The surveillance of zoonotic diseases must be integrated into health security intelligence systems, if future pandemics are to be handled effectively, according to global health practitioners writing in the *Journal of the Royal Society of Medicine*. Zoonotic diseases are animal infections that can be transferred from animals to humans and include the coronavirus that causes COVID-19.

The authors of the paper, from the Conflict and Health Research Group, King’s College London, say that zoonotic diseases pose the greatest health security threat to human and animal populations alike.

Currently there are few systems capable of providing indicators and warnings for zoonotic diseases beyond livestock management. Lead author, Dr. Gemma Bowsher, said: "Companion, zoo and shelter animals exist in close proximity to human populations and with limited monitoring in place, remain a potentially high-risk disease reservoir for zoonoses." She added: "Domesticated animals in high-income countries are as much a threat as the oft-cited wildlife in wet markets or equatorial rainforests."

Shelter animals in particular are high-risk populations, given their high levels of stress and susceptibility to infectious pathogens. The researchers point to a 2017 outbreak of H7N2 bird flu in New York's cat shelters as an example of new transmission pathways across a large population of over 300 animals and into people. Previously identified in the city's poultry markets, the virus had not been known to cross over into cats prior to this event.

In the UK and U.S. there is no population health surveillance for companion animals, with veterinary practices having limited access to ad hoc warning systems. Animals who die in zoos in the UK, unlike the U.S., do not undergo mandatory necropsy, the animal equivalent of a human autopsy, missing a crucial opportunity to detect potential and confirmed disease present in animal populations.

The researchers say that the anticipation and early detection of potential zoonotic events should be a first order objective for any developing health security agenda in both global and domestic settings. They added that veterinary and medical communities working in silos is obstructing the development of an effective health security research agenda.

Dr. Bowsher said: "Ignoring the potential for animal infections to produce and propagate human disease is a failure of health security. Effective future epi-pandemic preparedness demands improved systems for 'species neutral' health security intelligence."

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