

International Health Regulations (2005) National Focal Points Regional Meeting

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ABBREVIATIONS AND ACRONYMS

AMRO	WHO Regional Office for the Americas
ASPR	Office of the Assistant Secretary for Preparedness and Response (United States of America)
CCHEN*	Chilean Nuclear Energy Commission
CIEVS**	Strategic Information Center in Health Surveillance (Brazil)
CNSNS*	National Committee for Safety in Health (Mexico)
CNSNS*	National Commission on Nuclear Safety and Security (Mexico)
DGVS*	General Directorate of Epidemiological Surveillance (Paraguay)
DIPOL*	Bureau of Public Policies (Chile)
DON	Disease Outbreaks News
ECDC	European Centre for Disease Prevention and Control
EIS	Events Information Site for IHR National Focal Points (WHO)
EOC	Emergency Operations Center
EURO	WHO Regional Office for Europe
FAO	United Nations Food and Agriculture Organization
GOARN	Global Outbreak Alert and Response Network
GPHIN	Global Public Health Intelligence Network
HIM	Health Emergency Information and Risk Assessment Unit
IAEA	International Atomic Energy Agency
IHR	International Health Regulations
INFOSAN	International Food Safety Authority Network
MOH	Ministry of Health
NFP	National Focal Point
OIE	World Organisation for Animal Health
PAHO	Pan American Health Organization
PHE	PAHO Health Emergencies Department
PHEIC	Public Health Emergency of International Concern
SENACSA*	Animal Health Quality Service (Paraguay)
SENASA*	Animal Health National Services (Costa Rica)
SIME*	System for event monitoring
SOP	Standard operating procedures
WAHIS	World Animal Health Information System
WHO	World Health Organization

* Spanish acronym. All national acronyms in this document are in the original language.

**Portuguese acronym. All national acronyms in this document are in the original language.

INTRODUCTION

The 2017 International Health Regulations (2005) National Focal Points Regional Meeting was held for three days in Miami, Florida, USA. The agenda and list of participants are annexes 1 and 2, respectively. This report is organized similar to the meeting's agenda.

OPENING SESSION

The meeting was opened by Dr. Enrique Pérez,¹ followed by a presentation by Dr. Ciro Ugarte² on the International Health Regulations (IHR)³ and the roles and responsibilities for its application, which are shared by all governmental authorities, especially with regard to health. The IHR states that States Parties should have the capacity to detect public health events in a timely fashion, to minimize their risks, and to mitigate their consequences. Collecting information should be the responsibility of all national sectors. The Region of the Americas is currently among the most advanced in terms of achieving core capacities for the implementation of the IHR, and one where multisectoral collaboration has played an important role. Nonetheless, not all countries are fully prepared, nor are all core capacities present in remote areas. In any case, regarding the application of the IHR and the operations of the National Focal Point (NFP), the fundamental responsibility is with each country, as does protecting the health and life of the population.

The importance of multisectoral interventions and coordination was underscored at the meeting. These are not easy tasks, given that each sector, department, or participating entity has its own responsibilities and operational modes. However, coordination and cooperation among these groups are crucial to protect the health and life of populations.

During the meeting, the monitoring systems of the countries of the Region will be discussed, and the international collaboration necessary to manage emergencies will be analyzed. Part of that collaboration occurs during external evaluations, which are considered essential, and will have to be refined by means of contributions by the Pan American Health Organization / World Health Organization (PAHO/WHO). External evaluations should determine what capacities are available on all ends and guide their further development. Member States should not feel alone in this undertaking, and should take advantage of available resources, especially in emergencies.

Dr. Enrique Pérez discussed the objectives of the meeting (see next section), and summarized the functions of the PAHO Health Emergencies Department, which include strengthening health sector capacities for risk prevention and risk reduction, and emergency preparedness: surveillance, response, and early recovery in emergencies and disasters resulting from any hazard (natural, man-made, biological, chemical, radiological, or other). When the national capacity is insufficient, an international health response is key to contain disasters, including epidemic outbreaks, and to give effective relief and recovery services to affected populations. The work performed is based on the principles of humanity, neutrality, impartiality, and independence, and is a service to the populations impacted by emergencies and disasters.

With respect to health emergency preparedness and the IHR, PHE's work in the countries is aimed at ensuring that all countries of the Region have the capacity to respond to health emergencies caused by all sorts of hazards, and to support disaster risk management by strengthening the basic capacities required by the IHR (2005).

1 Unit Chief, Health Emergency Information and Risk Assessment Unit (HIM), PAHO Health Emergencies Department (PHE), PAHO/WHO

2 Director, PAHO Health Emergencies Department (PHE), PAHO/WHO

3 In this document, all mentions of the International Health Regulations (IHR) refer to the 2005 version.

The WHO IHR Regional Contact Point coordinates the exchange of information on potential public health emergencies of international concern (PHEIC) with IHR NFPs. Events detected or reported to the WHO as required by the IHR in the Region of the Americas are assessed, and the information is shared with the States Parties, depending on the outcomes of the assessment.

Regarding health emergencies and risk assessment, PHE aims to provide a timely and authoritative situation analysis; to evaluate risks; and to monitor the response to all public health events and public health emergencies of international concern. PHE is the WHO Regional Contact Point for the IHR and, as such, it continually works to improve its capacity to coordinate Regional efforts to strengthen all aspects of the systematic detection, verification, and risk assessment of events. PHE carries out training, coordination, and accurate and timely information dissemination regarding all potential public health emergencies of international concern, among other activities.

OBJECTIVES OF THE MEETING

1. Exchange experiences about and understand the current state of the IHR NFP operations in the Americas Region:
 - IHR NFP mandatory functions.
 - Multisector engagement, information flow, coordination, and reporting of a potential public health emergency of international concern (PHEIC).
2. Review the management of recent public health events with international implications that have affected Member States in the Region:
 - Discuss routes and mechanisms for event information sharing in the Region. Systematize and share experiences.
 - Present variations in the use of IHR Annex 2 across the Region—successes and opportunities from the IHR NFP perspective. Review and determine a Regional Protocol for communication of food safety events under IHR/INFOSAN.
 - Expectations and desired outcome of information sharing and event reporting during a public health emergency of international concern from different perspectives: IHR NFPs, PAHO/WHO, and Member States.
3. Promote documenting IHR NFP activities: present the software SIME® 2017 and its potential application to support IHR NFP operations.
4. Discuss the WHO Event Information Site (EIS) for IHR NFPs – use, access, and dissemination of respective reports.

I. PUBLIC HEALTH EVENTS EVALUATED BY THE WHO REGIONAL OFFICE FOR THE AMERICAS (AMRO)

Public Health Emergencies of International Concern⁴

Before the implementation of the IHR, PAHO/WHO had epidemiological intelligence activities being carried out through three subregional networks: the Amazon, the Central America/Caribbean, and the Southern Cone subregions. With the IHR entering in force, these activities were expanded in terms of scope and requirement, especially because of the WHO mandates related to PHEICs. These mandates included the collection, use and verification of information from nongovernmental sources, and the establishment of standard procedures for data collection, verification, assessment, and recording. For years, PAHO has used the WHO Event Management System (EMS) to record events. The tool was originally used only at the PAHO's headquarter, and later used in all PAHO/WHO Country Offices. The EMS is used to record information on detected events from various sources, such as publications, bulletins, the media, NFPs, and others. Once a signal is detected the Regional Office initiates its verification process.

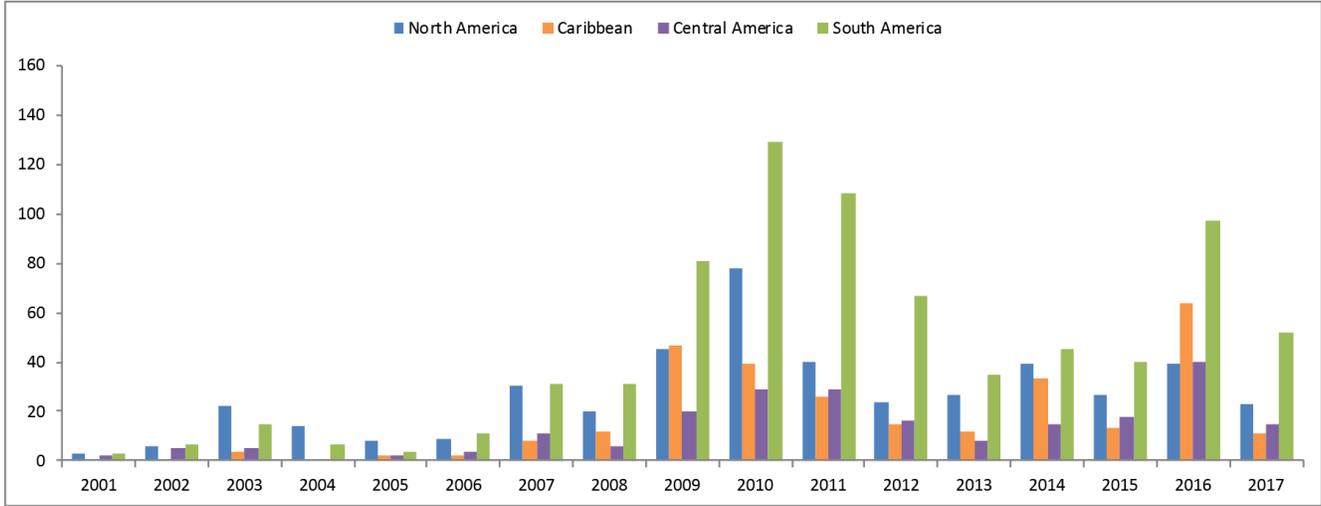
Consistent with the IHR, the EMS is used to record information on events that might affect public health, such as infectious diseases, food safety-related problems, disasters, radiological, chemical, and other events.

The Regional Office has detected on average 24,000 signals of public health interest in the Americas annually. Of those, around 5,000 were assessed and 160 were classified as potential PHEIC. Such results are obtained from the analysis of data from various sources, both official and informal. From all the signals detected, some are ruled out; the rest go through a process of verification and classification⁵ to determine whether they could impact international public health. Of all events detected in the Region of the Americas, an average of two per week require some action. Figure 1 illustrates the events recorded in the EMS, by sub-region, for the 2001-2017 period. Information on those events was mainly provided by NFPs, which are in constant communication with the Regional Office. Figure 2 shows the distribution of events according to their final classification, and Figure 3 shows the substantiated events by type of hazard; both figures are based on the events in the Region of the Americas alone for the period 2001-2017.

4 Presentation by María Almiron, Detection, Verification, and Risk Assessment Advisor, Health Emergency Information and Risk Assessment Unit (HIM), Health Emergencies Department (PHE), Pan American Health Organization.

5 Events: a) *substantiated* – those in which the presence of a hazard is confirmed or the number of human cases reported exceeds normal thresholds; b) *discarded* – those in which the existence of a public health event has been ruled out, or when no international risk is expected; c) *no outbreak* – when the number of human cases or hazard reported is within the normal limits of occurrence; d) *unverifiable* – when no information is forthcoming from the NFP or responsible national authority to substantiate or discard its occurrence, despite the best efforts to obtain such information.

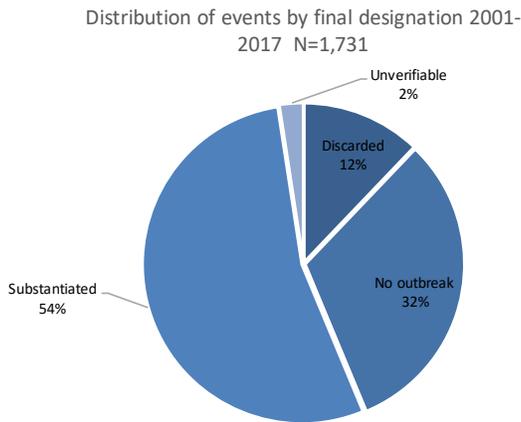
Figure 1. Events Entered in the WHO Event Management System (EMS),* by Americas Sub-region, 2001-2017[§].



*The EMS is the central electronic repository for event-related information. All NFP and relevant Ministry of Health communications, event details, WHO assessments and decisions is documented and recored in the EMS. It does not function as a repository of information on all worldwide outbreaks, rather, its objective is to support event management accountability.

[§]As of June 2017.

Figure 2. Public Health Events Recorded in the EMS, by final classification. Region of the Americas, 2001-2017. N=1,731.



In South America, the proportion of non-verifiable signals has remained stable since 2007; in Central America and the Caribbean, that proportion increased in 2016 and 2017, following five years with a high rate of response to verification requests.

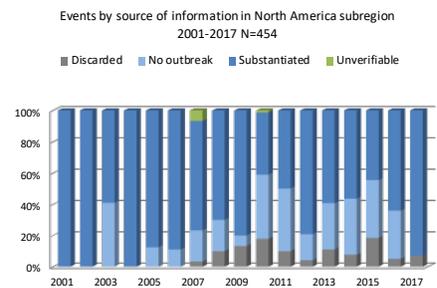
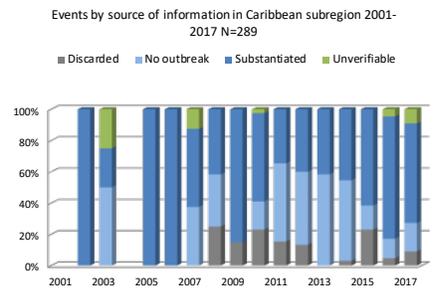
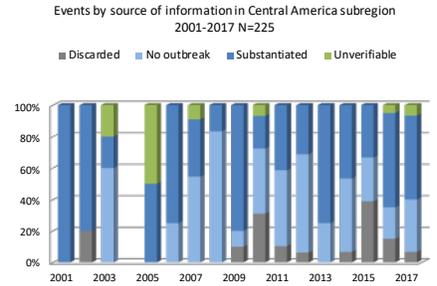
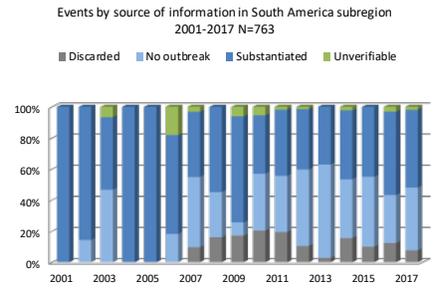
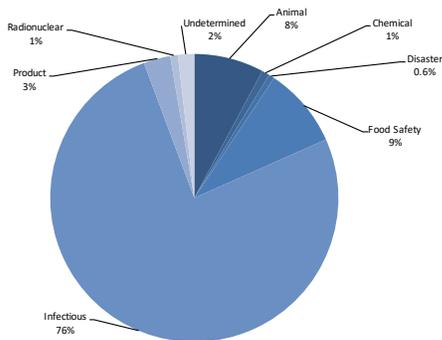
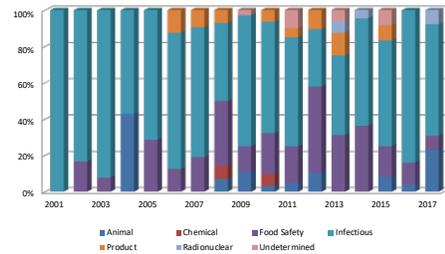


Figure 3. Substantiated public health events, by type of hazard, Region of the Americas, 2001-2017. N=932.

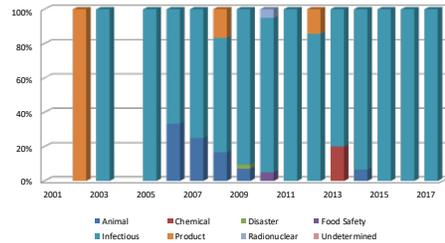
Distribution of substantiated events by hazard 2001-2017 N=932



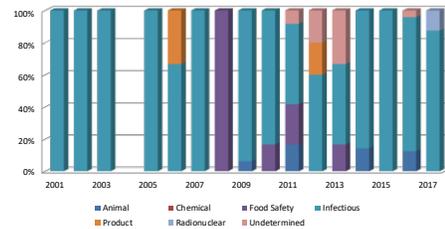
Distribution of substantiated events recorded North America by hazard. 2001-2017. N=280



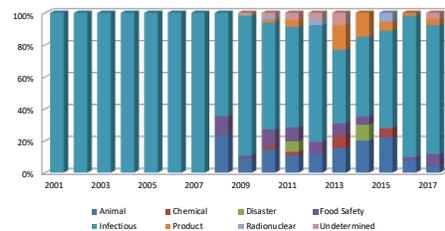
Distribution of substantiated events recorded the Caribbean by hazard. 2001-2017. N=177



Distribution of substantiated events recorded in Central America by hazard. 2001-2017. N=106



Distribution of substantiated events recorded in South America by hazard. 2001-2017. N=369



In many cases, NFPs are the initial source of public health event communications in the Americas. However, there are different levels of participation in reporting and verification among NFPs, and the reasons for this should be analyzed. Notably, in recent years, NFPs' participation in reporting as a primary source of information has decreased. This is an important subject to discuss at this meeting, including how to improve NFP reporting, and how to achieve timely event verification.

Usually, verification requests following the detection of a signal trigger reporting, and are issued in response to: a) indications that the event in question might impact international public health; b) the need to maintain functional communication channels, and c) an opportunity to strengthen capacity improvement activities.

WHO has a mandate to facilitate the dissemination of event information through various means, among them, the Event Information Site (EIS) for IHR National Focal Points (NFPs),⁶ and Epidemiological Alerts and Updates published on PAHO/WHO's website⁷ the WHO Disease Outbreak News site,⁸ email reports, event or disease specific networks of (e.g., influenza) and the Global Outbreak Alert and Response Network (GOARN). The information provided helps to broaden the knowledge of public health events in the Region and the world, including when referenced in peer review publications. Recent evidence of that role was the dissemination of information regarding Zika virus outbreaks in the Region.

The following topics were suggested for discussion among participants:

- The role of NFPs as a single information-sharing window, and their participation in improving the Organization's access to public health information on potential emergencies.
- The importance of verifying information within established timeframes. Delays are more frequent in infectious disease related events, and therefore, responses to requests for verification should speed up in the future.
- The location of IHR NFPs within the government hierarchy, may affect the timeliness of event notification.
- The use of information and its utility for public health evidence-based decision making in each country.

Discussion

Information on event notification was provided by NFPs and PAHO/WHO Country Offices or captured from other sources by epidemiological surveillance.

Epidemiological information exchange mechanisms are functioning well, including the relationships and communications among NFPs, and between NFPs and PAHO, but there is room for improvement. For instance, when events of international concern are analyzed by a reporting source, most of them are not reported by NFPs, even though during the verification process such events were determined to be important for public health. Therefore, there is a need for better compliance with IHR-related reporting mandates. To that end, it was suggested that it would help if PAHO/WHO provided examples of specific events to be reported by NFPs; this would help the NFPs when requesting information from various national agencies. Participants emphasized that verification exercises were very useful to attract the participation of national technical institutes in the process, and, as a result, to advance the implementation of the IHR.

At the national level, reporting faces challenges, such as institutional political changes that affect reporting consistency and timeliness, especially personnel changes and turnover affecting both high level and operational staff in the Ministry of Health (MOH). In such cases, incoming staff might not even be acquainted with national commitments regarding the IHR. Frequent personnel changes require permanent training and may explain reporting delays. These changes also impact information dissemination. Furthermore, the fact that NFP staff carry out multiple tasks, time and effort devoted to IHR-related reporting is diminished. Notification delays can also be due, in many cases, to bureaucratic processes required to obtain reporting clearance, which is usually time-consuming.

The decrease in NFP notification of events of international concern is a matter of concern. It is important to remember that specific criteria guide IHR-related reporting, and that as much as event is notify by a State Party less is the verification requested by the. Diminishing NFP reporting requires further analysis.

6 Restricted secured WHO site for IHR National Focal Points.

7 Available at: www.paho.org/epialerts

8 Available at: <http://www.who.int/csr/don/en/>.

As a result of national capacity strengthening activities, there are more countries publishing national bulletins or providing other information sources for official data on public health events. Significant progress has been made in that regard, although that does not substitute IHR reporting requirements. When officially published information is available, PAHO/WHO may request additional information.

In this session, PAHO/WHO shared with each State Party a summary of reported events since 2007 to 2017. The report was prepared based on data received and recorded in the EMS. Each report consists of a summary or historical record of events notified by the respective NFP or those for which verification was requested, and may be used to cross-check NFPs own data and review inconsistencies. It was suggested that once reviewed and validated, the report be filed as historical record, out of public reach.

Finally, in order to detect NFP availability, PAHO periodically tests, bi-annually in recent years, the IHR NFP communication channels. The bi-annual test is of the official IHR NFP listed email(s), telephone(s), and fax. Through the communication tests, PAHO has found various NFPs have discontinued the use of faxes. In response to the test, some countries have cited preference for communication via WhatsApp which to date there is no formal method to track that preference through the WHO NFP contact system. The Organization, however, will continue to use facsimile communications with those countries that still use them, as under certain circumstances, telephone and email systems can become overloaded and not function appropriately. On this subject, participants had the following suggestions:

- To discontinue the use of facsimile services for reporting, given that currently communications are mainly via telephone or messaging services (WhatsApp).
- To maintain communication via WhatsApp, which is available throughout the Region and is fast and safe.

II. COORDINATION, STRUCTURE, LOCATION, AND OPERATIONAL ARRANGEMENTS FOR THE NATIONAL FOCAL POINT – COUNTRY EXPERIENCES

United States of America⁹

In the United States, NFP functions are backed up by historical and recent legislation, including:

- United States Public Health Service Act of 1944: grants quarantine and isolation authority.
- Disaster Relief Act of 1974: established a modern federal preparedness and response system.
- Stafford Act of 1988: established the current system and assigned national coordination authority to the Federal Emergency Management Agency (FEMA).
- Pandemic and All Hazards Preparedness Act (PAHPA) of 2006: created the Office of the Assistant Secretary for Preparedness and Response (ASPR), assigning it leadership in international emergencies preparedness and response. This law was reauthorized in 2013, and its flexibility regarding preparedness and response was enhanced.
- National Response Framework (NRF) of 2008: established unified emergency response structure in the United States.

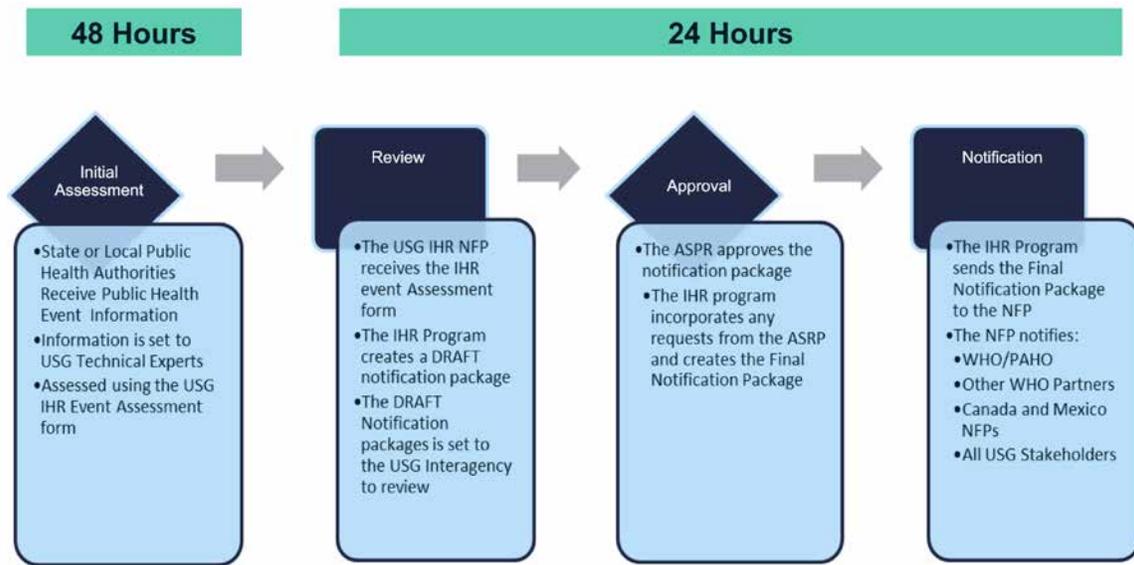
The United State Department of Health and Social Services (HHS) is the government's principal agency devoted to enhancing the population's health and well-being. Its mission is to protect the health of all Americans and provide essential human services, especially for those who are least able to help themselves. HHS is the lead agency for federal public health and medical response to public health emergencies and National Response Framework incidents.

The National Focal Point was officially established and described in an official document on the United States Government's interagency process for IHR implementation, which assigns the responsibility for that implementation and the NFP to the Assistant Secretary for Preparedness and Response (ASPR). A functional structure is established as well. Standard operating procedures for the NFP are available, as well as an IHR Officer Manual, and information flow procedures.

Events detected at the state level and reported to the federal level are routed first through the relevant technical institution, which decides whether the event meets IHR reporting criteria. If so, the event is reported to the WHO, the governments of Canada and Mexico, and various stakeholders within the United States Government (Figure 4).

⁹ Presentation by Jerusha Murugen, IHR Program Manager, Division of International Health Security, Office of Policy and Planning, Office of the Assistant Secretary for Preparedness and Response, United States Department of Health and Human Services.

Figure 4. Event Assessment and Reporting Process of Potential Public Health Emergencies of International Concern Events.



Gaps exist in the formal NFP realm, both at the state and federal levels. There also needs to be an evaluation process; improvement of coordination among technical institutions and state epidemiologists; increased human resources for the NFP; and trained competent individuals able to carry out the work. The next steps include the maintenance of IHR NFP functions; updating email distribution lists; modernizing event record management; regularly revising standard operating procedures (SOPs) and the IHR Officer Manual; increasing human resources; and training for staff assigned to IHR duties.

Grenada¹⁰

In 2007, the Ministry of Health assigned IHR NFP responsibilities to the Chief Medical Officer. Standard operating procedures (SOPs) were developed, and later approved by the Cabinet in September 2017. The purpose of the SOPs is to ensure that processes can take place in the absence of the Chief Medical Officer. Pertinent legislation is in its final stages.

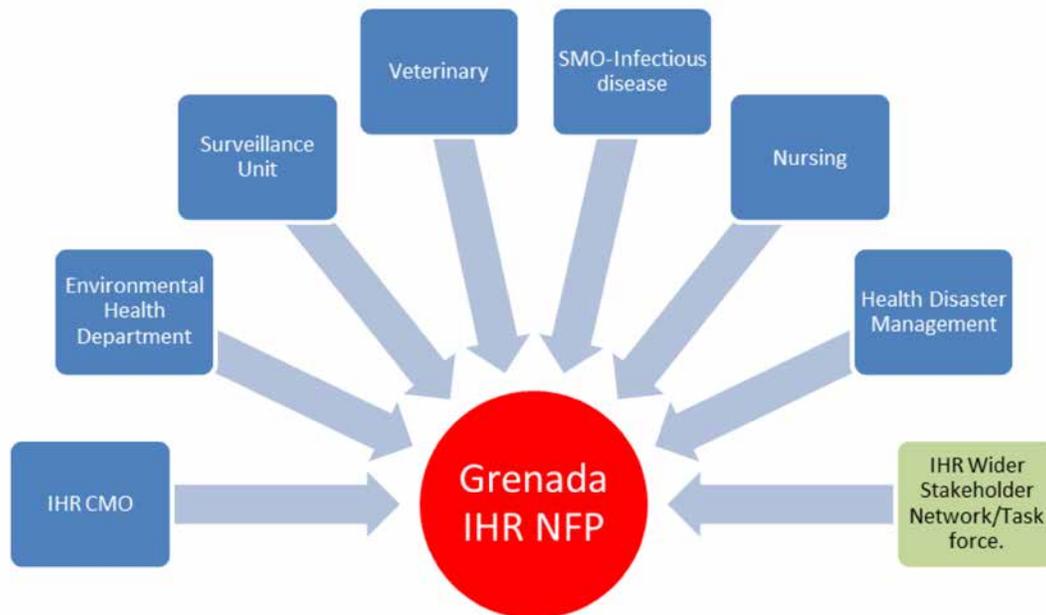
Reports are prepared almost daily, and information flows easily due to duly trained personnel. Figure 5 shows the NFP's functional components, structured as follows:

- The CMO or his/her designate serves as the IHR NFP lead and authorizing official for communication on behalf of the Government of Grenada.
- The MOH/Epidemiologist collates data and prepares reports for approval by the IHR NFP lead.
- Either the MOH/Epidemiologist or the IHR lead or his/her designate can provide approved reports to WHO IHR Regional Contact Point.
- A surveillance nurse is responsible for coordinating the wider stakeholder group/Task Force.
- The IHR core team and wider stakeholder group/Task Force supports the CMO or his/her designate, as the NFP designated authority in its operations, and ensures that the core functions of IHR NFP are performed.

¹⁰ Presentation by George Mitchell, Chief Medical Officer and IHR National Focal Point, Ministry of Health, Grenada.

IHR-related work involves many sectors (Figure 5), including customs, transport, natural resources, food inspection, agriculture, environment, foreign affairs, points of entry, immigration, national defense, and civil defense. Responsibility for the implementation of the IHR is shared by all those sectors, and the information is gathered from various sources, such as medical stations, points of entry, the community, and others. The NFP provides information to the Ministry of Health, local institutions and international organizations, including WHO, and the United Nations Food and Agriculture Organization (FAO).

Figure 5. Functional Components of the National Focal Point, Grenada.



Remaining challenges include finalizing the IHR legislative framework; developing laboratory capacity for event confirmation, when necessary; and improving in-country capacity to address certain hazards, such as those of chemical or radiological origin. In consequence, the next steps will be to enhance collaboration to assess public health events, and prepare notifications, as required; to achieve continued commitment from all agencies to attend IHR committee meetings; to make good use of budget allocations already provided; to enact IHR legislation; to provide continued IHR training; and to formalize Grenada’s membership in the International Atomic Energy Agency (IAEA).

El Salvador¹¹

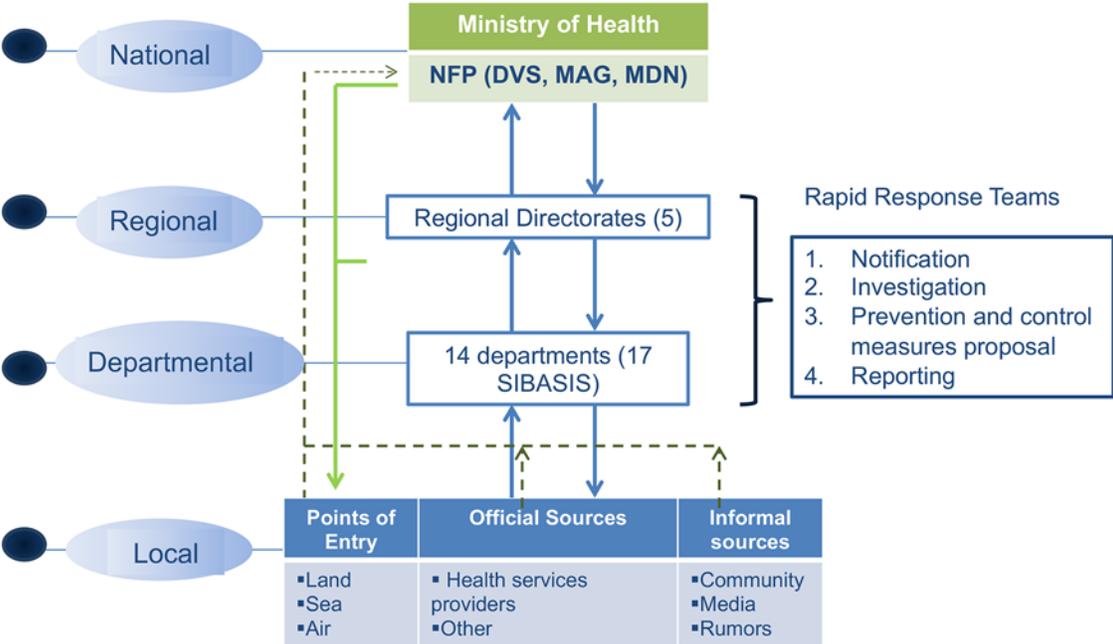
This country’s NFP includes the Ministries of Health, National Defense, and Agriculture and Livestock; the function of each one depends on the emergency in question and other ministries and institutions can be incorporated as necessary. The NFP was established by Ministerial Resolution No. 44 in 2007, the same year in which the IHR (2005) took effect. According to the Ministry of Health’s organizational chart, the NFP is directly under the Vice Minister of Health Policies and there is a team with representation from various Health Directorates and governmental and non-governmental institutions, including: the National Directorate of Medicines, the authorities of Civil Aviation and Maritime Port, the Executive Autonomous Port Commission, and airlines. IHR implementation at points of entry has been strengthened by the participation of the Foreign Ministry, through the Permanent Bureau of the Presidential Commissioner for Border Affairs, composed of Customs, Immigration, and National Civil Police.

11 Presentation by Lilian Angélica Cruz, IHR National Focal Point, Ministry of Health, El Salvador.

The NFP has technical guidelines that as of the date of this meeting were being updated to make it official. The NFP technical team responds to the IHR annual monitoring instrument and simultaneously draws up an action plan, with a description of the activities and tasks, including the monitoring and evaluation of compliance.

Information on relevant events covers the national, regional, departmental, and local levels. The NFP also gathers information from points of entry and other official and informal sources (Figure 6). Depending on the event’s characteristics, local sources can directly contact the NFP. Nonetheless, departmental and regional levels also must report and investigate events. The NFP analyzes the information and prepares technical reports for the Intersectoral Health Commission (CISALUD, per its acronym in Spanish), which includes some 40 agencies, both national and international, to keep the population informed. In addition, the NFP communicates with NFPs from other States Parties of the Region, and PAHO/WHO, the Regional Contact Point for the IHR. For instance, in 2017, El Salvador’s NFP was in communication with other countries during four infectious diseases events: two zoonoses, one parasitosis, and one event related to a yellow fever vaccination certificate.

Figure 6. Information Flow, National Focal Point, El Salvador.



DVS: Health Surveillance Directorate; MAG: Ministry of Agriculture; MDN: Ministry of National Defense; SIBASIS: Comprehensive Basic Health System.

Some of the challenges for the NFP include: maintaining the IHR in the Presidential agenda; sustaining the level of core capacities already achieved through interagency and intersectoral participation; including IHR-related activities in annual operational programs of MOH organizational units; and obtaining the participation of other institutions in IHR implementation activities.

The implementation of the June 2017 Plan of Action is expected to ensure sustainability of core capacities, systematize the application of the IHR, and implement the System for Event Monitoring (SIME®).

Discussion

The way in which a country assigns NFP functions was mentioned as an important issue influencing NFP operations (i.e., the difference between those functions being held by a team or an individual). When there is only one person in charge of operations in emergency situations, rather than a structure that gathers different agencies functioning as a team, significant challenges will arise. The NFP's day-to-day work is demanding, even when operational structures have been established. It is not feasible, therefore, that a single person can assume all functions and be available 24 hours a day, 7 days a week.

Participants were reminded that in previous meetings the need for revising WHO NFP guidelines to include operations in case of emergency had been discussed. Apparently, the role of a communication channel is difficult in instances when overall IHR-coordination is required. NFP mandatory functions and the structures needed for event management must be clearly understood.

In some countries or under certain circumstances, relationships among professionals, such as the epidemiologist and Chief Medical Officer facilitate coordination, even in the absence of an NFP team. Similarly, this happens in relationships among the MOH and other ministries, in case of an emergency. It is sometimes possible to coordinate public health event verification processes and information flows, despite non-existent legal or administrative frameworks to carry out NFP functions, but a process to request and provide information to Ministries of Health and other government agencies should be in place.

III. MULTISECTORAL ENGAGEMENT FOR EVENT DETECTION, VERIFICATION, AND INTERNATIONAL REPORTING – COUNTRY EXPERIENCES

Colombia¹²

Consistent with Colombia’s legal framework and the relevant national decree, the IHR is a legally binding document for reporting any public health event that could have international importance. Table 1 summarizes the country’s regulatory framework as it applies to detection, verification, and reporting of public health events, and multisectoral interaction.

Table 1. Legal Framework for Detection, Verification and Reporting of Public Health Events, Colombia

Regulation (year)	Purpose
Decree 4107 (2011)	State the functions of the Epidemiology and Demography Directorate: to coordinate health surveillance, generate alerts on events or risks, and responds to them, and notifies relevant authorities.
Resolution 1294 (2013)	Specify the function of the Public Health Surveillance Group: to receive and communicate reports on international public health situations of interest.
Law 9 of the National Sanitary Code (1979)	Dictate sanitary measures; establishes standards for epidemiological surveillance and control, and regulations for early detection, verification, confirmation, and timely reporting.
Law 1523 (2012)	Adopt the National Policy on Disaster Risk Management and implement a National Disaster Risk Management System.
FAO/WHO; Joint Codex Alimentarius Commission (2004)	Adopt principles and directives for information exchange regarding food safety in emergencies.
Resolution 0966 (2016)	Create and organize the Public Health Strategic Committee’s operations; and to ensure regular participation of the Ministry of Health and other sectors in the Committee, in order to support decisions related to emerging public health situations and events.

Detection, verification, and international reporting are conducted through the NFP. Information sources for events to be assessed by using IHR Annex 2 can be official or informal, (e.g., mass media or social networks). Within six hours of detection, a public health event is preliminary classified and verified to determine the need for generating alerts and identifying the sectors in charge of its management. This is followed by informing the authorities and assessing the event’s risk based on Annex 2 of the IHR; the assessment is coordinated by the NFP, with support and participation of relevant authorities, followed by the decision to communicate the event internationally, as required by the IHR. Multisectoral interaction includes the Ministry and Vice Ministry of Health, directors, coordinators, NFP team, the National Institute of Health, territorial focal points, maritime ports authority, and international organizations, such as PAHO/WHO. There is a basic operational structure with virtual communications, email, and telephone service.

To date, Colombia has accomplished the following:

- The importance of other sectors participating in the implementation of the IHR has been successfully transmitted.
- The NFP was established within the framework of decree 3518 of 2006;

¹² Virtual presentation by Claudia Milena Cuéllar Segura, Coordinator, Public Health Surveillance Group, Epidemiology and Demography Directorate, Ministry of Public Health and Social Protection, Colombia.

- Authorities or entities that conduct surveillance and control activities and contribute to national health security have been identified.
- The Port Health Commission was reactivated in 2006, and other commissions for the IHR were established, in addition to the Anti-Pandemic Committee.
- Political commitment was obtained, and resources were allocated to fund an immediate response to requests from various sectors.
- Confidence and credibility have been built, and the technical backing of other sectors obtained.
- Procedures for intersectoral communications with the NFP were developed in 2012 and updated in 2016.

Regarding multisectoral coordination mechanisms for the NFP, the flow of information still needs to improve between the NFP and the Ministries of Environment, Agriculture, and Mining, the latter regarding potential radiological threats, and the development of appropriate regulations based on each agency's competency. There is also the need to transfer knowledge to various levels to approach risk assessment with standard criteria.

PAHO/WHO was asked to share the Organization's risk assessment methods with Member Countries.

Trinidad and Tobago¹³

Trinidad and Tobago is a small country, therefore NFP and event management functions are carried out by the same team. The Government's organizational chart shows the NFP, ratified in 2009, under the Chief Medical Officer, itself under the Permanent Secretary of Health of the Ministry of Health. This office has a well-established authority; however, the formal designation and operations of the NFP remains to be legally ratified. Similarly, while event notification to WHO is carried out, it still requires the adoption of adequate legal tools to formalize reporting channels.

As for health legislation, the Public Health Ordinance was first enacted in 1917, and last revised in 1950. The Ordinance outlines the organizational structure of public health governance. Beyond said Ordinance, there are a plethora of newer legislation that support and enable the core competencies required by the IHR: among them, quarantine acts, yellow fever regulations, animals' (diseases and importation) acts, and pesticides and toxic chemical acts, and others. There are no legislative conflicts that could potentially interfere with IHR implementation in the country. Currently, legislative reform is not in the works, as priority has been given to the allocation of resources for national core capacity building. There is no national IHR policy.

The responsibility for multisectoral coordination is with the National Committee. NFP's functional components under the Chief Medical Officer include leadership and inter-island coordination. Additionally, there is an IHR coordination officer, and staff epidemiologists who handle surveillance. Figure 7 outlines the NFP network composition in Trinidad and Tobago.

¹³ Presentation by Adelle-Lisa Chang-On, County Medical Officer of Health, Ministry of Health, Trinidad and Tobago.

Figure 7. National Focal Point Networks, Trinidad and Tobago.

	HEALTH	NON-HEALTH
INTERNAL	National Surveillance Unit Public Health Inspectorate Insect Vector Control Division Veterinary Public Health Unit Chemistry, Food and Drugs Division Pesticides and Toxic Chemicals Unit Regional Health Authorities Local Health Authorities Private Providers	Government Ministries Tobago House of Assembly Points of Entry Agencies Industry Partners Academic Institutions
EXTERNAL	PAHO/WHO CARPHA IAEA NFPs and Ministries of Health of other State Parties	CARICOM IATA ICAO OIE FAO

CARICOM: Caribbean Community; CARPHA: Caribbean Public Health Agency; FAO:United Nations Food and Agriculture Organization; OIE: World Organisation for Animal Health.

In cases requiring a public health response, an on-scene incident commander is assigned to the site of the incident, with the participation of the specific ministry (depending on the type of event), the Office of Disaster Preparedness and Management, and the Chief Medical Officer of the MOH.

There is a domestic agreement for international notification with the following steps:

1. The IHR coordinator completes an IHR Event Assessment template to submit as the official notification of the potential PHEIC to PAHO/WHO.
2. The Chief Medical Officer or his/her designate, reviews and approves the notification package; the Permanent Secretary and Minister of Health are briefed by the Chief Medical Officer or his/her designate, within four hours.
3. The IHR Coordinator submits the final and approved notification package to the WHO IHR Regional Contact Point by email within 24 hours of the event’s assessment. The PAHO/WHO Country Office is notified simultaneously.

In summary, all stakeholders that need to participate in IHR-related activities are already so engaged, even though communication and information-sharing mechanisms are not always coordinated or formalized. There is a proposal to establish a Cabinet-approved national, multisectoral steering committee to oversee the implementation of the IHR to assume the following functions:

1. Promote cross functional core capacities required to fulfill IHR implementation requirements.
2. Promote stakeholder ownership for respective responsibilities.
3. Nurture strong stakeholder communication networks which can be relied upon in times of crisis.
4. Submit progress reports to the Cabinet using established WHO reporting frameworks.

The proposed Committee would include representatives from the Ministries of Health, Agriculture, Land and Fisheries, Works and Transport, Finance, Tourism, Planning and Development, National Security, Energy and Energy Affairs, Foreign Affairs, Trade, Local Government, Attorney General and Legal Affairs, as well as the Office of the Prime Ministry, and the Tobago House Assembly.

United States of America¹⁴

The United States' NFP is a tripartite system that includes:

- The Assistant Secretary for Preparedness and Response, where a official authorizes official messages to the WHO on behalf of the United States Government;
- The Health and Human Services Department Secretary's Operations Center, which functions 24 hours a day, 7 days a week, and is in constant communication with the entire United States Government; and
- The IHR Program in the Division of International Security, which is in charge of coordinating event assessment and reporting coordination, and manages/develops IHR NFP procedures, and communication and coordination.

Multisectoral interaction occurs at the community level, where unusual events are detected and reported to the next higher level, and control measures are implemented. At the intermediate level, the confirmation process takes place and control measures are strengthened. It is here that events are assessed and notified to the national level. At the national level, reports on urgent events are evaluated within 48 hours and reported to the WHO within 24 hours after that; control measures are coordinated, and support is provided to conduct local investigations. Also, at this level, resources are linked to the response, and the national public health emergency response plan is activated. Table 2 summarizes the types of public health events and associated departments and/or agencies involved in an event's risk evaluation and response.

14 Presentation by Jerusha Murugen, IHR Program Manager, Division of International Health Security, Office of Policy and Planning, ASPR, U.S. HHS

Table 2. Public Health Events and Associated U.S. Department/Agencies

Type of event	Department/Institution
Agriculture and food	Department of Agriculture (USDA) — Animal and Plant Health Inspection Service (APHIS) — Food Safety and Inspection Service (FSIS) Department of Health and Human Services (HHS) — Food and Drug Administration (FDA)
Notifiable, infectious, and vector-borne diseases.	Department of Health and Human Services (HHS) — Centers for Disease Control and Prevention (CDC) — National Institutes of Health (NIH) — USDA Department of the Interior (DOI) Department of Defense (DOD)
Foodborne diseases	USDA HHS — FDA — CDC
Natural disasters	HHS — Office of the Assistant Secretary for Preparedness and Response (ASPR) — CDC Department of Homeland Security (DHS) — Federal Emergency Management Agency (FEMA) DOD
Radiological or chemical events	Environmental Protection Agency (EPA) DOI Department of Energy (DOE)
Zoonoses	HHS — CDC — NIH USDA DOI DOD
Pharmaceutical products	FDA
Food products	FDA
Quality assurance breaches in manufacturing practices	USDA — APHIS — FSIS HHS — FDA

Reporting public health events in the United States encompasses assessment, review, approval, and notification. In the assessment, government specialists prepare the information related to the event and complete the respective IHR evaluation form. That information is delivered to local and state public health authorities.

The review is the responsibility of the IHR Program, where a draft package is prepared for interinstitutional review, which is then returned to the IHR Program for ASPR approval and completion. The IHR Program is also in charge of notifying PAHO/WHO and other WHO partners, Canada's and Mexico's NFPs, and other stakeholders within the government. The whole process must be completed in 72 hours, from the initial event's detection until its notification to PAHO/WHO.

Even though the official policy is still being formalized, the notification system is working. In the events detected so far, a need for greater awareness of the IHR among Government institutions was noted, as was the need for greater

acknowledgement of reportable events that fall in those agencies' sphere of responsibility. Accordingly, the next steps include continued relationship building with national technical partners, and continued development of agency-/ department-specific standard operating instructions for assessing and reporting events to the IHR NFP.

IV. COORDINATION AND REPORTING OF FOOD SAFETY EVENTS: IHR AND INTERNATIONAL NETWORK OF FOOD SAFETY AUTHORITIES (INFOSAN) ¹⁵

In the introduction to this subject, the importance of establishing an effective structure and functional communication for all NFPs was emphasized. A generic protocol for communication between the INFOSAN and the IHR was presented. The generic protocol proposes an information exchange format for foodborne diseases and food safety among domestic and international members. It also addresses areas of multisectoral work, and analyzes reporting functions, responsibilities, mechanisms, and requirements that should be within reach for all national stakeholders.

With the contributions of this meeting's participants, in the future, it is expected that the model will be reviewed by national representatives and partners of the INFOSAN and the IHR.

¹⁵ Presentation by Enrique Pérez, Unit Chief, Health Emergency Information and Risk Assessment Unit, Health Emergencies Department, Pan American Health Organization.

V. REPORTING OF EVENTS TO THE WORLD ORGANISATION FOR ANIMAL HEALTH (OIE)¹⁶

The International Office of Epizootics was established by international agreement on 25 January 1924, with the purpose of combating animal diseases in the world. In May 2003, the Office became the World Organisation for Animal Health (OIE), but kept its historical acronym OIE.

The OIE is the intergovernmental organization in charge of improving animal health and well-being throughout the world. It rests on four pillars: *standards* for international trade of animal products; *transparency* of the situation of animal diseases in the world; *expertise* for the collection and dissemination of veterinary scientific information, and *solidarity* among countries to strengthen capacities throughout the world. The institution has 93 years of experience in the collection and dissemination of animal health information, and has 203 member countries.

In part, OIE functions consist of setting standards and codes, including disease report regulations. In cases of non-urgent diseases, for example, countries are required to report every six months.

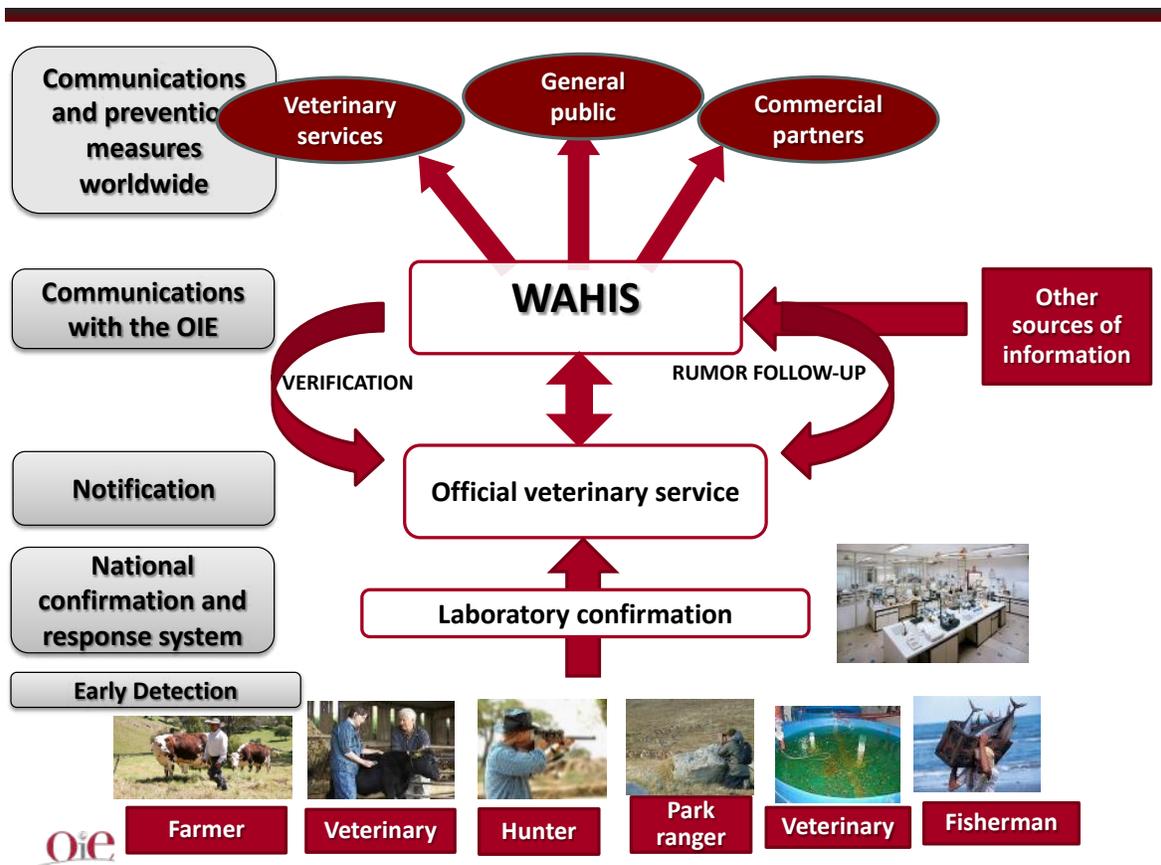
There are separate health codes for terrestrial and for aquatic animals, which regulate disease reporting and recording, infections and infestations, and the presentation of epidemiological data, including its frequency and trends.

Governments, usually the ministry in charge of veterinary services, appoint delegates as official representatives to OIE, whose responsibilities include reporting the national health situation with respect to animal diseases, and making sure that OIE standards, directives, and resolutions are implemented. Delegates also have a decisive function in the normative process of the OIE. In addition to delegates, there are disease reporting focal points for the OIE under the corresponding delegate. Focal points ensure optimal data collection and provide information on animal diseases; they are also the direct contact point with OIE in the area of animal health information. Focal points are assigned depending on whether they collaborate in diseases of aquatic animals, terrestrial animals, or in laboratory matters.

The OIE has a World Animal Health Information System (WAHIS), shown in figure 8.

¹⁶ Presentation by Martín S. Minassian, Technical Assistant, World Organisation for Animal Health (OIE).

Figure 8. World Animal Health Information System of the World Organisation for Animal Health.



Certain conditions require immediate reporting, within 24 hours:

- The first outbreak of a given disease or a new emerging disease in a country or part of a country;
- The emergence of a new strain of a microorganism;
- Changes in the distribution, incidence, virulence, morbidity, or mortality related to a microorganism;
- Emergence in an unusual host species; or
- The emergence of a new disease or a disease with significant impact following the modification of a known pathogen or caused by a pathogen not previously identified.

If any of the above conditions are met, countries must submit weekly reports on the event's evolution until closure, at which time trade may resume, a disease-free denomination is obtained or recovered, or the country is declared disease-free. Once the situation is stabilized, the immediate reporting requirement is eliminated, and the event is notified semiannually.

The WAHIS is also used for validation of animal disease information through an early warning system. Alert messages are issued for exceptional epidemiological events and emerging diseases. The monitoring system reports on 116 OIE diseases twice a year. Annual reports provide additional data on veterinary services staff, vaccine production, national laboratory capacity, animal population data, and zoonoses cases in humans. This information helps delegates and chiefs of national veterinary services make political and commercial decisions.

Another function of the WAHIS is to help deny or confirm rumors concerning diseases in animals, therefore preventing unjustifiable economic losses. Immediate reporting via WAHIS also makes it possible for neighboring countries and commercial partners to prevent disease entry into their territory. Through WAHIS, training is provided to strengthen national focal point capacities; the system is also used to standardize procedures. Visiting the OIE website at <http://www.oie.int/es/> is advised.

Discussion

In answer to a question about consultations between OIE and countries prior to reporting rumors, the speaker indicated that when rumors are detected by WAHIS, additional information is requested from the country involved. The rumor is not shared unless it has been confirmed. Verification is a daily procedure that relies on the country's sense of responsibility. The idea is to try to avoid unwarranted barriers; therefore, it is in the affected country's interest to rule out rumors as soon as possible. Moreover, it is the affected country that publishes the information, not the OIE.

Regarding disease genomic sequencing, research is not an OIE function; the OIE devotes itself to obtaining and providing information on reportable diseases and related events, and to developing standards and providing access to information available in databases.

VI. USE OF ANNEX 2 OF THE INTERNATIONAL HEALTH REGULATIONS OUTSIDE THE HEALTH SECTOR. INTERNATIONAL REPORTING OF ANIMAL EVENTS

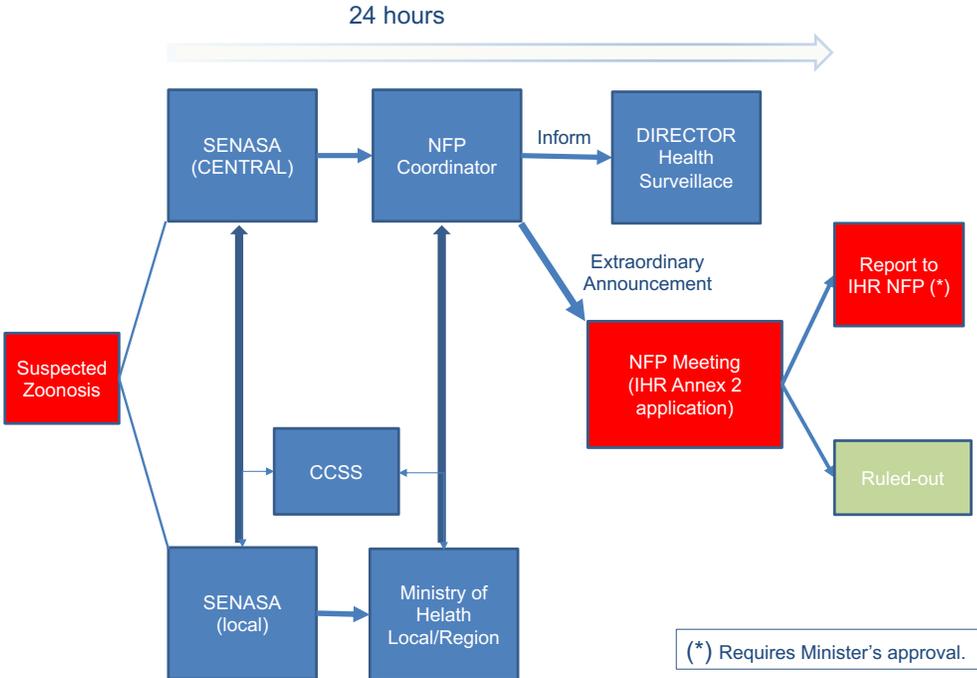
Costa Rica¹⁷

Costa Rica ratified the IHR by Executive Decree 34038-S, published on 18 December 2007, thus making official the mandatory implementation of the IHR (2005) in its national territory. Permanent members of Costa Rica’s NFP include: the Ministry of Health; Costa Rican Social Security Fund; Costa Rican Research and Teaching Institute in Nutrition and Health (INCIENSA); Ministry of Agriculture and its National Animal Health Services (SENASA); and the Costa Rican Water Supply and Sewerage Systems Institute. Technical advisors also participate when specific expertise is required. Because permanent members work closely together, coordination mechanisms among them are effective; this is also reflected in cases of zoonoses alerts issued by SENASA, which reach the local, regional, and national levels.

Protocols are available for reporting events of animal origin, such as rabies, viral encephalitis, and meningoencephalitis. In the latter cases, SENASA notifies outbreaks in animals to the NFP with the purpose of strengthening monitoring in humans in relevant geographical areas, and participates in field investigation with health workers.

Figure 9 illustrates the application of IHR Annex 2 decision algorithm, and the information flow in cases of events of animal origin. If after applying Annex 2 the decision is to rule out the event, a report is prepared, and the investigation closed.

Figure 9. Information Flow and Decision Algorithm for Reporting Animal Health Events, Costa Rica.



CCSS: Costa Rican Social Security Fund; SENASA: National Animal Health Services.

17 Presentation by Carlos Salguero Mendoza, IHR National Focal Point Coordinator, Ministry of Health, Costa Rica.

On the other hand, if it becomes necessary to notify the WHO IHR Regional Contact Point, PAHO, the Ministry of Health is advised, and reporting occurs within 24 hours. Skype and WhatsApp have been used for notifications.

Remaining challenges include:

- Lack a 24 hours a day/7 days a week system;
- No resources for overtime pay, not even in contingency cases;
- Information systems are neither well developed nor complete;
- The political level is not sufficiently convinced of the need to adopt technical recommendations, which can affect the timelines of official notifications; and
- Frequent personnel turnover.

The establishment of a health observatory has been planned within the Health Surveillance Division, as well as hiring 45 new epidemiologists to work on regional, local, and central surveillance activities.

Paraguay¹⁸

Paraguay's IHR NFP was established by Resolution Number 838 on 20 October 2006, which entered into force in 2007. The Resolution designates the General Directorate of Health Surveillance as the NFP for the IHR.

Between 2007 and November 2017, four animal public health events were evaluated using Annex 2 of the IHR, three of which were reported to the WHO IHR Regional Contact Point.

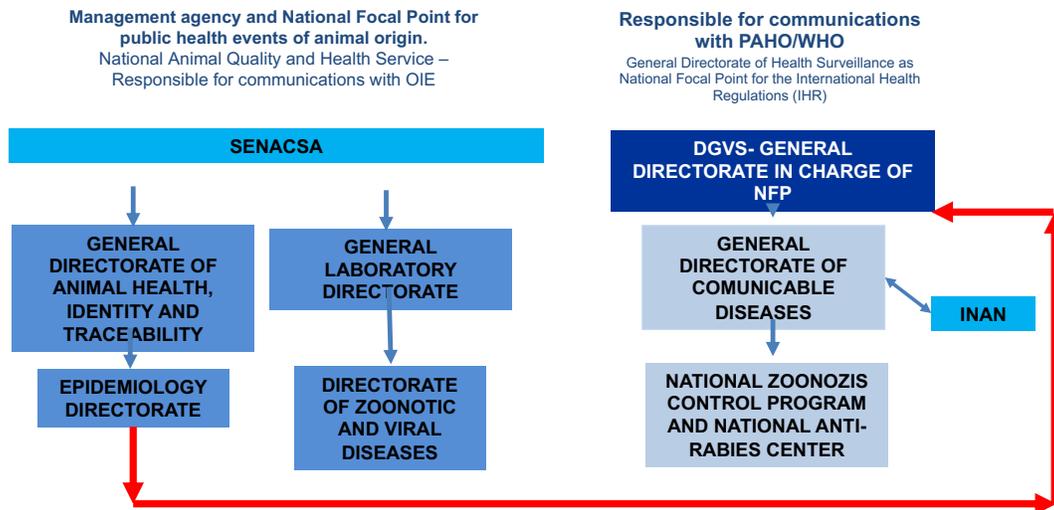
There are operational guidelines for the NFP; Annex 1 of those guidelines provides an operational framework to detect and report various public health events, including those of animal origin and zoonoses. There are also proceedings of agreements reached by consensus during situation room meetings, which take place in cases of public health events. Interinstitutional work and communication among agencies of the Ministry of Health are agile, but less so with institutions outside the health sector.

The National Animal Quality and Health Service (SENACSA) is the responsible institution in cases of animal public health events. Figure 10 illustrates the application of Annex 2 of the IHR for events of animal origin.

18 Presentation by Andrea Ojeda, Coordinator, IHR National Focal Point, General Directorate of Health Surveillance, Ministry of Public Health and Social Wellbeing, Paraguay.

Figure 10. Application of Decision Algorithm, Annex 2 of the International Health Regulations – Events of Animal Origin, Paraguay.

Communication flow in reporting events of animal origin to the NFP



Source: <http://www.senacsa.gov.py/index.php/institucional/organizacion-general/organigrama>.

SENACSA: National Animal Quality and Health Service; INAN: National Institute of Food and Nutrition.

Paraguay participates in OIE’s WAHIS, and has laboratory capability for event confirmation. Verified data on events of animal origin are obtained from official sources, scientific work, and the media. When the application of Annex 2 of the IHR becomes necessary, the General Directorate of Health Surveillance of the MOH takes the first step. The event’s assessment method includes the following phases:

- Development of an initial document used to convene a multisectoral stakeholders meeting to prepare and adapt to the final product.
- Once the event’s assessment is completed, and meets the criteria for potential PHEIC, the NFP shares the information with the WHO IHR Contact Point within 24 hours.
- If the event is determined to be of national importance, the information is shared with relevant sectors within 48 hours.
- If stakeholders are not available to attend the meeting, the assessment is conducted by electronic means.
- Internal coordination to notify the OIE is through SENACSA, and to the IHR, through the General Directorate of Health Surveillance-NFP.

Box 1 summarizes a brucellosis outbreak used to analyze coordination performance in international reporting.

Box 1.

Brucellosis Outbreak, School of Veterinary Sciences – Paraguay

On Thursday 16 October 2017, the National Animal Quality and Health Service (SENACSA) received an official report of cases of brucellosis in goats from the School of Veterinary Sciences.

The General Directorate of Health Surveillance (DGVS) received from SENACSA information on a case of brucellosis in a veterinary medicine student at the School. The diagnosis was confirmed by title IU, as follows: Rose of Bengal test (CARD TEST), positive; buffered plate antigen test, positive.

Given those results, a rapid response team was mobilized; it included the Directorate of Communicable Diseases Surveillance, the National Zoonosis Control Program and Anti-Rabies Center, the Central Public Health Laboratory, and the Field Epidemiology Training Program.

From 23 to 30 October 2017, the DGVS received from SENACSA a report of five positive cases among the School's veterinary medicine students, and on 31 October, the NFP applied the algorithm in Annex 2 of the IHR, and notified the WHO IHR Regional Contact Point based on the result of the assessment.

In October and November, the situation room was kept operational for intersectoral meetings and to report on the progress of the investigation.

Regarding legislation and administrative standardization, the need for official documentation to provide legal backing to commitments related to reporting animal events is a remaining challenge. It is also necessary to improve the flow of information among various ministries and sectors; to improve the timeliness of international reporting of animal and other events; to have a manual of procedures for the NFP, and; to share operational NFP guidelines with other ministries and sectors.

Among the next steps, strengthening ties between SENACSA and the NFP will facilitate the response to animal health related events. Increasing NFP financial, human and technological resources will be necessary.

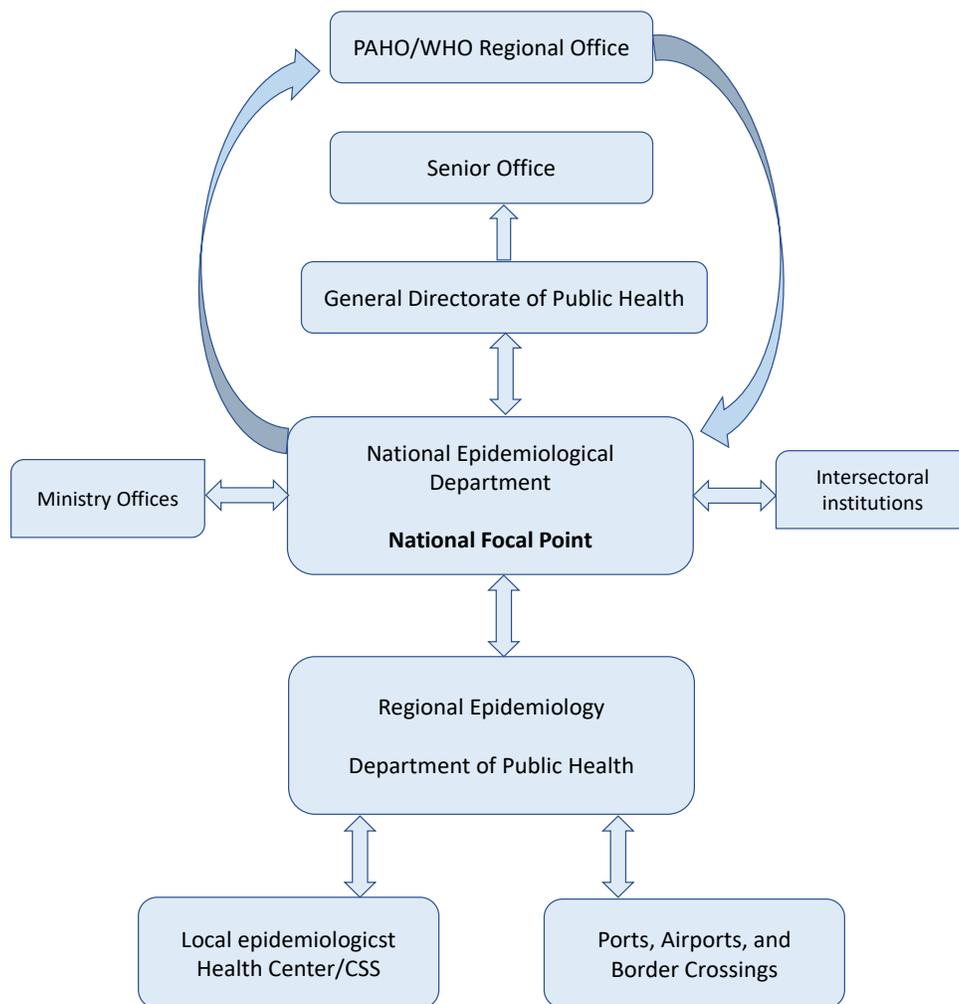
Panama¹⁹

Panama's NFP is part of the Department of Epidemiology in the General Public Health Directorate. It is legally backed by the country's Political Constitution (Title III, Chapter 6), Law No. 66 of 10 November 1947 (Sanitary Code), and Law No. 38 of 5 April 2011, on the International Health Regulations (2005). By Executive Decree 1617 of 21 October 2014, the NFP was authorized and mandated to function in an interdisciplinary manner.

Figure 11, below, shows the flow of information and relevant public health event reporting managed by Panama's National Focal Point.

19 Presentation by Israel Cedeño-González, General Director of Surveillance, Ministry of Health, Panamá.

Figure 11. Information and Public Health Event Reporting Flow Chart, National Focal Point, Panama.



Animal health-related events are often detected as rumors arising in the livestock sector. Notification of those events to the NFP is relatively efficient, but a great deal depends on interpersonal relationships between Public Health Department epidemiologists and local health authorities. There are no protocols nor official mechanisms that can be used to notify the NFP.

When the NFP gets reports of animal diseases, Annex 2 of the IHR is applied, and responsible authorities are summoned to make the necessary decisions. However, if the reported event is of national concern, it is reported to PAHO/WHO, whether it meets Annex 2 criteria or not.

Among the system's weaknesses is the fact that the Ministry of Livestock Development reports animal health events directly to the OIE, and reporting to the MOH depends on personal relationships between staff members of both institutions. On the other hand, the implementation of the NFP in 2016 and interinstitutional communication are strengths in this area.

Belize²⁰

From a legal standpoint, human health-related governmental activities are backed by the Public Health Act, Chapter 40, of 2000, that designates the Director of Health Services²¹ as the highest authority for disease notification. That Law needs to be updated, since it does not respond to any agreement or international regulation.

According to standard operating procedures, the staff member heading the NFP is responsible for notifying public health events to the WHO IHR Regional Contact Point. These procedures do not include the Ministry of Agriculture nor its relationship with the MOH. This is a weakness of the system, as there is no mechanism to share epidemiological information on zoonoses. The need to update the Public Health Act was emphasized, as well as the need to develop other related legislation, and to formalize the role of other ministries and institutions in implementing the IHR (2005). Annex 2 of the IHR is applied informally and is not part of information/notification flow charts.

It is expected that soon, standard operating procedures for the NFP will be implemented, and the results of the IHR evaluation carried out in 2016, as well as the IHR operational plan, will be revisited.

Discussion

Participation of sectors other than health in IHR implementation has been discussed in previous meetings, and some proposals have been put forth, such as publishing a list of officials who could be contacted in other institutions. Multisectoral work is important, as is the need to identify peers in similar positions in animal health and environmental services and within INFOSAN. In addition, the list of OIE delegates are published in that Organization's web page. INFOSAN is considering whether to share information on its emergency contact points. At present, that information is available within each country.

In terms of the OIE, wildlife disease reporting is mandatory. However, given its potential impact on commerce, it is legally forbidden to use such events as barriers. Events should be published as general information on surveillance in each country, an activity encouraged by the OIE. The point was made that both wildlife and commodity agriculture are at the core of the resistance to report wildlife disease events. There is confusion regarding notification thresholds for events, and on whether they refer to diseases or risks. Furthermore, Annex 2 of the IHR does not provide the answers. To clarify, it would be necessary to explain the interpretation of those thresholds, which would also allow reduced notification variability. The fact that the IHR is a flexible tool was brought up, as was the impossibility of developing thresholds for all diseases. This is the purpose of Annex 2; each country makes its own decision.

Decisions on reporting will depend on each country's capacities (e.g., laboratory). With respect to some pragmatic considerations, for instance, one could ask oneself any of the following: If the event were to occur in another country, would it be useful for my country to be aware of it? Is there a way to deal with the event, and is there anything that can be done? With that approach, reporting would improve, and meet the intended spirit of the IHR, rather than its literal requirements. Nonetheless, when in doubt, it is better to report and to acknowledge the importance of ensuring that information that must be shared, actually is.

Relationships between human and animal health services in the Region need to improve. Currently, based on the IHR, the OIE and the WHO are trying to link both areas and to establish a more formal relationship for the future. Support structures are needed for the relationship between NFPs and OIE delegates and focal points, including legal and administrative bases and standard procedures for information exchange.

20 Presentation by Ethan Gough, Chief of Epidemiology, Ministry of Health, Belize.

21 Equivalent to the post of Chief Medical Officer in other countries of the Caribbean.

Some national flowcharts presented in this meeting are very complex, which might be the reason for delays in national and international notification processes. An analysis of information flows and authorization mechanisms was suggested to determine ways to streamline international reporting.

Two ways of communication might need to be considered. The first would be used to share routine information on events under investigation, and the second, a sort of shortcut, or a more nimble method, for emergency situations. For instance, in cases of national events that require international notification, information should be automatically shared with colleagues in charge of international reporting.

VII. REPORTING OF EVENTS TO THE INTERNATIONAL ATOMIC ENERGY AGENCY AND INFORMATION DISSEMINATION TO MEMBER STATES ²²

The International Atomic Energy Agency (IAEA) is the central intergovernmental forum of scientific and technical cooperation on nuclear matters in the world and, as such, it specializes in reporting nuclear and radiological events. Its Incidents and Emergency Center is the global focal point for international emergency preparedness, communication, and response. It is the world's center for coordination of international emergency preparedness and response assistance.

According to the IAEA, event notification is particularly important, partly due to the mythical characteristics of these events, derived from major past events and their potential world impact.

Following the Chernobyl nuclear accident, two international conventions were adopted: the first, with 119 signatories, on Early Notification of a Nuclear Accident, and a second one, with 112 signatories, on Assistance in Case of a Nuclear Accident or Radiological Emergency. Both conventions include FAO, WHO, World Meteorological Organization, and the European Atomic Energy Community (EURATOM). IAEA's publication Preparedness and Response to a Nuclear or Radiological Emergency on safety standards contains relevant requirements related to reporting: one of these is requirement 7, on the identification and report of a nuclear or radiological emergency and activation of the response to emergencies, which reads: "The government shall ensure that arrangements are in place for the prompt identification and notification of a nuclear or radiological emergency and for the activation of an emergency response." Paragraph 5.19 of requirement 7 refers to how "The State shall make known to the IAEA and to other States, directly or through the IAEA, its single warning point responsible for receiving emergency notifications and information from other States and information from the IAEA."

Interinstitutional coordination is determined by the Joint Radiation Emergency Management Plan of the International Organizations (<https://www.iaea.org/topics/international-arrangements>), which describes the response to events and the actions necessary to develop and maintain a response capacity. In addition, there is an Inter-Agency Committee on Radiological and Nuclear Emergencies, a coordination mechanism among relevant intergovernmental organizations that ensures that coordinated and consistent arrangements and capabilities for preparedness and response to nuclear and radiological incidents and emergencies are developed and maintained. Both WHO and PAHO are members of the Committee, among other International Organizations.

The duties and responsibilities of the IAEA include notification and official information exchange related to the assessment of potential nuclear emergency consequences and the prognosis of possible emergency progression (<https://www.iaea.org/topics/notification-and-reporting>). The Agency also provides assistance in response to requests, and timely and reliable information that can be easily understood by the public; and coordinates inter-agency responses.

The IAEA has an Incident and Emergency System (<https://www.iaea.org/topics/incident-and-emergency-system>) that covers the IAEA's emergency preparedness and response arrangements. When an emergency event occurs, it is notified transnationally, and information is promptly provided on its time, place, and nature; facility or activity affected; cause and foreseeable evolution; characteristics of radioactive release; meteorological conditions; monitoring data; protective measures; and predicted behavior of radioactive release.

22 Presentation by Pablo Jiménez, Regional Advisor in Radiological Health, Medicines and Health Technologies Unit, Department of Health Systems and Services, PAHO/WHO.

The Agency conducts exercises to:

- Test whether National Warning Points are continuously available, fax contacts and USIE alert channels are accurate, and Contact Points can access the system properly;
- Test whether relevant national authorities can appropriately fill out reporting forms, and to drill the appropriate procedures for information exchange, requesting and providing assistance, and to practice the IAEA's assessment and prognosis process; and
- Evaluate preparedness for a response to an international emergency and capacity to confront a major nuclear or radiological emergency that lasts several days, regardless of cause.

In terms of the IHR, if an event requires IAEA expertise, WHO must notify the Agency immediately.

The IAEA has three monitoring and evaluation mechanisms: the Radiation Safety Information Management System, to collect, analyze and view information on the national infrastructure; the Emergency Preparedness and Response Information Management System; and the Emergency Preparedness and Review Service, to assess the level of preparedness in Member States.

It is currently expected that all PAHO Member States will become IAEA Member States, and that joint IAEA-PAHO activities will continue. The use of a common information exchange platform for management of information on acute radiation-related public health events is also expected, as well as the use of IAEA evaluation, monitoring, and reporting mechanisms in all IHR States Parties, to comply with international radiological event reporting obligations.

Discussion

Participants' discussion highlighted the following concerns:

- Practical exercises have been conducted in some countries of the Region, even in the absence of equipment to cope with emergencies or capacity for action.
- Building the necessary capacity will be challenging and time-consuming, as human resources will need to be trained. However, countries can request technical cooperation from their counterparts, both for technical as well as medical responses, allowing time to develop their own capacity.
- Some participants are concerned about the lack of training in medical response, although the IAEA indicated that the Agency could evaluate national capabilities and determine what would be needed to strengthen national capacity. Moreover, in terms of the medical response, the IAEA has a coordination agreement with WHO on how to implement such a response. Thus, upon a need being detected, the WHO, which has a worldwide network of trained personnel, is notified.
- When performing some exercises, it was apparent that focal points are not aware of who can access the IAEA website for reporting purposes. One challenge faced by the IAEA in some regions is finding better prepared national focal points to participate in exercises, which makes it important to involve the NFP.

VIII. USE OF ANNEX 2 OF THE INTERNATIONAL HEALTH REGULATIONS OUTSIDE THE HEALTH SECTOR. INTERNATIONAL REPORTING OF EVENTS OF RADIOLOGICAL ORIGIN

Chile²³

In Chile, the Chilean Commission of Nuclear Energy (CCHEN) of the Ministry of Energy is the IAEA's correspondent authority. Starting in March 2016, a Commission on Radiological Emergencies Security was established, with 18 participating organizations (Decree 647 of 2015); both the CCHEN and the Ministry of Health (Public Policy Division) are active participants.

Previously, in August 1984, decree 133 was approved to regulate authorizations for radioactive installations; it includes three categories:

Category 1: Particle accelerators, irradiation plants, high radiotoxicity laboratories, radiation therapy and deep roentgen-ray therapy, gammagraphy, and industrial radiography

Category 2: low radiotoxicity, X-rays for medical or dental diagnosis, radiation therapy, and superficial roentgen-ray therapy

Category 3: sealed source equipment for industrial use, such as: weightometers, densitometers, flow and level meters, smoke detectors, thicknesses meters, and other.

Figure 12 illustrates the legal structure and authorities involved in international reporting of events of radiological origin.

²³ Presentation by Patricia Salvadó, Coordinator, IHR National Focal Point, Ministry of Health, Chile.

Regarding coordination, starting in September 2016, an IHR intersectoral commission that includes the CCHEN, was established, and meets once a month. In 2017, a matrix was developed to record risks of radiological origin; it is expected to facilitate information flow. There is also a plan to improve and maintain basic capacities.

Remaining challenges include the need for legislation or administrative standards to regulate the collaboration between the CCHEN and the NFP; there is a National Security Commission for Radiological Emergency (CONSER), but the NFP is not part of it. Furthermore, although the DIPOL reports detected incidents to the NFP, there are no inter-ministerial coordination mechanisms. Political changes also affect activity implementation.

In the future, developing a regulatory framework to regulate inter-ministerial coordination is expected, as well as maintaining and supporting coordinated activities through the intersectoral IHR commission, which is expected to add the CONSER as a member in 2018.

Ecuador²⁴

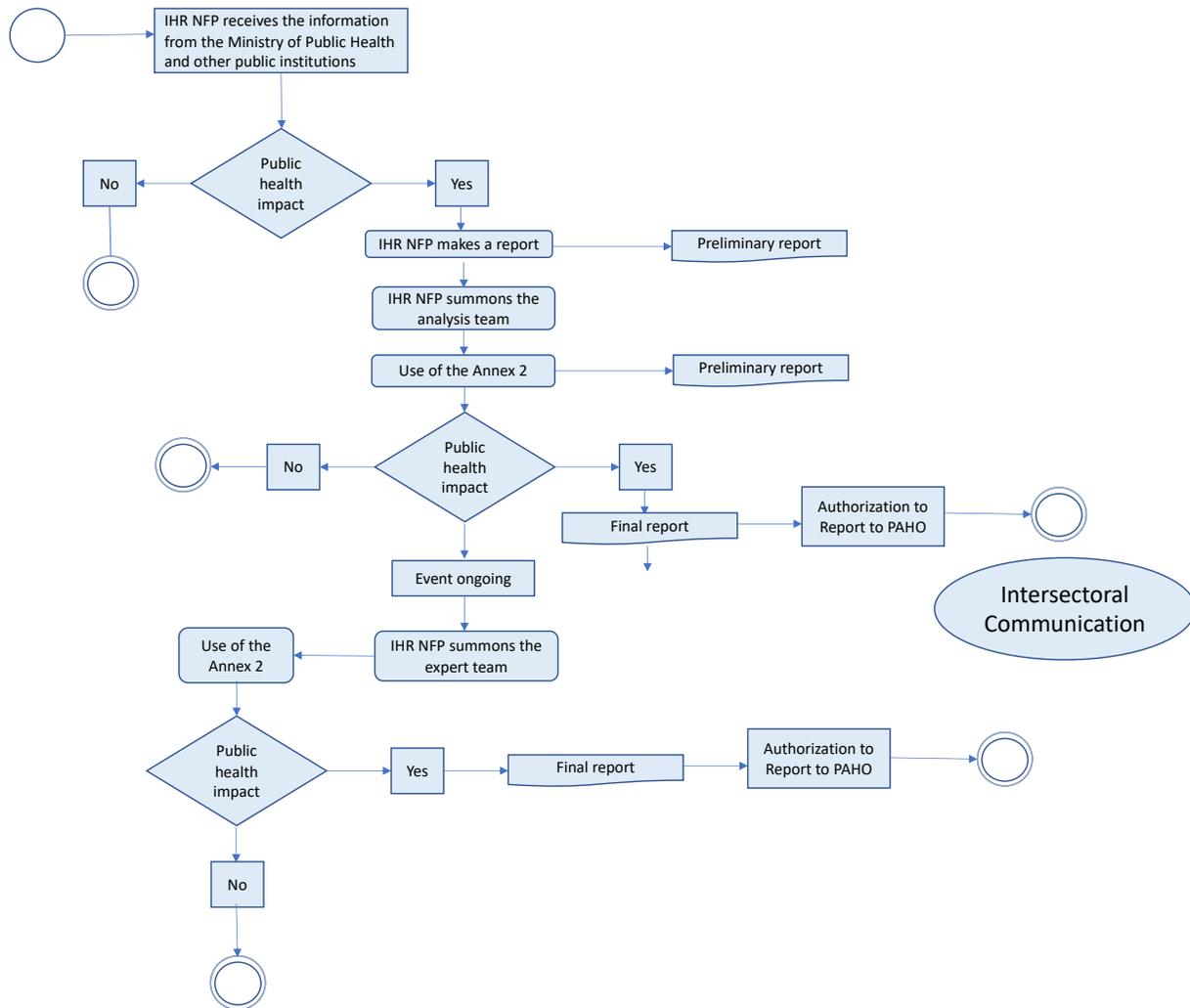
The legal support for compliance with the IHR in Ecuador is provided by the Constitution of the Republic, Organic Health Act No. 423 published in December 2006, whose Chapter II (Articles 61 and 66) deals with communicable diseases. In addition, through the 2008 Ministerial Agreement, the NFP was created and put into operation; that Agreement was updated with a new Ministerial Agreement, which also approved the Ecuador NFP Manual of Functions, in 2016.

Regarding events of radiological origin, Chapter II, Article 108 of the Organic Health Act states that “It is the national health authority’s responsibility, in coordination with the Ecuadorian Commission of Atomic Energy and other relevant agencies, to monitor compliance with established standards regarding ionizing and non-ionizing radiation.” Since 2009, three radiological events were reported to the IAEA and WHO: two related to a loss of power source, the other to theft of power source.

Figure 13 summarizes the decision-making process followed by the NFP in cases of public health emergencies.

24 Presentation by María Eugenia Mejía Artieda, IHR National Focal Point, National Epidemiological Surveillance Directorate, Ministry of Health, Ecuador.

Figure 13. Application of the IHR's Annex 2 Decision Algorithm in Emergencies of Radiological Origin, Ecuador.



The application of Annex 2 of the IHR is done jointly with the Ministry of Energy, with which a national plan to manage radiological emergencies was also prepared. Coordination with this Ministry and the NFP exists to carry out the mandatory notification of these events.

Pending challenges include revision of the new Organic Health Code to integrate intersectoral coordination in reporting radiological events, and to prioritize reporting to the NFP. The high turnover of personnel in the public sector will also have to be addressed, as it makes coordination difficult.

At present, in the country, one specialized Social Security hospital has been identified that can attend to cases with radiation exposure, but it is not part of the public health system. It would be necessary to designate a referral hospital with trained personnel to provide health care to such cases.

Future endeavors include capacity building in relevant sectors, such as the Ministry of Electricity and Renewable Energy and the Ministry of the Interior, and performing practical exercises and simulations to test information flows and adapt them, if necessary.

Mexico²⁵

Mexico's IHR NFP is in the Ministry of Health, which is responsible for disease prevention and health promotion. The legal framework supporting the MOH includes the General Health Act, the National Security Act, and the Official Mexican Standard 017 for epidemiological surveillance. The NFP has its own manual of procedures.

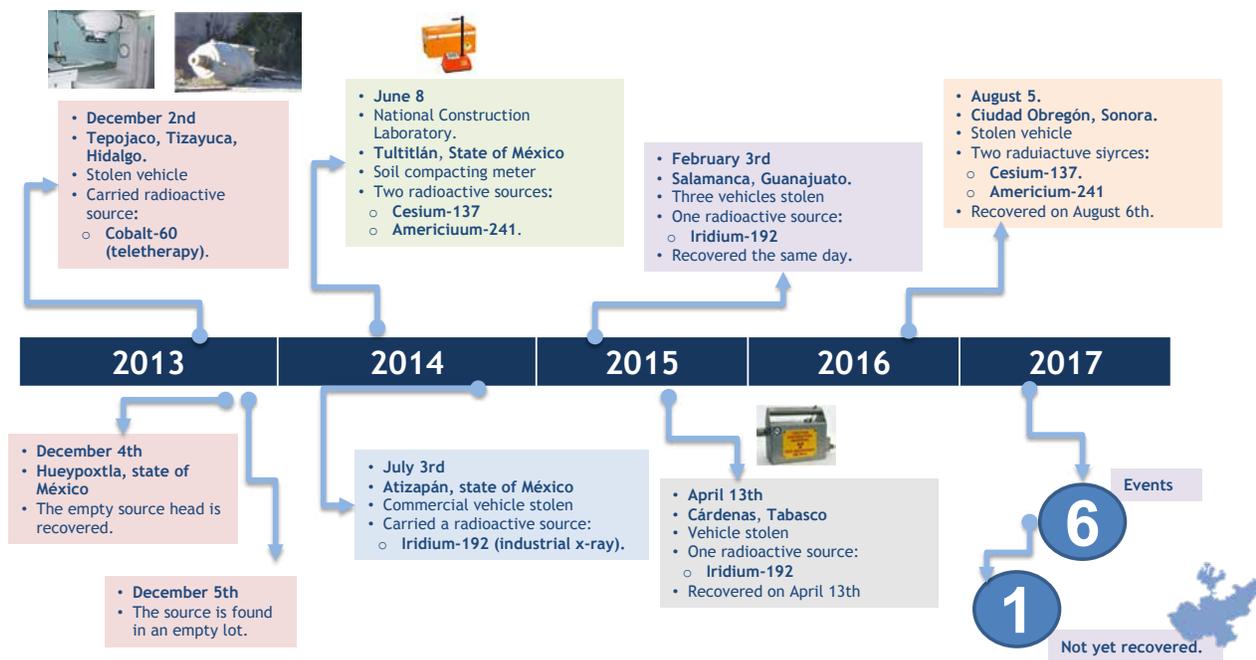
The framework to respond to and report radiological events is interinstitutional and includes:

- The National Nuclear Safety and Safeguards Commission (CNSNS), which is responsible for nuclear, radiological and physical safety, as well as security; and
- The Research and National Security Center, which coordinates the Specialized High-Level Committee on Disarmament, Terrorism and International Safety, and includes the participation of the Ministry of Health.

The National Committee for Safety in Health oversees the analysis, definition, coordination, monitoring, and evaluation of policies, strategies, and actions regarding safety in health among National Health System's institutions. The country has an External Radiological Emergency Plan, which is a preventive and operational tool used by departments and institutions responding to emergencies.

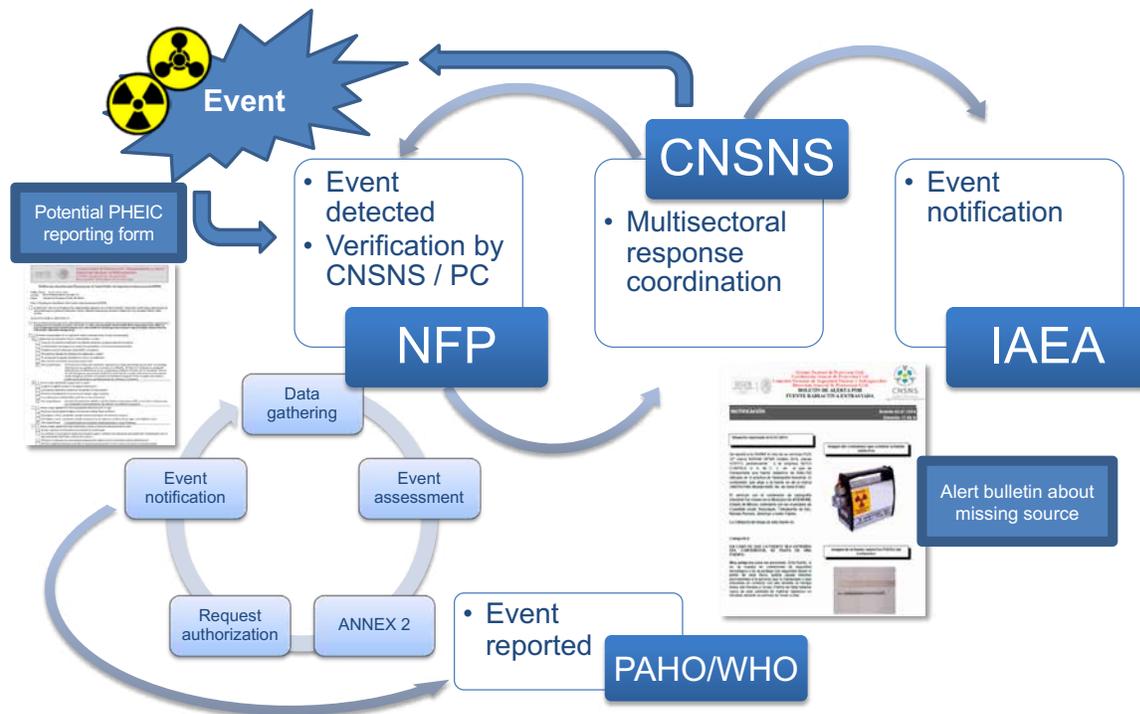
Between 2013 and 2017, 11 radiological events have been recorded. All of them were evaluated using Annex 2 of the IHR and reported to the IAEA by the CNSNS. Three of those events there were reported to PAHO/WHO. Figure 14 summarizes some radiological events detected in Mexico, and Figure 15, the application of the decision algorithm in Annex 2 of the IHR.

Figure 14. Radiological Events Recorded in Mexico, 2013 to 2017.



25 Presentation by Alessio David Scorza Gaxional, Epidemiological Intelligence Analyst, National Focal Point, General Directorate of Epidemiology, Ministry of Health, Mexico.

Figure 15. Application of the Decision Algorithm – Annex 2 of the International Health Regulations in Events of Radiological Origin.



CNSNS: National Nuclear Safety and Safeguards Commission; IAEA: International Atomic Energy Agency; NFP: National Focal Point.

As an example, a case of theft of a radioactive source (iridium-192) used in industrial x-ray was summarized. The case occurred in the municipality of Atizapan de Zaragoza, state of Mexico. Below are the results of the step-by-step analysis of the event through the application of Annex 2 of the IHR:

1. **Is the public health impact of the event serious?** Yes. If the material were extracted from its container, it would pose an important health risk; however, if it is not removed from its shield, there is no risk. Iridium-192 is a source of gamma radiation that easily penetrates intact skin. High energy high gamma ray radiation from iridium-192 can increase the risk of cancer. External exposure can cause burns, radiation poisoning, and death.
2. **Is the event unusual or unexpected?** Yes. It was the result of theft, therefore, unforeseen; the purpose of the theft was unknown, as was whether the material would be adequately handled; it could have exposed the population.
3. **Is there a significant risk of international spread?** Yes. The material can be surreptitiously transferred across borders.
4. **Is there a significant risk of international travel or trade restrictions?** No. In other similar events restrictions have not been applied.

Communication flow when notifying the IAEA is one of the challenges faced by the country, as it requires verification of the event and application of Annex 2 of the IHR beyond the health sector. The first intersectoral meeting of Mexico's NFP will take place shortly, as well as real-scale simulation exercise of a radiological event. The Mexican Official Standard for transferring radioactive materials by the Ministry of Energy will be published soon.

Discussion

In Chile, the Department of Epidemiology and the NFP are currently discussing the application of Annex 2 in events of radiological origin. The rate of radiological equipment theft is high, but, so far, events have not been considered unusual or unexpected; they were considered local situations without international impact, and consequently, the NFP concluded there was no need to report them.

A similar situation occurs in the United States regarding radiological events. For example, in one event that was determined to pose zero risk, there was uncertainty regarding the need for reporting according to the IHR. Nevertheless, when specialists take part in the analysis, relevant reports are provided to the IAEA and NFP. The NFP adapts the report to IHR requirements to avoid duplication.

On the other hand, reporting depends on the type of source of the event, given that some are low-risk, but others are high-risk and can create serious problems. It is difficult to know beforehand the level of risk and whether the information flow is enough for decision-making; consulting specialists on the sources of radiation and conducting a risk analysis are desirable approaches.

Some countries are not using Annex 2. That Annex, in addition to being a tool for decision-making, should be used to create awareness of the IHR and the national commitment to the Regulations, a task that rests with the MOH. As for reporting, more than considering it an obligation, it should be seen as a way of maintaining a technical dialogue with PAHO/WHO, regardless of the impact on international public health.

IX. 24/7 AVAILABILITY

Chile²⁶

The IHR NFP was legally established by Exempt Resolution No. 157 of March 2008, whose point No. 3 states that the NFP will be coordinated by a professional with public health training, and experience in international cooperation and relations. The NFP will have a working team of health professionals with experience in epidemiological surveillance, disease control, health geographical analysis, and computer sciences. Such would be the ideal composition of the NFP; currently, however, there are only two professionals assigned to the NFP: a journalist-epidemiologist and a geographer with master's degree in public health.

Throughout the country, there are 15 regional focal points (one for every region) and five border health bureaus in border crossings: Chacalluta, Los Libertadores, Pino Hachado, Cardenal Samoré, and Dorotea.

According to Resolution 157, the NFP's role is to coordinate with relevant sectoral agencies, regional focal points, regional health secretariats, and with government agencies. It is also responsible for relations with PAHO/WHO and other international organizations in cases of a possible PHEIC.

Since the NFP was created in 2008, a 24 hour a day, 7 day a week (24/7) calendar was (verbally) implemented. That function was originally taken by the Head of the Epidemiology Department (critical function). Following the influenza A(H1N1)pdm09, the system was reorganized to provide 24/7 coverage, with the participation of Department of Epidemiology personnel. A protocol was developed, including general functions; it is currently under review.

Characteristics of the 24/7 service:

- It is voluntary;
- It does not have the backing of an official resolution;
- There is a cell phone for non-office hours, and a computer for emergency situations; and
- There are 9 staff members in rotating shifts (2 physicians, 2 nurses, and 1 each of the following: veterinarian, medical technologist, midwife, geographer, and journalist).

In Department of Epidemiology meetings, the conclusion has been that it is indeed necessary to have uninterrupted services. That feature is what allows for timely detection of risks and threats, and helps maintain a state of awareness to rapidly respond to public health events or emergencies.

Some problems related to the operation of the system arise from the lack of legal and administrative frameworks to support 24/7 public health functions, and the absence of formal recognition of staff performing those functions. Such deficiencies make the system unsustainable. There are a few additional issues: there is no work-site accident insurance outside of regular working hours; the NFP has only two officers assigned, rather than the five required by the relevant Resolution; and operations are affected by government changes that took place in March 2018.

A protocol for NFP shifts is expected to be available soon, which will eliminate some non-related tasks from those functions. Another pending decision is whether to separate NFP tasks from epidemiological surveillance activities, as over 90% of calls to the NFP are related to the latter, and not the former.

²⁶ Presentation by Patricia Salvadó, Coordinator, IHR National Focal Point, Ministry of Health, Chile.

Guyana²⁷

Guyana's NFP works jointly with the Chief Medical Officer, epidemiologists, the Director of Disease Control, and the IHR Committee Secretary. NFP responsibilities include: guaranteeing 24-hour access every day of the year; communicating and providing urgent reports related to the WHO IHR Regional Contact Point; disseminating information to national stakeholders; and consolidating information from other national sectors. The NFPs legal framework consists of various laws: the Ministry of Health Act; the Regional Health Authority Act, Georgetown Public Hospital Ordinance; the Food and Drugs Act; the Allied Health Professionals Act; the Veterinary Act; the Animal Health act; the Municipal and District Council Act; the Fish and Fishery Products Act; the Food and Drugs Regulation; and the Environmental Protection Act.

For 24/7 availability, which is considered necessary, there are standard operating procedures, a duty roster, and means of communication. Other system characteristics include:

- Guyana's NFP is continuously accessible via mobile telephone calls to the Chief Medical Officer, Deputy Chief Medical Officer, and the IHR Coordinator, all of whom are contacted in cases of unusual events and emergencies.
- When the IHR Coordinator receives IHR-related information, the Chief Medical Officer and Deputy Chief Medical Officer, the Director of Disease Control, and the IHR Committee Secretary will be made aware of the situation.
- Email, WhatsApp, and Interface are other modes of communication.

Gaps are mainly related to the lack of a legal framework or administrative arrangements regarding 24/7 accessibility.

Looking forward, the National Strategic Action Plan will continue to be implemented by consistently coordinating and engaging in IHR meetings, consultations, and training consistent with the Global Strategic Action Plan. Also, there will be emphasis placed on food safety partnership and collaboration and networking with the INFOSAN; the expansion of capacities by gradually including six new ones; and promoting the synergy of human resources.

Canada²⁸

The IHR NFP Office is part of the Public Health Agency of Canada (PHAC) within the Agency's Health Security Infrastructure Branch and the Center for Emergency Preparedness and Response.

As a means to find a more sustainable and effective solution to manage IHR NFP communications, Canada changed its functional structure to task an already existing operational unit in charge of domestic events that was available 24 hours a day every day of the year with coordinating the mandatory functions of an NFP. Thus, this newly added function became a natural extension of the operational unit's day-to-day activities. This operational unit which is called the Health Portfolio Operations Centre's Watch Office, is also located in the Agency's Center for Emergency Preparedness and Response.

The Watch Office has the following features:

- Serves as the 24/7, all-hazard situational awareness single window;
- Ensures the continuous monitoring of public health events and disseminates event-related information to stakeholders;
- Manages the operational aspects of IHR communications and serves as the 24/7 contact point for Canada's NFP; and
- Facilitates information flow through to the WHO IHR Regional Contact at PAHO/WHO.

27 Presentation by Joshua Ignatius da Silva, Coordinator, IHR National Focal Point, Ministry of Public Health, Guyana.

28 Presentation by Katharine Acs-Charter, Manager, IHR National Focal Point Office, Public Health Agency of Canada.

During business hours (8.00 a.m. to 4.00 p.m.), one primary Watch Officer monitors email and telephone reports; up to three additional team members ensure the ongoing operations of the Watch Office; and an IHR technical advisor provides public health expertise and assists with IHR assessment and reporting.

Outside of office hours, including after-hours, weekends, and holidays, the Watch Office relies on a roster of rotating Duty Officers from the Agency who volunteer for this additional duty. They are selected on a competency basis, and receive specialized training. Duty Officers are not functional specialists, but rely on a cadre of public health and quarantine experts, medical officers and other technical advisors, and are compensated for overtime activity. The length of each Duty Officer's shift is flexible and varies depending on schedules and activities.

If the Operations Center is activated for an event, Duty Officers may also be called to act as 'Event Watch Officers' to help manage event-related communications.

Among the tools used in the Watch Office are a single window email account and mobile telephone exclusively for official use, as well as a collection of standard communication protocols, process maps, and key contacts and distribution lists.

The Watch Office facilitates information flow and uses a simple approach based on local information sources, which is later transmitted to the IHR NFP and the WHO IHR Regional Contact Point.

The way in which Canada performs IHR operations has the following advantages:

Operational

- Better use of limited resources, and increased effectiveness and sustainability for IHR communications;
- Decreased operational costs;
- Better integration of the IHR into everyday operations;
- Strengthened connectivity with domestic stakeholders; and
- Leverages the Operations Center's infrastructure and event coordination expertise.

Single window approach

- Offers a sustainable 24/7 communication hub (for day-to-day operations and during emergencies);
- Provides one-way entry into PHAC and into the Operations Centre, and provides an official contact to emergency management partners;
- Facilitates coordination and linkages with stakeholders;
- Ensures quick access to technical expertise and decision-makers;
- Ensures efficient triage of incoming and outgoing information, and improves control over critical information flow during events and emergencies; and
- Facilitates consistent and coordinated messaging.

Canada's IHR NFP performance is monitored and assessed informally on a regular basis by: monitoring the quality and timeliness of IHR communications; reviewing and revising internal IHR-specific processes; discussing ways to improve services; updating protocols annually or as required; and providing an on-going cycle of training.

IHR coordination and communication are also reviewed following a response to an event or emergency, including the adjustment of protocols, procedures, and practices.

Together with PAHO, biannual IHR NFP tests are conducted. These tests present a valuable opportunity to review processes and procedures, and to address any issues or deficiencies.

Discussion

Following is a summary of the main points raised in the discussion:

1. In cases of natural disasters, telephone and email communications become difficult, as was the case during the 2017 hurricane season, when Dominica lacked communications for almost a full week. The use of satellite communications was suggested, although sometimes they do not work in some places.
2. WhatsApp was suggested as a dependable form of rapid communication.
3. Some countries do not have 24-hour staff every day of the week; however, it is expected that staff in charge of the NFP be continuously available.
4. The need for 24/7 availability was emphasized, and the barriers for its long-term sustainability were also discussed.
5. Participants were asked their opinion on how to make communication capacity and mechanisms sustainable.
6. The psychological impact of natural disasters and serious infectious diseases outbreaks, such as Ebola, is of concern. In such cases, NFP staff have long working hours, and need to take care of emergencies as well as perform their day-to-day functions. These situations have a professional and personal cost. In some cases, such circumstances have promoted the implementation of support measures, such as psychological assistance, in addition to relaxation time and space.

X. NFP COMMUNICATIONS TEST RESULTS AND IHR NFP ANNUAL CONFIRMATION

In this session participants discussed NFP functions regarding communication. The following list contains highlights of the discussion:

- The NFP is responsible for transmitting urgent country reports to PAHO/WHO. Nonetheless, ever since the IHR (2005) entered into effect, many other communications between countries and PAHO/WHO are communicated through the NFP.
- A decision needs to be made as to whether those communications should continue to be directed exclusively to the NFP, or if it might be necessary to seek other designated points of contact. The latter option runs the risk of spreading the information and losing efficiency and effectiveness.
- The WHO NFP contact details electronic form needs to be reviewed and updated, as several of the variables listed do not apply. The form should include space for more than two email addresses to ensure that communications are not bottlenecked when one or more servers are not available.
- Regarding the Annual States Parties Report and other voluntary IHR monitoring and evaluation components, the importance of disseminating the reminders with the relevant form was underscored. This is an opportunity to call on all national sectors and jointly analyze the national situation. It would be necessary to decide whether this is a task that should remain with the NFP or whether it should be performed through other channels that better promote intersectoral work.
- It is possible that the work assigned to the NFP is far too much for a relatively fragile structure. Monitoring and resource mobilization functions could be handled by an entity that already performs coordination related tasks. This could be useful in the national and institutional sphere, but sending information requests to the NFP ensures that the information will reach those responsible for preparing the required report (see previous paragraph).
- As for the IHR Roster of Experts, a reminder was sent to all State Parties, via the NFP and Chief Medical Officers or Ministries of Health, but very few countries responded. To facilitate communication and responses to those requests, it was suggested that specialists be identified in each relevant subject, and to inform them of this request, in the hope that they might influence authorities to contribute names to add to the IHR Roster of Experts.
- On the issue of competent authorities to be designated by each State Party, which according to Articles 1 and 4 of the IHR are charged with the implementation of health measures in accordance with the Regulations, PAHO/WHO has not contacted countries regarding the appointment of said authorities. This has created problems in ports of entry in more than one country, since those points are not under the jurisdiction of the NFP and the NFP has no authority over them. It was proposed, as the best solution, to apply the Regulation's Articles on the selection of competent authorities and to communicate with those authorities and with the NFP.

XI. MECHANISMS FOR IHR INFORMATION SHARING BETWEEN THE REGIONAL CONTACT POINT AND NFPS DURING PUBLIC HEALTH EVENTS: WHO REGIONAL OFFICE FOR EUROPE²⁹

WHO's European Region encompasses 53 Member States, in addition to the Vatican State, the Principality of Liechtenstein, and multiple overseas territories. The approximate population of the Region is 910 million (2015).

In WHO's Regional Office for Europe, information on health emergencies and the WHO IHR Regional Contact Point are in the Health Emergency Information and Risk Assessment Unit (HIM), under the Division of Health Emergencies and Communicable Diseases, that has three large areas of responsibility: Detection, Verification, and Risk Assessment; Health Operations Monitoring and Data Collection, and Data Management, Analytics, and Products.

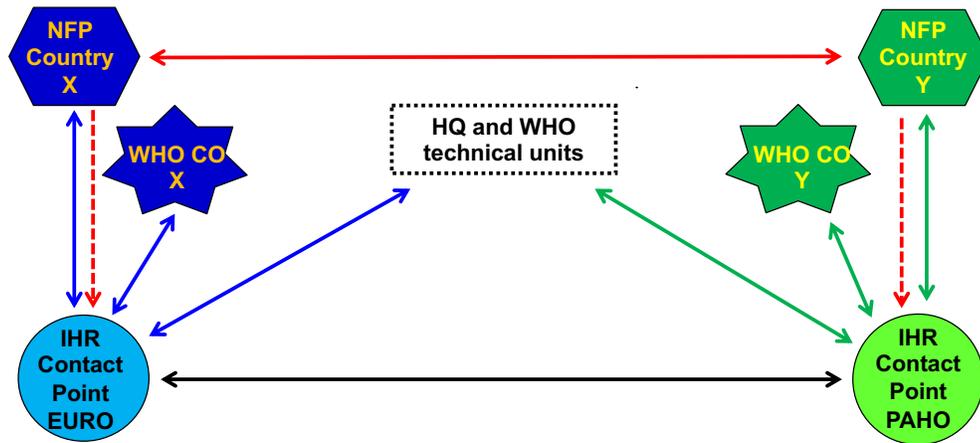
HIM activities include functioning as WHO IHR Regional Contact Point, where a staff member is on duty 24/7 for risk detection, verification, assessment, and providing information in public health emergencies of international concern. Other responsibilities include communication with NFPs, and support activities, such as outbreak investigation, development of basic IHR-related capacities, and training in risk assessment; coordination, holding meetings, workshops and exchange visits, and cooperation with key partners, such as the Global Outbreak Alert and Response Network (GOARN) and the European Center for the Disease Prevention and Control (ECDC).

When a public health event is notified, a rapid risk assessment is performed using a form especially designed for that purpose, and daily information meetings are held as a part of the Emergency Operations Center. On average, some 15,000 yearly signals are captured, of which initially some 1,500 are analyzed; of those, some 40 to 60 are defined as events requiring some type of action. HIM tries to encourage NFPs to participate in consultation processes, and communicate with the Program in all cases.

Figure 16 illustrates the flow of communications related to public health events among National Focal Points, WHO's IHR Regional Contact Points in the Regional Offices for Europe and the Americas. In recent years, events reported by NFPs as primary source of information (Figure 17) have increased.

²⁹ Presented by Jukka Pukkila, Program Area Manager, Health Emergency Information and Risk Assessment, Regional IHR Contact Point for WHO European Region.

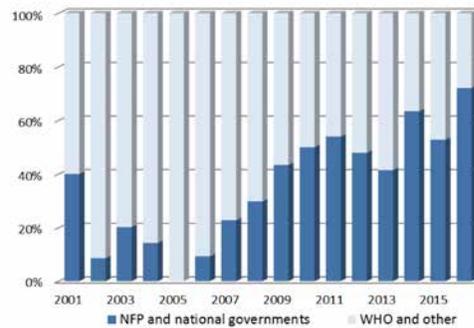
Figure 16. Communication flow between NFPs and WHO IHR Regional Contact Points. WHO European Region.



EURO: WHO Regional Office for Europe; WHO CO: WHO Country Office.

Figure 17. Proportion of Events Reported by National Focal Points (NFPs), WHO European Region.

- Number of events (N=771) recorded in the EMS, in the WHO European Region, by source of initial information, 2001-2016
 - NFPs and national governments compared to initial information detected by WHO through other sources.



HIM also produces an annual regional report on acute public health events, which includes data from the Americas, Europe, and Africa.

Below are some examples of support activities carried out by HIM:

- An investigation of an outbreak of Legionnaire’s disease in Dubai in December 2016;
- In collaboration with WHO’s Regional Office for the Eastern Mediterranean (EMRO) and the University of Bonn, a mission was conducted to determine the sources of possible environmental risk sources of legionellosis, and recommend preventative measures;

- Coordinated with ECDC and the European Legionnaire's Disease Surveillance Network for travel-associated cases of the disease;
- In coordination with the University of Bonn, provided support in the area of drinking water management;
- Visits to various countries aimed at improving awareness of the IHR and NFPs, and sharing examples and good practices to reduce deficiencies and problems related to IHR day-to-day tasks;
- WHO experts participated in external evaluations coordinated by the Global Health Security Agenda in various countries; and
- Conducted a workshop on risk assessment methods, with additional workshops programmed for the future.

European Union Decision 1082/2013/EU on serious cross-border threats entered into force on 6 November 2013 with the following objectives: 1) To strengthen preparedness planning; 2) to improve risk assessment and management of cross-border health threats; 3) to develop and implement joint procurement of medical countermeasures; and 4) to enhance the response coordination at EU level, by providing a solid legal mandate to the [Health Security Committee](#).

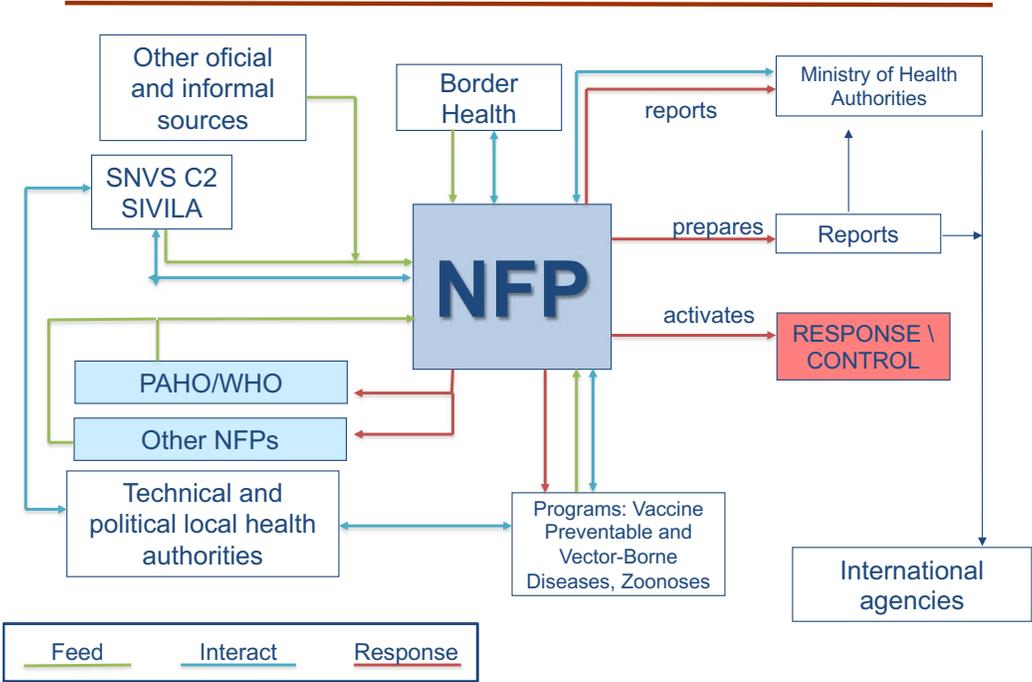
XII. NATIONAL FOCAL POINTS NETWORK: INFORMATION EXCHANGE DURING PUBLIC HEALTH EVENTS

Argentina³⁰

Since 2010, Argentina has reported various events that could potentially become PHEIC. In 2010, there were cases of St. Louis encephalitis in Buenos Aires and Cordoba; a dengue outbreak (DENV 4) in Santa Fe, and a measles case in Buenos Aires. In 2013, an outbreak of Legionnaire’s disease in Buenos Aires was reported. In 2016, there was one case of local transmission of Zika virus in Cordoba, an outbreak of autochthonous transmission of chikungunya virus in Salta and Jujuy, and a Zika virus outbreak in Tucuman.

Information has also been exchanged with relevant NFPs in situations affecting other countries, such as a measles case affecting Australia, and the following cases in 2017: a tourist bitten by a titi monkey, and influenza-like illness aboard a ship (Brazil NFP); avian influenza, black butterfly, hantavirus and meningococemia (Chile NFP); suspected cases of chickenpox in cruise ship passengers, and tuberculosis (Uruguay NFP); tuberculosis (Spain NFP), and measles (Italy NFP). Information is also shared through the Boletín Integrado de Vigilancia, which provides data on priority events in MERCOSUR countries twice a year. Figure 18 shows the flow of information to and from the Argentina NFP.

Figure 18. Information Flow Through the Argentina IHR National Focal Point.



SIVILA: Laboratory Surveillance; SNVS: National Health Surveillance System.

30 Presentation by Ezequiel Damian Travin, Coordinator, IHR National Focal Point, Epidemiology Bureau, Ministry of Health, Argentina.

Table 4 summarizes the advantages of information sharing, minimum data provided, and challenges to information exchange.

Table 4. Information Exchange: advantages, minimum data, and challenges

Advantages	Minimum data	Challenges
Allows timely control measures, such as in cruise ship events.	Event description	When events occur aboard ships, it is often difficult to get timely passenger information. Much of the data provided are not useful for passenger tracing.
Helpful for situation analysis, especially in seasonal diseases (e.g., arboviral infections).	Description of affected individuals: symptoms, contacts, relevant epidemiological data	In countries with federal governments it is harder to get information from localities.
Makes case follow-up easier (e.g., animal bites, tuberculosis).	If possible, data for contact tracing In point-of-entry events, passenger list, free pratique	Often notification occurs after cases have been confirmed, and not when suspected.

Canada³¹

Canada's IHR NFP serves as a communication hub 24/7 and has exercised IHR-related assessment and reporting based both on real and simulated events.

Canada is committed to timely and relevant bilateral information-sharing under the IHR to help facilitate the follow-up of public health events. One key benefit of working through the IHR NFP network for this type of information exchange is the ability to efficiently link Canadian technical experts in Canada with their counterparts in other countries.

Certain bilateral information-sharing by the NFP is guided by the IHR, which is broadly used to exchange technical information which may include, for example, cases of communicable diseases diagnosed in Canada in persons who are moving to another country, or in travellers to/from other countries; and contacts (international residents) exposed to communicable diseases or public health risks while in Canada. This mechanism may also be used to request information from other countries to facilitate a public health investigation.³²

31 Presentation by Katharine Acs-Charter, Manager, IHR NFP Office, Public Health Agency of Canada.

32 Article 44 states: "1. States Parties shall undertake to collaborate with each other, to the extent possible, in: (a) the detection and assessment of, and response to events as provided under these Regulations [...] 3. Collaboration under this Article may be implemented through multiple channels, including bilaterally, through regional networks and the WHO regional offices, and through intergovernmental organizations and international bodies."

Table 5 summarizes some examples of bilateral information exchange episodes with Canada's participation.

Table 5. Information Exchange Examples with the Participation of Canada's NFP

Information exchange initiated by Canada	Information received from and initiated by other countries
<ul style="list-style-type: none"> • A case of invasive pneumococcal disease in a traveller • Contacts of a case of mumps • A <i>Shigella sonnei</i> infection in a traveler • A case of invasive pneumococcal disease in a traveler • A case of measles in Canada with history of travel • Potential exposure to measles • A case of latent tuberculosis who relocated from Canada to Country X • A case of pertussis in a resident of Canada with history of recent travel • A case of group A streptococcal disease diagnosed in Canada 	<ul style="list-style-type: none"> • Tuberculosis contact investigation involving air travel • A case of multi-drug resistant tuberculosis aboard an international flight • A case of infectious rubella on a flight • Contact of measles case on an international flight • A case of Legionnaire's disease • A case of dog bite in a traveler visiting Canada • Verotoxigenic <i>Escherichia coli</i> outbreak associated with an international sporting event • A <i>Salmonella paratyphi</i> infection in a traveler • Close contact of a case of measles at a youth camp
<p>Requests for information:</p> <ul style="list-style-type: none"> • Status of cholera in Country Y • Status of West Nile virus activity in Country Z 	

These information sharing episodes have shown that direct communication among NFPs, and, when necessary, with the collaboration of WHO Regional Offices, is feasible, and can be very useful when trying to locate affected individuals, and when adopting required measures.

The situation between Canada and the United States is special, and generally does not require the involvement of the NFPs, given the close working relationship, the high level of border activity, and current arrangements in place between the two countries. For official communication with other interested parties (NFP, with copy to PAHO/WHO), Canada's IHR NFP uses a form especially designed for that purpose; it includes a disclosure statement to prevent inappropriate dissemination of information. Only general information and a point of contact for more information are included on the form. Details and personal information (minimum data deemed necessary for public health follow-up or an investigation) are shared only if requested by the recipient country.

Some challenges related to information exchange under Article 44 of the IHR have to do with the collection, use and disclosure of personal information; the balance between risk, effort, and resources; the perceived value of the information; and the public health benefit. Among other considerations, it is necessary to ask the following questions: What is the public health rationale for sharing information? Does sharing of information fall within the mandate and policy authority of the technical program in question? What is the risk of collecting and sharing this information? (or the risk of not sharing the information?).

Canada's IHR NFP is coordinating the development of domestic guidance for how international case and contact notices are managed, from receipt to retention and distribution, ensuring compliance with relevant Canadian laws and policies. Canada will also continue to work with international partners to strengthen the use of information-sharing mechanisms.

Dominican Republic³³

The IHR are very important for the Dominican Republic as tourism is a significant source of income for the country, and it is seriously affected in cases of public health events.

The national health sector consists of public and private institutions. The public sector includes the Ministry of Public Health, which has a leadership function, and provincial health directorates. It also includes the National Health Council, Health and Occupational Risks Superintendence, Information and Defense of Affiliates Directorate, Occupational Risks Insurer or "Safe Health", Social Security Treasury, National Health Insurance, and National Health Services. The private sector has 27 health risk insurers and some 5,000 health care providers.

IHR (2005) implementation-related laws are: the Risk Management Act 142-02; the Epidemiological National Surveillance System Regulation (Decree 309 of 2007), which includes a conceptual framework for the IHR; Resolution 00004 of 2013, which ratifies the General Directorate of Epidemiology as the IHR NFP for public health event reporting, consultation, and updating, travelers' health regulations, and health services in ports, airports, and land border crossings (Decree 84 of 2016); and Animal Health Regulations.

Between 2007 and 2017, information exchanges have occurred in 27 events with PHEIC potential; of these, 23 were infectious diseases, two were events of chemical origin, and two were animal health-related. The following are some examples of the types of information shared on events in the Dominican Republic:

- Change in seasonal dengue circulation, first trimester of 2010;
- Patterns of cholera, chikungunya, and Zika in 2010, 2014 and 2016, respectively, from the first cases detected through the end of each epidemic outbreak;
- Hotel-related norovirus outbreaks in 2007 and 2012; and
- Detection of low human pathogenicity avian influenza H5N2 viral circulation in 2008 and 2017.

The exchange with other NFPs, based on criterion 1 of Annex 2, took place in the following cases:

- Multicountry cholera outbreak associated with contaminated shellfish consumption (limited common source), January 2011;
- Probable case of meningococcal meningitis in an international tourist in 2012;
- Multicountry surgical site infection outbreak caused by atypical mycobacteria associated with plastic surgery performed in a private clinic in the Dominican Republic, June 2017; and
- Probable case of meningococcal meningitis in an international tourist, July 2017.

Resources available to the NFP include: the Alert and Response Department, with a staff of five individuals that provide 24/7 services; the Field Epidemiology Training Program that implements surveillance and research activities in the country; a collaborating expert committee; speedy equipment and communications technology, data management, and field investigation; and logistics for mobilization and response 24/7. The purpose of the NFP is to contain the spread of and effects related to events that could threaten international public health, through the exchange of information and experiences that allow best practices in epidemiological surveillance and research, risk communication, clinical patient care, and control measures in different areas of risk.

Benefits from information sharing include: improved efficiency of epidemiological investigation; risk assessment functions; implementation of border control measures; sharing of experiences and bilateral cooperation, and

³³ Presentation by Raquel Pimentel, General Director of Epidemiology, National Focal Point, Ministry of Public Health, Dominican Republic.

facilitating cooperation with international organizations; and strengthening States Parties' credibility regarding public health reporting.

Key data to be provided in the exchange of information include: characteristics of the event (time, place and person); risk exposures; case-finding and contact data; and control measures applied; among others. At a minimum, required data should include results of surveillance and control measures applied in the respective country.

Barriers to information sharing with other NFPs are related to delays in data collection when the events affect private institutions outside of the health sector, such as hotels and multinational companies. Regarding information provided by NFPs, delays in data exchange are an obstacle, as well as the lack of personal data in events that warrant containment at the source.

In the future, the country expects to extend participation to other institutions in the application of the IHR, among them, health risk administrators, clinical laboratories, nongovernmental organizations, the agricultural sector, and the community.

Sustainability is of concern, especially due to government changes and workforce turnover.

United States³⁴

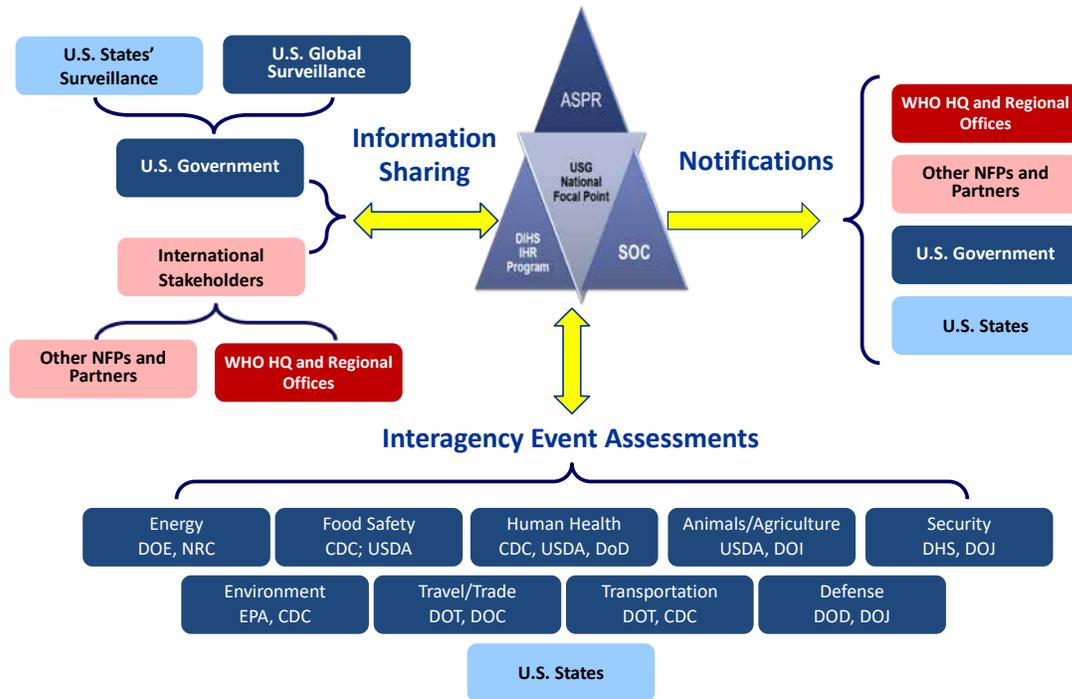
The exchange of information with other NFPs has been frequent. Just in 2017, 62 reports were issued in response to PAHO requests (Article 10 of the IHR), WHO requests (Article 11 of the IHR), and on palliative medical care (Article 44 of the IHR). On the other hand, between 2015 and 2017, the United States' NFP generated over 100 requests for information from other NFPs, based on Articles 30 (travelers under public health observation) and 44 (collaboration and assistance) of the IHR (2005). Reports were also processed between neighboring countries. Informal communications were useful to facilitate transparency, and early reporting; and to foster good faith in IHR implementation. Below are some examples of information exchanges with other countries' NFPs:

- Mexico's NFP requested information on the health of Congolese and Haitian immigrants (October 2016).
- The Dominican Republic's NFP requested information on plastic surgery related-infections as part of medical tourism (July 2017).
- The NFPs of El Salvador, Mexico, and Panama requested information on various measles outbreaks in the United States (2016-2017).
- The NFPs of Chile, Colombia, Ecuador, and El Salvador requested continued tuberculosis treatment for citizens of those countries traveling to the United States (2017).

Figure 19 illustrates the information flow to and from the NFP and the institutions that participate in assessments and notification.

34 Presentation by Jerusha Murugen, Acting IHR Program Manager, U.S. Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response, United States of America

Figure 19. Information Flow Through the U.S. IHR National Focal Point.



ASPR: Office of the Assistant Secretary for the Preparedness and Response; CDC: Centers for Disease Control and Prevention; DHS: Department of Homeland Security; DIHS: Division of International Health Security; DOE: Department of Energy; DOD: Defense Department; DOI: Department of the Interior; DOJ: Department of Justice; DOT: Department of Transportation; EPA: Environmental Protection Agency; FDA: Food and Drug Administration; NFP: National Focal Point; NRC: Nuclear Regulatory Commission; SOC: Center of Operations of the Secretariat (of Public Health Emergencies); USDA: Agriculture Department; USG: United States Government.

In general, information requests have several iterations due to incomplete data. Hence, in emergencies, the use of other means of communication is sometimes justified, such as direct contact between counterparts of various departments. Direct contact also strengthens PAHO's leadership in the Region in cases that require preparedness and response, as happened during the Ebola outbreak.

The purpose of information sharing between the United States NFP and those of other countries is to provide the requestor with relevant information for public health decision-making, and to clarify event-related data. The point is to allow the requesting NFP to make public health decisions backed by reliable data. Exchanging public health event information is not just about IHR compliance – it is good public health practice.

The following are some benefits of exchanging information with other NFPs:

- Increased reporting transparency of current public health events;
- More expeditious collaboration among other NFPs and United States Government experts;
- Prevention of potential spread of infectious diseases;
- Increased detection of previously unreported disease transmission and/or new areas of transmission; and
- Fostering global IHR NFP community practice.

Information accompanying reports to and from NFPs should answer the following questions: who (is affected), when, where and how. When such information is requested, it usually refers to a specific event, (e.g., an outbreak, health measures implemented, or location of seats in an aircraft). At a minimum, data provided to other NFPs identifies the appropriate United States Government technical unit to address specific events with foreign technical agencies.

Some domestic and international barriers to information exchange include health privacy considerations, when there is explicit prohibition of information sharing by United States Government technical agencies, (e.g., data on pregnancies in cases of Zika virus infection).

Other barriers are the lack of formal information-sharing agreements that prevent sharing investigation information with governments or foreign institutions, the inability to verify event information in certain events, and the unwillingness to do so, in others.

Discussion

Participants agreed with the benefits derived from information sharing, and suggested it might be useful to have a system (infosaring) to facilitate communication and provide contact information data among IHR NFPs, provided they remain protected. There is a pending request to include capabilities for bilateral communications, a modification that is technically feasible.

The need for NFPs to take advantage of the opportunity to communicate freely through IHR established mechanisms was emphasized, even in cases when it is not required by the IHR, as it is good public health practice.

XIII. MECHANISMS FOR THE EXCHANGE OF INFORMATION BETWEEN THE WHO IHR REGIONAL CONTACT POINT AND NFP DURING A PHEIC

Brazil³⁵

The Ministry of Health of Brazil established the IHR NFP within its Health Surveillance Strategic Information Center (CIEVS) through Law No. 30 of 7 July 2005. Preparations for implementing the law's requirements culminated in 2008, when the ability for 24/7 information sharing was established, and the country committed to monitoring public health events. The law defines several key items: attributions; composition and coordination; fostering collection, management and analysis of data and strategic information related to health surveillance; and utilizing advanced communication mechanisms.

The Health Surveillance Secretariat's organizational chart shows public health emergencies surveillance and response under the responsibility of the Communicable Diseases Surveillance Department, where the CIEVS is located. The CIEVS has a network of 27 federal units, 26 state capitals, and three strategic municipalities.

Between 2009 and 2010, because of the outbreak caused by influenza A (H1N1)pdm09 virus in the Region, a decision was made to broaden the network based on the experience of that PHEIC. The Committee for Event Monitoring was also established. Between 2011 and 2014, the scope of the CIEVS was broadened, and its processes revised. Its work was articulated with that of the Health Surveillance National Agency to strengthen IHR implementation, and the capacity for epidemiological surveillance and response, outbreak investigation, and collaboration with other institutions, such as the intelligence agency of the Ministry of Agriculture. From 2015 through 2017, the CIEVS network was strengthened, operational plans were developed for national, state and municipal focal points, and coordination with other federal government sectors were formalized. As part of NFP functions, multisectoral and multi-institutional integration have been strengthened. Agencies outside of the health sector are those in charge of civil defense and firefighters, education, MERCOSUR, the Union of South American Nations (UNASUR), ports, and airports and border services. There are official information channels, with exclusive telephone service, web sites and email addresses. Informal data are gathered from the media, internet and specialized web sites, such as ProMED, and the Global Public Health Intelligence Network (GPHIN), developed by Canada in collaboration with the WHO.

Information exchanges with the WHO IHR Regional Contact Point took place in two suspected Ebola cases. In addition, some 56 epidemiological reports, five epidemiological bulletins, and five protocols and guidelines related to the Zika virus outbreak were shared. Brazil's NFP received five information requests related to other PHEICs; these came from Chile, France, Mexico and Uruguay, and from the European Center for Disease Prevention and Control (ECDC).

Some of these policies and procedures worked very well: intra- and intersectoral articulation and participation for the development of a contingency plan; CIEVS presence in all federal units for Ebola suspected case reporting, and microcephaly case surveillance; and the establishment of an information management and decision-making center.

As for information sharing with the WHO IHR Regional Contact Point, there are some concerns related to the use and dissemination of the information provided, as well as the fact that PAHO/WHO recommendations might not be fully compatible with the national situation.

The country requests that PAHO/WHO extend the deadlines to allow more time for reviewing texts to be published.

³⁵ Virtual presentation by Marilia Lavocat, IHR National Focal Point, Ministry of Health, Brazil.

Colombia³⁶

In cases of potential PHEICs, the flow of information from the country to the WHO IHR Regional Contact Point begins with a risk assessment, followed by the determination of whether the event is notifiable based on Annex 2 of the IHR. It ends with a report provided by the NFP to the WHO IHR Regional Contact Point, following approval by the Epidemiology and Demography Directorate of the Ministry of Public Health and Social Protection. The process takes a maximum of 24 hours following the Annex 2 risk assessment.

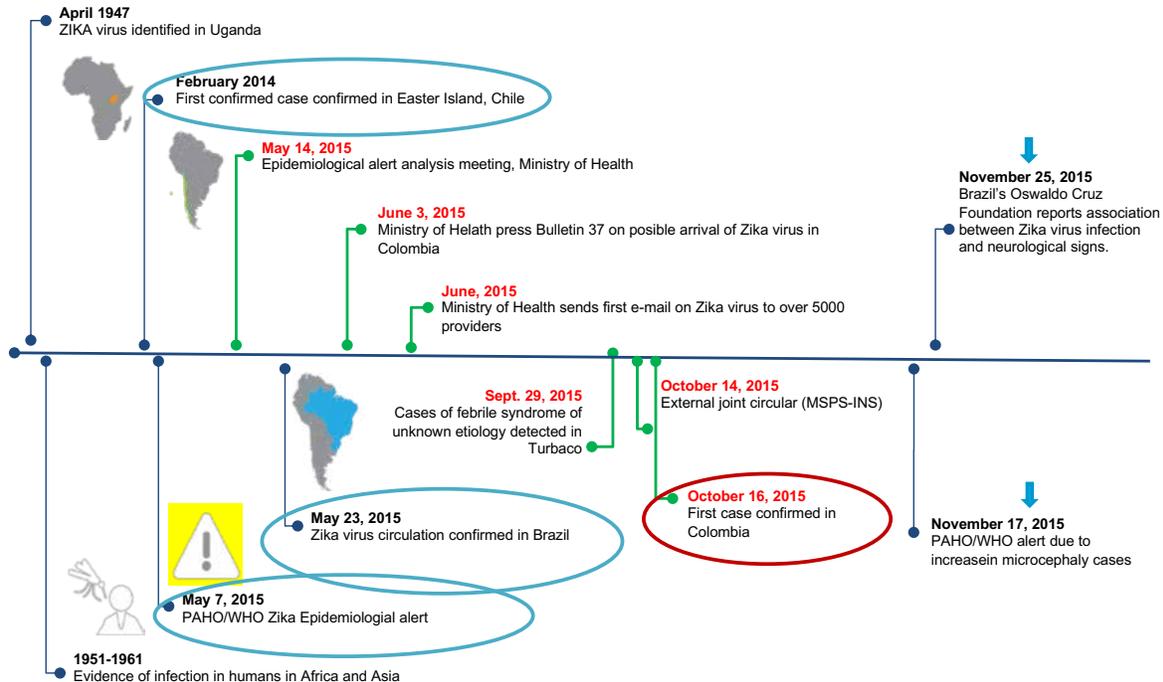
In 2015-2017 and during the Zika virus epidemic (Figures 20 to 22), which was declared a PHEIC, 186 reports were provided to the WHO IHR Regional Contact Point and the PAHO/WHO Country Office in Colombia; 21 information exchanges with other national NFPs in the Region also took place.

Communication between Colombia's NFP and PAHO/WHO functioned well. Communications were constant and promoted international cooperation, were used to obtain technical support and promote cooperation among countries, facilitated the exchange of information throughout the Region, and provided a safe site for information sharing. In rural areas, political commitment and intra- and intersectoral participation worked very well. Analysis and assessment opportunities were appropriate and preestablished processes and flows of information were advantageous.

Language was an obstacle for communication with the IHR Emergency Committee, as discussions were held in English. Furthermore, there needed to be more time for participation and better communications, as well as feedback provided to national authorities.

The IHR WHO Secretariat is requested to continue to provide scientific and technical support during PHEICs.

Figure 20. Zika Epidemic-Related Reporting, Colombia (1).



36 Virtual presentation by Claudia Milena Cuéllar S., Coordinator, Public Health Surveillance Group, Epidemiology and Demography Directorate, Ministry of Public Health and Social Protection, Colombia.

Figure 21. Zika Epidemic-Related Reporting, Colombia (2).

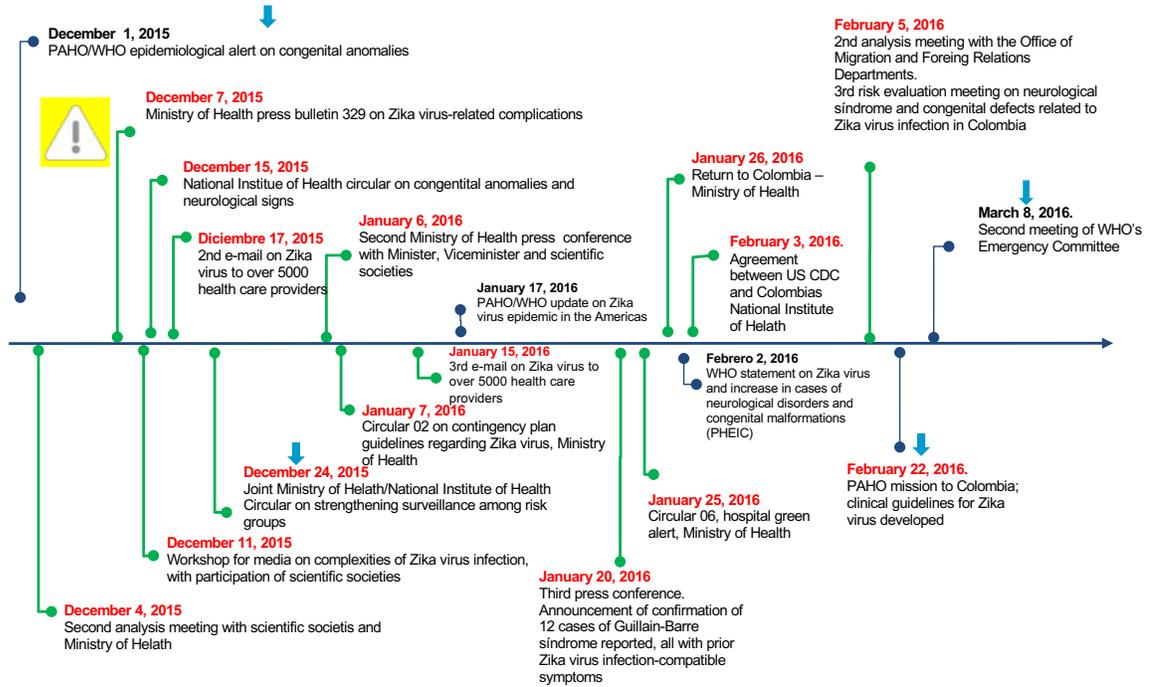
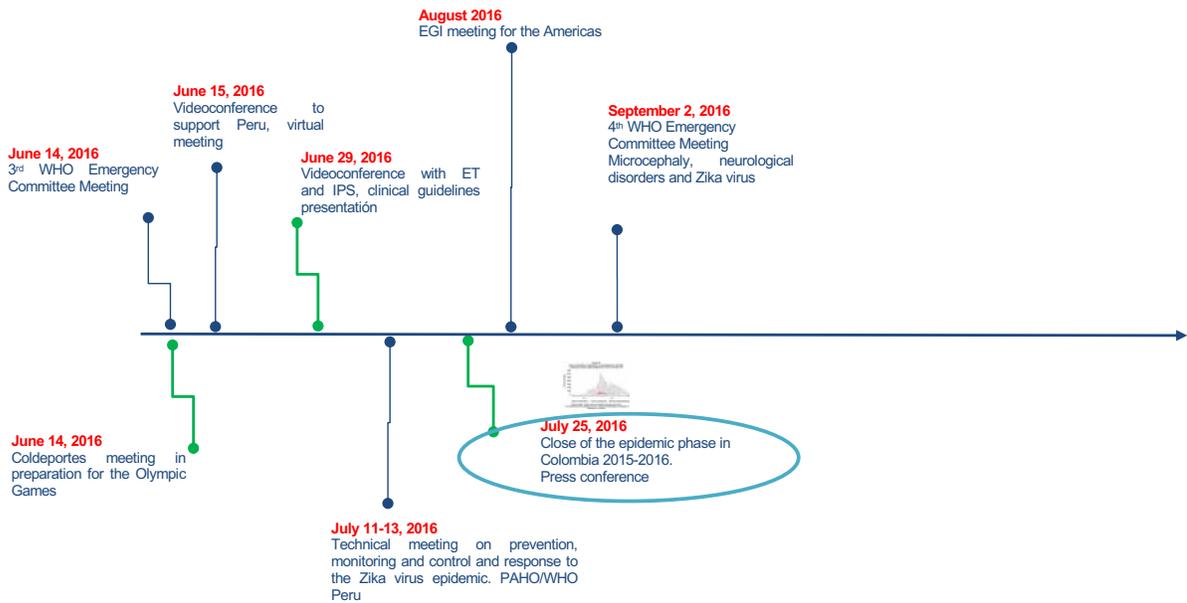


Figure 22. Zika Epidemic-Related Reporting, Colombia (3).



Saint Lucia³⁷

In recent years, there have been nine important public health events entered in the events management system; of those, seven were reported by the IHR NFP. Those reports were about infections of influenza A(H1N1)pdm09 in 2009, chikungunya virus infections in 2014, and Zika virus infections in 2016.

In Saint Lucia, the national epidemiologist is responsible for NFP functions. Communication with other ministries and stakeholders depends on the nature of the event. There is direct communication with the Chief Medical Officer or the Minister of Health, and the information is shared with the WHO IHR Regional Contact Point, a process that does not always require authorization.

The first report of Zika virus infection occurred outside normal working hours, but a team was assembled rapidly to gather enough information in a timely manner to report to WHO. Reporting to stakeholders functioned efficiently and allowed them to meet promptly upon receiving relevant information. Furthermore, a report was prepared within 24 hours of confirmation of the case and information exchange was constant between the NFP and the WHO IHR Regional Contact Point. Support from the national political hierarchy was strong, even though the Minister of Health was new in that position. There was room for improvement in the exchange of information among NFPs from the Region.

Among remaining challenges, there is a need for reminding authorities of the obligations assumed regarding the IHR, and of the importance of reporting potential PHEIC. National legislation is also needed to support the implementation of the IHR in the country, as well as standard operating procedures for exchanging information between the human and animal health sectors, and IHR succession planning.

To improve communication, a WhatsApp group could be established for NFPs of the Region. It would also be necessary to underline the importance of sharing information on relevant public health events.

Discussion

A summary of the most important points discussed follows:

1. Chief Medical Officers in the Caribbean are in frequent contact with each other, with some intervals due to personnel turnover. Often, NFPs are not part of communications between Chief Medical Officers, but when discussions refer to IHR relevant public health events, NFPs should participate in the conversation.
2. Regarding point 1, above, the question was raised about countries being open to sharing information via WhatsApp.
3. It is the NFP's responsibility to keep Chief Medical Officers informed.
4. IHR-related reporting is not the only reason to provide information; it is also necessary to keep the population informed of public health events.
5. Keeping decision-makers informed and reporting according to IHR criteria is a complex matter. Frequently, technical institutions meet the requirements set for detection and response, and communicate with public health decision-makers. However, the information does not reach those in charge of reporting and information-sharing under the IHR.
6. The need to overcome these challenges was emphasized, regardless of who is in charge. The fact that NFPs are a network in which everybody must have information on unexpected events was underscored; this is valid even when those events do not need to be reported under the IHR.

³⁷ Presentation by: Gemma Chery, Acting National Epidemiologist, Ministry of Health and Wellness, Saint Lucia

XIV. STANDARD OPERATING PROCEDURES FOR INTERNATIONAL REPORTING OF EVENTS BY NFPs

NFP Strengthening Workshop Toolkit³⁸

The IHR NFP Strengthening Workshop Toolkit consists of a set of resources, such as guidelines, presentations, templates, and others that can be used by IHR NFPs to encourage capacity strengthening through training activities (e.g., workshops). It includes a generic outline of how to plan and conduct a multilateral IHR NFP strengthening workshop, based on the experience of the WHO IHR Regional Contact Point for the Americas and the NFPs of Canada, Dominica, Mexico, and the United States. The instrument also addresses the operationalization of NFP mandatory functions. However, its objective is not to evaluate IHR NFP capacity assessment nor serve as a monitoring and evaluation tool. The contents of the toolkit are outlined below:

1. Concept note, acknowledgements, glossary, acronyms
2. Workshop purpose, structure, scope, stakeholders
3. Workshop methodology
4. Workshop objectives
5. Pre-workshop activities - PAHO/WHO, host country, visiting NFPs
6. Proposed agenda – 5 days maximum
7. Post workshop activities – PAHO/WHO, host country
8. References
9. Materials and templates

The workshop proposes the following schedule:

First day: Introduction and overview of NFP functions, information sharing between Regional Contact Point and NFP, and structure and procedures of host country NFP;

Second day: Structure and procedures of visiting NFPs; challenges and lessons learned;

Third day: Discuss/attend host country surveillance meeting, and meetings with host country staff/partners;

Fourth day: IHR resources and NFP standard operating procedures template introduction; IHR NFP standard operating procedures template drafting, host country early warning and response systems, and event tracking tools; and

Fifth day: drafting of the IHR NFP standard operating procedures for the host country, challenges and lessons learned about NFP management, and debriefing with senior officials of the host country.

Workshop materials provided include: WHO guidelines for designation of IHR NFPs; a WHO presentation of NFP functions and operational framework, and another on IHR NFP information sharing mechanisms; templates for host country presentations and for international IHR NFP participant presentations; generic IHR NFP standard

³⁸ Presentation by Eldonna Boisson, Advisor, Disease Surveillance and Epidemiology, PAHO/WHO, Trinidad and Tobago.

operating procedures; host country presentation on early warning and response system; WHO presentation on the System for Event Monitoring (SIME[®]) and GPHIN; and a template for a senior official debriefing. The toolkit is available at: https://www.paho.org/hq/index.php?option=com_content&view=article&id=13846:multilateral-ihf-nfp-strengthening-workshop-toolkit&Itemid=42465&lang=en.

The next sections contain summaries of NFP experiences in selected States Parties that hosted joint support missions from PAHO/WHO and other NFPs with the purpose of reviewing and developing standard operating procedures.

Suriname³⁹

The legal framework for IHR implementation has not yet been approved, even though in January 2015, a public health law was drafted by a special IHR commission on legislation, and delivered to the National Assembly for ratification.

There is a telephone hotline for exclusive IHR use, open 24/7, to receive calls related to public health events. The hotline operates according to written protocols for national and international calls, and its staff are required to hold master's degrees in public health.

The National Public Health Surveillance and Response Team consists of the Deputy Director of the Office of Public Laboratories (BOG), heads of the Epidemiology Unit, of the Environmental Department, the Central Laboratory, and the IHR Coordinator.

There is a national plan for risk communication, including standard operating procedures for the IHR NFP, that was developed toward the end of 2016, with contributions from all IHR partners. Standard operating procedures include a standardized reporting system, the role and responsibilities of duty officers, and implementation procedures for the IHR.

Delays due to the scarcity of human resources have been challenging, as well as a lack of prioritization of the IHR. The next steps include an update and implementation of standard operating procedures and the risk communications plan, and the ratification of the Public Health Law.

Jamaica⁴⁰

The legal and administrative frameworks for IHR implementation include: the Quarantine Act of 1951; the Quarantine Air Regulations and Quarantine Air Rules of 1994; Maritime Regulations; the Public Health Act of 1985; the Nuisance Regulations of 1998; and the International Health Regulations, Third Edition (2005).

In the organizational chart, the National IHR Program is under the Ministry of Health's Principal Medical Officer, Director of Emergency, Disaster Management and Special Services (EDMSSB). Primary responsibility for the IHR rests with the Principal Medical Officer, aided by a technical communication officer. Three committees were created to implement the IHR and provide information to the NFP and international stakeholders:

- The NFP Committee includes members of the IHR Unit- EDMSSB. It is responsible for overseeing and monitoring core capacities, and the reporting, detection and containment of PHEIC. It is also in charge of local and international notification.
- The Ministry of Health IHR Committee includes all relevant sectors/departments within the MOH. The MOH IHR Committee is chaired by the Chief Technical Officer in the IHR Unit.

39 Presentation by Radjesh Ramadhin, IHR Coordinator, Bureau of Public Health, Ministry of Health, Suriname.

40 Presentation by Nicole Lowe Fahmi, Director, International Health Regulations, Ministry of Health, Jamaica.

- The Stakeholders Advisory Group Committee (SAG) is responsible for various public health emergency preparedness and response functions, and provides expertise and support in IHR-relevant matters.

The Ministry of Health is the competent authority and lead agency for the IHR, with the overall responsibility to designate the IHR National Focal Point, and to coordinate relevant aspects of the roles of ministries, departments, and agencies to achieve and maintain IHR core capacities.

In cases of unexpected public health events, an assessment is conducted following the algorithm in Annex 2 of the IHR, and the event is reported to WHO, if required. Various sectors participate in the process of determining whether the event constitutes a potential PHEIC, and the notification form and supporting documents are prepared by the relevant government agency, which is then submitted to the NFP for delivery to the WHO Contact Point by email. The transmission email should indicate whether the notification is confidential or if it can be shared with other IHR NFPs or posted in the event information site. After notifying the WHO IHR Regional Contact Point, a copy of the email is forwarded to the SAG, to make members aware of the situation. This completes the final step of Jamaica's international reporting process.

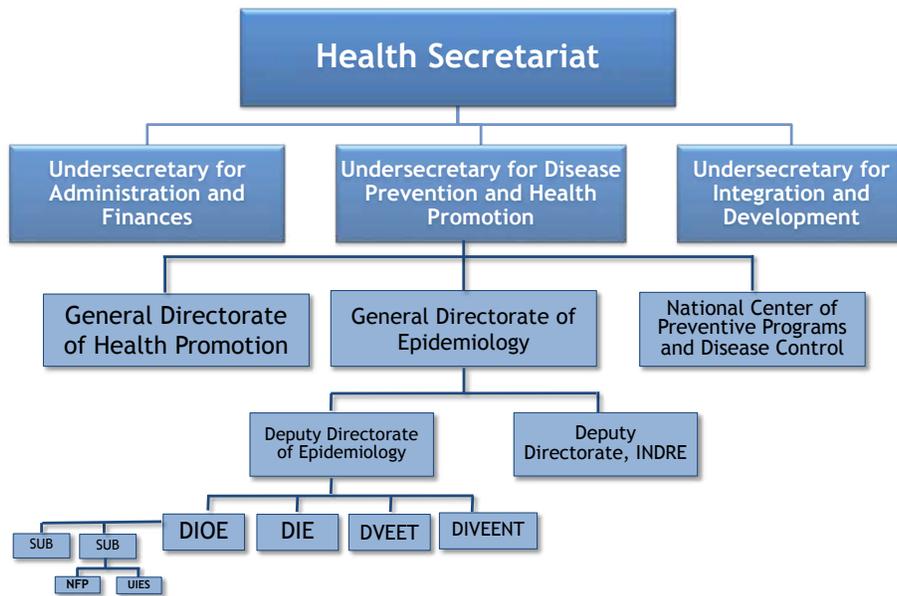
If there is evidence of an unusual public health event, Jamaica will notify WHO in a timely manner. In the future, the NFP will be supported by different branches of the Ministry of Health in several ways: to continue to engage in collaborative public health risk assessment with WHO; to provide advice to senior health and other government officials on notifications and implementation of WHO recommendations to prevent international disease spread; to assess existing surveillance and response capacity and identify improvement/development needs, including training needs at the national level; to report on progress toward the establishment of IHR (2005) capacities; and to coordinate the national and regional information exchange.

Mexico⁴¹

The legal framework for the application of the IHR (2005) in the country is provided by Mexico's Political Constitution, the IHR (2005), the General Health Law, the Ministry of Health's Rules of Procedure, the Mexican Official Epidemiological Surveillance Standard, and the Standard Operating Procedures Manual for International Epidemiological Surveillance. Figure 23 shows the organizational chart of the Health Secretariat, where Mexico's NFP is located.

41 Presentation by Alessio David Scorza Gaxional, Epidemiological Intelligence Analyst, Ministry of Health, General Directorate of Epidemiology, NFP-IHR, Mexico.

Figure 23. Organizational Chart of the Health Secretariat, and National Focal Point Location, Mexico.



NFP: National Focal Point; DIOE: Bureau of Epidemiological Operations Research; DIE: Epidemiological Information Bureau; DVEET: Bureau of Epidemiological Surveillance, Communicable Diseases.

In the implementation of the IHR, the NFP collaborates with multiple partners, from within and outside the health sector, including: Port Authorities; Customs; Agriculture Livestock, Rural Development, Fishing, and Food Secretariat; Environment and National Resources Secretariat; Civil Aeronautics; and others.

The NFP was strengthened by missions, as well as by NFP visits to its counterparts in the United States in 2014, Brazil in 2015, Colombia in 2016, and Belize in 2017. Sharing experiences is valuable to the implementation of NFP functions. Below are some considerations on the implementation of the IHR in Mexico.

- Training on the use of Annex 2 of the IHR is important.
- The NFP cannot consist of a single person.
- It is necessary to establish standard procedures.
- Reporting of events is not a bad idea.
- Exercises with actual events strengthen NFP operations.
- It is important to participate in basic capacity assessments.

Currently, weaknesses in Mexico's NFP are related to a lack of assigned personnel and financing, as well as obstacles resulting from internal procedures, including those that are purely administrative. The existence of various hierarchical levels and of processes assigned to different departments also negatively affects reporting timeliness.

For there to be success in the near future, there are a few expectations: NFP plans and manuals will be harmonized with those of other departments; the first intersectoral meeting of Mexico's NFP will take place; an NFP information site will be developed for other sector institutions; event monitoring will be systematized; and NFP activities will be documented.

United States⁴²

The context and legal framework in which NFP activities are conducted in the United States are described in Section II of this document.

Standard operating procedures were established in 2007, to explicitly define routine operations for the United States IHR NFP. These procedures provide a complete description of the roles, responsibilities, and functions of the NFP performed by the Assistant Secretary for Preparedness and Response, the IHR Program, the Secretary's Operations Center, and other stakeholders are also clarified. According to the manual of procedures, notifications/reports related to Articles 6 and 7 of the IHR follow these steps:

1. Formal public health risk assessment by United States Government technical institutions;
2. Review of event risk assessments by the Government;
3. Review and approval of potential PHEIC notification;
4. Transmission of notification to WHO;
5. Review and approval of the text prepared by WHO to publish in the secured Event Information Site (EIS); and
6. Official event updates.

Standard operating procedures describe other actions: communications under other articles of the IHR; other domestic and international notification procedures integrated with official IHR-event notifications, (e.g. related to food safety and animal health); and management of other forms of communication related to international public health events, (e.g. for international contact tracing).

Staff members with IHR-related responsibilities have received training in all reporting procedures and in the management of other functions and activities. IHR action officers' duty roster emphasizes 24 hours of daily coverage, 365 days a year. Regarding the handling of personal identification data, it requires encryption to protect confidentiality. The IHR Program owns and maintains email distribution lists to ensure that appropriate stakeholders are receiving IHR communications. As a complement to standard operating procedures, but separate from them, other supporting documents include an IHR Action Officer Manual that details functions, processes, and performance expected from the NFP and various stakeholders. It also teaches action officers how to execute the functions of the NFP.

The following challenges were discussed:

- For the U.S. IHR NFP standard operating procedures to effectively work, all stakeholders must play their role.
- Small scale revisions take place on a day-to-day basis (e.g., updating "undeliverable" email addresses or changes to ASPR leadership and support staff).
- Major overhauls do require a bigger time commitment, as well as broad team input, review, and clearance.

It is expected that before the end of 2018, a major revision of the IHR NFP Action Manual will be completed, and after circulating the document to the ASPR, it will be used for IHR action officer training.

42 Presentation by Jerusha Murugen, Acting IHR Program Manager, U.S. Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response, United States of America.

Discussion

Participants found that some NFP' SOP were very useful, as they could be used as guidance for other countries, especially to provide assistance in cases of personnel turnover. A question was raised regarding the possibility of translating the toolkit presented in section XIV, including templates, which are currently only available in English. The SOP presented by the United States was an excellent example of what could be done in other countries.

Regarding joint PAHO multinational NFP support missions, participants considered them useful for the following reasons:

- They help bring out a series of issues and puts them in perspective.
- After the mission, the country is prepared to develop its own standard operating procedures in approximately 10 days.
- In some countries, when the mission takes place, no written procedures are available; the visit highlights the need for said documents to facilitate NFP functions performance.

XV. WHO EVENT INFORMATION SITE FOR IHR NATIONAL FOCAL POINTS⁴³

Participants were reminded that the importance of the IHR relates to its usefulness for generating early information to trigger a rapid response and reduce the impact of public health events. To meet those objectives, constant communication is key. Furthermore, WHO has the mandate and the obligation to use all available information, whether from surveillance activities, unusual event detection, consultations, or other sources. States Parties have the obligation to report events that are detected in their territory if they can potentially affect other countries. Even if the State Party affected does not want to publish information on an event in its territory, WHO has the obligation to provide it if the event in question can potentially impact other countries. In those cases, WHO will use the information when: a) it refers to a PHEIC; b) there is confirmation of international spread; c) it is unlikely that control measures can prevent the spread; d) the State Party does not have the necessary capacity for coping with the event; and e) the nature and scope of the event can affect international movements of travelers and goods. WHO will consult the State Party regarding the dissemination of information, but it does not require the States Party's authorization. That faculty is used cautiously to prevent any damage to information sharing processes between the Organization and countries.

WHO's Event Information Site for IHR National Focal Points is an IHR communication mechanism to which only NFPs and a few stakeholders have access; it is used for sharing confidential, albeit not secret, information, with NFPs. Information published in the EIS is part of a WHO communication instrument and is more useful when the information has not yet been confirmed or published. Events entered in the EIS meet at least two IHR Annex 2 criteria; however, countries can share events that do not meet that requirement, but are relevant to the spirit of the IHR, for example, when there is a positive answer to the question "is this something that would be important to know if it happened in another country? One of the weaknesses of the system is that the process of consultation and review of texts to be published takes a long time.

It is the responsibility of the affected State Party's NFP to share information with other NFPs and with other interested parties in their own country through the EIS. Public information available in national web sites can also be entered into the EIS, as the system does not require information to be confidential.

WHO has another epidemiological information website called Disease Outbreak News or DON, which uses a platform open to the public; it is the most visited page of the WHO web site.

The EIS is not enough as a source of information, given that it is only accessible to NFPs, and the vast majority of individuals interested in public health are not part of NFPs. It is necessary to broaden dissemination of information among scientists, laboratories, travelers' advisory services, and health care institutions.

Currently, 39% of the information included in the EIS comes from the Region of the Americas, which is very positive. When reports are analyzed by type of disease, vector-borne infections stand out, probably by the emerging nature of some of them as public health problems. However, influenza was the disease with the greatest number of events reported, mainly by the ease of transmission, and the risk of it becoming a PHEIC.

⁴³ Presentation by Philippe Barboza, Manager, Detection Verification and Risk Assessment, Health Emergency Information and Risk Assessment, Health Emergencies Programme, WHO, Geneva, Switzerland.

Discussions

It was noteworthy that statistics showed a greater number of reports during Zika outbreaks, but not so during Ebola outbreaks. One possible explanation for this was that the Zika outbreak affected many countries, compared to only five countries affected by the Ebola outbreak.

Data published in the EIS are important for countries but are sometimes different from those of other sources. It was clarified that the EIS is not a surveillance instrument, but an information sharing site that triggers public health responses.

Regarding a question about the use of EIS information to develop models that can alert to the potential spread of an epidemic or emerging threat, the answer was that modeling is not a WHO priority, as the system's purpose is to ensure that information is available to implement appropriate measures. The Organization is working on various models, for example, for influenza, but their practical application has not yet been determined. What is important for WHO is having useful information for countries that have little response capacity, for preventing the spread of outbreaks, and for saving lives.

In some countries it is necessary for the NFP to provide a rationale for contributing information to certain systems, when it could be easily provided through the usual technical channels. It was also remarked that guidelines should be clearer concerning the different WHO information platforms, and the criteria used by the Organization to publish the data in one platform or another, and to determine what data are confidential or should not be shared. In that respect, participants were reminded that WHO resources are limited, and that any improvement needs human and financial resources; participants were urged to share these and other concerns with the Organization.

XVI. WHO'S RAPID RISK ASSESSMENT⁴⁴

WHO's risk evaluation is a continuous process, based on reference documents,^{45,46} whose results are used to guide the Organization's communication under the IHR, and other type of communication support required. Information obtained through epidemiological intelligence is crucial, as is the confirmation of the event's veracity.

The process begins with a risk assessment and classification phase aimed at speeding-up verification. However, the phases that take place after the initial assessment are the most important. This internal process includes the participation of WHO HQ's programs, as well as regional and country offices. When necessary, external expertise is consulted. Event risk assessment is, by design, a strictly internal process. States Parties do not participate in the assessment, except to provide information. This allows the Organization to function independently. The assessment involves an analysis of national core capacities, as well as vulnerabilities related to outbreak or event control, and highlights urgent actions required. The assessment results are documented, but not publicly available; they are shared with a small number of stakeholders, among them: the affected State Party, the United Nations Secretariat (when it is a high- or very high-risk event), and GOARN's Steering Committee. The rationale is to have a secure and selective network to ensure that information is available to key stakeholders.

Risk assessment is also selective in term of events. Not all events are analyzed, as it would be impossible, impractical, and irrelevant to do so. Events that warrant risk assessment are those that (a) meet IHR Annex 2 criteria; (b) constitute complex issues involving multiple countries; (c) lack enough information to adequately assess the situation; (d) WHO support/response is anticipated or required; and (e) pose risk to WHO's reputation.

A risk assessment process may also be triggered by a regional WHO or country office, if they consider it necessary. Most assessments in recent years have taken place in Africa.

Of those events selected for risk evaluation: 12% posed a very high risk for the country, and 4% for the respective region; 34% were of high risk for the country, and 22% for the region; and 34% posed a moderate risk for the country and 30% for the region. The remainder were either of moderate risk or had not yet been classified. None of the events analyzed posed a global risk.

WHO is currently developing a methodology to formalize risk assessment. An updated version of the reporting tool will also be finalized shortly. Given the differences in regional capacity and among countries, monitoring and evaluation activities were used to gather information to improve risk assessment, mainly to reduce the time it takes to conduct them.

Discussion

A question was raised about how countries can provide feedback related to WHO processes, as many countries have explicitly requested improvements to the EIS. Maybe, if there were a group of countries that report more frequently, it would help to channel those requests, process them more transparently and, maybe, the Organization could even obtain more resources to satisfy them. The reply was that such a group already exists, but that the current priority of the WHO Health Emergencies Programme (WHE) is to develop the EIS and other tools, and that resources have been

44 Presentation by Philippe Barboza, Manager, Detection Verification and Risk Assessment Health Emergencies Programme (WHE), WHO, Geneva, Switzerland.

45 WHO Rapid risk assessment of acute public health events manual (2012). http://www.who.int/ihr/publications/WHO_HSE_GAR_ARO_2012_1/en/.

46 Early detection, assessment and response to acute public health events. Implementation of Early Warning and Response with a focus on Event-Based Surveillance. http://www.who.int/ihr/publications/WHO_HSE_GCR_LYO_2014.4/en/.

scarce for several years. The EIS cannot be improved by fixing a few problems; there needs to be careful thought about whether the solution is to improve the current system or to design a whole new one from scratch.

It will be necessary to determine to what extent the EIS is fulfilling an early warning function that helps countries or whether it is a tool to provide information for risk assessment. If it is determined to be the latter, it should include links to allow users to obtain more complete information. If the EIS were reformulated, it would be important to consider an interactive platform useful for notification and for post-event data analysis.

Participants were reminded that risk evaluation and early warning in case of public health events are not an essential mandate nor the function of NFPs, and that in larger countries those are the responsibility of other agencies that can report to the NFP; the EIS would be a support tool for those functions.

XVII. SYSTEM FOR EVENT MONITORING (SIME[©]2017): ON-LINE TOOL TO SUPPORT NFP FUNCTIONS⁴⁷

The SIME[©], as presented, is a new version, which, as the name indicates, is meant to support event-based surveillance (EBS) as outlined by WHO guidelines, and to support IHR NFP functions. To meet its purpose, the system needs to be flexible enough to allow countries to adopt, adapt, or recreate the tool to conduct event-based surveillance.

The system's development was based on feedback provided by the countries that implemented previous versions. The system was required to:

- integrate with other tools; EBS is only one part of early warning and response;
- provide a more granular means of managing ongoing public health events;
- provide better support functions to IHR NFP functions;
- provide better reporting capabilities;
- better handle the EBS process; and
- be flexible enough to be implemented in any country regardless of its characteristics.

Among other improvements, SIME[©] 2017 utilizes an application programming interface that does several things: it facilitates both customization and integration with other related systems; introduces management of events at the various administration levels through the introduction of 'occurrences'; has an improved notifications system, particularly for IHR NFPs; has a redesigned data model to facilitate improved report generation; improves management by allowing users to assign tasks to rapid response teams; allows color coding of reports based on hazard type; and provides system design documentation to allow countries to customize the SIME[©].

SIME[©] supports event-based epidemiological surveillance from the event's detection to the response, and the processes intermediate steps of filtering, selection, verification, risk assessment, and communication. Thus, once a signal is detected, it is entered in the system by a trained individual with the appropriate credentials for event selection. Next, a staff member trained in epidemiology and duly authorized determines if the report poses a valid public health risk, based on a local risk assessment. The individual who performs the selection will either discard the report or assign a user to perform verification. Reports pending verification are considered signals. Once the signals are confirmed, the system prompts the user to create a new event. If an event is already active, the user has the option of attaching the respective report. Upon the creation of a new event, it is necessary to carry out a risk assessment. At this point, the IHR Annex 2 decision tool is applied to determine if the detected event is a potential PHEIC and requires notification to the WHO IHR Contact Point.

SIME[©] has important advantages for the IHR NFP, including:

- Comprehensive report generation for public health events that meet IHR (2005) notification requirements;
- Allowing the NFP to see, at-a-glance, what public health events are affecting the country at a given time;
- Automated messaging system that reduces the time for communication with relevant stakeholders;
- Directory of all contacts, i.e., all persons relevant to event-based surveillance should be registered in the SIME[©]; and
- Management of international information requests, which can be stored centrally, and communicated to relevant stakeholders.

⁴⁷ Virtual presentation by Peter Ricketts, Ministry of Health, Dominica.

In the future, SIME®'s proposed functionality will allow: integration of the tool with existing SMS messaging services to provide additional means of automated communication; social media publishing, to facilitate making information available to the public; monitoring signals that do not yet constitute an event, but require monitoring and follow-up; and timelines, for users to traverse an event from the initial report through the closing of the event. These functionalities will be useful for training and monitoring and evaluation; ticket-tracking, which facilitates the management of requests from external parties (for example, WHO IHR Regional Contact Point); a mobile application, to be used in the field to facilitate on-sight delivery of geo-referenced reports from the various response teams; and expanded early warning and response functionality.

Dominica was acknowledged for its participation and support in testing SIME®, despite difficult circumstances in the country during the 2017 hurricane season. Through the SIME®, for the first time, signals were detected and documented in the system's database. At the time, SIME® did not have the capacity for event follow-up, and additional measures were needed to update and verify detected signals. The new version is expected to allow contact data for all who need to receive up-to-date information to respond to system's signals. The new edition should also facilitate reporting to WHO.

Ecuador⁴⁸

Between November 2015 and June 2016, the NFP used an Event Monitoring System version that allowed the registration and monitoring of both national and international public health events. The purpose of that System is to store information to support NFP functions, keep a record of potential PHEIC information received by the Organization and of Ecuador's notifications to PAHO/WHO, and to provide a database or data repository to facilitate analysis.

Some challenges related to the implementation of the system in Ecuador included national regulations that prevent the use of computer tools that may affect information security, and difficulty in obtaining a system that meets national norms. Another barrier might be the inclusion of the international notification module in the epidemiological bulletin of the National Directorate of Epidemiology.

The next steps will include requesting technical cooperation to develop an application to back-up existing information; to establish a database for NFP generated data; and to place the NFP within the Public Health Ministry's and public administration's hierarchies.

United States⁴⁹

The United States IHR NFP does not perform event-based surveillance functions; that responsibility rests with other technical agencies. However, the importance of the NFP's global function is recognized and considered valuable in the process of updating information provided to the WHO and for rumor confirmation. This NFP never had a database to allow follow-up of various events. It is important to have those tools to record the use of Annex 2 of the IHR and supplementary documentation, including the most recent risk assessments conducted by technical agencies. It is important for the NFP to be aware of all updates when forwarding reports to the WHO, and ensure that they are included in NFP records. It is good to know that the new SIME® already responds to those concerns, and makes the system adaptable without much need for computer technology support. Its contributions will make it easier to convince other national institutions of the need to comply with IHR mandates. The advantage of being able to integrate the SIME® with other systems is also remarkable; for example, the integration with the CDC's event-based surveillance will facilitate communication among institutions.

48 Presentation by María Eugenia Mejía, National Focal Point, National Epidemiological Surveillance Directorate, Ministry of Health, Ecuador.

49 Presentation by Cody Thornton, Chief International Response Policy, U.S. Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response, United States of America.

Discussion

Questions were raised concerning the system's operating language and the possibility of having a mechanism that links the SIME® to national surveillance systems; given that SIME® is an application, it cannot replace epidemiological intelligence, which is key to event assessment. The answer to this concern, was that indeed, neither the SIME® nor any other similar system could ever replace analytical functions. SIME® must be viewed as a means to collect information and provide the capacity to link to other systems, even manually, when necessary.

In some countries, health information systems have already been implemented for the entire national territory, and integration with the SIME® would be difficult. The solution to this was that using the system is not compulsory, although it is available to all countries. Its development was a result of some countries' interest in using a system designed and implemented in Brazil for event-based surveillance. Currently, the Organization does not have resources to expand or maintain the system, which was developed through collaborative efforts of several countries.

Participants were reminded that risk assessment, though crucial, is not the NFP's responsibility, and that each function has its own support tools. The SIME® has some features that could work in both functions, but that will depend on the country. Since NFPs are the basis for event reporting to national authorities and the international community, it is important to maintain record integrity and to have an information repository. This feature can be useful in resource mobilization to sustain NFP activities.

The responsibility of entering information in the system should be clear to all personnel working in event detection and management; training will be required for everybody involved.

The SIME® was considered very useful when checking which events had been notified to the WHO following the application of Annex 2 of the IHR, and to review information sources, which were informal for the most part. Another useful feature was the capacity to generate predefined SIME® reports.

Some participants indicated their interest in having a translation of the system, and in receiving training to implement it.

XVIII. CONCLUSIONS, COMMITMENTS, AND CLOSING OF THE MEETING

Conclusions⁵⁰

1. The work and efforts of NFPs to gather information about health events and share them with the Organization as part of the country's commitment under the IHR were acknowledged.
2. Countries were urged to continue publishing epidemiological information in bulletins, newsletters, and similar vehicles, as it is good public health practice. Nonetheless, such practices do not exempt countries from their commitment to notify potential public health emergencies within the deadlines established by the IHR.
3. Great progress has been made in bilateral and multilateral communication among NFPs regarding public health information exchange.
4. Intersectoral and interdisciplinary engagement in international event evaluation and notification has improved.
5. Countries were urged to continue using various means to communicate with the Organization, including messaging services, such as WhatsApp.
6. The great contribution from countries and territories of the Americas to the generation and dissemination of public health event information was acknowledged, as well as their contribution to scientific knowledge.
7. Many NFPs already have standard procedures, operating manuals, and other documents useful to their performance.
8. Experience-sharing among countries has been very useful, both during PHEIC and in non-emergency periods.
9. The Organization's collaborative efforts with INFOSAN and the OIE encourages coordination at all levels, improves work efficiency, and prevents duplication.

National Commitments

1. Continue to foster support of intersectoral work and engagement for event notification through jointly established procedures, including information flowcharts.
2. Ensure that INFOSAN/IAEA focal points and OIE delegates are aware of notifications to the Organization under the IHR and share their notifications at the national level in cases of zoonoses, radiological events, and food safety-related events.
3. Initiate conversations about the adaptation of the INFOSAN communication protocol, given that participants have reviewed the protocol and deemed it appropriate.
4. Respond to all verification requests made by the Organization under IHR mandates (i.e., 24-hour turnaround time).
5. Maintain NFP 24/7 availability by searching for alternatives that enable sharing this responsibility with non-NFP staff, such as other epidemiological surveillance teams or epidemiology departments that also function uninterruptedly.
6. Develop or update standard operating procedures.

⁵⁰ Presentation by Enrique Pérez, Unit Chief, Health Emergency Information and Risk Assessment Unit, Health Emergencies Department, Pan American Health Organization.

7. Have a repository for the information shared with the Organization or with other NFPs, as a way of documenting activities.
8. Ensure the confidential nature of personal data shared in cases of public health events.
9. Disseminate information provided by the Organization nationally, making sure that it reaches relevant decision-makers so they may take necessary actions. This information should reach national health authorities.
10. Ensure the availability of communication channels between clinical staff and public health authorities, especially when unusual events are detected.

PAHO's Commitments

1. Continue advocacy for the strengthening of NFPs in the Region.
2. Facilitate access to the list of relevant focal points in INFOSAN, OIE, and IAEA, including contact details.
3. Finalize the system that will facilitate safe information exchange during international contact tracing.
4. Materialize the establishment of a practical NFP community, as previously requested.
5. Publish the summary of events evaluated in each country in the EIS for IHR NFPs, after review and discussions with NFPs.
6. Share with each NFP the summary of public health events assessed by the Organization for that respective country.
7. Revise the form for submission of the annual update of NFP's contact information (Article 4 of the IHR).
8. Continue reminding NFPs of the need to review annual reports. The reports should be completed through multisectoral exercises (Article 54 of the IHR).
9. Formally identify competent authorities responsible for implementation of health measures (Article 4 of the IHR), through communication with NFPs.

ANNEX 1. INTERNATIONAL HEALTH REGULATIONS (IHR) NATIONAL FOCAL POINT (NFP) REGIONAL MEETING

AGENDA

Day 1: 28 November 2017, Tuesday

Time (EST)	Location	Activity	Facilitators/Presenters
Inaugural session			
08:30 – 09:00	Royal Palms Conference Room	<ul style="list-style-type: none"> Registration 	All attendees
09:00 – 09:30	Royal Palms Conference Room	<ul style="list-style-type: none"> Opening and welcome remarks Meeting objectives 	PAHO/WHO
Report on acute public health events managed by the Americas WHO Regional Office			
09:30 – 10:30	Royal Palms Conference Room	<ul style="list-style-type: none"> Overview of Regional management of recent public health events with international implications Open discussion: <ul style="list-style-type: none"> — Success stories — Room for improvement 	PAHO/WHO
10:30 – 10:45	Royal Palms Conference Room	<ul style="list-style-type: none"> Country reports on events recorded in the WHO Event Management System 	PAHO/WHO
10:45 – 11:15	Royal Palms Conference Room	<ul style="list-style-type: none"> Discussion 	All attendees
11:15 – 11:30	<i>Break</i>		
11:30 – 12:15	Royal Palms Conference Room	<ul style="list-style-type: none"> IHR NFP coordination, structure, and operational arrangement – Country experiences 	United States of America IHR NFP Grenada IHR NFP El Salvador IHR NFP

Day 1: 28 November 2017, Tuesday (continued)

Time (EST)	Location	Activity	Facilitators/Presenters
State Party experiences on multisectoral engagement for international reporting			
12:15 – 13:00	Royal Palms Conference Room	<ul style="list-style-type: none"> Multisectoral engagement for event detection, verification, and international reporting – Country experiences 	Colombia IHR NFP Trinidad and Tobago IHR NFP United States IHR NFP
13:00 – 13:30	Royal Palms Conference Room	<ul style="list-style-type: none"> Discussion 	All attendees
13:30 – 14:30	<i>Lunch</i>		
Report on food safety events: interaction between IHR and INFOSAN mechanisms			
14:30 – 15:00	Royal Palms Conference Room I, II and III	<ul style="list-style-type: none"> Coordination and reporting on food safety events under the IHR and INFOSAN 	Dr. Enrique Perez, INFOSAN, PAHO/WHO
15:00 – 16:00	Royal Palms Conference Room I, II and II	<ul style="list-style-type: none"> Group work on a Regional Protocol for communication of food safety events under IHR/INFOSAN 	All attendees
16:00 – 16:30	<i>Break</i>		
16:30 – 17:30	Royal Palms Conference Room	<ul style="list-style-type: none"> Plenary discussion session to approve an IHR/INFOSAN protocol template 	All attendees
Day 1- Concluded			

AGENDA

Day 2: 29 November 2017, Wednesday

Time (EST)	Location	Activity	Facilitators/Presenters
08:30 – 08:45	Royal Palms Conference Room	<ul style="list-style-type: none"> Introduction to day's agenda 	PAHO/WHO
Report on animal/zoonotic events: interaction with the World Organization for Animal Health (OIE)			
08:45 – 09:15	Royal Palms Conference Room	<ul style="list-style-type: none"> Event notification under the OIE Information sharing with Member States 	OIE Representative
09:15 – 10:15	Royal Palms Conference Room	<ul style="list-style-type: none"> Use of Annex 2 outside of the health sector, arrangement for international reporting of animal origin events – Country experiences 	Costa Rica IHR NFP Paraguay IHR NFP Panama IHR NFP Belize IHR NFP
10:15 – 11:00	Royal Palms Conference Room	<ul style="list-style-type: none"> Discussion 	All attendees
11:00 – 11:15	<i>Break</i>		
Report on radiological events: interaction with the International Atomic Energy Agency (IAEA)			
11:15 – 11:45	Royal Palms Conference Room	<ul style="list-style-type: none"> Event notification under the IAEA Information sharing with Member States. Demonstration of the Unified System for Information Exchange in Incidents and Emergencies (USIE) 	Dr. Pablo Jimenez, Advisor Radiology/Medicines and Health Technologies, PAHO/WHO
11:45 – 12:45	Royal Palms Conference Room	<ul style="list-style-type: none"> Use of Annex 2 outside of the health sector, arrangement for international reporting – Country experiences 	Chile IHR NFP Ecuador IHR NFP Mexico IHR NFP
12:45 – 13:00	Royal Palms Conference Room	<ul style="list-style-type: none"> Discussion 	All attendees
13:00 – 14:00	<i>Lunch</i>		

AGENDA

Day 2: 29 November 2017, Wednesday (continued)

Time (EST)	Location	Activity	Facilitators/Presenters
IHR NFP mandatory functions – 24/7 accessibility			
14:00 – 14:45	Royal Palms Conference Room	<ul style="list-style-type: none"> NFP 24/7 accessibility – Country experiences 	Chile IHR NFP Guyana IHR NFP Canada IHR NFP
14:45 – 15:15	Royal Palms Conference Room	<ul style="list-style-type: none"> Communication Test Results and the IHR NFP Annual Confirmation 	PAHO/WHO
15:15 – 15:30	Royal Palms Conference Room	<ul style="list-style-type: none"> Discussion 	All attendees
IHR NFP mandatory functions – information sharing			
15:30 – 16:00	Royal Palms Conference Room	<ul style="list-style-type: none"> Mechanisms for IHR information sharing between the WHO IHR Regional Contact Point and NFPs, during public health events — Regional presentation: PAHO/WHO and the WHO European Regional Office (EURO) experience 	PAHO/WHO WHO European Regional Office
16:00 – 16:15	<i>Break</i>		
16:15 – 17:15	Royal Palms Conference Room	<ul style="list-style-type: none"> IHR NFP network – exchange of information – Country experiences: <ul style="list-style-type: none"> — During public health events — International contact tracing — Article 30 and 44 	Argentina IHR NFP Canada IHR NFP Dominican Republic IHR NFP United States IHR NFP
17:15 – 17:30	Royal Palms Conference Room	<ul style="list-style-type: none"> Discussion 	All attendees
Day 2 – Concluded			

AGENDA

Day 3: 30 November 2017, Thursday

Time (EST)	Location	Activity	Facilitators/Presenters
08:30 – 08:45	Royal Palms Conference Room	<ul style="list-style-type: none"> Introduction to the day's agenda 	PAHO/WHO
IHR NFP mandatory functions			
08:45 – 09:45	Royal Palms Conference Room	<ul style="list-style-type: none"> Mechanisms for IHR Information sharing between the WHO IHR Regional Contact Point and NFPs – during a PHEIC – Country experiences: Use of alternative/ innovative means of communication 	Brazil IHR NFP Colombia IHR NFP Saint Lucia IHR NFP
09:45 – 10:00	Royal Palms Conference Room	<ul style="list-style-type: none"> Discussion 	All attendees
10:00 – 11:00	Royal Palms Conference Room	<ul style="list-style-type: none"> IHR NFP Standard Operating Procedures (SOPs) with special focus on notifications– Country experiences: Multilateral IHR NFP Strengthening Workshop Toolkit presentation 	Suriname IHR NFP Jamaica IHR NFP Mexico IHR NFP United States IHR NFP
11:00 – 11:15	<i>Break</i>		
11:15 – 11:30	Royal Palms Conference Room	<ul style="list-style-type: none"> WHO Event Information Site for IHR National Focal Points (EIS) Global overview – Terms of Use 	Dr. Philippe Barboza, Manager Detection, Verification and Risk Assessment Team – WHO-HQ
11:30 – 12:00	Royal Palms Conference Room	<ul style="list-style-type: none"> EIS consultation among IHR NFPs in the Region of the Americas 	PAHO/WHO and Ad Hoc Working Group
12:00 – 12:30	Royal Palms Conference Room	<ul style="list-style-type: none"> WHO Rapid Risk Assessment process 	Dr. Philippe Barboza, Manager Detection, Verification and Risk Assessment Team – WHO-HQ
12:30 – 13:00	Royal Palms Conference Room	<ul style="list-style-type: none"> Discussion 	All attendees
13:00 – 14:00	<i>Lunch</i>		
14:00 – 14:30	Royal Palms Conference Room	<ul style="list-style-type: none"> System for Event Monitoring (SIME® 2017) a web based tool to support IHR NFP functions 	PAHO/WHO
14:30 – 15:15	Royal Palms Conference Room	<ul style="list-style-type: none"> Country experiences with using SIME® 	Ecuador IHR NFP United States IHR NFP
15:15 – 15:45	Royal Palms Conference Room	<ul style="list-style-type: none"> Next step for SIME® implementation 	PAHO/WHO
15:45 – 16:10	Royal Palms Conference Room	<ul style="list-style-type: none"> Meeting conclusions and closing remarks 	All attendees
Day 3 – Concluded Meeting adjourned			

ANNEX 2. LIST OF PARTICIPANTS⁵¹

Antigua and Barbuda

James Knight

Senior Medical Officer, IHR Coordinator
Ministry of Health and the Environment

Argentina

Ezequiel Damian Travin

Coordinador CNE de Argentina, Dirección de Epidemiología,
Ministerio de Salud

Bahamas

Sharmon Frazier-Williams

Nursing Officer, IHR Coordinator, Surveillance Unit, Ministry of
Health Department of Public Health

Belize

Ethan Gough

Head of Epidemiology, Ministry of Health
Ministry of Health,

Bolivia, Plurinational Republic of

Lidia Amalia Mendez Saenz

Responsable del CNE de Bolivia, Ministerio de Salud

Canada

Katharine Acs-Charter

Manager, IHR NFP Office, Public Health Agency of Canada

Chile

Patricia Salvadó

Coordinadora Centro Nacional de Enlace, Ministerio de Salud
de Chile

Costa Rica

Carlos Salguero Mendoza

Coordinador de Centro Nacional de Enlace, Ministerio de Salud,
DVS

Dominica

Shalauddin Ahmed

National Epidemiologist (acting), Health Information Unit,
Ministry of Health and Environment

Dominican Republic

Raquel Pimentel

Directora General de Epidemiología, Centro Nacional de Enlace,
Ministerio de Salud Pública

Ecuador

Maria Eugenia Mejia Artieda

Responsable Centro Nacional de Enlace, punto focal RSI
Ministerio de Salud, Dirección Nacional de Vigilancia
Epidemiologica

El Salvador

Lilian Angélica Cruz

Punto Focal del CNE del RSI, Ministerio de Salud

Grenada

George Mitchell

Chief Medical Officer and IHR National Focal Point, Ministry of
Health Grenada

Guyana

Joshua Ignatius DaSilva

IHR NFP Coordinator Guyana, Ministry of Public Health

Haiti

Jocelyne Pierre-Louis

Responsable Direction de Promotion de la Santé et de
Protection de l'Environnement et Point Focal IHR, Ministère de
la Santé Publique et de la Population

Joseline Marhone-Pierre

INFOSAN Emergency Contact Point, Director of Food and
Nutrition Office, Nutrition Specialist, Ministère de la Santé
Publique et de la Population

Jamaica

Nicole Lowe Fahmi

Director IHR Jamaica, Ministry of Health Jamaica

Mexico

Alessio David Scorza Gaxional

Analista de Inteligencia Epidemiologica, Secretaria de Salud,
Direccion General de Epidemiología, CNE-RSI

Nicaragua

Luis Ivan Gutierrez

Director Vigilancia Epidemiologica, MINSAs – Ministerio
de Salud

Clara Ivania Soto Ezpinoza

Responsable de Vigilancia Sanitaria de los Alimentos, Ministerio
de Salud

Panama

Israel Cedeño

Director Nacional Vigilancia PdE (PoE), Ministerio de Salud

⁵¹ Title and institution are in the language received.

Hector Cedeno

Medico, Veterinario, Epidemiologo, Epidemiologia Ministerio de Salud

Paraguay

Dra. Andrea Ojeda

Coordinadora, CNE de Paraguay, DGVS, Ministerio de Salud Paraguay

Peru

Dr. Manuel Loayza Alarico

Jefe Equipo Alerta y Respuesta a Brotes, Centro Nacional de Enlace, Centro Nacional de Epidemiología, Ministerio de Salud

Saint Kitts and Nevis

Hazel Laws, represented by Glenville Leader

CMO, IHR Focal Point, Ministry of Health

Saint Lucia

Gemma Chery

Acting National Epidemiologist, Ministry of Health and Wellness

Saint Vincent and the Grenadines

Roger Duncan

Medical Officer of Health, Ministry of Health and Wellness

Simone Keizer-Beache

Chief Medical Officer, Ministry of Health, Wellness and the Environment

Suriname

Radjesh Ramadhin

IHR Coordinator, Bureau of Public Health/ Ministry of Health

Trinidad and Tobago

Adelle-Lisa Chang-On

County Medical Officer of Health, Ministry of Health

United States of America

Jerusha Murugen

Acting IHR Program Manager, U.S. Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response

Cody Thornton

Chief Int. Response Policy, U.S. Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response

World Organisation for Animal Health (OIE)

Martin Santiago Minassian

Technical Assistant, OIE- World Organisation for Animal Health Argentina

World Health Organization (WHO)

Philippe Barboza

Manager, Detection Verification and Risk Assessment, Health Emergency Information and Risk Assessment Health Emergencies Programme World Health Organization Switzerland

Peter Ben Embarek

Scientist, International Food Authorities Network (INFOSAN), Department of Food Safety and Zoonoses, World Health Organization Switzerland

Carmen Savelli

International Food Authorities Network (INFOSAN), Department of Food Safety and Zoonoses, World Health Organization Switzerland

World Health Organization (WHO), European Regional Office (EURO)

Jukka Pukkila

Programme Area Manager, Health Emergency Information & Risk Assessment WHO Regional Office for Europe Denmark

Pan American Health Organization / World Health Organization Regional Office for the Americas (PAHO/WHO)

Maria Almiron

Manager, Detection, Verification and Risk Assessment team (DVA), Health Emergency Information and Risk Assessment Unit (HIM), PAHO Health Emergencies Department (PHE), PAHO/WHO United States of America

Roberta Andraghetti

Advisor, International Health Regulations, Country Health Emergency Preparedness and IHR (CPI), PAHO Health Emergencies Department (PHE), PAHO/WHO United States of America

Eldonna Boisson

Advisor, Disease Surveillance and Epidemiology PAHO/WHO Trinidad and Tobago

Monica Chiu

Detection, Verification and Risk Assessment team (DVA), Health Emergency Information and Risk Assessment Unit (HIM), PAHO Health Emergencies Department (PHE) PAHO/WHO United States of America

Keron Crossman

National PAHO Consultant PAHO/WHO Jamaica, Bermuda and The Cayman Islands

Tshewang Dorji

Detection, Verification and Risk Assessment team (DVA),
Health Emergency Information and Risk Assessment Unit (HIM),
PAHO Health Emergencies Department (PHE)
PAHO/WHO
United States of America

Yitades Gebre

Representative,
PAHO/WHO Suriname Country Office

Monica Guardo

Advisor, Disease Surveillance Prevention and Control
PAHO/WHO Peru Country Office

Percy Halkyer

PAHO Country Office IHR Contact Point, PAHO/WHO Bolivia
Country Office

Florence Heuschen

Detection, Verification and Risk Assessment team (DVA),
Health Emergency Information and Risk Assessment Unit (HIM),
PAHO Health Emergencies Department (PHE)
PAHO/WHO
United States of America

Lorenzo Hume

National Consultant, PAHO Public Health Emergencies (PHE),
PAHO/WHO Jamaica Country Office

Caius Ikejezie

Detection, Verification and Risk Assessment team (DVA),
Health Emergency Information and Risk Assessment Unit (HIM),
PAHO Health Emergencies Department (PHE), PAHO/WHO
United States of America

Pablo Jimenez

Regional Advisor in Radiological Health
PAHO/WHO
United States of America

Francis Longsworth

National Consultant,
PAHO/WHO Belize Country Office

Maria Mercedes Muñoz

Detection, Verification and Risk Assessment team (DVA),
Health Emergency Information and Risk Assessment Unit (HIM),
PAHO Health Emergencies Department (PHE), PAHO/WHO
United States of America

Enrique Perez

Unit Chief, Health Emergency Information and Risk Assessment
Unit (HIM),
PAHO Health Emergencies Department (PHE), PAHO/WHO
United States of America

Enrique Perez Flores

Advisor, Disease Surveillance Prevention and Control
PAHO/WHO Costa Rica Country Office

Alejandro Riz

Health Emergency Information and Risk Assessment Unit
(HIM), PAHO Health Emergencies Department (PHE),
PAHO/WHO
United States of America

Lara Romano Daibert

Temporary Advisor, PAHO/WHO
Brazil

Ronald St. John

Consultant, PAHO/WHO
Canada

