SUMMARY OF 2011 STATES PARTIES REPORT ON IHR CORE CAPACITY IMPLEMENTATION
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1 Data from Argentina, Bolivia, Brazil, Chile, Columbia and Paraguay were submitted using the reporting tool of MERCOSUR (the Common Market of the South) and were converted into the IHR monitoring tool format by PAHO; Data from Saint Kitts and Nevis, Saint Vincent and the Grenadines, Trinidad and Tobago, and the United Kingdom of Great Britain and Northern Ireland, was provided in a format that could not be included in the analysis.
1. INTRODUCTION

1.1. Background

The International Health Regulations (IHR) were first adopted by the World Health Assembly (WHA) in 1969 and covered six diseases. The Regulations were amended in 1973 and again in 1981 to focus on three diseases: cholera, yellow fever and plague. In view of the increase in international travel and trade and the emergence, re-emergence and international spread of disease and other threats, the WHA called for a substantial revision in 1995. The revision extended the scope of diseases and related health events covered by the IHR to take into account all public health risks (biological, chemical, radiological and nuclear) that might affect human health, irrespective of the source. The revised Regulations entered into force on 15 June 2007.

All States Parties are required to have or to develop minimum core public health capacities to implement the IHR (2005) effectively. In accordance with articles 5 and 13 of the IHR (2005), “Each State Party shall develop, strengthen and maintain, as soon as possible but no later than five years from the entry into force of these Regulations for that State Party (i.e. by 2012), the capacity to detect, assess, notify and report events in accordance with these Regulations, as specified in Annex 1” and “the capacity to respond promptly and effectively to public health risks and public health emergencies of international concern as set out in Annex 1”.

1.2. Monitoring Framework for IHR Core Capacities

The Sixty-first WHA in 2008 adopted a resolution in accordance with Article 54 of the IHR (2005) whereby States Parties and the World Health Organization (WHO) are required to report to the Health Assembly on progress made in implementing the Regulations. In this context, a monitoring framework was developed, which represents a consensus among technical experts from WHO Member States, technical institutions, partners and WHO.

The framework incorporates current knowledge and concepts that have been used successfully in monitoring capacity development. It builds particularly on the experts’ knowledge of the current capacities of States Parties, existing regional and country strategies for capacity development and other resources and tools, particularly those used for assessing IHR core capacity by States Parties. The framework also built on relevant regional programmes and strategies, such as the Asian Pacific Strategy for Emerging Diseases (APSED) in the WHO Western Pacific and South-East Asian regions (WPR and SEAR, respectively), Integrated Disease Surveillance and Response (IDSR) in the African Region (AFR), the Emerging Infectious Diseases (EID) Strategies in the Region of the Americas (AMR) and strategies used in the Eastern Mediterranean and European regions (EMR and EUR, respectively).

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1.3. Monitoring process

The monitoring process is not intended to rank or compare the performance of countries. Rather, it is intended to assist countries to monitor their progress towards meeting the core capacity requirements of the IHR. The objectives are:

- to enable States Parties to assess the status of core capacity development;
- to help States Parties to identify progress in developing core capacity and where improvements are needed;
- to provide information for strategic evidence-based programme planning and improvement, feedback and recommendations for decision-making;
- to provide WHO with annual information on the status of IHR implementation;
- to demonstrate at both country level and to external stakeholders if desirable (e.g. international donors and development agencies) that the country is meeting the IHR core capacity requirements.

The objectives with respect to WHO are to identify areas that require WHO and partner support and to enable WHO to report aggregate data on States Parties’ progress to the WHA each year.

1.4. Core Capacities and Indicators

The IHR monitoring process involves assessing, based on a checklist of 20 indicators designed for monitoring each core capacity:

- the status of implementation of eight core capacities,
- development of capacities at Points of Entry and
- development of capacities for four IHR-relevant hazards (zoonotic, food safety, chemical, radiological and nuclear events).

The eight core capacities are:

1. National legislation, policy and financing, 5. Preparedness,
2. Coordination and NFP communication, 6. Risk communication,
3. Surveillance, 7. Human resources,
4. Response, 8. Laboratory services.

The framework provides a set of 20 global indicators for monitoring the development of IHR core capacities for reporting annually to the WHA by all States Parties; this is mandatory for all. It also lists six additional indicators for monitoring comprehensive development, strengthening and maintenance of States Parties’ IHR core capacities (optional). Countries are encouraged to report on all 26 indicators. Only the 20 global (WHA) indicators are used in the report to the Executive Board and the WHA.
2. METHODOLOGY AND TOOLS FOR DATA ANALYSIS

In the 2 years after entry into force of the IHR in 2007, the WHO secretariat sent to States Parties a questionnaire designed to facilitate their reporting of IHR implementation to the WHA. In 2010 and 2011, a more detailed technical questionnaire was sent in order to determine a wider range of capacities relevant to the IHR and reflecting the expanded scope of the IHR. The principal aim of this monitoring tool is to give countries technical guidance in assessing their IHR implementation and the development of IHR core capacities.

2.1. Measurement

In order to monitor progress in developing IHR core capacities, each capacity is measured as a ‘capability level’ and given an ‘attribute score’. Four capability levels are characterized for each core capacity:

- **Capability level < 1** is the foundation\(^1\) level, which represents critical attributes that facilitate implementation of the IHR.
- **Capability level 1** is generally characterized as a ‘moderate’ level, with the ‘inputs and processes’ required to build or maintain IHR core capacities.
- **Capability level 2** represents ‘strong’ technical capacity and a high level of performance, with defined public health outputs and outcomes.
- **Capability level 3** represents an advanced level of capabilities and achieving a ‘reference model’ of capability.\(^4\)

States Parties are expected to achieve attributes in levels 1 and 2 by 2012 as a measure on progress made in meeting the core capacity requirements. The WHO Director-General may grant an extension of this deadline for a maximum of 4 years.

The attribute score is the proportion or percentage of attributes (a set of elements or functions that reflect the level of performance or achievement of an indicator) that have been attained in levels 1 and 2 and is a measure of overall achievement in reaching the targets for 2012.

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3 'Foundation' refers to elements or functions that should be in place, on which inputs and processes should build.

4 This involves the generation of information, products and tools that are examples of best practices and standards that can be adopted or shared globally. In order for an attribute to be scored at level 3, a good explanation of products and tools and the URLs of the relevant websites should be included in the checklist. This will further facilitate sharing of products and tools.
2. METHODOLOGY AND TOOLS FOR DATA ANALYSIS

2.2. Tools for data collection and information-sharing

A States Parties questionnaire (also referred to as the IHR monitoring questionnaire) is sent annually to NFPs for data collection and submission. Since 2010, the tools described below have been made available to facilitate data collection and reporting:

- The online **IHR monitoring tool** is a web-based version of the States Parties questionnaire that facilitates monitoring the capacity to meet relevant requirements of the IHR. The tool is a secure online portal for use by IHR NFPs and is accessible only to WHO Member States.

- The **IHR portal** is a dynamic menu for NFPs, which provides ‘one-stop shop’ for tools and information, which can be made available depending on the applications and the countries or regions represented. The portal offers access to reports based on the IHR monitoring tool database to allow States Parties to monitor their progress in IHR core capacity development, by visualizing indicator and capacity scores in pdf format, Excel format or as graphs. The IHR portal gives users a dynamic rights-based menu and the possibility of transferring variables to database reports. The target audience is IHR NFPs.

2.3. Data management and products

Data on core capacity and IHR-relevant hazards are stored in a secure database at WHO, accessible only to IHR NFPs and relevant WHO staff. The data collection tool assures confidentiality, as IHR NFPs can access data only from their own country. It also provides summary results, which facilitate planning and mobilization of resources. The online States Party questionnaire should ideally be completed by national respondents with the NFP, in consultation with experts in the subject area and, if requested, assistance from WHO country and regional offices. Countries are encouraged to use the findings to give feedback to relevant stakeholders.

Information products prepared by WHO from the data sent by IHR NFPs include:

- detailed country reports (recipients: IHR NFPs, WHO country offices, WHO regional offices, WHO headquarters);

- progress report on all States Parties by core capacity and a temporal comparison of progress in individual core capacities (recipients: IHR NFPs, WHO country offices, WHO regional offices, WHO headquarters);

- WHO regional office aggregate report on countries in the region (recipients: WHO regional offices, IHR NFPs) and

- aggregate progress report on State Parties (recipients: WHA, Executive Board members, WHO).

Any other country-specific products should be generated and disseminated by the States Parties as necessary.
3. DATA ANALYSIS AND INTERPRETATION

This report covers data received in 2011 on questionnaires completed by States Parties. Data for 2010 were used to compare changes. In order to make valid comparisons between 2010 and 2011, only data from countries that responded in both years (111 countries) were used whenever comparisons are made. Any regression in the achievement of attributes, indicators or capacities might be due for instance to a change in the IHR NFP, different understanding of certain questions, an actual regression in a capacity or correction of a previously wrongly stated capacity. These reasons are highlighted in the relevant places.

3.1. Questionnaire completion

In 2011, 161 States Parties completed the questionnaire, representing 83% of the 194 Parties. The submission rates from all the WHO regions were ≥ 70%, and the rates in the SEAR and the AMR were > 90%.

Figure 1: Questionnaire submission in 2011

Between 2010 and 2011, the overall questionnaire submission rate increased from 65% to 83%. The SEAR maintained a full (100%) submission rate for the 2 years. The greatest increases (> 30%) in submission rate were in the AFR (from 50% to 80%) and the AMR (from 57% to 91%). Submission rates from the EMR and the WPR dropped slightly in 2011.

Figure 2: Questionnaire submission by region in 2010 and 2011
3. DATA ANALYSIS AND INTERPRETATION: Core Capacities

3.2. Core Capacities

3.2.1 Overview

Globally, State Parties are making good progress in achieving a number of core capacities, notably with regard to surveillance (75%), response (72%) and laboratory services (70%), while the scores for human resources (44%) and preparedness (57%) are lower. For IHR-related hazards, the scores for capacities for zoonotic (76%) and food safety (69%) events are higher than those to detect and respond to chemical (45%) and radiological events (49%).

**Figure 3:** Status of global IHR core capacities in 2011

**Figure 4:** Global IHR core capacities, 2010 (■) and 2011 (■)

Between 2010 and 2011, there was overall progress in all core capacities, capacities at Points of Entry (PoE) and for hazards. The most progress was achieved in surveillance, with an increase in scores from 65% to 79%; the increases for legislation, preparedness and human resources
were > 7%. For IHR-related hazards, an increase of > 5% was seen in the capacities to respond to zoonotic, chemical and radiological events. Slight increases were seen in the capacities for coordination and response, with regard to PoE and for food safety events.

At regional level, AFR countries achieved higher scores (> 59%) for surveillance, laboratory services and zoonotic events, while capacities for legislation and for chemical and radiological events were lower (≤ 32%). AMR countries did well for surveillance, response and zoonotic events (≥ 77%), while capacities with regard to PoE and chemical and radiological events were lower (< 46%). EMR countries scored ≥ 78% for legislation, coordination and surveillance, while capacities for human resources and chemical and radiological events require improvement (< 56%). EUR countries were more advanced in surveillance and capacities for zoonotic and food safety events (> 82%), while capacities for human resources, PoE and risk communication were lower (< 68%). SEAR countries scored higher for capacities for surveillance, response and zoonotic events (≥ 70%), while capacities with regard to PoE and chemical and radiological events were weaker (≤ 55%). WPR countries did better in coordination, response and risk communication (≥ 85%), while capacities for human resources and chemical and radiological events require improvement (< 57%).

Figure 5: Regional average scores for IHR core capacities, PoE and IHR-relevant hazards, 2011
AFR countries reported major improvements in legislation, surveillance and laboratory capacities, with increases in scores of at least 14%, while there was a slight regression in capacities for coordination and zoonotic events.

AMR countries showed improvements in most capacities (particularly for surveillance, with an increase of 20%), except for those at PoE, mainly because PoE data of a number of countries were missing as a result of conversion of data collected with the MERCOSUR tool.4

EMR countries reported major improvements in surveillance, human resources and radiological events capacities, with increases of 10–15%, while there appeared to be regression in terms of response, preparedness, risk communication and laboratory capacities.

Information related to the surveillance and response capacities from Argentina, Bolivia, Brazil, Chile, Colombia and Paraguay was submitted using the format developed by MERCOSUR and was converted into the WHO format. Information related to Points of Entry from Argentina, Bolivia, Brazil, Colombia, and Paraguay was submitted in a format not allowing its conversion into the WHO format.
3. DATA ANALYSIS AND INTERPRETATION: Core Capacities

EUR countries reported overall improvements in all capacities, with greater increases for surveillance and response to zoonotic and chemical events (10–13%) and smaller increases for response, laboratory and food safety capacities (1%).

SEAR countries reported major improvements in capacity scores for preparedness and zoonotic events, with increases > 14%, but had lower scores for a number of capacities, including legislation, coordination, response and laboratory services. The regression may be due to change of the NFP or different understanding of certain questions, as the answers of some countries changed drastically, in some cases resulting in a drop in the capacity scores from 100% to 0%.

WPR countries reported major improvements in capacity scores for surveillance and risk communication, with increases of >17%, while the scores for a number of capacities decreased, including legislation, human resources, PoE and zoonotic and chemical events. The regression may be due to change of the NFP or different understanding of certain questions, as the answers of some countries changed drastically, in some cases resulting in a drop in the capacity scores from 100% to 0%. 
3.2.2 Analysis of specific core capacities

**Core Capacity 1: National legislation, policy and financing**

New obligations and rights of States Parties are defined in the IHR. All should have an adequate, appropriate legal framework to support and enable implementation of the IHR. Policies to identify national structures and responsibilities and allocation of an adequate budget are also important.

**Figure 7**: Capacity scores for national legislation, policy and financing, 2011

Globally, countries that responded had achieved an average of 61% of the attributes required by 2012. The average attribute scores in the EMR and EUR were > 70%, while AFR countries achieved 32% of the required attributes.

**Figure 8**: Capacity scores for national legislation, policy and financing, 2010 and 2011

In the comparison of countries that reported in both 2010 and 2011, the percentage of attributes achieved had increased from 58% to 65%. Regionally, the average attribute scores of the AFR and AMR increased by > 17%, while the scores in the SEAR and WPR decreased, possibly because of a change in the NFP or different understanding of certain questions.
3. DATA ANALYSIS AND INTERPRETATION: Core Capacities

Figure 9: Achievement of attributes for national legislation, policy and financing

Globally, 69% of responding countries reported having assessed their legislation and regulations, and 55% of countries reported that they had implemented policies to facilitate the functions of NFPs.

Figure 10: National legislation assessed

Regionally, most countries in the EMR, EUR and SEAR (more than 80%) that reported had assessed their national legislation; less than one third of AFR countries (32%) answered “Yes” to this question.

Figure 11: National policies to facilitate national IHR NFP functions and technical core capacities reviewed

Globally, 69% of the countries that responded reported that they had reviewed their policies to facilitate national IHR NFP functions and technical capacities. In the AFR, 41% of countries answered “Yes”, while >80% of AMR and EMR countries answered “Yes” to this question.
3. DATA ANALYSIS AND INTERPRETATION: Core Capacities

**Figure 12:** Policies to facilitate national IHR NFP core and expanded functions and strengthening of technical core capacities

Globally, >60% of countries reported having implemented policies to facilitate national IHR NFP core and expanded functions and to strengthen technical core capacities, with an increase of 15% between 2010 and 2011. The EMR showed the largest increase (from 38% to 81%), while the scores in the SEAR and WPR remained the same.

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**Core Capacity 2: Coordination and NFP communications**

Effective implementation of the IHR requires multisectoral, multidisciplinary approaches through national partnerships for effective alert and response systems. Coordination of nationwide resources includes designation of a IHR NFP that is accessible at all times to communicate with IHR contact points and with all relevant stakeholders in the country. States Parties are also obliged to provide WHO with annually updated contact details for the IHR NFP.

**Figure 13:** Capacity scores for coordination and NFP Communications, 2011

Globally, responding countries achieved 68% of the relevant attributes as required by 2012 for this core capacity. The average scores of the AMR, EMR, EUR and WPR were > 70%, while that of AFR countries was 49%.
In the comparison of countries that reported in both 2010 and 2011, the percentage of attributes achieved had increased from 70% to 72%. The average scores of the EUR and WPR had increased by >6%, while that of the SEAR had decreased.

Globally, 57% of responding countries reported having standard operating procedures (SOPs) for coordination between the IHR NFP and stakeholders, and 60% had tested and updated their multisectoral, multidisciplinary coordination mechanisms.

56% of the countries that responded reported having implemented plans to sensitize stakeholders, and 92% had sent updated contact information and annual confirmation to WHO.
In all WHO regions, 95% of reporting countries had established a National Focal Point. In the EMR, SEAR and WPR, all countries reported an established NFP. Reports from a few countries in other regions that no NFP had been established might have been due to different understanding of the question or a change in the NFP.

Globally, half of the responding countries reported having implemented additional roles and responsibilities of NFP, and >50% countries in the AFR and WPR had done so.

In all regions, 92% of the countries that responded in 2011 reported having provided updated NFP contact information and annual confirmation to WHO. All the countries in the WPR had done so.
In all WHO regions, 76% of countries reported having a multisectoral, multidisciplinary body, committee or task force to address IHR requirements on surveillance and response to public health emergencies of national or international concern. More than 80% of responding countries in the AMR, EMR and WPR answered “Yes” to this question, with 62% in the AFR.

Globally, 63% of responding countries reported having implemented plans to sensitize IHR stakeholders, an increase from 38% in 2010. The increase was greatest in the EMR and EUR (>30%); that for the AFR was 14%.
Core Capacity 3: Surveillance

The IHR require rapid detection, prompt risk assessment, notification and response to public health risks. A sensitive, flexible surveillance system is therefore needed, with an early warning function.

Figure 22: Capacity scores for surveillance, 2011

![Graph showing capacity scores for surveillance, 2011.]

Globally, reporting countries had achieved 75% of the attributes required by 2012. The EMR, EUR and WPR achieved > 80% of the required attributes, and AFR countries achieved 65%.

Figure 23: Capacity scores for surveillance, 2010 and 2011

![Graph showing capacity scores for surveillance, 2010 and 2011.]

In the comparison of countries that reported in both 2010 and 2011, the percentage of attributes achieved increased from 65% to 79%. The average attribute scores of the AFR and AMR increased by >17%, and the increase in the SEAR was 3%.
Globally, 90% of responding countries reported that they had analysed surveillance data on epidemic-prone and priority diseases, while 78% had used deviations of monitoring data for action at the primary public health response level.

In 87% of responding countries, a mechanism for capturing and registering public health events had been established, and 89% had identified sources of information for public health events and risks.

Globally, 85% of countries reported that baseline estimates, trends and thresholds for alert and action had been defined for a local public health response to priority diseases and events. In 78% of reporting countries, deviations from the normal or values exceeding predefined thresholds for priority diseases had been identified and used to initiate a primary public health response.
In all regions, the percentage of countries that reported timely reporting from at least 80% of all reporting units increased from 45% in 2010 to 77% in 2011. The proportion increased from 63% to 93% in countries in the EUR and from 47% to 94% in the WPR.

Globally, 83% of responding countries in 2011 reported providing regular feedback of surveillance results disseminated to all levels and other relevant stakeholders; 95% of EUR countries had done so.

In 2011, 96% of responding countries reported having designated units for event-based surveillance, an increase from 87% in 2010. All countries in the AMR, EMR, SEAR and WPR reported having done so in 2011.
In all regions, there was an overall increase in the percentage of countries that reported having established a system for capturing public health events, the global average increasing from 72% in 2010 to 91% in 2011. All responding countries in the EMR and WPR reported having done so in 2011.

In 2011, 89% of responding countries reported having used the decision instrument in Annex 2 of the IHR (2005) to notify WHO; >90% countries in five WHO regions (except the AFR) reported doing so.

Globally, 49% of responding countries reported having reviewed their use of the decision instrument and having updated the procedures for decision-making on the basis of lessons learnt. More countries in the AMR (72%) and EMR (71%) responded “Yes” to this attribute than in other regions.
**Core Capacity 4: Response**

Mechanisms for command, communications and control operations are required to coordinate and manage outbreak operations and other public health events effectively. Multidisciplinary, multisectoral Rapid Response Teams (RRT) should be established and be available 24 hours a day, 7 days a week. Appropriate case management, infection control and decontamination are key components of this capacity that need to be developed, strengthened or maintained.

On average, 70% of responding countries reported having notified WHO of all events that met the criteria for notification under Annex 2 of IHR within 24 hours of a risk assessment during the past 12 months. Nearly 90% of responding countries in the WPR had done so; 38% of AFR countries answered “Yes” to this question.

Figure 33: All events that meet criteria for notification under Annex 2 of IHR notified by NFP to WHO within 24 hr of a risk assessment during the past 12 months

Globally, responding countries had achieved most of the attributes (72%) required by 2012. The WPR achieved 88% and AFR countries 56% of the required attributes.
In the comparison of countries that reported in both 2010 and 2011, 74% of the required attributes were achieved in 2011, an increase from 70% in 2010. The average attribute scores of the AFR and AMR increased by >15%, while those of the SEAR and WPR decreased.

Globally, 83% of responding countries reported that resources were available for rapid response, 83% reported that public health emergency response management procedures had been established, and 80% reported that a functional command and control operations centre was in place.

Globally, 82% of responding countries reported that guidelines and protocols for infection prevention and control (IPC) were available in all hospitals; 86% reported that they had guidelines to protect health care workers from hospital infections, and 73% reported IPC professionals in all tertiary hospitals.
Figure 38: Public health emergency response management procedures for command, communication and control during emergency response operations established and evaluated

In all regions, 83% of responding countries reported that public health emergency response management procedures had been established for command, communication and control during emergency responses. Of these, 62% reported that the procedures had been evaluated in a real or simulated public health response. All responding countries in the WPR reported that they had established the procedures, and 89% had evaluated them. In the AFR, 68% of countries had established the procedures, and 35% had evaluated them.

Figure 39: A functional, dedicated command and control operations centre in place

In 80% of responding countries, a functional, dedicated command and control operations centre had been established. A “Yes” answer to the question was given by 95% of WPR countries and 62% of AFR countries.

Figure 40: Rapid Response Teams available and deployed

Globally, 83% of responding countries reported that Rapid Response Teams (RRTs) were available to respond to events that may constitute a public health emergency, and 83% reported that multidisciplinary RRTs could be deployed within 48 hr. All EMR countries answered “Yes” to both questions.
In all WHO regions, 46% of countries that responded to the questionnaire had conducted a systematic evaluation of response, including timeliness, quality and procedures. The percentage varied from 74% for the WPR to 30% for the AFR.

In 2011, 73% of countries reported having national IPC policy or guidelines and an operational plan, in contrast to 46% of countries in 2010. AFR and AMR countries showed more progress (increases of 30–40%) than in other regions. In the EUR and WPR, >80% of countries had achieved this attribute.

Globally, 82% of responding countries reported that SOPs, guidelines and protocols for infection prevention and control were available in all hospitals. The proportion varied from 62% in the AFR to 100% in WPR countries.
3. DATA ANALYSIS AND INTERPRETATION: Core Capacities

Core Capacity 5: Preparedness

Preparedness includes the development of national, intermediate and local community/primary response level public health emergency response plans for relevant biological, chemical, radiological and nuclear hazards. Other components of preparedness include mapping of potential hazards and hazard sites, the identification of available resources, the development of appropriate national stockpiles of resources and the capacity to support operations at the intermediate and local community/primary response levels during a public health emergency.

Figure 45: Capacity scores for preparedness, 2011

Globally, the responding countries had achieved more than half the attributes required by 2012. The EMR, EUR and WPR on average achieved > 60% of the required attributes, and AFR countries achieved 36%.
In the comparison of countries that reported in both 2010 and 2011, 60% of the required attributes were achieved in 2011, an increase of 9% over 2010. All regions showed increased average attribute scores, those of the AFR, AMR and SEAR having increased by >14%.

Globally, 62% of responding countries had a national plan to achieve IHR core capacities, 61% had tested and updated their national public health emergency response plan, and 64% had a plan for managing and distributing national stockpiles. Stockpiles for responding to priority events were accessible in 50% of countries.

IHR (2005) requires States Parties to assess their core capacity for implementing the IHR. In 2011, 68% of countries had assessed their core capacities, including 90% of AMR countries and 38% of AFR countries.
Globally, 62% of responding countries had developed a plan of action to meet IHR core capacity requirements on the basis of capacity assessment. The proportion varied from 38% in the AFR to 89% in the WPR.

In all regions, 68% of responding countries reported having a national public health emergency response plan for IHR-related hazards and PoE. More than half the countries in all regions had such a plan, the proportion varying from 57% in the AFR to 79% in the WPR.

In the comparison of data for 2010 and 2011, 63% of countries reported that their national public health emergency response plan had been tested in 2011, an increase from 41% in 2010. There was an overall increase in the proportion of countries in each region that answered “Yes” to this question, with the greatest increase in the EUR (from 40% to 70%).
Globally, 38% of responding countries had mapped national resources to address IHR-relevant hazards and priority risks, with a wide variation, from 14% in the AFR to 71% in the EMR.

Globally, half the responding countries reported that they had conducted a national risk assessment to identify potential events and sources. The proportion varied widely, from 27% in SEAR countries to 73% in EUR countries.

Globally, half the responding countries reported that stockpiles (critical stock levels) for responding to priority events were accessible at all times. Most EUR countries (80%) and 22% of AFR countries answered “Yes” to the question.
Core Capacity 6: Risk Communication

Risk communications is a multi-level and multi-faceted process which aims to help stakeholders define risks, identify hazards, assess vulnerabilities and promote community resilience, thereby promoting the capacity to cope with an unfolding public health emergency. It includes communication with the general public, families and communities about public health risks and events and outbreak communication is an essential part. Risk communications should take into consideration the social, religious, cultural, political and economic context in which events occur, and also involves listening to the affected populations. Information dissemination through appropriate channels is also important.

Figure 55: Capacity scores for risk communication, 2011

Globally, the responding countries achieved 64% of the attributes required by 2012 for risk communication. WPR countries on average achieved 85% of the required attributes, and AFR countries achieved 44%.

Figure 56: Capacity scores for risk communication, 2010 and 2011

In the comparison of countries that reported in both 2010 and 2011, 68% of the required attributes were achieved in 2011, an increase from 65% in 2010. WPR countries achieved the most attributes (88%) in 2011, with an increase from 76% in 2010. The attribute scores of EMR and SEAR countries regressed, probably because of a change of NFPs in some countries or different understanding of certain questions.
Globally, 89% of responding countries had identified risk communication partners, and 60% had a risk communication plan; 39% of countries had evaluated their system for public health communication after emergencies.

In countries that reported in both 2010 and 2011, 60% had a risk communication plan, and 46% had implemented the plan. WPR countries had made good progress, 89% answering “Yes” to the question on plan development and 79% answering “Yes” to implementation of the plan. The corresponding proportions in the AFR were 35% and 16%, respectively.

Globally, 87% of responding countries reported that a regularly updated source of information was accessible to the media and the public for information dissemination. More than 90% of responding countries in the AMR, EMR and EUR answered “Yes” to this question.
3. DATA ANALYSIS AND INTERPRETATION: Core Capacities

Core Capacity 6

**Figure 60:** Accessible and relevant information, education and communication materials tailored to the needs of the population are available

<table>
<thead>
<tr>
<th>Region</th>
<th>% of countries answering Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFR</td>
<td>73%</td>
</tr>
<tr>
<td>AMR</td>
<td>90%</td>
</tr>
<tr>
<td>EMR</td>
<td>88%</td>
</tr>
<tr>
<td>EUR</td>
<td>84%</td>
</tr>
<tr>
<td>SEAR</td>
<td>82%</td>
</tr>
<tr>
<td>WPR</td>
<td>95%</td>
</tr>
<tr>
<td>All</td>
<td>84%</td>
</tr>
</tbody>
</table>

WHO Regions

Globally, 84% of responding countries reported that accessible, relevant information, education and communication materials tailored to the needs of the population were available. All regions did well, with most countries (≥ 73%) answering “Yes” to the question.

**Figure 61:** Public health communication evaluated after emergencies

<table>
<thead>
<tr>
<th>Region</th>
<th>% of countries answering Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFR</td>
<td>3%</td>
</tr>
<tr>
<td>AMR</td>
<td>41%</td>
</tr>
<tr>
<td>EMR</td>
<td>53%</td>
</tr>
<tr>
<td>EUR</td>
<td>57%</td>
</tr>
<tr>
<td>SEAR</td>
<td>27%</td>
</tr>
<tr>
<td>WPR</td>
<td>58%</td>
</tr>
<tr>
<td>All</td>
<td>39%</td>
</tr>
</tbody>
</table>

WHO Regions

Globally, 39% of responding countries had evaluated their public health communication after emergencies. More than half of the countries in the EMR, EUR and WPR and 3% of AFR countries reported having done so.
**Core Capacity 7: Human Resources**

Strengthening the appropriate knowledge, skills and competence of public health personnel is critical for effective implementation of the IHR. Development and strengthening of human resources is necessary to enable sustainable public health surveillance and response at all levels of the health system.

**Figure 62:** Capacity scores for human resources, 2011

<table>
<thead>
<tr>
<th>Region</th>
<th>2011 Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFR</td>
<td>33%</td>
</tr>
<tr>
<td>AMR</td>
<td>54%</td>
</tr>
<tr>
<td>EMR</td>
<td>56%</td>
</tr>
<tr>
<td>EUR</td>
<td>36%</td>
</tr>
<tr>
<td>SEAR</td>
<td>57%</td>
</tr>
<tr>
<td>WPR</td>
<td>57%</td>
</tr>
<tr>
<td>Global</td>
<td>44%</td>
</tr>
</tbody>
</table>

Globally, the responding countries had achieved 44% of the attributes required by 2012. The AMR, EMR, SEAR and WPR on average achieved more than half the required attributes, and AFR and EUR countries achieved 33% and 36%, respectively.

**Figure 63:** Capacity scores for human resources, 2010 and 2011

In the comparison of countries that reported in both 2010 and 2011, 48% of the required attributes were achieved in 2011, an increase from 41% in 2010. SEAR and WPR countries on average achieved the most attributes but with a slight decrease between 2010 and 2011, with possible reasons mentioned above. AMR and EMR countries made good progress, with more countries achieving the required attributes.
3. DATA ANALYSIS AND INTERPRETATION: Core Capacities

**Core Capacity 7**

**Figure 64:** Achievement of attributes for human resources

Globally, most responding countries (65%) had designated a unit responsible for developing human resources for IHR implementation, and nearly half (49%) had conducted a needs assessment to identify gaps in human resource development. Less than one third of countries (28%) were making progress consistent with their milestones.

**Figure 65:** Workforce development or training plan, including human resource requirements for IHR available, and progress for meeting workforce numbers and skills consistent with milestones

At regional level, more than half of the responding countries in the EMR, SEAR and WPR had a workforce development or training plan including HR requirements for IHR; however, one third or fewer countries had made progress consistent with the milestones in their plans. Fewer AFR and EUR countries had developed a human resources plan and made progress in implementation.

**Figure 66:** Needs assessment conducted to identify gaps in HR and training to meet IHR requirements

Overall, half the responding countries had carried out a needs assessment to identify gaps in HR and training to meet IHR requirements. The proportions ranged from 32% in the AFR to 66% in the AMR.
3. DATA ANALYSIS AND INTERPRETATION: Core Capacities

Core Capacity 8: Laboratory services

Laboratory services are part of every phase of alert and response, including detection, investigation and response, with laboratory analysis of samples performed either domestically or through collaborating centres. States Parties need to establish mechanisms for providing reliable and timely laboratory identification of infectious agents and other hazards likely to cause public health emergencies of national and international concern, including shipment of specimens to the appropriate laboratories if necessary.

Globally, 60% of the responding countries reported having a strategy to access field epidemiology training nationally, regionally or internationally, the proportion ranging from 43% in the EUR to 82% in the SEAR.

Globally, the responding countries had achieved 70% of the attributes required by 2012. All regions are making good progress, achieving >65% of the required attributes, AMR countries having on average achieved 74%.
In the comparison of countries that reported in both 2010 and 2011, an average of 72% of the required attributes were achieved globally in 2011, an increase from 67% in 2010. At regional level, AFR countries reported the greatest increase in achieving the required attributes (from 48% to 72%), while decreases were seen for the SEAR and WPR, with possible reasons described above.

Globally, 83% of responding countries had a policy in place to ensure quality of laboratory diagnostic capacities, and 90% had established a network of laboratories to meet diagnostic requirements. More needs to be done in terms of certification and accreditation of diagnostic laboratories to international or national standards, as fewer than half the countries (45%) answered “Yes” to this question.

With regard to laboratory biosafety and biosecurity, 83% of responding countries had developed biosafety guidelines which are accessible to laboratories, and 78% countries reported having trained laboratory staff on use of the guidelines. In 46% of the responding countries, biological risk assessments had been conducted to update the biosafety regulations.
Globally, 62% of the responding countries reported having an inventory of public and private laboratories, with little variation among the regions, from 53% in the WPR to 71% in the EMR.

In 2011, 93% of countries reported having established a network of national and international laboratories to meet diagnostic and confirmatory laboratory requirements, an increase from 77% in 2010. All responding countries in the AFR and WPR answered “Yes” to this question in 2011.

Globally, 66% of responding countries reported that they had designated a responsible entity for laboratory biosafety and biosecurity. Most countries in the AMR, EMR and WPR (>70%) and 45% of SEAR countries answered “Yes” to this question.
**Figure 75:** Biorisk assessment conducted in laboratories to guide and update biosafety regulations, procedures and practices

Globally, 46% of the responding countries had conducted biorisk assessment in laboratories to guide and update biosafety regulations, procedures and practices. More than half of EUR countries (61%) and 27% of SEAR countries had conducted such an assessment.
3. DATA ANALYSIS AND INTERPRETATION: Points of Entry

3.3. Points of Entry

Figure 76: Capacity scores of Points of Entry, 2011

Globally, the responding countries had achieved more than half the attributes required by 2012. EMR, EUR and WPR countries on average achieved most (around 60%) of the required attributes, and AFR countries achieved 38%.

Figure 77: Capacity scores of Points of Entry, 2010 and 2011

Globally, there was a slight increase in achievement of required attributes for PoE, although there appeared to be a regression in the AMR and WPR. In AMR countries, this may be due to missing data for a number of countries as a result of conversion of data collected with the MERCOSUR tool. Possible reasons for the regression in the WPR are described above.

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6 Information related to the surveillance and response capacities from Argentina, Bolivia, Brazil, Chile, Colombia and Paraguay was submitted using the format developed by MERCOSUR and was converted into the WHO format. Information related to Points of Entry from Argentina, Bolivia, Brazil, Colombia, and Paraguay was submitted in a format not allowing its conversion into the WHO format.
Globally, 77% of responding countries had designated PoEs for the development of IHR capacities, and 52% sent a list of ports authorized to offer ship sanitation certificates to WHO. In 42% of responding countries, the designated PoEs had access to appropriate medical services.

Half the responding countries reported that SOPs for response were available at the designated PoEs, and 39% reported that the designated PoEs could provide medical assessment and care.

In all regions, half the responding countries had designated a “competent authority” for each PoE, as specified in Article 19B of the IHR (2005). More than 60% of countries in the EMR, SEAR and WPR and 41% of AFR countries had done so.
3. DATA ANALYSIS AND INTERPRETATION: Points of Entry

Figure 81: Ports/airports designated for development of capacities specified in Annex 1 of the IHR

Globally, 77% of countries had designated ports and airports for the development of capacities as specified in Annex 1 of the IHR (2005), including 94% of EMR, 95% of WPR and 59% of AFR countries.

Figure 82: Functioning programme for surveillance and control of vectors and reservoirs in and near PoE

Globally, 34% of responding countries had a functioning programme for surveillance and control of vectors and reservoirs in and near PoE. More than 40% of EUR and WPR countries answered “Yes” to this question.

Figure 83: Surveillance information at designated PoE shared with the surveillance department/unit

Globally, 64% of responding countries reported that surveillance information obtained at designated PoEs was shared with their national surveillance department or unit. In all regions, more than half the countries responded “Yes” to this question.
3. DATA ANALYSIS AND INTERPRETATION: Points of Entry

**Figure 84: SOPs for response available at designated PoEs**

Globally, half the responding countries reported that SOPs for response were available at designated PoEs; at regional level, the proportion ranged from 24% in the AFR to 66% in the EUR.

**Figure 85: Designated PoEs can apply recommended public health measures as required in the IHR**

Globally, less than half the responding countries (46%) reported that their designated PoEs could apply recommended public health measures as required in the IHR, the proportion ranging from 31% in the AMR to 65% in the EMR.
3.4. IHR Relevant Hazards

Figure 86: Capacity scores for the detection of and response to public health hazards, 2011

Globally, the responding countries achieved more required attributes for surveillance of and response to zoonotic and food safety events (76% and 69%, respectively) than for response to chemical and radio-nuclear events (45% and 49%). A similar pattern was observed at regional level. EUR countries achieved the most attributes for all hazards, and a gap was found between the AFR and the other regions.

Figure 87: National policy, strategy or plan in place for surveillance of and response to IHR-relevant hazards

Globally, more than 80% of reporting countries had a national policy, strategy or plan for surveillance of and response to zoonotic and food safety events, while fewer countries (< 60%) had one for chemical and radio-nuclear events.
3. DATA ANALYSIS AND INTERPRETATION: IHR Relevant Hazards

Figure 88: Coordination mechanism established for intersectoral collaboration on IHR-relevant hazards

In all regions, 77% of reporting countries had established a coordination mechanism for intersectoral collaboration on zoonotic and food safety events, and nearly half had done so for chemical and radio-nuclear events.

Figure 89: Information exchange between relevant sectors on IHR-relevant hazards

Countries are making progress in terms of intersectoral information exchange for the surveillance of and response to zoonotic and food safety events, with 65% of the required attributes achieved. Less progress was observed for chemical and radio-nuclear events, for which about 40% of the required attributes were achieved. EUR countries on average achieved the most attributes for all IHR-relevant hazards (> 57%).
Globally, 83% of responding countries had designated an animal health focal point for coordination with the IHR NFP, and 77% had established functional mechanisms for intersectoral collaboration. Mechanisms for response to outbreaks of zoonotic diseases had been established in 80% of responding countries.

Most responding countries (83%) had designated focal point(s) responsible for animal health (including wildlife) for coordination with the Ministry of Health and/or IHR NFP. At regional level, all SEAR countries and 95% of WPR countries had done so.

Globally, 74% of countries reported that a timely response had been made to >80% of zoonotic events of potential national or international concern. More than 80% of EUR, SEAR and WPR countries answered “Yes” to this question.
3. DATA ANALYSIS AND INTERPRETATION: IHR Relevant Hazards

**Figure 93:** Achievement of attributes for food safety

Globally, 92% of responding countries reported that national food laws or regulations were in place, and 66% had guidelines for managing priority food safety risks. Of these countries, 76% reported that they had access to laboratory capacity to confirm priority food safety events, and 55% had a roster of experts to assess and respond to food safety events.

**Figure 94:** Communication mechanisms and materials in place to deliver information, education and advice to stakeholders throughout the “farm-to-fork” continuum

In the comparison of countries that reported in both years, 71% had communication mechanisms and materials to deliver information, education and advice to stakeholders throughout the “farm-to-fork” continuum in 2011, an increase from 59% in 2010. EUR countries made better progress than the other regions, more than 90% of countries answering “Yes” in both years. The proportion in the AFR was the lowest (33%) but showed a remarkable increase since 2010.
On average, 78% of responding countries reported that they had established mechanisms for tracing, recall and disposal of contaminated products. Nearly all EUR countries (95%) and about half of AFR countries (51%) had such mechanisms.

Globally, 60% of responding countries had designated a focal point for coordination with the Ministry of Health and/or IHR NFP, and 52% had national plans for chemical event surveillance, alert and response. An emergency response plan for chemical emergencies was available in 45% of countries, and 55% had access to laboratory capacity to confirm priority chemical events.
3. DATA ANALYSIS AND INTERPRETATION: IHR Relevant Hazards

Figure 97: National authorities responsible for chemical events have a designated focal point for coordination with the Ministry of Health and/or IHR NFP

In 2011, 62% of responding countries reported that the national authorities responsible for chemical events had a designated focal point for coordination with the Ministry of Health and/or IHR NFP, with an increase from 42% in 2010. EUR countries made more progress than other regions, 80% of countries answering “Yes”, an increase from 53% in 2010.

Figure 98: List of priority chemical events/syndromes than may constitute a potential public health event of national and international concern identified

Globally, only 33% of responding countries had identified a list of priority chemical events/syndromes than may constitute a potential public health event of national and international concern. Such a list was available in 55% of EUR countries and 16% of AFR countries.

Figure 99: Achievement of attributes for radiological events

Globally, 59% of responding countries had policies or plans for detecting, assessing and responding to radiation emergencies, and 56% monitored radiation emergencies that may constitute a public health emergency of
3. DATA ANALYSIS AND INTERPRETATION: IHR Relevant Hazards

International concern. Half the responding countries had a radiation emergency response plan, and 59% had access to laboratory capacity to detect and confirm the presence of radiation and to identify its type.

**Figure 100:** National policies or plans established for national and international transport of radioactive material and samples and for waste management

Globally, more than half of the responding countries (51%) had national policies or plans for national and international transport of radioactive material and samples and for waste management. A “Yes” answer to this question was given by 80% of responding countries in the EUR and 22% in the AFR.

**Figure 101:** Monitoring for radiation emergencies in place

On average, 56% of responding countries reported monitoring for radiation emergencies, the proportion ranging from 32% in the AFR to 91% in the EUR.
3.5. Contribution to international community

Attributes related to Member States support to other countries and contribution to the international community are not scored as requirements to meet the IHR core capacities. However, relevant data are collected and analyzed to acknowledge the work done by MS to support each other and/or in sharing experiences with the international community.

Figure 102: Annual updates on status of IHR implementation to stakeholders across all relevant sectors

Globally, 41% of responding countries reported that they had provided annual updates on status of IHR implementation to stakeholders across all relevant sectors. A “Yes” answer was given by 65% of countries in the EMR, 73% in the SEAR and 19% in the AFR.

Figure 103: Country experience and findings on notification and use of Annex 2 of the IHR documented and shared globally

Globally, 38% of responding countries reported that they had documented and shared their experience and findings on notification and use of Annex 2 of the IHR globally. In all regions, fewer than half the countries answered “Yes” to this question; the highest proportion was 48% of AMR countries.

Figure 104: An active IHR website in place

In all the WHO regions, the proportion of countries with an active IHR website in place increased from 15% to 27%. The increases were greatest in the AFR (0% to 14%), the EMR (13% to 31%) and the WPR (6% to 29%); the score for the AMR remained the same.
Globally, more than half the reporting countries (54%) had evaluated the early warning function of their routine surveillance system and shared their experience with the global community. A majority of WPR countries (79%) had done so.

In all regions, 41% of reporting countries had offered assistance to other States Parties to develop response capacities or implement control measures; 62% and 63% of countries in the AMR and WPR, respectively, made this additional contribution.

Globally, 37% of responding countries documented their experience and findings on emergency response and mobilizing surge capacity and shared them with other countries, the proportion ranging from 27% in the AFR and EUR to 52% in the AMR.
Globally, 22% of all responding countries had contributed to international stockpiles, with similar proportions of countries in all the WHO regions, ranging from 16% in the AFR to 28% in the AMR.

Globally, 15% of responding countries had reviewed surveillance of health threats at PoE and had published the results. Nearly one third of WPR countries and 9% of EUR countries answered “Yes” to this question.
4. CONCLUSION

4.1. Global Summary

In 2011, a slightly revised version of the States Parties questionnaire was sent to all NFPs. A total of 161 completed questionnaires were received, representing 83% of the 194 State Parties, an increase of 18% from 2010. The submission rates of all regions were > 70%, and those of the SEAR and AMR were > 90%, the SEAR having maintained a full (100%) submission rate for 2 years. The greatest increases (> 30%) in submission rates were those from the AFR (from 50% to 80%) and the AMR (from 57% to 91%).

State Parties are making good progress in attaining the eight IHR core capacities, notably in terms of surveillance, response and laboratory services, with > 72% of the required attributes achieved in each of these areas. Progress in strengthening human resources and preparedness is slower, with < 60% of the required attributes achieved. Since 2010, there has been overall progress in achieving all eight core capacities. The most notable progress is in surveillance, the percentage of achieved attributes having increased from 65% to 79%. There was a > 7% increase in the percentage of achieved attributes for legislation (from 58% to 65%), preparedness (from 51% to 60%) and human resources (from 41% to 48%).

With regard to Points of Entry, countries have achieved more than half the required attributes (51%). Since 2010, there has been a slight increase in the proportion of attributes achieved, from 54% to 55%.

With regard to IHR-relevant hazards, the capacities to detect and respond to zoonotic and food safety events is stronger, with 76% and 69% of the required attributes achieved, while the capacities to respond to chemical and radiological events is weaker, only 45% and 49% of the required attributes having been achieved, respectively. Since 2010, there has been an overall increase in achievement of the required attributes for detecting and responding to zoonotic events (from 72% to 78%), food safety events (from 67% to 70%), chemical events (from 42% to 47%) and radiological events (from 46% to 53%).
4.2. Regional Highlights

The strengths and weaknesses of the different regions with regard to core capacities, IHR-relevant hazards and PoE, and based on the self-reported country data collected with the 2011 States Parties questionnaire are shown in the table below.

<table>
<thead>
<tr>
<th>Regions</th>
<th>Relative strengths</th>
<th>Relative weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFR</td>
<td>– Surveillance</td>
<td>– Legislation</td>
</tr>
<tr>
<td></td>
<td>– Laboratory services</td>
<td>– Chemical events</td>
</tr>
<tr>
<td></td>
<td>– Zoonotic events</td>
<td>– Radio-nuclear events</td>
</tr>
<tr>
<td>AMR</td>
<td>– Surveillance</td>
<td>– Points of entry</td>
</tr>
<tr>
<td></td>
<td>– Response</td>
<td>– Chemical events</td>
</tr>
<tr>
<td></td>
<td>– Zoonotic events</td>
<td>– Radio-nuclear events</td>
</tr>
<tr>
<td>EMR</td>
<td>– Legislation</td>
<td>– Human resources</td>
</tr>
<tr>
<td></td>
<td>– Coordination</td>
<td>– Chemical events</td>
</tr>
<tr>
<td></td>
<td>– Surveillance</td>
<td>– Radio-nuclear events</td>
</tr>
<tr>
<td>EUR</td>
<td>– Surveillance</td>
<td>– Risk communication</td>
</tr>
<tr>
<td></td>
<td>– Zoonotic events</td>
<td>– Human resources</td>
</tr>
<tr>
<td></td>
<td>– Food safety events</td>
<td>– Points of entry</td>
</tr>
<tr>
<td>SEAR</td>
<td>– Surveillance</td>
<td>– Points of entry</td>
</tr>
<tr>
<td></td>
<td>– Response</td>
<td>– Chemical events</td>
</tr>
<tr>
<td></td>
<td>– Zoonotic events</td>
<td>– Radio-nuclear events</td>
</tr>
<tr>
<td>WPR</td>
<td>– Coordination</td>
<td>– Human resources</td>
</tr>
<tr>
<td></td>
<td>– Response</td>
<td>– Chemical events</td>
</tr>
<tr>
<td></td>
<td>– Risk communication</td>
<td>– Radio-nuclear events</td>
</tr>
</tbody>
</table>

Progress made in achieving the attributes has varied at regional level. Overall, the regions are making good progress on achieving attributes for the establishment of NFP functions and provision of updated NFP information; designation of responsible units for indicator-based and event-based surveillance; coordination among relevant ministries, particularly for the detection of and response to zoonotic events; and access to laboratory capacity to confirm priority zoonotic events. There has been less progress in achieving mapping of national resources for IHR-relevant hazards and priority risks; funding and meeting milestones for training; updating public health emergency plans at designated PoEs; development of SOPs for rapid assessment, case management and control of chemical events; and identification of a list of priority chemical events/syndromes that may constitute a potential public health event of national and international concern. The level of achievement of attributes in each region is summarized in the following table.
## 4. CONCLUSION: Regional Highlights

<table>
<thead>
<tr>
<th>Regions</th>
<th>High level of achievement</th>
<th>Low level of achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFR</td>
<td>– A list of priority diseases, conditions and case definitions for surveillance available&lt;br&gt;– A specific unit(s) designated for surveillance of public health risks available&lt;br&gt;– A network of national and international laboratories to meet diagnostic and confirmatory laboratory requirements and support outbreak investigations for events specified in Annex 2 of IHR&lt;br&gt;– Access to laboratory capacity, nationally or internationally (through established procedures) to confirm priority zoonotic events&lt;br&gt;– Case management guidelines for priority conditions available&lt;br&gt;– Baseline estimates, trends, and thresholds for alert and action defined for the community/primary response level for priority diseases/events&lt;br&gt;– IHR NFP established&lt;br&gt;– IHR NFP provide WHO with updated contact information as well as annual confirmation of the IHR NFP&lt;br&gt;– Surveillance data on epidemic prone and priority diseases analyzed at least weekly at national and sub-national levels&lt;br&gt;– Unit(s) responsible for event-based surveillance identified</td>
<td>– Evaluation of public health communication conducted after emergencies, for timeliness, transparency and appropriateness of communications&lt;br&gt;– Public health emergency contingency plans at designated PoE tested and updated as needed&lt;br&gt;– An adequately resourced Poison Centre in place&lt;br&gt;– Radiation emergency response drills carried out regularly, including the requesting of international assistance (as needed) and international notification&lt;br&gt;– Chemical event response plan tested through occurrence of real event or through a simulation exercise and updated as needed&lt;br&gt;– An emergency response plan that defines the roles and responsibilities of relevant agencies in place for chemical emergencies&lt;br&gt;– Manuals and SOPs for rapid assessment, case management and control of chemical events available and disseminated&lt;br&gt;– Systematic information exchange between radiological competent authorities and human health surveillance units about urgent radiological events and potential risks that may constitute a public health emergency of international concern&lt;br&gt;– Operational plan(s) for responding to food safety events tested in an actual emergency or simulation exercise and updated as needed</td>
</tr>
</tbody>
</table>
### 4. CONCLUSION: Regional Highlights

<table>
<thead>
<tr>
<th>Regions</th>
<th>High level of achievement</th>
<th>Low level of achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMR</td>
<td>- Coordination within relevant ministries on events that may constitute a public health event or risk of national or international concern</td>
<td>- Public health emergency contingency plans at designated PoE tested and updated as needed</td>
</tr>
<tr>
<td></td>
<td>- National stakeholders responsible for the implementation of IHR identified</td>
<td>- A chemical event response plan tested through occurrence of real event or through a simulation exercise and updated as needed</td>
</tr>
<tr>
<td></td>
<td>- A list of priority diseases, conditions and case definitions for surveillance available</td>
<td>- Operational plan(s) for responding to food safety events tested in an actual emergency or simulation exercise and updated as needed</td>
</tr>
<tr>
<td></td>
<td>- Biosafety guidelines accessible to laboratories</td>
<td>- Relevant legislation, regulations, administrative acts, protocols, procedures and other government instruments to facilitate IHR implementation at designated PoE updated as needed</td>
</tr>
<tr>
<td></td>
<td>- National or international food safety standards available</td>
<td>- Radiation emergency response drills carried out regularly, including the requesting of international assistance (as needed) and international notification</td>
</tr>
<tr>
<td></td>
<td>- National food laws, regulations or policies in place to facilitate food safety control</td>
<td>- A mechanism in place to access health facilities (inside or outside the country) with capacity to manage patients of radiation emergencies</td>
</tr>
<tr>
<td></td>
<td>- Regularly updated information sources accessible to media and the public for information dissemination</td>
<td>- Manuals and SOPs for rapid assessment, case management and control of chemical events available and disseminated</td>
</tr>
<tr>
<td></td>
<td>- Specific unit(s) designated for surveillance of public health risks</td>
<td>- A list of priority chemical events/syndromes that may constitute a potential public health event of national and international concern identified</td>
</tr>
<tr>
<td></td>
<td>- Unit(s) responsible for event-based surveillance been identified</td>
<td></td>
</tr>
</tbody>
</table>
### 4. CONCLUSION: Regional Highlights

<table>
<thead>
<tr>
<th>Regions</th>
<th>High level of achievement</th>
<th>Low level of achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMR</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>– IHR NFP has been established</td>
<td>– Manuals and SOPs for rapid assessment, case management and control of chemical events available and disseminated</td>
</tr>
<tr>
<td></td>
<td>– National stakeholders responsible for IHR implementation identified</td>
<td>– Collaborative mechanisms in place for access to specialized laboratories that are able to perform bioassays, biological dosimetry by cytogenetic analysis and ESR</td>
</tr>
<tr>
<td></td>
<td>– A list of priority diseases, conditions and case definitions for surveillance available</td>
<td>– Policies, SOPs or guidelines developed on the clearance and release of information during a public health emergency</td>
</tr>
<tr>
<td></td>
<td>– Specific unit(s) designated for surveillance of public health risks</td>
<td>– Progress for meeting workforce numbers and skills consistent with milestones set in the training plan</td>
</tr>
<tr>
<td></td>
<td>– Unit(s) responsible for event-based surveillance identified</td>
<td>– A list of priority chemical events/syndromes that may constitute a potential public health event of national and international concern identified</td>
</tr>
<tr>
<td></td>
<td>– Information sources for public health events and risks identified</td>
<td>– Timely and systematic information exchange between appropriate chemical units, surveillance units and other relevant sectors about urgent chemical events and potential chemical risks</td>
</tr>
<tr>
<td></td>
<td>– A system or mechanism in place at national and/or sub-national levels for capturing and registering public health events from a variety of sources</td>
<td>– National risk profile and resources assessed regularly to accommodate emerging threats</td>
</tr>
<tr>
<td></td>
<td>– Rapid Response Teams (RRTs) available to respond to events that may constitute a public health emergency</td>
<td>– Stockpiles (critical stock levels) accessible for responding to priority biological, chemical, radiological events and other emergencies</td>
</tr>
<tr>
<td></td>
<td>– Multidisciplinary RRT be deployed within 48 hrs from the first report of an urgent event</td>
<td>– Coordination exist within the responsible government authority(ies) for the detection of and response to zoonotic events</td>
</tr>
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</tbody>
</table>
### 4. CONCLUSION: Regional Highlights

<table>
<thead>
<tr>
<th>Regions</th>
<th>High level of achievement</th>
<th>Low level of achievement</th>
</tr>
</thead>
</table>
| EUR     | - Responsibility assigned for surveillance of health-care-associated infections  
- Defined norms or guidelines developed for protecting health-care workers  
- National or international food safety standards available  
- Food safety control management systems (including for imported food) implemented  
- National food laws, regulations or policies in place to facilitate food safety control  
- IHR NFP established  
- IHR NFP provide WHO with updated contact information as well as annual confirmation of the IHR NFP  
- A list of priority diseases, conditions and case definitions for surveillance available  
- Specific unit(s) designated for surveillance of public health risks  
- Risk-based food inspection services in place | - Progress for meeting workforce numbers and skills consistent with milestones set in the training plan  
- Specific programs, with allocated budgets, available to train workforces for IHR-relevant hazards  
- A workforce development or training plan that includes human resource requirements for IHR exists  
- Public health emergency contingency plans at designated PoE tested and updated as needed  
- A strategy or plan developed to access field epidemiology training (one year or more) in- country, regionally or internationally  
- Annual updates conducted on status of IHR implementation to stakeholders across all relevant sectors  
- Evaluations of response including the timeliness and quality of response systematically carried out  
- Additional roles and responsibilities for the IHR NFP functions implemented  
- Designated PoEs assessed |
### 4. CONCLUSION: Regional Highlights

<table>
<thead>
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<th>Regions</th>
<th>High level of achievement</th>
<th>Low level of achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEAR</td>
<td>- IHR NFP established</td>
<td>- Radiation emergency response drills carried out regularly, including the requesting of international assistance (as needed) and international notification</td>
</tr>
<tr>
<td></td>
<td>- National stakeholders responsible for the implementation of IHR identified</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- A list of priority diseases, conditions and case definitions for surveillance available</td>
<td>- Timely and systematic information exchange between appropriate chemical units, surveillance units and other relevant sectors about urgent chemical events and potential chemical risks</td>
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<td>- Unit(s) responsible for event-based surveillance identified</td>
<td>- Public health emergency contingency plans at designated PoE tested and updated as needed</td>
</tr>
<tr>
<td></td>
<td>- Resources accessible for rapid response during public health emergencies of national or international concern</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Rapid Response Teams (RRTs) to respond to events that may constitute a public health emergency</td>
<td>- Progress for meeting workforce numbers and skills consistent with milestones set in the training plan</td>
</tr>
<tr>
<td></td>
<td>- Risk communication partners and stakeholders identified</td>
<td>- Evaluation of public health communication conducted after emergencies, for timeliness, transparency and appropriateness of communications, carried out</td>
</tr>
<tr>
<td></td>
<td>- A review meeting (or other appropriate method) held to designate PoEs</td>
<td>- Biorisk assessment conducted in laboratories to guide and update biosafety regulations, procedures and practice, including for decontamination and management of infectious waste</td>
</tr>
<tr>
<td></td>
<td>- Coordination exists within the responsible government authority(ies) for the detection of and response to zoonotic events</td>
<td>- Operational plan(s) for responding to food safety events tested in an actual emergency or simulation exercise and updated as needed</td>
</tr>
</tbody>
</table>
## 4. CONCLUSION: Regional Highlights

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<tr>
<td>WPR</td>
<td></td>
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<tr>
<td></td>
<td>– Coordination exits within relevant ministries on events that may constitute a public health event or risk of national or international concern</td>
<td>– A list of priority chemical events/syndromes that may constitute a potential public health event of national and international concern identified</td>
</tr>
<tr>
<td></td>
<td>– IHR NFP established</td>
<td>– An inventory of major hazard sites and facilities that could be a source of chemical public health emergencies exist</td>
</tr>
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<td>– IHR NFP provide WHO with updated contact information as well as annual confirmation of the IHR NFP</td>
<td>– Progress for meeting workforce numbers and skills consistent with milestones set in the training plan</td>
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<td>– A list of priority diseases, conditions and case definitions for surveillance available</td>
<td>– Annual updates conducted on status of IHR implementation to stakeholders across all relevant sectors</td>
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<tr>
<td></td>
<td>– Specific unit(s) designated for surveillance of public health risks</td>
<td>– Manuals and SOPs for rapid assessment, case management and control of chemical events available and disseminated</td>
</tr>
<tr>
<td></td>
<td>– Unit(s) responsible for event-based surveillance identified</td>
<td>– An adequately resourced Poison Centre(s) in place</td>
</tr>
<tr>
<td></td>
<td>– IHR Event Information Site used as an integral part of the IHR NFP information resource</td>
<td>– Radiation emergency response drills carried out regularly, including the requesting of international assistance (as needed) and international notification</td>
</tr>
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<td>– System or mechanism in place at national and/or sub-national levels for capturing and registering public health events from a variety of sources</td>
<td>– Collaborative mechanisms in place for access to specialized laboratories that are able to perform bioassays, biological dosimetry by cytogenetic analysis and ESR</td>
</tr>
<tr>
<td></td>
<td>– Resources for rapid response during public health emergencies of national or international concern accessible</td>
<td>– Scenarios, technical guidelines and SOPs developed for risk assessment, reporting, event confirmation and notification, investigation and management of radiation emergencies</td>
</tr>
<tr>
<td></td>
<td>– Public health emergency response management procedures established for command, communications and control during public health emergency response operations</td>
<td>– National policies, strategies or plans established for the detection, assessment and response to radiation emergencies assessment and response to radiation emergencies</td>
</tr>
</tbody>
</table>
4.3. Proposed areas for strengthening and support based on self-reported data

The analysis of responses to the States Party questionnaire in 2011 indicates that countries require strengthening and support in achieving the following attributes (listed under the corresponding core capacities, PoE and IHR-relevant hazards), within specific regional contexts:

- **Coordination**
  - Annual updates conducted on status of IHR implementation to stakeholders across all relevant sectors
  - Additional roles and responsibilities for the IHR NFP functions implemented

- **Surveillance**
  - Use of the decision instrument reviewed and procedures for decision-making updated on the basis of lessons learnt

- **Response**
  - Evaluations of response including the timeliness and quality of response systematically carried out
  - Surveillance within high risk groups to promptly detect and investigate clusters of infectious disease patients, as well as unexplained illnesses in health workers

- **Preparedness**
  - National resources mapped for IHR relevant hazards and priority risks
  - National risk profile and resources assessed regularly to accommodate emerging threats
  - Stockpiles (critical stock levels) accessible for responding to priority biological, chemical, radiological events and other emergencies
  - National risk assessment to identify potential urgent public health event, and the most likely sources of these events conducted

- **Risk communication**
  - Evaluation of public health communication conducted after emergencies, for timeliness, transparency and appropriateness of communications
  - Risk communication plan implemented or tested through actual emergency or simulation exercise and updated in the last 12 months

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7 Analysis of the strengths and weaknesses of IHR core capacities as well as areas for strengthening and support in this document is based on self-reported data submitted by States Parties with the 2011 IHR monitoring questionnaire. Specific country contexts and other sources of information if available may also need to be considered in identifying priorities and needs, and planning for future activities.
4. CONCLUSION: Proposed Areas for Strengthening and Support

- **Human resources**
  - Progress for meeting workforce numbers and skills consistent with milestones set in the training plan
  - Specific programs available with allocated budgets, to train workforces for IHR-relevant hazards
  - Workforce development or training plan that includes human resource requirements for IHR exists
  - Needs assessment conducted to identify gaps in human resources and training to meet IHR requirements

- **Laboratory services**
  - All diagnostic laboratories certified or accredited to international standards or to national standards adapted from international standards
  - Biorisk assessment conducted in laboratories to guide and update biosafety regulations, procedures and practice, including for decontamination and management of infectious waste

- **PoE**
  - Public health emergency contingency plans at designated PoEs tested and updated as needed
  - Relevant legislation, regulations, administrative acts, protocols, procedures and other government instruments to facilitate IHR implementation at designated PoEs updated as needed
  - Designated PoEs assessed
  - SOPs for response at designated PoEs available

- **Zoonosis**
  - Regularly updated roster (list) of experts that can respond to zoonotic events available

- **Food Safety**
  - Operational plan(s) for responding to food safety events tested in an actual emergency or simulation exercise and updated as needed

- **Chemical Events**
  - Manuals and SOPs for rapid assessment, case management and control of chemical events available and disseminated
  - List of priority chemical events/syndromes that may constitute a potential public health event of national and international concern identified
4. CONCLUSION: Proposed Areas for Strengthening and Support

Chemical event response plan tested through occurrence of real event or through a simulation exercise and updated as needed

Timely and systematic information exchange between appropriate chemical units, surveillance units and other relevant sectors about urgent chemical events and potential chemical risks

Adequately resourced Poison Centre(s) in place

Emergency response plan that defines the roles and responsibilities of relevant agencies in place for chemical emergencies

Inventory of major hazard sites and facilities that could be a source of chemical public health emergencies available

Functional coordination mechanisms with relevant sectors exist for surveillance and timely response to chemical events

Radio-nuclear Events

Radiation emergency response drills carried out regularly, including the requesting of international assistance (as needed) and international notification

Collaborative mechanisms in place for access to specialized laboratories that are able to perform bioassays, biological dosimetry by cytogenetic analysis and ESR

Systematic information exchange between radiological competent authorities and human health surveillance units about urgent radiological events and potential risks that may constitute a public health emergency of international concern

Scenarios, technical guidelines and SOPs developed for risk assessment, reporting, event confirmation and notification, investigation and management of radiation emergencies

Radiation emergency response plan available

Mechanism in place to access health facilities (inside or outside the country) with capacity to manage patients of radiation emergencies

Overall, despite the progress made in countries reporting in both years (2010 and 2011), the following five areas require further strengthening in order to help countries and regions to achieve the core capacity requirements for IHR implementation:

- Preparedness
- Human resources
- PoE
- Chemical Events
- Radio-nuclear Events