

WHO-Facts Sheet

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1. THE ENVIRONMENT: WHERE'S THE RISK, AND WHERE ARE CHILDREN SAFE?

World Health Organization publishes first-ever Atlas of Children's Health and the Environment

Around the world, polluted air and water and other environment-related hazards kill more than three million children under the age of five every year.

While industrialization, urban population growth, climate change, the increasing use of chemicals and environmental degradation expose children to risks that were unimagined a few generations ago, it is the old and largely understood basic threats that are still today responsible for killing most children: factors such as unsafe water, lack of sanitation, malaria and indoor air pollution.

Just 10% of the world's population is under five years of age, yet 40% of the environment-related disease burden falls on children in this age group. This is partly because they have a higher intake of harmful substances in relation to body weight, and partly because they have less strength and knowledge to protect themselves.

To illustrate the impact of the environment on children's health, the World Health Organization (WHO) is launching the first-ever Atlas of Children's Environmental Health and the Environment. Presented at the Fourth European Conference of Health and Environment Ministers in Budapest, Hungary, this book brings together a range of facts about the effects of environmental risks to our children's health, which, when taken together, paints a graphic picture of the hazards we all face and the reasons for over three million annual deaths in children under age five worldwide.

"Children are the main sufferers of environmental hazards. It is unacceptable from every point of view that the most vulnerable members of a society should be the ones who pay the price for failures to protect health from environmental dangers," said Dr LEE Jong-wook, WHO Director-General, on the occasion of the launch.

The United Nations Millennium Declaration calls on governments to reduce by two-thirds the under-five mortality rate by 2015. This may be one of the most ambitious goals. "This is a wake-up call for us and for the world. The number of child deaths is alarming. It paints a dismal picture of neglect. We must face up to reality and act now to work towards a sustainable and brighter future," said Dr Kerstin Leitner, WHO Assistant Director-General for Sustainable Development and Healthy Environments.

Extensively illustrated, the Atlas clearly demonstrates the threats children face everywhere. It underscores the impact of poverty on children's health and the efforts needed to tackle environmental problems. It also discusses the relationship, interlinkages, and impact of the environment on the health of our children. While this crisis cannot be ignored and demands urgent action, success stories show a way forward for the world to make sure that our children will inherit a safer planet and a brighter future.

Health and the environment - some Atlas facts:

- Unclean water causes diarrhea, which kills an estimated 1.8 million people worldwide each year, 1.6 million of whom are children under five. It's also responsible for many diseases including cholera, dysentery, guinea worm, typhoid and intestinal worms.
- 86% of all urban wastewater in Latin America and the Caribbean, and 65% of all wastewater in

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Asia, is discharged untreated into rivers, lakes and oceans.

- The Ganges River alone has 1.1 million litres of raw sewage dumped into it every minute, a startling figure considering that one gram of faeces in untreated water may contain 10 million viruses, one million bacteria, 1000 parasite cysts and a hundred worm eggs. Diseases which result, include diarrhoea, cholera, dysentery, typhoid, guinea worm, intestinal worms and trachoma.
- Nearly one million children die each year from diseases caused by air pollution inside their own homes. Over 75% of households in most Asian and African countries cook with solid fuels, such as wood, dung, coal or crop waste, which produce a black smoke that, when inhaled, may give rise to, or worsen pneumonia and other respiratory infections.

The Atlas is available on the internet at <http://www.who.int/ceh>

CD-ROM on Children, Environment and Health

WHO has also launched the first WHO global e-library on children's health and environment on June 22nd, this year. This "Budapest Collection" is made up of more than 100 documents concerning the effect on children's health of environmental risk factors (outdoor and indoor air pollution, water and sanitation, chemicals, injuries, food safety and nutrition, global climate change, socioeconomic determinants and tobacco); the documents were published by WHO Headquarters and its six Regional Offices between the Third Ministerial Conference on Environment and Health in London in 1999 and the Fourth Ministerial Conference taking place now in Budapest.

At the Third Ministerial Conference, Europe's Ministers of Health and Environment recognized the special vulnerability of children to environmental threats and committed to developing policies, which would provide children with safe and healthy environments. Following this, a number of monographs, reports, journal articles have been produced which are now inserted in the Budapest Collection.

"This worldwide product represents an essential tool for policy-makers and scientists, providing multidisciplinary insights into how to reduce the impact of the environment on children's health," said Dr Roberto Bertolini, Director of Health Determinants, WHO Regional Office for Europe.

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2. NEW GUIDELINES ON PREVENTING MOTHER TO CHILD TRANSMISSION OF HIV

The World Health Organization (WHO) has published new guidelines underlining the effectiveness of antiretroviral drugs to prevent the transmission of HIV from seropositive mothers to their children. These guidelines take into account the most recent information on the safety and effectiveness of different drug regimens, as well as concerns over resistance to some of the drugs used, including nevirapine.

These are the key recommendations contained in the guidelines - *Antiretroviral Drugs for Treating Pregnant Women and Preventing HIV Infection in Infants*:

- Women who need antiretroviral treatment for their own health should receive it in accordance with the WHO guidelines on antiretroviral treatment. The use of antiretroviral treatment, when indicated, during pregnancy substantially benefits the health of the woman and decreases the risk of HIV transmission to the infant.
- HIV-infected pregnant women who do not have indications for antiretroviral treatment, or do not have access to treatment should be offered antiretroviral prophylaxis to prevent mother to child transmission of HIV using one of several antiretroviral regimens known to be safe and effective:
- Zidovudine from 28 weeks of pregnancy plus single-dose nevirapine during labour and single-dose nevirapine and one-week zidovudine for the infant. This regimen is highly efficacious, as is initiating zidovudine later in pregnancy.
- Alternative regimens based on zidovudine alone, short-course zidovudine + lamivudine or single-dose nevirapine alone are also recommended.
- Although expanding access to programs to prevent mother to child transmission presents many challenges and single-dose maternal and infant nevirapine is the simplest regimen to deliver, programs should consider introducing one of the other recommended regimens where possible. The expansion of programs to prevent mother to child transmission using single-dose nevirapine should not be hindered while necessary improvements in health systems are taking place to enable more complex antiretroviral regimens to be delivered.

The guidelines also refer to the issue of drug resistance. Drug resistance linked to short-course regimens to prevent mother to child transmission that do not fully suppress the virus has been known

since early 2000. Programs to prevent mother to child transmission and treat AIDS are rapidly expanding and antenatal clinics are able to identify more women who are HIV positive. Since these women are all expected to eventually require treatment, potential resistance has become a far greater concern.

However, concerns about resistance need to be balanced with the simplicity and practicality of delivering single-dose nevirapine compared with other regimens. Antiretroviral prophylaxis using single-dose maternal and infant nevirapine remains a practical alternative when provision of more effective regimens are not feasible. Progress in implementing programmes to prevent mother to child transmission based on single-dose maternal and infant nevirapine or other short-course regimens should not be undermined.

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3. NEW WHO GUIDELINES TO PROMOTE PROPER USE OF ALTERNATIVE MEDICINES

Adverse Drug Reactions to Alternative Medicines have more than Doubled in Three Years

Since traditional, complementary and alternative medicines remain largely unregulated, consumers worldwide need to be informed and given the tools to access appropriate, safe and effective treatment. To help address this issue, the World Health Organization (WHO) released a new set of guidelines for national health authorities to develop context specific and reliable information for consumer use of alternative medicines.

Up to 80% of developing country populations rely on traditional medicine for their primary health care, due to cultural tradition or lack of alternatives. In wealthy countries, many people seek out various types of natural remedies on the assumption that natural means safe.

However, as the use of traditional or alternative medicines increases, so do reports of adverse reactions. In China, a country where traditional therapies and products are widely used in parallel with conventional medicine, there were 9854 known reported cases of adverse drug reactions in 2002 alone, up from 4000 between 1990 and 1999.

Many traditional/alternative medicine products are sold over the counter. In a WHO survey of 142 countries, 99 responded that most of these products could be bought without prescription. In 39 countries, many traditional remedies were used for self-medication, bought or prepared by friends

acquaintances or the patient. These trends raise concerns over the quality of the products used, their therapeutic appropriateness for a given condition, and the lack of medical follow-up.

"WHO supports traditional and alternative medicines when these have demonstrated benefits for the patient and minimal risks," said Dr LEE Jong-wook, Director-General of WHO. "But as more people use these medicines, governments should have the tools to ensure all stakeholders have the best information about their benefits and their risks."

Accessible, easy to understand information is key to guiding consumers in their choices. The guidelines provide simple, easy to follow tips on issues to look out for and a brief checklist of basic questions which may be used to help facilitate proper use of traditional and alternative medicine.

Advice is provided to government authorities on preparing easy-to-access information and on working with the mass media to sensitize and educate the population. In addition, suggestions are given for several health system structures and processes needed to promote proper use of traditional and alternative medicines.

While the guidelines cannot compensate for poor products or inappropriate practices, they can help governments educate consumers on how to maximize the benefits and minimize the risks of traditional medicines.

Alternative therapies - documented benefits and risks

Empirical and scientific evidence exists to support the benefits of acupuncture, manual therapies and several medicinal plants for chronic or mild conditions. For instance, the effectiveness of acupuncture, a popular treatment for relieving pain, has been demonstrated both through numerous clinical trials and laboratory experiments. As a result, 90% of pain clinics in the United Kingdom and 70% in Germany include acupuncture as a form of treatment. Equally, some medicinal plants have shown efficacy for life-threatening conditions; medicine combinations containing the Chinese herb *Artemisia annua* are now considered amongst the most effective remedies against malaria.

However, there have been many cases of consumers unknowingly using suspect or counterfeit products; choosing inappropriate therapies in self-care; as well as several reports of unintentional overdose.

Similarly, there have been reports of consumers being injured by unqualified practitioners. For example, a study performed by the National Research Institute on Complementary and

Alternative Medicine in Norway reported cases of pneumothorax caused by unqualified acupuncturists. In addition, there have been reports of paralysis caused by unqualified manual therapists.

Another potential risk is that patients do not inform their doctors about their use of traditional and complementary medicines. For instance, Ginkgo biloba is a popularly used herbal medicine worldwide whose main function is to prevent vascular disease and to increase blood circulation. The WHO Uppsala Monitoring Centre reported some cases of excess bleeding during a surgical operation. If the patient had informed the doctor about the use of the medicine this could have been avoided.

The development of the guidelines, based on evidence and experiences collected from 102 countries representing all WHO regions, was carried out with the financial and technical support of the Regional Government of Lombardy, in collaboration with the State University of Milan.

WHO guidelines on developing consumer information on proper use of traditional, complementary and alternative medicines

Policies governments could put in place

- Make sure that sufficient information is provided to consumers on the efficacy and safety of products as well as contraindications
- Set up the right channels for consumers to report adverse drug reactions and make those channels known
- Organize communication campaigns to equip consumers with the ability to discern the quality of the service they receive
- Ensure that practitioners are appropriately qualified and registered
- Encourage interaction between traditional and conventional practitioners
- Provide insurance for non-conventional therapies and products whose evidence base is sound.

Health system structures and processes that would help promote better quality and safety

- Development of quality standards and treatment guidelines to ensure uniformity within a particular health system
- Standardization of training and knowledge requirements for practitioners to promote the credibility of traditional or alternative practices and enhance consumer trust
- Collaboration between conventional and traditional or complementary care providers to improve results of treatment but also promote health sector reform

- Organization of traditional or alternative medicine practitioners to provide better structures for self-control mechanisms.

Questions consumers should ask

- Is the therapy suitable for his/her disease or condition?
- Does the therapy have the potential to prevent, alleviate and/or cure symptoms or in other ways contribute to improved health and well-being for the consumer?
- Is the therapy or herbal medicines provided by a qualified traditional medicine/ complementary and alternative medicine practitioner (TM/CAM) or health care practitioner with adequate training background, good skills and knowledge, preferably registered and certified?
- Are the herbal medicinal products or materials of assured quality and what are the contraindications and precautions of the products or materials?
- Are the therapies or herbal medicinal products available at a competitive price?

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4. ENCOURAGE INCREASED FRUIT AND VEGETABLE CONSUMPTION

Boosting fruit and vegetable consumption can help address global epidemics of obesity and noncommunicable diseases, says WHO

Introduction: Promoting fruit and vegetable consumption around the world

Fruit and vegetables are important components of a healthy diet, and their sufficient daily consumption could help prevent major diseases such as cardiovascular diseases and certain cancers. Overall, it is estimated that up to 2.7 million lives could potentially be saved each year if fruit and vegetable consumption were sufficiently increased. A recently published WHO/FAO report recommends the intake of a minimum of 400 g of fruit and vegetables per day (excluding potatoes and other starchy tubers) for the prevention of chronic diseases such as heart disease, cancer, diabetes and obesity as well as for the prevention and alleviation of several micronutrient deficiencies, especially in less developed countries. There is increasing scientific evidence that low fruit and vegetable intake is a key risk factor for several noncommunicable diseases, therefore WHO is planning an initiative which will actively promote increased consumption of fruit and vegetables.

The 4th International "5 A Day" Symposium held at New Zealand from August 9-10 brought health professionals, nongovernmental organizations, retailers and producer industry representatives together to strengthen initiatives worldwide to increase fruit and vegetable consumption. Key issues included the need for effective programs to address the international epidemic of overweight and obesity, and strengthening public-private partnerships to promote fruit and vegetables.

The theme of this year's event was "From Farm to Plate: Globalizing 5-A-Day to Increase Fruit and Vegetable Consumption Worldwide." This year, special attention will focus on encouraging countries in the Asia/Pacific region to develop new 5-A-Day-type initiatives, such as public-private retail partnerships with supermarkets.

"5 A Day" is as an international program designed to encourage fruit and vegetable consumption, with the specific goal of encouraging all women, children and men to consume at least five servings of fruit and vegetables every day.

"WHO works across the entire spectrum of nutritional health problems, from malnutrition to obesity," said Dr Catherine Le Galès Camus, WHO's Assistant-Director General, Non-communicable Diseases & Mental Health. "As well as helping prevent chronic non-communicable diseases (NCDs) such as cardiovascular diseases, diabetes and some cancers, adequate fruit and vegetable intake also helps reduce nutritional deficiencies and increases resistance to infectious diseases.

The World Health Assembly recently adopted the WHO Global Strategy on Diet, Physical Activity and Health, which provides countries with a strong foundation for improving all aspects of nutrition. 5-A-Day-type programs make a positive contribution to the Strategy's goals by encouraging multi-sectoral collaboration to increase fruit and vegetable consumption."

The World Health Report 2002 attributes at least 2.7 million deaths globally each year to low fruit and vegetable intake. Chronic diseases now make up 60% of deaths and 49% of the global disease burden. Already, 79% of these diseases are occurring in developing countries. In addition, globally there are more than one billion adults overweight — at least 300 million of them obese. There are an estimated 171 million people with diabetes worldwide, a figure likely to double by 2030. In developing countries, the number of people with diabetes is expected to increase by 150% in the next 25 years. High intake of fruit and vegetables as part of a healthy diet can make an important contribution to preventing chronic NCDs and their risk factors.

"WHO is actively promoting the increased consumption of fruit and vegetables," said Dr Robert Beaglehole, WHO Director for Chronic Diseases and Health Promotion. "We are partnering with the Food and Agricultural Organization of the United Nations in this area and will be continuing to strengthen our work with all stakeholders to boost fruit and vegetable consumption for all sections of the community." Dr Beaglehole also welcomed the participation of an increasing number of small island and developing nations to this year's 5-A-Day symposium. Attendance by developing countries increased from two countries last year, to 15.

The symposium examined ways to adapt the 5-A-Day fruit and vegetable promotion concept to different national realities in developing countries, and how to influence school, retail and workplace environments to increase fruit and vegetable consumption. Key messages included the importance of prevention in addressing chronic NCDs, and the role that 5-A-Day-type programs can play in influencing parental decisions and educating the young on healthy eating to instill life-long patterns.

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5. WHO REPORT REVEALS ECONOMIC COSTS OF INTERPERSONAL VIOLENCE

Violence devastates lives and also imposes major economic costs on societies around the world, some of which spend more than 4% of their Gross Domestic Product (GDP) on dealing with violence-related injuries. This and other findings are contained in a new report released lately by the World Health Organization (WHO) at the 7th World Conference on Injury Prevention and Safety Promotion from 6-9 June in Vienna, Austria.

The economic dimensions of interpersonal violence, a spin-off to WHO's 2002 World report on violence and health, compiles currently available information on the costs of violence against children, women and the elderly and among young people, including information on the cost-effectiveness of preventing violence.

1.6 million people die from violence around the world every year, and millions more are injured and suffer from physical, sexual, reproductive and mental health problems as a result. Violence is

among the leading causes of death for people aged 15-44 years, accounting for 14% of deaths among males and 7% of deaths among females. While most male victims of homicide are killed by strangers, almost half the women victims are killed by their current or former husbands or partners. In some countries the figure is as high as 70%. With regard to child abuse, studies from selected countries suggest that about 20% of women and 5-10% of men suffered sexual abuse as children.

Dr Catherine Le Galès-Camus, Assistant Director-General in charge of WHO's Cluster on Non-communicable Diseases and Mental Health, highlighted one of the key messages of The economic dimensions of interpersonal violence. "Beyond the very personal human tragedies associated with each and every case of violence, its consequences are extremely costly to society in economic terms. Responding to violence diverts billions of dollars away from education, social security, housing and recreation, into the essential but seemingly never-ending tasks of providing care for victims and criminal justice interventions for perpetrators."

For many parts of the world, particularly in developing countries, there is a lack of information about the direct costs of violence. "A major challenge in the years ahead will be to strengthen and support developing country research into the costs of interpersonal violence, and to feed the findings into policy-making and advocacy where it can reinforce arguments for prevention," added Dr Le Galès-Camus.

Of the total, the largest single component is adult criminality related to child abuse, calculated at an annual figure of US\$ 55.4 billion. With regard to juvenile crime, it is estimated that a typical crime committed by a juvenile results in US\$ 16, 600 to US\$ 17, 700 in costs to the victim, plus US\$ 44, 000 in costs to the criminal justice system. Studies also

indicate that between 56% and 80% of the costs of care of acute gun injuries were either directly paid by public financing or were not paid at all - in which case they were absorbed by the government and society in the form of uncompensated care financing and overall higher payment rates.

"The good news from this report on the economic dimensions of violence is that, according to the few cost-benefit studies that have been conducted, violence prevention is cost-effective", noted Dr Alexander Butchart, WHO Coordinator for Violence Prevention. In fact a number of studies from the United States estimate that providing graduation incentives for high-risk youth and parent training for new parents are, respectively, between seven- and five-times more cost-effective in preventing violence than investing in increased legal enforcement and incarceration. "While it would still need to be established if the same results will be obtained in developing countries, these findings suggest that violence prevention is not only good for health and safety, but also sound economics," added Dr Butchart.

WHO is actively involved in ongoing efforts to prevent interpersonal violence in all its forms, including child maltreatment, youth violence, intimate partner violence, sexual violence and elder abuse. WHO's Global Campaign for Violence Prevention, building on the momentum achieved through national events in nearly 50 countries, will use the new report to increase political commitment to supporting more research of the root causes and consequences of interpersonal violence and to establish evidence-based violence prevention programs and improved services for victims.

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