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**Report Proceedings of the
SUB-REGIONAL MEETING ON
PANDEMIC INFLUENZA PREPAREDNESS AND RESPONSE:
CARIBBEAN EXPERIENCE AND LESSONS LEARNED
9-11 September 2009
Hilton Hotel, Barbados**



EXECUTIVE SUMMARY

The Pan American Health Organization, in collaboration with the CDEMA, organized the sub-regional meeting on “*Pandemic Influenza Preparedness and Response: Caribbean Experience and Lessons Learned*,” in the period 9-11 September 2009 in Barbados. Financial support for the workshop was received from US Northern Command, US Southern Command, and the Canadian Development Agency (CIDA).

The meeting intended to: 1) review the global and regional response to influenza A (H1N1) pandemic to date; 2) share experiences of national responses to influenza A (H1N1) pandemic; 3) identify operational issues for national response at Phase 6; 4) review national response plans in view of lessons learned; and 5) re-visit sub-regional initiatives and mechanisms. The objectives of the meeting were met through presentations, panel discussions, plenary sessions, group work, and questions and answers.

The participants represented 22 countries/territories in the Caribbean and the U.S.A. Staff from the Regional, Sub-regional, and Country offices of the Pan American Health Organization/World Health Organization (PAHO/WHO), and the Caribbean Epidemiology Center (CAREC) were also in attendance.

The workshop was structured to focus on the evolution of the Influenza A (H1N1) virus; H1N1 influenza planning; global response to the pandemic influenza; the role of disaster management and stakeholder involvement in pandemic preparedness and response; pandemic preparedness and response to H1N1 in the Caribbean sub-region; and lessons identified/learned.

Among the lessons learned were the importance of: disease surveillance strategies for Influenza A (H1N1); strengthening pandemic influenza surveillance systems within existing surveillance systems; integrating interventions into primary health programs; preparing border and airport surveillance measures; the pending H1N1 vaccine, personal protective measures, and guidelines for closure of key services (such as schools, restaurants); balancing economic and political issues with public health regulations; developing a skilled cadre of health professionals and volunteers to serve in the event of a disaster; securing financial resources to support disaster-related activities without disrupting other services; accurate, consistent, transparent and timely risk communication; developing a skilled cadre of health professionals to serve in the event of a disaster; scaling-up efforts for multi-sector management of disasters; and building capacity for risk assessment and technology transfer.

Participants noted that the achievements, challenges, and lessons identified/learned have empowered countries to assess their strengths and weaknesses for national response at Phase 6. It was stressed that country-level experiences offer unique lessons on best practices. Emphasis was given to the fact that no one-size-fits-all approach exists to address the problem—policy blueprints must be tailored to match national realities. Countries were encouraged to begin adapting and incorporating lessons learned in preparation for accelerated action if the pandemic progresses.

The conclusion was that most countries were somewhat prepared to respond to a potential crisis. The preparedness efforts undertaken by the countries/territories in the Caribbean sub-region since the onset of the H1N1 pandemic facilitated an effective response to the pandemic in its mild form. The lessons learned and shared experiences have alerted countries to the need to re-assess their disaster preparedness and response plans for mitigation of the potential impact of a severe H1N1 pandemic in the Region.

1. BACKGROUND

Over the last three years, the Caribbean countries and territories have worked towards improving their capacity to respond to pandemic influenza. To date, all countries have developed National Influenza Pandemic Plans. In view of the new Influenza A (H1N1) virus that tested the response capacity of a number of countries, the organizers felt that the time was opportune to 1) reflect on achievements the Caribbean countries have made to date towards implementing the National Influenza Pandemic Plans, 2) to identify the existing gaps or challenges towards implementation; 3) assess the Caribbean's response to the H1N1 epidemic; and 4) evaluate the lessons learnt since the detection of the virus. As such, the meeting was an ideal forum to bring together a cross section of participants who are involved in the planning and implementation of preparedness response activities. These included: national disaster officers, Ministry of Health focal points for pandemic influenza; health services personnel; and military and national security personnel.

2. ORGANIZERS/COLLABORATORS

The Pan American Health Organization in collaboration with CDEMA organized the workshop. Financial support for the workshop was received from USAID, US Northern Command, US Southern Command, and the Canadian International Development Agency (CIDA).

3. PARTICIPANTS

The meeting was attended by delegates representing Anguilla, Antigua and Barbuda, Aruba, the Bahamas, Barbados, Belize, Bermuda, British Virgin Islands, Cayman Islands, Dominica, Grenada, Guyana, Jamaica, Martinique, Montserrat, St. Kitts-Nevis, Saint Lucia, St Vincent and the Grenadines, Suriname, the Republic of Trinidad and Tobago, Suriname, Turks and Caicos and the United States.. The involvement of participants from the United States broadened the scope of the discussions and lessons identified beyond the experiences that prevailed in the Caribbean sub-Region. There were also participants from the Regional, Sub-regional, and Country offices of the Pan American Health/World Health Organization and the Caribbean Epidemiology Center (CAREC). The List of Participants is attached as Annex 1.

4. OVERVIEW OF THE WORKSHOP, OBJECTIVES, AND METHODOLOGY

Ms. Lealou Reballos, Technical Officer, Emergency Preparedness & Disaster Relief Area of the Caribbean Program Coordinator's Office, PAHO/WHO, introduced the participants, provided an overview of the workshop, and outlined the order of work.

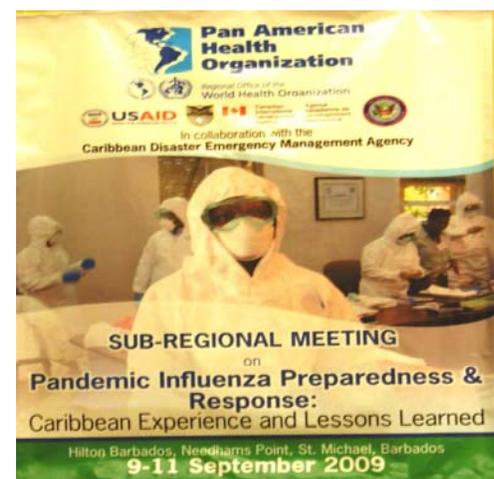
5. OBJECTIVES OF THE MEETING

METHODOLOGY/AGENDA

- To review the global and regional response to influenza A (H1N1) pandemic to date
- To share experiences of national response to influenza A (H1N1)
- To identify operational issues for national response at Phase 6
- To review national response plans in view of lessons learned
- To revisit sub-regional initiatives and mechanism

The objectives of the meeting were met through a series of:

- Presentations
- Panel discussions
- Plenary sessions
- Group work



Wednesday, 9 September 2009

6. OPENING SESSION

The workshop took place at the Hilton Hotel, Barbados, in the period 9-11 September 2009.

Ms. Nicole Wynter, Technical Officer, Caribbean Program Coordinator Office, Barbados, opened the meeting by welcoming the visiting delegates to the beautiful island of Barbados. She recognized the organizers and thanked them for their support.

Dr. Theodore-Gandi, Caribbean Program Coordinator, Barbados brought greetings from Dr. Mirta Roses, Director, Pan American Health Organization/World Health Organization. Dr. Theodore Gandi expressed her pleasure to host the workshop in Barbados and she thanked the coalition of sponsors for their generous support.

She remarked that at no time in history have the Caribbean countries seemed so prepared to face the novel Influenza A (H1N1) virus. However, despite this observation, she posed a thought-provoking question. She queried whether countries were really prepared for managing a crisis. She cautioned that while a lot has been achieved in response to the H1N1 influenza virus, much more needs to be done. Consequently, this three-day agenda is structured to provide a chronology of events related to the evolution of the virus, highlight national achievements to date, articulate the challenges countries face in responding to the H1N1 pandemic, identify lessons learnt, and proffer suggestions for the way forward. Dr. Theodore-Gandi emphasized that although the H1N1 pandemic is a health issue, its response requires a well-coordinated multi-sectoral approach involving a wide cross-section of stakeholders. She said that there is a need for coherence and partnership among stakeholders and emphasized that weak coordinating mechanisms can have far-reaching consequences for the health and wealth of populations. In concluding, she urged the participants to engage in sincere dialogue to protect their own health.

Opening remarks (Col. Jay C. Neubauer, Representative of the Embassy of the United States of America, Barbados)

He thanked the participants for their participation in this ground-breaking forum—one that will provide a comprehensive look at the H1N1 pandemic which is the most significant health event in several years. He noted that this novel virus has affected populations across borders regardless of ideological and political affiliations. He cautioned that the challenge is to remain in front of this event and not lag behind it to see what happens. He expressed the hope that this three-day meeting will facilitate the sharing of ideas and that the ensuing community of ideas around the H1N1 pandemic will provide the model for future regional and international cooperation. He felt that a multi-country experience will better equip countries to handle future challenging issues in a collaborative and coordinated manner. He expressed confidence that, at the end of this workshop, participants will gain strength and empowerment to face impending challenges posed by the H1N1 pandemic.

Mr. Jeremy Collymore, Coordinator, Caribbean Emergency Disaster Agency (CDEMA), expressed great pleasure in being a part of this workshop which will build upon existing knowledge, current experiences, and institutional arrangements to address a threat which has no borders. He believed that this workshop has created an opportunity for multi-agency dialogue to solve trans-sectoral and trans-national problems. The pandemic has created a new opportunity for coordinated regional dialogue with PAHO's leadership. The adoption of multi-stakeholder modalities can significantly expand and strengthen disaster responses. He reminded the participants that the Influenza A (H1N1) was largely seen as a health issue but events demonstrated that an effective response required a multi-pronged approach. Sustainable cross border communication, supported by technology, is a critical component of a pandemic response strategy. For this reason, Caribbean countries should look more closely at the establishment of efficient and effective communication standards and processes.

Mr. Collymore pointed out that regional integration and interconnectedness place a premium on effective networks and cooperation. For example, the issue of border control in containing catastrophic events has created a new space for cooperation. The re-engagement of the military in a supportive (not controlling) role provides opportunities for novel multi-sectoral collaboration. In summing up, he pointed out that the Regional Response Mechanism (RRM)

facilitates diverse partnerships to confront and manage disasters. He highlighted the importance of building on the surveillance plans that were put in place for the Cricket World Cup. Finally, he warned that although countries might want to pat themselves on the back for their achievements to date, they must realize the huge challenges that lie ahead. In this context, he emphasized that as the pandemic continues to evolve, countries must urgently re-visit the tools at their disposal in preparation for a possible second-wave of the H1N1 pandemic.

7. PRESENTATIONS AND DISCUSSIONS

The Global Response to the Pandemic Influenza -Dr. Jean Luc Poncelet, Area Manager, Area on Emergency Preparedness and Disaster Relief, Pan American Health Organization/World Health Organization. He perceived that there was a sense of camaraderie among the countries in the overall management of the various issues related to the onset of a new disease. He outlined the context in which the disease occurred and provided a chronology of facts with respect to the development and progression of the phases of the pandemic. Global-level data showed the number of countries/territories affected and the number of deaths while data from the Region of the Americas indicated regional trends as of 21 August 2009.

Dr. Poncelet indicated that as of 23 April 2009, there was uncertainty as to whether the influenza outbreak was due to a new virus or not. He remarked that a diverse group of national and international institutions contributed work towards an understanding of the situation in face of rapidly-changing information which was conflicting at times. This scenario challenged the Ministries of Health as they were required to constantly change planned strategies to accommodate tentative information while maintaining the public's confidence in the transparency of the information provided via the media. Other challenges will emerge due to the confluence of fear and science in an environment bombarded with rapidly changing scientific information.

He reminded the participants that no single discipline had all the answers and placed the discussion on how to best use science for more informed decision-making. As such, the novelty of the pandemic facilitated the convergence of the scientific and political world in a very difficult environment. He acknowledged that the media played a prominent role by providing a wealth of information in an emergency mode. The fear and hysteria generated among the general public was met with a common sense approach and with timely responses at the national and international levels. He felt that fear was generated largely by the novelty of the virus rather than by medical realities. He concluded that there were good national, regional and global responses to the Influenza A (H1N1) pandemic and key lessons were learnt.

In the ensuing interactive dialogue, speakers discussed the current and future impact of the H1N1 pandemic. For participants, the general concerns were the affordability of the pending H1N1 vaccine for developing countries and whether the H1N1 vaccine will be included in the routine/seasonal flu regimen or whether it will be a vaccine specifically for H1N1.

Participants made the following informational comments:

- Countries reacted to what comes to them from the external scientific world. Therefore, since the United States has ceased recording the number of cases of the Influenza A (H1N1) virus and reduced its informational messages, many countries no longer operate in a crisis-driven mode.
- It is necessary to understand not only the behavior of the virus but the characteristics of the affected population;
- Since most countries have the capacity for data analysis, national responses should be tailored to suit evidence-based national realities;
- Suriname, a Dutch-speaking country, adopted the WHO Guidelines to suit the national realities.

In Dr. Poncelet's summation, he reiterated that countries should: develop strategies that take into account the lessons learned; develop multi-sectoral partnerships; prepare multi-hazard plans which must involve health

promotion strategies; make decisions based on national realities; think as though they have to rely solely on their own responses; and ensure that hard-to-reach groups of people are included in national strategies.

Three participants delivered presentations on the U.S. Response to H1N1.

8. H1N1 Influenza Planning - A Proxy for Regional Pandemic and Bioterrorism Preparedness: Mr. William Lyerly, Jr., Department of Health and Human Services (DHS). He indicated that while old traditional threats remain, new threats have emerged which engage new players, new roles, and, most importantly, new ways of working across and within borders within a multi-hazard framework.

Mr. Lyerly provided an overview of the roles and functions of the U.S. Homeland Security and its related Emergency Support Functions (ESF)—all aimed at protecting the United States from the four B's: bugs, bombs, borders, and business. His presentation highlighted the diverse issues involved in the U.S. national strategy for pandemic influenza. He made reference to certain non-health observations that are related to the Influenza A (H1N1) pandemic such as the closure of schools, restaurants, and public transportation. In this regard, the sensitive and much-debated questions were: who should decide on when to close and under what circumstances should closings occur? The answers to these questions are very important. For tourist-depend countries, closures can have real unintended consequences which can have deleterious effects on critical infrastructure and the economy.

Drawing on his experience, Mr. Lyerly cautioned that countries should: not set up separate structures to deal with the H1N1 virus but rather, they should work within existing structures; recognize that the planning process is more important than the plan itself; build and strengthen capacity at the national, regional, and international levels; develop multi-sectoral, evidence-based national plans; recognize that a pandemic is more than a medical issue; and recognize that the best line of defense is to contain, educate, and prepare. In closing, he reminded the participants of the importance of the International Health Regulations (IHR) as a basic tool to face emergencies of relevance to international public health and that these regulations are legally binding.

9. H1N1 from the CDC Perspective: Col. Ted Cieslak, U.S. Department of Defense Liaison Officer. He gave a brief history of the science and etiology of viruses in general, and of the novel H1N1 virus, in particular. He continued with an overview of the U.S. response at the detection of the first case and the early thinking with regard to severity and spread. He confirmed that in July 2009, the U.S. decided that it was unimportant to continue counting individual cases. At that time, there were 44,317 cases with 8,842 hospitalizations, and 555 deaths.

He argued that a correlation between increasing numbers of new cases and the re-opening of schools is emerging. Recent data have shown an increase in the number of H1N1 cases in the state of Georgia where children have already returned to school. As such, it is projected that the spread of the H1N1 virus could be severe in the United States after the U.S. Labor Day when many persons return to school.

He concluded with a brief discussion on the development of the H1N1 vaccine and the potential target population for vaccination. He expressed optimism that the vaccine will be ready around before mid October 2009.

10. H1N1 Epidemiologic Modeling at US NORTHCOM -The Path Traveled and the Road Ahead: Ms. Amy Kircher, US NORTHCOM. Predictive modeling aims to answer the operational questions: how big and how bad using science and data. The presenter explained the concept of "predictive modeling," the input and output requirements for successful modeling, and explained the testing of the resulting epidemiologic model. She concluded with a few do's, don't's, and essential measures to slow the spread and severity of the disease.

The following questions were raised after the presentations of Lyerly, Cieslak, and Kircher: Will the U.S. give the H1N1 vaccine free-of-charge to developing countries? Who should constitute the target group for the H1N1 vaccination? How should countries proceed in instances where the H1N1 guidelines from the United States differ from those of the United Kingdom?

The collective responses from the presenters indicated that:

- the prudence of school closures needs further analysis but, in reality, the closure of schools should be done on a case-by-case basis;
- rapid testing should be reserved for persons with specific risk-factors for the H1N1 virus;
- if a physician has a specific concern about presenting signs and symptoms, rapid test could be considered to rule out H1N1;
- and in the event of shortages of the H1N1 vaccine, at-risk groups should be given priority for vaccination, but eventually, everyone should get the vaccine, if requested.

Participants interjected the following general comments:

- The prudence of school closures – when schools are closed, children might not necessarily remain at home—they can opt to congregate elsewhere, such as in malls.
- Some countries discontinued the use of swabbing and used only syndromic surveillance. However, swabbing is reserved for persons requiring hospitalization to ascertain whether the patient has seasonal flu or the H1N1 virus;
- Rapid tests are being used primarily by the private sector;
- Proper hygiene and diet play a role in disease prevention;
- Science and data are important to determine national courses of actions.

The session concluded with a discussion on how to assess the severity of the H1N1 virus. Good data collection, data analysis, and modeling are very important processes for assessing the severity of a disease.

11. The Role of Disaster Management and Other Stakeholders in Pandemic Preparedness and Response -Ms. Andria Grosvenor from the Caribbean Disaster Emergency Management Agency (CDEMA). She provided an overview of the role of CDEMA (previously, CDERA) and its Coordinating Unit in disaster preparedness and response. Using a multi-sectoral and multi-tiered approach, CDEMA effectively manages complex and trans-boundary threats. PAHO is only one of its strategic partners but it is the lead agency in the “health cluster.” Other key actors include public and private agencies, civil society, and government agencies. Ms. Grosvenor provided a brief overview of the Regional Response Mechanism (RRM) which is indigenous to the Caribbean sub-region. The purpose of RRM is to coordinate disaster response and facilitate a rapid response with effective and efficient use and management of resources during disasters. In collaboration with PAHO, CAREC and other partners, CDEMA acts as the coordinating hub for information and consultation to manage major challenges posed by disasters in the Caribbean. She highlighted the role of National Emergency Management Organizations (NEMO) in assisting countries to respond to disasters. The presenter emphasized that there is need: to strengthen the existing disaster management processes and structures to address non-traditional hazards; clearly define institutional/organizational roles; and strengthen coordination within and among sectors for pandemic preparedness and response. She concluded by citing two key reasons for including CDEMA in the management of pandemics in the Caribbean: 1) CDEMA is familiar with key actors and process in the Caribbean sub-Region; and 2), CDEMA is knowledgeable of the communication channels in the Region. In addition, CDEMA participated in the Fuerzas Aliadas-Humanitarian (FA-HUM) exercise sponsored by SOUTHCOM.

12. Pandemic Influenza Preparedness Activities in the Caribbean - Ms. Monica Zaccarelli-Davoil, Disaster Reduction Adviser, PAHO/WHO. She gave a status report on the National Influenza Pandemic Preparedness plans (NIPP) pre and post July 2006, pointing out that, as of 2006, most of these plans were primarily health-oriented plans. She informed that several workshops were conducted in the Caribbean sub-region to strengthen countries’ capacity in several aspects of pandemic preparedness. With reference to the use of Personal Protective Equipment (PPE), much confusion surrounded the use of the kits. She reminded the participants that although there are different PPE kits for doctors, firemen, community health workers, etc., the type that was sent to the countries was for the exclusive use of the outbreak investigation and containment team. She reported that PAHO/WHO had

stockpiled and distributed Tamiflu to all its Member States. She concluded by mentioning the occurrence and periodicity of the Illuminate sessions with key stakeholders as a mechanism for coordination, information-sharing, crisis management, and charting the way forward.

A participant remarked that his country had received the PPE kits but used only the N95 masks. Having now left with incomplete kits, he queried whether PAHO/WHO would send him more masks. Ms. Zaccarelli responded that there are no immediate plans to replace the masks but he could discuss his request with the PAHO/ECC Office, Barbados.

13. The Caribbean Response to H1N1: A National Perspective - Dr. Joy St. John, Chief Medical Officer, Ministry of Health, Barbados. The aim of her presentation was to describe the Barbadian experience with the novel influenza A (H1N1) and to highlight the lessons learned. Barbados is a tourism-dependent country and the issue of health is a central priority. As such, the country was determined to face challenges that can have a negative impact on its tourism industry by operating “smart and strategically.” In confronting the challenges posed by the H1N1 pandemic, Barbados capitalized on the experience gained by hosting the Cricket World Cup to test its preparedness and resilience to respond to a national crisis. In-country activities reflected a “whole country” pandemic preparedness approach. The lessons learned included the fact that timely and transparent communication in the public domain is very important; sensitization sessions in both the private and public sectors including the critical tourism sectors reduce fear and hysteria; the restriction of use of Tamiflu is necessary so that it could not be easily used as a prophylaxis; testing should be restricted to hospitalized cases that fit the case definition for H1N1; and the use of web-based technologies, such as Google, can assist in the assessment of the global situation.

During the discussions following the presentation, participants asked:

- What plans does Barbados have for purchasing the H1N1 vaccines?
- Did Barbados have a specific budget for management of emergencies?
- What was Barbados’ approach to secure financing for expenses related to the H1N1 pandemic?
- What preventive measures were/are in place to manage cruise ship arrivals when there is a suspected case(s) of the H1N1 virus on board?

She responded that Barbados will rely on the PAHO Revolving Funds for the purchase of vaccines and added that Barbados has already undergone the exercise to determine its priority recipient groups, and the number of doses it needed to stockpile. Financing for H1N1-related activities was accessed through creative contractual agreements. She highlighted the importance of involving the Permanent Secretary, Ministry of Health in all the planning processes. The Professionals Services vote provided funds for the flu clinic and for the physician and epidemiologist who are assigned to that clinic. In terms of dealing with the cruise ships, Dr. St. John informed that communication is maintained with the medical staff and captains on the cruise ships prior to their arrival in Barbados. Before passengers are cleared to disembark, the passenger log is reviewed. If there is a suspect case(s), port health workers are deployed to assess the situation and determine who should or should not come ashore.

14. Pandemic Influenza A (H1N1): the Caribbean Experience and Lessons Learned – Detection and Surveillance - Dr. James Dobbins, Epidemiologist, CAREC. He advised the participants of the role of CAREC in general, and specifically of its role in dealing with the novel H1N1 virus. CAREC is responsible for providing laboratory-based surveillance for all its Member Countries. CAREC received samples from its Member Countries and provided laboratory confirmation for the H1N1 virus. The presentation answered the question: “We were looking for H5N1 but we found H1N1: so what? What have we learned? The eight lessons learned can be summarized as follows:

1. You can run out of supplies during a pandemic (always have a Plan B)
2. The sampling strategy will change during the course of a pandemic (The non-use of Rapid Test kits did a disservice to the Caribbean because WHO down-played their usefulness)
3. Ensure that the case definition keeps up with our understanding of the illness
4. Be certain that the type of sampling is based on the current illness rather than a previous one

5. Don't rely on just one carrier-try to transport samples. Rather, spread the load and spread the risk (For legal reasons, DHL carrier cancelled the courier contract one week before the pandemic occurred. PCR supplies arrived when the Customs Officers in Trinidad were on strike and as such, much of the supplies were mildewed.
6. Try to decentralize laboratory testing as much as possible by establishing PCR capacity in more countries; and anticipate that Murphy's Law will be in effect. (Although PCR was the primary system for referral laboratories to confirm H1N1, CAREC had limited capacity for PCR testing. The Immunofluorescent Assay (IFA) was a big failure for the pandemic. There were no H1N1-specific reagents; many false negatives were observed)
7. Many of our challenges emanated from a lack of knowledge.
8. Youth sports are important (A decision was made to cancel the Caribbean Games scheduled to be held in Trinidad and Tobago)

In his conclusion, Dr. Dobbins acknowledged that CAREC's response to the H1N1 pandemic received much support from its donor community.

Dr. Dobbins' presentation generated a lively discussion and the following questions:

- Will CAREC do an analysis of the type of clinical pictures that emerge when sickle cell disease is a comorbidity with H1N1? Is sickle-cell a risk factor for H1N1?
- Will CAREC conduct national-level capacity-building exercises for the use of ventilators, upon request?
- Will CAREC devise a communication plan to ensure that all countries have the same information at the same time?

Similarly, the presentation evoked the following general comments:

- One country expressed disappointment with CAREC's turn-around time for the reporting of laboratory results since it took a long time to get the results from the Center.
- CAREC will only perform the type of test indicated on the laboratory request form
- Dissemination of laboratory and epidemiological data to the political directorate is a difficult process since CAREC does not deal directly with the political hierarchy. CAREC relies heavily on dialogue with, and interventions from the Chief Medical Officers in the Ministry of Health
- Countries should examine their national data more closely to detect unique profiles. In some cases, fever might not be the defining parameter for H1N1.
- Internal collaboration with clinicians in hospitals and with epidemiologists for case reviews is very important.
- Surveillance information should be complemented with data from clinical services
- Dengue fever is still and will continue to be a problem in the Caribbean.
- CAREC maintains personal working relationships with the epidemiologists and other actors in the Caribbean countries/territories. As such, direct telephone conversations and sending faxes work very well for transmission of, and discussions about laboratory results
- In some countries, there is an informal network for risk communication. PAHO should assist Member Countries, upon request, to institutionalize channels for risk communication

Thursday, 10 September 2009

15. Health Sector Response to H1N1: experiences in LAC countries - Dr. Jacqueline Gernay, Health Systems and Services Adviser, PAHO/WHO, Dominican Republic. She spoke on five main issues: planning and coordination; monitoring and evaluation; reduction of dissemination of the disease; provision of care; and communication.

Among other things, Dr. Gernay pointed out that syndromic surveillance was the dominant mode for disease detection in the Caribbean countries and territories; this was also true for detecting the H1N1 virus. Since the clinical features were uncertain, health care emphasis was on hospitalization of suspected cases. There was little focus on primary health care services. She felt that H1N1 provided the opportunity to recognize loop holes in basic health services in such areas as: infection control, waste disposal, protection of health workers, and the unavailability of isolation wards. She warned that countries should be vigilant and not allow hospitals to become transmission centers and reminded countries that they should familiarize themselves with the WHO Treatment Guidelines.

Dr. Gernay gave an overview of the challenges faced in countries such as Bolivia, Colombia, Venezuela, Mexico, Ecuador and the Dominican Republic and the lessons learned and/or identified. She emphasized that: PHC needs to become fully involved in pandemic preparedness activities; health workers do not protect themselves adequately; most of the deaths from H1N1 were due to late detection of the virus; pregnancy is a risk factor for H1N1; fear is a risk factor; distribution of information without training is not efficient; and training initiatives must include the ancillary staff (porters, cleaners, morgue attendants) as well as semi-literate staff.

She suggested a reorganization of the health system using an “overall health systems approach”. She urged countries to go beyond the numbers and pay attention to the human factors; prepare for a second-wave alert; remember the “Renewal of Primary Health Care” and use that approach; train the right people to do the right thing all the time; correct as you walk through your health facilities—make good use of teachable moments; do not miss opportunities at the PHC level such as the screening of pregnant women for H1N1; adapt guidelines for the use of all categories of staff including ancillary staff; pay attention to expiration dates on medicines and institutionalize methods for their disposal; and include pharmacists in disease surveillance since pharmaceutical distribution patterns can identify disease clusters.

One participant felt that we should be more concerned about seasonal flu than the H1N1 influenza. Dr. Gernay emphasized that the seasonal flu and H1N1 are different diseases even though their presentation are quite similar. Similarly, management of both is the same but the vaccines are quite different. Another participant inquired whether information is available on the management of pregnant women with the H1N1 virus. Dr. Gernay informed that WHO has produced clinical guidelines for the management of pregnant women and advised that it is safe to dispense Tamiflu to pregnant women.

PANEL PRESENTATION

16. National Preparedness Plans: Then and Now. (Jamaica, Saint Lucia, Martinique, Suriname, and Trinidad and Tobago). The session was chaired by Dr. Robert Lee, Manager, Emergency Operation Center, PAHO/WHO.

Dr. Vitillius Holder from *Jamaica* provided a chronology of events with respect to the national health authorities' response to the onset of H1N1 pandemic through to its current phase. The national response included a planning phase, heightened surveillance; activation of the National Emergency Operations Center (NEOC); implementation of the WHO Effective and Essential measures for Pandemic Alert Phase 5; and activation of the MOH IPP. The key strategies involved in Jamaica's response included early detection, diagnosis and treatment; infection control in health facilities, inter-sectoral collaboration; public awareness, information and education; and international cooperation. As of 5 September 2009, Jamaica had 89 confirmed cases of H1N1 and four deaths. In concluding, she discussed the lessons learnt and expressed her uncertainty of what lies ahead.

Dr. Gemma Chery from *Saint Lucia* outlined the objectives of the National Influenza Plan (NIP). She gave a chronology of activities since the onset of the disease through to August 2009. Saint Lucia has a National Influenza Committee which is guided by Instruments of Authority and a National Influenza Plan which was approved by Cabinet.

She outlined the various challenges Saint Lucia faced in confronting the H1N1 pandemic. For example, St. Jude's Hospital was identified as a back-up hospital for seasonal flu cases in the event of a H1N1 outbreak. On 9 September 09, it was destroyed by fire thereby posing an unexpected challenge. The construction of a main hospital in the south of the island is now a high priority among the next steps.

Dr. Eric Fontanille from *Martinique* provided the context for activities related to managing the H1N1 pandemic in that country. Guadeloupe and Martinique respond to health regulations from Paris and the United Kingdom. The presenter gave a brief overview of activities related to the pre-pandemic and pandemic phases. As of July 2009, there were 3,000 cases of H1N1 with 26 hospitalizations, and one death. Up to 9 September 2009, all cases were confirmed through the laboratory service in French Guiana. Since then, this service is available in Fort de France.

Management of H1N1 cases is done via home care and only the severe cases are hospitalized. However, all children with the H1N1 virus are admitted to the University Hospital's infectious disease unit. When the H1N1 vaccine becomes available, professionals will be vaccinated first followed by pregnant women, and then children.

Dr. Wim Bakker from *Suriname* gave a chronology of the national pandemic preparedness planning which commenced in 2006. There were many challenges to engage all five hospitals in surveillance activities. In 2009, the Action Plan for H1N1 was developed and in May, the H1N1 Manual for General Practitioners was finalized. Suriname has added Phases 7 (limited), 8 (widespread) and 9 (revert to Phase 1) to their plans. The first confirmed case of H1N1 occurred in June 2009.

He concluded with lessons identified and indicated that the most important lesson learned concern the critical importance of acquiring skills to survey and monitor the deluge of information in the global space on the various types of threats facing human beings (effects of smoking on health, obesity, prostate cancer, etc) and to selectively analyze and use this information for decision-making in health..

Dr. Kumar Sundaraneedi from the *Trinidad and Tobago* highlighted the activities conducted during the preparedness and pandemic phases. The first case of H1N1 in Trinidad occurred in June 2009. Of the subsequent cases occurring in the country, the number of affected persons with non-travel history was greater than those with a history of travel outside the country. There were two deaths from respiratory failure but the link with H1N1 was not established. There were more confirmed cases of H1N1 in Tobago and on investigation, a cluster appearance was evident and schools were closed to prevent further spread.

All primary health care facilities had response plans. The overall national response was comprehensive in scope and included an intersectoral chain of command. The presentation concluded with the lessons identified and future plans of action.

All the participants were asked to relate a moment when they had to make a very difficult decision in dealing with Influenza A (H1N1) virus. As an example, the speaker recalled that during the initial phases of the onset of H1N1, a number of students from Grenada were studying in Mexico where the first case was identified. The critical decision was whether they should return to Grenada or remain in Mexico. On this note, Dr. Sundaraneedi related that the scheduled Caribbean Games in Trinidad and Tobago was cancelled because participants to this game were likely to share rooms and other facilities making virus transmission easier. However, the Pan American games were held since its participants were likely to be housed in hotels. Dr. Bakker indicated that in Suriname the decision was taken not to activate port health measures since it would result in panic and undue fear. Dr. Holder informed that, in Jamaica, the challenge was to gain the confidence of health workers since they were bombarded with ever-changing information regarding H1N1. For Suriname, the challenge was to determine how much Tamiflu was needed for its stockpile.

Other issues that were raised during the panel discussion included:

- The absence of restrictions on the importation of goods from countries with H1N1 cases (e.g. Mexico, Canada, and the U.S.A.)
- The potential impact of hand-washing measures on other diseases such as diarrhea. As no assessment has been done in this area, it is difficult to say that such impact exists.
- Regarding the question of discontinuing testing for severe acute respiratory infections, it was advised that even though testing for H1N1 had stopped, clinicians should make the decision whether to test or not depending on the clinical profile of the patient.
- Clarifying the circumstances surrounding the patient who died from pneumonia, the panelist clarified that PCR and IFA tests were negative for H1N1 and reported that the sample did not go to CAREC for confirmation. The patient went into coma and died.
- CAREC informed Member Countries that they can send all their samples for testing. SARI cases must be sent to CAREC for pathology identification.
- Countries should adapt the WHO Pandemic Phases to their local situation. Alert levels can be established in countries which could relate to specific WHO phases.
- CDEMA has a three-level response phase. Response level 1 = the country can handle the disaster. Response Level 2 = the country can handle the disaster but might need technical assistance. Response 3 = the country will rely on a regional response mechanism for assistance. These can also be considered by countries when developing their country level pandemic phases.

17. “Effective Risk Communication and Coordination - Ms. Denise Carter-Taylor, Health Promotion Adviser, PAHO CPC Office, Barbados. She described risk communication, reviewed WHO Outbreak Communication Guidelines, and explained key concepts in risk communication. She asked: How does internal communication flow in your organization? Who monitors the media information from radio, newspapers and other sources? How should we involve the community especially in those hard-to-reach areas? She used these questions to illustrate the need for a risk communication strategy. She emphasized that the involvement of the health promotion officer from the onset of an emergency is necessary to facilitate the formulation of appropriate and timely communication. She said that national dilemmas, such as an impending shortage of vaccines, should be shared with the public. Messages must be transparent, and express what is known and unknown about the event. One strategy to calm fears about a disaster, such as, H1N1 is to change the message and the messengers. She concluded with a discussion on what the public wants to know or should know, basic issues involved in media communications, and impending challenges for risk communication during pandemics.

A participant inquired about the presenter’s experience in developing internal risk communications strategies for health professionals. Ms. Carter responded that the experience with SARS was very instructive since communication was done internally in the first place. Another participant explained that the media bombarded the MOH with concerns about a suspected case of H1N1 but the Ministry could not provide confirmation. Despite this, the media

went ahead and published a story about “a suspected case of H1N1” causing undue fear and hysteria. In such a scenario, Ms. Carter advised that it is better to diffuse tension by saying “this is what we know thus far.”

As such, some countries initiated treatment of the suspected case of H1N1 influenza prior to receiving case confirmation.

18. BREAK OUT GROUP SESSIONS

Seven working groups were charged with exploring two topics: 1) Effective coordination and Communication within the Health Sector; and 2) Inter-sectoral Coordination & Communication, 3) National Strategies for Surveillance, and 4) Non-health mitigation strategies. Participants were asked to structure their discussions and presentations to reflect: achievements; challenges in responding to H1N1; lessons identified and priority actions.

In terms of inter-sectoral coordination and cooperation, experiences showed that while national and regional stakeholder partnerships are beneficial, these must be enhanced with formal mechanisms for sustained dialogue and cooperation. Risk communication was a cross-cutting and frequently-referenced topic. As such, its strategies provided the framework for identifying challenges and priority actions for inter-sectoral coordination. Some key recommendations for the way forward include: involving church groups to modify religious practices, such as, the use of a communal communion cup; preparing messages in all local languages, and using graphic images in risk communication.

In reference to non-health mitigation strategy, the effectiveness of the Red Cross as a non-health partner was recognized in many countries. The issue of sending laboratory specimens to CAREC proved challenging for some countries. Although CAREC has pre-paid accounts with shippers/carriers, transportation of specimens to CAREC incurred a high cost for Member Countries. Consequently, it was suggested that a cost-effective strategy could be the setting-up of satellite laboratories in some countries. The negative effects of disease outbreaks on the tourism industry were reiterated. In this regard, it is important for the cruise ship companies to receive updated national and international surveillance policies and guidelines. The importance of inter-sectoral communication was given due prominence in all working groups. Participants were reminded of the importance of timely dissemination, assessment, and re-framing of risk communication messages to allay fears and gain trust.

In terms of surveillance and detection, the majority of countries were pleased with the efficiency of CAREC’s laboratory confirmation process but concerned about the time it took for specimens to arrive at CAREC. Consequently, some countries, such as Aruba, sent its laboratory specimen to the Netherlands while the Bahamas sent theirs to Canada. Further, some countries did not wait for laboratory confirmation but rather initiated treatment of the suspected case of H1N1 influenza pending confirmation.



In discussing the National Influenza Pandemic Preparedness plans (NIPP), a participant mentioned the importance of having the NIPP in other sectors besides the MOH. In his country, the NIPP was destroyed and there was no back-up copy. It was agreed that the availability of adaptable NIPPs, Standard Operating Procedures (SOPs), Memoranda of Understanding (MOUs), and a Plan B will greatly enhance collaboration, coordination, harmonization, and rapid implementation of disaster response initiatives.

The presentation on national strategies for surveillance and detection highlighted the importance of good epidemiological surveillance, and the availability of updated protocols and clinical guidelines. The availability of time-sensitive transportation services to send samples to CAREC is a critical component of the disease detection process.

In summary, participants were cautioned not to neglect surveillance for other communicable diseases during periods of heightened surveillance for H1N1.

The common challenges mentioned were:

- lack of knowledge regarding the evolution of the H1N1 virus
- restricting the problem and its response within the health sector (during the first phase)
- mobilizing multi-sectoral support
- the lack of managed risk communication strategies
- the mobilization of human and financial resources
- balancing economic and political issues with public health regulations
- movement and cost to transfer samples between CAREC and Member Countries
- unwarranted fear among general populations in face of rapidly changing risk information
- transitioning airport and seaport protocols to address H1N1
- maintaining the heightened alert level for the H1N1 pandemic

Salient lessons identified were:

- the importance of developing pandemic preparedness plans and carrying out simulation exercises
- prepositioning of supplies
- the importance of volunteers
- CDEMA's Regional Response Mechanism is applicable for medical disasters
- NEMA and NEMO must play an active role in medical disasters
- guidelines should be adapted to reach all health care workers and volunteers
- medical outbreaks must be classified as disasters

Priority actions included:

- re-stocking of supplies
- inclusion of media houses in planning and operational disaster committees
- encourage civil society to support home care to reduce load on hospitals
- developing guidelines for mass gathering activities
- conducting simulation exercises
- reviewing and revising risk communication plans.

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19. Community Involvement in Preparedness Planning and Response, (Ms. Marylee Ellis, International Federation of Red Cross and Red Crescent Societies (IFRC)). All Societies have disaster preparedness plans which are structured to adapt to the occurrence of emergency events. The IFRC's plans are included in the National Disaster Plans in all countries. This unique collaboration facilitates effective working relationships with the Ministry of Health and national disaster agencies. The presenter stressed the importance of training, using, and protecting volunteers in

times of national crises. She pointed out that “volunteer management” is critical but costly. Volunteers provide a variety of services thereby allowing the national authorities to scale-up their response to disasters. The Red Cross’ Vulnerability and Capacity Assessment (VCA) strategy has been very successful and it is being used throughout their affiliations.

A participant inquired whether the National Societies work in the area of violence and accident prevention. She responded that the topic of violence prevention is under discussion and is being considered for inclusion in the 2010/2011 regional plans in countries where the problem is most severe. The participant further inquired whether the IFRC will work with both the perpetrator and the victim of violence to which Ms. Ellis responded affirmatively. Another participant inquired to what extent local volunteers were involved in national responses to the H1N1 pandemic. Volunteers were engaged at the community level distributing posters and leaflets, conducting home visits, assisting in port surveillance; and remaining on stand-by to assist in non-technical health roles.

20. Panel Presentation on Health Services in the Caribbean: Were they prepared for H1N1? (Aruba, Belize, British Virgin Islands, and Dominica). The session was chaired Ms. Lealou Reballos, Technical Officer, PAHO/CPC Office, Barbados.

Ms. Sharline Koolman-Wever from *Aruba* provided an overview of the country’s Pandemic Influenza Preparedness Plan and described the Health Services Response to the Influenza A (H1N1) virus. She emphasized that Aruba is a tourism-dependent country with approximately 1.5 million tourists visiting annually. As such, the economic impact of decisions that would reduce the number of cruise ship arrivals, for example, would be catastrophic for the country’s economy. She related the heightened level of concern when the national health authorities were advised of the arrival of the Ocean Dream cruise ship carrying persons suspected to be infected with the H1N1 virus. This information was received three days prior to the ship’s arrival. This experience facilitated cross-border risk communication; rapid assessment protocols; decision-making processes in an emergency mode; and tested the health system’s response to the Influenza A (H1N1) virus. Subsequently, the arrival of an oil tanker with crew members exhibiting flu-like symptoms also tested the country health system response to the pandemic. She concluded with the challenges being faced in Aruba, such as human and financial resource constraints, the need for multi-lingual risk communication material (4 languages are spoken in Aruba); and the need to strengthen multi-sectoral interventions.

Mr. Ethan Gough pointed out that *Belize* shares border with Mexico. Corozal, the border city, contains free-zone shops and casinos. As such, there is much interaction between the Belizean and Mexican populations, a cause for concern since H1N1 was first identified in Mexico. The government has National Avian flu Influenza/Influenza Pandemic Preparedness and Response Committee with a number of technical committees and sub-committees—all functioning within the framework of the National Emergency Management Organization. However, the public health service has the lead role in handling the H1N1 pandemic. The aim of the national response is to minimize morbidity and mortality caused by the influenza pandemic and to ensure that there are appropriate and adequate resources for continuity of essential services during the influenza pandemic. In conclusion, she said that the H1N1 outbreak has forced Belize to document its response to a novel pandemic, albeit a mild one. She concluded with a review of the strengths and weaknesses of the pandemic response strategies.

According to Ms. Dawn Leonard, the *British Virgin Islands’ (BVI)* pandemic preparation focused primarily on developing a National Pandemic Preparedness Plan (NIPP), conducting local workshops, outbreak response training, sensitization of key government employees and the general public as well as development of a draft Risk Communication Plan. The presentation included a chronology of the activities that were conducted in the inter-pandemic and post-pandemic periods and the lessons identified,. Despite its challenges, BVI had prepared adequately for the H1N1 pandemic.

For *Dominica*, Dr. Francisca Jacob stated that the emergence of the H1N1 pandemic provided an opportunity to test national emergency preparedness plans and strategies at all levels. Although the national disease surveillance system for SARI/ARI worked very well for H1N1 surveillance, it will be enhanced to include early detection of H1N1 cases. The triaging of suspected cases by telephone, deploying a team of health personnel to the caller’s home to do the swabbing, providing medication, and advising family members on how to care for the patient was deemed the

most important strategy used during the pandemic phase. Dominica's readiness level was adequate especially since the disease surveillance system was flexible enough to respond well in the crisis situation posed by the H1N1 pandemic.

The following emanated from the panel presentations:

- The challenging relationship with NEMO Belize was not overcome although NEMO provided moral support during the H1N1 outbreak. The health services relied heavily on multi-sectoral partnerships.
- Belize had human resource challenges. The same health personnel were used in several roles, such as for border patrol and contact tracing in collaboration with the Belize Defense Force, Police, and Military services.
- The crew on cruise ships has the guidelines for H1N1 surveillance which enable them to decide on the necessity to wear the "space suits" for outbreak investigation.. The delegate from Aruba added that no body suits or masks are used at entry points/borders. However, these were used to board the Ocean Dream ship and the oil tanker because there were confirmed cases in these environments and, additionally, Red Cross volunteers were included in the response strategy.
- Aruba is the only country in the sub-Region with an "Influenza Diagnostic Center."
- The Cayman Islands intends to extend one health center to accommodate a H1N1 specialist clinic; Suriname has opened a flu clinic in the Academic Hospital; and Barbados has a flu clinic with a dedicated physician.
- There were H1N1 cases among the cruise ships' crew. The delegate from Aruba reported that the ship's medical officer took early precautions and isolated crew members to prevent spread. For this reason, there was only one case of the H1N1 virus among the passengers on the Ocean Dream. Dr. Dobbins interjected that because the crew lives in the lower ship deck, it is easier to isolate them and contain the disease. The delegate from Barbados added that quite often passengers will self-medicate without consulting the ship's medical staff.
- As to whether the Ocean Dream ship should dock in Aruba, Ms. Koolman stated that this was a joint decision made by the Epidemiologist, Communicable Disease Adviser, CAREC, and PAHO. The Prime Minister and the relevant ministries were advised and they sanctioned the decision.

21. BREAK OUT GROUP SESSIONS

Four groups were assigned to discuss: a) Health Facility Preparedness to Pandemic Influenza; and b) Sustaining Essential Services, Infrastructure and the Economy during an Emergency.

a) Health Facility Preparedness to Pandemic Influenza

- Some countries were able to mobilize additional human resources (e.g. volunteers, medical students, retired persons)
- Some countries have triage and admission protocols
- Some countries have infection control protocols
- Some countries have developed and disseminated clinical guidelines and protocols
- CPC/PAHO clinical protocols adapted in countries
- Some countries reported having adequate beds and medical supplies (PPE and Tamiflu) but these may be inadequate if there is a surge.
- Some countries have developed antiviral and vaccine protocols and guidelines
- CPC/PAHO clinical protocols adapted in countries

- Some countries reported having adequate beds and medical supplies (PPE and Tamiflu) but these may be inadequate if there is a surge.
 - Very few countries have drafted health facility pandemic plans. Those who have plans realized that these plans should be more comprehensive and should involve other agencies, including the private sector.
 - Simulation exercises at the health facility level need to be done
 - Collaboration with private general practices was a challenge
 - Human resources inadequate (nurses, epidemiologists)
 - Pooling of facility resources was a challenge
 - Some countries experience conflicts in implementing triage procedures (e.g. flu clinic triage vs hospital triage)
 - Very few countries have health facility plans. Countries with plans, should consider revising them.
 - Triage and admission procedures need to be included in plans
 - Stockpiles are not available in most countries
 - Bed shortage due to fire (Saint Lucia)
 - Capacity to handle excess mortality is very limited
- b) Sustaining Essential Services, Infrastructure and the Economy during an Emergency
- Plans should be in place to augment essential services to facilitate 24-hour coverage during a pandemic.
 - Countries should institutionalize a communication platform to share information on disease outbreak on cruise ships arriving in the Caribbean.
 - Use the expertise in the private sector to design business continuity plans.
 - Make plans for contingency funding to sustain essential services without depleting funds from routine health services

22. Areas of Enhanced Cooperation: Country Priorities, Next Steps, and Final Remarks (Monica Zaccarelli-Davoli and Dr. Robert Lee).

Dr. Lee informed that the overall response to the Influenza A (H1N1) pandemic was relatively good when the virus surfaced in April 2009. He mentioned the work left to be done includes: finalizing and testing, hospital pandemic preparedness plans using specific country experiences; preparing multi-hazard disaster plans; harmonizing all disaster plans in the region to ensure consistency and effective coordination of services; revising strategies to involve the primary health care services; editing and finalizing the manual on non-health sector response to large scale public health emergencies; and continuing and strengthening partnerships with North Com and South Com.

The key lessons learned and the persistent challenges facing national health systems in the Caribbean include: the importance of intersectoral coordination; the importance of early private sector and civil society involvement in disaster preparedness activities; the persistence of border security challenges; balancing political and social issues with public health regulations; preparing protocols for the use of PPEs; human and financial resource limitations; and the uncertainty of the future behavior of the Influenza A (H1N1) virus.

24. Adjournment

Prior to the adjournment, Ms. Zacarelli-Davoli re-visited the objectives of the meeting and thanked the participants for their creativity, decision-making skills during periods of uncertainty, and their willingness to share experiences to protect their own populations as well as that of the region and globally.



ANNEXES

1. List of Participants
2. Welcoming Remarks – Dr. Bernadette Theodore-Gandi, PAHO/CPC
3. Agenda: Sub-regional meeting on Pandemic Influenza Preparedness and Response: Caribbean Experience and Lessons Learned
4. Opening remarks of the Executive Director of CDEMA – Mr. Jeremy Collymore
5. Global Response to Pandemic Influenza, Dr. Jan Luc Poncelet, PAHO/WHO
6. United States Response to H1N1 from the DHS Perspective, Dr. William Lyerly, DHS
7. United States Response to H1N1 from the CDC Perspective, Dr. Ted Cieslak, CDC
8. Epidemiologic Modeling at USNORTHCOM, Ms. Amy Kircher, USNORTHCOM
9. Role of Disaster Management and other Stakeholders in Pandemic Preparedness and Response, Ms. Andria Grosvenor, CDEMA
10. Preparedness Activities in the Caribbean, Ms. Monica Zaccarelli-Davoli, PAHO/CPC, Barbados
11. Caribbean Response to H1N1: A National Perspective, Dr. Joy St. John, Ministry of Health, Barbados
12. Detection and Surveillance, Dr. James Dobbins, CAREC
13. Health Sector Response to H1N1: Experience in LAC countries, Dr. Jacqueline Gernay, PAHO/DOR
14. Effective Coordination and Risk Communication, Ms. Denise Carter-Taylor, PAHO/CPC
15. Community Involvement in Preparedness Planning and Response, Ms. Marylee Ellis, IFRC