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# PROGRESS REPORT ON TECHNICAL MATTERS: INTERNATIONAL HEALTH REGULATIONS (INCLUDES THE REPORT ON THE [H1N1] PANDEMIC 2009)

#### Introduction

- 1. The date 15 June 2007 marks a milestone in global public health. On this date, the new International Health Regulations (IHR [2005]) entered into force. The purpose of the IHR (2005) is "to prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade." Indeed, the IHR have become the basic legal instrument for global health security. The IHR (2005) spell out the procedures for early reporting to PAHO/WHO of events that represent global health risks, including those of chemical and nuclear origin, and, if necessary, for mounting a coordinated response to them.
- 2. Progress has been reported in the work areas defined for implementation of the IHR (2005), contributing to the achievement of the strategic objectives and expected results (1.4, 1.6, 1.8) set forth in the Mid-term Strategic Plan 2008–2013 on cooperation with the Member States so that they enhance their capacities in communicable disease surveillance and develop the core alert and response capacities to deal with epidemics and public health emergencies and for PAHO/WHO to coordinate and make available to the Member States the regional capacity necessary for the detection, verification, and assessment of the risks and response to epidemics and other public health emergencies of international concern.

Ten things you need to know about the IHR (2005), WHO <a href="http://www.who.int/ihr/about/10things/en/index.html">http://www.who.int/ihr/about/10things/en/index.html</a>, accessed on 31 March 2009.

3. This report details the Member States' progress in meeting the commitments outlined in Resolution WHA58.3 of 2005, which describes how the Regulations should be applied. That instrument establishes that the States Parties must have concluded their evaluation of the core capacity requirements for surveillance and response (IHR, Annex 1A) and the core capacity requirements for surveillance in designated ports, airports, and ground crossings (Annex 1B of the IHR) by 15 June 2009 at the latest; moreover, that they should have acquired all the missing capacities by 15 June 2012 at the latest. At the same time, on adopting the IHR (2005) the Member States committed to designating National IHR Focal Points (NFP), which should be operating at all times; to conducting a risk assessment for events, using the decision instrument (IHR, Annex 2); to issuing reports within 24 hours of assessing the information on events that can constitute public health emergencies; to designating the ports and airports that should have the capacities indicated in IHR Annex 1B; and to providing a list of ports authorized to issue ship sanitation control certificates.

# **Promotion of Regional Partnerships**

- 4. This particular joint commitment requires close collaboration between the Organization and the States, as well as intersectoral collaboration within the countries, especially among the various administrative and government entities, especially the federal states. Furthermore, collaboration between neighboring countries, trading partners, and members of regional integration initiatives is imperative.
- 5. Given the importance of disseminating information about the IHR (2005) and obtaining their wide acceptance, in June 2007, a page was created on the PAHO website containing useful, relevant information for the Member States on public health surveillance, alert and response systems, and traveler's health, among other topics, in addition to an electronic link to news about outbreaks of events that can constitute a public health emergency of international concern. It should be noted that in some Member States (Brazil, Chile, Mexico, and Venezuela) there have been initiatives to create websites with detailed information on the main components of the process for implementing the Regulations at the country level.
- 6. The following regional integration systems have furnished support for the coordinated activities: (a) MERCOSUR working subgroup 11 (SGT-11), which has formed the Intergovernmental Commission for Application of the International Health Regulations for the purpose of harmonizing country activities to train relevant personnel, create forms, interact with other agencies linked with the IHR (2005), improve administrative documentation flows in connection with the IHR (2005), upgrade the information system and the use of tools for core capacity assessment; (b) the Andean Regional Health Agency-Hipólito Unanue Agreement (ORAS/CONHU), which, through Resolution REMSAA XXIX/445-2008 on linking alert and response systems, has

spearheaded harmonization of the list of priority reportable diseases with MERCOSUR and adaptation of the epidemiological surveillance instrument of the Hipólito Unanue Agreement (VIGICONHU2) for information exchange among South American countries; (c) the treaty constituting the Union of South American Nations, which in the UNASUR plan of action gives priority to creation of the epidemiological shield, an effort to which ORAS and MERCOSUR activities will contribute; and (d) Central America, which, through agreement HON-XXIV-RESSCAD-3 on compliance with the International Health Regulations, commits to disseminating information on the International Health Regulations and making them a priority security issue in the programs of other sectors and the Central American integration processes (trade, tourism, migration, health, social) related to their application; furthermore, the technical cooperation among countries (TCC) project will be executed in a timely manner so that assessments of the core capacities and action plans are completed in 2009 and the National Focal Points are fully functional.

# Strengthening of National Disease Prevention, Surveillance, Control, and Response Systems

- 7. The strategic objective of improving surveillance, alert, and response systems for epidemics and public health emergencies in the Member States within the framework of the IHR (2005) grew out of the assessment of existing core competencies. The Pan American Sanitary Bureau (PASB), in collaboration with the MERCOSUR Intergovernmental Commission for Application of the International Health Regulations provided countries with the necessary tools to undertake this assessment, which should be completed by 15 June 2009 at the latest. As of the date of this document, the available information shows that 27 countries, 17 of them in Latin America and 10 in the English-speaking Caribbean, have already completed the assessment of their surveillance and response capacities. Concerning assessment of the necessary capacities at points of entry, the available information indicates that the assessment has been conducted in 12 Latin American and 5 English-speaking Caribbean countries.
- 8. Use of the four criteria of the decision instrument for the assessment and reporting of events that can constitute a public health emergency of international concern, namely those that have serious implications for public health, are unusual or unexpected, pose a significant risk of spreading internationally and a significant risk of prompting international travel or trade restrictions, has created a new paradigm in the dialogue between National Focal Points and the Pan American Sanitary Bureau (PASB), making it possible to focus on the need for good information obtained from field investigation to offer timely support to contain the events at their source and at the same time, to alert territories and populations exposed to the potential risk of their spread. Simulation exercises conducted in the subregional workshops held by the surveillance networks have enabled participants to discuss application of the criteria in real situations.

- 9. Three subregional meetings were held (South America, Central America, and the Caribbean) with the heads of the national surveillance services to review and update the functions of the National Focal Points, evaluating the core capacities necessary for surveillance and response, and analyze public health emergency response operations.
- 10. In coordination with pandemic influenza preparedness initiatives, some 60 national health officials and 15 PAHO professionals received training to hone their skills as leaders of rapid response teams. Some of the areas addressed were: coordination, management, communication, logistics, social mobilization, and biosafety. This activity was carried out in collaboration with the Project of Communicable Disease Prevention and Control of the Area of Health Surveillance and Disease Prevention and Control and the Area of Emergency Preparedness and Disaster Relief for a regional team from PAHO and national experts from Bolivia, Costa Rica, Ecuador, Honduras, Jamaica, Paraguay, and Uruguay.
- 11. Through collaboration with WHO headquarters, the Ministry of Health of Brazil, and the Ministry of Health of Chile, the event management system (EMS) has been adapted for use in the National Focal Points; operating guidelines were prepared to promote full operation of the National Focal Points.

# **Health Security for Travelers and Conveyances**

- 12. Four regional activities were devoted to updating professionals charged with application of the sanitary surveillance and control measures at points of entry. The first of these was held in Mexico and Barbados for the Spanish- and English-speaking countries, respectively. The activities focused on the following points: the obligations of countries and the timetable for developing core capacities at points of entry in compliance with the IHR (2005); validation of the tool to facilitate assessment of core capacities at points of entry and its instructions; discussion of the methodology to be used; preparation of the action plan to close the gaps and the surveillance plan; and updating on the new certificates for ships and aircraft. Two workshops were later held in Miami, USA, and Santos, Brazil that offered extensive hands-on sessions on cargo and cruise ships to review inspection procedures and the issuance of ship sanitation control certificates and to speed up creation of the network of officials responsible for port health.
- 13. As part of the initiatives to address problems at points of entry, collaboration has been under way with the Organization of American States' Technical Advisory Group on Port Security to address the issue of the necessary core capacities in the designated ports in routine activities as well as activities in response to events that can constitute a public health emergency of international concern.

# **Strengthening of PAHO Alert and Response Systems**

- 14. The designated regional Point of Contact for the IHR (2005), which is the Communicable Disease Prevention and Control Project of the Health Surveillance and Disease Prevention and Control Area, supported the work of the professionals from the Alert and Response Team of this Project for activities in epidemic intelligence, verification of events identified by unofficial sources, risk assessment, and response coordination. These activities are supported by advisers from other PASB units from Headquarters (Immunization, Emergencies and Disasters, Health Technologies, etc.) and the decentralized entities and offices in the countries and are carried out in coordination with WHO Headquarters and the five WHO Regional Offices. The Regional Focal Point operates in epidemiological shifts and is accessible 24 hours a day, seven days a week. Communication takes place by e-mail (ihr@paho.org) and telephone (001-202-368-8929) or fax (001-202-351-0548).
- 15. PAHO uses the Event Management System (EMS) created by WHO Headquarters in Geneva to facilitate the management of information on events and outbreaks. In May 2009, the computer platform was updated and now uses a Web application; this will speed up implementation of the unified system at the three levels of the Organization, facilitating systematic entry of information, risk assessment; the decisions of the Organization, and the interventions carried out.
- 16. The Alert and Response Team holds a daily a session to review and assess the risk of recently identified events and those in the monitoring phase to determine whether immediate steps should be taken to request verification, issue alerts, and identify technical cooperation needs.
- 17. As part of the professional development of the staff working in the PAHO Representative Offices, a technical meeting was held in Bogotá, Colombia, under the framework of the application of the IHR (2005) to discuss epidemic intelligence, coordinated management of outbreaks, support for the NFP, and updating of the roster of regional experts for mobilizing the response to public health emergencies.
- 18. From January to December 2007, 78 public health events of potential international concern were reported in the Region, while 56 events were reported for the same period in 2008. Concerning the source of the initial information, 58% (45) of the events in 2007 were captured by the PAHO alert system, 32% of them (25) were reported by assorted government institutions other than the NFP, and 10% (8) were reported by the NFP. During the same period in 2008, 54% (30) of the events were captured by the Organization's alert system, 28% (16) were reported by the NFP, and only 10% (8) came from government institutions other than the NFP. Concerning the response, the Organization provided some type of cooperation for 58 (51%) out of 113 events recorded

through application of the IHR (2005) since June 2007 through the Representative Office or Headquarters. During that same period, the National Focal Points reported 24 events with potential implications for international public health. In 66% (16) of these events, the Organization provided support for their local control.

- 19. A substantial improvement has been observed in the coverage and quality of event risk assessment and in the activities of the NFP in furnishing initial information on events in their territory. One hundred percent of the events that can constitute a public health emergency of international concern captured by the PAHO alert system were verified by the PAHO Epidemic Alert and Response Team at PAHO/WHO Headquarters, in close coordination with the Representative Offices, technical units, and National Focal Points.
- 20. Since the IHR (2005) entered into force, semiannual tests have been conducted to evaluate the systems for communication between PAHO and the designated NFP, for which messages are sent via e-mail, telephone, or fax. The results for telephone communication indicate a positive response from 29 of the 33 countries to which messages were sent; however, responses were received from only nine countries within 48 hours of sending the e-mail. On the other hand, information on coverage of care 24 hours a day, seven days a week was obtained from the NFP of 28 countries; of these, 26 have this service. The shortage of human resources, high management turnover, and restrictions on international calls are mentioned as factors responsible for the lack of coverage.
- 21. The Pan American Sanitary Bureau (PASB) made progress in preparing the floor plans for the Emergency Operating Center (EOC) in the Headquarters building to ensure access to timely, reliable information on events that pose a threat to public health, enable the Organization to assess health risks, and respond when the countries require it. The professional team that will work in this space will consist of advisers in IHR epidemic alert and response and emergency preparedness and disaster relief, who will follow standard operating procedures.

# **Monitoring and Legal Affairs**

22. In order to determine whether the legal framework of the Member States was adequate to facilitate full compliance with the IHR (2005), technical meetings were held with the PAHO staff in charge of health legislation, the IHR (2005) coordinator at WHO Headquarters, and experts from Georgetown University (PAHO/WHO Collaborating Center for ethics and health) and the George Washington University to determine areas of collaboration to assist the countries in their review of national health legislation during application of the IHR (2005).

- 23. In 2009, a workshop with the legal advisers from the English-speaking Caribbean countries was held in Barbados to facilitate an exchange of ideas on the processes under way to review current legislation and to familiarize them with WHO guidelines and the reference materials prepared for this purpose. The participants determined the priority areas in which to start or accelerate the amendment process, with the assistance of regional advisers from PAHO, WHO headquarters, and the Government of Canada. A similar workshop will be held for the countries of Latin America in 2009.
- 24. Despite the countries' progress in setting up National Focal Points and assessing and strengthening the core capacities necessary for early detection and control of events that can constitute international public health emergencies, full application of the IHR (2005) as a political commitment by the States requires a sustained effort under the leadership of the ministries of health.

# **Action by the Directing Council**

25. The Directing Council is invited to take note of this report.

Annex

# **REPORT ON THE (H1N1) PANDEMIC 2009**

# Introduction

- 1. The purpose of this document is to examine the operations and application of the various aspects of the International Health Regulations (IHR [2005]) with the emergence of the new influenza A (H1N1) virus in April 2009.
- 2. On 25 April 2009, the Director-General of the World Health Organization (WHO) officially declared a public health emergency of international concern for the first time since the IHR (2005) entered into force on 15 June 2007. This declaration was made as a result of the 21 April detection of a new influenza virus, the A (H1N1) virus, by the laboratories of the U.S. Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia.
- 3. The virus in question was a flu virus that had not previously circulated in humans and was the cause of two cases in as many countries of the Hemisphere: the United States and Mexico. This situation met the criteria defined in the decision instrument for the assessment and reporting of events that can constitute a public health emergency of international concern (Annex 2 of IHR [2005]), requiring compulsory and immediate reporting to WHO of human influenza cases caused by a new viral subtype.
- 4. As of the date of this document, 46 days after official declaration of the public health emergency of international concern, a total of 27,772 confirmed cases of influenza and 142 deaths caused by the new A H1N1 virus had been reported in 73 countries in five of the six WHO regions.

# Review of the Operations and Application of the IHR (2005)

#### Purpose and Scope

- 5. One of the objectives of the IHR (2005) is to prevent the international spread of disease. The declaration of a public health emergency of international concern made it possible to alert countries to this potential threat, and to immediately activate the contingency plans in place to prepare for a potential pandemic. In this regard, application of the IHR (2005) mechanisms was effective.
- 6. The simultaneous existence of widespread cases in two countries of the Region of the Americas precluded application of the established containment measures when a virus with pandemic potential is detected but limited to clusters of cases. Accordingly, the initial response focused on mitigating the potential impact of this new virus from the standpoint of morbidity, mortality, and social disruption, while at the same time attempting to minimize unnecessary interference with international traffic and trade.

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# Information and Public Health Response

# Surveillance

- 7. The affected countries made use of the core surveillance and response capacities included in the IHR (2005) required in the face of events that can constitute a public health emergency of international concern. This event made it possible to test the operation of surveillance systems at the local, subnational, and national levels, as well as laboratory capacity, which performed key functions at the onset of the outbreak.
- 8. This event demonstrated the importance of having regular risk surveillance mechanisms in place to perform risk assessments based on the criteria set by the IHR (2005): importance to public health; unusual or unexpected appearance; risk of international spread; and consequences for international traffic and trade. It also demonstrated the usefulness of rapid response teams capable of being deployed to the affected location.
- 9. National Focal Points (NFPs) played a key role in coordinating the surveillance system both within and among countries and with WHO. The presence of an officially designated structure operating 24 hours a day, seven days a week, with dedicated phone lines and e-mail capacity facilitated effective communication, the coordination of surveillance, and the international response.

#### Reporting

10. The initial detection of the new influenza A (H1N1) virus was reported through official channels, adhering to the timeframes stipulated by the IHR (2005). The existence of a preestablished and tested communications protocol between NFPs and the WHO Contact Point in the region made it possible to quickly obtain and disseminate information.

# Verification

- 11. Within the framework of the functions conferred on it by the IHR (2005), WHO began verifying events in mid-April, a process that benefited from unofficial press accounts about an outbreak of a severe respiratory disease in Mexico. Days later, a second request for verification was made in the wake of another press report of a death from a severe acute respiratory syndrome in another region of that country. Both events were confirmed in a timely manner by the NFP in Mexico.
- 12. This verification process helped Mexican health authorities alert the country's surveillance system. As a result, a severe outbreak of respiratory disease was quickly detected in Mexico City and its metropolitan area, prompting the shipment of more than 50 samples from suspected cases to a reference laboratory in Winnipeg, Canada. These

activities made it possible to confirm that the cases detected in Mexico were caused by the same virus identified by the CDC in the United States, and that these events were indeed linked.

13. It bears mentioning that in the months prior to the detection of these cases, there were a number of verification requests for sporadic human cases caused by a type A influenza virus of porcine origin in the United States. Nevertheless, when these viruses were characterized, it was shown that they were not capable of person-to-person transmission. Further research might shed light on a possible relationship between the two events.

# *Declaring the Emergency*

- 14. The initial report concerning the detection of the new influenza A (H1N1) virus triggered all the risk assessment mechanisms provided for under the IHR (2005). On 25 April, the Director-General of WHO convened the Emergency Committee for the first time since the IHR (2005) entered into force to seek its advice about whether to declare a public health emergency of international concern, identify the respective pandemic alert phase, and determine which public health measures would be appropriate, based on the available information about the event.
- 15. The Committee, which is comprised of subject specialists from all WHO regions, assembled with less than 24 hours of advance notice. Professionals designated by the Member States from the areas where the cases where occurring also participated in the meeting of the Committee. Based on the Committee's deliberations, the Director-General decided to declare this event a public health emergency of international concern. Since that time, the Committee has been convened on three more occasions. As a result of these meetings, the Director-General first raised the pandemic alert phase from phase 3 to 4, and later from phase 4 to 5, and finally, on 11 June, from phase 5 to 6, which is the highest phase of the WHO scale, indicating that a pandemic is in progress.

# Dissemination of Information to the Member States

16. Pursuant to the provisions of the IHR (2005), WHO has continuously provided NFPs with all the information it has received on this event through a restricted access Internet portal, even before the declaration of a public health emergency of international concern. This enabled the countries to take the pertinent steps for detecting and controlling the spread of potential outbreaks.

#### **Public Health Measures**

# Temporary Recommendations

17. The Emergency Committee of the IHR (2005) is also mandated to advise the Director-General about temporary health measures that the Member States should adopt with respect to people, goods, and means of transport, among other things, to prevent or reduce the international spread of disease. On declaring the public health emergency of international concern, the Director-General recommended that surveillance be intensified so as to detect as quickly as possible any unusual outbreak of flu-like illness and severe pneumonia. The successive deliberations of the Committee recommended against closing borders or restricting international travel; that sick people postpone their international travels, and that travelers experiencing symptoms following travel seek immediate medical care. Finally, the Director-General has also recommended continuing production of the seasonal influenza vaccine, subject to subsequent assessments and developments in the situation.

# Public Health Response

#### National Level

- 18. The commitments made by the Member States on adopting the IHR (2005) included strengthening existing national structures and resources in order to guarantee an appropriate public health response to events that can constitute an international public health emergency.
- 19. The emergency created by the new influenza A (H1N1) virus has made it possible to identify the strengths and weaknesses of the various components of the public health response, including medical care, virological diagnosis, epidemiological research, the mobilization of rapid response teams, risk communication, and the implementation of contingency plans at points of entry.
- 20. WHO technical cooperation activities to strengthen these capacities, as well as the pandemic preparedness activities under way since 2005, have helped better prepare the Member States to deal with a pandemic. Nevertheless, many Member Countries have yet to fully achieve the capacities outlined in the IHR (2005) or complete the implementation of action plans developed for this purpose.
- 21. The gaps identified during this emergency merit special attention, particularly those involving access to laboratory diagnosis; the integration of outpatient and hospital morbidity surveillance systems; laboratory and animal surveillance; and difficulties in properly assessing risks, transmission patterns, severity, and even deaths attributable to the new influenza A (H1N1) virus. These gaps may be associated with the swift progression of the epidemic, where the rapid increase in cases may have exceeded field

investigation capabilities, as well as the available human and financial resources in most of the countries, regardless of their level of development.

#### International Level

- 22. The IHR (2005) includes the offer of international collaboration to countries affected or threatened by an emergency, which includes guidance and technical cooperation, the mobilization of international experts to provide assistance in the field, and provision of the supplies needed to deal with the situation. During the verification of events in the current emergency, Mexico accepted the technical support offered by PAHO/WHO. Accordingly, by the time the public health emergency of international concern had been declared, a team of international experts was already in place and working in the field.
- 23. Once the public health emergency of international concern had been declared, situation rooms were activated at WHO Headquarters and in the region. These situation rooms monitored the clinical course and spread of the disease, which helped facilitate coordination of the global and regional response, especially with respect to the distribution of regional and global reserves of antiviral drugs, personal protective gear, equipment, and laboratory supplies, as well as the allocation of special financial resources.
- 24. The current public health emergency of international concern has made a significant contribution to the development of other capacities in both the Member States and WHO through the formation of expert groups tasked with the conceptualization of technical orientations, the preparation and publication of prevention and control guidelines and reference materials for implementation by national authorities, individuals, and communities. Virtual cooperation mechanisms were quickly developed to foster the sharing of information and address priority aspects of the response to the public health emergency of international concern with the Ministers of Health and the technical teams of the Member States, facilitating collaboration among these groups.
- 25. As stipulated by the IHR (2005), the public has been receiving relevant information on a continuous basis through the traditional media and the extensive use of alternative media (e.g., Internet, Twitter, podcasts, and RSS feeds) since the emergency was declared.

#### Conclusion

26. The principles of the collaboration among the Member States and the international community sponsored by the International Health Regulations (2005) have been observed since the verification stages prior to the declaration of this public health emergency of international concern.

- 27. Although these principles were implemented immediately, thanks to access to diagnostic tests, the exchange of experts, in-service training, the provision of supplies and equipment, and the ongoing exchange of information, some significant gaps remain in terms of national public health response capacities.
- 28. This emergency, to which all the countries have been or will be exposed, reaffirms the need for continuing efforts to create and expand the core capabilities envisioned by the International Health Regulations, which are critical for achieving global health security and preventing the international spread of disease.

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