

## More HIV in the UK

The number of new diagnoses of HIV almost doubled over the past decade in the United Kingdom, from 1,950 in 2001 to 3,780 in 2010, according to the UK Health Protection Agency. The economic burden of this disease on public health systems is enormous: if these cases had been prevented, over UK£32 million in costs would have been saved annually, or £1.2 billion over a lifetime. Men who have sex with men remain the most at risk of becoming infected, and new diagnoses in this group increased by 70% in the past decade. The report emphasizes the importance of early diagnosis, before symptoms appear; three out of five patients who die from HIV infection each year are diagnosed too late to fully benefit from their treatment. For these reasons, the UK National Institute of Clinical Excellence has released a new guidance that encourages early diagnosis by increasing testing of HIV in key risk groups. [UK Health Protection Agency/The Independent/BBC](#)

## Faster diagnoses and cures for TB

Two reports suggest that better diagnostic tools and treatments for tuberculosis (TB) may be on their way. The first report, published in *Cell*, proposes that faster treatments for TB could be achieved by the addition of drugs already approved for other uses. At present, TB treatments consist of long-term multidrug therapies of at least 6 months to overcome tolerance (drug resistance that occurs in the absence of genetic mutations and is attributed to non-replicating bacterial subpopulations). Using zebrafish larvae infected with *Mycobacterium marinum* as an *in vivo* model for TB, the researchers showed that multidrug-tolerant bacteria arose in macrophages within days of infection, without prior drug exposure, and were amplified and disseminated by the tuberculous granuloma. This drug tolerance required the activity of specific bacterial efflux pumps. Similar results were obtained with *Mycobacterium tuberculosis* (the causative agent of human TB) infecting cultured macrophages. Efflux pump inhibitors such as verapamil (which is used to treat high blood pressure and some heart problems) reduced this tolerance, suggesting that the addition of this drug or other efflux pump inhibitors to anti-TB therapy could lead to shorter treatments.



The second report, by Médecins Sans Frontières (MSF), describes promising results of an ongoing pilot project diagnosing and treating patients with drug-resistant TB at primary care facilities in South Africa. This project is testing the use of a new, automated molecular test for TB and drug resistance (Cepheid Xpert MTB/RIF, or 'GeneXpert') to reduce diagnostic time from 6–8 weeks in a specialized laboratory to 2 hours in a local clinic. These reports came in time for World TB Day, March 24th, which each year commemorates the day in 1882 when Robert Koch announced his discovery of the cause of TB. [Cell/EurekAlert/MSF/LA Times](#)

## Papillomavirus in men, too

Half of men may be infected with human papillomavirus (HPV), a sexually transmissible virus that can cause cancer, according to a new study. Although the most common outcome of HPV infection in men and women is anogenital warts, 32,000 cases of cancers of the cervix, vagina, vulva, penis, oral cavity, head and neck, and anal canal were attributable to HPV infection in the United States during 2009. In the new study, the researchers assessed 1,159 men from the United States, Brazil and Mexico every 6 months for more than 2 years and found that the monthly incidence of a new genital HPV infection was 38.4 per 1,000 people. Each year, 6% of men were newly infected with HPV-16, the variant that causes cervical cancer in women and other cancers in men.

HPV vaccination in girls and young women is becoming widespread. However,

vaccination in men remains uncommon, despite the easy transmission of the virus from men to women. The results from this study could help public health experts to determine the value of widespread HPV vaccination of men. [Lancet/The Telegraph/HealthDay](#)

## New deadly bunyavirus?

A new virus has been identified in patients with a life-threatening disease known as severe fever with thrombocytopenia syndrome (SFTS). The disease has a mortality rate of 12% and was described for the first time in rural areas of central China in 2009. SFTS symptoms, which include high fever, low platelet levels and gastrointestinal disorder, resemble those of anaplasmosis caused by the bacterium *Anaplasma phagocytophilum*, although a clear link between this pathogen and SFTS has not been reported. Now, an enhanced surveillance of patients with SFTS in China has led to the isolation of a new virus within the family *Bunyaviridae*, which includes the hantaviruses and Rift Valley fever virus. The researchers detected either the virus (SFTS bunyavirus, or SFTSV) or antibodies against it in sera of 171 patients out of 241 analysed patients with SFTS, and no virus or antibodies were found in sera of 200 healthy subjects in the endemic areas or in sera of 54 patients suffering from a different disease. Moreover, SFTSV was found in some ticks collected from farm animals in the area, suggesting the ticks as potential vectors for SFTSV transmission. However, a causal relationship between SFTSV and the disease has yet to be established.

[N. Eng. J. Med./EurekAlert](#)

## Outbreak news

**Whooping cough.** In 2010, more than 21,000 people got whooping cough in the United States, the highest number since 2005, according to the CDC. Although most children are efficiently vaccinated against the disease, vaccination rates among adolescents and adults are low. Thus, US health officials recommend the vaccine for all adults who are around children.

[Washington Post/Associated Press/CDC](#)

*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).*