



U.S. stays vigilant against TB

By Anita Manning

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NEWARK — Maria Garcia is 26, pregnant and has tuberculosis. A Honduran immigrant, she speaks no English and spends her days in the small, immaculate apartment she shares with her boyfriend, a construction worker.

But Garcia is one of the lucky ones. Every day, public-health worker Gloria Leifer of the Global Tuberculosis Institute at the New Jersey Medical School delivers a small envelope containing four anti-TB pills and watches as Garcia takes each one. The treatment, known as directly observed therapy, is given for six to nine months to ensure that all the TB germs are killed and to prevent the emergence of drug-resistant strains.

Garcia is recovering and is no longer able to spread the disease. By the time her baby arrives in July, she'll be cured.

TB is contagious and airborne, spread by coughing. The World Health Organization, which today releases its 2007 Global TB Control Report in advance of World TB Day on Saturday, estimates a third of the world population is infected. In healthy people, TB can remain inactive, emerging only when there is a weakening of the immune system because of illness or malnutrition.

In 2005, 1.6 million people died of TB, WHO says. Most cases are in Africa and Asia, but the USA is not immune: Last year there were more than 14,000 cases, says Kenneth Castro, director of the Centers for Disease Control and Prevention's TB division.

Each of these cases is tested to be sure it can be treated by standard drug regimens. Drug-resistant strains, which are emerging all over the world, require a daily drug combination taken for 18 months to 2 years.

"And now we have the specter raised globally" of extensively drug-resistant TB, Castro says. XDR-TB can occur when drug-resistant strains are not thoroughly treated. Its emergence "threatens to throw us into a pre-antibiotic era, unless we develop new drugs for those rendered virtually untreatable."

Once a case of active TB is identified, local health officials have to track down and test everyone who might have been exposed to the sick person. Last week, New York city health officials were tracking more than 700 hospital patients and employees potentially exposed to TB by a health care worker, and Delaware health officials tested 336 employees at a poultry plant after a worker was found to be infected. In both cases, no other active TB cases were found, but health officials did find people who tested positive for exposure to the virus.

Castro says TB rates in the USA are dropping each year, but the rate of decline has slowed, from 7.3% per year between 1992 and 2000 to 3.8% each year since. "We are

concerned that the slowing in rate of decrease signals a stagnation in our progress against TB," he says.

Once considered a disease confined to the inner-city poor, drug users and homeless, "today our typical patient is foreign-born and living in a family unit," says Eileen Napolitano, deputy director of the Global TB Institute. Many are migrant workers or day laborers, and some are hesitant to seek medical care when symptoms start, fearing lost wages or concerns about their legal status. "Eventually, people who are sick enough with TB end up in the hospital, but they could be sick a long time," Napolitano says. "They could be spreading it."

Typically, it takes a year for people with TB to get sick enough to seek treatment, and during that time they are likely to infect 10 to 12 others, says TB expert Carl Nathan, chairman of Microbiology and Immunology at Weill Cornell Medical College in New York. That's one reason it's so hard to wipe it out, he says. "They replace their own numbers before getting treated," he says.

HIV infection increases TB risk, and in developing countries, the epidemics of TB and HIV are linked. "We don't have a grip on it," Nathan says. "It's absolutely not under control, and the situation is not improving overall because HIV is spreading in places where TB is common, like India and China."

Global health organizations are stepping up the drive for new, better drugs and programs to treat HIV and TB simultaneously, often working in partnerships that involve private drug companies and non-profits. Drug company Lilly, for instance, which makes two of the treatments for drug-resistant TB, has transferred the technology to make those drugs to China, South Africa, India and Russia.

A survey by the World Economic Forum's Global Health Initiative found only 30% of companies with an AIDS program also have a TB program. "The concern is that, particularly in Africa, a third of all the HIV/AIDS patients die of TB," says Francesca Boldrini, who heads the initiative. "This puts companies at risk, because they think they're protecting their employees from HIV, but by not having a TB component, they're not providing them with what they could."

The theme of Saturday's World TB Day — "TB anywhere is TB everywhere" — is no exaggeration, Nathan says. "As a society, the world so interconnected, it isn't enough to say it's somebody else's problem."