Diet and Physical Activity in Schools: Perspectives from the Implementation of the WHO Global Strategy on Diet, Physical Activity and Health

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ABSTRACT

Non-communicable diseases (NCD), such as heart disease, stroke, cancer and diabetes, are by far the leading cause of mortality in the world, representing 60% of all deaths. Unhealthy diets and physical inactivity are well-established risk factors for overweight and the major NCD.

In response to the rapid global growth of the NCD burden, the 2008 Action Plan on Prevention and Control of NCD and the 2004 Global Strategy on Diet, Physical Activity and Health (DPAS) have been developed and endorsed as key international policy instruments.

As part of the work of the World Health Organization (WHO) to implement these resolutions, a framework describing the core elements for the development and implementation of a national school policy focused on diet and physical activity has been developed. This framework is included in the “DPAS implementation tool box”, and it aims to guide policy-makers in the development and implementation of policies that promote healthy eating and physical activity in the school setting through changes in environment, behaviour and education.

The article describes the key elements of the framework and details how this tool is integrated into other WHO activities to provide leadership, guidance, capacity building, evidence-based recommendations and advocacy for action to improve dietary practices and increase physical activity globally.

Key words: School policy; public health; education; health policy; nutrition; healthy eating; physical activity

Non-communicable diseases (NCD), mainly cardiovascular diseases, cancers, diabetes and chronic respiratory diseases, are by far the leading cause of death in the world, and their impact is steadily growing. In 2005, 35 million people died from NCD, which represented 60% of the total number of deaths in that year.

Moreover, unless addressed, the mortality and disease burden from these health problems will continue to increase. The World Health Organization (WHO) projects that NCD deaths will increase globally by 17% over the next 10 years. The greatest increase will be seen in the African region (27%) and the Eastern Mediterranean region (25%). This largely invisible epidemic is more serious in low- and middle-income countries, where 80% of all NCD occur.

Unhealthy diets and physical inactivity are well-established risk factors for overweight and the major NCD. Noticeably, children are most affected by the increasing rates in obesity prevalence. It is estimated that in 2010, over 42 million children under the age of 5 years were overweight throughout the world. The problem is steadily affecting many low- and middle-income countries where close to 35 million overweight children live.

The fundamental cause of overweight and obesity is an energy imbalance between calories consumed and calories expended. However, it should be recognized that, increasingly, such imbalances are the result of environmental and societal changes. Policy development and implementation in sectors such as agriculture, transport, urban planning, environment, food processing, distribution, marketing and education have contributed to the global increase in obesity and particularly childhood obesity. In addition, children in low- and middle-income countries are more vulnerable to inadequate prenatal, infant and young child nutrition as well as more exposed to high-fat, high-sugar, high-salt, energy-dense, micronutrient-poor foods, which tend to be lower in cost. These dietary patterns, in conjunction with high levels of physical inactivity, result in low- and middle-income countries being disproportionately affected by the rapid increase in childhood obesity.

Global response to NCD burden

In response to the growing epidemic of NCD, WHO Member States provided a strong global mandate to increase attention to the prevention of NCD. The World Health Assembly (WHA), the supreme decision-making body for WHO, meets in Geneva in May each year and is attended by delegations from all 193 Member States. Its main function is to determine the policies of the WHO, and through its resolutions it provides the WHO Secretariat with the mandate to work on specific topics in response to the Member States’ needs and priorities. To respond to the global NCD burden, milestone resolutions have been endorsed by the WHA and are outlined in Table 1.

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Global Strategy on Diet, Physical Activity and Health (DPAS)

DPAS Development

DPAS was developed over a two-year period in consultation with Member States, United Nations agencies, civil society groups and the private sector, and endorsed in 2004 during the 57th WHA.1 DPAS is a comprehensive tool to guide the actions of Member States, WHO, international partners, civil society, non-governmental organizations and the private sector with the aim of promoting and protecting the health of populations through healthy eating and physical activity.

The consultations carried out during the development stage were instrumental in validating the importance of promoting healthy diets and physical activity on the agenda of all WHO regions. Moreover, DPAS endorsement by the WHA represented a major step forward in stressing that improvement of the diet and physical activity habits of populations was a societal issue and not just a matter of individual behaviour, therefore requiring a population-based, multisectoral, multidisciplinary and culturally relevant approach.

The objectives of DPAS implementation are integrated into the action plan on prevention and control of NCD, which was endorsed by the WHA in 2008.

DPAS Implementation: Actions by WHO at the Global Level

Since the adoption of DPAS by Member States in May 2004, WHO has been supporting DPAS implementation by providing technical assistance, guidance and tools to Member States; providing leadership, evidence-based recommendations and advocacy for international action; interacting with other UN agencies, global private sector and other relevant stakeholders; and by facilitating capacity building at regional and national levels on issues related to diet and physical activity.

Since 2004, WHO has organized over 25 regional capacity-building workshops. These workshops bring together Member States and representatives from various relevant stakeholders with the overall aim to strengthen the understanding, dissemination and utilization of the tools produced for DPAS implementation; support the development and implementation of regional or national policies and strategies related to diet and physical activity; facilitate intercountry cooperation in DPAS implementation; and foster the development of multistakeholder and multisectoral approaches. In these workshops schools as a setting for the promotion of healthy diets and physical activity have been an integrated part of an overall policy to prevent and manage NCD.

School Policy Framework

With the aim of providing technical support to Member States and other stakeholders in the implementation of DPAS and to facilitate capacity building at regional and national levels, WHO has developed a vast range of tools, which have been grouped in the “DPAS implementation toolbox”.

Among other aids, this toolbox includes resources on the development and implementation of school policies on diet and physical activity, marketing of foods and non-alcoholic beverages to children, population-based approaches to increasing levels of physical activity, promotion of fruit and vegetables, reduction of salt intake in populations, prevention of NCD in the workplace through diet and physical activity, and a practical tool for the monitoring and evaluation of diet and physical activity policies and plans at national levels. Further information on these tools can be found through the following website: http://www.who.int/dietphysicalactivity/implementation/toolbox/en/index.html.

School Setting: An Approach to the Implementation of DPAS

Building on various school health and nutrition programs of the United Nations System, a framework describing the core elements for the development and implementation of a national or subnational DPAS school policy has been developed by WHO with the support of the Public Health Agency of Canada and Health Canada. As part of the framework development, these agencies commissioned two scientific background papers: Physical Activity in Schools, by François Lagarde and Claire LeBlanc, and Healthy Eating in Schools, by Mary McKenna. Subsequently, WHO organized an expert consultation in Vancouver, Canada, in 2007. The two background papers were used at the 2007 consultation to review and discuss current knowledge and evidence of national and subnational school policies on diet and physical activity, and they represent the basis for the contents of this CIPPH supplement in the two issue areas.

The overall purpose of the DPAS School Policy Framework is to guide policy-makers at national and subnational levels in the development and implementation of policies that promote healthy eating and physical activity in the school setting through changes in environment, behaviour and education.4 The framework is primarily intended for resource-poor settings, but many of its elements are also suitable for high-resource settings.

Although the DPAS School Policy Framework builds upon existing knowledge and experience, it adds a global policy tool that focuses on governmental action, and not on school action, to improve dietary patterns and increase physical activity in this setting. Therefore, it also strengthens the concept that supportive national or subnational school policies are fundamental in assisting local schools in their efforts to promote healthy eating and physical activity.

The structure of the School Policy Framework is consistent with the scheme shown in Figure 1, indicating how national leadership
on promoting healthy diets and physical activity in schools, supportive policies, programs and environments will be developed and implemented. Together, these are designed to influence behaviour change within the target population, leading to longer-term social, health, environmental and economic benefits.7

To start an effective national school policy, the DPAS School Policy Framework requests national strategic leadership and encourages governments to undertake the following: 1) set up a coordinating team to guide school policy development, implementation, monitoring and evaluation; 2) conduct a situation analysis; 3) develop a work plan and monitoring system; 4) set the goals and objectives; 5) disseminate and implement the policy.

The DPAS School Policy Framework provides various policy options that Member States can incorporate in their national or subnational school policies according to their needs, characteristics and resources. The suggested policy options for both diet and physical activity are presented in the following categories:

- **School recognition** – policy-makers are encouraged to develop a program that stimulates schools to promote healthy eating and physical activity and recognizes their efforts by, for example, awarding schools that provide healthy meals and/or have safe facilities for regular physical activity with a special status.
- **School curriculum** – policy-makers can develop school curricula that encourage healthy eating and physical activity in a cross-curricular manner (i.e., in science class, language arts, math and many other subject areas) and not just in health and/or physical education classes.
- **Food services environment** – policy-makers can adopt nutritional standards for school food; develop school food programs; improve the food service area and the foods and non-alcoholic beverages available in vending machines and school snack bars, etc.
- **Physical environment** – policy-makers may target the improvement of buildings and facility, and development of extracurricular activities that foster physical activity and actions to facilitate safe walking and cycling to and from school. By improving the physical facilities in schools, policy-makers will encourage students to spend their recess time more actively.
- **Health promotion for school staff** – policy-makers can implement measures that facilitate the provision of in-service training on healthy lifestyles, e.g., by organizing workshops held by nutrition specialists and physical education teachers.
- **School health services** – policy-makers can implement measures that facilitate the provision of basic health services in schools. All these actions will contribute to the creation of an enabling environment that will facilitate the increase in physical activity and the adoption of a healthier diet by the target population.

As schematized in Figure 1, the outcomes of the behaviour change should be monitored and evaluated. This can be done through assessing changes in the health status of the targeted population and in several social, environmental and economic aspects, such as the increased availability of safe areas for physical activity and increased access (availability and affordability) to fruits and vegetables. Research, monitoring, evaluation and surveillance need to start early and continue throughout the process, so that feedback on any modifications required for the process can be provided to the institutions involved.

During this process, all interested stakeholders (e.g., ministries of health, ministries of education, interested governmental agencies, teachers and school staff, families, international organizations, non-governmental organizations and the private sector) need to be involved. The School Policy Framework document suggests how stakeholders can be engaged. Policy-makers are encouraged, whenever possible, to adapt the generic DPAS School Policy Framework to existing structures and resources (technical staff, civil society, information, ongoing initiatives, policies, etc.). In doing so, consideration should be given to cultural background, gender issues, ethnic minorities and the jurisdictional and legal structure of the country, as well as to social inclusion and participation, in order to ensure that the most vulnerable populations are protected by the various policy options implemented. Policy-makers are also encouraged to ensure that a specific budget is allocated for implementation, monitoring and evaluation.

**CONCLUSIONS**

The WHO’s School Policy Framework: Implementation of DPAS aims to guide policy-makers at national and subnational levels in the development and implementation of policies that promote healthy eating and physical activity in the school setting. As an additional instrument, the Framework will help to create enabling environments that facilitate positive behaviour change related to diet and physical activity habits.

**REFERENCES**