Strengthening IHR and health emergency capacities through implementation of national action plans

The International Health Regulations (IHR) (2005) have served as a valuable guidepost for national and international capacity-building, coordination and collaboration for global health security. Implementation of IHR is becoming a priority worldwide and each region of WHO is actively pursuing the goals to be achieved to become fully compliant with IHR. Member States in this Region have 100% compliance with mandatory annual IHR reporting via the State Party Annual Report (SPAR) since 2016. Till 2018, eight out of the 11 Member States of the Region had completed joint external evaluations (JEEs). To review and assess functional capacity, five countries (India, Maldives, Myanmar, Nepal and Sri Lanka) in the Region conducted after-action reviews while Indonesia and Nepal conducted simulation exercises involving different stakeholders, including WHO.

IHR core capacities have significantly improved in the South-East Asia Region over the past 10 years. However, national core capacities are still weak in areas such as zoonoses, food safety, health service provision, risk communication, points of entry, preparedness for and management of chemical biological and radionuclear (CBRN) events (ports, ground-crossing and airports). IHR national focal points (NFPs) across the Region need to improve capacity in the following areas with more impetus and investments: emergency preparedness; readiness to deal with any unexpected chemical or radionuclear emergency; enhancing biosafety and biosecurity in laboratory networks to curb increasing antimicrobial resistance due to weak medical countermeasures and delayed personnel deployment; and improving prevention and control of disease transmission at the points of entry.

Member States should prioritize national action plans for health security and mobilize domestic funding and partners’ support to implement the plans. IHR Performance of Veterinary Services Pathways should be encouraged, following the One Health approach and improving intersectoral coordination mechanisms. The five-year Regional Strategic Plan to Strengthen Public Health Preparedness and Response (2019–2023) has been drafted in line with the five-year Global Strategic Plan to improve Public Health Preparedness and Response.
The global strategic plan was welcomed by the World Health Assembly in May 2018 through decision WHA71(15). It serves as a guide for strategies of Member States in aligning and adapting country-specific priorities for achieving health security. The attached Working Paper was presented to the High-Level Preparatory Meeting. The HLP Meeting reviewed the paper and made the following recommendations for consideration by the Seventy-second Session of the Regional Committee:

**Actions by Member States**

1. Accelerate the implementation of IHR: through development/revision and implementation of NAPHS; allocation of sufficient resources; regular monitoring and evaluation; and coordination with related stakeholders.

2. Utilize various IHR MEF tools including State Party Annual Report, After-Action Reviews, simulation exercises or joint external evaluations, as appropriate, for objective assessment of IHR core capacities.

3. Continue building capacity of IHR National Focal Points through strengthening and inter-linking them with new and existing networks (for example, Regional Knowledge Network of IHR NFP+, Global Outbreak Alert and Response Network and Rapid Response Teams Network).

**Actions by WHO**

1. Continue providing support to Member States for IHR implementation.

2. Support the strengthening of the Regional Knowledge Network of IHR NFP+.

3. Facilitate the establishment of partnerships and mobilization of resources for and with the Member States for the implementation of national action plans for health security.

This working paper and the HLP recommendations are submitted to Seventy-second Session of the WHO Regional Committee for South-East Asia for its consideration.
Introduction

1. The International Health Regulations (IHR) (2005) that came into force on 15 June 2007 have marked a new era of international cooperation for the management of international public health events and emergencies. It is key to health security and requires coordination among multiple sectors.

2. Implementation of the IHR has been tested under real-world conditions, such as the influenza A (H1N1) pdm09 virus pandemic in 2009, epidemics of Ebola virus disease, Middle East respiratory syndrome coronavirus (MERS-CoV), yellow fever and Zika virus disease. The Regulations have served as a valuable guidepost for national and international capacity-building, coordination and collaboration for global health security. Other international forums, including the Global Health Security Agenda (GHSA) and Health Security Initiative for the Indo-Pacific Region, recognized the importance of the IHR as a global framework and have focused discussions among nations on IHR-related emergency core capacity-building. Implementation of IHR is becoming a priority worldwide and each region of WHO is actively pursuing the goals to be achieved for full compliance with the IHR by following a targeted approach.  

Current situation, response and challenges

3. State Parties check their progress through different mechanisms: mandatory self-assessment based on the State Party Annual Reporting (SPAR) tool, and three voluntary elements, including simulation exercises (SimEx), after-action review (AAR), and joint external evaluation (JEE). The SPAR and JEE are based on quantitative measures, while AARs and SimEx are based on qualitative measures and are aimed at gauging the functional status of the core capacities.

4. In 2018, the annual reporting tool was revised to the State Party Annual Reporting (SPAR) tool. This SPAR tool comprises several indicators on 13 core capacities for strengthening IHR implementation. The JEE is conducted on the basis of country progress ascertained through 48 indicators covering 19 technical areas. The JEE tool was introduced in February 2016. Following revision the second edition of the tool was finalized in mid-2017.

---


5. Member States in the SEA Region have 100% compliance with mandatory annual IHR reporting since 2016. Till 2018, eight out of 11 Member States had completed JEEs. To review and assess functional capacity, five countries (India, Maldives, Myanmar, Nepal and Sri Lanka) in the Region conducted AARs, while Indonesia and Nepal conducted SimExs involving different stakeholders, including WHO.

6. A snapshot of country-wise performance on indicators of 13 core capacities as reported by the IHR national focal points (NFPs) in SPAR 2018 is provided in Annex 1. It is also available on a web-based platform – the electronic self-assessment annual reporting. IHR core capacities have significantly improved in the South-East Asia Region over the past 10 years. However, national core capacities are still weak in areas such as zoonoses, food safety, health service provision, risk communication, points of entry, and preparedness and management of chemical biological and radionuclear (CBRN) events. Progress made across 13 core capacities as per self-assessed SPARs from 2012 to 2017 are given in Fig. 1, while the level of reported core capacities with the new SPAR tool for the year 2018 is given in Fig. 2.

Fig. 1. Progress in implementing IHR (2005) as reported in annual reporting, 2012–2017 (score given as a percentage)

7. The slight decline in the score of IHR core capacities after 2016 may be because of raised awareness among NFPs about the IHR monitoring and evaluation (M&E) tools and interest in objective external evaluations. Therefore, caution should be exercised while comparing the score of core capacities before and after 2016.
8. A regional overview of IHR capacity on 19 technical areas as per the eight JEEs conducted reflects significant progress in the areas of national legislation; policy and financing; IHR coordination; communication and advocacy; extent of and access to immunization services; laboratory capacity; surveillance and reporting; and risk communication.

9. However, the IHR NFPs across the Region need to improve capacity in certain areas with more impetus and investments: emergency preparedness; readiness to deal with any unexpected chemical or radionuclear emergency; enhancing biosafety and biosecurity in laboratory networks to curb increasing antimicrobial resistance (AMR) due to weak medical countermeasures and delayed personnel deployment; and improving prevention and control of disease transmission at points of entry (Fig. 3).

**Fig. 2. Progress in implementing IHR (2005) as reported in SPAR, 2018**
(score given as percentage)

**Fig. 3. Regional average score across 19 technical areas as per eight JEEs conducted**
10. Technical areas with scores <40% as assessed in the eight JEEs:

(1) Health emergency preparedness;
(2) Preparedness and management of CBRN events;
(3) Biosafety and biosecurity standards and their implementation in laboratories;
(4) Prevention and control of AMR; and
(5) Medical countermeasures and personnel deployment.

11. Member States, with the support of WHO, will need to continue the momentum of reporting IHR (2005) implementation status using the new annual reporting tool and measure progress through other complimentary voluntary instruments under the IHR M&E Framework as necessary. It is a continuous process repeated at an interval of 3–4 years. Member States must establish evidence-based capacity to prevent, prepare for, detect, notify and respond to acute public health emergencies. Strengthening these capacities through national action plans not only improves national health security but also safeguards travel and trade, and helps to protect economic and social development.

12. A national action plan for health security (NAPHS) is a country-owned, multi-year planning process that can accelerate the implementation of IHR core capacities and is based on the One Health and whole-of-government approach to all hazards. WHO is providing technical support to Member States upon request to develop or strengthen NAPHS with emphasis on country ownership, intersectoral coordination and strategic partnerships. Five Member States (Indonesia, Maldives, Myanmar, Sri Lanka and Thailand) have developed their NAPHS and are now in the implementation phase. Bhutan has recently developed its NAPHS in February 2019 and is moving forward with its implementation plan. Bangladesh and Timor-Leste are close to completing their NAPHS.

13. Assessing national capacity, including objective independent assessment of compliance with IHR; linking IHR and the Pandemic Influenza Preparedness Framework; and responsibilities for coordination during a multinational emergency response are the challenges being faced by State Parties. Strengthening of event-based surveillance, sharing of best practices and issues of concern, and probable corrective measures through peer-to-peer learning needs to be promoted and facilitated through the creation of a web-enabled platform of the Regional Knowledge Network of IHR NFPs and relevant partners (NFP+). There is a huge need for developing risk communication expertise and capacity in the Region.

14. Financing to strengthen national IHR capacity is mainly from domestic sources in most Member States and in collaboration with different stakeholders of global health security. However, a collective partnership platform and resource mapping for the national action plan is crucial for its effective implementation. WHO is to coordinate at all levels (national, regional, global) to support Member States where support is needed to enhance IHR core capacity and global health security.
15. The representatives of IHR NFPs during the Regional Workshop of IHR NFPs on 25–29 March 2019 in New Delhi provided inputs for and recommendations to the "Five-Year Regional Strategic Plan to Strengthen Public Health Preparedness and Response (2019–2023)", the Regional Risk Communication Strategy, and for establishing the Regional Knowledge Network of IHR NFP+.

**The way forward**

16. Implementation of IHR (2005) and 13 core capacities need to be further strengthened and consolidated at the national and subnational levels. The following priorities were identified during the Regional Workshop of IHR NFPs on 25–29 March 2019 in New Delhi:

**A. IHR Monitoring and Evaluation Framework:** Compliance with SPAR is 100% among the Member States. However, there is a need to further sustain, accelerate and innovate in the following technical areas:

   a. preparedness and management of CBRN events;
   b. biosafety and biosecurity standards and their implementation in laboratories;
   c. prevention and control of AMR;
   d. medical countermeasures and personnel deployment;
   e. points of entry (contingency planning; ground crossings).

   Member States need to improve event-based surveillance using innovative technologies. Early warning alert and response systems (EWARS) - in a Box - need to be promoted and implemented for early detection of imminent disease outbreaks.

   Strengthening risk communication systems for public health emergencies is also needed, including management of fake news and misinformation.

   AARs should be documented and shared with other NFPs in the Region through the Regional Knowledge Network. Simulation exercises should be done more often, considering the national and regional changing disease burden of infectious diseases.

   Although eight countries have completed JEEs, and two more are planning to host JEE missions in 2019, Member States should be prepared for and proactive in having the JEE conducted on time, especially at this juncture when the second round of JEEs is starting in the coming year/s.

**B. National IHR Performance of Veterinary Services (PVS) Pathway using the One Health approach:** WHO and the World Organisation for Animal Health (OIE) have been active promoters and implementers of an intersectoral collaborative approach among institutions and systems to prevent, detect and control diseases among animals and humans.
OIE and WHO consider that at country level, the joint use and/or refinement of the respective WHO IHR M&E Framework tools and OIE PVS Pathway would result in better alignment of the capacity-building approach and strategies between the human and animal health sectors. The main objective of the IHR-PVS National Bridging Workshop (IHR-PVS NBW) is to provide an opportunity to human and animal health services for hosting countries to build on the assessments conducted in the human and animal health sectors, and to explore options for improved coordination and jointly strengthening their preparedness for, and control of, the spread of zoonotic diseases. It helps in operationalizing One Health on the one hand and contributes to the development of NAPHS on the other. Pilot-testing of the IHR-PVS NBW was done in Thailand in 2014 and NBWs were organized in Bangladesh, Bhutan and Indonesia.

Member States are encouraged to organize IHR-PVS NBWs for aligning both the human and animal health sectors towards the common goal of preventing, detecting and controlling zoonoses and other emerging diseases.

C. National action plans for health security: The NAPHS captures national priorities for health security, brings sectors together, identifies partners and allocates resources for capacity development in health security. It also provides an overarching process to capture all ongoing preparedness initiatives in a country along with a country governance mechanism for emergencies and disaster risk management. Implementation of the NAPHS consists of reprioritization of the Plan for operations based on resource mapping, integration into the national health sector plan, monitoring, evaluation, and periodic reporting and updating of the NAPHS. It is important to attract domestic financing for the Plan and continued mobilization of additional resources from national and other sources of funds (e.g. development banks, international agencies). An endorsed NAPHS should be linked to the national health strategic plan, government national plan and budget cycle to ensure adequate resource allocation and advocacy, M&E of its implementation; and accountability of the government.

Five countries (Indonesia, Maldives, Myanmar, Sri Lanka and Thailand) in the Region have developed NAPHS and are in the phase of implementation. WHO is committed to continue providing guidance and technical assistance to Member States in developing, implementing and monitoring their national action plans. Bhutan has developed its national action plan and is in the phase of costing and getting the plan endorsed by the Ministry of Health and stakeholders. Bangladesh and Timor-Leste will be finalizing development of their NAPHS in 2019. India and the Democratic People’s Republic of Korea are considering development of their NAPHS.

WHO has recently released the benchmarks for IHR (2005) capacities in February and the country implementation guide in May 2019. These will further guide State Parties, partners, donors, and international and national organizations, on the suggested actions needed to improve IHR capacities for health security and integrate multisectoral concerns at the subnational (local and regional/provincial) and national levels.

D. Partnerships and resources mobilization: Member States should increase the domestic funding investment in IHR implementation and emergency preparedness and disaster risk management, while expanding partnerships and engagement of national and international stakeholders and partners. WHO is committed to supporting Member States in mobilizing partners and resources for achieving health security in the Region.

Membership of the Global Outbreak and Alert Response Network, Emergency Medical Team database, health emergency operations centres and WHO collaborating centres should be expanded and sustained.

E. Regional Strategic Plan to strengthen public health preparedness and response (2019–2023): A draft five-year Regional Strategic Plan to strengthen public health preparedness and response (2019–2023) has been prepared in consultation with NFPs, based on a situational analysis on the progress of IHR implementation in the Region, and identified gaps and opportunities. It was aligned with the Global Strategic Plan following the “Three Pillars” approach and the principles laid out in the WHO Thirteenth General Programme of Work. It should serve the need of strategic vision for Member States in aligning and adapting country-specific priorities to achieve health security through:

- building and maintaining IHR core capacities in Member States;
- strengthening event notification and management; and
- measuring progress (support IHR M&E).

Conclusions

17. The South-East Asia Region has a high burden of disease outbreaks, emerging and re-emerging diseases including zoonotic diseases, in addition to high vulnerability to natural and human-induced disasters. Hence, sustaining and accelerating implementation of IHR (2005), along with ensuring development and implementation of NAPHS by each Member State, should be the foremost priority in the Region for protecting the development gains achieved so far.

18. Member States, partners and WHO should increase investment in emergency risk management to improve the identified weaknesses in the emergency core capacities required for health security. There is a need to leverage funding; both domestic as well as from other sources (e.g. donors, development banks).

19. A strongly networked and capacitated community of IHR NFPs through the Regional Knowledge Network and ready-to-be deployed national emergency medical teams and rapid response teams can accelerate IHR implementation and curb the national and regional burden of infectious disease outbreaks, which, in turn will allow more time and resources for making communities, nations and this Region resilient and prosperous.
Annex 1. IHR core capacities as reported in SPAR 2018

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Bangladesh</th>
<th>Bhutan</th>
<th>DPR Korea</th>
<th>India</th>
<th>Indonesia</th>
<th>Maldives</th>
<th>Myanmar</th>
<th>Nepal</th>
<th>Sri Lanka</th>
<th>Thailand</th>
<th>Timor-Leste</th>
<th>SEA Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislation &amp; Financing</td>
<td>60</td>
<td>53</td>
<td>60</td>
<td>80</td>
<td>73</td>
<td>67</td>
<td>53</td>
<td>27</td>
<td>60</td>
<td>53</td>
<td>60</td>
<td>59</td>
</tr>
<tr>
<td>Coordination, NFP Function</td>
<td>80</td>
<td>70</td>
<td>40</td>
<td>90</td>
<td>60</td>
<td>70</td>
<td>70</td>
<td>20</td>
<td>40</td>
<td>90</td>
<td>70</td>
<td>64</td>
</tr>
<tr>
<td>Zoonotic Events &amp; human-animal Interface</td>
<td>80</td>
<td>80</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>20</td>
<td>80</td>
<td>20</td>
<td>20</td>
<td>100</td>
<td>20</td>
<td>55</td>
</tr>
<tr>
<td>Food Safety</td>
<td>40</td>
<td>40</td>
<td>40</td>
<td>60</td>
<td>60</td>
<td>80</td>
<td>40</td>
<td>20</td>
<td>20</td>
<td>80</td>
<td>40</td>
<td>47</td>
</tr>
<tr>
<td>Laboratory</td>
<td>73</td>
<td>60</td>
<td>80</td>
<td>47</td>
<td>67</td>
<td>73</td>
<td>67</td>
<td>33</td>
<td>53</td>
<td>73</td>
<td>47</td>
<td>61</td>
</tr>
<tr>
<td>Surveillance</td>
<td>80</td>
<td>80</td>
<td>70</td>
<td>100</td>
<td>70</td>
<td>70</td>
<td>80</td>
<td>40</td>
<td>70</td>
<td>80</td>
<td>50</td>
<td>72</td>
</tr>
<tr>
<td>Human Resource</td>
<td>40</td>
<td>60</td>
<td>80</td>
<td>100</td>
<td>80</td>
<td>20</td>
<td>60</td>
<td>40</td>
<td>60</td>
<td>80</td>
<td>20</td>
<td>58</td>
</tr>
<tr>
<td>Health Emergency Framework</td>
<td>47</td>
<td>47</td>
<td>80</td>
<td>67</td>
<td>53</td>
<td>53</td>
<td>60</td>
<td>40</td>
<td>33</td>
<td>60</td>
<td>27</td>
<td>52</td>
</tr>
<tr>
<td>Health Service Provision</td>
<td>60</td>
<td>67</td>
<td>67</td>
<td>33</td>
<td>53</td>
<td>60</td>
<td>67</td>
<td>20</td>
<td>47</td>
<td>87</td>
<td>53</td>
<td>56</td>
</tr>
<tr>
<td>Risk Communication</td>
<td>60</td>
<td>60</td>
<td>80</td>
<td>80</td>
<td>60</td>
<td>20</td>
<td>60</td>
<td>20</td>
<td>60</td>
<td>100</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Points of Entry (PoE)</td>
<td>60</td>
<td>50</td>
<td>60</td>
<td>80</td>
<td>80</td>
<td>40</td>
<td>60</td>
<td>20</td>
<td>50</td>
<td>70</td>
<td>80</td>
<td>59</td>
</tr>
<tr>
<td>Chemical Events</td>
<td>40</td>
<td>20</td>
<td>60</td>
<td>80</td>
<td>40</td>
<td>0</td>
<td>80</td>
<td>0</td>
<td>40</td>
<td>80</td>
<td>20</td>
<td>42</td>
</tr>
<tr>
<td>Radiation Emergencies</td>
<td>40</td>
<td>0</td>
<td>40</td>
<td>100</td>
<td>60</td>
<td>0</td>
<td>80</td>
<td>0</td>
<td>40</td>
<td>80</td>
<td>20</td>
<td>42</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Colour code</th>
<th>Score %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>61–100</td>
</tr>
<tr>
<td></td>
<td>&gt;20–60</td>
</tr>
<tr>
<td></td>
<td>0–20</td>
</tr>
<tr>
<td></td>
<td>Not relevant to country</td>
</tr>
</tbody>
</table>