Heat Thwarts HIV

Mothers with HIV infection successfully followed a protocol for flash-heating their breast milk that inactivated the virus and reduced transmission to their infants, according to an international research team’s feasibility study in sub-Saharan Africa (Chantry CJ et al. J Acquir Immune Defic Syndr. 2012;60[1]:43-50).

The flash-heating protocol is a simple technique that involves expressing breast milk into a glass jar, which is placed in a pan with water and heated until the water boils. The milk is cooled and cup-fed to the infant.

To determine whether women would use this approach, the researchers enrolled 101 women living with HIV infection in a resource-poor urban area of Tanzania. Of the 86 infants still alive and participating in the study at 3 months of age, 72 infants were HIV negative. Thirty-seven of the 72 eligible mothers chose to follow the protocol when their infants reached 6 months of age, more than the authors anticipated.

Although antiviral prophylaxis is the optimal strategy for preventing mother-to-child transmission of HIV, heat treatment of breast milk is an option that inactivates HIV and is recommended by the World Health Organization.

Prevent Tobacco Deaths

Millions of tobacco-related deaths could be prevented if the World Health Organization’s (WHO) evidence-based tobacco control policies, known as MPOWER, were applied immediately throughout the world, reported researchers at the University of Michigan, Ann Arbor (Mendez D et al. Tob Control. doi:10.1136/tobaccocontrol-2011-050147 [published online April 25, 2012]).

The researchers projected global smoking prevalence for the years 2020 and 2030 with and without the implementation of MPOWER, which includes 6 basic strategies such as enforcing tobacco advertising bans and raising tobacco taxes. They used data from the WHO’s Global InfoBase database and the WHO’s Global Adult Tobacco Survey to construct adult cigarette smoking prevalence time series for 60 countries, including China and India, that contribute the most to the global smoking tally.

The investigators found that if the WHO measures had been adopted in 2010 when the global cigarette smoking prevalence was 23.7%, the global prevalence would drop to 15.4% in 2020 and 13.2% in 2030.

Evolution of e-Health


Researchers in the United States searched the database of the Center for Health Market Innovations, which includes 1200 health programs in more than 100 countries, to identify health programs enabled by information technology—called e-health—in 16 low- and middle-income countries.

The researchers identified several ways information technology is used to improve health in these countries: extending geographic access to health care, improving data management, facilitating communication between patients and physicians outside the physician’s office, improving diagnosis and treatment, mitigating fraud and abuse, and streamlining financial transactions.

As e-health evolves, the authors wrote that continued tracking and evaluation of its applications are integral to helping overcome the challenges these countries face, including shortages of health care workers in rural areas, patient compliance problems, and fraud.

Cuts in Malaria Financing

Funding cuts to malaria control programs might be associated with almost all the documented resurgence events that have occurred worldwide over the past 80 years (Cohen JM et al. Malaria J. doi:10.1186/1475-2875-11-122 [published online April 24, 2012]).

Researchers from US centers conducted a systematic literature review to identify circumstances in which malaria returned to an area where it previously had been controlled. They categorized malaria resurgence according to whether they might have resulted from weakened malaria control programs, increased potential for malaria transmission, or technical obstacles such as insecticide resistance. They identified 75 resurgence events in 61 countries that occurred between 1930 and 2000 and found that 68 of the events were associated at least in part with weakened malaria control programs.

These findings are concerning in light of the fact that malaria control programs are facing a funding crisis because of a decision by the largest international funder of malaria assistance, the Global Fund to Fight AIDS, Tuberculosis and Malaria, to freeze grants for malaria programs through 2013. —M. J. Friedrich