**Summary of the Pandemic Threat, SC Activities to Date, & Current SC Priorities**

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Summary of the Current Threat

An influenza pandemic occurs when an influenza A virus new to humans acquires the ability for sustained person-to-person (P2P) transmission and spreads around the world. Since the 16th century, influenza pandemics have been described at intervals ranging between 10 and 50 years, with varying severity. While, the 1918 pandemic, which is believed to have evolved from an avian virus, is estimated to have killed 50 to 100 million people,[[1]](#footnote-1) the 2009 “swine flu” pandemic was very much milder.

From late 2003 through January 16, 2017, 856 laboratory-confirmed human cases of avian influenza A(H5N1) were officially reported to WHO from 16 countries, with 53% of these cases resulting in death.[[2]](#footnote-2) Potential evolution of this virus into one capable of sustained P2P transmission has been a substantial concern over the last dozen years.[[3]](#footnote-3) In 2015, the US CDC noted that, “If HPAI Asian H5N1 viruses gain the ability for efficient and sustained transmission among humans, an influenza pandemic could result, with potentially high rates of illness and death worldwide. Therefore, the HPAI H5N1 epizootic continues to pose an important public health threat.”[[4]](#footnote-4)

Since November 2012, we have witnessed an important evolution in terms of current threats (which we know about) of a potentially severe pandemic involving P2P respiratory transmission of a novel virus. We have been following news of the Novel Coronavirus (MERS-CoV) since WHO’s first report in November 2012 of clusters of cases.  MERS is not an influenza virus, but related to other coronaviruses which cause SARS and the common cold.  Bats and camels (rather than birds) appear to be animal reservoirs.  From September 2012 through January 2017, WHO was informed of 1,888 laboratory-confirmed cases from 27 countries, with a cumulative case fatality ratio among confirmed cases of 35%. Most cases have been reported by Saudi Arabia, and all cases have had a link to the Middle East. WHO has noted that, “There have been clusters of cases in health‐care facilities, where human‐to‐human transmission appears to be more efficient, especially when infection prevention and control practices are inadequate. Thus far, no sustained community transmission has been documented.”[[5]](#footnote-5) WHO’s Director General noted in her closing remarks to the 2013 World Health Assembly that, “Looking at the overall world health situation, my greatest concern right now is the Novel Coronavirus.”[[6]](#footnote-6)

Since March 31, 2013, we have also been following annual outbreaks of H7N9 avian flu in China. As of 16 January 2017, a total of 918 laboratory-confirmed cases of human infection with avian influenza A(H7N9) viruses have been reported to WHO, with 39% of these cases resulting in death.[[7]](#footnote-7) This virus had never been detected in humans before.  Live poultry markets have been identified as a source of transmission to humans, even though (unlike H5N1) H7N9 is not causing signs of illness in poultry.  The US CDC recently noted that, “Rare, limited person-to-person spread of this virus has been identified in China, but there is no evidence of sustained person-to-person spread of H7N9.” …….. “Most concerning about this situation is the pandemic potential of this virus. Influenza viruses constantly change and it’s possible that this virus could gain the ability to spread easily and sustainably among people, triggering a global outbreak of disease (pandemic). In fact, of the influenza viruses rated by the Influenza Risk Assessment Tool (IRAT), H7N9 is ranked as having the greatest potential to cause a pandemic, as well as potentially posing the greatest risk to severely impact public health.”[[8]](#footnote-8)

These three current threats have several things in common, including:

* Apparent high case fatality (high mortality among confirmed cases).
* Limited P2P transmission among close contacts is likely to have occurred in clusters of cases with all three of these viruses (particularly H5N1 in community settings and MERS in health facilities), but thankfully, so far, efficient / sustained P2P transmission has not been observed.
* The concern is that all three of these are RNA viruses which could potentially evolve into viruses capable of efficient / sustained / community P2P transmission by respiratory means, and potentially retain some of their current apparent high lethality (though current lethality remains uncertain, as milder cases may be comparatively under-reported).
* Likely unavailability of vaccine or antiviral treatment for much or all of the world’s population during at least the first several months of any pandemic.

Although the risk of onset of a severe pandemic in the next year, or in the next decade, can not be quantified, a severe pandemic involving P2P respiratory transmission is considered by leading organizations, even those outside of the health sector, to be an important global threat.  For example, the World Development Report 2014 noted that “a severe flu pandemic could more than double the total burden of disease” and “trigger a global recession,” and that, “pandemics are an undermanaged risk. Pandemic prevention and preparedness tend to be sidelined, especially in the health sector, where the responsibility often rests.”[[9]](#footnote-9) Also in 2014, the US intelligence community reported to the US Senate Select Committee on Intelligence that, “If H7N9 influenza or any other novel respiratory pathogen that kills or incapacitates more than 1 percent of its victims were to become easily transmissible, the outcome would be among the most disruptive events possible. Uncontrolled, such an outbreak would result in a global pandemic with suffering and death spreading globally in fewer than six months and would persist for approximately two years.”[[10]](#footnote-10) In 2015, the UK Cabinet Office, reported that, “The following, as reflected within the risk matrices, are considered by the Government to be the highest priority risks. Pandemic influenza – This continues to represent the most significant civil emergency risk.”[[11]](#footnote-11)

Summary of SC Activities to Date

Due to substantial concerns over the threat posed by the H5N1 virus, Save the Children began substantial efforts at preparedness in 2005, focusing on three priorities:

* The health and safety of SC staff and their families;
* Continuity of key SC business and services (eg. business continuity planning); and
* Mitigating the consequences of a severe pandemic in the communities in which we work around the world.

Starting in early 2006, SC/US formed an Influenza Working Group (IWG) composed of staff from several departments, including Health, Human Resources, Global Safety and Security, Information Technology, Facilities and Services, Finance, and Legal. The IWG developed pandemic flu guidance related to staff health and safety, and business continuity. These documents, along with other guidance, were posted on SC’s external website[[12]](#footnote-12) and on the internal SaveNet site.[[13]](#footnote-13) More recently, important links on pandemic threats have also been included on the SC/International OneNet site.[[14]](#footnote-14) These sites continue to be updated at least annually.

Also in 2006, Influenza Point People (IPPs) were identified in each SC/US country office and given a 2-day training in pandemic preparedness and response at three locations around the world. Country offices developed pandemic preparedness plans which were reviewed at headquarters. Most of our work in preparing to help mitigate the consequences of a severe pandemic in the communities around the world where we work was through the Humanitarian Pandemic Preparedness (H2P) initiative, in which we were actively involved from October 2007 through September 2010,[[15]](#footnote-15) contributing to several WHO guidance documents.[[16]](#footnote-16),[[17]](#footnote-17)

Summary of Current Priorities of SC’s Pandemic Point Persons

SC’s Pandemic Point Persons seek to continue to play an effective leadership role for SC/US and for SCI in global pandemic preparedness, and in pandemic response, if necessary. We seek to continue to stay up-to-date with regard to evolving threats, and with regard to global guidance on preparing for and responding to a pandemic involving respiratory transmission of a virus with potential high mortality. We will continue to update the three SC Pandemic Threats websites, and will use opportunities to inform SC leadership and health professionals about the pandemic threat and the role of, and resources for, SC health professionals in advising their colleagues on responding to a severe pandemic. We will provide clear up-to-date written guidance to SC offices and staff, promote understanding and preparedness, and promptly respond to any new developments of concern.

Many organizations (including Save the Children, through the No More Epidemics campaign[[18]](#footnote-18)) are working on an epidemics / pandemics-related agenda involving the International Health Regulations (IHR), the Global Health Security Agenda (GHSA), Health Systems Strengthening, One Health, and/or the Whole of Society approach, all very worthy, important, and noble causes, but also all rather complex, expensive, and long-term agendas. We note, however, that in a severe pandemic scenario, involving a novel respiratory virus, when all countries around the world and all responding organizations are themselves struck or preparing to be struck, that most communities will fail to receive adequate medical supplies during the initial wave / months, and that their health services will be more stressed than they are today (even after substantial progress is made on the above agendas). However, these populations could, by employing well-planned, evidence-based measures, play an important role in caring for those not severely ill and slowing disease transmission. These measures include non-pharmaceutical interventions (NPIs) to reduce transmission of respiratory viruses at household and community levels. Although the US CDC (together with 15 other Federal agencies) has developed detailed guidance for the United States on NPIs,[[19]](#footnote-19) similar guidance remains to be developed for low-resource settings. Thus, we will continue to advocate for detailed authoritative guidance to be developed for low-resource settings, on a limited, feasible package of interventions which can be implemented locally, without outside human resources or supplies.[[20]](#footnote-20) Once such guidance becomes available, developing countries will need support to adapt the guidance, plan for rapid roll-out if needed, and test these plans.

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2. [www.who.int/influenza/human\_animal\_interface/en/](http://www.who.int/influenza/human_animal_interface/en/) [↑](#footnote-ref-2)
3. Influenza Research at the Human and Animal Interface: Report of a WHO Working Group, September 2006, pages 15-16: [www.who.int/csr/resources/publications/influenza/WHO\_CDS\_EPR\_GIP\_2006\_3C.pdf](http://www.who.int/csr/resources/publications/influenza/WHO_CDS_EPR_GIP_2006_3C.pdf) [↑](#footnote-ref-3)
4. <https://www.cdc.gov/flu/avianflu/h5n1-threat.htm> [↑](#footnote-ref-4)
5. <http://www.who.int/csr/disease/coronavirus_infections/faq/en/> [↑](#footnote-ref-5)
6. <http://www.who.int/dg/speeches/2013/world_health_assembly_20130527/en/index.html> [↑](#footnote-ref-6)
7. <http://www.who.int/influenza/human_animal_interface/HAI_Risk_Assessment/en/> [↑](#footnote-ref-7)
8. <https://www.cdc.gov/flu/avianflu/h7n9-virus.htm> [↑](#footnote-ref-8)
9. <http://siteresources.worldbank.org/EXTNWDR2013/Resources/8258024-1352909193861/8936935-1356011448215/8986901-1380046989056/07a--Spotlight_7.pdf> [↑](#footnote-ref-9)
10. <http://www.dni.gov/files/documents/Intelligence%20Reports/2014%20WWTA%20%20SFR_SSCI_29_Jan.pdf> (see page 12) [↑](#footnote-ref-10)
11. <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/419549/20150331_2015-NRR-WA_Final.pdf> [↑](#footnote-ref-11)
12. [www.savethechildren.org/publications/technical-resources/avian-flu/](http://www.savethechildren.org/publications/technical-resources/avian-flu/) [↑](#footnote-ref-12)
13. <https://savechildrenusa.sharepoint.com/gss/Pages/AvianFluUpdates.aspx> [↑](#footnote-ref-13)
14. <https://onenet.savethechildren.net/sci/security/Pages/pandemic-threats.aspx> [↑](#footnote-ref-14)
15. [www.coregroup.org/our-technical-work/initiatives/h2p](http://www.coregroup.org/our-technical-work/initiatives/h2p) [↑](#footnote-ref-15)
16. [www.who.int/influenza/resources/documents/community\_case\_management\_flipbook/en/index.html](http://www.who.int/influenza/resources/documents/community_case_management_flipbook/en/index.html) [↑](#footnote-ref-16)
17. <http://whqlibdoc.who.int/hq/2008/WHO_HSE_EPR_DCE_2008.6_eng.pdf> [↑](#footnote-ref-17)
18. <http://nomoreepidemics.org/> [↑](#footnote-ref-18)
19. [www.cdc.gov/nonpharmaceutical-interventions/](http://www.cdc.gov/nonpharmaceutical-interventions/) [↑](#footnote-ref-19)
20. <http://onlinelibrary.wiley.com/doi/10.1111/irv.12040/full> [↑](#footnote-ref-20)