

# Module 2

## Adolescent Health Concerns: A Public Health Approach In Planning For Adolescent Health & Development

## Module 2: Introduction

Adolescents are in the transition from childhood to adulthood. In promoting healthy adolescence and adulthood, their health and development should be evidence based that have the potential the greatest positive impact.

The objectives of this module are set to examine the adolescent demography, mortality and morbidity in order to identify the health needs of adolescents and young adults.

## Module 2: Introduction (Con't)

It includes the access to and analyse available epidemiological data at a national and local levels regarding adolescent mortality, morbidity, self reported health status and needs, and access to health care.

As a consequence, specific interventions and policy to promote adolescent health and development can be addressed.

# Module 2 : Learning Objectives

Upon completion of this module, learners will be able to:

1. Identify available and vital epidemiological data at national and local levels regarding adolescent morbidity and mortality.
2. Demonstrate proficiency in analyzing crucial epidemiological data, choosing priorities for interventions, and disseminating it on adolescent health issues.
3. Identify key people/institutions and target groups who should receive information about adolescent health, and recognize the best format for providing the appropriate information.

# Learning Objective

1

Identify available and vital epidemiological data at national and local levels regarding adolescent morbidity and mortality

# 1. Epidemiological data

Epidemiology can be described as the “basic science” of prevention.

By understanding the basic epidemiologic concepts and of the possible interpretation of the findings of epidemiologic studies, we would be able to identify populations at increased risk, ascertaining the cause of their increased risk, and analyzing the costs and benefits of eliminating or minimizing exposure to the causal factors.

# 1. Epidemiological data (Con't)

Although epidemiologic studies generally address the relationship between an environmental exposure and the risk of developing a disease, rigorous assessment of each variable is critical for obtaining comprehensive and reliable findings.

Ideally, it seems most appealing to protect the entire population from any amount of risk. However, it is unrealistic and difficult to accomplish. Therefore, the health care policy makers have to balance between what can be done and what should be done.

# 1. Epidemiological data (Con't)

The level of priority for the elimination of all risk and the decision of what percentage of risk should be eliminated are not only scientific decision including political, economical and ethical context, but also depend on societal values and other considerations (Gordis, 2000).

## 2. Vital epidemiological data

It includes:

- demographic data
- mortality data
- morbidity data
- access to, and use of, health facilities
- national /regional surveys regarding health status, resources, problems and needs, including self-reported data

### 3. Adolescent morbidity and mortality

#### Definition of morbidity

**It is the prevalence of a specific illness in the population at a particular time. The statistics of morbidity are generally presented as rates per 1000 population. Unlike mortality, morbidity is difficult to define and may denote acute illness, chronic disease, or disability.**

### 3. Adolescent morbidity and mortality

#### Definition of morbidity (Con't)

**Source of data also influences statistics.**

**Common sources include reasons for visits to physicians, diagnoses for hospital admission, or household interviews such as the National Health Interview Survey (NHIS), Child Health Supplement. Unlike death rates, which are updated annually, morbidity statistics are revised less frequently and do not necessarily represent the general population. (Wong & Hockenberry, 2003)**

### 3. Adolescent morbidity and mortality

#### Definition of mortality

**It is the incidence or number of individuals who have died over a specific period. They are usually presented as rates per 100,000.**

**Mortality rates are calculated from a sample of death certificates. (Fry & Yuen, 1994)**

# 4. Epidemiological data on adolescent health

Epidemiological data in the field of adolescent health:

- a. Provide data on the global magnitude of selected priority health problems affecting adolescents and young adults.
- b. Analyze important data for current and future investment in adolescent health and development.

# 5. Where to search for data?

- Population statistics for denominators of rates
- Frequency of health events (morbidity and mortality data)
- Exposure for hypothesized causal factors or events
- Linkage data that permit researchers to track individual study subjects over time

## 6. Why we need to understand and study the epidemiological data of adolescence?

Some useful concepts are essential to the principles and methods of epidemiology. Understanding these concepts enables the health care professional to interpret the epidemiological studies and to apply this information in their practice. Three crucial concepts are discussed as follow:

1. Natural history of disease including the agent, environment and host and disease process
2. Level of prevention including primary, secondary and tertiary prevention
3. Causality including statistical and causal relationships

## 6. Why we need to understand and study the epidemiological data of adolescence?

### (Con't)

**Epidemiological data of adolescent growth and development is important to understand because:**

- ♦ **it can be used as surveillance of the health status of population.**
- ♦ **it can help us to identify the risk groups. After identifying these risk groups, we can provide appropriate interventions.**

# Learning Objective

2

Demonstrate proficiency in analyzing crucial epidemiological data, choosing priorities for interventions, and disseminating it on adolescent health issues

# 1. Main issues on Adolescent Health and Development

According to a survey conducted by WHO (2002) entitled Overview of Adolescent Health and Development (ADH) in 16 countries in Western Pacific Region, the main issues on adolescent health and development that they most concerned were:

- ◆ reproductive health (HIV/AIDS/STIs),
- ◆ nutrition problems (obesity),
- ◆ traffic accidents,
- ◆ suicide & self-injury, and
- ◆ substance abuse including alcohol, tobacco and other drugs.

## 2. How to select domains and issues?

Successful planning of health care services is dependent on two main factors including the availability of accurate and adequate information; and the implementation of strategies for evaluating the effectiveness and outcomes of the adolescent services.

- ♥ Taking into account all the available epidemiological data (including self-reported data), identify key issues in the field of adolescent health.
- ♥ Identify gaps and areas for improvement in the health care of adolescents, where effective action can be taken.
- ♥ Identify specific groups of adolescents who have 'special needs' or require special intervention (i.e lower socioeconomic status, immigrants)

### 3. Some Crucial Concepts in Epidemiology for Public Health Planning

**Every community has patterns of functioning or community dynamics, which either contribute to or detract from its state of health. The health care professionals must have knowledge of these patterns in order to anticipate community responses to health action and to influence the direction of health programming.**

**Without this knowledge, it is difficult to effect change and promote healthy adolescence and adulthood in your countries. It is essential for health care professionals to have an understanding of community dynamics, because health action occurs in the community.**

# Adolescent Morbidity And Mortality

- For industrialized and developing countries alike, patterns of adolescent mortality and morbidity are increasingly similar;
- The major cause of declining mortality is the reducing of juvenile vehicular deaths;
- The primary causes of mortality remain violence related: unintentional injuries, homicide and war, suicide;
- Males are between two and four times more likely to die in adolescence than females;
- Mortality tends to decline between ages 1 and 14, however, the trend reverses at age 15 suggesting behavioral etiologies worldwide to juvenile mortality.

# Adolescent Morbidity And Mortality

Diseases particular to young people	Diseases and unhealthy behaviours which affect young people disproportionately	Diseases which manifest themselves primarily in young people but originate in childhood	Diseases and unhealthy behaviours of young people whose major implications are on the young person's future health	Diseases which affect young people less than children, but more than adults
<p><b>Diseases:</b></p> <ul style="list-style-type: none"> <li>▪ Disorders of secondary sexual development</li> <li>▪ Difficulties with psycho-social development</li> <li>▪ Sub-optimal adolescent growth spurt</li> </ul>	<p><b>Diseases:</b></p> <ul style="list-style-type: none"> <li>▪ Maternal mortality and morbidity</li> <li>▪ STIs (including HIV)</li> <li>▪ Tuberculosis</li> <li>▪ Schistosomiasis</li> <li>▪ Intestinal helminths</li> <li>▪ Mental disorders</li> </ul> <p><b>Behaviours:</b></p> <ul style="list-style-type: none"> <li>▪ Alcohol use</li> <li>▪ Other substance abuse</li> <li>▪ Injuries</li> </ul>	<p><b>Diseases:</b></p> <ul style="list-style-type: none"> <li>▪ Chagas disease</li> <li>▪ Rheumatic heart disease</li> <li>▪ Polio</li> </ul>	<p><b>Diseases:</b></p> <ul style="list-style-type: none"> <li>▪ STIS (including HIV)</li> <li>▪ Leprosy</li> <li>▪ Dental disease</li> </ul> <p><b>Behaviours:</b></p> <ul style="list-style-type: none"> <li>▪ Tobacco use</li> <li>▪ Poor diet</li> <li>▪ Lack of exercise</li> <li>▪ Unsafe sexual practices</li> </ul>	<p><b>Diseases:</b></p> <ul style="list-style-type: none"> <li>▪ Malnutrition</li> <li>▪ Malaria</li> <li>▪ Gastroenteritis</li> <li>▪ Acute respiratory infections</li> </ul>

# Learning Objective

3

Identify key people/institutions and key target groups who should receive information about adolescent health, and recognize the best format for providing the appropriate information.

# 1. Dissemination of Epidemiological Data for Health Care Services Planning

**Epidemiological data provide accurate and adequate information for the planning health care services. The health care professionals should develop appropriate methods for the dissemination of public health data such as media interviews, leaflets, conferences etc.**

# 1. Dissemination of Epidemiological Data for Health Care Services Planning (Con't)

Develop appropriate methods for the dissemination of public health data such as media interviews, leaflets, conferences etc.

The stakeholders such as politicians, decision makers, public health officers, physicians, nurses, psychologists, social workers, educators, lawyers, teachers, parents and young people themselves.

## 2. Health Planning and Evaluation

It focuses on epidemiology considerations for the planning and evaluation of health activities, services, or programs.

In the planning and evaluation of health activities, excess or unusual morbidity and mortality may be viewed as problems.

## 2. Health Planning and Evaluation (Con't)

- ❖ **A clinic nurse may be concerned about the problem of non-compliance with prescribed therapy among hypertensives.**
- ❖ **A staff nurse may be concerned about the problem of an increase in nosocomial infections in the unit.**
- ❖ **A hospital administrator may be concerned about an unusual suicide rate among hospital staff.**
- ❖ **A public health nurse may be faced with the problems of unusually high rates of alcohol-related fatalities or of an increase in childhood infectious diseases.**

## 2. Health Planning and Evaluation (Con't)

The following figure provides a discussion of the cyclic nature of planning and evaluation, a brief overview of the planning and evaluation process, followed by a more thorough discussion of planning and evaluation that should incorporate epidemiological principles and methods.

## 2. Health Planning and Evaluation (Con't)

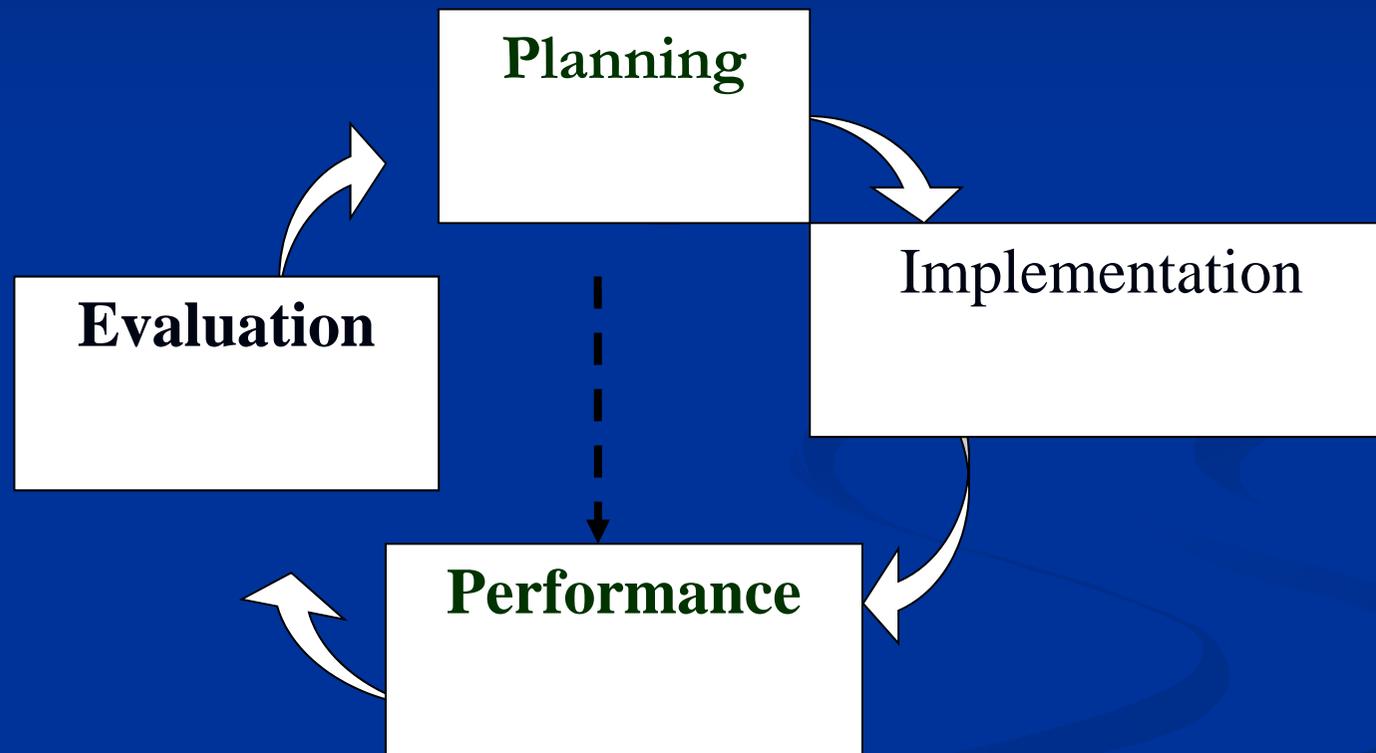


Figure 1. Relationship of Planning and Evaluation

## 2. Health Planning and Evaluation (Con't)

As one planning/evaluation cycle is completed, a second planning effort should occur. Planning at this stage considers any problems from the previous cycle that were identified during the evaluation.

New information that becomes available during evaluation may lead to major or minor program changes. In some instances, it may be necessary to do additional research to verify or determine the causes of any new problems that become apparent as a result of evaluation.

# Learning Objective

4

Describe the public health implications related to the special characteristics of adolescence

# Meaning of adolescence and its implications for public health planning

- **Consideration of morality rates alone has resulted in young people being seen as a healthy age group, and this has led to their being accorded a low priority for health related interventions. Morbidity statistics reported by health services also tend to show low rates among young people. Thus, the health and health-related behavior of young people are important to public health planning.**

# Meaning of adolescence and its implications for public health planning

## (Con't)

Learning Objective

4

- The diseases and health-related behaviours which are important problems in young people in developing countries can be classified into five broad categories:
  - ◆ those which are particular to young people;
  - ◆ those which affect young people disproportionately;
  - ◆ those which manifest themselves primarily in young people but originate in childhood;
  - ◆ those whose major health implications are on the young person's future health;
  - ◆ and problems which affect young people less than children, but more than adults.

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## Module 2: Summary

Planning health care services demands a great emphasis on the development of good information systems and on appropriate health need and health gain measures.

Therefore, epidemiological data play an important role of providing evidences to guide the strategic planning of health services, including the role of nursing and other health care professionals.

# References

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