

Taiwan's Participation is Vital to Global Influenza Pandemic

Preparedness and Response

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Disease knows no borders. Only by working together, leaving no one out, can we adequately address the challenges of emerging infectious diseases, which have been made all the more complex by the effects of globalization on our health environment. As influenza viruses are constantly evolving and circulating in humans, as well as a number of animal species, the specter of a potential influenza pandemic haunts us constantly. Outbreaks of avian influenza and novel influenza have repeatedly threatened global health security in the past few years. As a result, the World Health Organization (WHO) has continuously urged nations to invest more in the development and implementation of various pharmacological and nonpharmacological interventions against pandemic influenza.

Taiwan was devastated by the 2003 SARS outbreak. Many of our frontline healthcare workers became infected while caring for patients, and unfortunately, some perished, including a nurse, then in her third trimester of pregnancy. Several hospitals were closed, more than 151,000 people were quarantined at home, a travel advisory was issued, and schools closed. We paid a heavy price to learn that disease indeed respects no national borders and to recognize the importance of international collaboration in tackling the threat posed by

infectious disease. At that time, Taiwan not being a WHO member, we did not receive timely information on the SARS virus and related disease control information. We were dependent on the expertise generously shared by the US CDC on how to control the outbreak. It was not until the SARS outbreak spread to Heping Hospital that the WHO finally dispatched experts to Taiwan. This was the first such assistance the organization had provided us in 31 years. SARS was a reminder to the WHO and the international community that they could not afford to leave Taiwan out in the cold, and led them to ponder ways of bridging this gap in the global health network.

In the post-SARS period, our public health officials and experts were invited to participate in WHO SARS conferences. Following the issuance of the WHO Pandemic Influenza Preparedness and Response guidance document, Taiwan established a national stockpile of influenza antiviral drugs in 2003, formulated a national influenza pandemic preparedness and response plan in 2005, and created a pre-pandemic stockpile of A/H5N1 vaccine for human use in 2007. In addition, we set up a three-tier preparedness plan that includes efforts by the central government, local governments, and healthcare institutions to maintain a 30-day stockpile of personal protective equipment. We also established a communicable disease control network, designating six pandemic response hospitals across Taiwan.

Since 2005, we have been invited to attend certain WHO technical meetings on influenza, where we are able to exchange experiences with experts from around the world. Also, Taiwan was included in the framework of the WHO's International Health Regulations (2005) in 2009, establishing a direct liaison

with WHO headquarters so we could report major public health events directly to the WHO. Thanks to having these direct communication channels, Taiwan was able to effectively implement various control measures during the H1N1 influenza pandemic of 2009. We practiced real-time surveillance, promptly notified the WHO, and shared genetic information on the H1N1 influenza virus with the international community. Further, we were able to obtain the vaccine strain to domestically produce a vaccine and reached a national vaccination coverage rate of over 70 percent, effectively reducing H1N1-associated mortality and preventing the further spread of the virus domestically and abroad.

Taiwan confirmed the world's first human case of H6N1 avian influenza in 2013 and promptly shared genetic information on the virus with the international community. Earlier this year, we identified a human H7N9 case imported from China. Genetic data showed that the virus was highly pathogenic for poultry and had a mutation associated with resistance to commonly used antivirals. Besides reporting the case information and the test results to the WHO through the National IHR focal point, we submitted sequencing data to GISAID within three days of identifying the case and voluntarily shared the virus strain with WHO-collaborating influenza centers in the United States and Japan within a month. The sequencing data can serve as reference for the WHO Global Influenza Surveillance and Response System to select seasonal influenza vaccine strains. As a responsible member of the international community, Taiwan was glad to be able to share its experience, provide recommendations on the clinical management of H7N9, and offer other information that can serve as important reference for WHO antiviral stockpile guidelines.

Beside the continued occurrence of H5N2 avian influenza outbreaks in Taiwan, the highly pathogenic H5N6 avian influenza virus, with a mortality rate of 70 percent, and which has infected 17 people in mainland China, was found among poultry in Taiwan earlier this year. Although no human case of H5N6 has been found in Taiwan, due to our proximity to China and relevant migratory bird routes, we will continue to closely monitor avian influenza virus activity in an effort to prevent poultry-to-human transmission of the virus.

It is regrettable that political obstruction has resulted in Taiwan's often being refused attendance at technical meetings of the WHO. This situation has created grave difficulties in Taiwan's efforts to collaborate with the international community on disease prevention. We are profoundly disappointed that the WHO has failed to abide by its Constitution and has ignored widespread support in the international community for Taiwan's participation in the WHA, instead bowing to political pressure from a certain member by excluding Taiwan from that body. The WHO is a professional, international health organization. It is obliged to abide by the principles espoused in its Constitution, particularly the enjoyment of the highest attainable standard of health for all people, regardless of race, religion, political belief, or economic or social condition. This right to health is the foundation underpinning the WHO's previous invitations to Taiwan to participate in the WHA and, on an equal basis, in WHO activities and technical meetings.

We urge the WHO and related parties to acknowledge Taiwan's longstanding contributions to the international community in the areas of public health, disease prevention, and the human right to health, as well as the healthcare

partnerships it has forged with WHO member states. Taiwan is capable of and willing to fulfill its responsibilities and to collaborate with the WHO to deal with the challenges of disease control. The WHO should recognize the legitimacy and importance of Taiwan's participation in the WHO and its Assembly. To bridge the gap in the global disease prevention network, Taiwan needs the WHO, but the WHO also needs Taiwan.

對抗全球流感大流行，臺灣不能缺席

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防疫無國界，唯有全球攜手合作，才能解決全球化環境下新興傳染病的難題。每年，因為流感病毒的多變，且存在於人類及多種動物身上，近幾年來發生的禽流感及新型流感疫情，都造成全球衛生安全的緊張。世衛一直以來均呼籲全球投入更多的資源，致力於發展和採行各種非藥物和藥物策略。

2003 年全球爆發 SARS 疫情，全臺遭受無情肆虐，包括：多位醫護人員因照護病人而不幸感染 SARS 病亡(其中尚包含即將臨盆的護理人員和她腹中胎兒)、醫院關閉、超過 151,000 人居家隔離、旅遊限制、學校停課等等慘痛代價，讓臺灣深刻體認疫病無國界，全球各國必須共同攜手面對傳染病威脅的重要性。2003 年當時，因臺灣非 WHO 會員國而未能及時取得 SARS 病毒相關防疫資訊，僅靠著美國 CDC 派遣防疫專家來臺協助，直到和平醫院爆發院內感染之際，WHO 才在闊別 31 年後首度派遣專家抵臺協助我國防治疫情。SARS 之經驗教訓，也終讓 WHO 及國際社會開始認真思考如何彌補臺灣這塊全球防疫缺口。

因此，我國防疫官員及專家在 SARS 疫情後期，即獲邀出席 WHO 舉辦的 SARS 研討會。臺灣並遵循 WHO 流感大流行整備指引，自 2003 年開始儲備流感抗病毒藥劑、並於 2005 年建立我國因應流感大流行準備計畫、2007 年起儲備人用 A/H5N1 疫苗。另亦建立中央、地方及醫療機構之防護裝備三級庫存機制，安全儲備量為 30 天，並建置傳染病防治醫療網，於全國指定 6 家應變醫院。此外，自 2005 年起獲邀出席若干 WHO 流感相關技術性會議，與各國防疫專家進行交流；並於 2009 年起納入 WHO 國際衛生條例(IHR 2005)運作機制，與 WHO 總部建立直接聯繫對口單位，以向 WHO 通報我國重要公共衛生事件。因為有直接的聯繫管道，當 2009 年爆

發 H1N1 新型流感全球大流行，臺灣得以有效進行各項防治措施，即時監測個案並通報 WHO，與國際分享 H1N1 流感病毒基因序列。同時索取疫苗種株，自製生產 H1N1 流感疫苗，促使我國 H1N1 疫苗接種完成率達 7 成以上，有效降低 H1N1 流感死亡、避免流感疫情在國內外的傳播。

此外，我國亦在 2013 年確認全球首例 H6N1 禽流感人類病例，與國際分享病毒基因序列；而今(2017)年初，臺灣境外移入 1 位 H7N9 禽流感人類確定病例，流感病毒基因定序結果顯示該病毒對禽類具高病原性，且對抗病毒藥劑具抗藥性，但在禽傳人或人傳人能力上並未增強。臺灣除第一時間將個案資訊及檢驗報告透過 IHR 窗口通報 WHO，亦率先將病毒基因定序結果上傳 GISAID 資料庫、發表於國際期刊與全球分享，並將分離病毒株寄送 WHO 流感合作中心，作為 WHO Global Influenza Surveillance and Response System 選擇季節性流感疫苗株之參考。因應這項重大訊息，WHO 邀臺灣召開病例討論電話會議，而臺灣身為國際防疫夥伴，一如往常樂願分享我國經驗，提供 WHO 檢視 H7N9 臨床診治建議及全球抗病毒藥劑儲備策略的重要參考。

此外，我國除了持續發生的 H5N2 禽流感疫情，今年，在中國大陸導致 17 人感染、致死率高於 70% 的高病原性 H5N6 禽流感病毒也在臺灣家禽現蹤；儘管臺灣尚無人類病例，因為位處關鍵的地理位置及候鳥遷徙動線，臺灣亦謹慎的進行禽流感病毒監視，以避免人禽介面之傳播。

但我們很遺憾，我國歷年申請參與 WHO 技術性會議，因政治干擾而遭拒的比例甚高，造成臺灣與國際社會共同維護全球防疫缺口的極大困難，我方更是失望今年 WHO 未依循其憲章宗旨，以及國際社會廣泛支持邀請臺灣參與 WHA 的呼籲，屈從於特定會員的政治利益。WHO 作為專業國際醫衛組織，應依其憲章宗旨，為全人類健康福祉服務，不得因種族、宗教、政治信仰、經濟或社會條件之差異，而有所區別。此普世健康人權價值明載於 WHO 憲章，並構成 WHO 邀我參與 WHA，以及我平等參與

WHO 各項活動及技術性會議之基礎。

我們籲請 WHO 及相關各方注及臺灣長期以來對全球公共衛生防疫以及健康人權之貢獻，與 WHO 會員國建立之醫衛夥伴關係。臺灣有能力也有意願善盡作為國際社會成員的責任，與 WHO 共同合作因應防疫挑戰。WHO 應該正視臺灣參與 WHO 及 WHA 的正當性與重要性，為了維護全球健康人權與防疫無缺口，臺灣需要 WHO，WHO 也同樣需要臺灣。