An Explosive Return of the ‘Great Pox’

Nanjing, China—Examining a patient one day in the 1980s, newly minted doctor Chen Xiangsheng saw a pinkish rash covering the man’s chest. He never imagined it could be syphilis, which was eliminated by an aggressive 1950s campaign that shut down brothels, screened sex workers, and administered penicillin. By the time Chen entered medical school in 1979, students were no longer trained to spot the disease. He thought his patient had pityriasis rosea, a skin rash. Chen’s supervisor corrected the diagnosis.

Chen has since become all too familiar with the telltale symptoms of a sexually transmitted disease (STD) once known as “the great pox.” As breakneck economic development ushered in widespread migration, rising inequality, and evolving sexual mores, syphilis transmission spiked in China. It now holds the dubious title of the nation with the largest increase in reported cases in the penicillin era. (For half a century, the antibiotic has been the main defense against Treponema pallidum, the bacterium that causes the disease.) In response, China’s health ministry has just embarked on a 10-year plan to combat what Chen, now vice director of the National Center for STD Control here, calls “a scourge lurking in the shadows.”

China’s troubles date to social and economic changes unleashed in the 1980s, when millions of farmers flocked to the cities. At the same time, restrictions on cohabitation and marriage were loosened or ignored. “Ideas and concepts came in from outside, and more people wanted sexual freedom,” Chen explains. Prostitution grew along with inequality, and a swelling disadvantaged class had poor access to health care, says Francis Ndowa, lead specialist for controlling STD infections at the World Health Organization.

By the late 1990s, China’s reported syphilis cases were rising by about 30% per year. The annual increase has since slowed but remains high, at 8.4% in 2010, and reported cases more than doubled between 2005 and 2009, to 11.7 cases per 100,000 people—comparable with 4.6 cases per 100,000 people that year in the United States. In 2008, Guangdong Province reported more syphilis cases than the entire European Union.

Scientists say those figures should be treated with caution. Underreporting may be common in poorer provinces, some warn. Others dispute the extent to which syphilis is spreading. They point out that cases spiked after China switched to a Web-based reporting system in 2004. But everyone agrees that syphilis is rampant, especially in coastal cities with large migrant populations. In several major cities in China, it is now the leading reported infectious disease.

Some researchers suspect that China’s elimination of syphilis in 1964, through limiting herd immunity, left the population unusually susceptible to T. pallidum infection. More critical may be the behavior of members of key risk groups. About 10% of urban Chinese men age 18 to 49 say they have hired a prostitute in reported cases in the penicillin era. In 2008, Guangdong Province reported more syphilis cases than the entire European Union.

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