

Guidance for Avian Influenza A(H5N1) in Humans

Risk Assessment Tool for Local Health Departments

The table below provides a framework for epidemiologic assessment of individual risk for highly pathogenic avian influenza (HPAI) A(H5N1) virus infection. This table is intended to help determine how best to prioritize monitoring and investigation efforts among higher risk persons when resources are limited. As additional data are gathered from the response, these assessments will be refined, and the risk category associated with some exposures may change.

Relative risk level reflects anticipated risk of HPAI A(H5N1) virus exposure relative to the groups listed [here](#). Relative risk level 5 corresponds to high risk of exposure, level 4 corresponds to medium to high risk, level 3 corresponds to medium risk, level 2 corresponds to low to medium risk, and level 1 corresponds to low risk.

Individual Risk Categories by Setting and Exposure		
Setting	Examples of Behaviors/Activities	Relative Risk Level
Working on farms with poultry or cows with confirmed HPAI A(H5N1) virus infection or sick poultry or cows exposed to those with confirmed HPAI A(H5N1) virus infection; known close animal contact	<ul style="list-style-type: none"> Working with poultry or cows with confirmed or suspected HPAI A(H5N1) virus infection in any capacity without appropriate personal protective equipment (PPE). Providing veterinary care for poultry or cows with confirmed or suspected HPAI A(H5N1) virus infection (including veterinarians, veterinarian staff, farm owners or workers, animal health responders). Having experienced a breach in PPE, wearing inadequate PPE, or removing PPE incorrectly while handling or working with poultry or cows with confirmed or suspected HPAI A(H5N1) virus infection or their environments. Working in environments with poultry or cows with confirmed or suspected HPAI A(H5N1) virus infection. Working with calves (feeding non-heat-treated colostrum, bottle feeding raw milk, watering or medicating calves, cleaning calf pens). Working in maternity pens (calving, providing post-partum care, handling aborted fetuses). Handling other sick or dead animals (e.g., cats, wild birds, poultry) on premises with confirmed HPAI A(H5N1) virus infection in dairy cattle or poultry without appropriate PPE. Non-workers living on dairy or poultry farm premises. 	5
Drinking, consuming or exposure to contaminated raw cow's milk from cows with confirmed or suspected HPAI A(H5N1) virus infection or other products made from contaminated raw cow's milk	<ul style="list-style-type: none"> In settings where raw milk is obtained from cows with confirmed HPAI A(H5N1) virus infection or sick cows exposed to those with confirmed HPAI A(H5N1) virus infection, eating or drinking products made from contaminated raw cow's milk. Handling raw milk without appropriate PPE or biosecurity measures. 	5*
Slaughterhouse exposures to cows with confirmed or suspected HPAI A(H5N1) virus infection; known close animal contact	<ul style="list-style-type: none"> Working in slaughterhouses directly with cows with confirmed or suspected HPAI A(H5N1) virus infection without appropriate PPE. 	5
Close or prolonged contact with wild birds with confirmed HPAI A(H5N1) virus infection or their contaminated environments; known close bird contact	<ul style="list-style-type: none"> Risk would depend on extent of exposure to infected case as well as use of appropriate PPE when in contact with wild birds. 	5
Occupational exposure to poultry or other animals with confirmed or suspected HPAI A(H5N1) virus infection; known close animal contact	<ul style="list-style-type: none"> Working at a live bird market (e.g., handling poultry, feeding poultry, cleaning pens, slaughtering/evisceration, carcass and waste disposal). 	5

Setting	Examples of Behaviors/Activities	Relative Risk Level
Household members of a person with confirmed, probable, or suspected HPAI A(H5N1) virus infection; known close human contact	<ul style="list-style-type: none"> Prolonged unprotected contact with a household member with confirmed or suspected HPAI A(H5N1) virus infection. 	4
Working on a farm with poultry or cows with confirmed or suspected HPAI A(H5N1) virus infection or sick poultry or cows exposed to those with confirmed A(H5N1) virus infection; no close animal contact	<ul style="list-style-type: none"> Working on a farm with poultry or cows with confirmed or suspected HPAI A(H5N1) virus infection but with no known direct contact, such as possible contact with poultry/cows of unknown infection status or contaminated environments, fomites, waste, or feed. 	4
Non-farm <u>occupational</u> exposures to poultry or cows with suspected HPAI A(H5N1) virus infection or contaminated animal products (including raw milk); exposure unclear	<ul style="list-style-type: none"> These types of exposures could occur when a worker comes into contact with a bird or cow (or raw milk) that does not have a confirmed HPAI A(H5N1) virus infection but comes from a farm that has other poultry or cows or animals with confirmed HPAI A(H5N1) virus infection (or other contaminated raw milk). 	3
Time-limited visit to live bird market that has poultry or other animals with confirmed or suspected HPAI A(H5N1) virus infection; known close animal contact	<ul style="list-style-type: none"> Visiting a live bird market (retail poultry stalls or markets selling live poultry). 	3
Non-farm <u>recreational</u> exposures to poultry or cows with confirmed or suspected HPAI A(H5N1) virus infection or contaminated animal products (including raw milk); known close animal contact	<ul style="list-style-type: none"> Agritourism (activities carried out on a farm or ranch that allow members of the general public to visit for recreational, entertainment, or educational purposes such as fairs, livestock shows/auctions, petting zoos, cockfighting) Backyard flock owners 	2
Time-limited visit to farm with cows with confirmed HPAI A(H5N1) virus infection or sick cows exposed to those with confirmed HPAI A(H5N1) virus infection; no close animal contact	<ul style="list-style-type: none"> Visitors to farm (delivery staff, animal health outbreak responders, nutritionists, feed specialists) 	2
Health care workers exposed to person with confirmed or suspected HPAI A(H5N1) virus infection; known close human contact	<ul style="list-style-type: none"> Risk would depend on extent of exposure to infected case, including amount of time that a healthcare worker is in close proximity to the infected case and types of interactions (e.g., performing aerosol-generating procedures) as well as use of appropriate PPE 	2
Working on farms <u>without</u> poultry or cows with confirmed or suspected A(H5N1) virus infection or sick poultry or cows exposed to those with confirmed HPAI A(H5N1) virus infection; no known exposure	<ul style="list-style-type: none"> Workers or visitors to farm could be at increased risk if cows or other animals appear healthy but have asymptomatic or pre-symptomatic HPAI A(H5N1) infection, such as breeding cows, trimming cow hooves, performing layer poultry farm activities, or working in hatcheries. 	1
Consuming <u>potentially</u> raw or undercooked poultry products or eggs from poultry with confirmed HPAI A(H5N1) virus infection	<ul style="list-style-type: none"> Eating raw or undercooked meat or eggs obtained from poultry with confirmed HPAI A(H5N1) virus infection or sick poultry exposed to those with confirmed HPAI A(H5N1) virus infection 	1
Household members of a person with occupational exposure to poultry or cows or other animals with confirmed or suspected HPAI A(H5N1) virus infection; no known close animal contact	<ul style="list-style-type: none"> Household exposure via indirect transfer of virus from fomites (e.g., clothing, footwear) obtained from occupational exposure to potentially infected poultry or cows or other animals 	1

*Currently, level of risk to humans is unknown but high level of concern based on available animal data