

Developing countries face safe blood shortage

Stricter quality checks for blood transfusions and more blood donors are needed in developing countries, said experts from WHO on World Blood Donor Day on 14 June. Whilst celebrations took place in many cities around the world to mark the contributions made by voluntary blood donors everywhere, the overwhelming majority of the world's population — 82% — does not have access to safe blood. Most of these live in regions with the heaviest burdens of disease where an adequate, safe supply of blood is in constant need.

“A sufficient, safe blood supply is a key part of an effective health care system and essential for disease prevention,” said WHO Director-General, Dr LEE Jong-wook. “In our work to increase access to treatment for people living with AIDS around the world, safe blood is a crucial part of our prevention and care strategy.”

Many developing countries still rely on blood from family replacement or paid donors and in these countries, the seroprevalence in donors for transfusion-transmissible infections such as HIV, hepatitis B and C, and syphilis, is much higher than in countries with voluntary, unpaid donation.

An adequate supply of safe blood requires a pool of healthy, regular, voluntary donors who give blood without financial or other reward. According to WHO, research has shown that donors who give blood voluntarily are the safest donors. However, a recent WHO survey shows that only 39 of 178 countries have 100% voluntary, unpaid blood donation. The survey also showed that 20 countries in the world do not have 100% screening for HIV and 24 do not have 100% screening for hepatitis B, 37 for hepatitis C and 24 for syphilis. A number of countries do not screen at all for these infections.

In spite of the poor figures, there are strategies in place to address the problem of blood safety in some countries such as South Africa and Zimbabwe. Zimbabwe's Pledge 25 encourages school leavers to pledge to give blood 25 times before they are 25, while also committing to leading healthy lives in order to keep their blood safe. The initiative saw HIV infection rates among blood donors drop from 4.45% in 1989 to 0.61% in 2001.

The shortage of safe blood is compounded by the shortage of donors in developing countries — where that blood is needed most. Of the estimated 81 million units of blood donated every year around the world, only 39% comes from developing countries, contributing to a global blood shortfall of around 40 million units a year. Despite efforts to rectify this imbalance, the average number of blood donations has not improved significantly in developing countries — it remains around 12 times higher in industrialized countries than in developed countries, according to WHO.

Most countries still lack a nationally coordinated blood transfusion service and rely on voluntary blood donor organizations which have been set up in over 50 countries. According to Daniela Bagozzi from WHO's department of Health Technology and Pharmaceuticals, these organizations play a key role in blood donor recruitment and retention through peer education and promotion. ■

Unhealthy environments a major threat to young children

The first-ever Atlas of Children's Health, published by WHO on 22 June, attributes the annual deaths of more than three million children under the age of five to environment-related hazards such as unsafe water and sanitation, indoor and outdoor air pollution and climate change. Whilst only 10% of the world's population is under five years old, 40% of the environment-related disease burden falls on children in this age group.

The illustrated *Atlas of children's environmental health and the environment*, launched during the Fourth European Conference of Health and Environment Ministers in Budapest, Hungary, aims to illustrate the impact of the environment on children's health. According to the *Atlas*, diarrhoea which is often caused

by unclean water, kills an estimated 1.8 million people worldwide every year, 1.6 million of whom are children under the age of five.

“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 WHO Director-General, Dr LEE Jong-wook, during the launch.

It is hoped that the facts contained in the publication will draw attention to the urgent need for a more effective response to the United Nations Millennium Declaration which calls on governments to reduce by two-thirds the under-five mortality rate by 2015.

“This is a wake-up call for us and for the world,” said Dr Kerstin Leitner, WHO Assistant Director-General for Sustainable Development and Healthy Environments. “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.”

The Ganges River in India was highlighted as a major environmental hazard — 1.1 million litres of raw sewage are dumped into it every minute. This represents a significant risk in the light of the fact that one gram of faeces in untreated water may contain 10 million viruses, one million bacteria, 1000 parasite cysts and a hundred worm eggs, according to WHO. In Asia, 65% of all wastewater is discharged untreated into rivers, lakes and oceans.

Other major environmental hazards included the black smoke produced by cooking with solid fuels such as wood, dung, coal or crop waste — a method used by over 75% of households in most Asian and African countries. This puts children and others at risk of respiratory infections and may worsen pre-existing health problems such as pneumonia. ■

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