



Plague: Helping Uganda & Preparing the U.S. for Public Health Threats

In the United States, approximately 5 to 15 people contract plague each year, mostly in rural areas. However, plague occurs more often in other parts of the world. In Uganda, approximately 2,000 people have had plague since 1999, with 84% of these cases occurring in women or children and multiple cases occurring in single households. Plague control efforts by the Uganda Ministry of Health (UMOH) have been limited due to lack of resources, such as laboratory confirmation capability, surveillance, and information about local environmental risk factors. The UMOH requested assistance from CDC's Division of Vector-Borne Infectious Diseases (DVBD) to better understand plague in its communities.

CDC -- in collaboration with the UMOH and the Uganda Virus Research Institute -- established a plague diagnostic field laboratory in the Arua province of northwestern Uganda, and has hired and trained laboratory, epidemiologic, and clinical staff. To date, CDC has identified the likely plague vectors (the specific fleas that spread plague bacteria) and reservoirs (animals which become infected with plague bacteria), and had the first local laboratory confirmation of a human plague case. CDC also is evaluating flea and rodent control methods.



Ugandan microbiologists trained by CDC staff to perform plague diagnostics work at the Arua laboratory

By training staff, CDC ensured that there would be local experts who can understand plague ecology and risk factors; evaluate rodent and vector control techniques; develop methods for improved



Residents of one of the Ugandan villages participating in CDC's plague prevention study

plague diagnosis; and understand how epidemics happen and what prevents people from getting treated for plague. Over the long term, CDC seeks to find sustainable, locally implementable approaches to reducing plague illness and death, while at the same time complementing other ongoing vector-borne disease prevention programs.

Collaborating with UMOH on plague in Uganda has also provided larger-scale important results. Newly-trained staff can apply the laboratory, epidemiology, and clinical skills they learned from plague to other infectious diseases. CDC's work in Uganda also increases CDC's emergency preparedness capabilities to respond to plague that might be naturally-occurring or the result of a terrorist act. Studying the disease in an area where plague occurs more frequently allows CDC scientists the opportunity to collaborate on a local public health problem while also addressing a rare but important challenge to our own nation's health.

For more information about CDC at Work, please contact us at (202) 245-0600 or go to <http://www.cdc.gov/washington/>.