



# WORLD HEALTH ORGANIZATION

FIFTY-SIXTH WORLD HEALTH ASSEMBLY  
Provisional agenda item 10

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## Ministerial round tables

### Healthy environments for children

#### INTRODUCTION

1. A substantial proportion of the global burden of disease is associated with environmental risk factors, and over 40% of this burden falls on children under five years of age. The home, the school, and the local community should be healthy places where children can thrive, protected from disease. However, more than 5 million children from 0 to 14 years old die every year from diseases associated with the environments in which they live, learn and play.
2. Children are particularly vulnerable to environmental hazards because they are constantly growing, and consume more food, air and water than adults do in proportion to their weight. Their immune, reproductive, digestive and central nervous systems are still developing and they spend their time closer to the ground where dust and chemicals accumulate. Children can also be exposed to harmful environmental hazards before birth, for instance through maternal intake of tobacco smoke and other substances. Exposure to environmental risks at early stages of development can lead to irreversible, long-term, often lifelong mental and physical damage.

#### HEALTH AND ENVIRONMENT RISKS

3. The risks to children in their everyday environments are numerous. Six groups of environment and health issues stand out to be tackled as a priority: household water security, hygiene and sanitation, air pollution (including indoor air pollution and environmental tobacco smoke), vector-borne diseases, chemical hazards (for example lead and the unsafe use of pesticides), and unintentional injuries. These risks exacerbate the effects of economic underdevelopment and they cause the bulk of environment-related deaths and disease among children, particularly those living in poor communities and countries.

#### Household water security and sanitation

4. In 2000, it was estimated that 1100 million people lacked access to an improved water source (the vast majority in rural areas), and 2400 million people lacked access to any type of improved sanitation facilities (with access being worst in Asia and Africa, where 31% and 48% of the rural populations, respectively, do not have access to adequate sanitation facilities). The most common ill-health condition associated with contaminated water and lack of sanitation is diarrhoea, which in 2001 killed 1.35 million children (almost 13% of the total deaths of children under five years of age in

developing countries), and which is the second biggest cause of child mortality in the world. Other infectious diseases with similar patterns of transmission include hepatitis A and E, cholera and typhoid. Harmful chemicals at high levels in drinking-water such as lead and arsenic also pose health hazards.

### **Air pollution**

5. Air pollution is a major environment-related health threat to children and a risk factor for both acute and chronic respiratory disease as well as other diseases. Indoor air pollution (for example from cooking and heating with biomass fuels, or coal) is a major factor associated with acute respiratory infections in both rural and urban areas of developing countries. Around two million children under five years of age die every year from acute respiratory infections. In the industrialized world (and in many developing countries as well), poor indoor environments are often characterized by reduced ventilation, high moisture, the presence of biological agents such as moulds, and a range of chemicals present in furnishing and construction materials. Outdoor air pollution, mainly from traffic and industrial processes, remains a serious problem in cities throughout the world, particularly in the ever-expanding megacities of developing countries. It is estimated that one-quarter of the world's population is exposed to unhealthy concentrations of air pollutants, such as particulate matter, sulphur dioxide and other pollutants. About 50% of children are exposed at home to tobacco smoke, placing them at increased risk for several conditions.

### **Disease vectors**

6. Many vector-borne diseases pose a specific threat to children's health. For example, the overwhelming majority of deaths from malaria are among children. Eighty-five percent of the global malaria burden is concentrated in sub-Saharan Africa, with just under one million deaths in 2001, mainly of children under five years old in the African Region. Other vector-borne diseases threatening children include lymphatic filariasis, schistosomiasis, Japanese encephalitis, leishmaniasis, and dengue fever.

### **Chemical hazards**

7. As a result of the increased production and use of chemicals, a multitude of chemical hazards is nowadays present in many children's homes, schools, playgrounds and communities. About 50 000 children, aged from 0 to 14 years old, die every year as a result of unintentional poisoning. Pesticides unsafely used, stored and disposed of, and other chemical products can become dangerous if they are accessible by children. Chronic childhood exposure to various pollutants in the environment is linked to damage to the nervous and immune systems, and to effects on reproductive function and on development that become apparent in adulthood.

### **Unintentional injuries**

8. Unintentional injuries include road traffic injuries, poisonings, falls, burns and drowning. In 2001, an estimated 685 000 children under the age of 15 years were killed by such unintentional injuries. Worldwide, the two leading causes of death from unintentional injury among children are road traffic injuries and drowning. Nearly 80% of all children's deaths from unintentional injuries are among children in the Africa, South-East Asia and Western Pacific regions.

## **THE SETTINGS APPROACH: ADDRESSING MULTIPLE RISKS**

9. Children are often exposed not just to one risk factor at a time but to several simultaneously. Poverty is often the underlying common determinant of several risks. Children at risk frequently live in unsafe and crowded settlements, in underserved rural areas or in slums, on the edges of cities, in areas which lack access to basic services such as water and sanitation, electricity, or health care. They are likely to be exposed to industrial and vehicle pollution as well as to indoor air pollution and to unsafe chemicals. They are more likely to be undernourished, causing them to be more vulnerable to environmental threats.

10. Tackling the risks to children's health in the places where they spend their time focuses the action on the range of environmental risk factors faced by the children. This means taking a holistic approach, and improving the settings where children grow up. Key settings for children include the places where they live, learn, play, and sometimes work – the home, the school and the community. While health risks in these settings are complex, they are often interconnected and need intersectoral responses. A settings approach highlights the links and actions needed.

11. The home environment should provide protection against exposure to disease agents and vectors. However, housing location, and a variety of housing characteristics may themselves expose inhabitants to a variety of physical and biological agents and risk factors which can negatively affect human health. For example, children may live in unhealthy settlements on the periphery of major cities, on floodplains or steep hillsides, near sources of traffic, industrial activity, solid waste dumps or close to vector breeding sites. Housing sites without access to a safe water source, or which lack basic sanitation or hand-washing facilities place inhabitants at risk of ill-health conditions like diarrhoea. Within the household, children's health may also be influenced by the safety or otherwise of activities such as the storage and preparation of food, the collection and disposal of wastes, and the use of household chemicals.

12. Unhealthy housing conditions include exposure to building materials which contain toxic substances such as lead-based paint or asbestos, or the use of inflammable materials or unsafe electrical wiring, which increases the risks of injuries. A "leaky" house can lead to dampness and mould which may result in various forms of respiratory illness and allergic reactions. Poor heating or lighting influences physical and mental health. Inadequate ventilation or overcrowding increases exposure to different pollutants and pathogens, including indoor air pollution, which can result from cooking and heating with dirty household fuels (biomass or coal for example), and exacerbates respiratory illnesses – as does exposure to second-hand tobacco smoke. Poor building design may also have a negative impact on health. For example, houses with inadequate insect screening permit exposure to disease vectors such as mosquitoes.

13. Interventions to promote cleaner indoor air provide health benefits that extend beyond the expected benefits of reducing respiratory illnesses. For example, an improved stove programme can reduce indoor air pollution, and it may also reduce the incidence of burns and injuries associated with open fires. It may reduce the physical toll on women and children from gathering wood, in addition to freeing time for their education and development. Interventions may be particularly successful if they are multi-faceted. In this case, emphasis should also be placed on improving ventilation, especially in cooking areas, and using cleaner fuels, together with protecting children from exposure to second-hand tobacco smoke.

14. Interventions to protect children from water-related risks include extending access to the "unserved". Ensuring safe water storage, and treatment, if necessary, can reduce water contamination.

Effective action for improved hygiene and sanitation includes interventions to promote hand-washing, the proper management of household wastes, and education on the storing and handling of food.

15. Relatively modest interventions can reduce the risk of vector-borne disease. Malaria, for example, can be reduced through the use of insecticide-treated bednets and the screening of windows, doors and eaves. To protect children against chemical hazards, actions should be taken to ensure safe storage, packaging, and clear labelling of cleaners, fuels, solvents, pesticides and other chemicals used in homes and in schools. Effective interventions also may result from legislation to promote the safe use and disposal of chemicals, including the use of “child-proof” containers. Public awareness campaigns on injury prevention may catalyse effective action on these and related challenges.

16. In the school setting, the environment includes the school building and all its contents, the site on which a school is located, and the surrounding environment including air, water, nearby land uses, roadways and other hazards, as well as materials with which children may come into contact. Provision of safe water and food, sanitation and shelter are basic necessities for a healthy physical learning environment. Equally important is protection from biological, physical and chemical risks that can threaten children’s health. At school, children may encounter inadequate sanitation facilities or contaminated food and water that can result in diarrhoeal disease. Adequate and separate latrines for boys and girls can encourage latrine use and thus reduce disease transmission. Other hazards children face include the physical risks associated with poor construction and maintenance practices, and exposure to excessive levels of noise.

## **INTERSECTORAL COLLABORATION**

17. Identifying the central risk factors in the local environment can be achieved most effectively through the wide participation of community members (for example parents, teachers, health and social workers) and a variety of different government sectors such as housing, energy, water, or planning. Intersectoral approaches can only be effective if those involved – the different government departments and the members of the community – work together in a truly integrated, multisectoral partnership. These partners can help to develop and implement priority action plans and improve access to clean water, control insect vectors, and create smoke-free public spaces and schools.

18. The concept has been applied to cities, islands, villages/communities, schools, marketplaces, and workplaces in pilot projects. The key to success is the establishment of more effective working relationships between the health sector and other sectors.

19. Policy-makers and decision-makers, local authorities, mayors, schools, nongovernmental organizations, civil society groups, health or social workers, the private sector and others all play important roles in heightening awareness of the importance of healthy environments for children. They can help to mobilize the will and the tools necessary to create healthy environments for children, by:

- Strengthening the evidence-base;
- Producing sound guidelines and strategies for action;
- Launching education and public outreach campaigns;
- Advocating and lobbying for action.

## **THE HEALTHY ENVIRONMENTS FOR CHILDREN ALLIANCE**

20. In order to galvanize global advocacy and national action, a new worldwide alliance was launched at the World Summit on Sustainable Development, in Johannesburg, September 2002: The Healthy Environments for Children Alliance.

21. The Healthy Environments for Children Alliance offers a practical way for countries to address the three pillars of sustainable development: environmental, economic and social. While the emphasis here is mainly on the environment, progress and sustainability demand that equivalent attention be given to simultaneously strengthening the economic and social pillars.

22. This major new initiative aims to stimulate coordinated action to tackle major environment and poverty-related risks to children's health. It will work through inclusive, participatory and action-oriented efforts within local communities and at national and global levels. It will focus on ways of tackling the environmental risks to children's health in the settings where they live, learn and play, and sometimes, work. The Alliance's aims are: to ensure advocacy and awareness raising; to provide knowledge, information exchange and expertise for decision-making; to promote effective policies and action, at all levels, in all sectors; to support countries and communities in creating and maintaining healthy environments for children; and to monitor and evaluate progress.

23. Country and community-level actions will be an essential element in the work of the Alliance. Members of the Alliance will work together to encourage a groundswell of action through many sectors, facilitating the initiation of national and local movements, and providing support to countries and sectors to build national and local capacities in creating and maintaining healthy environments for children. Pilot projects will be used as the basis for developing programmes and projects on healthy environments for children and to demonstrate different ways in which risks to children's health can be addressed. The Alliance will target action areas in which it can make the most difference and add value. A major initial emphasis will be on the relatively neglected home environment, where young people spend the majority of their time, and where risks interact and expose children to a range of ill-health conditions.

## **SUGGESTED DISCUSSION POINTS**

- What are the major environmentally-related health risks to children in your country (which are of special significance in the home, school and neighbourhood environments)?
- What essential interventions (including policy interventions) would you recommend, that have been successful in addressing children's environmental health issues in your country?
- What do you recommend should be the role of the health sector in addressing these problems? What is the role of other sectors such as water, environment, housing, planning?
- What do you suggest needs to be done by the health sector to improve intersectoral collaboration between government departments, nongovernmental organizations and the private sector in order to more effectively create and safeguard healthy environments for children?

- What have been the major constraints and obstacles to achieving success/implementation? Is there sufficient institutional and human resource capacity? What do you recommend should be done to improve this?
- What is the role of national versus local government in your country in addressing such problems?
- Could you share your experience of successful advocacy and communications approaches from prior involvement in creating healthy environments for children in your country? Please suggest recommendations in this regard [Ministers are encouraged to illustrate their interventions and responses with photographs, text, and video, which may be projected as they speak. World Health Day events may be highlighted in this context]
- What role should WHO play in facilitating action to ensure Healthy Environments for Children at all levels and in all sectors?

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