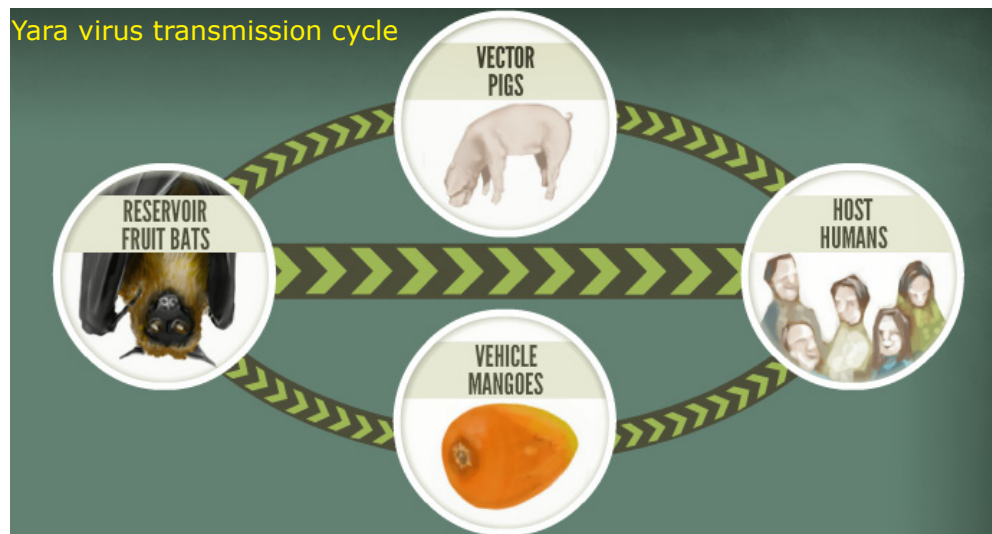


Mission Debriefing

What did each of the people do to help solve the issue in Yara?

Epidemiologist	Veterinarian	Microbiologist
<p><u>Task: Determine what is making people sick through a case-control study</u></p> <p>Defined the case definition, determined existence of outbreak</p> <p>Had sick fill out questionnaires—cases</p> <p>Had non-sick fill out questionnaires—controls</p> <p>Finding: sick people had contact with pigs</p> <p>Info from <i>veterinarian</i>—pigs also sick with encephalitis</p> <p>Info from <i>microbiologist</i>—outbreak now in South Village where there are NO pigs</p> <p>New survey—sick people in South village had a mango connection</p>	<p><u>Task: Determine why pigs are sick</u></p> <p>Info from <i>epidemiologist</i>—people also had encephalitis. Is this a zoonotic pathogen?</p> <p>Checked clinical signs of pig illness—took blood and sent to <i>microbiologist</i></p> <p>Quarantined sick pigs</p> <p>Finding: Quarantine ineffective; disease spread further</p> <p><i>Microbiologist</i> reports that the blood tests indicated a new virus which they named Yara virus</p> <p>South Village—tested various animals there for source of virus and sent samples to <i>microbiologist</i></p>	<p><u>Task: Determine what pathogen is causing the outbreak</u></p> <p>Analyzed samples from patients that have encephalitis. A virus is the pathogen</p> <p>Info from <i>veterinarian</i> said that pigs also had encephalitis</p> <p>Info from <i>epidemiologist</i> showed that sick people had contact with pigs</p> <p>Microarray compared unknown virus to known viruses—it was not Nipah virus but similar</p> <p>Serology confirmed that the virus was not Nipah virus</p> <p>The pathogen found in bats, pigs, and people was a new virus they name Yara virus</p>



Summary:

Fruit bat habitat destruction led to bats relocating to villages; they lived in the roof of the pig pen barns; the bats fed on mangoes; some bats had the virus and it is passed to the pigs and mangoes through urine, feces, and saliva; then it is passed to people who had contact with pigs (butchers) and mangoes (kids who picked or ate the mangoes).