

# Save the Children (US) Summary Strategy for Avian & Pandemic Influenza<sup>1</sup> May 15, 2007 Draft<sup>2</sup>

## Most Important Planning Assumptions

- **Pandemics<sup>3</sup> happen** (roughly every 30 years or so on average, though because of current widespread H5N1 HPAI<sup>4</sup> in birds which is also causing human illness, current risk is likely higher than the average ~3.3% [1/30] risk of onset in any given year since 1889); &
- Approximately **20% to 40% of everyone on earth will become ill** with the flu during the next pandemic.

## Most Important Uncertainties (both unquantifiable)

- **Date of onset** of the next pandemic (any time from sometime next week to sometime next decade or so); &
- **Severity** (which is mostly a function of CFR, the case fatality rate, the percent of ill persons who die. The CFR could be as low as ~0.1%, as in seasonal flu, or perhaps substantially higher than the US CFR of ~2.2% in 1918/1919.<sup>5</sup> The CFR is a measure of mortality directly attributable to pandemic illness and a predictor of the extent of related social and economic disruption.)

---

<sup>1</sup> For more information, please refer to: Avian and Pandemic Influenza Planning Assumptions, & Westport / Washington Summary Preparedness Matrix, on SaveNet and at <http://www.savethechildren.org/publications/technical-resources/avian-flu/>

<sup>2</sup> Please send comments to [akeehn@savechildren.org](mailto:akeehn@savechildren.org), [kbolles@savechildren.org](mailto:kbolles@savechildren.org), & [estarbuck@savechildren.org](mailto:estarbuck@savechildren.org)

<sup>3</sup> In this paper, the term “pandemic” refers to a worldwide flu epidemic caused by a subtype of the influenza A virus which is new to humans. All flu pandemics are caused by “bird flu” which evolves genetically to cause illness in humans and to transmit from person to person.

<sup>4</sup> HPAI = Highly Pathogenic Avian Influenza, which refers to the lethality in poultry (not in humans) of some strains of H5N1 & some strains of other subtypes of the influenza A virus (H7N7, etc.).

<sup>5</sup> ..... “should the virus improve its transmissibility through adaptation as a wholly avian virus, then the present high lethality could be maintained during a pandemic.” (“present high lethality”: 69% CFR among the 115 lab-confirmed H5N1 cases in 9 countries in 2006.) Influenza Research at the Human and Animal Interface: Report of a WHO Working Group, Geneva, Switzerland, 21–22 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) (Pandemic severity is described in this SC document in relation to CFR in the US because estimates for the US are available, and because US CFR estimates are the main basis of the new CDC index of pandemic severity, something which WHO has not developed.)

## Scenarios

1. **‘Crying wolf’:** H5N1 HPAI continues to cause outbreaks in poultry in many countries, and sporadic cases of human illness and death in countries where many people have substantial exposure to infected poultry, for several years to come, but a pandemic does not start during this period. This has economic and nutritional implications for poorer families owning poultry in areas with H5N1-related poultry deaths and culling. This scenario includes the possibility of larger clusters of human cases of H5N1 (than the maximum to date of 8 persons), which fail to result in immediate pandemic onset because of limited person-to-person transmissibility of the virus<sup>6</sup> and/or effective containment of outbreak(s). (At some point in time, the wolf really will come, and this scenario will transition to one of the following scenarios, perhaps well after H5N1 HPAI has burned itself out in avian populations.)
2. **Mild to moderate pandemic**<sup>7</sup> (worldwide average CFR < 1%, roughly similar to the 1957 or 1968 pandemics, but with variation in CFR/severity within and between countries). Limited social and economic disruption are likely in some areas, partly due to high percentages of people not coming to work during pandemic waves / outbreaks, with the extent of disruptions depending in part on local severity of the pandemic.
3. **Severe pandemic**<sup>8</sup> (worldwide average CFR 1% or more, roughly comparable to 1918 [ $\sim$ 2.2% US CFR], not approaching the 2006 H5N1 CFR, but with substantial variation in CFR within and between countries). All organizations should expect an average of up to  $\sim$ 50% absenteeism during the peak periods of 6 to 12 week-long local outbreaks / pandemic waves. Substantial/serious social and economic disruptions are likely in many locations around the world, which may be temporary, but amplified in today’s closely interdependent systems of global commerce, involving just-in-time delivery of goods. Disruption of key services is likely, including airline travel and communications services (including the internet), and reduced availability of important goods, including food, water, fuel, and medications unrelated to influenza.
4. **H5N1 worst case scenario**<sup>9</sup> (CFR substantially higher than 2.2%. SC has NOT planned or prepared for this scenario.<sup>10</sup>)

---

<sup>6</sup> “Basic reproductive number ( $R_0$ )” < 1.0, corresponding to WHO Phases of Pandemic Alert 4 and 5.

<sup>7</sup> CDC Category 1, 2, or 3 pandemic (<http://www.pandemicflu.gov/plan/community/mitigation.html>, not to be confused with WHO Phases of Pandemic Alert). Widespread use of antibiotics for secondary bacterial infections, and widespread immunization starting  $\sim$ 4-6 months after pandemic onset, substantially reduce mortality in areas where these are available. Particularly the newer antiviral drugs, where available, will likely be effective for prophylaxis, and as treatment to reduce duration and complications of illness.

<sup>8</sup> CDC Category 4 or 5 pandemic. Although health systems everywhere are overwhelmed or under great stress, widespread use of antibiotics for secondary bacterial infections, and widespread immunization starting  $\sim$ 4-6 months after pandemic onset, substantially reduce mortality in areas where these are available. Particularly the newer antiviral drugs, where available, will likely be effective for prophylaxis (but supplies may not be sufficient for widespread prophylaxis), and as treatment to reduce duration and complications of illness in many cases.

<sup>9</sup> Off the CDC scale (but implied in the CDC index by the arrow figure pointing up, off the scale). Use of antibiotics for secondary bacterial infections has limited impact on mortality because a high percentage of deaths are due to primary viral illness (as is the case now with H5N1), but widespread immunization starting  $\sim$ 4-6 months after pandemic onset substantially reduces mortality in areas where available. Particularly the newer antiviral drugs, where available, will likely be effective for prophylaxis (but supplies are unlikely to be

## Summary Statement of the Current Threat

Although the timing and severity both remain completely unpredictable, "all concerned should keep in mind that no health emergency on the scale of a severe influenza pandemic has confronted the international community for several decades ..... the present threat to international public health is sufficiently serious to call for emergency actions calculated to provide the greatest level of protection and preparedness as quickly as possible."<sup>11</sup>

## Goal of the Save the Children (US) Strategy for Avian & Pandemic Influenza

SC seeks to work with its staff and partners around the world to effectively prepare, as soon as feasible, to:

1. Protect the health of SC staff and their families worldwide,
2. Continue key agency functions, and
3. Protect the health and well-being of children and families in the areas around the world where we work,

to the maximum extent possible, during the next influenza pandemic. If resources are available, then a secondary SC goal would be to work effectively with local partners in areas with H5N1 HPAI outbreaks in poultry, to reduce pandemic threat and to reduce the economic and nutritional consequences of H5N1 on children and their families, by reducing bird-to-human and bird-to-bird transmission.<sup>12</sup> *(The focus of SC effort is on preparedness for pandemic flu because the direct threat to human health is in the order of 100,000 times greater from pandemic flu than from avian flu.)*

---

sufficient for widespread prophylaxis), but ineffective for treatment in a high percentage of cases (because the viral storm and resulting immune response follow too quickly after initial infection for treatment to be effective, as now appears to be the case with H5N1).

<sup>10</sup> Preparing for something like this would require a much greater commitment of resources for pandemic planning and preparedness than have been made available to date. We are not aware of guidelines from credible sources to guide planning for this scenario.

<sup>11</sup> WHO Strategic Action Plan for Pandemic Influenza 2006–2007, page 4  
[www.who.int/csr/resources/publications/influenza/WHO\\_CDS\\_EPR\\_GIP\\_2006\\_2c.pdf](http://www.who.int/csr/resources/publications/influenza/WHO_CDS_EPR_GIP_2006_2c.pdf)

<sup>12</sup> Pandemic threat involving H5N1 is likely a function of the extent of H5N1 infection in humans, pigs, and in other mammalian species (?), which is likely a function of the extent of H5N1 HPAI in poultry. Reducing transmission from birds to humans and to other mammals reduces opportunities for evolution of the avian virus into a pandemic strain, and reduces current human morbidity and mortality due to avian flu.

## Protecting the Health and Well-Being of Children and Families Where We Work<sup>13</sup>

Protecting the health of SC staff and their families, and continuity of key agency functions, are pre-conditions for effective activities with local partners to protect the health and well-being of children and families where we work. At a minimum, SC seeks to have the following in place at all major offices around the world:

- Staff who have a good understanding of the nature of the pandemic threat;
- Good pandemic flu preparedness and business continuity plans in place; and
- Staff who are familiar with and have easy access to the best available tools to protect the health and well-being of SC staff, their families, and the children and families in the areas where we work.

### Key Activities to Date:

1. SC conducted two-day pandemic flu workshops for SC Influenza Point Persons (IPPs) from nearly all SC (US) country offices and US field offices at three regional locations in Spring 2006. Several staff from members of the International Save the Children Alliance (including SC UK, SC Sweden, and SC Honduras) participated in these workshops.
2. Sessions on the pandemic flu threat and resources for preparedness and response are conducted at each annual “PLG” meeting of senior SC (US) health staff from around the world. Similar sessions will commence in June 2007 at regional workshops on emergency health preparedness.
3. Nearly all SC (US) country offices, and both of the two main US field offices, have completed draft pandemic flu preparedness plans, all of which have been reviewed by headquarters staff. Several offices have revised their plans based on comments on the drafts.
4. The SC (US) headquarters has completed a comprehensive draft business continuity plan, with input from all departments, which addresses emergencies including pandemic flu. Drills to test aspects of this plan will commence soon.
5. Key documents for preparedness and response were posted on SC’s SaveNet intranet site starting in the Spring of 2006, and most documents on the external website in early 2007. These include guidance for IPPs and/or for staff on:
  - The nature of the pandemic threat and links to resources for more information;
  - Preparedness (guidance for SC families, and for SC staff to work with colleagues on local SC preparedness and with local partners on community preparedness);
  - Modes of (person-to-person) transmission and how to reduce transmission (guidance for families, and for SC staff and partners on community measures); and

---

<sup>13</sup> This aspect of our draft strategy is the focus of the remainder of this short document because this aspect has not been well-described to date. For information on SC plans for protecting the health of staff and maintaining key functions (a focus of much of our work to date), please refer to: Avian and Pandemic Influenza Planning Assumptions, & Westport / Washington Summary Preparedness Matrix, on SaveNet or at <http://www.savethechildren.org/publications/technical-resources/avian-flu/>

- Flu symptoms and home care (though guidance on home- and community-based care written specifically for resource-poor settings where SC works remains a gap of continuing concern).
6. SC has participated actively in activities to increase NGO collaboration and preparedness.<sup>14</sup>

With Additional Funding, SC Seeks to Implement Some or All of the Following:

7. At national level (in all countries with an SC US/Alliance presence), obtain information on avian and pandemic flu-related plans and roles of the MOH and other host-government agencies, donors, and NGOs, and identify clear roles for SC, based on SC strengths, and on strengths and plans of local partners.
8. Play a leading role or participate in coordination at national and/or regional level of in-country partners, including members of the International Save the Children Alliance, in pandemic preparedness planning and/or implementation of avian flu activities.
9. Lead or participate in local preparedness planning, in collaboration with local partners, in SC US and/or Alliance program sites, to address the needs of the local population during a pandemic.
10. Plan for modification of existing SC US and/or Alliance programs during a pandemic; considering the likely substantial reductions in SC and partner staffing during pandemic waves; likely social and economic disruptions; need for social distancing in SC, local partner, and beneficiary populations; and redeployment of program resources to save lives.
11. Implement interventions with local partners as part of large-scale government-led efforts to reduce bird-to-bird and bird-to-human transmission of H5N1 HPAI.
12. Additional regional level training of SC US and/or International SC Alliance staff to effectively support these country-level activities.

Given SC's strategic direction to seek priority results for children across times of development, transitions, and emergencies; and given that many in the international NGO community have focused primarily on avian flu (prevention of bird-to-bird and bird-to-human transmission), but less on preparedness for **pandemic** flu; SC could draw upon international programmatic expertise (in areas such as health and livelihoods), as well as existing national-level relationships with Ministries of Health, the NGO community, and national and local leaders, to fill this important gap in preparing the world, particularly the developing world, for a pandemic. With additional financial and human resources dedicated to pandemic preparedness, SC could take a lead in refining existing strategies to achieve behavior change and community mobilization at scale, and help define the roles for NGOs before, during and after a pandemic.

---

<sup>14</sup> including a presentation at the September 2006 CORE Group meeting, and two planned presentations at the April 2007 CORE Group meeting (following advocacy on the need for these two presentations), two joint applications with other NGOs to USAID for avian flu activities globally and in Indonesia, neither of which were funded, and participation in avian and pandemic flu working groups with other NGOs.

**Table 1. Save the Children US & International Alliance Member Country Presence by SC Area**  
(Scale: 1=presence in 1 or 2 districts/regions; 2=presence in 3 or more districts/regions; 3=country-wide presence)

SC (US) Presence Countries by Area	Scale	SC (US) Health Focus Country	Country Presence of International Save the Children Alliance Members
<b>Africa</b>			
Angola	1	Y	SC UK (Unified Presence managing member), Denmark, Germany, Netherlands, New Zealand, Norway
Burkina Faso	1	N	SC UK, Canada, Sweden, Netherlands
Djibouti	1	N	
Ethiopia	3	Y	SC Australia, Canada, Denmark, Finland, Germany, Italy, Netherlands, New Zealand, Norway, Sweden, UK
Guinea	1	Y	SC Sweden, Finland
Malawi	3	Y	SC Netherlands, Italy, Australia
Mali	2	Y	SC UK, Canada, Finland, Sweden
Mozambique	3	Y	SC UK, Norway, New Zealand
South Sudan	2	Y	
Sudan	3	N	SC Denmark, Netherlands, Norway, Spain, Sweden, UK
Uganda	2	Y	SC Denmark, Italy, Netherlands, New Zealand, Norway (Unified Presence managing member), Sweden, UK
Zambia	1	N	SC Sweden, Norway
<b>Asia</b>			
Afghanistan	2	Y	SC Italy, Japan, Netherlands, Norway, Sweden, UK
Bangladesh	2	Y	SC Australia, Canada, Denmark, Germany, New Zealand, Sweden, UK
Bhutan	2	N	SC Australia, Italy, Netherlands
Indonesia	3	Y	SC Canada, Denmark, Finland, Netherlands, New Zealand, Norway, Sweden, UK
Myanmar	2	Y	SC Japan, Korea, UK (Unified Presence managing member)
Nepal	2	Y	SC Australia, Canada, Japan, New Zealand, Norway, Sweden, UK
Pakistan	3	Y	SC Canada, Netherlands, New Zealand, Sweden, UK
Philippines	2	Y	SC Italy, New Zealand, Spain, Sweden, UK
Vietnam	2	Y	SC Australia, Japan, New Zealand, Sweden, UK
<b>LAC (&amp; USA)</b>			
Bolivia	2	Y	SC Canada, Spain, Sweden, UK
El Salvador	2	N	
Guatemala	2	Y	SC Guatemala, Australia, Denmark, Germany, Netherlands, Norway, Sweden, UK
Haiti	2	Y	SC Australia, Canada, Italy, Netherlands
Nicaragua	2	N	SC Canada, Netherlands, Norway, Spain, Sweden
USA	2	N	
<b>MEE</b>			
Armenia	1	Y	SC Spain
Azerbaijan	1	N	SC Netherlands
Egypt	2	Y	SC Egypt, Italy, Netherlands, UK
Georgia	1	Y	SC Netherlands
Jordan	2	N	SC Jordan, Denmark
Kyrgystan	1	N	SC Denmark, UK
Lebanon	1	N	SC Denmark, Sweden, UK
Tajikistan	1	Y	SC UK

Uzbekistan	1	N	
West Bank/ Gaza	1	Y	SC Netherlands, New Zealand, Sweden, UK

**Table 2. SC International Alliance Member Country Presence in Non-SC US Presence Countries**

<b>Countries by Area</b>	<b>SC Alliance Members</b>
<b>Africa</b>	
Botswana	SC Sweden
Cape Verde	SC Sweden
DRC	SC UK, Netherlands
Eritrea	SC Sweden
Gambia	SC Sweden
Ghana	SC UK, Sweden
Ivory Coast	SC UK, Sweden, Germany
Kenya	SC Canada, Denmark, Finland, Netherlands, New Zealand, Sweden
Lesotho	SC Sweden
Liberia	SC UK, Finland, Netherlands, New Zealand, Sweden
Mauritania	SC Spain, Sweden
Morocco	SC UK, Spain
Niger	SC Spain, UK
Nigeria	SC Sweden, UK
Rwanda	SC UK
Senegal	SC Sweden, UK
Sierra Leone	SC Sweden, Netherlands, UK
Somalia	SC Denmark, UK
South Africa	SC UK, Netherlands, Sweden
Swaziland	SC Swaziland
Tanzania	SC UK
Togo	SC Sweden
Zimbabwe	SC UK, New Zealand, Norway
<b>Asia / Pacific</b>	
Australia	SC Australia
Cambodia	SC Australia, Iceland, New Zealand, Norway, Sweden, UK
China	SC Australia, Denmark, Italy, Sweden, UK
Fiji	SC Fiji, New Zealand
India	SC Australia, Canada, Denmark, Finland, Netherlands, Norway, New Zealand, Sweden, UK
Japan	SC Japan
Laos	SC Australia, New Zealand, Norway, Sweden, UK
Mongolia	SC Korea, UK
New Zealand	SC New Zealand
North Korea	SC UK
Papua New Guinea	SC Australia, New Zealand
Solomon Islands	SC Australia
South Korea	SC Korea
Sri Lanka	SC Canada, Denmark, Finland, Netherlands, Norway, Sweden, UK
Thailand	SC Sweden, UK

Vanuatu	SC Australia, New Zealand
<b>Europe</b>	
Albania	SC Italy, Norway, Sweden, UK
Bosnia and Herzegovina	SC Norway, Sweden, UK
Bulgaria	SC UK
Croatia	SC Sweden
Denmark	SC Denmark
Estonia	SC Finland, Sweden
Finland	SC Finland
Germany	SC Germany
Greenland	SC Denmark
Iceland	SC Iceland
Italy	SC Italy
Latvia	SC Sweden
Lithuania	SC Lithuania, Sweden
Moldova	SC Sweden
Netherlands	SC Netherlands
Norway	SC Norway
Romania	SC Romania, Finland, Netherlands, Sweden
Russia	SC Finland, Norway, Sweden
Serbia and Montenegro	SC Italy, Norway, Sweden, UK
Spain	SC Spain
Sweden	SC Sweden
Switzerland	SC Switzerland
UK	SC UK
<b>LAC</b>	
Argentina	SC Sweden
Brazil	SC Canada, Spain, Sweden, UK
Chile	SC Sweden
Colombia	SC UK
Costa Rica	SC Spain, Sweden, UK
Cuba	SC Sweden
Dominican Republic	SC Dominican Republic, Norway, Spain
Ecuador	SC Canada, Denmark, Spain, Sweden, UK
Honduras	SC Honduras, Netherlands, Norway, Spain Sweden, UK
Mexico	SC Mexico, Denmark, Norway, Sweden
Paraguay	SC Sweden
Peru	SC Sweden, UK
Uruguay	SC Sweden
Venezuela	SC Sweden, UK
<b>MEE</b>	
Iran	SC Japan
Iraq	SC Denmark, Italy, Korea, New Zealand, Norway, Sweden, UK
Morocco	SC Spain, UK
Syria	SC Sweden
Yemen	SC Sweden