Testimony before the Congressional-Executive Commission on China

Food and Drug Safety, Public Health, and the Environment in China

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Thank you, Senator Brown, Representative Smith and distinguished members of the Commission. It is a pleasure to appear before you representing the U.S. Centers for Disease Control and Prevention (CDC), one of the Nation's leading health protection agencies and an operating division of the Department of Health and Human Services. Throughout its history, CDC and its local, national, and international partners have worked to detect, respond to and prevent global health security threats. Today I would like to focus on how CDC's collaborations with China help to protect Americans' health and well-being, while supporting China's efforts to protect the health of its own citizens.

CDC's Global Health Efforts

CDC's global health mission is to protect and improve health globally through science, policy, and evidence-based public health action. CDC works in global health to protect the people of the United States; prevent disease; contribute to stable, productive societies; and save lives worldwide. CDC achieves its global health mission by leveraging its core technical strengths and partnerships. The Agency's world-class capacity to respond to disease outbreaks and other public health emergencies, our staff on the ground in approximately 55 countries, and our peer-to-peer working relationships with Ministries of Health, enables CDC to be on the scene early in events of public health concern. CDC strives not only to implement programs around the world to improve health, but also to build sustainable in-country capacity, institutions, partnerships, and systems to address global public health issues.

CDC in China

China is an important geopolitical and public health partner for the United States. CDC and the Chinese government have collaborated on public health priorities that affect China, the United States, and the global community for more than 30 years. CDC focuses its work in China on emerging and re-emerging

infectious diseases, immunization, non-communicable diseases, emergency preparedness, laboratory systems development, epidemiology training, communications, and public health workforce development.

CDC's work in China is conducted through partnerships with Chinese public health institutions at the national, provincial and local level, as well as Chinese academic institutions and non-governmental organizations. In addition, the CDC works with American companies, foundations and universities as well as multilateral organizations such as the World Health Organization (WHO) to achieve our public health goals in China. CDC's collaborative projects across China have built strong bilateral relationships between China and the United States, and also help to shape China's own multilateral and bilateral engagements on global health. A sign of the strength of these collaborations is China's decision to designate their district, provincial, and national public health institutes 'CDCs'.

Since the early 1990s CDC has had at least one technical staff member assigned to China, and the earliest assignees worked on birth defects and immunization. In 2003, China was the epicenter for the global outbreak of Severe Acute Respiratory Syndrome, or SARS. Disruption in travel, trade, and local economies led to over 30 billion dollars in economic losses to affected countries. China and the world suffered from the initial lack of transparency and delays in confronting their epidemic. They subsequently invested heavily in improving their public health infrastructure, which helped them host the 2008 Olympics in Beijing and contributed to their effective response to the 2009 H1N1 influenza pandemic. Thus far, their efforts in the 2013 H7N9 case have demonstrated tremendous advancements.

CDC's Global AIDS Program office in China was established in 2003-2004 with funding from the U.S. President's Emergency Plan for AIDS Relief (PEPFAR). CDC works closely with the Chinese national response to HIV/AIDS, led by the National Center for AIDS/STD Prevention and Control at the Chinese Center for Disease Control and Prevention (China CDC). The Chinese government provides funding for anti-retroviral treatment for all eligible patients, while CDC provides technical assistance on guideline and policy development; innovative approaches to care, treatment and prevention; strategic information; and laboratory systems development. The collaboration relies on a data-driven, evidence-based approach to prevent and control HIV, especially in high-risk groups.

Although CDC began influenza collaboration with China in the late 1980s, the Memorandum of Understanding on Emerging and Re-emerging Infectious Diseases between the U.S. Department of Health and Human Services (HHS) and the Chinese Ministry of Health helped formalize the relationship on infectious Diseases. In 2004 CDC established a cooperative agreement with China CDC in response to the emergence of human infections of avian influenza H5N1 virus. Since then, US CDC and China CDC cooperative agreements have improved China's influenza surveillance network and also strengthened influenza response capacity at all levels.

CDC's Global Disease Detection (GDD) program works to identify and contain infectious disease outbreaks before they spread globally. The China GDD program began in 2005 to strengthen China's national capacity to detect and respond to emerging threats, building on lessons learned from the response to the Severe Acute Respiratory Syndrome (SARS) emergency. I was in China to assist WHO with the SARS response in 2003, and have seen the extraordinary progress in their public health response and capacity since then.

CDC first established the Field Epidemiology Training Program, to train "disease detectives" to lead investigations and effective responses to public health threats. Through this effort, more than 100 of China's top epidemiologists are now able to respond to health emergencies in China. China's FETP began with a focus on tuberculosis (TB), and expanded to include laboratory capacity, foodborne disease, healthcare associated infections, hepatitis, non-communicable disease, and public health emergency response. FETP staff from China and the United States has helped conduct approximately 500 outbreak investigations since 2003.

Our partnership with China also now supports critical public health priorities in other countries, including Chinese staff participation in the CDC-WHO Stop Transmission Of Polio (STOP) missions, further enabling China to fulfill its goal of becoming a global health response partner.

The close collaboration between the United States and China CDC has yielded important results, including the designation of the Chinese National Influenza Center in October 2010 as one of five WHO Collaborating Centers for Reference and Research on Influenza—the only such Center in a low or middle-income country. In addition, together we have made positive strides in the capacity of the Chinese to respond to public health emergencies as demonstrated by the 2011 response to an outbreak of polio in China's Xinjiang province, which was caused by a poliovirus imported from Pakistan. China's immediate and effective response was described as "a true model response" by WHO.

China's large population and strong capacity to conduct sophisticated research has facilitated key studies that answer questions of global import. Research conducted in China by CDC with Chinese collaborators provided critical data that supported the decision of the U.S. Food and Drug Administration in 1996 to require all United States manufacturers of enriched cereal grain products to

fortify those products with folic acid. As a result of this decision, the rates of spina bifida and other serious birth defects of the brain and spine have decreased significantly in the United States and in other countries that have implemented similar policies. Furthermore, continued collaboration with the Chinese using the original research infrastructure developed for the original study has allowed CDC to answer questions about the safety of the United States folic acid fortification program. Currently, plans are underway to initiate additional research using this collaborative platform to evaluate the potential of folic acid consumption during pregnancy to reduce childhood cancer. China is also implementing one of the largest community trials of salt reduction and hypertension management, which has the potential to have impact on heart disease and stroke prevention.

Avian Influenza A (H7N9)

Right now in China, authorities have moved aggressively to limit the spread of avian influenza A (H7N9). This strain had never been detected in humans until March of this year. The government in China is working to monitor the illness, share information quickly and intervene aggressively. The support provided by CDC through our cooperative agreements for influenza has emphasized the integration of virologic and epidemiologic surveillance in the interest of obtaining the most complete picture possible of influenza activity. CDC's technical collaboration with China over the past decade has contributed to the ability of Chinese laboratory scientists to rapidly sequence the genome of multiple viral isolates of avian influenza A (H7N9), and post sequence data promptly for others to see. China has shown expertise and transparency during the avian influenza A (H7N9) response both in terms of epidemiologic information-sharing with global public agencies, as well as timely health communications to the public. These collaborative efforts are essential to the health security of both the American and Chinese people. The Chinese public health capacity is now greatly improved and our information about the evolving situation is much more complete than was the case with SARS 10 years ago.

For instance, the number of influenza like illness (ILI) sentinel surveillance sites in China has increased from 92 in 2005 to 554 in 2013, greatly expanding the geographic reach and representativeness of their surveillance network. The number of network labs capable of testing for influenza has grown from 63 to 409. China has also enhanced the complexity of laboratory tests done for characterization of influenza viruses. With these expansions comes a much greater contribution to the ability to monitor influenza activity globally, contribute viruses to the WHO Global Influenza Surveillance and Response System and to detect outbreaks and unusual cases of respiratory infection. The improved global network has not only strengthened China's preparedness, but also aided the global public health community with the detection of unusual respiratory disease activity and the early detection of avian influenza A (H7N9). The bottom-line with avian influenza A (H7N9) is that China continues to collaborate with the CDC and has welcomed United States collaboration.

Global Health Security Threats

We believe the sustained support for our work in China directly protects Americans. Unfortunately, over 80 percent of countries around the world still lack the essential resources and sufficient health infrastructure to detect, assess, notify, and respond to public health emergencies of international concern.

CDC helps promote compliance and coordination for the United States and WHO member states, and supports WHO member states with limited resources to develop and fully implement essential detection and control capacities. CDC's global health resources support countries to fulfill these

commitments by strengthening networks of laboratories, surveillance systems, and training programs in field epidemiology, laboratory science, and risk communication.

CDC strives to address global health security threats comprehensively through activities that work on multiple, complementary levels by detecting threats early; responding effectively; to containing disease outbreaks; communicating risks; and preventing avoidable catastrophes by working with other USG agencies to ensure the global food, drug, and medical device supply is safe. CDC partners with governments to improve the safety and security of their laboratories and other facilities that work with dangerous organisms to prevent the intentional or unintentional release of disease agents.

China has been an engaged partner in efforts to strengthen global health security, and CDC's partnership has led the Chinese government to make significant investments in their own capacity to detect and respond to health threats. However, most of the world has not made these commitments or reached China's level of capacity, and United States leadership is needed to protect Americans and the world.

Conclusion: The Value of Partnership

China has been an important partner to align short-and long-term United States strategic, economic and health protection interests. The recent experience with avian influenza A (H7N9) has thus far shown that strategic investments in human capacity can yield important impacts on illness prevented and lives saved. In addition, continued deployment and expansion of resources on the ground will ensure U.S. leverage in Global Health Security as China rapidly expands its public health assets, with support from both domestic resources and other international partners. China has choices among its numerous international partnerships influencing the development of burgeoning public health system. The United States' continued involvement will ensure influence at critical points in China public health security

development. Given the interconnectedness of global travel and trade, the rise of emerging and re-emerging disease threats, and the potential for deadly pathogens or products to be inadvertently or intentionally released, continued investment in technical assistance and broader partnership with China and the world remain strategically important for United States interests and global public health.