Disease Control and Prevention (CDC) and International Union for Health Promotion and Education (IUHPE) can be expanded. The course has been held in four Latin American countries and is based on a successful model targeting researchers and practitioners from the United States. (Brown et al., 2001).

The low profile of physical activity and traditional views of sport (competitive, highly selective and costly) can inhibit promotion of physical activity in the general population. Messages and images that reflect physical activity and the newer forms of sport that are participatory, inclusive, encourage social interactions and enjoyment, that require only limited skills, involve the entire group and exploit local cultural traditions are encouraged. Specific initiatives include the World Walking Day, jogging/walking groups, Games Festivals held in New Zealand, Republic of Korea and South Africa, the World Festival of Traditional Games, and ParticipACTION's "World Challenge Day" of moderate-intensity and low impact activities.

Addressing the low profile of physical activity and a lack of understanding of the issues may require different responses to match local conditions. However, there is potential for shared or common messages that countries can adapt. A template or consensus on physical activity guidelines might avoid further duplication of effort to create national recommendations from a common evidence base.

These existing opportunities are examples of the way developing and developed countries can respond in the short and mid-term to develop national policy and programmes for physical activity. Several countries have or are in the process of integrating their response to the GSDPAH and action on physical activity into existing NCD regional and country-level plans. These are significant steps reflecting the momentum around the global strategy process. Nonetheless, current interest must be translated into lasting commitment before the window of opportunity closes.

The Global Alliance for Physical Activity (GAPA)

There is a need for a response drawing on synergies and existing institutions and programmes whenever possible. Recent

Figure 3

Global Alliance for Physical Activity (GAPA):

Programme areas of work

1. Advocacy - using evidence to 'make the case', communications to decision makers, tools for influencing public policy;
2. Communication and dissemination – facilitate flow of information and resources;
3. Networks and partnerships – sharing experience and tools for developing inter-sector commitment and engagement;
4. Fundraising – seek funding support for above actions, resources and communication strategies.
5. Policy development and implementation – guidance and evidence on national policy development and implementation;
6. Programme implementation and evaluation – summary evidence on programmes and interventions, development of case studies;
7. Surveillance – communication on the monitoring of physical activity, the value and use of such data, assistance with tools and approaches;
8. Capacity building – development of leadership and training, including technical assistance and capacity building;

consultation with international NGOs, leading research groups, centres for the study of physical activity and commercial enterprises has revealed willingness and readiness to take action.

A first step has been the development of the Global Alliance for Physical Activity (GAPA). GAPA has been established to provide strategic coordination and stimulation to the actions developed by international and national NGOs to help countries commence or increase their efforts to address physical activity within the broad agenda of non-communicable disease prevention and health promotion.

GAPA will provide access to the best information on what to do and how to do it across as many of the GSDPAH recommendations as possible. The areas identified in Figure 3 were distilled from discussion with organizations/countries/regions addressing physical activity promotion and disease prevention in their specific contexts. A central coordinating group will seek financial support and partners, coordinate the working groups, establish long-term goals, and undertake advocacy for the physical activity agenda .

Overall it is envisaged that GAPA will provide a unified, strong global voice for physical activity. The products of the working groups will be made widely available to facilitate action. Within the current window of opportunity opened by the WHO GSDPAH. The first author (F. B.) should be contacted for further information on the progress of this work.

Conclusion

Morbidity, disability and premature mortality attributable to chronic disease currently accounts for approximately 60% of all deaths (of which 80 % occurs in developing countries) and 48% of the global burden of disease of which approximately 85% occurs in low and middle income countries) These figures are projected to rise to 70% of all deaths by the year 2030, emphasising the need for urgent corrective action (WHO, 2005).

Overall, the concerns and requests heard in the recent fora echo previous reports and are consistent with those expressed in other WHO consultations during the development phase of GSDPAH. The needs are many, and the time is short. Most importantly, new resources to support actions in regions and within countries are limited.

The GSDPAH and the WHO 'Preventing Chronic Disease – a vital investment' are the latest in a series of policy documents that clearly make the case that physical inactivity is a major public issue around the world. Developing countries face an especially challenging situation as physical inactivity, obesity, and NCDs are added to unresolved issues around communicable diseases and environmental health. Despite the large health and economic burden attributable to inactivity and a clear recognition of the importance of the issue, few countries have implemented comprehensive national public health programmes to promote physical activity. This contradiction reflects the limited capacity found within most ministries of health to address physical inactivity, NCDs, and health promotion. However, a window of opportunity is open to address this gap. The GSDPAH is both a stimulus to and a guide for developing national policy and plans for physical activity. The evidence base for interventions to promote physical activity, tools, and nascent regional networks exist to support effective national programmes. Multi-sectoral approaches may bring new partners and resources from fields such as transportation, environment, and social and economic development to act synergistically with public health.

Public health has a history of identifying, committing to, mobilising for, and successfully resolving health crises from smallpox to polio to tobacco to SARS. The same resolve, strategies, and resources must now be applied to address physical inactivity and NCDs. Credibility, guidance, and tools are provided by the WHO, CDC, key international NGOs and GAPA. The WHO Regional Offices and regional physical activity networks can translate global strategies to regional realities and facilitate development of national plans and programmes. NGOs are critical for global advocacy and for supporting plans and programmes in developing countries where government resources are already stretched thin. A road map exists for public health to respond to the challenge of physical inactivity by adapting and re-orienting existing capacity, developing creative new strategies, and capitalising on new and existing partnerships and networks.

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