B. UPDATE ON THE PANDEMIC (H1N1) 2009

Background

20. The purpose of this document is to examine the pre-pandemic efforts and the response to the new influenza A (H1N1) virus since April 2009.

21. In late April 2009, a novel influenza A virus capable of infecting humans was detected in North America. From its initial focus in Mexico, the virus spread worldwide, yielding hundreds of thousands of confirmed cases and greater than 16,000 deaths as of March 2010. Based on the available evidence and on the guidance of the Emergency Committee established under the International Health Regulations (IHR-2005), the Director General of the World Health Organization (WHO) determined that the scientific criteria for an influenza pandemic had been met and declared the first pandemic of the 21st century.

22. Since 2002, the technical cooperation of the Pan American Health Organization (PAHO) has promoted countries development of National Influenza Pandemic Preparedness Plans (NIPPPs) developed through an intersectoral planning process. In addition to the development of NIPPPs, the goal was to strengthen countries generic core capacities for surveillance and response, as required by the IHR-2005.

23. In support of strengthening countries' capacity to detect influenza viruses with pandemic potential, PAHO technical cooperation efforts focused on implementation of Generic Protocol for Influenza Surveillance developed by PAHO and the U.S. Centers for Disease Control and Prevention. As a complement to an integrated virological and epidemiological surveillance system, the countries' laboratory capacity was enhanced through training in laboratory techniques, provision of reagents and supplies, and purchase of equipment. For most countries in the Region, training focused on antigenic techniques which allowed for the detection of seven respiratory viruses, including influenza. Over the past five years, these efforts contributed to the establishment in Central America of five new National Influenza Centers, which are WHO-recognized laboratories with proven capacity to safely and effectively diagnose influenza viruses. Prior to these recently designated centers, only one National Influenza Center in Central America had been operating.

24. Support was also provided to establish rapid response teams to investigate possible outbreaks. In addition to providing tools for field investigation, training included the implementation of effective strategies for infection control, safe handling of clinical samples, stress management, and crisis and mass fatality management. Capacity building was also provided on risk and outbreak communication to train senior communication

staff, those who influence and make communication policies, and those responsible for messages and commentaries to the public and the media.

Update

25. The emergence of a pandemic influenza in April 2009 sparked an overwhelming demand from the countries for direct technical support. The pandemic forced a shift from preparedness activities to mitigation efforts. The threat of a potential pandemic caused by the highly pathogenic avian influenza A H5N1 ("avian flu") had resulted in the development of NIPPPs in most countries. The Region of the Americas was the only WHO Region that had not been affected by the H5N1 virus, and as such, the pandemic preparedness process had been waning in many countries due to a low perceived risk. Countries responding to the H1N1 pandemic often found that their NIPPPs lacked the operational details necessary for effective operational implementation. While national plans lacked operational details, the preparedness process over the past few years had served to lay the groundwork for coordination mechanisms and bring together the necessary stakeholders.

26. In response to the initial outbreak, PAHO activated its alert and response mechanisms with the deployment of rapid response teams and the activation of its Emergency Operations Center at (EOC) PAHO Headquarters. The EOC served as a point of contact for communication between technical areas and countries' ministries of health. Through coordination with WHO's Global Alert and Response Network (GOARN), PAHO deployed intersectoral delegations to most countries. Such teams included specialists in surveillance, laboratory diagnosis, infection control, response to emergencies, and risk communications. In the absence of antiviral medications and vaccines, health officials faced anxious communities demanding quick information. Risk communication training in many cases led to more coordinated messages with transparency and compliance to public health measures.

27. The capacity of national public health laboratories was stretched to the limit because laboratories were used for diagnostic purposes and not to meet the recommended public health surveillance goals. Even so, laboratories produced timely, accurate results on the excess of samples that were submitted. Most countries were able to identify influenza and other respiratory viruses through antigenic techniques. The identification of the new virus was only possible through more sophisticated, polymerase chain reaction (PCR) which had not been established in every country in the Region. Within the first four weeks of the start of the pandemic, PAHO coordinated the provision of training, equipment, materials and reagents for this technique in order to respond to this immediate gap. Realtime PCR equipment was provided to Brazil, Chile, Colombia, Cuba, Dominican Republic, Ecuador, El Salvador, Haiti, Honduras, Jamaica, Paraguay, and Uruguay. PAHO also purchased and distributed reagents, additional equipment, and

supplies. As a result, every country in Latin America is now able to diagnose the novel H1N1 virus.[7]

28. Support for epidemiological surveillance included the development of national protocols based on PAHO/WHO guidelines for the enhanced surveillance of acute respiratory infections. Throughout the pandemic an obvious gap and time lag existed in the epidemiological information generated by countries. The gains that had been achieved with the years of technical cooperation in implementation of influenza surveillance were not completely apparent during the pandemic. Now that the pandemic has subsided in the Southern Hemisphere, there is an opportunity to strengthen sentinel surveillance systems in the affected countries, which are now more receptive to such activities.

29. PAHO convened a group of experts for development of a guideline for clinical management of pandemic (H1N1) 2009 in children and adults, in collaboration with the Pan American Association of Infectology.[8] Clinical characteristics of the severe cases were monitored in close communication with country specialists. These efforts allowed the early identification of pregnancy and obesity as risk factors for severe forms of the disease. Technical support was provided to Argentina, Bolivia, El Salvador, Honduras, Peru, and Trinidad and Tobago for the revision of national protocols on clinical management and infection control. Through experts in the field, PAHO provided guidance on clinical management of severe cases, cases among children, and infection control measures in Belize, Dominican Republic, El Salvador, Guatemala, Mexico, Nicaragua, and Paraguay. In conjunction with the Pan American Association of Infectology, a meeting was convened to collect the main lessons learned on clinical management in intensive care units (São Paulo, 26 August 2009). PAHO also collaborated with WHO Headquarters in the development of a global consultation on the management of severe cases of pandemic (H1N1) (Washington, D.C., 14-16 October 2009).

30. Through its emergency mechanisms, PAHO was able to coordinate many of the donations and purchases for countries. Over 50,000 personal protective equipment kits were purchased and delivered to countries, as well as over 589,000 treatments of oseltamivir.

31. PAHO developed technical guidelines for vaccine use and supported countries in Latin America and the Caribbean in the introduction of the pandemic influenza vaccine. Three subregional workshops were conducted, using these guidelines to support countries in developing their national plans. PAHO sent risk communication teams to work directly

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[7] CAREC member countries, except Jamaica, sent suspect pandemic (H1N1) 2009 samples to CAREC for confirmation by *realtime* PCR.

[8] Available at: http://new.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=2163&Itemid=.

with the ministries of health to prepare for vaccine introduction. In the Americas, different mechanisms exist for countries to access pandemic influenza vaccines. Twenty-seven countries and territories purchased this vaccine through PAHO's Revolving Fund. Ten countries in the Region were eligible to receive WHO-donated vaccine to cover up to 10% of their population. Two countries purchased vaccine directly from manufacturers. As of 23 March 2010, 22 countries and territories had received pandemic influenza vaccine, and approximately 14 million doses had been applied. PAHO will continue to support countries in the surveillance of vaccine adverse events and in the evaluation of vaccine impact.

32. PAHO produced and translated guidelines and made them available in the influenza portal[9] in Spanish and English. A weekly pandemic monitoring report was produced describing the evolution of the pandemic in the Region, and is still published every week. PAHO also held weekly virtual meetings with ministries of health to disseminate the latest available information and evidence. PAHO made available a secure virtual site for information sharing for the use of Canada, Mexico, and the United States. In order to disseminate knowledge and information on infection control, PAHO designed a virtual course in clinical management and infection control for healthcare workers.

33. Support was also provided to countries in the development of appropriate messages and the evaluation of the effectiveness of these messages through knowledge, attitudes, and practice studies. Based on informal feedback from countries in the Region, these results helped programs determine whether their message contributed to the public's compliance with social distancing recommendations and when necessary to make subsequent adaptations.

34. At the regional level, PAHO convened a working meeting of all Member States in September 2009 to analyze the experiences of the countries, share lessons, and examine the challenges facing the Region. With the severe season in the Southern Hemisphere past, and the Northern Hemisphere influenza season arriving, the countries addressed seven themes: coordination and management, epidemiological surveillance, IHR, health services response, risk communications, non-pharmaceutical measures, and vaccination.

35. While still supporting efforts to mitigate the effects of the current pandemic, PAHO intends to continue to strengthen the pandemic response strategy. The goal now is to move away from the reactive mode required by the initial months of the pandemic. Technical cooperation will continue to promote integrated strategies of capacity building, planning tools, and simulation exercises involving the active participation and ownership of governments at all levels.

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[9] Available at: http://new.paho.org/hq/index.php?option=com_content&task=blogcategory&id=805&Itemid=569&lang=en.