



50%

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GLOBAL CHILD DEATHS REDUCED BY HALF SINCE 1990

A recent report, published by several organizations (UNICEF, WHO, World Bank Group, and UN-DESA Population Division) concluded that 6.6 million children died globally, before the age of five, in 2012. This equates to 18,000 children per day. That may seem astonishingly high. However, the same report also indicated that this is approximately half of the under-fives who died in 1990, with a total of 12 million. Malnutrition is currently linked to half of the deaths occurring in this age-group. Important direct causes of death include pneumonia, prematurity, birth asphyxia, diarrhoea and malaria. Interestingly, five countries contribute about half of the deaths in this age group: China, Democratic Republic of Congo, India, Nigeria, and Pakistan. The overall reduction in mortality seems promising, even though it still remains insufficient to reach Millennium Development Goal 4, which aims to reduce the under-five mortality rate by two-thirds between 1990 and 2015.

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NEED FOR UNBANKED, DIRECT BLOOD TRANSFUSIONS IN INDIA'S RURAL AND TRIBAL AREAS

The majority of India's licensed blood banks are located in urban areas. The need for unbanked, direct blood transfusion is urgent in rural and tribal areas. Due to poverty, patients in these rural areas are rarely able to access the urban area's blood banks, even in cases of emergency. Despite this fact, the use of direct blood transfusions on patients has been illegal in India since 1999. Many surgeons and health activists have called on the government to legalize this practice due to the intense need. The process of unbanked blood transfusion usually includes screening blood of donors for type and infections and then transfusing directly into the patient. They claim that the precautions of licensed blood banks could also be applied to this form of transfusion. According to several Indian NGO's, made up of surgeons and blood banks, a legalization of direct transfusion would prevent the deaths of many people in impoverished areas. MU





1 out of 3

Indian inhabitants live in urban areas

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VIRAL CNS INFECTIONS AND CEREBRAL MALARIA: POSSIBLE SYNERGETIC EFFECT ON DISEASE BURDEN

An important reason for child hospital admissions in sub-Saharan Africa is the presentation of central nervous system (CNS) diseases. Defining symptoms include fever and reduced consciousness. Cerebral malaria is one of the most important causes. It is diagnosed when the patient has both a *Plasmodium falciparum* infection and also suffers from coma not attributable to another cause. However, a recent observational study demonstrated that viruses may also be an important cause of CNS infection in these patients.

A prospective cohort study in Malawi included 513 children who were admitted on suspicion of a non-bacterial CNS infection. Of these, 163 (32%) were found to have *P falciparum* parasitaemia. Interestingly, in 133 patients (26%) at least one virus was detected in the CNS. Twelve different viruses were found in total, adenovirus being the most common. Children with both a *P falciparum* parasitaemia and a viral infection of the CNS had greater chances of experiencing seizures, compared to those with parasitaemia or viral infection alone. Mortality was also higher among children with a viral CNS infection. The authors concluded that viral CNS infections are an important cause of hospital admission and death. They hypothesized that an interaction between viral infections and parasitaemia may increase disease severity. **MU**

WHO'S HAND-HYGIENE STRATEGY PROVEN TO BE FEASIBLE

A recent study in *The Lancet Infectious Diseases* revealed that the WHO's hand-hygiene strategy is both feasible and sustainable in a variety of settings across the globe. The WHO's strategy for hand-hygiene was implemented and assessed in 43 hospitals in Costa Rica, Italy, Mali, Pakistan and Saudi Arabia. Health-care worker's knowledge of hand-hygiene increased significantly after implementation of the strategy. Hand-hygiene compliance also increased from 51% to 67%. Interestingly, the findings demonstrated a greater effect in low- and middle-income countries, than in high-income countries.

Health-care associated infections, such as MRSA, are a major threat worldwide, and the lack of compliance to hand-hygiene is considered to be an important factor. Currently, in developed countries, at least seven of every hundred hospitalized patients acquire a health-care associated infection. In developing countries that number rises to ten in every hundred patients. Further promotion of health hygiene could potentially decrease this number. **SCJ**

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