

Vaccination will work better than culling, say bird flu experts

Declan Butler, Paris

The mass culling of poultry to contain outbreaks of avian flu is no longer acceptable and should be replaced by the vaccination of flocks. That was the conclusion of experts at a joint conference in Paris of the UN Food and Agriculture Organization (FAO) and the World Organisation for Animal Health (OIE).

So far, culling has been the method of choice for controlling outbreaks. Vaccines exist, but the problem has been distinguishing infected birds from vaccinated ones, as both groups carry antibodies to the virus. This means that infected but otherwise healthy, vaccinated birds could provide a haven in which the virus can mutate undetected, increasing the risk of a pandemic strain that causes disease in humans. Trade in vaccinated birds is also subject to bans.

Last year, the OIE and FAO urged that vaccination be considered alongside other control methods. But they have now gone much further, stating that mass culling as the main means of control is no longer acceptable, "for ethical, ecological and economic reasons".

"This is a massive change in policy," says Robert Webster, director of the World Health Organization's Collaborating Center for Studies on the Ecology of Influenza in Animals and Birds.

The shift was driven by a realization that the lethal H5N1 strain is widespread in wild and domestic bird populations, such as ducks. This means that no matter how often affected poultry flocks are culled, the virus is likely to reappear. Methods have also been developed to distinguish infected from uninfected vaccinated birds, either using unvaccinated 'sentinel' birds kept within vaccinated flocks, or vaccines that elicit slightly different antibodies from the natural virus, so that a molecular test can tell the two apart (see *Nature* 427, 573; 2004).

Webster says he is encouraged that the OIE and FAO accept "the reality that H5N1 in Asia is now endemic, and the possibility that more countries will have to turn to vaccination in the longer term".

Experts at the Paris meeting, held on 7–8 April, acknowledged that many countries do not have the resources for a vaccination programme, so they are calling for \$100 million–120 million in aid over three to five years for this purpose. So far, only Germany, Japan and the Netherlands have pledged support for affected Asian countries. ■

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REASONS

Tribes may no longer have to prove a direct cultural link to Kennewick Man to claim his bones.

Law change imperils studies of ancient human remains

Rex Dalton, San Diego

If passed, a bill speeding through Congress could end much research on ancient human remains in the United States. The legislation would alter the Native American Graves Protection and Repatriation Act (NAGPRA), a 1990 federal law that defines how human specimens can be handled, to make it much easier for Native American tribes to claim remains and prevent studies.

The bill was triggered by the legal battle over Kennewick Man, a 9,200-year-old skeleton found in 1996 by the Columbia River in Oregon. Scientists were keen to study it, but tribes in Oregon and Washington wanted to secure the remains so that they could be buried in accordance with traditional beliefs.

Last year, eight scientists working with Oregon-based Friends of America's Past won a long-running legal battle to conduct a comprehensive study of the skeleton. A federal judge ruled that the tribes couldn't show 'cultural affiliation' to Kennewick Man, so they couldn't claim the remains.

The new law is being championed by Senator John McCain, a Republican from Arizona and chairman of the Senate Committee on Indian Affairs, and is designed to sidestep this requirement. His office did not respond to *Nature's* requests for an interview.

The US Senate may vote on the legislation as soon as this week after the measure sailed through the Committee on Indian Affairs on 9 March. If it is passed as expected, the bill will

be considered by the House of Representatives.

Anthropologists are horrified. Cleone Hawkinson, a physical anthropologist who runs Friends of America's Past, said that under the new law, "our prehistory will go behind a black curtain".

Alan Schneider, the scientists' Portland attorney in the Kennewick Man case, explains that the proposed change to the NAGPRA alters the definition of Native Americans from "a tribe, people, or culture that is indigenous to the United States" by adding two words: "or was". That would permit tribes to claim a much wider range of remains even without a direct cultural link to them, he says.

If the bill wins Congressional approval later this year and is signed into law by President George Bush, Schneider says a new legal challenge could be mounted to allow Kennewick Man to be studied. The law would apply to other stored remains, which could be claimed back from museums, as well as newly found specimens. "Even Adam and Eve's remains, if found in this country, would be subject to claims by tribes," he says.

But not all archaeologists agree that the new law will have a major impact. The Society for American Archaeology, whose members primarily focus on artefacts rather than human remains, is not opposing the measure. "This won't disastrously affect research," says Keith Kintigh, an archaeologist at Arizona State University in Tempe, who advises the society on such issues. ■