Global Strategy on Diet, Physical Activity and Health

A FRAMEWORK TO MONITOR AND EVALUATE IMPLEMENTATION

World Health Organization

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A framework to monitor and evaluate implementation

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OVERVIEW

Purpose

This paper sets out an approach to measure the implementation of the WHO Global Strategy on Diet, Physical Activity and Health (DPAS) at country level and proposes a framework and indicators for this purpose.

The indicators provided in this document should be seen as examples to be used, as appropriate, after adjusting to the country reality. The proposed framework and indicators are intended to provide a simple and reliable tool for Member States.

The indicators are also intended to be flexible and adaptable to national circumstances and to take into account existing as well as planned activities in surveillance and monitoring.

Audience

The proposed framework and indicators aim to assist ministries of health, other government offices and agencies, as well as other stakeholders to monitor the progress of their activities in the area of promoting a healthy diet and physical activity.

Structure of this document

This document describes a framework and includes a series of tables specifying indicators according to DPAS recommendations. Annexes include a list of ongoing monitoring and surveillance activities at global level and key reference materials.

BACKGROUND

Burden of chronic diseases

Chronic diseases, including cardiovascular diseases (CVD), diabetes, obesity, certain types of cancers and chronic respiratory diseases, account for 60% of the 58 million deaths annually, meaning that 35 million people died from these diseases in 2005. Of chronic disease deaths, 80% will occur in low and middle income countries. Inexpensive and cost-effective interventions can prevent 80% of heart disease, stroke, type 2 diabetes and 40% of cancer (*1*).

An unbalanced diet and physical inactivity are important risk factors in the etiology of these diseases. There is strong scientific evidence that a healthy diet and sufficient physical activity play an important role in the prevention of chronic diseases (*2*).

WHA Resolution on Diet, Physical Activity and Health

WHO developed the Global Strategy on Diet, Physical Activity and Health (DPAS), which was adopted by the Fifty-seventh World Health Assembly on 22 May 2004 (*3*).

The WHA Resolution WHA57.17, endorsing DPAS, urges Member States "*to strengthen existing, or establish new, structures for implementing the strategy through the health and other concerned sectors, for monitoring and evaluating its effectiveness and for guiding resource investment and management to reduce the prevalence of noncommunicable diseases and the risks related to unhealthy diet and physical inactivity*"; […] and "*to define for this purpose, consistent with national circumstances: […] (d) measurable process and output indicators that will permit accurate monitoring and evaluation of action taken and a rapid response to identified needs*" […]. "

Furthermore, WHO is asked in DPAS to "*set up a monitoring system and to design indicators for dietary habits and patterns of physical activity.*"

WHO's role in DPAS implementation

WHO's responsibilities in the DPAS implementation have been established in the DPAS document itself, and agreed by Member States.

According to these responsibilities, the implementation of DPAS will be pursued along two main paths:

- direct implementation through the WHO regional and country offices at national level and,
- establishment of partnerships with various stakeholders and provision of tools for Member States.

Goals of this document

The goals of this document are:

- To provide an approach to measure the implementation of DPAS, in coordination with ongoing monitoring and surveillance initiatives.

- To assist Member States to identify specific indicators to measure the implementation of DPAS at country level.

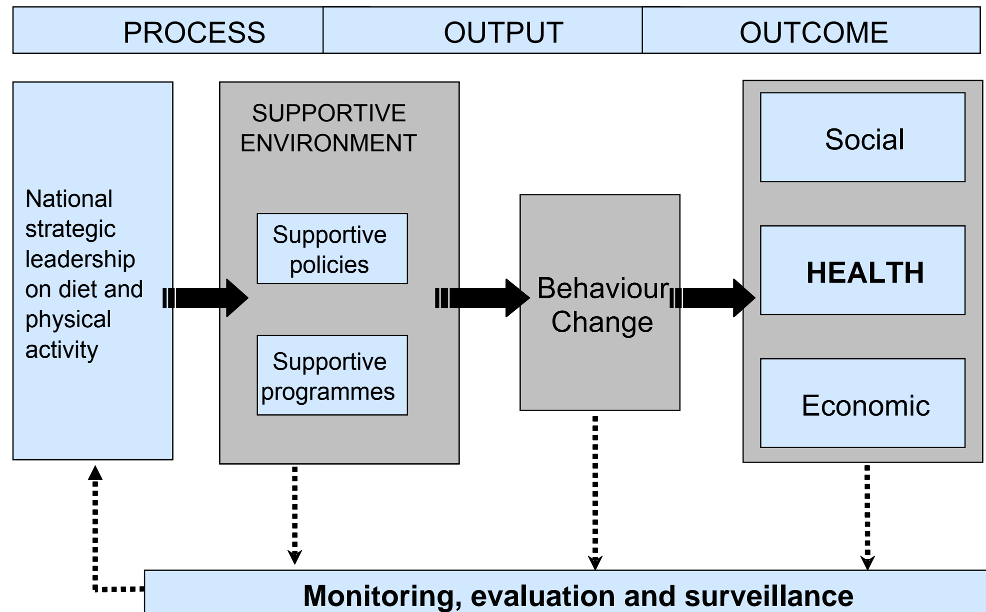
FRAMEWORK FOR DPAS IMPLEMENTATION

Introduction

DPAS is not a national programme itself, it is a comprehensive tool to guide Member States' efforts in the field of chronic diseases prevention, addressing specifically a number of detailed action points to promote a healthy diet and physical activity.

The following model is intended for country use. It aims to explain how policies and programmes, and their implementation, influence populations leading to behaviour changes and longer-term social, health and economic benefits. The model suggests how adequate monitoring and evaluation indicators can be integrated in the process of behaviour change.

Schematic model



Interpretation of the proposed framework

According to this schematic model, ministries of health should provide national strategic leadership on diet and physical activity through the development and implementation of supportive policies, programmes and environments. During this process all interested stakeholders (e.g. other ministries and other interested governmental agencies, NGOs, private sector organizations, etc.) should be involved.

The adopted policies will foster and allow the processes of change to happen leading to the desired behaviour. The outcomes of this change can be monitored and evaluated through the health status of the population, but also in several social and economic aspects.

Research, monitoring, evaluation and surveillance should continue throughout the whole process to provide the involved institutions with feedback on the modifications.

Types of action within the framework

This schematic model divides the actions set out in DPAS into a number of categories according to the level and type of activity:

Type of action	Description
National strategic leadership	Activities which Member States might undertake to provide leadership and coordinate action, including agreeing national plans and securing funding.
Supportive environments	Activities to influence the creation of environments in which healthy choices are the easier ones.
Supportive policies	Policies developed by Member States or institutions at national or local levels that, through their implementation, will foster and promote healthy diets and physical activity.
Supportive programmes	Activities to implement policies at all levels, carried out by one or more stakeholders.
Monitoring, surveillance and evaluation	Mechanisms established to process and understand the impact of action and guide future activities.

Planning for implementation

The policy recommendations from DPAS can be implemented at country level, according to the Member States' priorities, through various mechanisms and by all stakeholders. DPAS can also be implemented based on chronic disease prevention and related policies such as food, nutrition and health promotion previously established, and make use of multisectoral teams that may already be in place for that purpose.

Before implementation starts, it is important to take into account ongoing initiatives and programmes, existing structures and institutions (including available NGOs and the private sector), as well as existing barriers including actual legislation and budgetary priorities.

Tools available from WHO

WHO has a variety of published tools to support DPAS implementation:

- Technical report on diet, nutrition and the prevention of chronic diseases (*2*).
- Technical report on obesity prevention (*4*).
- Technical report on preparation and use of food-based dietary guidelines (*5*).
- The STEPS and GHSH surveillance and monitoring tools (*6,7*).
- The WHO Global InfoBase (*8*).
- A global report on chronic diseases prevention and management (*1*).
- The WHO/FAO framework for promoting fruit and vegetables at national level (*9*).

Various other tools are in preparation such as: guidelines on public–private partnerships with the food and non-alcoholic beverage industry; physical activity guidelines; best practice of population-based interventions; framework of indicators to monitor children's environmental health, etc.

For the monitoring of tobacco consumption, another major risk factor for chronic diseases, a framework of indicators for the implementation of Framework Convention on Tobacco Control is being prepared.

Intersectoral collaboration

Many recommendations made in DPAS are ideally implemented through intersectoral collaboration. Some countries have opted to form a multisectoral platform for DPAS implementation (e.g. Germany). Other countries have drafted a national diet and physical activity strategy which guides the implementation (e.g. Brazil, Norway, Poland, Spain, Switzerland).

MONITORING AND EVALUATION OF DPAS IMPLEMENTATION

Introduction

Monitoring and evaluation are systematic processes to assess the progress of ongoing activities as planned and identify the constraints for early corrective action, and to measure effectiveness and efficiency of the desired outcome of the programme (*10*).

Planning for implementation should take monitoring and evaluation into account from the beginning and also budget for it.

National experts

National monitoring and evaluation experts should be part of the multisectoral team working on DPAS implementation and should take the lead in designing and carrying out evaluation activities.

Steps to follow

The following steps are recommended when setting up monitoring and evaluation of activities that promote a healthy diet and physical activity, in particular as part of DPAS implementation.

Specific goals for implementation and milestones in achieving these goals are to be set before indicators can be identified.

Step	Action
1	Ensure that monitoring and evaluation is included in any plan or strategy developed at national level for DPAS implementation and a budget line is included. Ideally, a multisectoral team should lead DPAS implementation at national level.
2	Identify existing monitoring and evaluation activities and the responsible agencies and ensure that the existing data, if relevant, can inform DPAS implementation. These agencies may be good partners in monitoring and evaluation, so they should be part of the DPAS implementation team.
3	Identify suitable indicators to monitor process, output, and outcome, with the help of the following indicator tables.
4	Carry out the evaluation in a consistently repeated manner to possibly revise or better adjust the implementation activities. It is good practice to start with a baseline survey (or use available data), carry out activities, and then proceed to a new evaluation through survey repetition.
5	If feasible, repeat the evaluation periodically, so that a monitoring system can be established.

INDICATORS

Introduction

Indicators are identified as variables which help to measure changes and that facilitate the understanding of where we are, where we are going and how far we are from the underlying goal. They are measurements used to answer questions in the process of monitoring and evaluating a health promoting intervention activity. The selection of indicators should be guided according to the purpose for which they were established.

Types of indicators

According to the proposed framework three types of indicators are defined:

Type of indicator	Purpose
Process indicators	Used to measure progress in the processes of change. They are used to investigate how something has been done, rather than what has happened as a result. Examples of these might be the setting up of expert advisory committees on nutrition and physical activity within a Member State.
Output indicators	Used to measure the outputs or products that come about as the result of processes. For example the publication of a strategy document; the launching of a national programme. In addition to action plans and programmes, output indicators might also include improving the social and physical environments of various settings to support the adoption of healthier behaviours, such as improved access to fruit and vegetables or safe cycling routes.
Outcome indicators	Used to measure the ultimate outcomes of an action. These might be short-term outcomes (such as increased knowledge), intermediate outcomes (such as change in behaviour) or long-term outcomes (such as reduction in incidence of cardiovascular disease).

The three types of indicators considered in this document are organized in two sets: core and expanded indicators.

The set of core indicators includes the most critical items that should be analysed in the implementation of a national programme for healthy diet and physical activity. The set of expanded indicators includes additional indicators that Member States may consider using to enhance and deepen their monitoring, evaluation and surveillance systems.

Making progress

In order to measure progress it is important to establish, from the beginning, clear goals/targets to be achieved.

The proposed core indicators should be regarded as a minimum set to be achieved if national resources and capacity permit. Additionally, they would allow WHO to monitor Member States' progress towards the implementation of their national strategies on healthy diet and physical activity promotion.

The set of expanded indicators included in this document should be considered by Member States when national resources and capacities allow the development of a more comprehensive and informative system for monitoring and evaluation of their progress in the development and implementation of national activities on diet and physical activity.

DEVELOPING NATIONAL INDICATORS

Introduction

Listed below are some of the issues that should be considered by each Member State according to its national reality when reviewing the structure and contents of DPAS, and the following tables, to establish a plan of different indicators.

Issues related to national circumstances

- Cultures, norms and prevailing patterns and trends of diet and physical activity, and national characteristics of how diet and physical activity are understood, described and promoted.
- Existing gender issues, ethnic minorities, jurisdictional and legal structure.
- Existing state of health service infrastructure.
- Information available on food insecurity and food trends.
- Existing infrastructure for food safety, food distribution and supply.
- Existing disease burden, ensuring no adverse effects on the most disadvantaged.
- Economic factors, social developments, and the connection between food and health; type of economy and employment base; demographic features.
- National characteristics and patterns of marketing of foods and beverages.
- Mobility patterns within each country, existing transport infrastructure and patterns of participation in sport and recreation.
- Existing sports and recreation facilities.
- Use of media and communication channels.
- Trust and understanding of the Government and its information.

Issues related to policy

- Existence of overall public health plan or strategy for diet and physical activity.
- General political situation and priority given to diet, physical activity and other health issues.
- National legislative procedures, including legislation regarding marketing to children, nutrition labelling, food and non-alcoholic beverage advertisements and health claims.
- Investments in the health sector.
- Resources available and level of provision for prevention activities.
- Structures available for convening coordinating multidisciplinary mechanisms, committees or expert advisory boards.
- Existing channels for consumer action and participation.
- Gender and cultural issues regarding development and implementation of policies.
- Actors in policy process in general, and collaboration mechanisms at

national, regional, local and international level.

- Existence of public–private partnerships.
- Existence of a national policy on social equity.
- Agricultural policy.

Issues related to settings

- Geographical settings and seasonality.
- Existing educational infrastructure and levels of literacy.
- Educational curricula and programmes.
- Structure of provision of food and drinks in schools, workplaces and local communities.
- Security and space availability for the practice of physical activity.
- Gender issues related to school and worksite attendance.
- Levels of funding for schools, universities, local communities, primary health care, workplaces.
- Training opportunities on diet and physical activity for teachers, community nurses, health workers, etc.
- Available sources of educational and information materials.

Points related to scientific evidence and data availability

- Systems, including financial and human resources, available for surveillance, measurement of targets, monitoring.
- National expert recommendations.
- Sources of information, e.g. data sets, and evidence available in the country.
- Data on nutritional status and dietary intake.
- Physical activity levels and measures of overweight and obesity.
- Mortality and morbidity data related to diet, nutrition and physical inactivity.
- Public/private funds for research.
- Relationship between research and policy; pathways of knowledge transfer

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KEY INDICATORS: PROCESS AND OUTPUT

Table 1 - National policies, strategies and action plans

<table>
<tr><th>Type of action</th><th colspan="2">Summary of action points from the
Global Strategy on Diet, Physical Activity and Health (DPAS)</th></tr>
<tr><td rowspan="9">National strategic leadership</td><td colspan="2">Foster the formulation and promotion of national policies, strategies and action plans to improve diet and encourage physical activity.

Support should be provided by effective legislation, appropriate infrastructure, implementation programmes, adequate funding, monitoring and evaluation, and continuing research.</td></tr>
<tr><td colspan="2">Core indicators</td></tr>
<tr><td colspan="2">Diet and physical activity</td></tr>
<tr><td colspan="2">▪ National strategy on diet and physical activity and its implementation plan published, or diet and physical activity have been identified as priorities in the existing national plans.</td></tr>
<tr><td colspan="2">Expanded indicators</td></tr>
<tr><td>Diet</td><td>Physical activity</td></tr>
<tr><td colspan="2">▪ Specific and measurable targets for action published.
▪ Document with specified funding sources and timeline for each action published.</td></tr>
<tr><td>▪ Existence of legislation to support availability and access to healthy food, including school meals.</td><td>▪ Existence of legislation to support physical activity including sports laws and transport policy and infrastructure.</td></tr>
</table>

Table 2 - National coordination mechanism

<table>
<tr><th>Type of action</th><th colspan="2">Summary of action points from the
WHO Global Strategy on Diet, Physical Activity and Health (DPAS)</th></tr>
<tr><td rowspan="7">National strategic leadership</td><td colspan="2">Governments are encouraged to set up a national coordinating mechanism that addresses diet and physical activity within the context of a comprehensive plan for noncommunicable disease prevention and health promotion.

Health ministries have an essential responsibility for coordinating and facilitating the contributions of other ministries and government agencies.

Member States should establish mechanisms to promote participation of nongovernmental organizations, academia, civil society, communities, the private sector and the media in activities related to diet, physical activity and health.</td></tr>
<tr><td colspan="2">Core indicators</td></tr>
<tr><td colspan="2">Diet and physical activity</td></tr>
<tr><td colspan="2">▪ Existence of national coordinating mechanism (an organization, committee or other body) to oversee and plan the development of the policy or strategy.</td></tr>
<tr><td colspan="2">Expanded indicators</td></tr>
<tr><td>Diet</td><td>Physical activity</td></tr>
<tr><td colspan="2">▪ Coordinating mechanism headed or chaired by ministry of health.
▪ Number of full-time staff dedicated to work on diet and physical activity within the ministry of health.
▪ Coordinating mechanism contains representation from all key sectors including competent scientific bodies, NGOs, academia, civil society, communities, the private sector, media.</td></tr>
</table>

Table 3 - Advisory boards

<table>
<tr><th>Type of action</th><th colspan="2">Summary of action points from the
WHO Global Strategy on Diet, Physical Activity and Health (DPAS)</th></tr>
<tr><td rowspan="7">National strategic leadership</td><td colspan="2">Multisectoral and multidisciplinary expert advisory boards should also be established.</td></tr>
<tr><td colspan="2">Core indicators</td></tr>
<tr><td colspan="2">Diet and physical activity</td></tr>
<tr><td colspan="2">▪ Existence of an expert advisory mechanism (an organization, institution, committee, board or other body) with active responsibility for the development of the strategy.</td></tr>
<tr><td colspan="2">Expanded indicators</td></tr>
<tr><td>Diet</td><td>Physical activity</td></tr>
<tr><td colspan="2">▪ Expert advisory mechanism has representation from all key sectors and disciplines.
▪ Expert advisory mechanism with clear mandate, lines of accountability and ability to influence policy.
▪ Financial and human resources defined.
▪ Existence of academic centres of excellence with foci on diet and physical activity.</td></tr>
</table>

Table 4 - National dietary guidelines

<table>
<tr><th>Type of action</th><th colspan="2">Summary of action points from the
WHO Global Strategy on Diet, Physical Activity and Health (DPAS)</th></tr>
<tr><td rowspan="7">National strategic leadership</td><td colspan="2">Governments are encouraged to draw up national dietary guidelines, taking account of evidence from national and international sources.
National guidelines for health-enhancing physical activity should be prepared in accordance with the goals and objectives of the global strategy and expert recommendations.</td></tr>
<tr><td colspan="2">Core indicators</td></tr>
<tr><td>Diet</td><td>Physical activity</td></tr>
<tr><td>▪ Existence of published national dietary guidelines.</td><td>▪ Existence of published national physical activity guidelines.</td></tr>
<tr><td colspan="2">Expanded indicators</td></tr>
<tr><td>Diet</td><td>Physical activity</td></tr>
<tr><td>▪ Existence of clear mechanisms to disseminate dietary guidelines.</td><td>▪ Existence of clear mechanisms to disseminate physical activity guidelines.</td></tr>
</table>

Table 5 - National budget

<table>
<tr><th>Type of action</th><th colspan="2">Summary of action point from the
WHO Global Strategy on Diet, Physical Activity and Health (DPAS)</th></tr>
<tr><td rowspan="7">National strategic leadership</td><td colspan="2">Various sources of funding, in addition to the national budget, should be identified to assist in implementation of the strategy. Programmes aimed at promoting healthy diets and physical activity should therefore be viewed as a developmental need and could draw policy and financial support from national development plans.</td></tr>
<tr><td colspan="2">Core indicators</td></tr>
<tr><td>Diet</td><td>Physical activity</td></tr>
<tr><td>▪ Existence of clear and sustainable national budget for action on diet and nutrition.</td><td>▪ Existence of clear and sustainable national budget for action on physical activity.</td></tr>
<tr><td colspan="2">Expanded indicators</td></tr>
<tr><td>Diet</td><td>Physical activity</td></tr>
<tr><td>▪ Existence of a resource mobilization plan for action on diet.
▪ Budgets for action on healthy diet identified from nongovernmental sources, including NGOs and private sector institutions.</td><td>▪ Existence of a resource mobilization plan for action on physical activity.
▪ Budgets for action on physical activity identified from nongovernmental sources, including NGOs and private sector institutions.</td></tr>
</table>

Table 6 - Physical activity and transportation

<table>
<tr><th>Type of action</th><th>Summary of action points from the
WHO Global Strategy on Diet, Physical Activity and Health (DPAS)</th></tr>
<tr><td rowspan="7">Supportive environments</td><td>National and local governments should frame policies and provide incentives to ensure that walking, cycling and other forms of physical activity are accessible and safe; transport policies include non-motorized modes of transportation; labour and workplace policies encourage physical activity; and sport and recreation facilities embody the concept of sports for all.

Strategies should be geared to changing social norms and improving community understanding and acceptance of the need to integrate physical activity into everyday life. Environments should be promoted that facilitate physical activity, and supportive infrastructure should be set up to increase access to, and use of, suitable facilities.</td></tr>
<tr><td>Core indicators</td></tr>
<tr><td>Physical activity</td></tr>
<tr><td>▪ Existence of national transport policies that promote active transportation, such as walking or cycling to schools and workplaces.
▪ Physical activity emphasized in labour and workplace policies.
▪ A broad definition of physical activity is used in national sports and physical activity policies.
▪ Provision of sport facilities and equipment to schools stated in national school policies.</td></tr>
<tr><td>Expanded indicators</td></tr>
<tr><td>Physical activity</td></tr>
<tr><td>▪ % of population with access to safe places to walk.
▪ Kilometres of bicycle paths per square kilometre (or per 100 square kilometres) by urban versus rural.
▪ % of communities with formal transportation plan listing walking and bicycling as priorities.
▪ Square kilometres of car-free zones.
▪ % of schools and workplaces equipped with appropriate sport facilities and equipment.
▪ % of schools with "walk-to-school" safe routes.</td></tr>
</table>

Table 7 - Civil society and nongovernmental organizations

<table>
<tr><th>Type of action</th><th colspan="2">Summary of action points from the
WHO Global Strategy on Diet, Physical Activity and Health (DPAS)</th></tr>
<tr><td rowspan="6">Supportive environments</td><td colspan="2">Civil society and nongovernmental organizations have an important role to play in influencing individual behaviour and the organizations and institutions that are involved in healthy diet and physical activity. They can help to ensure that consumers ask governments to provide support for healthy lifestyles, and the food industry to provide healthy products.

Nongovernmental organizations can support a governmental strategy effectively if they are involved in the development and implementation process of the national policies and programmes to promote health diets and physical activity collaborating with both national and international partners.</td></tr>
<tr><td colspan="2">Core indicators</td></tr>
<tr><td colspan="2">▪ Number of NGOs working on diet and physical activity.
▪ Active NGO participation in the implementation of the national policy on diet and physical activity.
▪ Advocacy activities by NGOs with the private sector.
▪ Advocacy activities on diet and physical activity with governments and consumers/public.
▪ Number of awareness-raising activities for consumers.</td></tr>
<tr><td colspan="2">Expanded indicators</td></tr>
<tr><td>Diet</td><td>Physical activity</td></tr>
<tr><td>▪ Existence of networks and action groups to promote the availability of healthy foods formed by NGOs.
▪ Events organized by NGOs to promote diet and physical activity (e.g. organization of a "Move for Health" day).</td><td>▪ Existence of networks and action groups to promote the availability of physical activity possibilities formed by NGOs.</td></tr>
</table>

Table 8 - Private industries

Type of action	Summary of action points from the WHO Global Strategy on Diet, Physical Activity and Health (DPAS)	
Supportive environments	The food industry, retailers, catering companies, sporting-goods manufacturers, advertising and recreation businesses, insurance and banking groups, pharmaceutical companies and the media all have important parts to play as responsible employers and as advocates for healthy lifestyles. All could become partners with governments and nongovernmental organizations in implementing measures aimed at sending positive and consistent messages to facilitate and enable integrated efforts to encourage healthy eating and physical activity. Initiatives by the food industry to reduce the fat, sugar and salt content of processed foods and portion sizes, to increase introduction of innovative, healthy, and nutritious choices; and review of current marketing practices, could accelerate health gains nationally and worldwide.	
	Core indicators	
	▪ Number of companies participating in the implementation of the national policy on healthy diet and physical activity. ▪ Private sector dissemination of diet and physical activity information in accordance with national guidelines. ▪ Number of projects promoting healthy diet and physical activity funded by industry. ▪ Number of public–private partnerships to promote healthy diets and physical activity.	
	Diet	**Physical activity**
	▪ Number of food manufacturers providing full nutrition labeling. ▪ Existence of a self-regulatory code or another regulatory mechanism on marketing foods and non-alcoholic beverages to children. ▪ Number of food and non-alcoholic beverage companies with nutrition policies.	▪ Number of private companies supporting physical activity promotion campaigns.
	Expanded indicators	
	Diet	**Physical activity**
	▪ Number of products with limited levels of saturated fats, *trans*-fatty acids, free sugars and salt. Health claims used only in accordance with national legislation.	▪ Number of private companies sponsoring sports events.

Table 9 - Workplaces

<table>
<tr><th>Type of action</th><th colspan="2">Summary of action points from the
WHO Global Strategy on Diet, Physical Activity and Health (DPAS)</th></tr>
<tr><td rowspan="6">Supportive environments</td><td colspan="2">Workplaces are important settings for health promotion and disease prevention. People need to be given the opportunity to make healthy choices in the workplace in order to reduce their exposure to risk.
Workplaces should make possible healthy food choices and support and encourage physical activity.</td></tr>
<tr><td colspan="2">Core indicators</td></tr>
<tr><td colspan="2">▪ Number of workplaces with activities to promote healthy diets and physical activity in the workplace.</td></tr>
<tr><td colspan="2">Expanded indicators</td></tr>
<tr><td>Diet</td><td>Physical activity</td></tr>
<tr><td>▪ % of workplaces serving meals consistent with national dietary guidelines.
▪ % of workplaces offering healthy snack options.
▪ % of workplaces with facilities available to employees for food conservation and simple food preparation.
▪ % of workplaces offering fruit and vegetable programmes.</td><td>▪ Number of workplaces with showers and changing-room facilities.
▪ Number of workplaces with facilities to practice physical activity.
▪ Number of workplaces offering physical activity programmes for employees.</td></tr>
</table>

Table 10 - Schools

<table>
<tr><th>Type of action</th><th colspan="2">Summary of action points from the
WHO Global Strategy on Diet, Physical Activity and Health (DPAS)</th></tr>
<tr><td rowspan="7">Supportive environments</td><td colspan="2">School policies and programmes should support the adoption of healthy diets and physical activity. They should protect the health of children by providing health information, improving health literacy, and promoting healthy diets, physical activity, and other healthy behaviours.
Schools are encouraged to provide students with daily physical education.
Governments are encouraged to adopt policies that support healthy diets at school and limit the availability of products high in salt, sugar and fats.</td></tr>
<tr><td colspan="2">Core indicators</td></tr>
<tr><td>Diet</td><td>Physical activity</td></tr>
<tr><td>▪ Existence of national school food policy.
▪ Nutritional standards for school meals consistent with the national dietary guidelines.</td><td>▪ Existence of national school physical activity policy.</td></tr>
<tr><td colspan="2">Expanded indicators</td></tr>
<tr><td>Diet</td><td>Physical activity</td></tr>
<tr><td>▪ % of schools with a school food policy.
▪ % of schools offering school meals consistent to dietary guidelines.
▪ School nutrition policy and guidelines incorporated into education curriculum.
▪ Existence of nutrition education and awareness programmes at schools.
▪ % of schools offering healthy food options.
▪ % of schools restricting the availability of high fat, salt, sugar products and vending machines.
▪ % of schools offering fruit & vegetable programmes.
▪ % of teachers attending training courses about healthy diet.</td><td>▪ % of schools with published physical activity school policy.
▪ % of schools offering a minimum of one hour of physical activity daily.
▪ % of schools offering extracurricular physical activity opportunities.
▪ % of schools with safe "walk-to-school" routes.
▪ Existence of physical activity awareness programmes at schools.
▪ % of teachers attending training courses about physical activity.</td></tr>
</table>

Table 11 - Marketing food and non-alcoholic beverages to children

<table>
<tr><th>Type of action</th><th>Summary of action point from the
WHO Global Strategy on Diet, Physical Activity and Health (DPAS)</th></tr>
<tr><td rowspan="7">Supportive policies</td><td>Governments should work with consumer groups and the private sector (including advertising) to develop appropriate multisectoral approaches to deal with the marketing of food to children, and to deal with such issues as sponsorship, promotion and advertising.</td></tr>
<tr><td>Core indicators</td></tr>
<tr><td>Diet</td></tr>
<tr><td>▪ Existence of a regulatory framework and self-regulatory mechanisms to limit marketing food and non-alcoholic beverages to children in time, space, and/or by age.</td></tr>
<tr><td>Expanded indicators</td></tr>
<tr><td>Diet</td></tr>
<tr><td>▪ Existence of a regulatory framework and self-regulatory mechanisms to limit marketing food and non-alcoholic beverages to children in general.
▪ Existence of monitoring system, including a copy-advice mechanism, for self-regulatory instruments on marketing food and non-alcoholic beverages to children in general.</td></tr>
</table>

Table 12 - Nutrition labelling

<table>
<tr><th>Type of action</th><th>Summary of action point from the
WHO Global Strategy on Diet, Physical Activity and Health (DPAS)</th></tr>
<tr><td rowspan="7">Supportive policies</td><td>Governments may require information to be provided on key nutritional aspects, as proposed in the Codex Guidelines on nutrition labelling. Any health claims must not mislead the public about nutritional benefits or risks.</td></tr>
<tr><td>Core indicators</td></tr>
<tr><td>Diet</td></tr>
<tr><td>▪ Advisory mechanism or consultation established, regarding nutrition labelling and health claims on foods and beverages.</td></tr>
<tr><td>Expanded indicators</td></tr>
<tr><td>Diet</td></tr>
<tr><td>▪ Legislation regarding nutrition labelling and health claims developed.</td></tr>
</table>

Table 13 - Food and agricultural policies

Type of action	Summary of action point from the WHO Global Strategy on Diet, Physical Activity and Health (DPAS)
Supportive policies	National food and agricultural policies should be consistent with the protection and promotion of public health. Where needed, governments should consider policies that facilitate the adoption of healthy diet. Food and nutrition policy should also cover food safety and sustainable food security. Governments should be encouraged to examine food and agricultural policies for potential health effects on the food supply.
	Core indicators
	Diet
	▪ National food and nutrition policy supportive for a healthy diet developed through cooperative process decision.
	Expanded indicators
	Diet
	▪ Existence of legislation for food control for the protection of consumers' health developed. ▪ Mechanism established to review and update food and nutrition policy. ▪ Existence of surveillance mechanisms for food safety. ▪ Agriculture policy in line with nutrition recommendations. ▪ Food subsidies and food pricing in line with national dietary guidelines.

Table 14 - Education, communication and public awareness

<table>
<tr><th>Type of action</th><th>Summary of action points from the
WHO Global Strategy on Diet, Physical Activity and Health (DPAS)</th></tr>
<tr><td rowspan="5">Supportive programmes</td><td>Education, communication and public awareness. Consistent, coherent, simple and clear messages should be prepared and conveyed by government experts, nongovernmental and grass-roots organizations, and the appropriate industries. They should be communicated through several channels and in forms appropriate to local culture, age and gender.
Health literacy should be incorporated into adult education programmes.</td></tr>
<tr><td>Core indicators</td></tr>
<tr><td>▪ Existence of clear national programme or campaign for nutrition and physical activity education and public awareness.
▪ Existence of sustained institutional support to promote and implement national dietary and physical activity guidelines.</td></tr>
<tr><td>Expanded indicators</td></tr>
<tr><td>▪ Number of channels used to communicate the messages on healthy diet and physical activity.
▪ % of the population or specific target population reached with the healthy diets and physical activity communication campaigns or messages.</td></tr>
</table>

Table 15 - Health service based programmes

<table>
<tr><th>Type of action</th><th colspan="2">Summary of action point from the
WHO Global Strategy on Diet, Physical Activity and Health (DPAS)</th></tr>
<tr><td rowspan="6">Supportive programmes</td><td colspan="2">Routine contacts with health-service staff should include practical advice to patients and families on the benefits of healthy diets and increased levels of physical activity, combined with support to help patients initiate and maintain healthy behaviours.</td></tr>
<tr><td colspan="2">Core indicators</td></tr>
<tr><td colspan="2">▪ Provision of counselling on diet and physical activity included in the national primary care plan.</td></tr>
<tr><td colspan="2">Expanded indicators</td></tr>
<tr><td>Diet</td><td>Physical activity</td></tr>
<tr><td>▪ % of the population offered advice on healthy diet by primary care practitioner.</td><td>▪ % of the population offered advice on physical activity by primary care practitioner.</td></tr>
</table>

Table 16 - Surveillance, research and evaluation

<table>
<tr><th>Type of action</th><th>Summary of action points from the
WHO Global Strategy on Diet, Physical Activity and Health (DPAS)</th></tr>
<tr><td rowspan="5">Monitoring and surveillance</td><td>Governments should invest in surveillance, research and evaluation. Long-term and continuous monitoring of major risk factors is essential. Governments may be able to build on systems already in place, at either national or regional levels.

There is the need to put in place efficient mechanisms for evaluating the efficacy and cost-effectiveness of national disease-prevention and health promotion programmes, and the health impact of policies in other sectors. The evaluation process should, where needed, include information about the programmes that promote healthy diets and physical activity integrated into broader development and poverty-alleviation programmes.</td></tr>
<tr><td>Core indicators</td></tr>
<tr><td>▪ Specific budget line allocated for monitoring and evaluation of dietary habits and physical activity patterns/ DPAS implementation.
▪ Monitoring and surveillance system in place to measure process, output and outcome indicators.
▪ National surveillance system in place to measure energy, food and nutrient intake, dietary habits, physical activity patterns and anthropometrical data.
▪ Utilization of valid, reliable, standard instruments such as IPAQ (International Physical Activity Questionnaire) and GPAQ (Global Physical Activity Questionnaire).
▪ Participation of NGOs in monitoring progress of DPAS implementation and number of partnerships formed for the implementation of national programmes on diet and physical activity.</td></tr>
<tr><td>Expanded indicators</td></tr>
<tr><td>▪ % of diet and physical activity interventions that included baseline surveys and post-evaluation.
▪ % of applied research projects ongoing in community-based pilot projects and evaluating different policies and interventions.
▪ Cost–benefit calculations undertaken.</td></tr>
</table>

KEY INDICATORS: OUTCOME

Introduction

The following table gives some examples of outcome indicators. They are presented in two separate sets of core and expanded indicators and organized as short, intermediate and long-term indicators. This structure allows governments to use the table to monitor and evaluate the impact of policy implementation in different moments of the course of action.

Table 17 - Core outcome indicators (short and intermediate term)

<table>
<tr><th colspan="2">OUTCOME INDICATORS</th></tr>
<tr><td colspan="2">Core indicators – short term</td></tr>
<tr><td colspan="2">
▪ % of the population aware of the health benefits of the adequate consumption of fruit and vegetables.
▪ % of the population aware of health risks of high intake levels of total fat, saturated fats, salt and sugars.
▪ % of the population aware of the health benefits of physical activity (including maintaining a healthy weight).
▪ % of the population recalling the messages from communications campaigns or strategies on healthy diets and physical activity.
</td></tr>
<tr><td colspan="2">Core indicators – intermediate term</td></tr>
<tr><td colspan="2">
▪ Reduction in the % of overweight and obese adults in a targeted population participating in a healthy diet and physical activity intervention programme.
▪ % of adults with raised blood pressure (BP) (e.g. systolic (SBP) ≥ 140 and/or diastolic (DBP) ≥ 90 mmHg).
▪ % of adults with raised total cholesterol (e.g. ≥ 5.2 mmol/l).
</td></tr>
<tr><td>Diet</td><td>Physical activity</td></tr>
<tr><td>
▪ % of adults eating less than 5 servings of fruits and vegetables a day or proportion of adults eating less than 400 g of fruits and vegetables a day.
</td><td>
▪ % of adults with low levels of physical activity (e.g. < 600 MET min/week).
(MET - Metabolic Equivalent: one MET is defined as 1 kcal/kg/h and is equivalent to the energy cost of sitting quietly. A MET is also defined as oxygen uptake in ml/kg/min with one MET equal to the oxygen cost of sitting quietly, around 3.5 ml/kg/min).
▪ % of children and adolescents with low levels of physical activity.
▪ % of physically active children (minimum of 1 h of vigorous physical activities at least 3 times per week).
</td></tr>
</table>

Table 18 - Expanded outcome indicators (intermediate term)

OUTCOME INDICATORS	
Expanded indicators – intermediate term	
Diet	**Physical activity**
▪ % of people with dietary fat intake < 30% of total energy daily consumed. ▪ % of people with dietary saturated fat intake < 10% of total energy daily consumed. ▪ % of people with dietary sugar intake < 10% of total energy daily consumed. ▪ % of people with dietary sodium chloride (sodium/ salt) intake < 5 g per day. ▪ % of children exclusively breastfed for 6 months.	▪ % of people walking and bicycling to work, with the duration of 10 min or more. ▪ % of children walking and bicycling to school. ▪ % of population accumulating at least one hour of moderate-intensity activity daily. ▪ % of older adults regularly doing activities to maintain muscle strength. ▪ % of older adults regularly doing activities to maintain weight balance. ▪ % of children engaging in sedentary behaviours, such as TV/video/computer time. ▪ % of adults engaging in sedentary behaviours, such as TV/video/computer time.

Table 19 - Core outcome indicators (long term)

OUTCOME INDICATORS
Core indicators – long term
▪ Population-based percentage of overweight or obese adults, children and adolescents (e.g. body mass index (BMI) ≥ 25). ▪ Cause-specific mortality. ▪ Cause-specific morbidity.

TAILORING INDICATORS TO A NATIONAL SETTING

Introduction

The previous tables give some example indicators. However Member States may wish to develop their own or additional indicators. When deciding at national level on other or additional indicators to measure DPAS implementation, a set of questions need to be answered in order to better choose those indicators fitting best to the circumstances. The following questions should serve as guidance (*11*,*12*).

Questions to answer before defining indicators

- Which indicators are relevant to DPAS?
- Which data are available and can be collected so that the indicators have reliable sources?
- How much burden can be put onto statistical institutes, ministries of health or other involved parties?
- Which indicators will meet methodological criteria, such as validity (does the indicator measure what it is intended to measure?), reliability (is the measurement reproducible?) and sensitivity (is the measurement sufficiently discriminative in space or time?) at the level of their precise definition?

Questions to check indicators for suitability

- Are reliable data for the proposed indicators realistically available in a timely fashion, or do the indicators portray health data that already exists?
- Is the set of indicators easy to read and understand?
- Are the indicators mutually consistent?
- Are the indicators ideally comparable to other countries or regions?
- Is it possible to find operational definitions for the proposed indicators?
- Do the indicators, if possible, take into account work by international organizations?

General considerations

Indicators used for monitoring the implementation of DPAS most of all reflect the cultural settings in the respective country. Dietary habits and levels of physical activity are highly associated with particular lifestyles that, in turn, are shaped to a large extent by cultural settings. Therefore, an indicator for monitoring the implementation of DPAS might be useful in one country (e.g. total distance of cycle paths in urban-dominated settings), but, on the other hand, might be completely useless in another (e.g. in countries overwhelmingly characterized by rural settings).

ANNEX 1: Ongoing work in surveillance and monitoring

Ongoing work The following table summarizes some examples of global or regional initiatives being carried out in the area of risk factor surveillance and monitoring.

Surveillance system	Responsible institution	Description
STEPS (The WHO STEPwise approach to chronic disease risk factor surveillance) http://www.who.int/chp/steps/en/	WHO Headquarters and Regional Offices	Sequential process of gathering comparable and sustainable chronic diseases risk factor information at the country level through which all countries can develop surveillance systems containing quality information about risk factors in their unique settings. The STEPs approach includes: Step 1 (gathers information on risk factors that can be obtained from the general population by questionnaire); Step 2 (includes objective data by simple physical measurements needed to examine risk factors that are physiological attributes of the human body); and Step 3 (carries the objective measurements of physiological attributes one step further with the inclusion of blood samples for measuring lipid and glucose levels).
GSHS (The Global School-based Student Health Survey) http://www.who.int/school_youth_health/assessment/gshs/en/	WHO Headquarters and Regional Offices	Collaborative surveillance project designed to help countries measure and assess behavioural risk factors and protective factors in 10 key areas among young people aged 13 to 15 years. This low-cost school-based survey uses a self-administered questionnaire to obtain data on students' lifestyles, e.g. dietary behaviours and physical activity. A number of countries in Africa, Asia and the Americas have either implemented GSHS or are in process.
HBSC (Health Behaviour in School-aged Children) http://www.euro.who.int/youthhealth/hbsc/20030130_2	WHO Regional Office for Europe in collaboration with national research institutions	Cross-national research study conducted in several countries. This study seeks new insight into adolescents' health, health behaviour and lifestyles in the social context. It examines young people aged 11, 13 and 15 years.
WHO Global InfoBase http://infobase.who.int	WHO Headquarters	The WHO Global InfoBase is a data warehouse that collects, stores and displays information on chronic diseases and their risk factors for all WHO Member States. It was developed in 2002 to improve the access of public health professionals to country-level chronic disease risk factor data with traceable sources and full survey methodology. Currently, this data warehouse holds over 500 000 data points from 9500 surveys representing 186 countries. The InfoBase on-line tool receives approximately 16 000 hits per day from ministries of health around the world, and researchers and journalists seeking this information.
ECHI (European Community Health Indicators) http://ec.europa.eu/health/ph_projects/2001/monitoring/fp_monitoring_2001_frep_08_en.pdf	European Commission	This project aims to create a prototype for the future health monitoring system. The two phases completed so far have addressed an inventory of sources and methods in the whole EU; analysis of data needs in their respective area; definition of indicators and quality assurance; technical support for national efforts; data collection at EU level; reporting and analysis and promotion of the results (ECHI, 2005).

ANNEX 2: Contributors, acknowledgements and reference materials

Contributors

This document resulted from the joint work of:
D Meusel and C Höger (Institute of Clinical Pharmacology Medical Faculty, Dresden University of Technology, Germany); C Pérez-Rodrigo and J Aranceta (Bilbao Department of Public Health, Spain); N Cavill (University of Oxford, United Kingdom).

T Armstrong, V Candeias, I Keller, L Riley, C Roy & C Tukuitonga (World Health Organization, Geneva, Switzerland).

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At just 5 years old, Malri Twalib is obese. Community health workers spotted his weight problem last year during a health monitoring activity, in his village in Kilimanjaro, United Republic of Tanzania.

His mother Fadela, herself obese, wasn't aware of the increased risk of chronic disease associated with little Malri's sedentary life and a diet high in animal fats.
Fortunately with the intervention of health workers Malri is being encouraged to eat more fruit and vegetables and spend more time playing outside.

- 22 million children under 5 years are overweight.
- Deaths from chronic disease are forecast to increase by 17% in the next 10 years.

The enormity of the global epidemic of chronic diseases is clear. The WHO Global Strategy on Diet, Physical Activity and Health has been instrumental in focusing attention on this problem.

Building on the Global Strategy, this document outlines a framework and indicators that governments can use to measure implementation of the strategy, through the supportive policies, programmes and environments that have been put in place to promote healthy diet and increased levels of physical activity.