IMPLICATIONS FOR THE IMPLEMENTATION OF THE INTERNATIONAL HEALTH REGULATIONS (IHR-2005) IN THE REGION OF THE AMERICAS

The International Health Regulations (IHR-2005) provide the world with a tool for harmonizing action among Member States, and a framework for the identification, reporting, and response to public health emergencies of international concern (PHEIC). This coincides with the emergence of a new highly pathogenic strain of avian influenza that threatens human health given its potential for human-to-human transmission, hence the possibility of the occurrence of a PHEIC in the form of a new influenza pandemic.

Member States in the Region of the Americas were successful in complying with Resolution CD43.R13 on active participation in the IHR review process, as well as with Resolutions WHA54.14 on global health security: epidemic alert and response, WHA56.28 on revision of the IHR, and WHA56.29 on severe acute respiratory syndrome (SARS), with a view to responding to the need to ensure global public health.

In addition, Resolution WHA58.3, which adopts the IHR-2005, urges Member States, pending entry into force of the IHR-2005, to take all appropriate measures to initiate the process of capacity building and legal provisions for its implementation.

The adoption of the IHR-2005 represents both challenges and opportunities for Member States and the Organization in the years to come. Fulfilling the IHR-2005 obligations requires maintaining or enhancing public health infrastructure for surveillance and at ports, airports, and ground crossings. At the same time, ministries of health have to continue to lead the inter-sectoral process especially with trade, transport, foreign affairs, and agriculture to prepare and respond to national and international PHEIC. PAHO will strengthen its work with funding agencies and Member States to advocate for and mobilize development resources to achieve the successful implementation of the IHR-2005 at the national level.

This document is presented to the Executive Committee to inform about the obligations to which Member States and WHO have committed under the IHR-2005 and to provide information on the direction PAHO will take in the key areas of its technical cooperation.
CONTENTS

Introduction ........................................................................................................................................3

Obligations under the IHR-2005 ........................................................................................................4

Member States ..................................................................................................................................4
  Information and public health response .........................................................................................4
  Responsible authorities .................................................................................................................5
  Points of Entry ............................................................................................................................5

PAHO/WHO .....................................................................................................................................5
  Supporting National Capacity Building .......................................................................................5
  Supporting Subregional Networking ............................................................................................7
  Developing Guidelines and Other Publications ............................................................................9
  Establishing National IHR Focal Points .......................................................................................9
  Enhancing Regional Alert and Response Operations .................................................................10
  Resources ....................................................................................................................................12
Introduction

1. The goal of this document is to inform the Executive Committee of the obligations that Member States and WHO have undertaken with regard to the International Health Regulations (IHR-2005) and to detail the direction PAHO will take in the key areas of its technical cooperation plans.

2. Two recent events call for the acceleration and improvement of PAHO’s technical cooperation activities in epidemic-prone disease preparedness, alert, and response. Adopted in May 2005 by the World Health Assembly, the IHR-2005 are a powerful tool for harmonizing public health action among Member States, and a framework for identifying, reporting, and responding to public health emergencies of international concern (PHEIC). In addition, the emergence of a new highly pathogenic strain of avian influenza, which threatens human health because of its potential for human-to-human transmission, has alerted the world to the possibility of a PHEIC in the form of a new influenza pandemic.

3. A broad range of strengths and weaknesses related to the management of emergencies caused by epidemic infectious diseases were identified as a result of the response to the SARS epidemic *inter alia*, inadequate capacity for epidemiologic investigation, difficulties with timely access to laboratory testing and results, and lack of protocols for data or information sharing, infection control, and biosafety.

4. The following are priority areas for the biennium 2006-07:

- Improving PAHO’s internal (inter-programmatic, country offices, and centers) and external (WHO/HQ, WHO/Regional Offices, partners) coordination mechanisms for regional alert and response activities.

- Strengthening national preparedness and response to events irrespective of their source or origin since preparedness is critical to improving health security. National public health infrastructure for alert and response needs to be strengthened so that countries can detect and intervene in epidemic events at the local level. Acquiring these core capacities is a continuous process that may require expansion of the existing infrastructure and can be accelerated through external support.

- Sustaining and strengthening subregional surveillance networks. Collaboration among countries is essential to fill the gaps in expertise, human resources, and the generation of real-time information. Subregional surveillance networks complement country initiatives by providing reliable laboratory diagnostic support and information exchange as a prerequisite for the effective and prompt
response to any outbreak. Limited funding for subregional surveillance networks is a major obstacle to their functioning.

**Obligations under the IHR-2005**

5. Resolution WHA58.3 of the 58\(^{th}\) World Health Assembly calls upon Member States and WHO to implement fully the IHR-2005 to prevent, protect against, control, and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade. Special attention should be given to unexpected or unusual public health events, irrespective of origin or source, which may constitute a PHEIC.

6. It is noteworthy that the IHR-2005 are scheduled to enter into force in May 2007. In consequence, Member States will have to complete the assessment of the ability of existing national infrastructure and resources to meet the core capacities required for surveillance and response, and for designated airports, ports, and ground crossings, no later than May 2009, and finally, develop non-existing core capacities by May 2012.

7. To successfully implement the IHR-2005, it is expected that WHO will have to coordinate and cooperate with other competent intergovernmental organizations and international bodies.

**Member States**

8. Member States are urged to consider that to meet the obligations summarized below, resources will need to be mobilized, especially to build, strengthen, and maintain core public health capacities.

**Information and public health response**

9. Member States are to:

- develop, strengthen, and maintain, as soon as possible but no later than five years from the entry into force of the IHR-2005, the capacity to detect, assess, notify, and report events (disease or risk) of public health concern, as well as to respond promptly and effectively.

- conduct an assessment of the current public health infrastructure to meet the minimum requirements as described in the IHR-2005.

- assess all events, which may constitute a PHEIC, and each Member State is to notify WHO, through the National IHR Focal Point, of the results of the assessment within 24 hours. When requested by WHO each Member Party shall
verify and provide available public health information requested on the status of events detected by the Secretariat through its alert and response system.

**Responsible authorities**

10. Member States are to designate or establish a National IHR Focal Point and the authorities responsible within its respective jurisdiction for the implementation of health measures under the IHR-2005. The Focal Point shall be accessible at all times for communications with WHO in order to disseminate information to, and consolidate input from, relevant sectors responsible for surveillance and reporting, points of entry, public health services, clinics and hospitals, and other government departments.

**Points of Entry**

11. Each Member State is to:

- ensure that core capacities for designated points of entry (airports, ports, and ground crossings) are developed as soon as possible, but no later than five years from the entry into force set forth in the IHR-2005.

- identify competent authorities for each designated point of entry to be responsible for: monitoring baggage, cargo, containers, conveyances, goods, postal parcels, and human remains departing and arriving from affected areas, so that they are maintained in such a condition that they are free of sources of infection or contamination.

**PAHO/WHO**

12. WHO Regional and Country Offices will play prominent roles in the implementation of IHR-2005 by enhancing epidemic alert and response activities, as well as by leading and directing the technical cooperation programs to strengthen national capacities. However, at the time this document was written, the planning process for determining the roles and responsibilities at each level was still underway.

13. Summarized below, we present the orientation proposed by PAHO to meet the aforementioned obligations.

**Supporting National Capacity Building**

14. By mandate of its Directing Council, PAHO has been working with its Member States to strengthen national and subregional epidemiological and laboratory capabilities to detect and contain emerging and re-emerging epidemic-prone diseases. Although much progress has been made, many systemic deficiencies persist, especially with respect to the epidemic alert and response capacity of public health services. The
provisions of the IHR-2005 related to detection, notification, information management and response to urgent events provide a legal reinforcement to key elements of PAHO’s technical cooperation activities.

15. Under the IHR-2005, WHO is required to support Member States in assessing, developing, strengthening, and maintaining surveillance and public health response capacities. In turn, it is recommended that Member States develop the necessary capacities in their public health services for the detection and control of epidemic diseases. To comply with this obligation PAHO will support Member States to enhance their public health infrastructure for alert and response.

16. PAHO proposes that the following capacities should be strengthened:

- Steering and regulatory capacity. This refers to the ability of the Ministry of Health, in collaboration with other sector institutions, to develop policies and institutional capacity to plan, regulate, and manage activities to prevent and control epidemics.

- Intra and interagency communication coordination, and cooperation mechanisms. This refers to the capacity for communication, coordination, and cooperation, using the structure and operation of communications networks and of mechanisms for coordination between the Ministry of Health and other institutions in the health sector.

- Outbreak field investigation. The outbreak field investigation capacity refers to the organization and functioning of public health services infrastructure to investigate outbreaks and epidemics.

- Detection of and intervention on specific diseases or threats. The capacity to detect and intervene refers to the country’s situation regarding the prevention and control of specific risks and diseases. It is understandable that a country may be in an excellent position to respond to epidemics of some diseases, but have shortcomings in its response to others. For each of the priority diseases of the IHR-2005, it will be necessary to ensure the availability of guidelines that define the minimum useful and necessary standards for their adequate surveillance, prevention, and control.

17. Based on the recommendations formulated by a PAHO internal working group that assessed the activities carried out in the last five years in relation to supporting countries in epidemic alert and response, the regional strategy for technical cooperation was adjusted to comply with the requirements of the IHR-2005 and to the demands of new threats and diseases such as influenza pandemic.
18. The focus will be on the strengthening of national capacities with the following specific objectives:

(a) **Provide support for the assessment of the public health services** capacity for the surveillance of and response to epidemic diseases and events (early warning/rapid response systems). Assessment of the status of current public health services should look not only at surveillance and laboratory services at Ministries of Health, but also at the different programs responsible for disease and vector control, water and food-safety, zoonoses, social communication, infectious diseases health care services including infection control (ambulatory and hospital). In addition, the assessment should be inclusive using a sector-wide approach.

(b) **Define and prepare plans of action** to reduce or eliminate the problems identified in the assessment by:

- updating standards and procedures for the regulatory framework to comply with the essential function of public health surveillance, prevention and control of diseases and risks, particularly those with epidemic potential, as well as revising technical and operational guidelines for specific diseases for the improvement of public health practices.

- adapting existing intra- and interinstitutional coordination mechanisms, when necessary, and encouraging innovative communications fora.

- adjusting administrative, management, and financing procedures to become more flexible for the development of activities requiring rapid mobilization of personnel, shipment of samples, procurement of supplies, and epidemic alert and response operating 24 hours 7 days a week.

- designing training programs to build effective public health workforce in the areas of laboratory, epidemiology (including rapid response team for field investigation), and disease-specific clinical care.

- modernizing equipment and technologies (electronic information and networking communications, computers), reagents, and material for the collection and shipment of laboratory samples, and personal protection equipment.

**Supporting Subregional Networking**

19. Under the IHR-2005, Member States are to collaborate with each other in:

(a) the detection and assessment of, and response to, events as provided under the Regulations;
(b) the provision or facilitation of technical cooperation and logistical support, particularly in the development, strengthening and maintenance of the public health capacities required under the Regulations;

(c) the mobilization of financial resources to facilitate implementation of their obligations; and

(d) the formulation of proposed laws and other legal and administrative directives.

20. Given this, PAHO will continue supporting the maintenance of regional and subregional (regional integration systems) networking.

21. Existing subregional surveillance for emerging and re-emerging infectious diseases (EID) networks were established to strengthen and formalize, within the regional integration systems, the cooperative work among countries to prevent and control diseases that represent common threats, especially in border areas. The EID networks of the Amazon and Southern Cone subregions were created under similar principles related to the interaction between laboratory services and epidemiology, making it possible to obtain reliable laboratory results and information to intervene effectively in emerging and re-emerging infectious diseases. The EID network of Central America (RECACER) was established in the aftermath of Hurricanes Mitch and Georges in order to strengthen and formalize the cooperative work among the countries in order to monitor, prevent, and control the communicable diseases that represent common threats. These three networks have been supported through a partnership between PAHO and CDC/USA. The network of the Caribbean is coordinated by CAREC with the objective of promoting the exchange of information on acute events and of providing laboratory and epidemiology support either routinely or in the case of outbreaks. Countries are represented in the networks by the national directors of epidemiology and public health laboratories, and more recently by infectious disease expert clinicians.

22. All networks have shown promising results in: prompt information sharing; accurate laboratory results (QA/QC); common protocols to address selected diseases, including laboratory algorithms for syndromic surveillance; horizontal technology transfer (especially for laboratory); assessment of countries’ existing capacities to detect, confirm, and control EID; integrated work between laboratory staff and epidemiological surveillance personnel; external performance evaluation of laboratories for selected EID pathogens; laboratory manuals and procedures transference from reference centers to national public health laboratories; and production and distribution of selected reagents.

23. The annual meetings of each network and the joint meetings held every two years increase the spirit of cooperation, allow an effective interaction between countries, improve information exchange, and strengthen inter-country communications.
24. Although there has been much progress, it has been challenging to sustain the achievements, and respond to new demands. Developmental areas to consider in strengthening the networks include: expansion of human resources expertise; increase in early warning and level of interaction essential to respond to EIDs (national and international); addressing the shortage of specific laboratory reagents; integration of syndromic surveillance to communicable disease surveillance; and reducing the prevalence of cases/outbreaks of unknown etiology.

25. Other external disease-specific networks specialized in selected pathogens or conditions such as influenza, salmonella, and antimicrobial resistance contribute to the networks with epidemiological information and laboratory results.

Developing Guidelines and Other Publications

26. The IHR-2005 tasks WHO with the development of various guidelines including in the areas of 1) strengthening surveillance and public health response capacities at the country level; 2) certification of airports and ports; 3) the application of health measures to civilian means of transport at ground crossings; 4) developing case definitions for the four notifiable diseases, as well as guidelines for their implementation and evaluation, and a procedure for review of their functioning; 5) the list of ports authorized to offer ship sanitation control and ship sanitation control exemption certificates; 6) a list of areas where disinfection or other vector control measures are recommended as well as for conveyances arriving from these areas and areas where the risk of yellow fever transmission is present. WHO is also responsible for designating vaccines and prophylaxis, which would be subject to its approval, including yellow fever vaccines. Older versions of Guides on ship sanitation and aircraft hygiene and sanitation are also to be updated.

Establishing National IHR Focal Points

27. WHO will play a central role in coordinating a number of actions, including the compilation of a list of National IHR Focal Points and establishing corresponding IHR Contact Points within the Organization (at the regional or headquarters level). WHO will also support the Director-General in the PHEIC determination process and facilitate, as appropriate, all aspects of the establishment and functioning of the Emergency and Review Committees provided for in the Regulations. WHO will play an equally important technical role in the related formulation of draft temporary and standing recommendations. With regard to the adoption of additional measures by a Member State, WHO will carry out the corresponding information sharing and assessment functions. Additional technical responsibilities include making arrangements for the certification of airports or ports (Article 20.4). Finally, WHO has obligations to cooperate and coordinate IHR-2005 activities with competent intergovernmental
organizations and international bodies, as appropriate, and to notify them of relevant public health information it receives.

*Enhancing Regional Alert and Response Operations*

28. Obligations under IHR-2005 have set out WHO's roles and responsibilities in several areas, including surveillance and information management. Other provisions include the processes WHO must follow when requesting verification of a particular event by a Member State and the options that are available to the Organization should the concerning Member State refuse an offer of collaboration to assess the potential for an international disease spread or interference with international traffic. Upon request, WHO will provide guidance and assistance to other Member States affected by the PHEIC. With regard to the public health response to specific public health risks and other events, WHO is, upon request, committed to provide technical cooperation and guidance and assessing the effectiveness of control measures. Finally, WHO has obligations to collaborate with Member States, to the extent possible, by providing or facilitating technical cooperation and logistical support.

29. To comply with these obligations **PAHO’s internal mechanisms for alert and response coordination** will be improved.

30. PAHO’s current alert and response mechanism involves systematically gathering, analyzing, interpreting, and disseminating information on outbreaks occurring in the Region. The objective is to transform the information obtained into timely and useful information, which is then disseminated.

31. PAHO gathers outbreak information from various sources, which includes public health agencies, PAHO country offices, national public health institutions and offices, Internet bulletin boards and discussion groups and the media. Of these, the main source of outbreak information comes from the Global Public Health Intelligence Network (GPHIN) operated by the Public Health Agency of Canada, which is an electronic surveillance system that identifies and extracts outbreak reports from the media news wire.

32. All outbreak information is then assessed individually to determine its importance relevant to national, subregional, and regional health security. Potentially important outbreak information is then verified by PAHO country offices and the Ministries of Health.

33. Once an outbreak is verified, response is initiated and active monitoring is subsequently conducted. PAHO’s response to outbreaks is done in support of Member States actions, usually by providing technical and scientific information, coordinating
international technical staff and national counterparts according to the characteristics of
the outbreaks, and providing access to required laboratory services.

34. Information on outcomes and control measures is captured then disseminated in
English and Spanish in a timely manner via pre-established mailing lists to national
health authorities. This includes recommendations, advisories and technical guidelines
tailored for the Region.

35. The provisions under the IHR-2005 related to detection, notification, information
management and response to urgent events are intended to provide a legal underpinning
to key elements of PAHO’s work in Epidemic Alert and Response. Nevertheless, there
will be a need to develop new functions within PAHO to carry out specific IHR-2005
obligations as well as the need to expand and re-focus existing activities.

36. PAHO will:

- continue improving this process of epidemic alert and response by establishing
  standard operating procedures, supporting Member States in integrating national
  epidemic alert and response activities and improving internal response
  coordination.

- need to foster and develop partnerships with other intergovernmental
  organizations and international bodies to develop both planned activities and
  arrangements for emergencies and to fulfill some IHR-2005 obligations.

- establish standard operating procedures for the outbreak verification process
described above. This will amplify information sources so as to detect more
outbreaks and streamline information flow, thereby enhancing the quality of the
information that is disseminated.

- support national epidemic alert and response activities in Member States, so that
  official reporting of PHEIC is made expeditious. Also, this will contribute to
developing comprehensive reports on investigations containing precise
information on intervention methods.

37. Internal response coordination will improve given that the PAHO Director has
created an Epidemic Alert and Response Task Force by expanding the terms of reference
of an existing PAHO IHR-2005 Task Force. This Task Force includes all Areas of the
Organization involved in providing technical cooperation to Member States including the
Communicable Diseases Unit as lead to its implementation, Legal Affairs, Veterinary
Public Health, Disaster Preparedness and Emergency Relief, Immunization, Technology
and Health Services Delivery, Sustainable Development and Environmental Health,
Health Policies and Systems, and Public Affairs. Their objective is to address internal
coordination issues, technical cooperation strategic actions, and to define information and knowledge management strategies and programmatic responsibilities. Currently, they are tasked with the development of a regional response to influenza pandemic preparedness.

Resources

38. The establishment or enhancement of the core capacities in Member States to comply with the IHR-2005 is an area that will require the single largest investment. However, the amount of funding required has not yet been estimated. This is because Member States vary widely in their current core capacities and the solutions to adopt and the infrastructures to be established to address any gaps in Member States capacities have differing resource implications. In addition, it is still not clear to what extent national capacities in the areas of surveillance and response can be established by refocusing existing national financial resources.

39. By the same token, PAHO Units undertaking work to implement the IHR-2005, either in relation to emergencies or in support of national capacity building, will require additional resources, both human and financial. In order for the Organization to meet the 2007 IHR entry-into-force deadline, PAHO needs to identify these resources immediately.

40. It is clear that a great deal of investment is necessary and that PAHO will work with Member States to attain this investment. The Organization is to start to explore how resources will be identified, allocated, and managed within WHO and how they will be raised outside of WHO.

41. PAHO has identified the following critical areas of work.

Assessment of the Public Health Services and Preparation of Plans of Action
- Develop assessment tools based on WHO/HQ protocols and regional expert inputs
- Support Member States with regional experts to perform country assessment.
- Support Member States to design plans of actions to fill specific gaps as identified (for example, updated surveillance and control guidelines; expanded surveillance sources to enhance disease detection; in-service training on clinical management, rapid response teams, and laboratory diagnosis for specific diseases; information dissemination; standard operation procedures for 24/7 epidemic alert and response operations).
Supporting Subregional Networking

- Improve emergency notification and communication.
- Develop exchange of information protocols and implement coordination of action, especially in border areas.
- Establish flow of laboratory samples within networks (courier accounts).
- Set up networks for participants from epidemiology, laboratory, and clinical services. Meet annually under the framework of regional integration systems.

Developing Guidelines and Other Publications

- Develop surveillance and response guidelines for regional priority diseases.
- Adapt early warning systems to regional and country specific needs.
- Publish alerts and updates on PAHO Webpage during PHEIC.
- Publish reports on epidemic detection, investigation, and interventions at country and regional levels.

Enhancing Regional Alert and Response Operations

- Develop standard operating procedures to use informal data sources (media and Internet).
- Establish a verification process for PAHO Headquarters and country offices for potential PHEIC and an operational information database (on a secure website).
- Identify regional expert teams and establish protocols for rapid deployment.
- Coordinate response to epidemic emergencies on a 24/7 operational basis through PAHO’s Emergency Operation Center (EOC) and identify a Task Force on Epidemic Alert and Response (for example, phone lines, bandwidth for internet/video conference, wireless connection, cellular phones).

42. PAHO is developing a plan of action containing the above activities in detail that have been identified as necessary in order to achieve the strategic objective described in paragraphs 18 through 37. This plan of action will be finalized in 2005 and will also provide a better assessment of the resources needed for its implementation in 2006-2007.

43. PAHO recognizes that many institutions will be contributing to put the IHR-2005 into practice, and coordination among them will be crucial to assure success and avoid duplication of efforts. To this end, PAHO is committed to working in partnership with these other institutions in mobilizing the resources necessary to support Member States.