

## Like the plagues of Egypt

Twenty years ago it seemed that at last we had conquered most of the infectious diseases and would henceforth have to confine ourselves to treating the less dramatic degenerative ailments. More recently, however, excitement has come back into our lives as microorganisms, viral and bacterial, have struck back in concert like the plagues of Egypt. Foremost among these plagues is the HIV virus, filling our hospitals and medical journals and a potential threat to everybody.

In the world at large an estimated five million people now have both HIV and tuberculosis. In Asia tuberculosis kills two million people each year and may kill seven times as many within 10 years. It has also reappeared with a vengeance in the Western world, where it is rampant among the homeless and the immune compromised, and also in jails--so much so that a judge recently appeared in court wearing a mask. Many mycobacteria have now become resistant to isoniazid and rifampin, just as pneumococci are becoming resistant to penicillin and enterococci to vancomycin.

Among other plagues, we note that within the past two years 200000 people fled from the city of Surat, India, because of bubonic plague; a "flesh eating" group A streptococcus caused panic in Britain; in Milwaukee 400000 people fell ill and 100 died after drinking water contaminated with the parasite microsporidium; and hantaviruses carried by the deer mouse caused at least 20 deaths in the south west of the United States, while others from the same virus family were responsible for many cases of haemorrhagic fever in Asia, Africa, and eastern Europe.

More recently the world was startled to read about the deadly Ebola virus epidemic in Zaire. A sea cruise was halted because of an outbreak of Legionnaire's disease; and several golfers searching for their golf balls in the woods of Tennessee developed tick borne Ehrlichiosis. This summer 17 people in Chicago became ill with Salmonella after eating alfalfa sprouts, a popular health food fad; public health officials issued a warning after being notified of 12 cases of St Louis encephalitis; and the police arrested a white supremacist man for allegedly buying \$300 worth of bubonic plague bacteria.

Another unwelcome guest, the Dengue virus, has so far caused 140000 cases in Latin America, including the US ambassador to Nicaragua, who described it as the worst illness he ever had. Ducks instead of pigs are now spreading influenza viruses; in Queensland a virulent morbillivirus killed 14 horses and their trainer; most cancers of the cervix are reported to be due to a papillomavirus; and gastroenterologists are excited because 100% of patients with duodenal ulcer harbor *Helicobacter pylori* (but so do 60% of normal people).

Reassuringly, however, we read that eating bugs is safe. This is shown by the experience of the American pilot shot down over Bosnia, the Bolivians' partiality for leaf cutter ants, and the ubiquitous inclusion of a worm (gusano) in tequila bottles. Ants or escamoles are served as delicacies in fancy restaurants in Mexico City, grasshoppers in Thailand; and even the stern authors of Leviticus approved as safe the eating of certain winged insects. Toilet seats are also safe, according to a California health writer: they do not pass on venereal diseases, because the organisms causing them cannot survive long outside the body.