Pandemic Influenza Preparedness & Response: Guidance and Template for Country Planning By Humanitarian Organizations On Overarching Actions & Public Health Interventions

Humanitarian Pandemic Preparedness (H2P) Initiative

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This document provides guidance and templates for humanitarian organizations to complete country preparedness and response plans to address the next influenza pandemic. The planning outlined in this document focuses specifically on humanitarian organizations' response in selected program priority areas (overarching actions, advocacy, health), within the context of government planning. Each country program can decide to expand the planning process to actively include other key actors, such as government and relevant U.N. agencies, and other issues, such as overall emergency preparedness and national security. District level planning, and planning for food security and livelihoods are addressed in separate documents.

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I. Introduction and Background

A. The H2P Initiative

The H2P Initiative was a USAID-funded program that developed humanitarian response networks in preparation for pandemic influenza. The initiative worked within the framework of both international and country-specific emergency response and pandemic preparedness plans. It built national, district, and community-level response capability in order to minimize excess mortality and potential social disruption in the event of a pandemic.

B. Pandemic Preparedness Plan and Government Emergency Preparedness

1. Scope of Humanitarian Organizations' Country and District Plans

These H2P tools are meant to guide the country and district-level planning of humanitarian organizations in the priority areas of advocacy and health. Many other important pandemic preparedness and response issues should be covered in the emergency plans of government and other organizations.

The tools include:

- A brief overview of the need and process for country and district planning
- Country plan template
- A version of the guidance and a template for use at district level

These documents include both country and district planning tools, as the national level should:

- Guide the district planning process
- Assess and revise generic district planning tools, before they are used, to reflect national priorities, policies, and guidelines
- Decide to what extent district planning will be implemented now, i.e., in all districts or in pilot districts for development of a generic district plan to be used by all districts in an eventual pandemic

H2P suggests that both the country and the district planning teams consider all sections in the respective templates, and include activities based on the local context and needs. Plans should reference all other documents containing further details of partners' pandemic response plans (e.g., government and organizational plans). Organizations and/or persons responsible for each action should be included in the cells of the matrix.

Humanitarian organizations should harmonize with government and U.N. plans so that all aspects of emergency pandemic preparedness are addressed and overall planning is coordinated and clear. In some countries it might be possible to develop a joint and comprehensive plan, while in other countries this may not be realistic.

In all cases, the Country and District Plan documents should describe how they relate to government plans, what interaction has taken place with government to decide respective roles, and the extent of government endorsement of the plans of the humanitarian organizations. Greater

effort to coordinate with all relevant partners and make joint plans now will make overall responsiveness to an emergency more effective.

2. Plans' Contribution to Overall Emergency Preparedness

Authorities may not see planning for another pandemic as a priority, particularly after the experience with the 2009 H1N1 pandemic. They face many immediate, pressing problems and may doubt the likelihood or severity of the threat. Developing a pandemic flu plan within the context of overall emergency preparedness can help support:

- General national and district resilience to emergencies
- Strengthening of collective response to various threats
- Good hygiene practices that help protect from a range of illnesses
- Effective coalitions for non-pandemic humanitarian and development initiatives
- Application of models and techniques, such as simulation exercises, to other emergency preparedness planning.

C. H2P Planning Assumptions: Preparing for which Pandemic?[1]

According to WHO: "Neither the timing nor the severity of the next pandemic can be predicted with any certainty. At the same time, however, 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. …..... More than half of all laboratory confirmed cases have died. Scientists do not know if the H5N1 virus will retain its present virulence should it acquire an ability to spread easily among humans. …… 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."[2]

The number and weight of the uncertainties concerning the next influenza pandemic are such that the development of credible, detailed scenarios is practically impossible. Among such uncertainties, the following four are particularly worth mentioning:

a) The date of onset of the next influenza pandemic is unpredictable (any time from sometime next week to sometime next decade or so).

b) The virulence of the virus subtype responsible for the pandemic is unpredictable, with case fatality rates ranging from what is typical of seasonal flu to the – fortunately – unlikely, "end of civilization" levels of the current H5N1 human cases.

c) The effectiveness and timely availability of pharmaceutical interventions (primarily antiviral drugs, vaccines, and antibiotics) is uncertain.

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[1] See also: Ten concerns if avian influenza becomes a pandemic, WHO, October 2005: www.who.int/csr/disease/influenza/pandemic10things/en/index.html & CIDRAP, Univ. of Minnesota, Pandemic Influenza Overview (regularly updated) www.cidrap.umn.edu/cidrap/content/influenza/panflu/biofacts/panflu.html

[2] WHO strategic action plan for pandemic influenza 2006–2007, pages 3 & 4, www.who.int/csr/resources/publications/influenza/WHO_CDS_EPR_GIP_2006_2/en/index.html (As of September 2010, H5N1 remains a pandemic threat.)

d) The level of social, economic, and possibly even political disruption is unpredictable, and will vary from country to country. It will only partly depend on the severity of the pandemic.

The scenario outlined in this document, therefore, is in no way a "predictive" one. It depicts a near-worst-case scenario and is presented here only as a consensus framework, meant to guide the planning and implementation of activities.

The Scenario

1. Once sustained person-to-person transmission starts, geographical spread will be rapid: time for final planning and preparations will be limited to a few months at most.
2. Virtually all communities on earth will experience outbreaks: roughly 1 person in three in the world will become ill during a period of up to approximately 1 ½ years.
3. Communities will experience one to three outbreaks ("pandemic waves") of the duration of 6 - 12 weeks each. The characteristics of the first wave (in terms of fatalities) may not be predictive of what will happen with the following ones.
4. The virus subtype responsible for the pandemic will show substantial virulence: at least 2% of the people who have contracted the disease (and possibly much more) will actually die from it.
5. Supplies of vaccines and antiviral drugs will be inadequate in developing countries. Even in developed countries, vaccines are unlikely to substantially reduce mortality and morbidity for at least the first six months of the pandemic.
6. Healthcare systems will be overwhelmed and not capable of coping with the large number of people who will suddenly fall ill: care will have to be provided at the community and household level. Many routine, non-flu-related health services will also be unavailable during the pandemic waves.
7. More in general, substantial social and economic disruption is to be expected: developed countries are particularly vulnerable because of the highly interdependent nature of advanced societies, whilst developing countries are particularly vulnerable because of the intrinsic, pre-existing vulnerability of large sectors of the population.
8. In many countries, localized and even generalized security problems (from erosion of law and order to open conflict triggered by the pandemic crisis) cannot be ruled out.
9. Because all countries will be affected, international assistance on a large scale will not be an option. Because entire countries will be affected, communities will receive only limited support from national-level government and other organizations.
10. Substantial absenteeism of staff (possibly 50%, because of illness, need to care for family, school closures, fear, etc.), obligations of protecting their own staff, economic and logistical disruptions, and/or large numbers of ill needing care, will substantially limit the capacity of governmental structures and civil society organizations to respond.

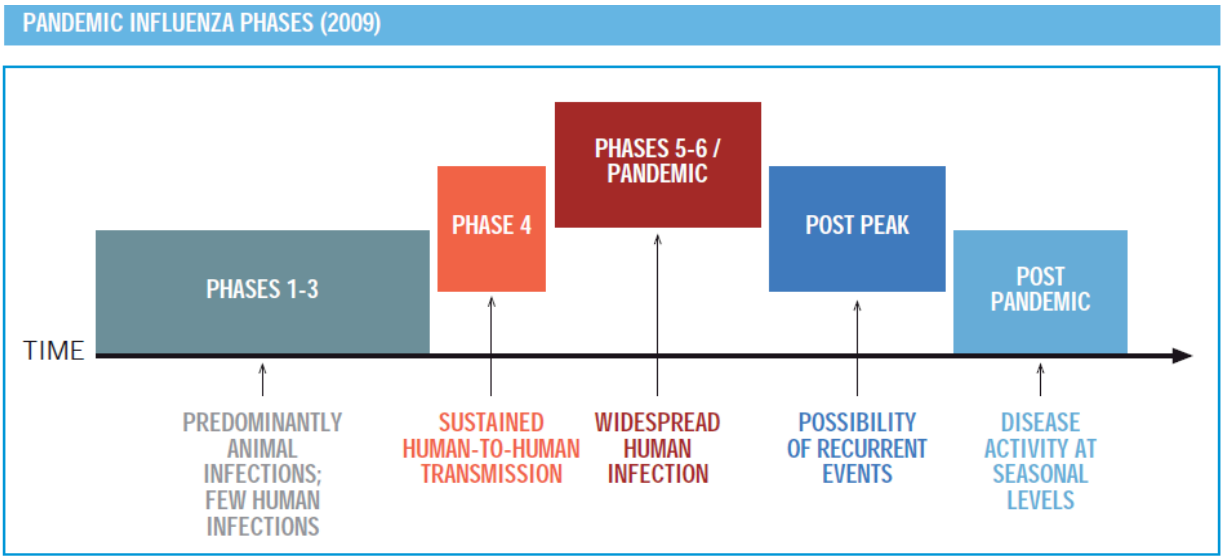
The Household Level

At the household level, the assumptions above will translate into the following picture:

11. At least one of the family members will contract the disease during one of the pandemic waves: there will be many families in which all potential care givers are ill at the same time and unable to care for their families.

12. Because of illness, of the need to care for the ill, of fear, or as a consequence of the mitigation measures, and/or of the difficulties in movement/transportation, many of the family members will de facto be confined at home during the peak intervals of the pandemic waves.
13. Children will spend most of the time out of school for extended periods of time.
14. In the vast majority of severe cases, the family will not be able to count on hospital-level health care.
15. Some families will be able to count on at least some community-level health care services, but many won't.
16. Regardless of its affluence (and of the development level of the country), the family's food security may be challenged. Such challenge is unlikely to result in clinical malnutrition for the general population.
17. The family will experience variable levels of difficulty in accessing key essential services (water, energy, telecommunications, transport, education, energy, finance) during the peak intervals of the pandemic waves. Some of these services may be interrupted altogether.
18. Regardless of its affluence (and of the development level of the country), the family's capacity to produce an income and to protect its assets may be challenged.
19. The family may experience security problems (lawlessness, conflict).

D. WHO Phases of Pandemic Alert[3]



In nature, influenza viruses circulate continuously among animals, especially birds. Even though such viruses might theoretically develop into pandemic viruses, in Phase 1 no viruses circulating among animals have been reported to cause infections in humans.

[3] Pandemic influenza preparedness and response. A WHO guidance document, April 2009 (www.who.int/csr/disease/influenza/pipguidance2009/en/index.html)

In Phase 2 an animal influenza virus circulating among domesticated or wild animals is known to have caused infection in humans, and is therefore considered a potential pandemic threat.

In Phase 3, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic. (As of September 2010, because of the H5N1 threat, the world was in Pandemic Alert Phase 3.)

Phase 4 is characterized by verified human-to-human transmission of an animal or human-animal influenza reassortant virus able to cause "community-level outbreaks." The ability to cause sustained disease outbreaks in a community marks a significant upwards shift in the risk for a pandemic. Any country that suspects or has verified such an event should urgently consult with WHO so that the situation can be jointly assessed and a decision made by the affected country if implementation of a rapid pandemic containment operation is warranted. Phase 4 indicates a significant increase in risk of a pandemic but does not necessarily mean that a pandemic is a forgone conclusion.

Phase 5 is characterized by human-to-human spread of the virus into at least two countries in one WHO region. While most countries will not be affected at this stage, the declaration of Phase 5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.

Phase 6, the pandemic phase, is characterized by community level outbreaks in at least one other country in a different WHO region in addition to the criteria defined in Phase 5. Designation of this phase will indicate that a global pandemic is under way.

During the post-peak period, pandemic disease levels in most countries with adequate surveillance will have dropped below peak observed levels. The post-peak period signifies that pandemic activity appears to be decreasing; however, it is uncertain if additional waves will occur and countries will need to be prepared for a second wave. Previous pandemics have been characterized by waves of activity spread over months. Once the level of disease activity drops, a critical communications task will be to balance this information with the possibility of another wave. Pandemic waves can be separated by months and an immediate "at-ease" signal may be premature.

(The Director-General of WHO will declare changes in phases, which apply to the whole world, rather than to specific countries. Concerns about the impact of avian and pandemic influenza on human health should be based mainly on the size and growth of human clusters [outbreaks of human influenza cases linked to each other and due to H5N1 or another new viral subtype], WHO updates on the phase of pandemic alert, and on the severity of illness in human cases, anywhere in the world, rather than on the arrival of H5N1 in birds in any country.)

II. Developing the Country and District Plans

A. Planning for Three Intervention Stages

The country and district planning processes focus on three intervention stages, as outlined below:

- H2P recommends that "**preparedness**" activities be completed as soon as possible.
- The H2P Health Working Group recommends that WHO announcement of sustained human-to-human transmission (able to cause community level outbreaks), of a flu virus new to humans (an animal or hybrid animal-human virus, such as H5N1) anywhere in the world (WHO Phase 4) serve as the trigger for immediate, urgent and "**rapid roll-out at scale**" of activities (for the actions listed in the matrix below) in every country. It is hoped that the role out of planned activities can be completed in the few weeks that most areas are likely to have before the local arrival of the first pandemic wave. On the other hand, if an initial outbreak of sustained person-to-person transmission is contained in the outbreak country, then country teams should be prepared to slow down or halt the roll-out of activities.
- Implementing community-level interventions (such as school closing, for example) before the start of a local outbreak will likely result in economic and social hardship without public health benefit, and intervention compliance fatigue. On the other hand, implementing these interventions after extensive local spread will likely limit the public health benefits. The H2P Health Working Group therefore recommends that in each district, the first cluster of cases identified in the district, or in any area near the concerned district, serve as the trigger for "**local response**" activities (for the actions listed in the matrix below) in that district.[4]

Table 1: Pandemic Intervention Stages

Intervention Stage	When to Implement	What to Implement
Preparedness	Now	• Comprehensive planning and assignment of responsibilities • Development and testing of country training package and communication plan
Roll-out	When the World Health Organization (WHO) announces sustained human-to-human transmission of a new influenza virus anywhere in the world (Phase 4).	• Immediate, urgent, and rapid rollout at scale of interventions listed in the attached country and district matrices • If outbreak country manages to contain transmission, national authorities may announce slow down or halt of roll out
Local response	When there is a cluster of cases in a geographic area in or near the district/area[5]	Activities in the district, as listed in the district plan matrix.

It is also important to consider the *inter-wave stage*—the period of time between any two pandemic waves—which should be used to recover and prepare for the next wave. Activities during the *inter-*

[4] This recommendation is consistent with the February 2007 interim US strategy for community mitigation (www.pandemicflu.gov/plan/community/mitigation.html, page 39), but may need to be revised following the publication of WHO guidance on community mitigation/NPIs.

[5] The country planning team will need to define "cluster," and "in or near the district/area" and give clear guidance on when this implementation stage will occur. This is most likely to be the district level, but may be a bigger administrative region (i.e., the country), as dictated by surveillance and reporting capabilities.

wave stage might include assessment and correction of response weaknesses from the previous wave and re-supply of drugs, supplies, food stocks, etc.

B. Suggested Plan Outline

The **Country Plan** should include all activities required to organize, coordinate, and deliver an effective humanitarian response throughout the country in a pandemic influenza outbreak. The **District Plans** should do the same for providing support down to the household level. Each cell in the plans should include designated names and/or titles of authorities responsible for the implementation of the specific activity.

The attached templates are generic documents that *outline* suggested interventions in a country or district plan, *remind* humanitarian actors of the best perceived actions to be taken according to evidence and, to some extent, allow comparisons of plans across countries. Country teams should revise the matrices to reflect the local situation before guiding appropriate teams to fill them in. The adapted matrices will then give a snapshot of the country and/or district plan. The plan documents will include both the completed matrices and explanatory narrative providing more detail, as needed.

Some planned actions will only be important or appropriate in a severe pandemic. Thus, the country or district matrix and associated documents should specify if the planned action is only to be implemented during a severe pandemic wave. (WHO will advise the world whether a pandemic, or pandemic wave, is mild, intermediate/moderate, or severe.)

The country and district plans will be part of an "off-the-shelf" capability to be rolled out when WHO announces there has been sustained human-to-human transmission of a new virus anywhere in the world.

Plans for the continuity of key activities and services of humanitarian organizations during the next flu pandemic are an important component of preparedness planning, but are beyond the scope of this guidance. H2P suggests that all partner organizations develop business continuity plans, and reference these plans in the Country Preparedness and Response Plan Summary. (Please refer to the section below on references.)

Planning teams may also find the IFRC *Project Planning Process Handbook* (PPP) a useful resource.[6]

C. Instructions for Completing the Plan(s)

- If feasible, countries should first complete the country plan, and then use the country plan to guide completion of district plans. Although these planning exercises are likely to be separate, the general guidance is the same for both processes.
- Review the suggested plan outline in the box below and the generic activities listed in the templates.
- Adapt the outline and template content to reflect national policies, emergency preparedness structures and plans, and locally appropriate actions.

[6] *Project Planning Process Handbook*, Organisational Development Department, International Federation of Red Cross and Red Crescent Societies, Geneva, 2002.

- Fill in the revised templates, including the agency and, if possible, staff person responsible (by title) for each action.
- Write explanatory narrative to provide detail, as needed.

Suggested Plan Outline

1. Background

A. Describes the following:

- National (or district) context
- Emergency preparedness partners
- Relevant government actions to date
- Government policies, structures, and planning documents, if they exist
- Relation of this plan to emergency preparedness
- (For district plans), refer to the country plan for much of this information

B. Reviews planning assumptions in ***Section I.C.*** **H2P Planning Assumptions: Preparing for which Pandemic?** above, outlining local adaptation or adjustments

2. Country (or District) Plan

Updates and completes the list of activities in the matrix

- Detailed by implementation stage
- Assigned to different agencies, by staff function/title

3. **References**

Specific references such as detailed plans of each individual organization, government plan(s), or other necessary documents should be attached to the plan.

III. References

A. Key H2P/Partner Documents

This section of the plan summary should include other H2P/partner documents that describe, in more detail, the content and implementation of the activities in the Country Plan, along with related pandemic preparedness plans, such as those of the government and UN. (The following documents are listed for illustrative purposes only.)

1. (For District Plans) The Country Plan
2. Government and U.N. pandemic preparedness plans
3. Advocacy Kit on Global Preparedness for Pandemic Flu (at www.pandemicpreparedness.org & www.avianflu.aed.org/globalpreparedness.htm)
4. Training Curricula, H2P Health Working Group (at www.pandemicpreparedness.org/ & www.coregroup.org/our-technical-work/initiatives/h2p)

5. Plan for Rapid Roll-Out of Interventions in (Country Name): Organizations Responsible in Each District. (To be developed at country level.)

B. Key Global Guidance Documents & Selected Background References

This section should list the key reference documents that serve as the technical or scientific basis of the content of the country plan. These documents may include the following:

1. Pandemic influenza preparedness and response. A WHO guidance document, April 2009 (www.who.int/csr/disease/influenza/pipguidance2009/en/index.html)
2. CIDRAP, Univ. of Minnesota, Pandemic Influenza Overview (regularly updated) www.cidrap.umn.edu/cidrap/content/influenza/panflu/biofacts/panflu.html
3. February 2007 interim US strategy for community mitigation (detailed how-to guidance on non-pharmaceutical interventions & severity index): www.pandemicflu.gov/plan/community/mitigation.html.
4. Guide to public health measures to reduce the impact of influenza pandemics in Europe –'The ECDC Menu' (September 2009) http://ecdc.europa.eu/en/publications/Publications/0906_TER_Public_Health_Measures_for_Influenza_Pandemics.pdf
5. Reducing transmission of pandemic (H1N1) 2009 in school settings, WHO, Sep. 2009: www.who.int/csr/resources/publications/swineflu/reducing_transmission_h1n1_2009/en/index.html
6. Reducing excess mortality from common illnesses during an influenza pandemic: WHO guidelines for emergency health interventions in community settings, October 2008. (This includes recommendations for modification of existing health services, such as providing 12 weeks supply of medications to HIV & TB patients & focusing on only life-saving interventions, & recommendations for moving case management of pneumonia, diarrhea, & malaria to the community level before and/or during a pandemic.) www.who.int/diseasecontrol_emergencies/common_illnesses2008_6.pdf
7. Pandemic influenza preparedness & mitigation in refugee & displaced populations, WHO guidelines for humanitarian agencies, May 2008 (www.who.int/diseasecontrol_emergencies/HSE_EPR_DCE_2008_3rweb.pdf).
8. H1N1 Flu & Seasonal Flu: Caring for Someone Sick at Home, CDC, Nov./Dec. 2009: www.cdc.gov/h1n1flu/homecare/
9. Influenza Pandemic Planning: Business Continuity Planning Guide, Government of New Zealand, December 2009 (an excellent updated 66-page resource with practical tools): http://www.med.govt.nz/upload/27552/Business-Continuity-Planning.pdf
10. Quick Reference for Business 2009 H1N1 Flu Planning and Response, US gov., Aug. 2009: www.cdc.gov/h1n1flu/business/toolkit/quickreference.htm