



# Glanders Backgrounder

Glanders is an infectious disease that is caused by the bacterium *Burkholderia mallei*. Glanders is primarily a disease affecting horses, but it also affects donkeys, and mules. This infection can be naturally acquired by goats, dogs, and cats. Human infection, although not seen in the United States since 1945, has occurred rarely and sporadically among laboratory workers and those in direct and prolonged contact with infected, domestic animals. It is still commonly seen among domestic animals in Africa, Asia, the Middle East as well as Central and South America. Despite the efficiency of spread in a laboratory setting, Glanders has only been a sporadic disease in humans, and no epidemics of human disease have been reported. There have been no naturally acquired cases of human Glanders in the United States in over 59 years. Sporadic cases continue to occur in Asia, Africa, the Middle East and South America. During World War I Glanders was believed to have been spread deliberately by agents of the Central Powers to infect large numbers of Russian horses and mules on the Eastern Front. This had an effect on troop and supply convoys as well as on artillery movement which were dependent on horses and mules. Human cases in Russia increased with the infections during and after WWI. The Japanese deliberately infected horses, civilians and prisoners of war with *B. mallei* at the Pinfang (China) Institute during World War II. The United States studied this agent as a possible biological weapon in 1943-44 but did not weaponize it. The former Soviet Union is believed to have been interested in *B. Mallei* as a potential biological weapon agent after World War II. The low transmission rates of *B. mallei* to man from infected horses is demonstrated by the fact that in China, during World War II, thirty percent of horses tested were positive for Glanders, but human cases were rare. In Mongolia, 5-25% of animals tested were reactive to *B. mallei*, but no human cases were seen. *B. mallei* exists in nature only in infected susceptible hosts and is not found in water, soil or plants.