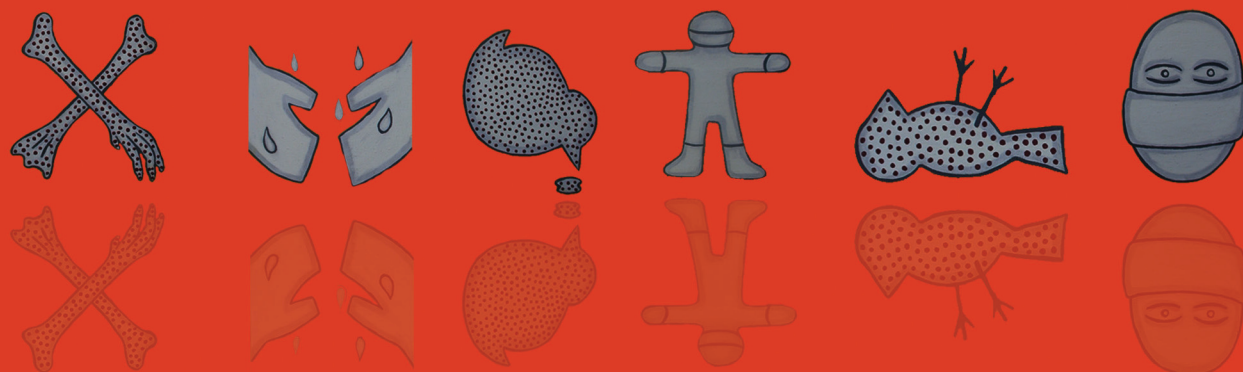


Responses to Avian Influenza and State of Pandemic Readiness

SYNOPSIS OF THE THIRD GLOBAL PROGRESS REPORT

DECEMBER 2007



December 2007

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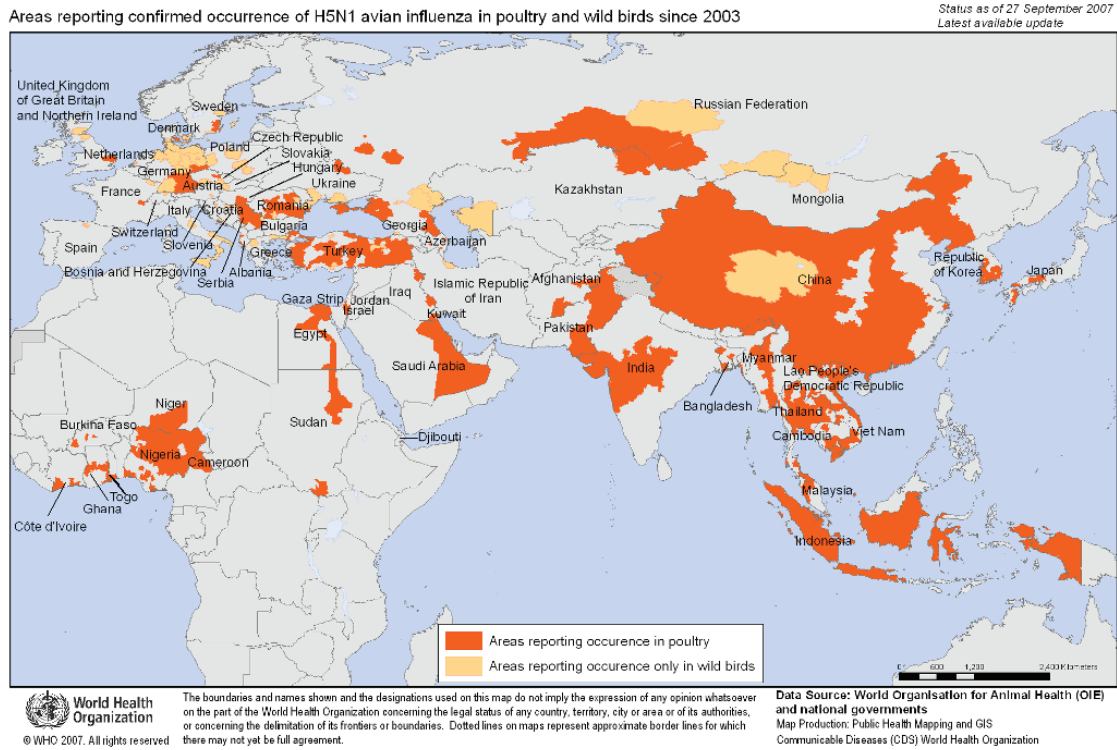
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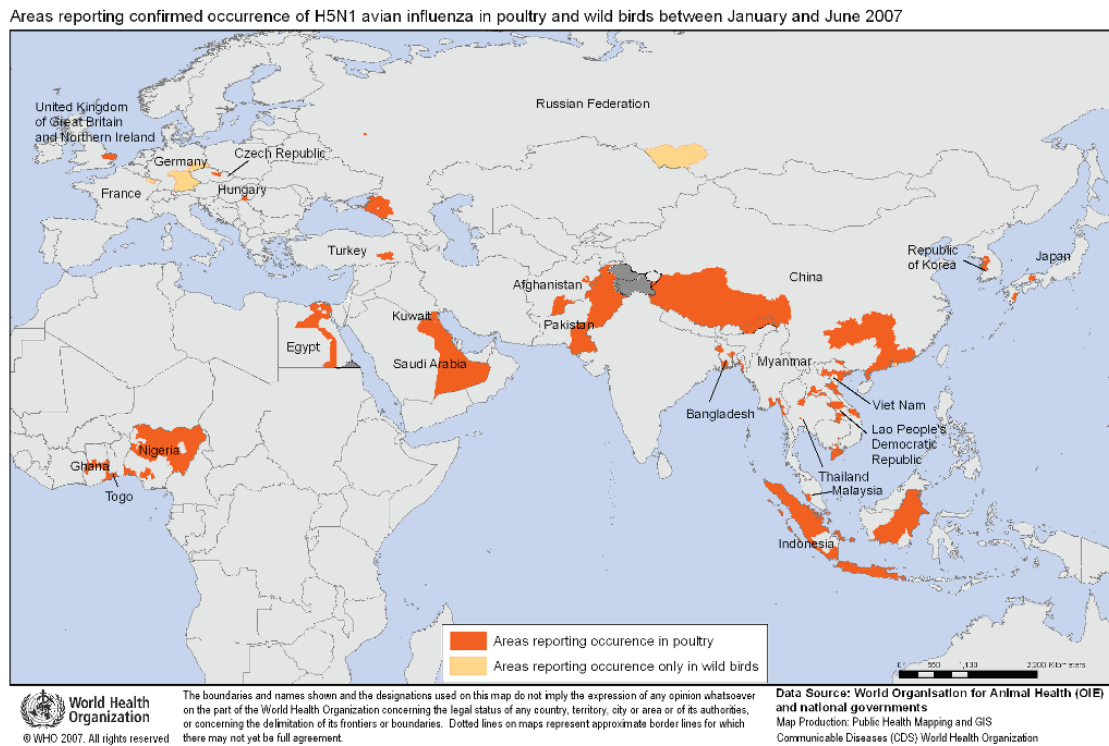
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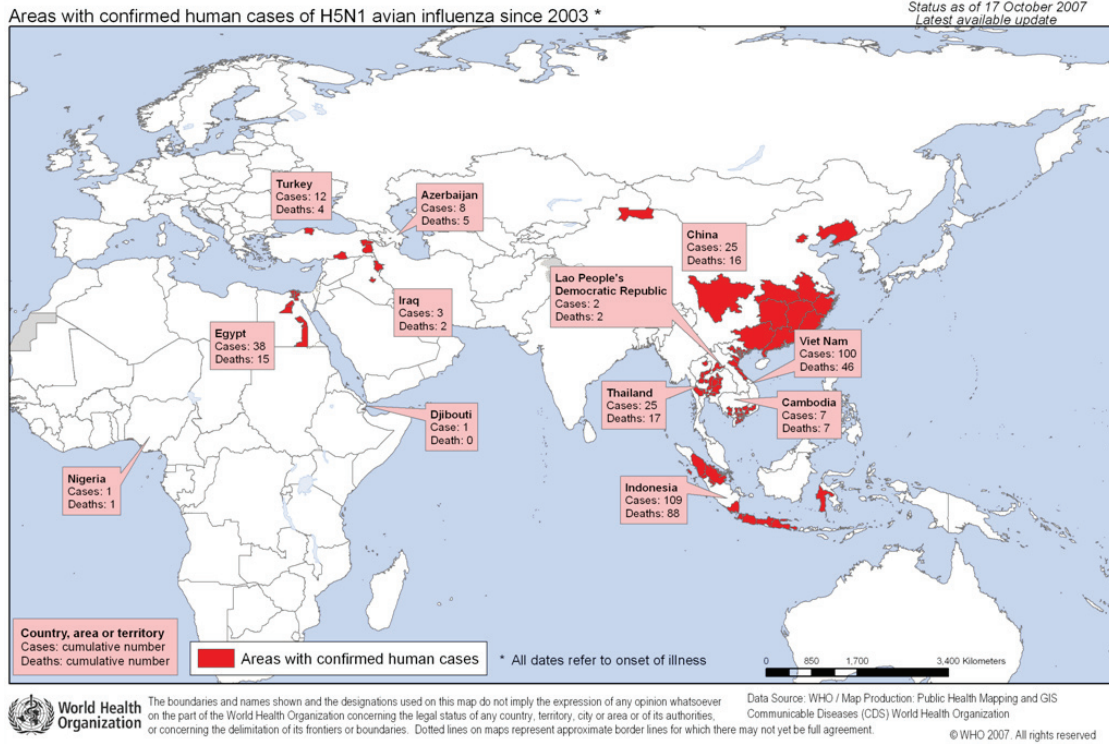
Areas reporting confirmed occurrence of H5N1 avian influenza in poultry and wild birds since 2003



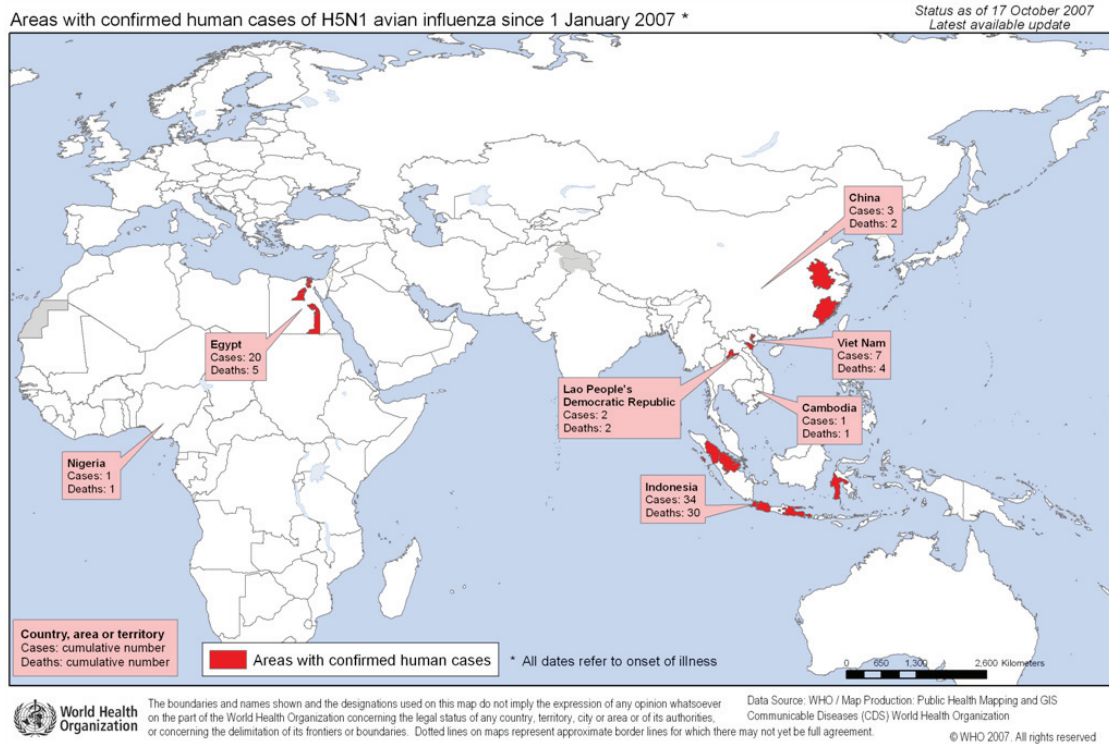
Areas reporting confirmed occurrence of H5N1 avian influenza in poultry and wild birds between January and June 2007



Affected areas with confirmed cases of H5N1 avian influenza since 2003



Affected areas with confirmed cases of H5N1 avian influenza since 1 January 2007

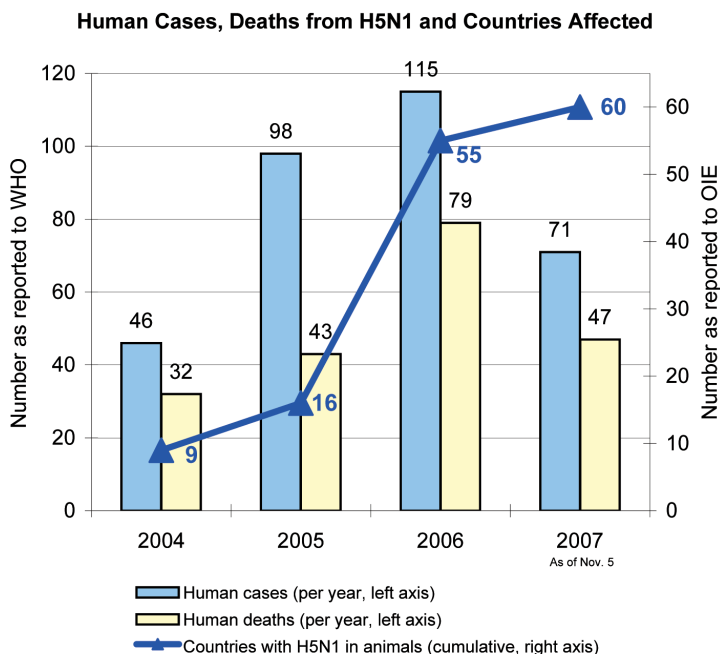


Introduction

1. In line with requests from the Intergovernmental Conferences on Avian and Pandemic Influenza held in Beijing and Bamako, the United Nations System Influenza Coordinator (UNSIC) and the World Bank have jointly produced the third global progress report on Responses to Avian Influenza and State of Pandemic Readiness. The report covers developments over the past two years, with a specific focus on the last six months (January-June 2007). It provides (a) an analysis of efforts made and financial assistance provided to date, (b) an assessment of progress in the capacity of nations to respond to highly pathogenic avian influenza (HPAI) and their readiness for the next influenza pandemic, and (c) considers the implications of progress to date for future national and international investments in animal and human health security.
2. The report is based on the data provided by 146 countries¹, primarily from contact points within national authorities, in response to an UNSIC survey distributed during June 2007. Data gathering was complemented with case studies, key informant interviews, and the opinion of experts from the World Bank, specialized UN system agencies (Food and Agriculture Organization - FAO and World Health Organization - WHO), UN Funds, Programs and Co-ordinating Bodies (UNICEF, UNDP, WFP and OCHA), and the World Organisation for Animal Health (OIE). The information on pledges, commitments and disbursements in support of avian and human influenza control and pandemic preparedness has been collected by the World Bank from donor countries.
3. The interpretations presented here and in the report are derived, by UNSIC and the World Bank, from clusters of convergent findings rather than quantitatively verified linkages between overall support provided and outcomes achieved. Data obtained from countries are self-reported and may differ from those which are collected and/or validated by independent technical organizations. However, the report findings can serve to inform policy makers and practitioners on possible areas of focus for future action, and identify issues around which further analytical work is warranted.

Spread of Avian Influenza and Pandemic Risk

4. The risk of a world-wide influenza pandemic is still as great in late 2007 as it was in mid-2005 when it first started to receive intense publicity. The World Health Report 2007 states that "There will be an influenza pandemic, sooner or later" with the potential to result in millions of deaths and severe social, economic and humanitarian consequences. The world has a unique opportunity to prepare for the pandemic now. The current epizootic of HPAI is caused by type A virus H5N1 which has the capacity to infect humans (though, at the time of writing, less than 350 cases of sporadic human infection have been confirmed). There is concern that the genetic material in



¹References to countries also include territories, where appropriate.

the avian virus could mutate or re-assort in a way that makes it capable of sustained transmission between humans. So far, this sustained human-to-human transmission has not happened. However, HPAI continues to spread among poultry and other birds. The virus has been found in an additional five countries in 2007; this means in total 60 countries and territories have now reported outbreaks of H5N1 in either poultry or wild birds or both. The settings in which continued transmission of HPAI H5N1 occurs, where the virus is considered to be enzootic (or entrenched) are a cause of ongoing concern. They include Indonesia, Egypt, Nigeria, and possibly some locations in China and Bangladesh. Continued transmission among poultry or other birds in any one country represents a threat to all countries.

Status of Funds Pledged, Committed and Disbursed

5. The report takes stock of the support provided for response to the threat of HPAI and for influenza pandemic preparations by individual countries, by multilateral organizations, at the global political levels, and through the flexible financing framework. The report provides an overview of funds pledged, committed, and disbursed to help developing countries tackle this global threat, and analyzes the volume of funds that remain uncommitted. Of the \$2.3 billion pledged by bilateral donors, the European Commission, and multilateral development banks (MDBs) at the international meetings in Beijing in January 2006 and in Bamako in December 2006, \$1.7 billion (72%) has been committed and over \$1.0 billion (43%) has been disbursed to recipient bodies. As of June 30, 2007, about \$600 million remained uncommitted.
6. However, a more detailed analysis of this information yields a more nuanced picture about the external funding available. The original pledge included \$1,326 million in grant funding from bi-lateral donors and the European Commission and \$983 million from the multilateral development banks, largely in the form of loans. The report reveals that of the \$1,326 million in grant funding that was pledged, nearly all has already been committed, leaving a mere \$57 million of the current pledge available for commitment globally as of mid-2007. Moreover, \$955 million (74%) of the committed grant funds have already been disbursed. Out of the total grant funds committed, \$282 million is destined directly for countries (\$215 million disbursed), \$433 million is for international organizations (\$317 million disbursed), \$206 million is for regional organizations (\$157 million disbursed), and \$333 million is for other purposes. As the availability of grants has declined, developing countries have become more dependent on loans. However, of the \$983 million made available by the MDBs (largely in the form of loans), approximately \$592 million remained uncommitted as of end-June 2007.
7. There are two reasons for this relatively slow rate of commitment of loans. First, loans are used to finance medium- to long-term integrated country programs, which take time to prepare, and second, developing countries prefer to use grants, rather than loans, to finance their integrated programs as they seek to avoid borrowing funds to address what is perceived as a global public good as well as a national issue. Grant funds are also essential for funding international and regional bodies.
8. The majority of the country-specific funds committed to date are destined for countries in East and South Asia (56%), and Europe and Central Asia (24%). Comparatively small amounts of funding have been committed to countries in Africa and the Middle East and North Africa (18% of the total), and in Latin America and the Caribbean (2%).

Status of HPAI Control and Pandemic Preparedness

9. Outbreaks of HPAI have continued to emerge during 2007 even within well-resourced countries. Despite the continued outbreaks, the H5N1 virus has been successfully eliminated from most of the settings where it has been detected. Country reports suggest that capacity to respond to (HPAI) infection has improved. Outbreaks are being detected more rapidly and the response is more effective. However, as

stated above, the reality that HPAI H5N1 is considered to be entrenched in poultry within five countries is a major cause for concern.

Improving the capacity of animal health systems to reduce the threats of avian influenza and similar conditions

10. There is substantive evidence to indicate global enhancement in the performance of animal- disease surveillance systems and laboratory capacity. This has yielded better information for the detection and response to HPAI and other zoonotic diseases. Where there are recognized weaknesses in these capacities, strategies are in place at a global and regional level to improve the situation, and they need continued support. However, constraints still remain and there are countries with insufficient capacity in all regions. Overall, veterinary capacity in most countries remains substandard; they lack the necessary legislation and regulations for safeguarding animal health. Functioning relations between official veterinarians, private practitioners and farmers are rare. Most countries provide insufficient budget both to their veterinary and animal health laboratory services. Regional capacity is under-supported. Whilst evidence suggests that there has been some improvement in the adoption of bio-security measures within poultry production facilities, sustained improvement calls for long-term sectoral change.

Improving the capacity of human health systems to detect and respond to an influenza

11. Data collected by UNSIC suggest that globally there has been an improvement in human influenza virus diagnostic and surveillance capacity. However, capacity varies significantly and is clearly insufficient in a number of countries and regions (in particular Africa). Reporting of information to international agencies has improved to some extent, but even more transparent collaboration between all stakeholders is required. With the entering into force of the International Health Regulations (2005), a framework is in place to guide surveillance, reporting and response activities concerning the international spread of disease. Capacities developed in accordance with the IHR (2005) will be appropriate for the detection and response to influenza-type illnesses and the early stage of pandemic containment, and it is now important to encourage, support and monitor their quick and efficient implementation. The WHO Rapid Response protocol needs widespread backing so that it can be applied and sustained internationally. Progress has been made to enhance integrated planning and synergy with the livestock sector. However, assessments suggest there is still far too little coordination between animal and human health surveillance and response networks within most regions.

Preparedness for mitigating the health, social, economic and humanitarian impacts of the next influenza pandemic

12. Many countries report that they have developed pandemic preparedness plans. However, national preparedness for a substantive pandemic response is patchy—there is insufficient attention to sectors other than health and to making pandemic plans operational, especially at the local level. In some countries the institutional capacity to bring together the highest levels of government and different sectors, and to maintain engagement in pandemic preparedness, is insufficient. Pandemic influenza preparedness should continue to be incorporated into, and support, existing disaster management structures. Few countries have fully tested their ability to make their plans operational. In many countries much more work is needed to ensure that local and national stakeholders with experience in crisis response and humanitarian action are ready to respond to a full-blown influenza pandemic. National leaders are paying increased attention to the interdependence of nations in relation to communicable disease threats, and further cross-border planning needs to take place.

Communication with communities to inform, protect and mobilize

13. Communication underpins much of the implementation of any integrated national plan. Communication strategies have helped create awareness around the threat posed by HPAI H5N1, but this

awareness does not always translate into behaviour change. People change behaviour if they consider the change to be worthwhile; incentives do not always trigger the kinds of behaviour change being sought. Systematic evaluation of impact and outcomes of avian and human influenza communications in-country should be supported to enable the identification of target groups and how best to reach them.

Examples of key findings from the global data gathering exercise

- 144 countries reported that they have prepared either integrated plans, pandemic plans or avian and human influenza plans

Animal Health

- Veterinary capacity to detect HPAI H5N1 is least sufficient in Africa and East Asia and Pacific (42% and 27% of reporting countries respectively in each region report insufficient capacity)
- Country reports indicate an improvement in avian influenza expertise and access to laboratory capacity throughout all regions from 2006 to 2007
- 66% of reporting countries indicate compensation schemes are in place for poultry owners whose poultry has been culled for HPAI control purposes; however, the implementation of necessary legislative and administrative procedures is lagging behind
- Of 170 OIE member countries, 51 have submitted official requests for Performance Vision and Strategy (PVS) Evaluations; 36 PVS missions have been completed

Human Health

- 27% of reporting countries indicate they have no capacity to detect and confirm H5N1 in humans; capacity is weakest in the Africa, East Asia and Pacific, and the Latin America and Caribbean regions
- The case fatality ratio from H5N1 remains high at 61% globally since 2003 (as reported by WHO)
- 68% of reporting countries indicate they have purchased anti-viral medicines for treating those suspected of being infected during an influenza pandemic; 36% of countries globally report coverage of under 1% of the population

Pandemic Preparedness

- 95% of reporting countries state 'some efforts' have been made with regard to pandemic preparedness planning
- 41% of reporting countries indicate pandemic plans have been tested in simulation exercises
- 50% of reporting countries indicate some evidence of planning to ensure the continuity of vital infrastructure during an influenza pandemic

Communications

- 73% of reporting countries indicate they have launched communications campaigns to raise awareness of avian and human influenza

Note: Data were collected via a survey sent by UN System Influenza Coordinator (UNSIC) to 173 countries during June 2007, 146 responses were received primarily from contact points within National Authorities. These results are therefore based on self-reported data and may differ from other assessments based on data that have been independently obtained. A more detailed analysis of the data and other relevant material is presented in the full report. The regions mentioned above reflect the classification used by the World Bank.

Progress to Date: Challenges and Recommendations

14. **The underlying threat of a pandemic remains.** The World Health Report 2007 states that "There will be an influenza pandemic, sooner or later" with the potential to result in millions of deaths and severe

social, economic, and humanitarian consequences. It is prudent for nations to prepare for an influenza pandemic as it represents a threat to human security as do other existing and potential health crises.

15. **Progress has been made but there are still gaps to be filled.** Influenza-related threats to public health are far more widely appreciated now than during 2005. Reports from countries suggest that they are better able to respond to HPAI outbreaks than they were a year ago. However too many countries lack sufficient veterinary services for the response to be reliable and sustained improvements are needed.
16. **All countries require capacity and access to systems of international standards to detect, contain and eliminate HPAI infection.** The H5N1 virus continues to circulate, evolve and pose threats to humanity. There is also emerging evidence that the H5N1 viruses are proving more durable and infective for humans as well as birds. The present situation in which HPAI is generally controlled outside the settings where it is entrenched could be reversed at any time: complacency would be most unwise.
17. **Entrenched H5N1 infection poses a major threat to human health not just in the affected countries, but to the world as a whole.** HPAI is currently entrenched in Indonesia, Egypt and Nigeria, and possibly in some locations in China and Bangladesh. Once the virus is entrenched, control and elimination become a major challenge, and the risk of human infection with H5N1 increases. A country's response to entrenched infection should reflect the "strategy most likely to succeed" with a basket of interventions implemented consistently throughout the country and monitored at regular intervals, but this can be particularly challenging when the government is decentralized. The interventions should include actions (a) to detect, contain and eliminate foci of infection and (b) to reduce risk of transmission both between animals and from animals to humans.
18. **Animal health services continue to be substandard, particularly in poorer countries.** Formal evaluations of veterinary services have been undertaken by OIE in more than 30 countries; they conclude that legislation and regulations related to the prevention and control of animal diseases are often lacking. Synergies between official veterinarians, private practitioners, and farmers are only found in a few countries. National budgets for veterinary services are often far below what might be expected given the contribution of animal farming to the economy, or the total number of livestock. Laboratory capacity is often limited, both at national and at inter-country level.
19. **Integrated multisectoral strategies are essential – at local, national, regional and global levels.** Surveillance and monitoring of the circulating avian influenza viruses (including H5N1) and pandemic preparedness (within and beyond the health sectors) go hand in hand—both must be backed by good evidence, strong communications and long-term strategic planning that cuts across sectors and is based on an analysis of economic realities with the ultimate goal of decreasing human deaths and preventing suffering.
20. **Implementation of the International Health Regulations (IHR 2005) requires that countries have the capacity to reliably detect, confirm, and contain influenza-like illness that might herald the start of a human pandemic.** National authorities should seek ways to work together, within the framework of the IHR (2005), to agree and plan to use protocols for early containment and longer-term mitigation of a human pandemic. Existing experience has shown the importance of extending these protocols beyond the health sector to prepare for continuity of priority economic, governance, societal, and humanitarian functions. Sufficient funds must be made available by national authorities for the implementation of priority functions, both in the immediate future and the longer term.
21. **The world's nations are not ready to minimize the wider social and economic consequences of a pandemic.** The readiness of nations to mitigate a pandemic's social and economic impact is variable,

although the necessity for sectors other than health to be prepared is now widely accepted. Experience suggests that joint work by governments, using agreed protocols for containment and mitigation, helps all to achieve optimal containment capacity. Much more work is needed to guarantee that countries have plans to ensure that public, private, and voluntary sector stakeholders work together, that essential functions are maintained, and that government and the rule of law are not compromised. More attention is also needed to ensure that crisis responders and humanitarian actors are ready to respond to an established pandemic.

22. **Virus samples need to be shared among scientists.** Given the continued genetic evolution of H5N1 and other influenza viruses, it is essential that the WHO-managed system for sample-sharing be maintained. Countries have understandable concerns about the extent to which they will benefit from scientific discoveries made using this viral material (vaccines, diagnostics, etc). Such issues need speedy resolution, but through means that do not impair efficient sample-sharing and scientific cooperation.

External technical and financial support: Challenges and Recommendations

23. **Strong continued political and financial commitments are essential to sustaining success.** The capacity of national, regional, and global institutions to initiate actions that will improve health security in relation to HPAI and pandemic threats is influenced by leadership and commitment from those with responsibility for the institutions, effective partnerships between legislators, professionals and private sector stakeholders, and a broad-based understanding of the actions that can be taken to reduce risk.
24. **Adequate financial support for long-term technical assistance and for integrated country programs is essential.** This will help countries to build programs with a five- to ten-year time horizon, to implement structural changes in their poultry industries, and to build systems for safeguarding animal health, public health, and resilience at times of crisis. These are needed to face the current threat posed by H5N1 and will serve, by extension, for facing other zoonotic diseases. Such a long-term approach is essential for ensuring that regional and global institutions have the capacity to support national program implementation.
25. **The analysis in the report suggests that priority must be given for support to: (a) country-level avian and human influenza actions within Africa, the Middle East and the Americas, as well as in Asia and Eastern Europe; and (b) focusing on improving bio-security in poultry rearing, the strengthening of veterinary services, implementation of the IHR (2005), and mobilization of societies to prepare for threats to animal and human health security.**
26. **Financial support is needed to ensure adequate stockpiles of pre-pandemic vaccine, procurement and deployment of non-pharmaceutical pandemic mitigation items and for the manufacture of vaccines, diagnostic tests and other essential materials.**
27. **Countries affected by entrenched H5N1 infection must implement the intensive strategies required to bring it under control.** They are likely to need financial support for a period of several years.
28. **Those who provide assistance must continue to ensure their support for national institutions harmonizes with national strategies, is aligned with in-country objectives, empowers those who make use of the assistance, and contributes to a sustainable strengthening of countries' own capacity to deal with animal and human health challenges.** At the same time, those who provide the assistance should do all in their power to minimize the burden (and delays) that their procedures

impose on national authorities, seeking synergized approaches and task-sharing whenever possible. When providing financial support, resources should be supplied in a timely manner and as grants rather than loans. In this regard, grant funding available to countries through the multidonor trust fund (AHI Facility) remains in short supply.

29. **Many national authorities use their integrated programs to serve as the strategic basis for coordinated action and have set up small national-level coordination bodies.** Donors have generally supported this emphasis on efficient coordination and requested UN country teams to support (with as light a footprint as possible) the National Authorities taking the lead in this action. There should be a more inclusive approach to coordination (combining international agencies, development banks, bilateral local actors as well as private and voluntary organizations) and greater emphasis on in-country joint programming where this is suitable..
30. **Co-operation at the regional-level is increasing.** Reliable and timely exchanges of information and sound pandemic preparedness, consistent across countries, are essential for inter-country disease surveillance and monitoring. However, some regions are more advanced than others and the gaps appear to be substantial in Africa and Latin America and the Caribbean. Also, enhanced collaboration between regions and exchange of lessons learned is desirable, but incentives are needed to make this happen.

Points for Action

31. **Effective implementation of strategies for the prevention of, and preparedness for, an influenza pandemic as a multi-country public health crisis requires: (a) continued commitment, joint working, and accountability from national leaders; (b) public understanding of the threats to health from animals, the environment and food; and (c) effective partnerships between legislators, professionals and private sector stakeholders. Success depends on nations working in synergy: this requires them to support the strategies both now and for the decades to come. In this connection the following actions should be considered:**
32. **Action 1: The scientific strategies developed in 2005, and reviewed in mid-2007, are valid, but they must continue to be implemented in all countries, particularly where H5N1 infection remains entrenched.**
33. **Action 2: Any efforts to intensify and sustain implementation will depend on continued commitment from political leaders, inter-sectoral synergy, public, private and voluntary sector alliances, adequate capacity, incentives for institutions to act, and engagement of the wider public. All are vital for success.**
34. **Action 3: Coordination must be sustained as a critical input to ensure synergy of contributions by multiple actors; the quality and impact of coordination must be subject to regular review.**
35. **Action 4: Nations should seize the opportunity of this extraordinary momentum to expand from short-term responses to include longer-term strategies, focusing on bio-safe livestock production and multisector pandemic preparedness, concentrating on combined capacities for animal health, human health, environmental health, food safety, and crisis readiness.**
36. **Action 5: Considering these emerging challenges, a three- to five-year road map is needed – now – to build on and strengthen efforts to date – and to drive inter-governmental action, both for the control of avian influenza (as well as other zoonoses) and to ensure a better global readiness for future health crises.**



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