

有關香港為對付禽流感而採取的防範和應變措施意見書

衛生福利及食物局計劃倘若香港發現有一隻死雞帶有 H5N1 病毒，便會銷毀所有活家禽，認為這樣的措施可令市民放心。香港至今尚未有 H5 禽流感的發生，部份市民已非常擔心，若真的有 H5N1 個案在香港發生，殺清香港的家禽就真的能令市民放心嗎？市民擔心，是因為 97 禽流感之後，香港再爆發了三次的 H5N1 禽流感，又加上很多負面但不正確的訊息，如禽流感已人傳人，已傳了給豬，已傳到德國，香港會死 30 萬人等，都令到一些市民產生不必要的恐懼。事實證明香港與其他地方不同。我們所有的家禽已接種了 H5 禽流感疫苗，牠們不易感染 H5 禽流感，就算有個別雞發病，亦不會大量爆發，只需局部殺雞便能控制疫情。

自 1997 年香港發生 H5N1 禽流感後，政府推行了一系列措施，以防範禽流感爆發，有關措施包括：

- 更嚴格的生物安全措施規管本地農場
- 更嚴格的入口管制，監管所有進口的家禽
- 分隔政策，將活水禽及活鵪鶉與活雞分隔
- 批發市場每月四天及零售市場每月兩次的休市清潔日
- 嚴格的批發市場及零售點衛生規定
- 人類流感及禽流感的全面監察

這些都是有效預防禽流感的措施，但事實卻未能防止 H5N1 禽流感在 2001 年 6 月，2002 年 2 月及 2002 年 12 月至 2003 年 1 月，一而再，再而三地爆發。禽流感真正受到控制是在 2003 年 4 月開始，香港所有農場陸續全面接種 H5 禽流感疫苗後。今天香港鄰近地區及國家都有嚴重的 H5N1 禽流感疫情，而我們尚未有一隻飼養的家禽受到感染，情況與全面接種疫苗之前相比，實在有很大及明顯的分別。

香港今天採用的 H5 疫苗，早於 1995 年在墨西哥開始使用，至今全球用量已超過 12 億單位，為何香港在 1997 年的禽流感爆發後不即時測試及使用這些疫苗呢？

從 2002 年 3 月 7 日食物及環境衛生諮詢委員會的會議記錄中，我們可以看到政府對使用疫苗控制禽流感的態度。“Mrs. Lily Yam (Secretary for the Environment and Food) said that some local farmers had suggested vaccinating chickens routinely to prevent avian influenza. AFCD was looking into the efficacy of H5 vaccines. She pointed out that other countries used vaccines mainly as a means to control the spread of virus in the midst of an outbreak.”

從上述的記錄中，我們可以看到

- (一) 有效控制禽流感的疫苗使用方案是來自農民而非專家
- (二) 政府及一些專家跟據外國經驗，認為禽流感疫苗只是在爆發禽流感後才用來控制

疫情的，他們實在不明白外國不用是因為使用疫苗表示有疫情，所有雞隻便不能出口，嚴重影響這些國家的經濟。

由於局方仍然參照這些專家的意見，準備有一隻死於 H5N1 的雞便殺清全港的活家禽，又大力推行以中央屠宰來防止禽流感傳人，並考慮一年內不准國內的活雞入口香港，對民生影響深遠，亦有很多本港及外國的專家極之不贊成港府的想法，我們建議立法會成立特別委員會調查及了解當局為何不早考慮 試及使用疫苗，倘若於 1998 年開始測試，1999 年全面使用，我們極可能避過 2001 年至 2003 年的三次禽流感，政府花掉市民 2 億多元殺雞，而業界蒙受多方的指責及經濟上鉅大的損失，是否有人應負上責任。更重要的是，我們再採納這些人的建議時，是否應更審慎？

食物及環境衛生諮詢委員會主席微生物學家袁國勇教授擔心今天有 H5，明天可能會有 H7，因為去年荷蘭有 H7，今年美國又有 H7，所以他經常說，中央屠宰始終是長治久安的方法，但美國與荷蘭都已採用中央屠宰多年，仍然常有禽流感爆發，香港實施全面中央屠宰，就真的不會再發生禽流感嗎？其實不少本港及外國的專家都指出，就算香港一隻活雞都沒有，仍然有發生禽流感的機會。

從微生物學家的角度來看禽流感或其他動物的病，他們的擔心是可以理解的，因為一些病對他們來說可能是很新，又因為他們對飼養禽畜的科技未有認識，不知道一些先進的禽畜業界及獸醫，已能很全面地控制包括各種禽流感在內的病。2004 年 1 月 24 日 The Lancet 的編輯論文(附錄 1)，以禽流感作為主題，其結論值得我們參考“*One thing is clear: given that all new infectious diseases of human beings to emerge in the past 20 years have had an animal source, veterinary science and animal husbandry are as important for disease control as clinical medicine. When funding and resources are allocated, animal experts must not be overlooked.*”政府應認識到獸醫及畜牧業專家與醫生同樣重要，要防止動物的病傳到人，是要靠畜牧及獸醫專業知識的。若政府不能營造一個環境讓他們各展所長，損失的將會是市民的健康及金錢。

香港政府、市民及業界付出了沉重的代價換來了一套連世衛禽流感專家 Dr. Robert Webster 都認為是值得全世界參考的預防及控制禽流感的措施，政府不應為着推行中央屠宰及最終關閉所有街市而借禽流感完全摧毀鮮活雞供應行業。香港這套預防及控制禽流感的措施尚未完善，業界亦已向有關部門提出了多個改善及提升防疫的方案。今天這些措施已不再屬於香港所有，我們應把它再臻完美獻給祖國及全人類，政府應細心聆聽為何禽流感專家 Dr Webster 極力反對中央屠宰而建議現在將雞放回市場是適當的做法。

願政府改良街市，讓市民可在舒適的環境中，購買新鮮的雞、肉及各種新鮮的食物，使更多的小商戶有更好的條件與超級市場競爭，這才是香港市民之福。

世界家禽學會香港分會會長  
香港禽畜業及相關行業秘書長  
黃振球

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## Avian influenza: the threat looms

By Jan 20, a fifth person had died of H5N1 avian influenza in Vietnam, according to WHO. The infection source is most likely from poultry rather than from human-to-human transmission. Bird stocks in Japan and South Korea have also been infected with the H5N1 strain.

Avian influenza is caused by influenza virus type A, and infects many animal species. A highly pathogenic avian influenza is caused by subtypes H5 and H7 (H is the haemagglutinin protein on the virus surface; N is the neuraminidase surface protein). Wild birds are the main natural reservoir, and are probably the source of infection for other animals. Influenza A viruses are highly labile, because of antigenic drift (small continuous changes in the virus that makes the body's immune system no longer recognise it) and antigenic shift (a rarer but sudden large change in the virus that leads to new combinations of haemagglutinin and neuraminidase proteins).

In 1997, 18 people in Hong Kong were admitted to hospital with H5N1 infection, and six died. This outbreak was the first documented example of direct transmission of H5N1 influenza to human beings. In 2003, two Hong Kong residents, after returning from China, developed H5N1 influenza, and one died. In the same year, H7N7 avian influenza, another virulent subtype, broke out in the poultry industry in the Netherlands, and a veterinarian died.

Live-poultry markets in Asian countries are a breeding ground for avian influenza. These wet markets, as they are called, are embedded in the food culture of such countries (see *Lancet*, Jan 17, 2004, p 234-36). The main response to outbreaks of avian influenza is mass culling of poultry, which is now underway in Vietnam. In the 1997 outbreak in Hong Kong, 1.4 million chickens and other poultry—the entire stock—were destroyed. The 1999 outbreak of avian influenza there saw 1.25 million birds culled.

The implications for the local and wider human population concern economics and health. Countries and communities that rely on farmed poultry as a food source will be hard-pressed after mass cullings of birds. Farmers will need financial compensation and alternative sources for bird meat must be sought. Because affected countries tend to be from poorer parts of the world, compensation and importation of

bird meat will need to be thought of by international donor agencies.

For health, what if H5N1 influenza, with its high virulence, becomes transmissible between human beings? Such a catastrophe has yet to occur, but is one of the major fears of infectious disease experts throughout the world. Until the 1997 outbreak in Hong Kong, it had been thought that H5N1 transmission to human beings would require an intermediate such as the pig, whose respiratory epithelium shares sialic acid isoforms with both birds and human beings. The fear is that a strain such as H5N1 might reassort with a human influenza virus to become contagious among people. In view of the high mortality of human influenza associated with this strain, the prospect of a worldwide pandemic is massively frightening.

If H5N1 influenza became pandemic in human beings, vaccination is not an option. Traditional influenza vaccines are made by the chick-embryo method, which is slow and limited by the supply of fertile eggs. The H5 and H7 subtypes cannot anyway be made by standard methods, because they are rapidly lethal to chick embryos. Plasmid reverse-genetic technology can be used to make influenza vaccines, but such vaccines have yet to be studied in clinical trials. Antiviral drugs are expensive and not effective enough. Influenza is more contagious than SARS (severe acute respiratory syndrome, caused by a coronavirus), so the quarantine measures used to control SARS are unlikely to control influenza.

The possibility of a human pandemic with a highly pathogenic avian influenza virus must be taken very seriously indeed. With the latest outbreak in birds in Vietnam, teams from WHO, the US Centers for Disease Control and Prevention, and the UN Food and Agriculture Organization were quickly in country. One thing is clear: given that all new infectious diseases of human beings to emerge in the past 20 years have had an animal source, veterinary science and animal husbandry are as important for disease control as clinical medicine. When funding and resources are allocated, animal experts must not be overlooked.

*The Lancet*