Thailand Beats the Odds in Completing Vaccine Test

A just-completed efficacy trial in injecting drug users is a major accomplishment. Even the company behind the trial wondered if it could be done.

BANGKOK, THAILAND—Gulping down a tin cup full of yellow syrup, a 32-year-old man visiting this clinic at Taksin Hospital for his daily dose of methadone explains that after 14 years of injecting heroin, he recently became infected with HIV. “I had a wife, but she left me when I told her about my blood results,” says the man, who ekes out an existence as a day laborer and lives with his father. “I knew that HIV was transmitted by sharing needles, but I had a craving.”

His tragic circumstance is, unfortunately, not unusual: A catastrophic 40% of injecting drug users (IDUs) in Thailand are infected with HIV. But his infection is particularly noteworthy because it occurred while he was participating in a landmark AIDS vaccine study, just now coming to a close. In the painful calculus of a placebo-controlled vaccine efficacy trial, some people must become infected for researchers to determine whether a preparation has any worth. (Until the data are unblinded, it will not be known whether he was given a placebo or the vaccine.)

Regardless of the ultimate results, just completing the study—the first AIDS vaccine efficacy trial ever held in a developing country—marks a significant achievement. “It took one-and-a-half years for us to get this study past six committees,” says the project’s director, Kachit Choopanya, a pediatrician who shifted into treating IDUs in the 1970s. “This has been very hard for us.” The researchers screened 4944 IDUs who volunteered for the study, a collaboration between the Thai Ministry of Public Health, the U.S. Centers for Disease Control and Prevention, the Bangkok Metropolitan Administration, and the vaccine’s manufacturer, VaxGen of Brisbane, California. From that initial group, the researchers selected 2545 uninfected people to receive either a placebo or the vaccine, a genetically engineered version of HIV’s surface protein, gp120, made from HIV strains circulating in Thailand. By the time the study formally came to a close this June, the 380 staff members working in Taksin and the other 16 clinics involved in the study had given more than 17,000 injections, drawn more than 40,000 blood samples, and processed a half-million forms charting the results.

VaxGen co-founder Donald Francis says that when a colleague first suggested conducting this efficacy study in Thai IDUs, he was highly skeptical. “I said, ‘Oh my god, we can’t follow them for anything.’” Yet fully 95.6% of the participants showed up for all three injections given during the first 6 months, and by mid-May 2003, 84.4% had received four more booster shots. Francis attributes the high retention rate to the deep trust that the IDU community has for Kachit, mixed with pride that participants felt in joining the study. “There aren’t many opportunities for drug users to feel that way,” he says.

The high retention rate is especially remarkable because at each study visit, 30% of the participants reported having spent time in jail or prison during the preceding 6 months. “We didn’t really expect that when we started,” says Francis. The researchers conducted

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Strong medicine? Data from this methadone clinic at Taksin Hospital will help assess whether the vaccine works.