

PREVENTABLE TRAGEDY

The ghastly fire in a large reputed hospital in Kolkata where more than 90 people lost their lives, has important lessons for Indian hospitals. The fire broke out in the basement where inflammable materials were stored. Only months earlier the hospital was asked to clear encroachments from the basement and advised to upgrade fire safety measures. Most people perished of suffocation because the hospital was centrally air conditioned and there were ventilation ducts for the smoke to escape. The response time for the fire brigade was also delayed. An internal survey of civil hospitals in Mumbai after the Kolkata disaster showed that all were in gross violation of fire safety regulations. These include missing or defunct safety equipment (eg, fire extinguishers, booster pumps, sprinklers, riser pumps), structural problems such as locked staircases, defunct lifts and gross misuse of basements (eg, use as offices and storage of scrap). In sharp contrast 5 serious fires occurred between 2008 and 2009 in London without a single casualty. In fact 123 patients including those on life support were evacuated in 23 minutes from a large district hospital “Northwick Park Hospital”. Regular fire drills and meticulous attention to detail such as provision of a ski sheet and a rescue aid placed below the mattress of the hospital bed to smoothly evacuate non-ambulant patients, proved vital. Fire safety rules exist; what is lacking is compliance and attention. (*The Hindu 12 December 2011, Hindustan Times 14 December 2011*).|

THE NEW PATH TO AN HIV VACCINE

So far the global aggressive pursuit of a vaccine against HIV has led up only blind alleys. But a refreshing new direction has been opened up by Nobel laureate David Baltimore and colleagues. It takes inspiration from work by Phil Johnson from Children’s Hospital of Philadelphia who used gene therapy to protect monkeys from SIV. In the new technique genes encrypting 5 broadly neutralizing antibodies capable of preventing HIV infection were chosen. The DNA was inserted into adenovirus based vectors which were injected into leg muscles of mice. Interestingly 2 antibodies were able to prevent infection even when the viral load was 100 times higher than that needed to infect animals. Protective levels were high even after a year which suggest that even one dose of the vaccine may suffice. What is remarkable about this vaccine is that while antigen based vaccines are yet to find an effective immunogen, this gene therapy vaccine has even completed animal trials. Human trials may soon follow. What is worrisome however is that if things were to go wrong there will be no way to remove the new DNA introduced (*Nature, The Hindu 14 December 2011*).

THE LAST CASE OF POLIO FROM INDIA

PAIN is the acronym for Pakistan, Afghanistan, India and Nigeria. The last bastions of the polio virus. But on 13th January 2012, it all has changed. It is one year since the last case of polio was reported from India. Surveillance for wild polio virus in sewage has not turned up the virus for the last 12 months and the final reports from pending laboratory tests will be available by mid February. If all goes well India will be removed from the list of endemic countries. A gargantuan achievement by all standards.

What were the little acts of excellence which went into realizing this impossible dream. In addition to introducing more effective vaccines, India got better at finding high-risk children, homing in on migrant families that travel round the country looking for seasonal work. Transit points—train stations, bus depots, busy highway intersections—were used as distribution centers during vaccination campaigns. And special efforts were made to locate and map where migrant families set up camps, to ensure their children were not missed when vaccination teams made their rounds. In Uttar Pradesh and Bihar where more than half a million babies are born every month, on the twice-annual national vaccination days, 2.3 million vaccinators visited 209 million households. Credit also goes to Rotary and the Bill and Melinda Gates Foundation which added money and muscle at the right places (*Scientific American 9 January 2012*).

FREEDOM FROM FAT

A Cochrane review of school based programs to reduce childhood obesity published recently (37 studies on 27946 children between 6-12 y) has provided strong evidence to support beneficial effects of child obesity prevention programs on BMI. The interventions that were found to be most valuable were- school curriculum that includes healthy eating, physical activity and body image; increased sessions for physical activity; improvements in nutritional quality of school food; environments and cultural practices that support children eating healthier foods and being active throughout each day; support for teachers and other staff to implement health promotion strategies; parent support and home activities that encourage children to be more active, eat more nutritious foods and spend less time in screen based activities (*Cochrane Database of Systematic Reviews 2011*).

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