

# Teacher's Guidebook

**Laying the Foundation of Healthy Lifestyles  
among School Children**



**World Health  
Organization**

Regional Office for South-East Asia

# 1 Introduction

Today, noncommunicable diseases (NCDs) such as cardiovascular (heart) diseases, cancer, chronic lung diseases and diabetes pose an enormous health risk for children, their families and their communities. These NCDs are not caused by germs or bugs—they are caused by unhealthy lifestyles that result from the negative aspects of globalization, mass consumerism and market forces.

Aggressive and attractive marketing campaigns by global “fast food” companies have led to an increased demand for processed/unhealthy foods by consumers today. Unfortunately, a sizeable proportion of this marketing targets the young population who are in an impressionable age group. Tobacco smoking and the consumption of “junk” food and alcohol are aggressively promoted among children and adolescents.

Alongside this absence of healthy eating is the absence of daily physical activity. In many cities across the developing world, rapid and unplanned urbanization with little or no opportunities or facilities for physical activity, combined with a culture of 24X7 television, further encourages an inactive lifestyle among school children. This increases the risk of developing NCDs at a later age. Many poor eating habits and poor lifestyle behaviours are formed in childhood and adolescence. Hence, schools and school teachers have an important role to play, in addition to families, in laying a foundation for healthy living and a more active lifestyle.

This guidebook provides key information about NCDs and their risk factors, and how schools can help in promoting healthier lifestyles among school children.



# 2 About Noncommunicable Diseases (NCDs)



NCDs were the number one killers causing 36 million deaths in 2008, or two thirds of all deaths worldwide. Four types of NCDs – cardiovascular (heart) diseases, cancers, chronic lung diseases and diabetes – contribute to the majority of these deaths. What’s more, many people die prematurely of NCDs in their productive years (below 60 years of age). This death toll is likely to worsen. In the South-East Asia Region (SEAR), NCDs cause an estimated 7.9 million deaths each year and this number is expected to further increase by 21% over the coming decade. Most NCDs are strongly linked with four modifiable risky behaviours – tobacco use, unhealthy diet, physical inactivity and the harmful use of alcohol. The good news is that the majority of illnesses and deaths due to NCDs can be avoided by preventing and controlling these common risk behaviours.

- ▶ **Cardiovascular diseases (CVDs)** refer to a group of diseases involving the heart and blood vessels. The major cardiovascular diseases are hypertensive heart disease, coronary heart disease and stroke.
- ▶ **Cancer** refers to the rapid and uncontrolled growth of abnormal cells in a part of the body. These cells outlive normal cells and have the ability to spread to other organs. The most common cancers in SEAR are lung cancer in men, and cancers of the breast and cervix in women.

# 3 About NCD Risk Factors

- ▶ **Diabetes** is a group of diseases marked by high levels of blood glucose resulting from defects in insulin production, insulin action, or both. Over time, uncontrolled diabetes seriously damages many of the body's systems, especially the nerves and blood vessels, and thus affects the heart, kidney, eyes, lower limbs, feet, and most other organs. This ultimately results in premature death.
- ▶ **Chronic lung diseases, including asthma** refer to long-standing diseases of the air passages of the lungs that interfere with normal breathing.



## 1 Unhealthy diet:

An unhealthy diet consists of a low intake of fresh fruits and vegetables, and a higher intake of processed foods rich in salt, sugar, saturated fats and trans-fats. Eating fresh fruit and vegetables (at least five servings per day) helps in reducing the risk for cardiovascular (heart) diseases, stomach cancer and colorectal cancer.

High salt consumption is an important risk factor for high blood pressure and heart disease. The WHO-recommended intake of salt per day for disease prevention is less than 5 g/day (or sodium 2.3 g/day). This translates to less than 1 teaspoon of salt per day.

The consumption of foods high in fats and sugars leads to overweight and obesity; important risk factors for cancer, cardiovascular (heart) disease and diabetes. High consumption of saturated fats is also linked to heart disease. Trans-fats, also known as trans-fatty acids (TFA), are the most dangerous type of dietary fats – even more harmful than saturated fats. Trans-fats increase bad cholesterol, which damages the heart and blood vessels, and reduce good cholesterol. Foods that contain trans-fats include most types of margarine, many deep-fried foods, many fast foods, crackers and most store-bought baked and packaged snack foods. Trans-fats are associated with sudden cardiac deaths and increase the risk of diabetes.

**2****Insufficient Physical Activity:**

Approximately 3.2 million people die each year globally due to lack of regular physical activity. Overweight and obesity, which are caused by physical inactivity and poor diet, can increase one's risk for asthma, arthritis, blood pressure, cardiovascular (heart) disease, some cancers, diabetes, high cholesterol and premature death.

Regular physical activity reduces the risk of developing these NCDs. It also promotes mental health and helps to reduce depression. Healthy children and young persons between five and 17 years of age should have at least 60 minutes of moderate- to vigorous-intensity physical activity every day, ranging from walking, running, swimming to playing sports such as football, cricket and tennis.

**3****Tobacco use:**

Tobacco is used in both smokeless (chewing) and smoking forms. Tobacco use damages the body immediately and is harmful even if one uses them for a short period of time.

Smoking tobacco is by far the most popular form globally and cigarettes, on average, contain over 4000 chemicals, of which 50 are known to cause cancer. Smoking is estimated to cause about 71% of all lung cancer cases; 42% of chronic respiratory diseases and nearly 10% of all cardiovascular (heart) diseases. Almost 6 million people die from tobacco use each year, both from direct tobacco use and second-hand smoke (smoke inhaled when someone else is smoking nearby). By 2020, this number will increase to 7.5 million, accounting for 10% of all deaths. Second-hand smoke also has serious and often fatal health consequences, as it contains the same harmful cancer-causing chemicals.

Smokeless tobacco – such as *paan masala*, *gutkha* and snus – is consumed in unburnt forms through chewing or sniffing and

contains several carcinogenic, or cancer-causing, compounds. Smokeless tobacco products have been associated with heart disease, high blood pressure, oral cancer and other life-threatening conditions.

**4****Harmful use of alcohol:**

Alcohol is a potentially addictive substance with severe health and social consequences when taken in excess. Globally, approximately 2.3 million people die each year from the harmful use of alcohol.



# 4 Promoting Healthy Lifestyles Among School Children

Establishing healthy behaviours during childhood is easier and more effective than trying to change unhealthy behaviours during adulthood. Schools play a critical role in promoting the health and safety of young people, and helping them to establish lifelong healthy behaviour patterns. Schools should help students to learn the basic skills needed to make good choices about their health, recognize and manage risky situations, learn to resist peer pressure, and take greater responsibility for their actions.

Peer pressure has a strong influence during childhood and adolescence, especially when it comes to experimenting with alcohol and tobacco products. Mixed messages about the risks of alcohol and tobacco, and the desire to conform to their peers and “be cool” can overcome initial reluctance among children to try these harmful substances. Seeing parents and older role models using these substances may also trigger a desire in children to try alcohol and tobacco.

To promote healthy lifestyles among children, it is imperative that school staff and school leaders act as role models for healthy behaviour patterns. In addition, schools can conduct several general and specific activities as follows:



#### 4.1 General school activities to promote healthy lifestyles among children:

- ▶ Provide a favourable environment for practising healthy lifestyle choices. Reward students for adopting healthy lifestyles.
- ▶ Teach students about the power and impact of advertising, with an emphasis on food marketing, and misleading tobacco and alcohol advertisements. Armed with this greater knowledge, children will hopefully be less influenced by “cool” advertisements of junk foods, sugary beverages, tobacco and alcohol.
- ▶ Send parents a list of healthy snacks/menus that children can bring to lunch and classroom parties.
- ▶ Commemorate specific health dates, as per the calendar of WHO health dates, by organizing student rallies; debates; poetry, drawing and essay-writing competitions; theme-based games; quiz contests and dramas/role-plays to enact positive health messages. Schools could also create a campaign with the theme of promoting healthy lifestyles and sponsor a contest for the best student campaign activity/poster/slogan. They could also conduct various activities to reduce NCD risk factors and inculcate healthy lifestyle behaviours.

Calendar Of Health Dates		
World No Tobacco Day <b>31 May</b>	World Heart Day <b>29 September</b>	World Stroke Day <b>29 October</b>
World Diabetes Day <b>14 November</b>	World Cancer Day <b>4 February</b>	World COPD Day Held on the second or third Wednesday of <b>November</b> each year

- ▶ Encourage “skits and sketches” to imitate celebrities who are health conscious and arrange to invite such celebrities/athletes for talks and interactions with students.
- ▶ Organize regular parent–teacher meetings to educate parents about the importance of a healthy diet; the benefits of physical activity; the addictive and harmful nature of tobacco and alcohol; and how parents can act as positive role models for their children. Set up an online quiz for students by creating a school website with interesting information on healthy diets and the harmful effects of junk foods, sugary beverages, and tobacco and alcohol use. To encourage the maximum number of students to participate in the quiz, make a rule that when a student participates in a quiz, the student’s name is placed in a prize draw with gift vouchers, book tokens, footballs and other prizes for the lucky winners.
- ▶ Introduce a monthly e-newsletter on the promotion of healthy lifestyles and encourage students to contribute with write-ups on the efforts they took at school/home and in their neighbourhoods to promote healthy lifestyles. The best write-ups can be rewarded or read out during the morning assembly. The newsletter can also contain write-ups from parents so as to facilitate parent–child teamwork in adopting healthy lifestyles.
- ▶ Hand out family quizzes on tobacco and alcohol to provide an opportunity for parents to discuss various aspects of tobacco and alcohol misuse with their children.
- ▶ Identify students who use tobacco, are affected by alcohol misuse, or those who may be vulnerable to these substances. The school and staff should help and support these children, either in the school itself or through links with local harm reduction organizations.

## 4.2 Specific activities for individual risk factors:

### 4.2.1 School activities to promote healthy diet:

- ▶ Design and deliver policies that promote healthy diet, for example:
  - ▶ Ensure the availability of healthy food choices in the school cafeteria.
  - ▶ Do not permit junk food rich in sugar, saturated fats and trans-fats, and excessive salt on the school premises.
  - ▶ Subsidize vegetables and fruits in the school cafeteria.
- ▶ Educate students and parents about healthy eating, both in the school and at homes, particularly:
  - ▶ Educate and encourage the students to eat more fresh fruits and vegetables (at least five servings of fruits and vegetables per day), and include more legumes, whole grains and nuts in their diets. They should also be asked to limit their intake of sugar, junk food, fried food and sugary drinks.
  - ▶ Educate students about limiting the intake of sodium by reducing the amount of salt added to food. The total daily intake of salt or sodium chloride from all sources should be no more than 5 g per day (1 teaspoon). Inform them that many processed foods are already high in sodium.
  - ▶ Encourage the elimination/reduction of trans-fats in their diets. It is recommended that the intake of trans-fats should be less than 2 g per day.
- ▶ Organize cookery demonstration classes to promote healthy cooking and provide the students with opportunities to sample foods that are tasty despite being low in fat, sodium and added sugars, and high in vitamins, minerals and fibre. Organize recipe competitions that spare the salt.

- ▶ Conduct creative nutrition education activities, essay competitions, crossword puzzles, quiz contests, skits, drawing competitions and designing of posters, flip charts, flash cards and postcards highlighting the benefits of healthy food choices and healthy lifestyle choices and the consequences of not doing so.
- ▶ Control the types and quality of foods sold by street vendors and fast-food restaurants near schools.

### 4.2.2 School activities to promote physical activity:

- ▶ Provide students with physical and social environments that encourage and enable physical activity. Schools can allow access to their sports facilities before and after school hours, and during vacations.
- ▶ Ensure time for organized physical activity and free play. Offer students of all skill levels an equal chance to participate in these games and sports. Include adequate time for physical education classes in the weekly timetable.
- ▶ Build physical activities into the classroom lessons. Help answer simple math problems, for example, by doing jumping jacks. During recess, give students the chance to have unstructured physical activity and to practise what they learn in the physical education class.
- ▶ Plan fitness breaks: for example, periodic 5-minute aerobic activities to break up the school day or class.
- ▶ Provide students with a wide choice of activities such as football, basketball, cricket, dancing, walking, skipping, water aerobics, running, hiking, swimming, tennis and bicycling.
- ▶ Provide extracurricular physical activity programmes. Interested teachers and parents might be encouraged to develop a range of sporting activities of a competitive or non-competitive nature.

- ▶ Encourage and enable parental involvement in physical activity. Schools can help encourage activity in the parents by sending home activity homework that parents and children can do together, providing tips to reduce the time spent on watching TV at home, sponsoring parent–child activity programmes at school and recruiting parent volunteers for physical education classes.
- ▶ Invite visits to the school by athletes and other celebrity role models who are physically fit.
- ▶ Encourage Walk-and-Bike-to School programmes.
- ▶ Give away prizes and awards in the form of footballs, volleyballs, skipping ropes or indoor basketball hoops to reinforce physical activity.

#### 4.2.3 School activities to prevent tobacco use:

- ▶ Create a Best Student Award for raising awareness against tobacco.
- ▶ Educate and emphasize that no tobacco product is safe. The harmful ingredients in tobacco products affect people of all ages as soon as they begin to use tobacco. They should also be made aware that products that claim to be “low-tar”, “naturally grown”, or “additive-free” are, nonetheless, harmful to health.
- ▶ If you know that a student uses tobacco, encourage and support him/her to quit tobacco use immediately.
- ▶ For all school age groups, it is necessary to emphasize that tobacco use makes it difficult to look and feel good – smoking causes premature wrinkling of the skin, bad breath, bad-smelling clothes and hair, and yellow-stained fingernails. Smoking can damage the lungs and reduce the oxygen available for the muscles used during sports. Smokers suffer from shortness of breath almost three times more often than non-smokers; they run slower and cannot run long distances,

thereby affecting their overall athletic performance. In short, if one ever uses tobacco it will be impossible for him/her to be a successful athlete.

- ▶ Facilitate discussions on peer pressure-led experimentation with tobacco; the fatal and addictive nature of tobacco; ways to quit and remain a non-user, and ways to handle and prevent a relapse.
- ▶ Conduct brainstorming exercises to identify the toxic constituents of smoked and smokeless tobacco products; help students identify the organs affected by tobacco through the development of posters/flash cards/flip charts, etc. Give students assignments for creating posters on the numerous harmful substances found in cigarettes, *paan masala*, *gutkha* and various other tobacco-containing products.
- ▶ Remind students about misleading tobacco advertisements through posters. Students should be made aware of the various marketing and media strategies used by the tobacco industry to encourage tobacco use.
- ▶ Senior students can play a crucial role in advocating for the creation of a tobacco-free school and smoke-free public places, lobbying for tobacco control legislation, enforcement of the ban on tobacco advertising, promotion and sponsorship; ban on the sale of tobacco products to minors and taxation of tobacco products. Thus, they will also become anti-tobacco role models for their peers.

#### 4.2.4 School activities to prevent harmful use of alcohol:

- ▶ Alcohol education should start in primary schools because the youngsters should know about the dangers of alcohol before they experience it for themselves. Students should be educated about the harmful effects of alcohol misuse and the effects of alcohol misuse on family, community and wider society.
- ▶ Students should also be encouraged to form their own opinions through classroom debates and discussions.
- ▶ Raise awareness of how drinking alcohol can lead to binge drinking and the adoption of risky behaviours such as criminal behaviour, experimenting with illegal drugs, having underage and unsafe sex and tobacco use.
- ▶ Assign students to develop alcohol awareness leaflets and design alcohol awareness projects. Encourage them to write on alcohol misuse and its harm in the school newsletter/essay competitions. Conduct role plays/dramas on alcoholism and the serious medical, economic and social consequences.



