

## DISEASE WATCH | IN THE NEWS

## Good riddance rinderpest

The official eradication of rinderpest has moved a step closer with the announcement by the United Nations Food and Agricultural Organization that it will stop field surveillance for the disease. Rinderpest virus is related to measles virus and has killed millions of cattle in Asia, Europe and Africa over thousands of years. With a mortality rate of 80%, outbreaks of rinderpest have devastated herds and led to many famines. The last case of the disease was detected in 2001, but continued field surveillance was necessary, as farm animals are less likely to be brought in for medical care and disease surveillance is generally less thorough for livestock than for human populations. This will be only the second disease to be eradicated, the first being smallpox, which was eradicated in 1980. As with smallpox virus, there is a debate about the fate of the frozen stocks of rinderpest virus; researchers want to maintain access for future research, whereas health organizations want to reduce the stocks as much as possible to prevent accidental release. *New York Times/BBC/United Nations/Science*



## Uncertainty about malaria incidence in India

Malaria may claim 13 times as many lives in India as was previously thought, according to a study published in *The Lancet*. This new study estimates that there are around 205,000 deaths annually in India due to malaria, whereas WHO estimates place the annual toll at around 15,000. These new results have been questioned by the

WHO and others, who cite doubts about the methodology used in the study, which relied on interviews with family members of 122,000 people who had died between 2001 and 2003. The responses were then e-mailed to physicians, who determined whether the death could have been due to malaria. Official estimates rely on hospital diagnosis. But, as 86% of the people in the survey who died had not been seen by a health professional, many malaria cases may go undiagnosed. This factor may also affect the death toll due to malaria in other Southeast Asian countries, but it is not thought to be applicable to Africa, where most of the fatalities due to malaria occur. *Washington Post/BBC/Science/Lancet*

## Herpes vaccine failure

The result of an 8-year study in 8,000 women has revealed no effect for a vaccine against genital herpes, despite encouraging results in a previous, smaller, trial. The vaccine, produced by GlaxoSmithKline, consists of a herpes simplex virus 2 (HSV-2) protein with a novel adjuvant. Although genital herpes is not often considered an important public health concern, over 500 million people worldwide are infected with HSV-2. They can suffer from blisters and ulcers caused by the virus, and spread of the virus from mothers to newborns can be fatal for the child. This setback is likely to discourage many vaccine developers from pursuing HSV-2 vaccines, leading David Knipe, a virologist at Harvard Medical School (Boston, Massachusetts, USA) who is involved in preclinical trials of another HSV-2 vaccine, to urge governments and other non-industrial funders to become involved in the development of an HSV-2 vaccine. *Science*

## Black Death killer confirmed

A new study in *PLoS Pathogens* seems to confirm that *Yersinia pestis* was the cause of the plague, also known as the Black Death, that killed millions of people from the fourteenth to the eighteenth century. *Y. pestis* had long been suspected as the cause of the Black Death, but recent reports have questioned this conclusion because of discrepancies between the symptoms described in Black Death patients and current patients. Now, *Y. pestis* DNA and antigens have been detected in bone samples from several mass graves

of plague victims in different European sites. Identification of single-nucleotide polymorphisms (SNPs) in the bacterial DNA showed that the ancient pathogens from the site in The Netherlands did not belong to any of the three currently circulating biovars, whereas the ancient strains from England and France share SNPs with strains currently circulating in China. *PLoS Pathog.*

## Anti-HIV gel on fast track

The US Food and Drug Administration has granted fast-track approval to a vaginal gel that contains the antiretroviral compound tenofovir (Viread; Gilead Sciences). During a trial over the past 2.5 years, the gel reduced HIV infections in women by 39% and was hailed by the WHO as “groundbreaking”. Targeting an HIV treatment to women is especially important, as most new HIV cases in Africa occur in women who are infected through heterosexual intercourse. The fast-track designation means that the sponsor of the application can submit individual sections of the new drug application rather than waiting to submit all sections as a single application. *Reuters*

## Outbreak news

**Cholera.** An outbreak of cholera in Haiti has claimed over 330 lives so far and sickened nearly 4,000 people, primarily in the northern Artibonite region. This outbreak marks the first time that the disease has been detected in this country. Treatment of patients was made more difficult after the construction of a treatment centre for cholera patients in the town of Saint-Marc was halted by protesting residents, who feared that the centre posed a risk to the surrounding community. Although the spread of the disease seems to be decreasing, the potential threat to the many people still living in tents in Port-au-Prince following the devastating earthquake in January 2010 remains serious. Typing of the cholera strain has shown similarity with strains that circulate in Asia, possibly indicating that the infection originated at a United Nations base housing Asian peacekeepers. *NYTimes/UNICEF/CNN/BBC*

*In the News was compiled with the assistance of David Ojcius, University of California, Merced, USA. David's links to infectious disease news stories can be accessed on our Twitter page (@NatureRevMicro).*