In Brief

Outbreak readiness a priority after India earthquake

Respiratory infections are the main health dangers confronting survivors of the earthquake that on 26 January hit Gujarat state in north-western India, according to WHO’s South-East Asia regional office. Among the estimated 700 000 buildings damaged or destroyed are a number of hospitals. “Destruction of buildings is forcing people to sleep in the open, despite low night-time temperatures,” says Eagi Sorensen, an on-the-spot WHO adviser, “and is making respiratory infections one of the most acute dangers (in the area)” About 1 million people in Gujarat state are believed to be without shelter. A 12-member WHO team in Ahmedabad and Bahu, cities close to the quake’s epicentre, is coordinating the work of local health officials and agencies working in the area. It is also helping them take stock of the situation, restore severely disrupted health services in the area and set up an outbreak early warning and prevention system. As the Bulletin went to press on 14 February, the latest on-the-spot reports gave the human toll as 16 480 confirmed deaths and 144 927 injuries.

New hormone, a link between obesity and diabetes?

US researchers report in the 18 January issue of Nature their discovery of a hormone that is secreted in large amounts by fat cells in obese mice and that produces signs of adult-onset, or type 2, diabetes when given to healthy mice. In type 2 diabetes, blood sugar levels are abnormally high despite high levels of insulin. The problem is that the patient’s tissues are resistant to the insulin. Hence, the name “resistin”, with which the researchers have dubbed the new-found hormone. They also found that antibodies to the hormone improve the action of insulin in obese mice. These findings, if confirmed in humans, may explain the strong but hitherto unexplained link between obesity and type 2 diabetes.

Study quantifies children’s risk from passive smoking

A study of 5400 US children aged 4 to 16 years, reported in the January issue of the Archives of Pediatrics & Adolescent Medicine, found that exposure of children to tobacco smoke in the home and public places nearly doubled their risk of respiratory problems, such as impaired lung function and wheezing. Children in the 4- to 6-year-old age group, in addition, were at an over fivefold risk of asthma from exposure to tobacco smoke compared with unexposed children. Unlike previous research that has relied on parents’ recall to identify children’s exposure to tobacco smoke, this study, conducted by the National Center for Environmental Health in Atlanta, Georgia, used children’s blood levels of cotinine, a metabolite of nicotine, as a marker of exposure.

Genetically modified tobacco loses nicotine but not taste

Vector Group Ltd announced on 15 January that it had produced a cigarette from genetically modified tobacco that contains “virtually no nicotine” and no cancer-causing nitrosamines. Unlike previous attempts to make nicotine-free cigarettes, which failed to win consumer approval, Vector’s product, the company claims, retains its original taste and could be used to wean people off smoking. Whether or not it will pass muster with WHO will depend on whether the organization’s scientific advisory committee on tobacco product regulation believes the new product will really help people quit smoking. The cigarettes are expected to be on sale early next year.

An artificial protein blocks HIV

A synthetic protein made by a US team from the Whitehead Institute for Biomedical Research in Cambridge, Massachusetts, appears in cell culture experiments to prevent HIV from attaching to its target T cells, the team reported in the 12 January issue of Science. The protein, which the researchers call 5-Helix, jams the “grappling hook” that HIV uses to attach to T cells. It seems to work on a wide range of HIV strains. The researchers, who hope soon to start monkey tests on their protein, see it as a possible first step in designing drugs for HIV/AIDS patients in whom current medications are not effective or tolerated.

More Gates’ money for health

Microsoft chairman Bill Gates announced on 27 January at the World Economic Forum in Davos, Switzerland, that the Bill & Melinda Gates Foundation would give US$ 100 million over the next five years to the New York-based International AIDS Vaccine Initiative, IAVI, which over the past three years has already received US$ 26.5 million from the Foundation, plans to use the new funds to launch clinical trials of three promising AIDS vaccines currently in the R&D pipeline. In a separate development, the Foundation announced on 6 February a US$ 1 million grant over the next two years to the Geneva-based Global Forum for Health Research to boost its efforts to get public-private partnerships to make drugs and vaccines available to poor countries.