

WHO-Facts Sheet

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1. HEPATITIS E

Hepatitis is a general term meaning inflammation of the liver. Hepatitis is a disease that can be caused by a variety of different viruses such as hepatitis A, B, C, D and E. Since the development of jaundice is a characteristic feature of liver disease, a correct diagnosis can only be made by testing patients' blood.

Hepatitis E was not recognized as a distinct human disease until 1980. It is caused by infection with the hepatitis E virus, a single-stranded RNA virus.

Although humans are considered the natural host for human hepatitis E virus (HEV), antibodies to HEV or closely related viruses have been detected in primates and several other animal species suggesting that hepatitis E may be a zoonosis (i.e. a disease that animals can transmit to humans).

How is HEV transmitted?

Hepatitis E is a waterborne disease, and contaminated water or food supplies have been implicated in major outbreaks. Consumption of faecally contaminated drinking water has given rise to epidemics, and the ingestion of raw or uncooked shellfish has been the source of sporadic cases in endemic areas. There is a possibility of spread of the virus from animals, since several non-human primates, pigs, cows, sheep, goats and rodents are susceptible to infection. The risk factors for HEV infection are related to poor sanitation in large areas of the world.

Person-to-person transmission is thought to be uncommon. There is no evidence for sexual transmission or for transmission by transfusion.

Where is HEV a problem?

Epidemics of hepatitis E have been reported in Central and South-East Asia, North and West

Africa, and in Mexico, especially where faecal contamination of drinking water is common. However, sporadic cases of hepatitis E have also been reported elsewhere and serological surveys suggest a global distribution of strains of hepatitis E which cause asymptomatic or mild disease (low pathogenicity).

When is a HEV infection life-threatening?

In general, hepatitis E is a self-limiting viral infection followed by recovery. Prolonged shedding of the virus in faeces is unusual and chronic infection does not occur.

Overall, patient population mortality rates range from 0.5% - 4.0%. Occasionally, a sudden and severe form of hepatitis develops in which cells of the liver die, the liver shrinks and death can follow. This form of the disease, known as fulminant hepatitis, occurs more frequently in pregnancy and is associated with a mortality rate of 20% among pregnant women in the 3rd trimester.

The disease

The incubation period following exposure to HEV ranges from three to eight weeks. The period during which an infected person can transmit the disease is unknown.

Typical signs and symptoms of hepatitis include jaundice (yellow discoloration of the skin and sclera of the eyes, dark urine and pale stools), anorexia (loss of appetite), an enlarged, tender liver (hepatomegaly), abdominal pain and tenderness, nausea and vomiting, and fever, although the disease may range in severity from mild to life-threatening.

Symptomatic HEV infection is most common in young adults aged 15-40 years. Although HEV infection is frequent in children, it is mostly asymptomatic or causes a very mild illness without jaundice that goes undiagnosed.

Diagnosis

Since cases of hepatitis E are not clinically distinguishable from other types of acute viral hepatitis, diagnosis is made by blood tests, which detect elevated antibody levels of specific antibodies to hepatitis E in the body, or by detecting small portions of genetic material through a test known as reverse transcriptase polymerase chain reaction (RT-PCR). Unfortunately, such tests are not widely available.

Hepatitis E should be suspected in outbreaks of waterborne hepatitis occurring in developing countries, especially if the disease is more severe in pregnant women, or if hepatitis A has been excluded. If laboratory tests are not available, epidemiologic evidence can help in establishing a diagnosis.

Vaccines

At present, no commercially available vaccines exist for the prevention of hepatitis E. However, several studies for the development of an effective vaccine against hepatitis E are in progress.

Prevention

As almost all HEV infections are spread by the faecal-oral route, good personal hygiene, high quality standards for public water supplies and proper disposal of sanitary waste are the most important public health interventions in the prevention of hepatitis E.

For travelers to highly endemic areas, the usual food and water hygiene precautions are recommended. These include avoiding drinking water and/or ice of unknown purity and eating uncooked shellfish, uncooked fruits or vegetables that are not peeled or prepared by the traveler.

Treatment

Hepatitis E is a viral disease, and as such, antibiotics are of no value in the treatment of the infection. There is no hyperimmune hepatitis E globulin available for pre- or post-exposure prophylaxis. HEV infections are usually self-limited, and hospitalization is generally not required. No available therapy is capable of altering the course of acute infection, and therefore prevention is the most effective approach against the disease.

Hospitalization is required for fulminant hepatitis and should be considered for infected pregnant women.

Guidelines for epidemic control

1. Identification of sources of infection
2. Identification of the population exposed to increased risk of infection
3. Elimination of common source of infection

4. Improvement of sanitary and hygienic practices to eliminate faecal contamination of food and water
5. Provision of safe water through chlorination of water supply

This fact sheet is based on the following document:

<http://www.who.int/emcocomments/hepatitis/docs/whocdscsredc200112.html/index.html>

For more information:

http://www.cdc.gov/ncidod/diseases/hepatitis/slideset/hep_e/slide_1.htm

2. INDOOR AIR POLLUTION - THE KILLER IN THE KITCHEN

The World Health Organization (WHO) and the United Nations Development Programme (UNDP) marked the World Rural Women's Day on 15 October 2004 by drawing attention to indoor air pollution - one of the major causes of death and disease in the world's poorest countries. While the millions of deaths from well-known communicable diseases often make headlines, indoor air pollution remains a silent and unreported killer. Rural women and children are the most at risk.

Thick acrid smoke rising from stoves and fires inside homes is associated with around 1.6 million deaths per year in developing countries - that's one life lost every 20 seconds to the killer in the kitchen.

Nearly half of the world continues to cook with solid fuels such as dung, wood, agricultural residues and coal. Smoke from burning these fuels gives off a poisonous cocktail of particles and chemicals that bypass the body's defences and more than doubles the risk of respiratory illnesses such as bronchitis and pneumonia.

The indoor concentration of health-damaging pollutants from a typical wood-fired cooking stove creates carbon monoxide and other noxious fumes at anywhere between seven and 500 times over the allowable limits (see table below).

Day in day out, and for hours at a time, rural women and their children in particular are subjected to levels of smoke in their homes that far exceed international safety standards. The World Energy Assessment (1) estimates that the amount of smoke from these fires is the equivalent of consuming two packs of cigarettes a day - and yet, these families are faced with what amounts to a non-choice - not cooking using these fuels, or not eating.

Rural women and their families also pay a high economic price for keeping the fire burning as they spend up to three mornings a week for collecting fuel such as wood. This perpetual toil denies poor rural women the chance to be more productive

through paid work that would raise their family's income, improve the standard of living and enhance their nutritional and health status.

So what can be done to put an end to indoor air pollution? Finding cleaner solutions is the main challenge. Gases, liquids and electricity are the main alternatives. Although today these energy sources derive mainly from fossil fuels, this need not be the case in the future when renewable energies may ease the pressure on natural ecosystems. Other steps include the recognition and action by governments, the aid community, civil society and other key actors that indoor smoke is a huge blight on the lives of rural women and their children.

Two years ago, at the World Summit on Sustainable Development (WSSD) in Johannesburg the Global Partnership for Clean Indoor Air was launched with the backing of WHO and the international community. As such, a growing network of experts and organizations are responding to the challenge by finding innovative and affordable solutions that deploy cleaner stoves, fuels and smoke hoods. Their implementation will require the development of viable and sustainable markets, as created through the Liquefied Petroleum Gas (LPG) Rural Energy Challenge for LPG delivery and consumption, a public-private partnership including UNDP, also established at the WSSD. But this is just the beginning. WHO recently published the first-ever comprehensive Atlas of Children's Environmental Health as a means of drawing attention to and increasing support for reducing indoor air pollution (and other environmental health issues). We need the same attention paid to this "killer in the kitchen" as is paid to other major killers.

1. The World Energy Assessment is a joint publication of UNDP, the UN Department for Economic & Social Affairs and the World Energy Council

Note: using 1 Kg of wood/hour in 15 ACH 40 m³ kitchens emits, among other pollutants, the following:

| Pollutant | Emission (mg/m ³) | Allowable standard (mg/m ³) |
|-----------------|----------------------------------|--|
| Carbon Monoxide | 150 | 10 |
| Particles | 3.3 | 0.1 |
| Benzene | 0.8 | 0.002 |
| 1,3-Butadiene | 0.15 | 0.0003 |
| Formaldehyde | 0.7 | 0.1 |

Source: Based on the UNDP/DESA/WEC World Energy Assessment

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3. STOPPING THE INVISIBLE EPIDEMIC OF MATERNAL DEATHS

WHO and Partners act to reduce the maternal death toll of half a million women each year

Every minute of every day, at least one woman in developing countries dies in childbirth — more than half a million each year. Currently, WHO and the Partnership for Safe Motherhood and Newborn Health are intensifying support to countries around the world to ensure that a woman does not die while giving birth to her child.

The needs are wide-ranging - from training skilled birth attendants who can help a woman give birth safely, to the very basic issue of recording the cause of a woman's death. WHO estimates that maternal deaths are under-reported by as much as 50% because deaths are not classified correctly, or more often, not counted at all. In 62 countries of the world, there are no maternal mortality data whatsoever.

"If dead women are not even counted, then it seems they do not count. We have an invisible epidemic," said Joy Phumaphi, World Health Organization's Assistant Director-General on Family and Community Health, at a gathering of health ministers, maternal health specialists, African Parliamentarians, leaders of non-governmental organizations and donor agencies today in Nairobi.

"Pregnancy is a normal, life-affirming state. Women should not die giving birth. Their deaths are preventable, even in the poorest countries. But it takes local knowledge, strength and partnership to ensure women's lives are saved."

While the main causes of maternal deaths are haemorrhage, infection, hypertensive disorders, obstructed labour and unsafe abortion, the fundamental reasons for the continuing crisis are unavailable, inaccessible, or poor quality care. The effects are tragically amplified, as some one million children are left motherless each year. These children are 10 times more likely to die in childhood than children whose mothers have not died.

Maternal mortality shows a stark divide between rich and poor countries. In some developing regions, a woman has a one in 16 chance of dying in pregnancy and childbirth. This compares with a one in 2800 risk for a woman from a developed region. Sub-saharan Africa and central

south Asia in particular suffer high rates of maternal death. The risk of dying in pregnancy in the world's poorest countries is over a hundred times higher than in the richest ones.

"Countries around the world have pledged to achieve the Millennium Development Goals, which include reducing maternal mortality by three quarters by 2015. One key task of the global health community is to close the gap in services for women in rich areas, and those in poor ones." said Joy Phumaphi.

"It is the duty of all governments to lead the fight against maternal and neonatal mortality," said First Lady of Kenya, Lucy Kibaki, who jointly chaired the Nairobi meeting. Praising the solidarity shown by the African parliamentarians present at the launch, Lady Lucy Kibaki added, "Only by joining forces can we achieve our common goals."

As part of its support, WHO is beginning worldwide training for health staff today. A new manual for health planners and providers, *Beyond the Numbers - Reviewing Maternal Deaths and Complications to Make Pregnancy Safer* is also available. The manual delves into the question of why women die from complications related to childbirth, and spells out how to avoid them by using effective and affordable methods, which can be implemented in even the poorest settings.

Beyond the Numbers is the new focus for WHO regional and country offices and partners from more than 20 regional and international agencies, including UNFPA, UNICEF and the World Bank. This program includes the training of health planners and providers in high-risk countries and regions in the use of five methods to gather information upon which to base actions: verbal autopsies, reviewing deaths in the community, health facility-based reviews, confidential inquiries, near-miss case reviews and clinical audit.

The implementation of this initiative is urgent, but requires more resources. US\$ 10 million are needed to train decision-makers, national health planners and medical service providers. This will take place in 20 high-priority countries. Funds will also be used to measure progress.

"Each time, such a gathering reminds us vividly of the loss of lives of those we cared for and our beloved ones. It is time for all of us to turn technical knowledge into action to save the lives of the women who give life," said Dr. Luc de Bernis, one of the authors of *Beyond the Numbers* from WHO.

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4. DEFINITIVE ATLAS ON GLOBAL HEART DISEASE AND STROKE EPIDEMIC

On 23 September 2004, the World Health Organization (WHO) launched in Geneva, the Atlas of Heart Disease and Stroke, graphically detailing a global epidemic that is the leading single cause of death worldwide, to coincide with World Heart Day, Sunday 26 September 2004. The Atlas is expected to provide a powerful advocacy tool to stimulate vital action and help promote constructive decision-making by governments, policymakers, national and international organizations, health professionals, individuals and families everywhere.

The Atlas was published in conjunction with the USA's Centers for Disease Control and Prevention (CDC) of the U.S. Department of Health and Human Services, and is strongly supported by NGOs such as the World Heart Federation (WHF).

Heart disease and stroke kill some 17 million people a year, which is almost one-third of all deaths globally. By 2020, heart disease and stroke will become the leading cause of both death and disability worldwide, with the number of fatalities projected to increase to over 20 million a year and by 2030 to over 24 million a year.

"The old stereotype of cardiovascular diseases affecting only stressed, overweight middle-aged men in developed countries no longer applies," said Dr Robert Beaglehole, WHO Director of Chronic Diseases and Health Promotion. "Today, men, women and children are at risk and 80% of the burden is in low- and middle-income countries. Heart disease and stroke not only take lives, but also cause an enormous economic burden. The Atlas should be a significant new resource for global advocacy and education activity."

Dr Judith Mackay, co-author of the Atlas with CDC's Dr George Mensah, said: "No matter what advances there are in high-technology medicine, the fundamental message is that any major reduction in deaths and disability from heart disease and stroke will come primarily from prevention, not just cure. This must involve robust reduction of risk factors, through encouraging our children to adopt healthy lifestyle habits and by introducing appropriate policies and intervention programmes."

For the first time in one publication, the Atlas captures updated data for each country, which is depicted through colourful maps, photographs and images and provides risk factor statistics for the occurrence of high blood pressure, tobacco, physical inactivity, obesity, lipids and diabetes. The diverse elements of this global epidemic including risk factors, similarities and differences between

countries, the economic burden, prevention, policies and legislation, treatment and predictions are chronicled. A world data table is also published for the first time and gives statistics for each country, including the number of healthy life years lost to heart disease and stroke, the prevalence of smoking and the status of policies and legislation.

“While heart disease and stroke are eminently preventable, decision-makers and government funding agencies are, overall, neglecting this public health issue,” said Janet Voûte, CEO, WHF, an NGO dedicated to the global prevention of heart disease and stroke. “The WHF strongly endorses the Atlas as a valuable resource for global advocacy and educational activity to fight the heart disease and stroke epidemic. We know how to reduce the burden of heart disease and stroke, but what is needed now is the combination of necessary resources and political will by each country to take effective action.”

The Atlas was launched to coincide with World Heart Day, which is a major driving force for encouraging global heart disease and stroke prevention. The focus this year is Children, Adolescents and Heart Disease, because children are increasingly adopting unhealthy lifestyles. Obesity, poor diets, smoking and physical inactivity, the leading causes of heart disease and stroke, are now being seen at an alarmingly early age. Around 100 countries will take part in this, the fifth annual, World Heart Day, with member societies organising educational activities for everyone to get involved. Thousands of people around the world will join one of the walks, runs, jump rope or fitness sessions, have a health check or learn about heart-healthy lifestyles from the public talks, scientific forums and exhibitions.

The Atlas of Heart Disease and Stroke is available in PDF format at: http://www.who.int/cardiovascular_diseases/resources/atlas/en/ and www.worldheart.org.

Overweight children are three to five times more likely to suffer a heart attack or stroke before they reach the age of 65 (Circulation 2004; 109: April 5) warns the World Heart Federation, an NGO dedicated to the prevention of heart disease and stroke, on World Heart Day, Sunday 26th September 2004.

The World Heart Federation's advice for heart healthy families is:

□ Increase consumption of fresh fruits and vegetables and decrease sugar and salt intake, for example by limiting sweets, soft drinks and manufactured snacks and using less salt when cooking.

□ Limit energy intake from total fats and shift fat consumption away from saturated fats such as butter, palm and coconut oils to unsaturated fats such as spreads. Eliminate foods that contain trans fats, as they are particularly harmful to heart health.

□ It is good to breastfeed your baby as long as you can.

□ Prepare meals that are well-balanced and high in nutrients and include whole grains, lean meat and fish. Bake or steam instead of frying.

□ Make exercise a part of your life. Enjoy at least 30 minutes of activity that raises your heartbeat each day and encourage children to participate in sports groups.

□ If you are a smoker, try to quit or avoid smoking in the presence of your children - allow them to live in a smoke-free environment. Discuss the impact of tobacco on health with your children before they are faced with making their own decisions about smoking and warn them about the marketing tactics of the tobacco industry

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5. SUICIDE HUGE BUT A PREVENTABLE PUBLIC HEALTH PROBLEM, SAYS WHO

World Suicide Prevention Day - 10 September, 2004

Suicide is a huge but largely preventable public health problem, causing almost half of all violent deaths and resulting in almost one million fatalities every year, as well as economic costs in the billions of dollars, says the World Health Organization (WHO). Estimates suggest fatalities could rise to 1.5 million by 2020. Following its successful launch last year, World Suicide Prevention Day, a collaboration between WHO and the International Association for Suicide Prevention (IASP), was held on 10 September to focus attention and call for global action.

“For every suicide death there are scores of family and friends whose lives are devastated emotionally, socially and economically,” says Dr Catherine Le Galés-Camus, WHO Assistant-Director General, Noncommunicable Diseases and Mental Health. “Suicide is a tragic global public health problem. Worldwide, more people die from suicide than from all homicides and wars combined. There is an urgent need for coordinated and intensified global action to prevent this needless toll.”

Globally, suicides represent 1.4% of the Global Burden of Disease, but the losses extend much further. In the Western Pacific Region they account for 2.5% of all economic losses due to diseases. In most European countries, the number of suicides is larger than annual traffic fatalities. In 2001 the yearly global toll from suicide exceeded the number of deaths by homicide (500 000) and war (230 000).

Among countries reporting suicide, the highest rates are found in Eastern Europe and the lowest are found mostly in Latin America, in Muslim countries and in a few of the Asian countries. There is little information on suicide from African countries. There are estimated to be 10-20 times the number of deaths in failed suicide attempts, resulting in injury, hospitalization, emotional and mental trauma, although no reliable data is available on its full extent. Rates tend to increase with age, but there has recently been an alarming increase in suicidal behaviours amongst young people aged 15 to 25 years, worldwide. With the exception of rural China, more men than women commit suicide, although in most places more women than men attempt suicide.

WHO held a special seminar on suicide prevention in Geneva, addressed by Dr Le Galés-Camus; Dr Benedetto Saraceno, Director, WHO Department of Mental Health and Substance Abuse; Professor Lars Mehlum, President of IASP and Professor at the University of Oslo; Ms Sohini Banerjee, a researcher from Calcutta, India; Mr Mark Milton, President of the South-African based International Federation of Telephone Emergency Services (IFOTES), and Reverend Cosette Odier, Chaplain, Centre Hospitalier Universitaire Vaudois.

Suicidal behaviour has a large number of complex underlying causes, including poverty, unemployment, loss of loved ones, arguments, breakdown in relationships and legal or work-related problems. A family history of suicide, as well as alcohol and drug abuse, and childhood abuse, social isolation and some mental disorders including depression and schizophrenia, also play a central role in a large number of suicides. Physical illness and disabling pain can also increase suicide risks.

"It's important to realise that suicide is preventable," says Professor Mehlum, "And that having access to the means of suicide is both an important risk factor and determinant of suicide."

The most common methods are pesticides, firearms and medication, such as painkillers, which can be toxic when consumed in excessive amounts. One recent breakthrough was the move by many

pharmaceutical companies to market painkillers in blister packs rather than more easily accessible bottles, which had a significant impact on their use as a suicide method.

Currently attention is focused on encouraging a reduction in access to pesticides and encouraging enhanced surveillance, training and community action on their use, for example, safer storage, and proper dilutions. Pesticides are an especially common cause of suicide deaths in rural regions of China. Restrictions on access to firearms have been associated with a decrease in their use for suicide in some countries.

Protective factors include high self-esteem and social "connectedness", especially with family and friends, having social support, being in a stable relationship, and religious or spiritual commitment. Early identification and appropriate treatment of mental disorders is an important preventive strategy. There is also evidence that educating primary health care personnel in the identification and treatment of people with mood disorders may result in a reduction of suicides amongst those at-risk, as it has been documented in countries such as Finland and in the United Kingdom. Interventions based on the principle of connectedness and easy access to help such as Samaritan-type help lines, and telephone check-up programmes on the elderly, have provided encouraging results. In addition, psychosocial interventions, suicide prevention centres and school-based preventions, are all promising strategies.

WHO has produced, with the assistance of experts from around the world, a series of guidelines for different audiences that have a critical role in suicide prevention, including health workers, teachers, prison officers, media professionals and survivors of suicide. These resources are now available in more than a dozen languages.

"Evidence also suggests that media reporting can encourage imitation suicides and we would urge that the media show sensitivity in its reporting on these tragic and frequently avoidable deaths," says Dr Saraceno. "The media can also play a major role in reducing stigma and discrimination associated with suicidal behaviours and mental disorders."

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