# Core indicators for adolescent health A regional guide





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#### **Preface**

Adolescents constitute an important proportion of the population in the Region, not only in terms of numbers but also because they are the future for development of nations. However, only recently has attention been drawn to their health and development by international society with the recognition that addressing adolescent health needs requires different approaches than for other population groups. Adolescent health is affected by a multiplicity of determinants, including behavioural, cultural, educational, social, economic and psychological factors. This explains the need for a multisectoral approach led by the Ministry of Health, with the main focus placed on health and well-being, rather than a curative approach.

An approach of this particularity imposes on the health sector the requirement to make adjustments, both to foster its role in adolescent health, and to make the services it offers friendly to adolescents. Planning for such services requires a clear understanding of the adolescent health situation and of adolescent needs, as well as reliable data. The WHO Regional Office for the Eastern Mediterranean has recommended the conduct of an adolescent health situation analysis for each country<sup>1</sup>. This in turn will provide the foundation for a regional situation analysis. This process was initiated in 2010 but has faced the major challenge of lack of a well defined standardized set of indicators, and consequently of data.

This guide proposes a list of core indicators to assist in clarifying adolescent health needs and in collecting evidence, in order to guide policy and strategy development and planning, and to design tailored interventions and services and monitor progress. It provides standard definitions of the indicators, methods and periodicity of their calculation, as well as responsibilities and possible sources of information. The guide was extensively reviewed through expert consultations, and will help programme managers to closely monitor progress and further improve their work.

This publication is part of the adolescent health package developed by the Regional Office based on a recommendation from the Member States<sup>1</sup>. The package was developed as a set of tools to assist decision-makers in situation analysis and in planning and monitoring adolescent health programmes and activities at country level.

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<sup>&</sup>lt;sup>1</sup> Report on the regional meeting on adolescent health, Beirut, Lebanon, 15–17 December 2009. Cairo: WHO Regional Office for the Eastern Mediterranean; 2010 (<a href="http://applications.emro.who.int/docs/IC\_Meet\_Rep\_2010\_EN\_15235.pdf">http://applications.emro.who.int/docs/IC\_Meet\_Rep\_2010\_EN\_15235.pdf</a>, accessed on 8 March 2014).

#### **Acknowledgements**

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<sup>&</sup>lt;sup>2</sup> Summary report on the regional workshop on adolescent health situation analysis and core indicators, Dubai, United Arab Emirates, 11–13 December 2011. Cairo: WHO Regional Office for the Eastern Mediterranean; 2012 (http://applications.emro.who.int/docs/IC Meet Rep 2012 EN 14636.pdf, accessed on 8 March 2014).

#### Introduction

WHO defines adolescence as the period of life between 10 and 19 years of age, which is divided into the three following age sub-groups:

early adolescence: 10–1 2 years
 mid adolescence: 13–15 years
 late adolescence: 16–19 years

Adolescents are a population group that has special importance. Their needs change during this relatively short period and these different needs require different programmatic responses according to age sub-category and sex.

Adolescents constitute about one fifth of the population of the WHO Eastern Mediterranean Region and thus contribute to a large proportion of the population in all countries. Adolescence is a period of transition between the dependence of childhood and the independence of adulthood. It is a time when the past is questioned and the future is being determined and when fundamental truths are sought that will shape the lives both of the young people themselves and of the children they will raise.

The health of adolescents is affected by many determinants. These include, among other things, demographic factors, socioeconomic factors, particularly education, health system structure and quality of services, communications technology, individual and group risk behaviours, and policies and legislation. Adolescents are receptive to new ideas and greatly influenced by their peers. This confirms the importance of addressing their health needs, not from a disease-oriented approach but from a comprehensive multisectoral well-being approach that focuses on health promotion and disease prevention, and not only on treatment.

The development of such a programmatic response to adolescent health needs requires age- and sex-disaggregated data on relevant health determinants. However, specific demographic and health indicators of adolescent health are scarce in most cases and/or not available; where available these data are not age- and sex-disaggregated. Standardized definitions for different adolescent health-related issues are also lacking and this represents a major constraint to the in-depth study of the adolescent health situation. Most available surveys, research and studies related to adolescent health are limited to knowledge, attitudes and practice (KAP) studies on reproductive health and HIV/AIDS and underlying determinants, and are conducted infrequently. The existing national health information systems do not include specific adolescent health indicators that are age and sex sensitive. This has resulted in the lack of a standardized set of relevant indicators. There is therefore a strong need to invest in collecting data that provide information on health determinants and risk factors related to adolescent health and programmatic response.

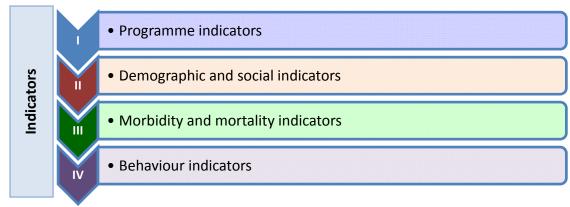
#### Objectives of the guide

This guide provides a set of standardized indicators, i.e. with standardized definitions and methods of data collection, which are age-sensitive and sex-sensitive to assist in:

- assessing the current adolescent health situation;
- providing evidence for sound planning;
- designing specific effective interventions to address the priority needs;
- monitoring the implementation of the interventions and taking corrective measures, and providing a database to measure the effect of the interventions and the progress towards achieving national targets;
- measuring the progress towards achieving regionally and internationally agreed upon targets, such as Millennium Development Goals (MDGs)<sup>3</sup>;
- providing a database (data collection and definitions) to allow for comparison between countries and different areas within the country;
- providing a set of standardized indicators to be included in the routinely conducted national surveys, e.g. household surveys and PapFam surveys, and in the national health information system; and
- evaluating the impact of interventions.

<sup>&</sup>lt;sup>3</sup> See Annex I. Adolescent health in the Millennium Development Goals

#### Categories of core adolescent health indicator



Four categories of core indicator are identified: programme indicators; demographic and social indicators; morbidity and mortality indicators; and behaviour indicators. The following sections provide detailed information on the indicators related to each category as follows:

- name of the indicator
- rationale of the indicator
- definition of the indicator
- calculation of the indicator
- possible sources of information
- responsibility of collecting data and calculating the indicator
- periodicity of calculation.

The health of adolescents is greatly impacted by their attitudes and behaviours, on which information can only be obtained through surveys or special studies. Efforts should be made to include an adolescent health module within those surveys existing at national level.

Efforts should also be made to include adolescent health sex- and age-disaggregated indicators in the national health information system and in the existing related surveillance systems, such as nutrition and injury-related surveillance systems. In addition, the national programme responsible for adolescent health should have a regularly updated database on the programmatic indicators, in order to keep track of the progress of the programme. Adolescent health indicators should be measured for each age subgroup and for each sex (age- and sex-disaggregated), each of which has specific needs and for each of which there are appropriate ways to respond. This process will guide the development of tailored interventions to best address the health needs of adolescents.

All the indicators presented here are based on standardized definitions, criteria and methods of calculation to enable comparison within and between countries. Efforts should also be made to calculate indicators by region/district, and by sub-national and national level to identify difference in levels of indicators, prioritize needy areas and ensure equity.

This guide provides an expanded list of indicators to help in monitoring different aspects of adolescent health throughout different phases of implementation. Countries would select the indicators that best address the priorities highlighted by the situation analysis and according to the phase of implementation of the adolescent health programme.

While collecting data, it is important to report on the type of survey (source of information), and the year of its conduct. It is also important to look at the confidence interval<sup>4</sup> (CI) to judge the reliability of the estimated data produced by the survey.

<sup>&</sup>lt;sup>4</sup> The mean of a variable in a sample of population (in a study or a survey) may or may not represent the mean among the larger population from which the sample is drawn. "Confidence interval" is the probable range around the sample mean, i.e. the sample mean ± a value estimated by a statistical formula, which is considered reliable, or not, in representing the mean of the whole population.

# **Programme indicators**

	2	National situation analysis has been conducted and a report developed
icators	3	Adolescent public health priorities are reflected in the respective national policies/strategies/development plans
	4	Adolescent health age- and sex-disaggregated data are available in the national health information system
	5	<ul> <li>Adolescent health indicators are included in the existing national household surveys</li> </ul>
ne ind	6	Adolescent health guidelines have been developed
Programme indicators	7	<ul> <li>Percentage of districts with care providers trained on the adolescent health standardized package</li> </ul>
<b>a</b>	8	<ul> <li>Percentage of districts with trained care providers, which are delivering adolescent health services/interventions according to the standardized adolescent health package in at least one health facility</li> </ul>
	9	<ul> <li>Percentage of districts with trained care providers, which are delivering adolescent health care services/interventions according to the standardized package in many settings within and outside the health system</li> </ul>
	10	Utilization rate of adolescent health services/interventions by adolescents
	11	Indicators to measure the quality of services provided to adolescents (%) have been developed and are in use.

• A functional national adolescent health management structure exists

A functional national adolescent health management structure exists

#### **Rationale**

The characteristics of adolescent health encompass many different areas and sectors thus requiring strong coordination and monitoring by a management structure within the Ministry of Health. The presence of an adolescent health programme reflects country commitment and ensures the institutionalization of related policies, strategies and interventions into the existing system. In order to achieve the targets of adolescent health, this management structure should be functional (as described below).

#### **Definition**

An adolescent health management structure is present and meets the following criteria:

- 1. is officially established within the organigram of the Ministry of Health and comprises:
  - a separate adolescent health programme; or
  - an adolescent health unit under a relevant programme, such as school health; or
  - a permanent multisectoral committee with officially defined terms of reference related to adolescent health;
- 2. has an officially designated programme manager or a focal point at national and peripheral (if applicable) level;
- 3. has a clear official mandate (terms of reference);
- 4. has officially designated staff (technical and administrative);
- 5. has a plan of action;
- 6. has a record on activities and budget expenditure;
- 7. has a set of adolescent health indicators in place and disaggregated by age and sex.

#### **Calculation**

As an index. Give a score of 1 for each criterion mentioned under "Definition". Sum up scores (out of 7).

Score 0 = No adolescent health programme

Score 1-3 = Programme existing but not functional

**Score 4–6 = Programme existing but partially functional** 

Score 7 = Programme existing and fully functional

#### Possible sources of information

- 1. Ministerial decree or other official document
- 2. Ministry of Health organigram
- 3. Documents of the adolescent health structure:
  - Document of a costed plan
  - Records of activities

#### Responsibilities

National adolescent health manager/focal point at the Ministry of Health

#### Periodicity of calculation of the indicator

#### • National situation analysis has been conducted and a report developed

#### **Rationale**

Obtaining quantitative and qualitative information about the health situation of adolescents:

- provides a clear idea of the current situation
- provides evidence to guide development of policies, strategies and plans, and
- provides baseline data to monitor implementation and measure impact.

#### **Definition**

The Ministry of Health has produced a report describing and analysing the situation of adolescent health in the country in collaboration with partners which has:

- 1. been undertaken within, at most, the past 3–5 years;
- 2. included analysis of determinants of epidemiological data (mortality and morbidity), risk behaviours related to a variety of health topics relevant to the country, representative of the national level;
- 3. taken into account age and sex differences;
- 4. included analysis of the current programmatic response to adolescent health needs;
- 5. included an analysis of the related national policy/strategy and legal environment and their impact on adolescents;
- 6. used the regional guide to adolescent health situation analysis<sup>5</sup>.

#### **Calculation**

As an index. Give a score of 1 for each criterion mentioned under "definition". Sum up scores (out of 6). **Score 0** = No situation analysis conducted in the past 3–5 years and no report.

#### Score 1-5 =

- Situation analysis conducted and complete (if criteria 1–5 are met)
- Situation analysis conducted but incomplete (if any criterion from 1–5 is not met)

Score 6 = Situation analysis conducted and complete according to WHO approach (1–6 are fulfilled)

#### Possible sources of information

- 1. Adolescent health programme at Ministry of Health
- 2. National adolescent health situation analysis report
- 3. Reports of household survey (HHS)
- 4. Data of surveillance system (injury, nutrition, etc.)

#### Responsibilities

- 1. Adolescent health programme manager at Ministry of Health
- 2. Situation analysis focal point in the task force if there is one

#### Periodicity of calculation of the indicator

If the country is in the phase of developing an adolescent health situation analysis report: reporting on this indicator will be semi-annual to follow up the progress of development. If the adolescent health report has been developed, update of this report should take place every 5-year planning cycle or with the review of policies and strategies. Therefore, reporting will be linked with these processes (every 5 years in most countries).

<sup>&</sup>lt;sup>5</sup> A regional guide to conducting an adolescent health situation analysis. Cairo: WHO Regional Office for the Eastern Mediterranean; 2011 (<a href="http://applications.emro.who.int/dsaf/emropub">http://applications.emro.who.int/dsaf/emropub</a> 2011 1268.pdf, accessed on 8 March 2014).

 Adolescent public health priorities are reflected in the respective national policies/strategies/development plans

#### **Rationale**

Integrating adolescent health issues into national policies, strategies and development plans is a prerequisite for institutionalization and sustainability of an adolescent health programme and interventions.

#### **Definition**

The national health policy, strategy and development plans clearly reflect government commitment to adolescent health.

#### Criteria

- 1. Adolescent public health issues are included in the national health strategies and policies.
- 2. The national health plan explicitly refers to adolescents.
- 3. Protection and promotion of adolescent health are reflected in policy/strategies/plans of other non-health sectors (e.g. education, employment, media and information).

#### **Calculation**

As an index. Give a score of 1 for each criterion mentioned under "Definition". Sum up scores (out of 3). **Score 0** = No adolescent health issues reflected in existing policies, strategies and plans of relevant sectors (health and others)

Score 1-2 = Adolescent health insufficiently addressed

**Score 3** = Adolescent health issues reflected in all relevant policies, strategies and plans of all relevant sectors (health and others)

#### Possible sources of information

- 1. Adolescent health management structure
- 2. Ministry of Health documents:
  - national health plans
  - national health policies/strategies
- 3. Adolescent health situation analysis report
- 4. Other relevant sectors policies/strategies and plans

#### Responsibilities

- 1. Adolescent health programme manager/focal point
- 2. Other relevant sector focal points

#### Periodicity of calculation of the indicator

 Adolescent health age- and sex-disaggregated data are available in the national health information system

#### **Rationale**

The period of adolescence covers a wide age range (10–19 years) that includes an age group close to childhood and another closer to adulthood. In addition, prevalence of health problems might be different among boys and girls. Therefore, age- and sex-disaggregation assists in measuring differences, tailoring interventions to meet the needs and measuring impact. Introducing adolescent health indicators into the national health information system (HIS) provides automatic/regular reporting on adolescent health issues in order to monitor progress.

#### **Definition**

National health information systems include data on adolescent health indicators, each broken down by relevant age group and sex.

#### Criteria

- 1. Age groups included: 10–12, 13–15 and 16–19 ( or at minimum 10–14 and 15–19) years
- 2. Sex-disaggregated
- 3. By locality

#### **Calculation**

As an index.

Score 0 = No adolescent health age- and sex-disaggregated data in the health information system

Score 1 = Data included but not in full (any one of the 3 criteria is not present)

**Score 2 =** Data included in full (three criteria are present)

#### Possible sources of information

- 1. Health information system
- 2. Adolescent health programme/Ministry of Health

#### Responsibilities

- 1. Adolescent health programme manager/focal point
- 2. Health information system manager/focal point/Ministry of Health

#### Periodicity of calculation of the indicator

Adolescent health indicators are included in the existing national household surveys

#### **Rationale**

Knowledge, attitudes and behaviours are important determinants of adolescent health. Since related data are collected through household surveys, inclusion of adolescent health indicators in those surveys is crucial to obtain baseline data, monitor progress and measure impact.

#### **Definition**

A nationally adopted set of adolescent health indicators is included in national household surveys.

#### Criteria

- 1. Indicators set by the national adolescent health programme have been introduced in the questionnaire of at least one household survey.
- 2. Survey results provide age- and sex-disaggregated adolescent health data, at national and subnational level.

#### Calculation

As an index. Give a score of 1 for each criterion mentioned under "Definition". Sum up scores (out of 2).

Score 0 = No age- and sex-disaggregated adolescent health data included in any household survey

**Score 1** = Some of the indicators set by the national adolescent health programme included in at least one household survey; or indicators included but the results of the survey do not provide age and sex-disaggregated data

**Score 2 =** All indicators set by the national adolescent health programme included in at least one household survey and results age and sex-disaggregated

#### Possible sources of information

- 1. Adolescent health structure at Ministry of Health
- 2. Questionnaire of the survey
- 3. Survey report
- 4. Organizations conducting surveys such as League of Arab States, UNICEF, WHO

#### Responsibilities

Adolescent health programme manager/focal point/Ministry of Health

#### Periodicity of calculation of the indicator

According to the periodicity of conduct of household survey in the country

#### Adolescent health guidelines have been developed

#### Rationale

The availability of comprehensive adolescent health guidelines tailored to the priorities identified by the adolescent health situation and country context, and to the profile of the care providers and type of settings is crucial to addressing adolescent health needs.

#### **Definition**

Presence of comprehensive standardized adolescent health guidelines that:

- 1. define core priority services for adolescent health based on the priorities revealed by the situation analysis;
- 2. address the adolescent health needs according to their age and sex;
- 3. are tailored to the level of service and type of setting;
- 4. are tailored to the profile of the care provider.

#### **Calculation**

As an index. Give a score of 1 for each criterion mentioned under "Definition". Sum up scores (out of 4).

Score 0 = No guidelines

Score 1 = Guidelines exist but do not meet any criteria

Score 2 = Guidelines exist and meet 1-2 criteria

Score 3 = Guidelines exist and meet 3 criteria

Score 4 = Guidelines exist and meet all the criteria

#### **Sources of information**

Documents of the guidelines

#### Responsibilities

Adolescent health programme manager/focal point/Ministry of Health

#### Periodicity of calculation of the indicator

Annually by the national programme to report on existing guidelines (old and new), and/or to monitor progress of the process of guidelines development according to the plan

 Percentage of districts with care providers trained on the adolescent health standardized package

#### **Rationale**

Availability of good quality services depends on the presence of well-trained health care providers/service providers, particularly at the district and community levels. This indicator helps monitor the country efforts to prepare for the implementation of adolescent health services.

#### **Definition**

The percentage of districts that have care providers trained on the standardized adolescent health guidelines, and who belong to the health system or other identified sectors/partners (according to the national plan). Providers could be physicians, nurses, social workers, teachers, parents, religious leaders, sports coaches, nongovernmental organization volunteers, community health workers, adolescent students or non-students, etc.

#### **Calculation**

As a percentage in both of the following ways.

#### 1. Progress of implementation of plan of action:

**Numerator** = Number of districts with at least one provider trained on the standardized adolescent health guidelines in each identified targeted adolescent health setting in a specific year x 100

**÷ Denominator** = Total number of targeted districts in the same year.

This calculation will help to follow up implementation of the training plan of action within targeted districts of implementation.

#### 2. District implementation coverage:

**Numerator** = Number of districts with at least one trained provider on the standardized adolescent health guidelines in each identified targeted setting in a specific year x 100

**÷ Denominator** = Total number of districts in a governorate/country in the same year.

This calculation will allow monitoring of the progress of implementation at governorate and country level. This will also be used in ranking provinces/countries in terms of efforts in expansion of training according to the following scoring:

Score 1 = Less than 20% of districts

**Score 2 = 20%–39%** of districts

**Score 3 = 40%–59%** of districts

**Score 4 = 60%–79%** of districts

Score 5 = 80% or more of districts

#### Possible sources of information

Adolescent health structure at Ministry of Health

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Information focal point within the adolescent health structure, if it exists

#### Periodicity of calculation of the indicator

By the governorate/province (peripheral level): semi-annually

By the national programme: annually



 Percentage of districts with trained care providers, which are delivering adolescent services/interventions according to the standardized adolescent health package in at least one health facility

#### **Rationale**

Actual implementation of the standardized adolescent health package/interventions will allow access of adolescents to quality services that address their needs and consequently improve their health and development. Initiation of adolescent health services will start at the health facilities and then expand to other settings. This indicator reflects the commitment of peripheral and national teams towards improving adolescent health and development.

#### **Definition**

The percentage of districts that are actually providing services to adolescents according to the standardized guidelines in at least one health facility. This should be done by a provider trained on the standardized adolescent health guidelines.

#### **Calculation**

As a percentage in both of the following ways.

- **1. Numerator** = Number of districts with trained care providers which provide adolescent health services according to the guidelines in at least one health facility in a specific year x 100
- **÷ Denominator** = Number of districts in a governorate/country with at least one trained provider in the same year.

This calculation will help to follow up implementation of the plan of action within targeted districts of implementation.

- **2. Numerator** = Number of districts with trained care providers which provide services according to the guidelines in at least one health facility in a specific year x 100
- ÷ **Denominator** = Total number of districts in a governorate/country in the same year.

This calculation will demonstrate the actual implementation of adolescent health services within a governorate or provinces/in the country. This will also be used in ranking provinces/countries in terms of efforts in the implementation according to the following scoring:

**Score 1 =** Less than 20% districts

**Score 2 = 20%–39%** districts

**Score 3 =** 40%–59% districts

**Score 4 =** 60–79% districts

Score 5 = 80% or more districts

#### Possible sources of information

Adolescent health structure at Ministry of Health

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Information focal point within the adolescent health structure, if it exists.

#### Periodicity of calculation of the indicator

By the governorate/province (peripheral level): semi-annually

By the national programme: annually



 Percentage of districts with trained care providers, which are delivering adolescent health care services/interventions, according to the standardized packge in many settings within and outside the health system

#### **Rationale**

Providing services at multiple outlets which are different in terms of scope and domain ensures widening the scope of coverage by adolescent health services in a given community and geographic area. This helps to increase access to those services, provide better response to adolescent health needs and obtain more acceptability by adolescents.

#### **Definition**

The percentage of districts that are actually providing services to adolescents in at least three different settings, which should include a health facility and two of the following: school, youth club, sports club, mosque, church, nongovernmental organization location, social development facility, etc. This should be done by a provider trained on the national standardized adolescent health package.

#### Calculation

As a percentage in both of the following ways.

- 1. **Numerator** = Number of districts with trained care providers which provide services in at least 3 different settings (including a health facility) in a specific year x 100
- **÷ Denominator** = Number of targeted districts in the same year.

This calculation will help to follow up progress of implementation of the plan of action within targeted districts of implementation.

- 2. **Numerator** = Number of districts with trained providers which provide services in at least three different settings (including a health facility) in a specific year x 100
- **÷ Denominator** = Total number of districts in a governorate/country in the same year.

This calculation will demonstrate the actual implementation of adolescent health services within a province/governorate and in the country. This will also be used in ranking provinces/countries in terms of efforts in implementation according to the following scoring:

Score 1 = Less than 20% of districts

**Score 2 = 20%–39%** of districts

**Score 3 =** 40%–59% of districts

Score 4 = 60-79% of districts

Score 5 = 80% or more of districts

#### Possible sources of information

Adolescent health structure at the Ministry of Health

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Information focal point within the adolescent health structure, if it exists

#### Periodicity of calculation of the indicator

By the governorate/peripheral level: semi-annually

By the national programme: annually

• Utilization rate of adolescent health services/interventions by adolescents

#### **Rationale**

Utilization of available adolescent health services/interventions by adolescents is a proxy indicator for potential outcomes, such as improvement in the quality of the services and improvement in adolescent health and behaviours. While outcome data are only available from surveys, which are costly and infrequently conducted, utilization data can be made available from service settings on a short periodicity for almost no or minimal cost.

#### **Definition**

The degree of utilization of available standardized services (health care, counselling, etc.) by adolescents through different settings. It is the average number of visits per adolescents

#### **Calculation**

As a percentage in both of the following ways.

- 1. **Numerator** = Number of visits by adolescents to adolescent health services provided by any type of the targeted setting in a specific locality in a given year x 100
- **÷ Denominator** = Number of adolescents within the catchment area of the same setting and the same year.

This method of calculation will help demonstrate utilization in targeted settings.

- 2. **Numerator** = Number of visits by adolescents to adolescent health services provided by any type of the targeted settings at the district/province or governorate/national level in a given year (administrative level is to be adapted according to the country) x 100
- ÷ **Denominator** = Total population of adolescents in the district/governorate or provinces/country in the same year (administrative level is to be adapted according to the country).

This indicator will also be used in ranking settings/districts/governorates or provinces/country as a proxy way to reflect the quality and acceptability of services by adolescents according to the following scoring:

Score 1 = Less than 20%

**Score 2 = 20%–39%** 

**Score 3 = 40%–59%** 

**Score 4 = 60-79%** 

**Score 5 =** 80% or more

#### Possible sources of information

Adolescent health structure at Ministry of Health

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Information focal point within adolescent health structure, if it exists

#### Periodicity of calculation of the indicator

By the district level: quarterly

By the sub-national level: semi-annually By the national programme: annually

• Indicators to measure the quality of services provided to adolescents (%) have been developed and are in use

#### Rationale

Measuring the quality of services is a means to:

- improve adolescents' health and respond to their needs in an effective way; and
- judge the quality of implementation of different programme tasks.

#### **Definition**

A group of indicators on the assessment of each task performed by a care provider at a given setting according to the set criteria and guidelines. The tasks to be assessed differ in different settings (e.g. a sports club differs from a primary health care facility) and among care providers (e.g. a physician differs from a community health worker).

This group of indicators measures the percentage of care providers correctly performing different tasks assigned to them within the national packages according to their terms of reference and the setting where they provide their services to adolescents. Data on performance are collected through the performance observation component of the routine supportive supervisory visits or other performance evaluation activities (e.g. follow-up, health facility surveys, etc.)

#### **Calculation**

As a percentage.

**Numerator** = Number of trained care providers correctly performing assigned tasks according to national packages in a specific setting in a specific period of time x 100

÷ **Denominator** = Total number of trained care providers of the same category within the same setting(s) in the same period of time.

This indicator is calculated for each assigned task within the national package separately. Scoring of governorates/districts/national level according to the performance of different categories of care providers in different settings will be done according to the following table. This is helpful to compare between different administrative levels/countries and to monitor the performance.

Score 1 = Less than 20%

**Score 2 = 20%–39%** 

**Score 3 =** 40%–59%

**Score 4** = 60%-79%

**Score 5 = 80%** or more

#### Possible sources of information

- 1. Adolescent health structure at Ministry of Health
- 2. Reports of supportive supervision
- 3. Reports of health facility surveys and other evaluation activities

#### Responsibilities

Adolescent health programme manager/focal point/Ministry of Health

#### Periodicity of calculation of the indicator

By the peripheral level: semi-annually By the national programme: annually

## Demographic and social indicators

• Percentage of adolescent population (10–19 years), and by age category and sex (%)

• Adolescent (10–19 years) literacy rate, and by age category and sex (%)

• Adolescent school enrolment (10–19 years), and by age category, sex and level of schooling (%)

• Percentage of ever married adolescents (10–19 years), and by age category and sex (%)

• Employment rate of adolescents (10–14 years), and by sex (%)

• Percentage of adolescents (10–19 years), and by age category and sex, who do hazardous or heavy work



• Percentage of adolescent population (10-19 years), and by age category and sex (%)

#### **Rationale**

Knowing the population size of adolescents is of great importance for demonstrating their weight in society, for providing due attention to their health and development and for allowing calculation of relevant indicators.

#### **Definition**

The percentage of population aged 10–19 years in a country, area or region as of 1 July of a given year (mid-year)<sup>6</sup>. This should also be calculated by age sub-category and sex.

#### **Calculation**

As a percentage.

**Numerator** = Number of adolescents 10–19 years, and by sex, in a locality in a given year x 100 **Denominator** = Total number of population in the same locality in the same year.

Note: as adolescents are subdivided into 3 age categories, this indicator should be calculated for each age category 10–12, 13–15 and 16–19 years. Each sub-indicator should also be calculated by sex.

#### Possible sources of information

- 1. Adolescent health structure in the Ministry of Health
- 2. National bureau of statistics
- 3. Civil registration

- 4. Household survey
- 5. National population census

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Information focal point within the adolescent health structure, if it exists

#### Periodicity of calculation of the indicator

Annual projections, to be confirmed by household survey and census

<sup>&</sup>lt;sup>6</sup> World health statistics 2011: indicator compendium. Geneva: World Health Organization; 2011.

<sup>&</sup>lt;sup>7</sup> A locality could be a country, governorate, province, state or district

Adolescent (10–19 years) literacy rate, and by age category and sex (%)

#### Rationale

Education is a very important determinant of adolescent health. Many behaviours which have an impact on adolescent health and development are shaped by the educational level. It is also important to demonstrate possible existence of discrimination among girls and boys in access to education as this greatly affects health behaviours, particularly of future mothers. Educational level is also a determining factor in job opportunity and consequently socioeconomic status.

#### **Definition**

The percentage of adolescents (10–19 years), and by sex, who can both read and write, with understanding, a short simple statement on his/her everyday life, in a locality in a given year.

#### **Calculation**

As a percentage.

**Numerator** = Number of adolescents 10–19 years, and by sex, who can read and write, with understanding, a short simple statement on his/her everyday life, in a given locality in a given year x 100 **÷ Denominator** = Total population of adolescents 10–19 years, and by sex, in the same locality and the same year.

Note: as adolescents are subdivided into 3 age categories, this indicator is further sub-divided into 6 sub-indicators. Each sub-indicator will be calculated for each age category 10–12, 13–15 and 16–19 years and by sex.

#### Possible sources of information

- 1. Adolescent health structure in the Ministry of Health
- 2. National health information system/Ministry of Health
- 3. Household survey
- 4. Labour force surveys

- 5. Ministry of Education
- 6. Global school health survey (GSHS)
- 7. National population census
- 8. Socioeconomic studies

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Information focal point within adolescent health structure, if it exists

#### Periodicity of calculation of the indicator

Adolescent (10–19 years) school enrolment rate, and by age category, sex and level
of schooling (%)

#### Rationale

Health-related behaviours are not only affected by literacy level but also by level of education. This indicator is one of the indicators for the Millennium Development Goals. It gives a proxy idea of educational level.

#### **Definition**

The percentage of adolescents (10–19 years), and by sex, enrolled in education, in a locality/country in a given year.

#### **Calculation**

As a percentage.

**Numerator** = Number of adolescents 10–19 years who are enrolled in any level of education in a locality/country in a given year x 100

**÷ Denominator** = Total population of adolescents 10−19 years in the locality in the same year.

Note: as adolescents are subdivided into 3 age categories, this indicator is further sub-divided into 6 sub-indicators. Each sub-indicator will be calculated for each age category 10–12, 13–15 and 16–19 years and by sex). It should also be calculated for each level of education.

#### **Possible Sources of information**

- 1. Adolescent health structure in the Ministry of Health
- 2. Global school health survey
- 3. Household survey
- 4. Ministry of Education
- 5. UNESCO database

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Adolescent health programme focal point/Ministry of Education
- 3. Information focal point within adolescent health structure, if it exists

#### Periodicity of calculation of the indicator

 Percentage of ever married adolescents (age 10–19 years), and by age category and sex (%)

#### Rationale

Early marriage has serious implications for adolescents, both boys and girls, in terms of completion of their education, psychological status and in particular, impact on female adolescent health. Obtaining this information will help in designing interventions to raise awareness of policy-makers, communities, families and adolescents on how best to avoid the negative effects of premature marriage and early pregnancy.

#### **Definition**

The percentage of adolescents (10–19 years), and by sex, who have been ever married in a certain locality in a given year.

#### Calculation

As a percentage.

Numerator = Number of adolescents 10-19 years, and by sex, who have been ever married in a certain locality/country as measured in a given year x 100

÷ Denominator = Total population of adolescents 10−19 years, and by sex, in the locality/country in the same year.

Note: as adolescents are subdivided into 3 age categories, this indicator is further sub-divided into 6 sub-indicators. Each sub-indicator will be calculated for each age category 10-12, 13-15 and 16-19 years and by sex.

#### Possible sources of information

- 1. Adolescent health structure in the Ministry of Health
- 3. Household survey
- 2. Maternal/reproductive health programme/Ministry of Health 4. National office of statistics

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Maternal/reproductive health programme
- 3. Information focal point within the adolescent health structure, if it exists

#### Periodicity of calculation of the indicator

• Employment rate of adolescents (10–14 years), and by sex (%)

#### **Rationale**

Adolescents aged 10–14 years are supposed to be in school. Many factors affect school attendance and drop-out to work, the most important of which is poverty. It is important to report on employment of this age category of adolescents as it affects their future, health and psychosocial status. Employment of this age category also falls under child labour laws and is prohibited and penalized by most countries.

#### **Definition**

The percentage of adolescents (10–14 years) who work for at least 20 hours<sup>8</sup> a week in a given locality in a given period of time. It is also important to know the percentage by sex.

#### **Calculation**

As a percentage.

**Numerator** = Number of adolescents 10–14 years who report working for at least 20 hours a week in a certain locality/country in a given period of time x 100

**÷ Denominator** = Total population of adolescents 10–14 years in the same locality/country in the same period of time.

Note: The indicator should be similarly calculated by sex.

#### Possible sources of information

- 1. International Labour Organisation (ILO) reports
- 2. Household survey
- 3. Researches
- 4. National offices/bureau of statistics

#### Responsibilities

Adolescent health programme manager/focal point/Ministry of Health

#### Periodicity of calculation of the indicator

Annually by the national programme

27

<sup>&</sup>lt;sup>8</sup> According to ILO definition

 Percentage of adolescents (10–19 years), and by age category and sex, who do hazardous or heavy work (%)

#### **Rationale**

In addition to the prohibition of labour for adolescents, the type of work adolescents are involved in is important information. Hazardous or heavy work may affect their health considerably. Hazardous employment is work where they can be exposed to dangers or an unsanitary environment. This includes mines, foundries, brick kilns, quarries, sewage disposal plants, cement factories, machine shops, and narcotics or tobacco manufacturing. Heavy work implies extreme exertion or effort, such as stone breaking, building, long exposure to heat or sun, and use of heavy tools/objects. Both these types of work expose people to accidents and injuries, and can have a negative impact on health, including poisoning and lung diseases.

#### **Definition**

The percentage of adolescents (10–19 years) who are employed in hazardous or heavy work in a given locality in a given period of time. It is also important to know the percentage by sex.

#### Calculation

As a percentage.

**Numerator** = Number of adolescents 10–19 years, and by sex, who report doing hazardous or heavy work in a certain locality/country in a given period of time x 100

**÷ Denominator** = Total population of adolescents 10–19 years, and by sex, in the same locality/country in the same period of time.

Note: as adolescents are subdivided into 3 age categories, this indicator is further sub-divided into 6 sub-indicators. Each sub-indicator will be calculated for each age category 10–12, 13–15 and 16–19 years and by sex.

#### Possible sources of information

- 1. International Labour Organisation (ILO) reports
- 2. Household survey
- 3. Researches
- 4. National offices/bureau of statistics

#### Responsibilities

Adolescent health programme manager/focal point/Ministry of Health

#### Periodicity of calculation of the indicator

# Morbidity and mortality indicators

#### Morbidity and mortality indicators

## 1

# Nutrition indicators

- Prevalence rate of obesity among adolescents (10–19 years), and by age category and sex (%)
- Prevalence rate of overweight among adolescents (10–19 years), and by age category and sex (%)
- Prevalence rate of underweight among adolescents (10–19 years), and by age category and sex (%)
- Prevalence rate of anaemia among adolescents (10–19 years), and by age category and sex (%)

#### Reproductive health indicators

- Adolescent (15–19 years) maternal mortality ratio (per 100 000 live
- Adolescent (15–19 years) fertility rate (adolescent birth rate)
- Age at first birth among married adolescents (15–19 years) (%)
- Antenatal coverage rate (at least four visits) (%)
- Percentage of deliveries by female adolescents (15–19 years) attended by skilled birth attendants (%)

2

#### Injury indicators

- Adolescent (10–19 years) injury-related mortality rate, and by age category, sex and type of injury (per 100 000 population)
- Prevalence rate of injuries among adolescents (10–19 years), and by age category, sex and type of injury (%)
- Incidence rate of injuries among adolescents (10–19 years), and by age category, sex and type of injury (per 100 000 population)

3

#### Mental health indicators

4

- Prevalence rate of depression among adolescents (10–19 years), and by age category and sex (%)
- Prevalence rate of suicide attempts among adolescents (10–19 years), and by age category and sex (%)
- Prevalence rate of substance use among adolescents (10–19 years), and by age category and sex (%)

#### • Communicable disease indicator

• Prevalence rate of HIV among adolescents (10–19 years), and by age category and sex (%)

#### Nutrition indicators

• 1.1 Prevalence rate of obesity among adolescents (10–19 years), and by age category and sex (%)

#### Rationale

Obesity is a type of malnutrition and its prevalence in adolescents is on the rise globally. It is a major health problem in the Region, particularly among adolescents. Obesity is measured by body mass index (BMI)  $^9$ . Obese adults (BMI  $\ge 30.0 \text{ kg/m}^2$ ) are at increased risk of adverse metabolic outcomes, including elevated blood pressure, cholesterol and triglycerides, and insulin resistance. Subsequently, an increase in body mass index exponentially increases the risk of noncommunicable diseases, such as coronary heart disease, ischaemic stroke and type-2 diabetes mellitus. It is also associated with an increased risk of cancer, gall bladder disease and musculo-skeletal disorders. These diseases have a high cost, not only in terms of premature death and health care but also in terms of disability and a diminished quality of life. Obesity is usually due to dietary habits that can be easily corrected.

#### **Definition**

The percentage of adolescents (10–19 years) classified as obese (BMI  $\geq$  30.0 kg/m<sup>2</sup>), among the total adolescent population and by sex, in a certain locality and a given year.

#### Calculation

As a percentage.

**Numerator** = Number of adolescents 10–19 years, and by sex, who have a BMI  $\geq$  30.00 kg/m<sup>2</sup> in a locality/country in a given year X100

**÷ Denominator** = Total population of adolescents 10–19 years, and by sex, in the locality/country in the same year.

Note: as adolescents are subdivided into 3 age categories, this indicator is further sub-divided into 6 sub-indicators. Each sub-indicator will be calculated for each age category 10–12, 13–15 and 16–19 years and by sex.

#### Possible sources of information

- 1. Adolescent health structure in the Ministry of Health
- 2. Nutrition programme/Ministry of Health
- 3. Nutrition surveillance system
- 4. School health programmes/Ministry of Health, Ministry of Education
- 6. Nutrition studies
- 7. Stepwise survey for noncommunicable diseases
- 8. Global school health survey
- 9. Household survey
- 10. Health information system
- 11. Nutrition surveys

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Information focal point within adolescent health structure, if it exists
- 3. Nutrition programme manager

- If a nutrition surveillance system exists or the indicator is integrated into the comprehensive health information system: at the setting level: monthly; at the district level: quarterly; at the national level: annually
- If there is no nutrition surveillance system and/or if the indicator is not integrated into the
  comprehensive health information system: at national level according to the household survey
  cycle in the country.

<sup>&</sup>lt;sup>9</sup> Body mass index (BMI) is a simple index of weight-for-height that is commonly used to classify underweight, overweight and obesity in adults. It is defined as the weight in kilograms divided by the square of the height in metres (kg/m²).

Nutrition indicators

 1.2 Prevalence rate of overweight among adolescents (10–19 years), and by age category and sex (%)

#### **Rationale**

Overweight is a type of malnutrition that reflects, among other things, dietary habit, knowledge and behaviours in relation to nutrition. Like obesity, it increases the risk of noncommunicable diseases, such as diabetes and cardiovascular disease. Monitoring its prevalence among adolescents will help in establishing an age and sex-sensitive nutrition surveillance system, and in strengthening programmatic response through implementation of cost-effective interventions.

#### **Definition**

The percentage of adolescents (10–19 years) classified as overweight (BMI =  $25-29.9 \text{ kg/m}^2$ ) among the total adolescent population, and by sex, in a certain locality and a given year.

#### **Calculation**

As a percentage.

**Numerator** = Number of adolescents 10–19 years, and by sex, who have a BMI =  $25.00-29.9 \text{ kg/m}^2$  in a certain locality in a given year x 100

÷ **Denominator** = Total population of adolescents 10−19 years, and by sex, in the locality/country in the same year.

Note: as adolescents are subdivided into 3 age categories, this indicator is further sub-divided into 6 sub-indicators. Each sub-indicator will be calculated for each age category 10–12, 13–15 and 16–19 years and by sex.

#### Possible sources of information

- 1. Adolescent health structure in the Ministry of Health
- 2. Nutrition programme/Ministry of Health
- 3. Nutrition surveillance system
- 4. School health programmes/Ministry of Health/ Ministry of Education
- 5. Nutrition studies

- 6. Stepwise surveillance for noncommunicable diseases
- 7. Global school health survey
- 8. Household survey
- 9. Health information system
- 10. National nutrition surveys

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Information focal point within the adolescent health structure, if it exists
- 3. Nutrition programme manager/Ministry of Health

- If a nutrition surveillance system exists or the indicator is integrated into the comprehensive health information system:
  - at the setting level: monthly
  - at the district level: quarterly
  - at the national level: annually
- If there is no nutrition surveillance system and/or if indicator is not integrated into the comprehensive health information system: at national level according to the household survey cycle in the country.



#### Nutrition indicators

• 1.3 Prevalence rate of underweight among adolescents (10–19 years), by age category and sex (%)

#### Rationale

Underweight is a type of malnutrition that may be due to socioeconomic status, or dietary habit or behaviour, such as excessive dieting and eating disorders, including anorexia nervosa. Underweight affects activity, alertness, school performance and the power to do work. Monitoring its prevalence among adolescents will help in establishing an age and sex-sensitive nutrition surveillance system, and strengthening programmatic response through implementation of cost-effective interventions.

#### **Definition**

The percentage of adolescents (10–19 years), classified as underweight (BMI <  $18.5 \text{ kg/m}^2$ ) among the total adolescent population, and by sex, in a certain locality and a given year.

#### **Calculation**

As a percentage.

**Numerator** = Number of adolescents 10–19 years, and by sex, who have a BMI < 18.5kg/m2 in a locality/country in a given year x 100

**÷ Denominator** = Total population of adolescents 10–19 years, by sex, in the same locality/country and the same year.

Note: as adolescents are subdivided into 3 age categories, this indicator is further sub-divided into 6 sub-indicators. Each sub-indicator will be calculated for each age category 10–12, 13–15 and 16–19 years and by sex.

#### Possible sources of information

- 1. Adolescent health structure in Ministry of Health
- 2. Nutrition programme/Ministry of Health
- 3. Nutrition surveillance system
- School health programmes/Ministry of Health/ Ministry of Education
- 5. Nutrition studies

- 6. Stepwise survey for noncommunicable diseases
- 7. Global school health survey
- 8. Household survey
- 9. Health information system
- 10. National nutrition surveys

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Nutrition programme manager/Ministry of Health
- 3. Information focal point within adolescent health structure, if it exists

- If a nutrition surveillance system exists or the indicator is integrated into the comprehensive health information system:
  - at the setting level: monthly
  - at the district level: quarterly
  - at national level: annually
- If there is no nutrition surveillance system and/or if indicator is not integrated into the comprehensive health information system: at national level according to the household survey cycle in the country.

#### • Nutrition indicators

• 1.4 Prevalence rate of anaemia among adolescents (10–19 years), by age category and sex (%)

#### **Rationale**

Nutritional anaemia is a type of malnutrition that may reflect socioeconomic status, dietary habits or dietary behaviours, such as dieting. Anaemia is associated with increased risk of maternal mortality. Iron-deficiency anaemia is the most prevalent micro-nutrient deficiency and reduces the work capacity of individuals and populations, with serious consequences for the economy and national development. Anaemia affects activity, alertness, school performance and the power to do work. It can lead to cardiovascular disturbance if chronic. Like other nutrition indicators, it can help establishing an age and sex-sensitive nutrition surveillance system.

#### **Definition**

The percentage of adolescents (10–19 years), by sex, who have a haemoglobin level below 11 g/dl for males and 12 g/dl for females, at sea level, in a certain locality and a given year.

#### **Calculation**

As a percentage.

**Numerator** = Number of female adolescents 10-19 years who have a haemoglobin level less than 11 g/dl and male adolescents less than 12 g/dl at sea level in a certain locality/country in a given year x 100

**÷ Denominator** = Total population of female/male adolescents 10−19 years in the same locality in the same year.

Note: as adolescents are subdivided into 3 age categories, this indicator is further sub-divided into 6 sub-indicators. Each sub-indicator will be calculated for each age category 10–12, 13–15 and 16–19 years and by sex.

#### Possible sources of information

- 1. Adolescent health structure in Ministry of Health 6. Stepwise survey for noncommunicable
- 2. Nutrition programme/Ministry of Health
- 3. Nutrition surveillance system
- 4. School health programmes/Ministry of Health/Ministry of Education
- 5. Nutrition studies

- Stepwise survey for noncommunicable diseases
- 7. Global school health survey
- 8. Household survey
- 9. Health information system
- 10. National nutrition surveys

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Nutrition programme manager
- 3. Information focal point within the adolescent health structure, if it exists

- If a nutrition surveillance system exists or the indicator is integrated into the comprehensive health information system:
  - at the setting level: monthly
  - at the district level: quarterly
  - at the national level: annually
- If there is no nutrition surveillance system and/or if indicator is not integrated into the comprehensive health information system: at national level according to the household survey cycle in the country.

#### Reproductive health indicators

• 2.1 Adolescent (15–19 years) maternal mortality ratio (per 100 000 live births)

#### Rationale

Complications during pregnancy and childbirth are a leading cause of death and disability among married female adolescents aged 15–19 years. The maternal mortality ratio represents the risks associated with each pregnancy, i.e. the obstetric risk, delivery and immediate postnatal period. It is also a Millennium Development Goal indicator for monitoring goal 5 (reduction of maternal mortality) through strengthening programmatic response by implementing cost-effective interventions. The indicator monitors deaths related to pregnancy and childbirth among married female adolescents. It reflects the capacity of the health systems to provide effective health care in preventing and addressing the complications occurring during pregnancy, childbirth and post-partum period.

#### **Definition**

The annual number of deaths among married female adolescents 15–19 years from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, per 100 000 live births, for a specific locality in a given year.

#### **Calculation**

As a ratio per 100 000 live births as follows.

**Numerator** = Number of maternal deaths among married female adolescents 15–19 years in a certain locality in a given year x 100 000

**÷ Denominator** = Number of live births in the same locality in the same year.

#### Possible sources of information

- 1. Adolescent health structure in Ministry of Health
- 2. Maternal health programme/Ministry of Health
- 3. Household survey
- 4. Sample or sentinel registration system
- 5. Vital registration with medical registration
- 6. Population census
- 7. Special studies
- 8. Maternal death surveillance system

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Maternal health programme manager/Ministry of Health
- 3. Adolescent health information unit within the adolescent health programme, if it exists

#### Periodicity of calculation of the indicator

If there is a maternal death surveillance system (MDSR): quarterly/annually If there is no maternal death surveillance system: at national level, according to the household survey cycle in the country.

#### Reproductive health indicators

• 2.2 Adolescent (15–19 years) fertility rate (adolescent birth rate)

#### **Rationale**

The age-specific fertility rate<sup>10</sup> provides a basic measure of reproductive health focusing on the vulnerable group of adolescent women. Adolescents who become pregnant are subject to higher risk of complications or even death during pregnancy and birth and their children are also more vulnerable. Therefore, preventing births very early in a woman's life is an important measure to improve maternal health and reduce infant mortality. Furthermore, women having children at an early age experience a curtailment of their opportunities for socioeconomic improvement, particularly because young mothers are unlikely to keep on studying and, if they need to work, may find it especially difficult to combine family and work responsibilities. The adolescent birth rate also provides indirect evidence about access to reproductive health for this age group.

#### **Definition**

The annual number of live births to married female adolescents aged 15–19 years in a given year per 1000 married women in that age group in the same year. It is also referred to as the age-specific fertility rate for women aged 15–19 years.

#### Calculation

As a rate per 1000 married female adolescents.

**Numerator** = Annual number of live births to married female adolescents 15–19 years in a locality in a given year x 1000

**÷ Denominator** = Population of female adolescents 15−19 years in the same locality and the same year.

#### **Possible sources of information**

- 1. Adolescent health structure in Ministry of Health
- 2. Maternal health programme/Ministry of Health
- 3. Household survey
- 4. Sample or sentinel registration system
- 5. Vital registration with medical registration
- 6. Population census
- 7. Special studies

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Maternal health programme manager
- 3. Adolescent health information focal point within the adolescent health programme, if it exists

#### Periodicity of calculation of the indicator

At national level, according to the household survey cycle in the country

 $<sup>^{10}</sup>$  World health statistics 2011: indicator compendium. Geneva: World Health Organization; 2011.

# • Reproductive health indicators

• 2.3 Age at first birth among married female adolescents (15-19) years (%)

#### Rationale

Giving birth in the age group of 15–19 years is a risk for both mothers and babies. Babies of adolescent mothers are at higher risk of dying and ill health compared with older mothers.

#### **Definition**

The percentage of married female adolescents who gave birth first when they were in the age group of 15–19 years per single year of age in a given period.

#### **Calculation**

As a percentage.

**Numerator** = Number of married women whose first birth occurred in the time they were in the specified age group (15–19 years per single year) in a locality/country in a given period of time x 100 **÷ Denominator** = Total number of married female adolescents 15–19 years in the same locality/country and in the same period.

# **Possible sources of information**

- 1. Adolescent health structure in Ministry of Health
- 2. Special studies
- 3. Maternal health programme/Ministry of Health
- 4. Household

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Maternal health programme manager/Ministry of Health
- 3. Adolescent health information focal point within the adolescent health programme, if it exists

#### Periodicity of calculation of the indicator

At national level, according to the cycle of household survey in the country

2

### Reproductive health indicators

• 2.4 Antenatal coverage rate (at least four visits) (%)

#### Rationale

Antenatal care coverage is an indicator of access and use of health care during pregnancy. The antenatal period presents opportunities for reaching pregnant women with interventions that may be vital to their health, survival and well-being and that of their infants. Receiving antenatal care at least four times, as recommended by WHO<sup>11</sup>, increases the likelihood of receiving effective maternal health interventions during antenatal visits. This is a Millennium Development Goal indicator.

#### **Definition**

The percentage of female adolescents aged 15–19 with a live birth in a given time period who received antenatal care four or more times during the time of pregnancy. Due to data limitations, it is not possible to determine the type of provider for each visit.

Although the indicator for "at least one visit" refers to visits with skilled health providers (doctor, nurse, midwife), the indicator "four or more visits" usually measures visits with any provider because national-level household surveys do not collect provider data for each visit. In addition, standardization of the definition of skilled health personnel is sometimes difficult because of differences in training of health personnel in different countries.

#### Calculation

As a percentage.

**Numerator** = Number of pregnant female adolescents 15–19 years attending at least 4 antenatal care visits, during the time of pregnancy, in a given locality and a given year x 100

**÷ Denominator** = Total population of pregnant female adolescents 15−19 years in the same locality and the same year.

# **Possible sources of information**

- Adolescent health structure/Ministry of
   Health
- 2. Household survey

- Maternal health programme/Ministry of Health
- 4. Health facility reporting system

# Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Maternal health programme manager/Ministry of Health
- 3. Adolescent health information focal point within the adolescent health programme, if it exists

#### Periodicity of calculation of the indicator

Monthly reports by the health facilities Annual report by the national level

 $<sup>^{11}</sup>$  World health statistics 2011: indicator compendium. Geneva: World Health Organization; 2011.

# • Reproductive health indicators

• 2.5 Percentage of deliveries by female adolescents (15–19) years attended by skilled birth attendants (%)

#### **Rationale**

All female adolescents aged 15–19 years old, should have access to skilled care during pregnancy and childbirth to ensure prevention, detection and management of complications. Assistance by properly trained health personnel with adequate equipment is key to lowering maternal deaths. As it is difficult to accurately measure maternal mortality, and model-based estimates of the maternal mortality ratio cannot be used for monitoring short-term trends, the proportion of births attended by skilled health personnel is used as a proxy indicator for this purpose. This is a Millennium Development Goal indicator.

#### **Definition**

The percentage of births by married female adolescents 15–19 years attended by skilled health personnel.

#### Calculation

As a percentage.

**Numerator** = The number of deliveries for female adolescents 15–19 years attended by skilled health personnel<sup>12</sup> in a locality in a given year x 100

**÷ Denominator** = The total number of deliveries for female adolescents 15–19 years in the same locality and same year.

#### Possible sources of information

- 1. Adolescent health structure in Ministry of Health
- 2. Maternal health programme/Ministry of Health
- 3. Health facility reporting system
- 4. Household survey

# Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Maternal health programme managers
- 3. Adolescent health information focal point within the adolescent health programme, if it exists

#### Periodicity of calculation of the indicator

Monthly reports by the health facilities Annual report by the national level

<sup>&</sup>lt;sup>12</sup> Such as physicians, nurses and midwives trained in providing life-saving obstetric care, including giving necessary supervision, care and advice to women during pregnancy, childbirth and the post-partum period, to conduct deliveries on their own and to care for newborns.



### Injury indicators

 3.1 Adolescent (10–19 years) injury-related mortality rate, and by age category, sex and type or injury (per 100 000 population)

#### Rationale

Injuries are a leading cause of mortality among adolescents. Establishment of an injury surveillance system that provides information on the main types of injuries that lead to death, and is age and sex-sensitive, is important to address this important issue. This indicator will help establish/strengthen the injury surveillance system and help obtain information to develop, implement and monitor interventions to reduce related mortality.

#### **Definition**

Number of deaths of adolescents (10-19 years), and by sex, per 100 000 total population of adolescents due to a specific type of injury.<sup>13</sup>

#### **Calculation**

As a rate per 100 000 population.

Numerator = Number of deaths of adolescents 10–19 years, and by sex, due to a specific type of injury in a locality in a given year x 100 000

÷ Denominator = Total population of adolescents 10−19 years, and by sex, in the same locality and year.

Note: as adolescents are subdivided into 3 age categories groups (10-12, 13-15, 16-19), this indicator is sub-divided into 6 sub-indicators. Each sub-indicator will be calculated for each age group and by sex and by type of injury.

# Possible sources of information

- 1. Adolescent health structure in Ministry of Health 4. Injury surveillance system
- 2. Injury prevention programme focal point
- 3. Police records

- 5. Household survey
- 6. Civil registration

# Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Injury prevention programme focal point
- 3. Adolescent health information focal point within the adolescent health programme, if it exists

- If there is a functioning surveillance system and/or if the indicator is integrated into the national health information system: annually at national level
- If there is no surveillance system and/or if the indicator is not integrated into the health information system: at national level according to the household survey cycle in the country

<sup>&</sup>lt;sup>13</sup> The focus of this guide is on unintentional injuries. This indicator should be calculated for 5 types of injuries: road traffic injuries, fire-related burns, poisoning, falls and drowning.

2

#### Injury indicators

• 3.2 Prevalence rate of injuries among adolescents (10–19 years), and by age category, sex and type of injuries (%)

#### Rationale

Prevalence of injuries is high among adolescents in the Region. However there is not enough information on the prevalence of different types. Data on prevalence can be made available through surveys and special studies. This information enables tailored interventions to be developed and implemented, and progress to be monitored.

#### **Definition**

The percentage of old and new cases of a specific type of injury among adolescents (10–19 years old), and by sex.

#### **Calculation**

As a percentage.

**Numerator** = Number of cases of each reported specific type of injury among adolescents 10–19 years, and by sex, in a locality in a given year x 100

÷ Denominator = Total number of adolescents 10−19 years in the same locality in the same year.

Note: as adolescents are subdivided into 3 age categories, this indicator is further sub-divided into 6 sub-indicators. Each sub-indicator will be calculated for each age category 10–12, 13–15 and 16–19 years and by sex for every type or injury.

The indicator should preferably be measured every one to three years depending on the country. If the source of information is household survey, the numerator and denominator are those adolescents who were interviewed during the survey.

#### Possible sources of information

- 1. Adolescent health structure in Ministry of Health
- 2. Emergency/room and service records
- 3. Injury prevention programme in Ministry of Health
- 4. School health programme in Ministry of Health/Ministry of Education
- 5. Household survey
- 6. Special studies
- 7. Global school health survey
- 8. National health information system

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Injury prevention programme managers
- 3. Adolescent health information focal point within the adolescent health programme, if it exists
- 4. Health information system programme manager, Ministry of Health

- If there is a functioning surveillance system and/or if the indicator is integrated into the national health information system: annually at national level
- If there is no surveillance system or if the indicator is not integrated into the health information system: at national level according to the household survey cycle in the country.

### Injury indicators

 3.3 Incidence rate of injuries among adolescents (10–19 years), and by age category, sex and type of injuries (per 100 000 population)

#### **Rationale**

Despite the importance of injuries as a major cause of death and disability among adolescents, available information is not adequate. Under-reporting and absence of a well-established injury surveillance system has led to insufficient information on new cases of injuries and lack of up-to-date accurate information. Knowledge about this indicator is important in order to analyse the trend of occurrence (increase, decrease). Standardizing the definition of this indicator will help to establish/strengthen the injury surveillance system and enable this important issue to be addressed and interventions to be monitored.

#### **Definition**

Number of new cases of a specific type of injury among adolescents (10–19 years), by sex, per 100 000 adolescent population.

#### **Calculation**

As a rate per 100 000 population.

**Numerator** = Number of new cases of a specific type of injury among adolescents 10-19 years, and by sex, in a locality in a given year x 100000

÷ Denominator = Total adolescent population (10–19 years) in the same locality and the same year.

Note: as adolescents are subdivided into 3 age categories, this indicator is further sub-divided into 6 sub-indicators. Each sub-indicator will be calculated for each age category 10–12, 13–15 and 16–19 years and by sex for every type of injury.

#### Possible sources of information

- 1. Adolescent health structure in Ministry of Health
- 2. Injury prevention program in Ministry of Health
- 3. School health programme in Ministry of Health/Ministry of Education
- 4. Police records
- 5. Injury surveillance system
- 6. Household survey
- 7. Global school health survey
- 8. National health information system

# Responsibilities

- Adolescent health programme manager/focal point/Ministry of Health
- 2. Adolescent health information focal point within the adolescent health programme, if it exists
- 3. Injury prevention programme managers
- 4. Health information system programme manager, Ministry of Health

- If there is a functioning surveillance system and/or if the indicator is integrated into the national health information system: annually by national level
- If there is no surveillance system or if the indicator is not integrated into the health information system: at national level according to the household survey cycle in the country.

1

#### Mental health indicators

• 4.1 Prevalence rate of depression among adolescents (10–19 years), and by age category and sex (%)

#### Rationale

The Eastern Mediterranean Region is a region in transition and approximately 60% of its population is under 19 years of age. With the high growth rates in the Region and the rapidly evolving sociocultural environment, this population is increasingly vulnerable to the stresses of globalization on one hand and disasters, emergencies and conflicts on the other. This poses a constant threat to the physical and mental health of the population, especially that of adolescents. According to the World Health Report 2001, 20% of children and adolescents worldwide suffer from disabling mental illness. Approximately 50% of all the mental disorders in adults have an onset before the age of 14 years. The 12-month prevalence estimates for depressive illness range from 1% to 11%, with higher rates in adolescents. It is important to measure and monitor its prevalence in order to be able to address this problem.

#### **Definition**

The percentage of adolescents (10–19 years), by sex who reported feeling sad/have lack of interest or pleasure/decreased energy or increased fatigability for most of the day almost every day largely uninfluenced by circumstances, sustained for at least 2 weeks.

#### **Calculation**

As a percentage.

**Numerator** = Number of adolescents 10–19 years, and by sex, who reported feeling sad/lack of interest or enjoyment/lack of energy for most of the day almost every day for 2 weeks or longer in a locality in a given year x 100

**÷ Denominator** = Total population of adolescents 10−19 years, and by sex, in the same locality in the same year.

Note: As adolescents are subdivided into 3 age categories, this indicator is further sub-divided into 6 sub-indicators. Each sub-indicator will be calculated for each age category 10–12, 13–15 and 16–19 years and by sex.

# **Possible sources of information**

- 1. Adolescent health structure in Ministry of Health
- 2. Mental health programme/Ministry of Health
- 3. Household survey

- 4. National health information system
- 5. Global school health survey

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Mental health programme manager/Ministry of Health
- 3. Adolescent health information focal point within the adolescent health programme, if it exists

#### Periodicity of calculation of the indicator

Annually at national level if the indicator is integrated into the health information system, or according to the survey cycle in the country

#### Mental health indicators

4.

 4.2 Prevalence rate of suicide attempts among adolescents (10–19 years), and by age category and sex (%)

#### Rationale

Suicide is one of the three leading causes of death for young people under 25 years. Countries of the Region do not officially report on suicide. However small-scale studies have been done in some countries. In the Islamic Republic of Iran, a community-based study revealed that life-time prevalences for suicidal thoughts, plans and attempts were 12.7%, 6.2% and 3.3%, respectively. In Lebanon, the life-time prevalence of suicide ideation was 2.1% and for suicide attempts was 0.7%. A community-based study in an urban area of Casablanca, Morocco, showed the 1-month prevalence of suicidal ideation to be 6.3%. It also showed that of this, 2.1% of adolescents reported at least one suicide attempt during their lifetime.

#### Definition

The percentage of adolescents (10–19 years), and by sex, who have reported having suicidal thoughts, plans and/or attempt in the last 12 months.

# Calculation

As a percentage.

**Numerator** = Number of adolescents 10–19 years, and by sex, who have reported suicidal thoughts, plans and/or attempt in the last 12 months in a locality x 100

÷ **Denominator** = Total population of adolescents 10−19 years, and by sex, in the same locality in the same period of time.

Note: as adolescents are subdivided into 3 age categories, this indicator is further sub-divided into 6 sub-indicators. Each sub-indicator will be calculated for each age category 10–12, 13–15 and 16–19 years and by sex.

# Possible sources of information

- 1. Adolescent health structure in Ministry of Health
- 2. Mental health programme/Ministry of Health
- 3. Household survey
- 4. National health information system
- Global school health survey and expanded global school health survey (once implemented)
- 6. Special studies

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Mental health programme manager/Ministry of Health
- 3. Adolescent health information focal point within the adolescent health programme, if it exists

- If the indicator is integrated into the national health information system: annually at national level
- If the indicator is not integrated into the national health information system: at national level according to the household survey cycle in the country.

#### Mental health indicators

4

 4.3 Prevalence rate of substance use among adolescents (10–19 years), and by age and sex (%)

#### Rationale

In many countries of the Region, the age of first use for many substances and alcohol is decreasing, and many individuals initiate use when they are below 19 years of age. Results from countries of the Region participating in the global school-based student health survey show that 5.2% of adolescents aged 13–15 years had used drugs in the last 12 months while 11.8% of them had used alcohol in the last 30 days. A study carried out in one country found that 8.8% of middle and senior school students were currently using drugs and the mean age of first use was 14.25 years (11.8–17.0 years)

#### **Definition**

The percentage of adolescents (10–19 years), and by sex, who have ever taken any substance of  $use^{14}$  in the last 12 months.

#### Calculation

As a percentage.

**Numerator** = Number of adolescents 10–19 years, and by sex, who have ever taken any substance of use in the last 12 months in a locality X 100

**÷ Denominator** = Total population of adolescents 10–19 years, and by sex, in the same locality in the same period of time.

Note: as adolescents are subdivided into 3 age categories, this indicator is further sub-divided into 6 sub-indicators. Each sub-indicator will be calculated for each age category 10–12, 13–15 and 16–19 years and by sex.

# Possible sources of information

- Adolescent health structure in Ministry of Health
- 2. National health information system
- 3. Mental health programme/Ministry of Health
- 4. Household survey
- 5. Global school health survey
- 6. Drug reports of United Nations Office on Drugs and Crime (UNODC)

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Mental health programme manager/Ministry of Health
- 3. Adolescent health information focal point within the adolescent health programme, if it exists

- If the indicator is integrated into the national health information system: annually at national level.
- If the indicator is not integrated into the national health information system: at national level according to the household survey cycle.

<sup>&</sup>lt;sup>14</sup> Examples: opiates (heroin), cannabis (*hasheesh*)

#### Communicable disease indicators

• 5.1 Prevalence rate of HIV among adolescents (10–19) years, and by age category and sex (%)

#### Rationale

HIV has become a major public health problem in many countries and monitoring the course of the epidemic and impact of interventions is crucial. Both the Millennium Development Goals and the United Nations General Assembly Special Session on HIV and AIDS (UNGASS) have set targets for reducing HIV prevalence.

#### **Definition**

The estimated number of adolescents aged 15–19 years, and by sex, with HIV infection, whether or not they have developed symptoms of AIDS, expressed as a percentage of total population in that age group.

# **Calculation**

As a percentage.

Numerator = Country-specific estimates of adolescents 15–19 years, and by sex, living with HIV in a locality/country in a given year x 100

÷ Denominator = Total population of adolescents 15−19 years, and by sex, in the locality/country in the same year.

Note: as adolescents are subdivided into 3 age categories, this indicator is further sub-divided into 6 sub-indicators. Each sub-indicator will be calculated for each age category 10-12, 13-15 and 16-19 years and by sex

### **Possible sources of information**

- 1. Adolescent health structure in Ministry of Health 5. Health information system
- 2. AIDS programme/Ministry of Health
- 3. Special studies
- 4. HIV/AIDS data and statistics (WHO)
- 6. Household survey
- 7. Joint United Nations Programme on **HIV/AIDS** reports

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. AIDS programme manager/Ministry of Health
- 3. Adolescent health information focal point within the adolescent health programme, if it exists

### Periodicity of calculation of the indicator

Annually at national level if the indicator is integrated into the health information system, or if the indicator is not integrated, at national level according to the household survey cycle.

# **Behaviour indicators**

 Tobacco use indicators Smoking and substance use indicators • Prevalence of current use of tobacco products among adolescents (10-19 years) (%), and by age, sex and type of tobacco used • Exposure to second-hand smoke indicators • Prevalence of adolescents (10–19 years) who are exposed to second-hand smoke in enclosed public places where others smoke in their presence, and by age and sex (%) **Behaviour indicators**  Physical activity indicator • Percentage of adolescents (10–19 years) who have accumulated at least 60 minutes of moderate to vigorous physical activity daily, and 2 by age and sex (%) Dietary indicator • Percentage of adolescents (10–19 years) who consume at least 5 servings of fruits and vegetables daily, and by age and sex (%) 3 • Sedentary life indicator • Proportion of adolescents (10–19 years) who spend more than 3 consecutive hours doing sitting activities 4

- Tobacco use
- Smoking and substance use indicators
- 1.1 Prevalence of current use of tobacco products among adolescents (10–19 years) (%), and by age, sex and type of tobacco used

#### **Rationale**

Tobacco<sup>15</sup> is an addictive substance and smoking often starts in adolescence, before the development of risk perception. By the time the risk to health is recognized, addicted individuals find it difficult to stop tobacco use. The risk of chronic diseases with tobacco use starts early in childhood and such behaviour continues into adulthood.

#### **Definition**

The prevalence of tobacco use among adolescents (10-19 years), and by sex, on more than one occasion in the 30 days preceding the survey (either daily or non-daily).

### **Calculation**

As a percentage.

Numerator = Number of adolescents 10–19 years interviewed who have used a tobacco substance on more than one occasion in the 30 days preceding the survey x 100

÷ Denominator = Total population of adolescents 10−19 years interviewed in the survey or study in the same period.

Note: as adolescents are subdivided into 3 age categories, this indicator is further sub-divided into 6 sub-indicators. Each sub-indicator will be calculated for each age category 10-12, 13-15 and 16-19 years and by sex for each type of tobacco substance<sup>16</sup>.

# Possible sources of information

- 1. Adolescent health structure in Ministry of Health
- 2. Tobacco Free Initiative programme/Ministry of Health 6. Global school health survey
- 3. Special school surveys
- 4. General Agreement on Trade in Services
- 5. Global youth tobacco survey
- 7. WHO Global info-base and Global Health Observatory (GHO)

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Tobacco Free Initiative programme manager/Ministry of Health
- 3. Adolescent health information focal point within the adolescent health programme, if it exists

#### Periodicity of calculation of the indicator

According to the survey cycle (Global youth tobacco survey, Global school health survey, etc.) in the country

<sup>&</sup>lt;sup>15</sup> By this is meant: smoking (e.g. cigarettes and *shisha*) and use of smokeless tobacco (e.g. tobacco snuff, chewing tobacco,

 $<sup>^{16}</sup>$  In the Region cigarettes and shisha are prevalent in almost all countries so these two types of smoking should have specific indicators in addition to other types based on country context using the same equation for calculation.

# Exposure to second-hand smoke indicators

• 1.2 Prevalence of adolescents (10-19 years) exposed to second hand smoke in enclosed public places, where others smoke in their presence, and by age and sex (%)

#### Rationale

Exposure to second hand-smoke causes disease and might lead to death in children and nonsmoking adolescents. Evidence shows that second-hand smoke exposure can lead to lung cancer in non-smokers. Second-hand smoking means being exposed to the smoke of cigarettes or other tobacco products, usually in combination with the smoke exhaled by the smoker. A closed public place is any space covered by a roof or enclosed by one or more walls or sides, regardless of the type of material used for the roof, wall or sides, and regardless of whether the structure is permanent or temporary, which is accessible to the general public or open for collective use, regardless of ownership or right to access.

#### **Definition**

The percentage of adolescents who are exposed to tobacco smoke produced from others in their presence at home or other closed public places during the 7 days preceding the survey.

#### Calculation

As a percentage.

Numerator = Number of adolescents 10–19 years who reported in the survey having been exposed to tobacco smoke (at home/or in other closed public places) on more than one occasion during the 7 days preceding the survey X 100

÷ Denominator = Total population of adolescents 10−19 years interviewed in the survey in the same period

Note: as adolescents are subdivided into 3 age categories, this indicator is further sub-divided into 6 sub-indicators. Each sub-indicator will be calculated for each age category 10-12, 13-15 and 16-19 years and by sex.

#### Sources of information

- 1. Adolescent health structure in Ministry of Health
- 2. Tobacco Free Initiative programme/Ministry of Health 6. Global youth tobacco survey
- 3. Special school surveys
- 4. General Agreement on Trade in Services
- 5. Global school health survey
- 7. WHO Global info-base and Global Health Observatory (GHO)

#### Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. Tobacco Free Initiative programme manager/Ministry of Health
- 3. Adolescent health information focal point within the adolescent health programme, if it exists

#### Periodicity of calculation of the indicator

According to the survey cycle (Global youth tobacco survey, Global school health survey, etc.) in the country

2

#### Physcial activity indicator

 Percentage of adolescents (10–19 years) who have accumulated at least 60 minutes of moderate-vigorous physical activity daily, and by age and sex (%)

#### Rationale

Physical activity is a key determinant of energy expenditure, and thus is fundamental to energy balance and weight control. Physical activity reduces the risk for cardiovascular diseases and diabetes and has substantial benefits for many conditions, not only those associated with obesity. The beneficial effects of physical activity on the metabolic syndrome are mediated by mechanisms beyond controlling excess body weight. For example, physical activity reduces blood pressure, improves the level of high density lipoprotein cholesterol and improves control of blood glucose in overweight people, even without significant weight loss, and reduces the risk for colon cancer and breast cancer among women.

## **Definition**

The percentage of adolescents (10–19 years) who have accumulated at least 60 minutes of moderate-vigorous physical activity daily. <sup>17</sup>

#### **Calculation**

As a percentage.

**Numerator** = Number of adolescents 10–19 years, and by sex, who reported during the survey having accumulated at least 60 minutes of moderate to vigorous physical activity<sup>18</sup> daily in a locality in a specific period of time x 100

÷ **Denominator** = Total population of adolescents 10−19 years, and by sex, in the same locality and period of time interviewed during the survey.

Note: as adolescents are subdivided into 3 age categories, this indicator is further sub-divided into 6 sub-indicators. Each sub-indicator will be calculated for each age category 10–12, 13–15 and 16–19 years and by sex.

# Possible sources of information

- Adolescent health structure in Ministry of Health
- 2. Global school health survey
- 3. Stepwise survey

- 4. School health programme/Ministry of Health
- 5. Household survey
- 6. Special studies

# Responsibilities

- Adolescent health programme manager/focal point/Ministry of Health
- 2. School health programme

- 3. Adolescent health information focal point
- 4. Noncommunicable diseases programme

# Periodicity of calculation of the indicator

According to the survey cycle (Stepwise, household survey, Global school health survey, etc.) in the country

<sup>&</sup>lt;sup>17</sup> For adolescents, physical activity includes play, games, sports, transportation, chores, recreation, physical education, or planned exercise, in the context of family, school and community activities, work at school or home, travel-related activity and leisure activity.

<sup>&</sup>lt;sup>18</sup> See Annex 2.

- Diet indicator
- Percentage of adolescents (10–19 years) who consume at least 5 servings of fruit and vegetables daily, and by age and sex

#### Rationale

A balanced diet with sufficient servings of fruit and vegetables provides an ample source of vitamins and minerals. This improves immunity (body resistance to diseases), alertness and activity in adolescents.

#### **Definition**

Percentage of adolescents (10–19 years), and by sex, who consume at least five servings<sup>19</sup> of fruit and vegetables daily.

#### **Calculation**

As a percentage.

**Numerator** = Number of adolescents 10-19 years, and by sex, who consumed at least five servings<sup>20</sup> of fruit and vegetables daily in a locality in a specific period of time x 100

**÷ Denominator** = Total population of adolescents 10–19 years, and by sex, in the same locality and the same period of time.

Note: as adolescents are subdivided into 3 age categories, this indicator is further sub-divided into 6 sub-indicators. Each sub-indicator will be calculated for each age category 10–12, 13–15 and 16–19 years and by sex.

#### Possible sources of information

- 1. Adolescent health structure in Ministry of Health
- 2. Global school health survey
- 3. Stepwise survey

# Responsibilities

- Adolescent health programme manager/focal point/Ministry of Health
- 2. School health programme focal point

- 4. School health programme/Ministry of Health
- 5. Household survey
- 6. Nutrition surveys/studies
- 3. Adolescent health information focal point
- 4. Nutrition programme

# Periodicity of calculation of the indicator

According to the survey cycle (Global youth tobacco survey, Global school health survey, etc.) in the country

<sup>&</sup>lt;sup>19</sup> One standard serving = 80 g (translated into different units of cup depending on type of vegetable and standard cup measures in the country).

<sup>&</sup>lt;sup>20</sup> See Annex 3.



- Sedentary life indicator
- Proportion of adolescents (10–19 years) who spend more than 3 consecutive hours doing sitting activities

### Rationale

Sedentary life is not identified simply as lack of physical activity. It is a group of behaviours that occurs while sitting requires very low energy expenditure and does not include time spent sleeping. Sedentary behaviour is associated with an increased risk of diabetes and cardiovascular diseases and there is emerging evidence that it also has a negative impact on depression and mental well-being. Its link to increased weight remains possible but unproven. Sedentary habits developed early in life are relatively unchanging over time.

Common examples of sedentary behaviours include:

- sitting while at work, school or at home
- watching television
- using a computer or playing video games this excludes 'active' gaming
- reading
- sitting while socializing with friends or family
- travelling in a car, bus or train, or other form of motorized transport.

An adolescent who obtains at least 60 minutes per day of moderate physical activity can still be considered sedentary if s/he spends more than three consecutive hours of their time doing sitting activities.

#### **Definition**

The percentage of adolescents (10-19 years) who spend more than three consecutive hours doing sitting activities

# **Calculation**

As a percentage.

Numerator = Number of adolescents 10-19 years, and by sex, who spend more than three consecutive hours doing sitting activities a day in a locality in a specific time x 100

÷ Denominator = Total population of adolescents 10−19 years, and by sex, in the same locality and the same period of time.

Note: as adolescents are subdivided into 3 age categories, this indicator will be calculated for each age category 10–12, 13–15 and 16–19 years and by sex.

# Possible sources of information

- 1. Adolescent health structure in Ministry of Health 4. School health programme/Ministry of
- 2. Global school health survey
- 3. Stepwise survey

- Health
- 5. Household survey

# Responsibilities

- 1. Adolescent health programme manager/focal point/Ministry of Health
- 2. School health programme focal point/Ministry of 4. Programme, if it exists Health/Ministry of Education
- 3. Adolescent health information focal point within the adolescent health

# Periodicity of calculation of the indicator

According to the household survey cycle in the country (Global school health survey, Stepwise, etc.)

# Important notes for programme managers

Adolescent health is a cross-cutting area covering many other areas of work, programmes and partners (nutrition, maternal health, injury prevention, tobacco control, mental health, etc.). This requires the programme to work with all concerned partners and programmes. Programme managers need to be able to carry out the following.

- Guide the process of selecting a set of indicators to use to report on adolescent health in the country, plan work and monitor progress. This should be done through an official process involving all concerned programme managers and partners within and outside the Ministry of Health.
- Communicate with the concerned staff responsible for the household survey in the country to include this set of indicators.
- Coordinate with specific programmes to use the same data for each indicator and to agree on the mechanism of sharing data; and discuss the available data with them to avoid having many different figures for the same indicator and verify the reliability of the data.
- Indicate the reference for each data used, i.e. source of information and year.
- Analyse at the end of the year whether it was possible to measure all the indicators selected and identify the problems faced in data collection. To help with this task, score each indicator as follows:
  - 0 = data not available
  - 1 = data available but not disaggregated at all
  - 2 = data available and partially disaggregated by either age or sex (this is applicable to all indicators except the reproductive health indicators which will be disaggregated by age category only and the programme indicator that will not be disaggregated at all)
  - 3 = data available and fully disaggregated by both age and sex.
- Discuss with all concerned programmes and partners each year the results of the analysis to find solutions to any problems with data collection (such as including the indicator in the household survey, health information system, etc.) or to review the set of indicators, etc.
- Convene annual meeting with partners and programme managers to discuss the indicators and propose actions and joint plans for adolescent health.

#### Annex 1

# Adolescent health in the Millennium Development Goals

The eight Millennium Development Goals are either directly related to, or have a close relationship with, adolescent health and development. Among the specific targets of the goals, some will not be achieved unless concerted efforts are exerted to improve adolescent health. This includes the following examples.

#### Goal 1: Eradicate extreme poverty and hunger

Target 1b. Achieve full and productive employment and decent work for all, including women and young people

# Goal 2: Achieve universal primary education

Target 2a. Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling

#### Goal 3: Promote gender equality and empower women

Target 3a. Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015

#### **Goal 4: Reduce child mortality**

The under-five mortality rate is much affected by the fact that higher risk of poor health outcomes is encountered among babies of adolescent mothers.

#### **Goal 5: Improve maternal health**

Target 5a. Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio (noting the high mortality ratio among adolescents mothers)

Target 5b. Achieve, by 2015, universal access to reproductive health

# Goal 6: Combat HIV/AIDS, malaria and other diseases

Young people and adolescents are vulnerable to HIV/AIDS. In low prevalence settings, such as the Eastern Mediterranean Region, HIV/AIDS prevention policies and strategies that target this vulnerable group that is prone to risk behaviour, is of high importance.

For use with

This show card relates to:

Step	Section	Items
Step 1, physical activity	P	P to P15

WORK RELATED PHYSICAL ACTIVITY		LEISURE/ SPARE TIME RELATED PHYSICAL ACTIVITY		
MODERATE Intensity Activities Makes you breathe somewhat harder than normal	VIGOROUS Intensity Activities Makes you breathe much harder than normal	MODERATE Intensity Activities Makes you breathe somewhat harder than normal	VIGOROUS Intensity Activities Makes you breathe much harder than normal	
Examples: Cleaning (vacuuming, mopping, polishing, scrubbing, sweeping, ironing) Washing (beating and brushing carpets, wringing clothes (by hand) Gardening Milking cows (by hand) Planting and harvesting crops Digging dry soil (with spade) Weaving Woodwork (chiselling, sawing softwood) Mixing cement (with shovel) Labouring (pushing loaded wheelbarrow, operating jackhammer) Walking with load on head Drawing water Tending animals	Examples: Forestry (cutting, chopping, carrying wood) Sawing hardwood Ploughing Cutting crops (sugar cane) Gardening (digging) Grinding (with pestle) Labouring (shovelling sand) Loading furniture (stoves, fridge) Instructing spinning (fitness) Instructing sports aerobics Sorting postal parcels (fast pace) Cycle rickshaw driving	Examples:  • Cycling  • Jogging  • Dancing  • Horse-riding  • Tai chi  • Yoga  • Pilates  • Low-impact aerobics  • Cricket	Examples Soccer Rugby Tennis High-impact aerobics Aqua aerobics Ballet dancing Fast swimming	

Part 5: The STEPS Instrument Section 3: Show Cards Last Updated: 12 June 2008 5-3-8 WHO STEPS Surveillance

# Annex 3

# Diet (typical fruit and vegetables and serving sizes)

For use with

This show card relates to:

Step	Section	Items
Step 1, diet	D	D1 to D4

VEGETABLES are considered to be:	1 Serving =	Examples
Raw green leafy vegetables	1 cup	Spinach, salad, etc.
Other vegetables, cooked or chopped raw	½ cup	Tomatoes, carrots, pumpkin, corn, Chinese cabbage, fresh beans, onion, etc.
Vegetable juice	½ cup	

FRUIT Is considered to be:	1 Serving =	Examples
Apple, banana, orange	1 medium size piece	
Chopped, cooked, canned fruit	½ cup	
Fruit juice	½ cup	Juice from fruit, not artificially flavoured

Serving size

One standard serving = 80 grams (translated into different units of cups depending on type of vegetable and standard cup measures available in the country).

Note: Tubers such as potatoes and cassava should not be included.

Part 5: The STEPS Instrument Section 3: Show Cards Last Updated: 12 June 2008 5-3-7 WHO STEPS Surveillance Adolescents constitute an important proportion of the population in the Region. Attention has been drawn to their health and development with the recognition that addressing adolescent health needs requires different approaches than for other population groups. *Core indicators for adolescent health: a regional guide* proposes a list of core indicators to assist in clarifiying adolescent health needs and in collecting evidence, in order to guide policy and strategy development and planning, and to design tailored interventions and services and monitor progress. It provides standard definitions of the indicators, methods and periodicity of their calculation, as well as responsibilities and possible sources of information. This publication is part of an adolescent health package comprising a set of tools to support decision-makers in situation analysis and in planning and monitoring adloescent health programmes and activities at country level.