

WHO recommendations to reduce risk of transmission of emerging pathogens from animals to humans in live animal markets

On 31 December 2019, WHO [was informed](#) of cases of pneumonia of unknown etiology (unknown cause) detected in Wuhan City, Hubei Province of China. A novel coronavirus (2019-nCoV) [was identified](#) as the causative virus by Chinese authorities on 7 January.

Investigations are ongoing to evaluate the source of the outbreak, mode(s) of transmission and the extent of infection. Available evidence on the 2019-nCoV virus and previous experience with other coronavirus (MERS-CoV and SARS-CoV) and other respiratory viruses (e.g., avian influenza) suggest that there may be zoonotic transmission associated with the 2019-nCoV.

In light of available evidence and past experience, WHO makes the following general recommendations:

- As a general precaution, anyone visiting live animal markets, wet markets or animal product markets, should practice general hygiene measures, including regular hand washing with soap and potable water after touching animals and animal products, avoiding touching eyes, nose or mouth with hands, and avoiding contact with sick animals or spoiled animal products. Any contact with other animals possibly living in the market (e.g., stray cats and dogs, rodents, birds, bats) should be strictly avoided. Attention should also be taken to avoid contact with potentially contaminated animal waste or fluids on the soil or structures of shops and market facilities
- The consumption of raw or undercooked animal products should be avoided. Raw meat, milk or animal organs should be handled with care, to avoid cross-contamination with uncooked foods, as per good food safety practices.

Recommendations for at-risk groups

- Until more is understood about the 2019-nCoV, people with underlying medical conditions are considered at higher risk of severe disease.

Therefore, individuals with these underlying medical conditions should avoid contact with live animal markets, stray animals and wild animals, should not eat animal raw meat. Such recommendations should also be disseminated to travellers and tourists with underlying medical conditions.

- Slaughterhouse workers, veterinarians in charge of animal and food inspection in markets, market workers, and those handling live animals and animal products should practice good personal hygiene, including frequent hand washing after touching animals and animal products. They should consider wearing protective gowns, gloves, masks while professionally handling animals and fresh animal products. Equipment and working stations should be disinfected frequently, at least once a day. Protective clothing should be removed after work and washed daily. Workers should avoid exposing family members to soiled work clothing, shoes, or other items that may have come into contact with potentially contaminated material. It is therefore recommended that protective clothes and items remain at the workplace for daily washing.
- Based on available information, it is not known if the 2019-nCoV has any impact on the health of animals and no particular event has been reported in any species. As a general recommendation, sick animals should never be slaughtered for consumption; dead animals should be safely buried or destroyed and contact with their body fluids should be avoided without protective clothes. Veterinarians should maintain a high level of vigilance and report any unusual event detected in any animal species present in the markets to veterinary authorities.