HPAI A(H5N1) is an avian disease. There is some evidence of limited human-to-human transmission of the virus. A risk factor for contracting the virus is handling of infected poultry, but transmission of the virus from infected birds to humans is inefficient. Still, around 60% of humans known to have been infected with the current Asian strain of HPAI A(H5N1) have died from it, and H5N1 may mutate or reassort into a strain capable of efficient human-to-human transmission.

Due to the high lethality and virulence of HPAI A(H5N1), its endemic presence, its increasingly large host reservoir, and its significant ongoing mutations, the H5N1 virus is the world's largest current pandemic threat, and a lot of money are being spent researching H5N1 and preparing for a potential influenza pandemic. At least 12 companies and 17 governments are developing pre-pandemic influenza vaccines, if it successful, could turn a deadly pandemic infection into a nondeadly one. Full-scale production of a vaccine that could prevent illness would require at least three months after the virus's emergence to begin.