Disasters

Preparedness and Mitigation in the Americas

News and Information for the International Community

The Region's response to the pandemic (H1N1) 2009 and continuing challenges

Throughout history there have been many outbreaks of disease that have resulted in high numbers of deaths. These epidemics have had and will continue to have very different impacts on particular health systems and societies. There are crisis management difficulties that are common to emergencies and disasters, whatever their origin.

Once again, experience has shown that in this type of health crisis, the number of cases may be less relevant than the presence of the disease itself. Some years ago, the Region of the Americas and the rest of the world mobilized to respond to six deaths resulting from Anthrax in the United States and 44 deaths from severe acute respiratory syndrome (SARS) in Canada. Both events had enormous social and economic consequences beyond the health sector.

The emergence of a new type of influenza in humans caused by a virus of avian origin (avian influenza A H5N1), and confirmation of human cases with mortality approaching 60%, prompted almost all countries to begin efforts to improve their capacity to respond to an imminent pandemic.

The terminology applied to this process was similar to that used for emergency and disaster management, including "preparedness" and "contingency planning." However, in most cases progress was made only in developing preparedness plans that were known to a limited group of health officials. In a very few cases, operational plans were both developed and tested that involved all the key components of health and other sectors. In even fewer cases were personnel trained in tasks envisaged in the plan, or supplies and resources provided that would be needed to respond to a crisis.

With the confirmation of the pandemic (H1N1) 2009 virus that was easily transmissible among humans and that had potentially serious effects, response mechanisms were activated that were in direct proportion to the level of preparedness.

It was necessary to immediately take urgent steps to contain the disease at a time when there were many more questions than answers about its clinical features, transmissibility, the attack rate, effective treatment, the risk for health personnel, and effective control measures. However, prioritizing the health and lives of the population above other considerations was not without major social and economic impacts. These impacts were greater in sectors such as tourism,



trade, and transport than in the health sector, and affected Mexico more severely than other countries.

In such a situation, it is not surprising that there were issues common to other health crises. Of note were decisions based on fear, the emergence of rumors and conspiracy theories, the intrusion of political and economic factors, and insufficient official information. These problems were multiplied by the press and electronic media, which were sometimes much more difficult to control than the disease itself.

Counting confirmed cases became the highest priority, and the media demanded this from health authorities. Suspected cases were not as important, even when they were serious or caused more deaths than the new virus.

Other national priorities and more pressing public health needs were put aside, and sometimes the pandemic was used for purposes that had nothing to do with control of the disease. In such a context, the public expects and often demands authorities to carry out visible and urgent actions to demonstrate their concern for protecting the health of citizens. Among the most common are closing airports and using extreme measures to control foreign borders. Such actions require a major investment of resources and personnel, and have proven time and again to have little value in preventing a disease from entering a country.



The health sector took the lead in responding to the outbreak in almost all countries, but in many cases, they also took charge of actions that should have been dealt with by other sectors and actors, were unrelated to surveillance and diagnosis of disease, and were only marginally relevant to the response, if at all. A major weakness was the lack of more active involvement from the health services network, precisely those who were treating the sick.

Why all the actors who were involved in preparing for the pandemic did not take action during the response phase is an important question. There are still major challenges in combating this disease, which is here to stay, and whose future behavior may be more severe than what we have seen thus far. It is imperative that the health sector, where it has not done so, be open, strengthen coordination with other sectors, and share responsibility. Institutions and countries as a whole must recognize and make better use of their national potential.

It is still possible to strengthen information management, improve how institutions build capacity, use a multisectoral approach to solving problems, and to make the most of regional solidarity. We must remember that new problems require new resources. It is necessary to maintain a balance between responding to the pandemic and other public health priorities.

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PAHO/WHO's Response to the Pandemic (H1N1) 2009

The pandemic (H1N1) 2009 has been a unique public health event because it affected all countries of the Americas almost simultaneously, demanding an unprecedented response.

PAHO/WHO's response to the outbreak focused on providing technical assistance for crisis management and coordination and surveillance and investigation of cases. It gave advice on health systems and services, information management, risk communication, and logistics, and assisted in resource mobilization by coordinating with important external partners.

Upon notification confirming an outbreak of illness from the pandemic (H1N1) 2009 virus associated with deaths on 23 April 2009, PAHO/WHO immediately activated its Emergency Operations Center (EOC). The EOC serves as PAHO's center for strategic coordination, analysis, and decision-making during an emergency or crisis.

The PAHO/WHO Task Force met daily to report developments using situation reports and briefings with the media and other organizations. A website portal for the pandemic (H1N1) 2009 was created to ensure that technical information could be accessed as soon as it was made available.

The EOC provided point-of-contact services and improved communication with country and field offices as well as with other regional offices. It also provided the logistical support to deploy technical experts to the field and to ensure timely shipment of oseltamivir antiviral (Tamiflu), personal protective equipment and another supplies needed by countries to deal with the pandemic.

Country response

As part of its immediate response, PAHO/WHO deployed staff from several technical areas to affected countries. The first team arrived in Mexico on 24 April, the day after notification of the outbreak. The team offered advice and assistance in disaster management, epidemiology, health services, logistics, communication, and other fields. Nearly 100 experts were deployed in the region to Mexico, Guatemala, Honduras, Nicaragua, El Salvador, Dominican Republic, Chile, Bolivia, Ecuador, Paraguay, Argentina and Jamaica.

PAHO/WHO monitored laboratories in Member States and provided technical support in distribution and use of diagnostic kits and other laboratory equipment. This included coordinating shipment of specimens from national laboratories to WHO Collaborating Centers. Technical documentation and manuals were written, revised, and updated. Laboratory equipment, reagents, and information on their installation were provided to Cuba, Haiti, Jamaica, El Salvador, Paraguay and Dominican Republic.

Technical guidelines, documents, and tools also were distributed to PAHO/WHO field staff who were working with national authorities. In addition, an Internet-based selflearning program on pandemic (H1N1) 2009 was developed and launched.



About one million doses of the oseltamivir antiviral (tamiflu) were sourced by PAHO and distributed to all countries in the region. Personal protective equipment acquired from the U.S. Agency for International Development (USAID) was also distributed. In addition, PAHO purchased and distributed 3.5 million doses of seasonal influenza vaccine.

Working with partners

PAHO's response to the pandemic (H1N1) 2009 virus outbreak in the Region demanded internal mobilization of resources and expertise from all technical areas. PAHO's strategic approach to the situation required support from key external partners, who contributed to establishing a wide and successful operations network throughout the response to the outbreak.

USAID has been a key partner for PAHO since the early stages of the outbreak. PAHO was able to secure an additional 25,000 personal protective kits from USAID which were distributed to countries from the Regional Humanitarian Response Depot based in Panama. An additional 220,000 treatments of tamiflu were loaned by USAID and the U.S. Centers for Disease Control and Prevention (CDC) in response to urgent requests made by those countries reporting the highest number of confirmed cases.

Securing additional operating resources has been an important aspect of PAHO's response to the pandemic. Established partnerships and funding mechanisms with USAID, the Canadian International Development Agency (CIDA), and the Spanish Agency for International Cooperation and Development (AECID) made it possible to increase operations in the region. PAHO also has the responsibility of informing officials from countries outside the region and other organizations about actions taken in response to the evolving situation. For more information, write to Dr. Robert Lee at leerober@paho.org.

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From pandemic H5N1 to (H1N1) 2009: Lessons for disaster managers

Editorial

ore than three years ago, an editorial of this newsletter (No. 102) stressed the multisectoral dimension of pandemic preparedness and the need for serious contingency planning. At the time, the perceived threat was the avian influenza A (H5N1) virus, for which no human-to-human transmission had been reported (defined at that time as WHO Pandemic Phase 3).

Early this year, the pandemic (H1N1) 2009 virus rapidly developed the capacity to infect humans and to transmit from person to person, leading WHO to use a more precise definition of pandemic Phase 6 than was originally adopted.

Phase 6 is characterized by community-level outbreaks in at least one other country in a different WHO region. Designation of this phase indicates that a global pandemic is underway.

In the end, the rather ominous scenarios forecast for an avian influenza pandemic did not materialize. The pandemic that was expected to reach the Americas from Asia, carrying with it a highly lethal avian strain, ultimately originated in the Americas with a rather mild porcine variant; there was neither a high mortality rate, nor did social disturbances occur. The response remained predominantly a health matter, under the competent leadership of public health experts, and in particular epidemiologists, rather than disaster managers.

What broader lessons can and should disaster managers learn from three years of intensive awareness and planning for an avian pandemic at national and international levels?

 Detailed scenarios rarely are accurate. Many countries prepared detailed pandemic plans based on an analysis of the past three pandemics, which were, by and large, poorly documented. Specific attack and fatality rates were selected for planning purposes. Potential consequences, including serious social and institutional disruptions were identified, and concrete measures pre-selected. However, the dramatic health, social, and economic consequences did not materialize as anticipated in the scenarios. In the case of pandemic preparedness, is this a failure?



- This reality is not unique to pandemic preparedness. The World Food Program (WFP) recently completed a global evaluation of its extensive contingency planning for food insecurity worldwide. One striking conclusion reached was that few, if any, of the detailed plans based on precise scenarios were actually implemented (or needed to be implemented) because what actually occurred was distinct from what was forecast. Our ability to anticipate the future (what, where, and when) is remarkably inaccurate! The experience with pandemic planning only confirms an observation that applies to all types of hazards.
- What matters most is the planning process, not the written plan. Does a failure to construct accurate scenarios mean that this planning effort was in vain? Definitely not. WFP's evaluation concluded that the collective planning process itself was very useful and led to a better response, even if the characteristics of the crisis differed from what was anticipated. The fact that ministries of health have worked with other actors to address vulnerabilities, discuss potential corrective mea-



sures and identify institutional weaknesses almost certainly improved the response to the pandemic (H1N1) 2009 virus. Coordination and the exchange of information were improved and ad hoc changes were made to pre-established measures. Perhaps, the disaster management community attaches too much importance to the output—a detailed written plan—rather than to the outcome: greater institutional awareness and ongoing dialogue and preparedness among actors.

- A lead role for technical experts. In most countries in the Americas, experts in communicable diseases from the ministry of health carried out the response to the pandemic (H1N1) 2009 rather than professionals from the civil protection system or health disaster managers (as was contemplated in some of the original scenarios). The success of response to the actual pandemic reflects the institutional flexibility and technical competence of public health experts in the Region. This being said, it is also true that only a small percentage of the costs resulting from a pandemic are health related expenditures; the majority of the costs (>99%) are due to measures taken to allay fears, whether justified or not.
- Generating excessive fear may backfire. For years, the public has been reminded of the potential catastrophic consequences of a repeat of the pandemic of 1918. In fact, in some cases, raising the public's level of concern and fear was seen as necessary to stimulating political support and funding. As a result, pandemic readiness at the global level often has been better funded than similar efforts for multi-hazard preparedness-an imbalance noted by many developing countries. In Latin America the public response tended to be highly emotional and led to pressure for measures of questionable cost-effectiveness. The health sector's role is important to allay or mitigate fear and to reassure the population that measures are in place and accurate information is available. Countries may wish to examine whether or not the credibility of the health forecasters was affected by the public's overemphasis on the most dramatic scenarios, and whether generating what is now perceived to have been an excessive amount of concern and fear may not have been ultimately counterproductive.

Worst-case scenarios will occur... one day. The 1918 pandemic is proof enough that a new pandemic, with fatality rates up to 2% or more,



remains a possibility. The pandemic (H1N1) 2009 virus' capacity to mutate means that we cannot exclude any scenario. If we should refrain from overemphasizing or singling out the worst-case scenarios in our communication with the public, they should,

nevertheless, remain in the minds of disaster and health planners. How to secure support for planning for the worst-case scenario without overalarming the public or jeopardizing our credibility is an issue that warrants debate.

• Lessons learned. Now that the first wave of the pandemic (H1N1) 2009 has followed its rather benign course, it is easy to reflect back on whether the measures taken were justified and cost effective. Estimating the effectiveness of prevention measures against a hazard that was ill-defined and potentially variable is, at best, a difficult endeavor. Judgments made in hindsight, with the benefit of information and perspective, are of little help to understanding and improving actual decision-making processes that take place in a climate of uncertainty. Nevertheless, there is much to learn. We cannot merely turn the page on one of the greatest public health efforts to prepare for a severe crisis. An evaluation for educational purposes, at both regional and national levels, should be carried out and the results discussed and saved for future pandemic threats.