

GLOBAL HEALTH CRISES TASK FORCE
Second Quarterly Report (October - December 2016)

Executive Summary

The Global Health Crises Task Force was established by the Secretary-General for a one year period beginning on 1 July 2016. The purpose of the Task Force is to monitor, coordinate and support the follow-up and implementation of the recommendations of the High-level Panel on the Global Response to Health Crises (“Panel”), issued in its report on “Protecting humanity from future health crises”. Through its work, the Task Force will seek to catalyse action on the Panel’s recommendations, enhance the preparedness of the UN system, maintain the profile of global health issues, and make substantive contributions to the strengthening of the global capability for responding to health emergencies.

In the present report for the second quarter (October – December 2016), the Task Force provided the following observations and advice in nine priority areas:

- 1. Strategic support for national health systems to prevent global health crises:**
 - a. To better prepare for health crises, the Task Force members emphasised the importance of establishing inter-sectoral coordination mechanisms in advance, with the involvement of the Ministry of Health. They supported the full involvement of WHO in the rapid roll-out of the Joint External Evaluation tool to monitor compliance with the core capacity requirements of the International Health Regulations (IHR), backed up with minimal health systems capacity.
 - b. During a response to a health crisis, the Task Force members stressed the need for governments to share information and issue timely communications on health risks. Political leaders need to refrain from adopting disproportionate travel or economic restrictions, notwithstanding public pressures to do so, and recourse mechanisms for remedying disproportionate health measures should be explored. The posting of information on health measures adopted by governments, including the rationale for such measures, could be useful in promoting greater transparency and accountability.
 - c. The Task Force members noted the ongoing work to integrate health in disaster risk reduction planning and to implement the Bangkok Principles, and encouraged the involvement of the UN Office for Disaster Risk Management in promoting awareness about the International Health Regulations.
 - d. The Task Force members welcomed the rapid work to develop a draft five-year plan for the implementation of the recommendations of the High-level Commission on Health Employment and Economic Growth. They recommended that gender considerations should be reflected more explicitly in the formulation of the deliverables for each of the recommendations.

- 2. Integrating communities in efforts to prevent global health crises:**
 - a. The Task Force members continued to stress the importance of involving communities in all health activities related to crises. Community engagement should be undertaken proactively and on a long-term basis. For communities to have trust in health systems, they must see the systems as capable of delivering reliable and quality care.
 - b. Social science research in community engagement is key to understanding the complexity of the issues, including the evolving nature of communities and the dynamics within and between communities at the local, national and global levels.

- c. The Task Force members recommended that the new communications and community engagement initiative established by UNICEF consider two areas of work – the development of indicators for measuring community engagement and the development of training modules on community engagement for emergency medical teams and other responders.

3. Supporting regional arrangements to prevent and respond to health crises:

- a. The Task Force members supported the efforts of the WHO Emergency Medical Teams Initiative to assist with regional workforce training and capacity building. They hoped that this work will be reinforced as the Africa Centres for Disease Control and Prevention commences its operations in 2017.
- b. The Task Force members encouraged continued coordination between WHO/UN system and regional and sub-regional groupings in emergency preparedness and response particularly in Africa.

4. Strengthening UN system capacity during health emergencies:

- a. The Task Force members commended the progress made in establishing the procedures and mechanisms for UN system coordination during health emergencies, including the establishment of a regular communications call on health crises and outbreaks.
- b. The finalization of the protocol for L-3 activation during infectious disease events is significant. It will also be important for WHO and the UN to clarify the procedures for inter-agency coordination to be followed during health emergencies that do not require L-3 activation.
- c. The Task Force members considered that the creation of the Global Pandemic Supply Chain Initiative will provide a needed platform for coordination and sharing information on lists of critical response items and available reserves of supplies.

5. Testing capacities and processes for global health crises response through simulations:

The Task Force members affirmed that simulation exercises are needed to sensitise senior leaders to the importance of integrating pandemic preparedness in their operational planning. The simulations need to be conducted in different settings, at all levels (local, national, regional and global) and with different audiences. Observations and conclusions drawn from these exercises should be collected and shared to support follow-up action.

6. Catalysing focused research and innovation relevant to global health crises:

- a. The Task Force members stressed the importance of pursuing scientific collaboration at the location of an outbreak; of including local researchers and clinicians as full and equal partners in the design, conduct, and analyses of studies; and of giving due credit and recognition to local partners and researchers.
- b. The Task Force members welcomed the finalization of WHO's Guidance for Managing Ethical Issues in Infectious Disease Outbreaks. In the context of its work on the R&D Blueprint, WHO will be establishing a Global Coordination Mechanism, developing templates for material transfer agreements, and preparing guidance on regulatory pathways. In this future work, WHO should continue to consult with institutes, researchers and clinicians from countries that are most likely to be affected by health crises.
- c. The establishment by UNICEF of a global partnership to conduct research on community engagement addresses a gap that has been observed by the Task Force in

its meetings. Recalling the critical role played by anthropologists during the Ebola response, the Task Force considered that it will be useful for this initiative to develop rosters of anthropologists and social science researchers for each region who can be deployed at short notice.

7. Securing sustainable financing for work on global health crises:

- a. The Task Force members stressed the importance of engaging ministers of finance and establishing linkages between health activities and the investment of concessional finance.
- b. Members also flagged their concern about the substantial funding shortfall for the WHO Health Emergencies Programme.
- c. Financing of health emergency preparedness and response must be part and parcel of national development plans. Financing research and development should be linked to national financing for preparedness.
- d. There are insufficient processes to ensure returns on government funding to academic institutions. The private sector needs to be incentivised to ensure their engagement in research and developments.
- e. The Task Force members look forward to the advice and recommendations of the International Working Group on Financing Preparedness and Response. It encourages the Group to examine the components identified by the Task Force members as requiring investment to ensure preparedness for unanticipated threats.

8. Focusing attention on the gender dimensions of global health crises:

The Task Force members affirmed the importance of sensitivity to gender in all dimensions of health crises. Firstly, this requires paying attention to issues that are specific to women and girls – for example, the establishment of a working group to address maternal and child health issues that Emergency Medical Teams will need to address during health crises is a positive development. Secondly, it also requires ensuring that gender is mainstreamed into all activities and policymaking – for example, collecting sex-disaggregated data and ensuring the inclusion of women in clinical trials.

9. Ensuring health crises are a priority on global political agendas:

- a. The Task Force members welcomed the continued engagement of the General Assembly on issues of global health.
- b. Other issues that could be brought to the attention of the General Assembly and other United Nations bodies include: (i) compliance with the International Health Regulations, including refraining from the adoption of disproportionate health measures; (ii) promoting norms on sharing of data and sample sharing; (iii) facilitating the access of health workers and transport of supplies during health emergencies; (iv) ensuring sufficient and predictable financing for preparedness and response to health emergencies and the WHO Health Emergencies Programme; and (v) coordination among relevant stakeholders/partners for preparedness and response.

Introduction

1. The Global Health Crises Task Force was established by the Secretary-General for a one year period beginning on 1 July 2016. The purpose of the Task Force is to monitor, coordinate and support the follow-up and implementation of the recommendations of the High-level Panel on the Global Response to Health Crises (“Panel”), issued in its report on “Protecting humanity from future health crises” (A/70/723). Through its work, the Task Force will seek to catalyse action on the Panel’s recommendations, enhance the preparedness of the UN system, maintain the profile of global health issues, and make substantive contributions to the strengthening of the global capability for responding to health emergencies.
2. The Task Force meets on a quarterly basis and provides quarterly reports to the Secretary-General on the progress of the Panel’s recommendations. During its first meeting on 23 August 2016, the Task Force identified nine priority areas:
 - a. Strategic support for national health systems to prevent global health crises
 - b. Integrating communities in efforts to prevent global health crises
 - c. Supporting regional arrangements to prevent and respond to health crises
 - d. Strengthening UN system capacity during health emergencies
 - e. Testing capacities and processes for global health crises response through simulations
 - f. Catalysing focused research and innovation relevant to global health crises
 - g. Securing sustainable financing for work on global health crises
 - h. Focusing attention on the gender dimensions of global health crises
 - i. Ensuring health crises are a priority on global political agendas
3. The present report covers key developments in these nine priority areas in the second quarterly period from October to December 2016 and key observations made by the Task Force during its second quarterly meeting on 11 November 2016.

Strategic support for national health systems to prevent global health crises

Task Force observations and advice

- To better prepare for health crises, the Task Force members emphasised the importance of establishing inter-sectoral coordination mechanisms in advance, with the involvement of the Ministry of Health. They supported the full involvement of WHO in the rapid roll-out of the Joint External Evaluation tool to monitor compliance with the core capacity requirements of the International Health Regulations (IHR), backed up with minimal health systems capacity.
- During a response to a health crisis, the Task Force members stressed the need for governments to share information and issue timely communications on health risks. To encourage notification of health events, communities and governments must have confidence that the disclosure of information will not result in adverse consequences. Political leaders need to refrain from adopting disproportionate travel or economic restrictions, notwithstanding public pressures to do so, and recourse mechanisms for remedying disproportionate health measures should be explored. The posting of

information on health measures adopted by governments, including the rationale for such measures, could be useful in promoting greater transparency and accountability.

- The Task Force members noted the ongoing work to integrate health in disaster risk reduction planning and to implement the Bangkok Principles, and encouraged the involvement of the UN Office for Disaster Risk Management in promoting awareness about the International Health Regulations.
- The Task Force members welcomed the multi-sectoral approach of the High-Level Ministerial Meeting on Health Employment and Economic Growth, and the rapid work to develop a draft five-year plan for the implementation of the recommendations of the High-level Commission on Health Employment and Economic Growth. They recommended that gender considerations should be reflected more explicitly in the formulation of the deliverables for each of the recommendations – for example, ensuring the appropriate representation of women in social dialogue mechanisms, developing guidance on addressing barriers for women to access healthcare, collecting sex-disaggregated data, and considering the particular security risks or mobility challenges faced by female health workers.

4. The Task Force members considered that ongoing challenges for countries to respond to unexpected health events include the lack of institutional capacity and insufficient sharing of information on the part of governments. Governments should be encouraged to issue timely communications during health emergencies, as delayed communications may fuel the spread of rumours and potentially trigger unjustified measures, such as trade or travel restrictions during health emergencies. Inter-sectoral coordination mechanisms for health crises should be established as a routine function of governments before outbreaks, with Ministers of Health serving as the convenors of different sector actors. The coordination mechanisms for health crises must be integrated with and linked to overall national inter-sectoral coordination mechanisms for emergencies.

5. The Task Force members examined the challenges to the notification of events under the International Health Regulations (IHR), observing that there is distrust on many levels. Communities need to be convinced that it is in their interest to report people who are ill and potentially infectious, as they may fear being subject to constraints as a result of public health measures (including involvement of security forces). Similarly, governments may have concerns that the notification of events will have an adverse impact on economic and political interests. Strong political and public health leadership is required to dissuade governments from adopting disproportionate travel or economic restrictions, which create disincentives to the transparency and information-sharing required to control outbreaks. Possibilities for recourse to the World Trade Organization dispute resolution mechanisms should be explored.

6. The Task Force considered that the roll-out of the IHR Joint External Evaluation tool marks a truly important development in efforts to promote compliance with the International Health Regulations, and the speed of roll-out in assessing countries' compliance will be important in catalysing donor support for health system strengthening. It would be useful if the JEE process also incorporated quantitative indicators, including indicators related to minimal health systems functionality.

Compliance with the International Health Regulations core capacity requirements

7. In May 2015, the World Health Assembly requested the establishment of a Review Committee to examine the role of the IHR in the Ebola outbreak. This Review Committee on the Role of the International Health Regulations (2005) in the Ebola Outbreak and Response issued its report in May 2016.¹ The World Health Assembly requested the Director-General to develop a draft global implementation plan for the recommendations of the Review Committee to be considered by the Executive Board at its 140th session in January 2017.²

8. The WHO Secretariat issued its report on the “Draft global implementation plan” to the Executive Board in December 2016.³ In this report, the WHO Secretariat noted there were six areas of actions. The updates provided by the WHO Secretariat for each area are summarised below:

- a. Accelerating States Parties’ implementation of the International Health Regulations: A draft global strategic plan to improve public health preparedness and response will be submitted to the World Health Assembly in May 2018.
- b. Strengthening WHO’s capacity to implement the International Health Regulations: The WHO Health Emergencies Programme will aim to increase the number of personnel working on the IHR. It will also enhance its collaboration on health emergencies with partners, including the UN Secretary-General’s Special Representative for Disaster Risk Reduction, the Inter-Agency Standing Committee and the Global Outbreak Alert and Response Network.
- c. Improving the monitoring and evaluation of and reporting on core capacities under the International Health Regulations: A monitoring and evaluation framework is progressively being introduced with three voluntary components: joint external evaluation, after-action review and simulation exercises.
- d. Improving event management: The WHO Health Emergencies Programme will initiate an on-the-ground assessment within 72 hours of notification of the presence or emergence of a high-threat pathogen or other unusual event. The Director-General will consider establishing a scientific advisory group of experts on infectious hazards that would help to guide the Organization’s work in evaluating and managing new and evolving public health risks.
- e. Additional health measures under the International Health Regulations: In consultation with States Parties, the WHO Secretariat will reinforce the current process for monitoring additional health measures during public health risks and emergencies. The reinforced procedures may include posting the public health measures adopted by States Parties and the rationale provided by Member States on a WHO website, and reporting on these health measures as part of the regular reporting on the implementation of the International Health Regulations.

¹ [Report of the Review Committee on the Role of the International Health Regulations \(2005\) in the Ebola Outbreak and Response \(A69/21\).](#)

² World Health Assembly decision WHA69(14).

³ [Report by the WHO Secretariat: Implementation of the International Health Regulations \(EB140/14\).](#)

- f. Rapid sharing of scientific information: In April 2016, WHO announced its policy of disclosing data related to emergency response. Additional consultations are being conducted on the issue of sharing biological samples. The system for genetic sequence data sharing under the PIP framework could serve as a useful example for best practices for data sharing in other contexts.

Implementation of the Bangkok Principles on the health aspects of the Sendai Framework

9. In March 2016, governments adopted the Bangkok Principles for the implementation of the health aspects of the Sendai Framework for Disaster Risk Reduction 2015-2030.⁴ The Bangkok Principles encouraged countries to adopt the following measures:

- a. Promote systematic integration of health into national and sub-national disaster risk reduction policies and plans and the inclusion of emergency and disaster risk management programmes in national and sub-national health strategies;
- b. Enhance cooperation between health authorities and other relevant stakeholders to strengthen country capacity for disaster risk management for health, the implementation of the International Health Regulations (2005) and building of resilient health systems;
- c. Stimulate people-centred public and private investment in emergency and disaster risk reduction, including in health facilities and infrastructure;
- d. Integrate disaster risk reduction into health education and training and strengthen capacity building of health workers in disaster risk reduction;
- e. Incorporate disaster-related mortality, morbidity and disability data into multi-hazards early warning system, health core indicators and national risk assessments;
- f. Advocate for, and support cross-sectoral, transboundary collaboration including information sharing, and science and technology for all hazards, including biological hazards; and
- g. Promote coherence and further development of local and national policies and strategies, legal frameworks, regulations, and institutional arrangements.

10. Follow-up meetings to promote the Bangkok Principles have been convened, including at the Asia Ministerial Conference on Disaster Risk Reduction in India in November 2016. The UN Office for Disaster Risk Reduction (UNISDR), in collaboration with WHO and UNDP, has been implementing a project to integrate health and disaster risk reduction in Sierra Leone, Liberia and Guinea. This project focuses on including health in disaster risk reduction platforms, strategies, plans and disaster loss datasets, as well as including disaster risk reduction in initiatives to build health systems resilience. The experiences from this program were shared during a meeting of the Africa Regional Platform for Disaster Risk Reduction in Mauritius in November 2016.

Health employment and economic growth

11. In September 2016, the Secretary-General's High-level Commission on Health Employment and Economic Growth delivered its report entitled "Working for Health and Growth: Investing in the health workforce". The report concluded that investing in the health workforce is needed to make progress towards the Sustainable Development Goals, including

⁴ [Bangkok Principles for the implementation of the health aspects of the Sendai Framework for Disaster Risk Reduction](#).

gains in health, global security and inclusive economic growth. The commission made 10 recommendations for realizing those gains, through appropriate investments in health employment than can power economies, move countries closer to universal health coverage and act as a bulwark against outbreaks. In December 2016, a High-Level Ministerial Meeting on Health Employment and Economic Growth was held in Geneva to discuss the implementation of the Commission's recommendations. This meeting was jointly organized by the ILO, OECD and WHO. This meeting brought together over 200 representatives of a range of multi-sectoral actors from governments, including ministers of education, health, labour, as well as ambassadors and representatives from the permanent missions to the United Nations, employers, health worker associations and unions, civil society, multilateral and bilateral organizations, regional organizations, and the private sector. One member of the Task Force (Professor Ilona Kickbusch) participated in the meeting. In their interventions during the meeting, Member States announced commitments to the following activities:⁵

- a. Advocating for full compliance with international humanitarian law and finding concrete ways to contribute to protection of health workers and health facilities in humanitarian contexts (Canada);
- b. Starting a health workforce registry to improve data collection on public and private sector health workers (Nepal);
- c. Launching a three-year project to provide support to women in the health sector in Liberia and concluding agreements with partner countries to give health care workers access to professional opportunities (Germany);
- d. Strengthening coordination between health care and long-term care, providing opportunities for the re-entry and skills development of health workers into the labour market, and promoting the health of elderly by developing a long-term care industry (Japan);
- e. Developing a national integrated strategic framework for health workforce planning and providing funding to the Global Health Workforce Network (Ireland);
- f. Exploring mechanisms for postgraduate cross-border training between hospitals within the European Union and developing European Reference Networks to serve as hubs for patient referrals, training and innovation (Malta);
- g. Developing a National Surgical Obstetric and Anaesthesia Strategic Plan and prioritising the improved availability of a skilled surgical workforce (Zambia); and
- h. Developing methodology to better estimate the impact of human resources for health, providing technical assistance, supporting the WHO National Health Workforce Accounts to improve data on health labour markets, and identifying innovations that target human resources for health (USAID).

12. The Ministerial meeting concluded with the launch of the public consultation on the five-year action plan of ILO, OECD and WHO to support country-driven implementation of the Commission's recommendations.⁶ The public consultations conclude on 17 February 2017 and the finalized five-year plan will be issued by the end of March 2017 for consideration by the governing bodies of WHO, OECD and ILO. The key targets associated with the ten recommendations of the Commission in the draft five-year action plan are summarised in Annex 1.

⁵ The full statements made by Member States and other participants can be accessed at the following website: <http://www.who.int/hrh/com-heeg/commitments-to-action/en/>

⁶ [Health Employment and Economic Growth: A Five-Year Action Plan \(2017-21\)](#).

Emergency medical teams

13. The WHO Emergency Medical Teams initiative has continued with the training and verification of national Emergency Medical Teams. As of the end of 2016, seven Emergency Medical Teams have been verified by WHO, and 75 additional teams have signed up for the verification process. WHO concluded an agreement with the International Federation of the Red Cross and Red Crescent Societies to enable national societies to participate in a mentorship and peer review process. The latest updates on the work of the EMT Initiative can be found in its November 2016 update.⁷

14. In November 2016, WHO convened its third Global EMT Meeting in Hong Kong, bringing together over 300 participants from 100 Emergency Medical Teams. At this meeting, updates were provided on clinical issues (surgical care in disasters, rehabilitation as a component of medical response), logistical and operational issues (field hospital management, power, water and food management, waste management) and administration and training issues (legal issues in EMT deployment, EMT coordination cell management, minimum data set, quality assurance). Workshops were held on accessing clinical expertise for infectious disease care, provision of surgical and trauma care, working with the media, site selection and field hospital placement. A recently published ICRC Field Guide for the Management of Limb Injuries in Disasters and Conflicts⁸ was presented during this workshop. The meeting also developed terms of reference for a working group to focus on maternal and child health in emergencies (discussed below in paragraph 59 of the present report).

15. Since October 2015, the German Federal Ministry for Economic Cooperation and Development has established a German Epidemic Preparedness Team. This project has been undertaken with the Bernhard Nocht Institute for Tropical Medicine and the Robert Koch Institute and is expected to continue until September 2017. The team will be deployed to reinforce health care systems upon the request of a partner country or partner organization for assistance to address an outbreak.

Strengthening health systems through commitments to Universal Health Care

16. In November 2016, the Inter-Agency Expert Group for SDGs (IAEG-SDGs) agreed to revise the wording and definition of the indicator on financial protection for universal health coverage (UHC) to “proportion of population with large household expenditures on health as a share of total household expenditure or income”. This final proposal will be submitted to the UN Statistical Commission in March 2017 for formal approval. The previous formulation of this indicator focused on the “number of people covered by health insurance or a public health system per 1000 population”.

17. The International Health Partnership for UHC 2030 (UHC2030) hosted the first UHC Forum entitled “Working Together to Strengthen Health Systems” in December 2016 in Geneva, to foster productive exchange between various health systems partnerships, actors and agencies and explore how to improve collaboration. Participants included members of health systems related initiatives in the following health areas: financing and protection, governance, workforce, data, integrated people-centred health services, medicines, policy and

⁷ [Emergency Medical Teams: WHO EMT Initiative \(November 2016\)](#).

⁸ [ICRC Field Guide on management of limb injuries during disasters and conflicts](#).

systems research, and learning and knowledge sharing. Representatives from a range of governments, international development agencies, academia and civil society organisations took part in this event, confirming broader interest to establish such a platform.

Integrating communities in efforts to prevent global health crises

Task Force observations and advice

- The Task Force members continued to stress the importance of involving communities in all health activities related to crises. Community engagement should be undertaken proactively and on a long-term basis. For communities to have trust in health systems, they must see the systems as capable of delivering reliable and quality care.
- Social science research in community engagement is key to understanding the complexity of the issues, including the evolving nature of communities and the dynamics within and between communities at the local, national and global levels.
- The Task Force members recommended that the new communications and community engagement initiative established by UNICEF consider two areas of work – the development of indicators for measuring community engagement and the development of training modules on community engagement for emergency medical teams and other responders.

18. The Task Force members emphasized that civil society and advocacy are needed at the local, national and global levels to press for and contribute to action on pandemic preparedness and response. The nature of communities has evolved over time with increased urbanisation, changes in social structures and internal and international migration. Further work is needed to understand the nature of different types of communities including the way in which information is communicated within and between different communities and where fragility, influence and resilience may lie.

19. The Task Force members stressed the need to avoid disempowerment of communities. Communities should be involved in all health activities that relate to crises, including preparedness, prevention and research. Community engagement is needed to encourage health seeking behaviours and to address bottlenecks such as rumours, exclusion, stigma and discrimination. Community engagement is an ongoing and permanent activity, not something to be started in the middle of a crisis. The potential for intensive engagement by communities has to be institutionalized – for example, the skills associated with community ownership and engagement can be incorporated in the training of emergency medical teams. The Task Force members stressed the need to have clear indicators for measuring the engagement of communities.

20. Following the April 2016 workshop convened by UNICEF and the IFRC to promote a more systematic and collective approach to communications and community engagement during a humanitarian response, UNICEF has set up a secretariat for a communication and community engagement initiative. Consultations for the concept note and workplan for the initiative will be completed by the beginning of 2017. The initiative will develop mechanisms to provide affected communities with information, to establish channels for communities to provide feedback on humanitarian actions and to ensure that decision-making

processes are informed by constructive engagement with communities. This mechanism is being tested in Haiti, following Hurricane Matthew.

Supporting regional arrangements to prevent and respond to health crises

Task Force observations and advice

- The Task Force members supported the efforts of the WHO Emergency Medical Teams Initiative to assist with regional workforce training and capacity building. They hoped that this work will be reinforced as the Africa CDC commences its operations in 2017.
- The Task Force members encouraged continued coordination between WHO/UN system and regional and sub-regional groupings in emergency preparedness and response particularly in Africa.

21. The WHO Emergency Medical Teams Initiative continues to assist with regional workforce training and capacity building. Regional capacity to respond to health emergencies is bolstered through the creation of networks between national emergency medical teams in the European Union, the Association of Southeast Asian Nations (ASEAN) and the African Union. WHO is continuing to train regional experts to coordinate arriving Emergency Medical Teams. The most recent training on health crises coordination held in India in October 2016 for countries in WHO's South-East Asian (SEARO) Region was expanded to include health ministry officials.

22. During November 2016, progress in the strengthening of regional capacity and cooperation in Africa was seen with the following developments:

- a. Dr. John Nkengasong was named as the first director of the Africa Centres for Disease Control and Prevention (Africa CDC). African Union staff convened a meeting to develop a procurement and operational guideline manual in December 2016. The Africa CDC is scheduled to be formally launched in January 2017. WHO has developed and co-signed a framework for collaboration with the African Union on the Africa CDC to improve health security.
- b. WHO co-hosted a West African Regional Conference on One Health, in collaboration with the Economic Community of West African States (including the West African Health Organization and Regional Animal Health Centre), the Food and Agricultural Organization, the World Organization for Animal Health (OIE), the World Bank, the U.S. Agency for International Development and the U.S. Centers for Disease Control and Prevention. The meeting brought together ministers from various sectors to address zoonotic diseases.
- c. The WHO Regional Director for Africa and the President of the African Development Bank agreed on priority health programmes for potential future cooperation. They agreed that universal health coverage and health system strengthening should be supported. Other priorities discussed included the Africa CDC, the African Public Health Emergency Fund, technologies for health and neglected tropical diseases.

23. The World Bank continues to implement its Regional Disease Surveillance Systems Enhancement Program (REDISSE) Project to strengthen national and regional cross-sectoral capacity for collaborative disease surveillance and epidemic preparedness in West Africa. The first phase of the project covers Senegal, Sierra Leone and Guinea. The second and third phases of the project will cover Nigeria, Liberia, Guinea Bissau, Togo, Benin, Cote d' Ivoire, and Ghana and are scheduled to become operational in 2017.

Strengthening UN system capacity during health emergencies

Task Force observations and advice

- The Task Force members commended the progress made in establishing the procedures and mechanisms for UN system coordination during health emergencies, including the establishment of a regular communications call on health crises and outbreaks.
- The finalization of the protocol for L-3 activation during infectious disease events is significant. It will also be important for WHO and the UN to clarify the procedures for inter-agency coordination to be followed during health emergencies that do not require L-3 activation.
- The Task Force members considered that the creation of the Global Pandemic Supply Chain Initiative will contribute substantially to ensuring preparedness for health emergencies by providing a needed platform for coordination and sharing information on lists of critical response items and available reserves of supplies.

WHO Health Emergencies Programme

24. During the period from September – December 2016, some of the activities undertaken by the Health Emergencies Programme to respond to health emergencies included:

- a. Rolling out the Early Warning Alert Response System (EWARS) in 56 health facilities in Borno State, Nigeria, resulting in the coverage of 85% of internally displaced persons. EWARS is an initiative to strengthen disease early warning, alert and response in emergencies, by providing mobile phones, laptops, solar-powered generators and chargers, all specifically designed to work in difficult and insecure operating environments;
- b. Deploying mobile health clinics to provide health care services to Quayyarah City in Iraq. This city had previously been under the control of the Islamic State of Iraq and the Levant from June 2014 to August 2016 and had no access to health care services during this time;
- c. Delivering 11 tonnes of medical supplies to health authorities in Al-Qamishli area, in the northeastern part of Syria; and
- d. Supporting the implementation of the medical evacuation plan of ill and injured residents from eastern Aleppo, Syria; and
- e. Working with partners in the Global Outbreak Alert and Response Network (GOARN), World Organisation for Animal Health (OIE), Food and Agriculture Organization (FAO), national authorities and NGOs on both animal and human

epidemiological trends, disease confirmation, patient care and measures to decrease the disease extension.

25. Over the same period, the Health Emergencies Programme conducted risk assessments of infectious disease events; facilitated the completion of 28 country level Joint External Evaluation of national core capacities as described in the International Health Regulations (2005); and developed a long term prevention and control strategy for Yellow Fever.

26. In October 2016, the Health Emergencies Programme had its first cross-organisational retreat, bringing emergency directors from headquarters and regions together with WHO Representatives from the 17 countries with the largest emergency affected populations. Agreements were reached on a new country office business model, the key role of WHO Representatives in emergency response, advocacy and resource mobilization, the importance of predictable partnership, and the way forward to document and raise awareness of attacks on health care in emergency settings.

27. The Health Emergencies Programme has prioritised strengthening capacities at regional and country levels, including 27 new recruitments at the regional level to be finalized in January 2017. To strengthen Health Cluster leadership, WHO began recruitment of 24 Health Cluster Coordinators for long-term appointments, as opposed to short-term contracts or double-hatting as had been the practice in the past. By January 2017, 20 Health Cluster Coordinators will be hired.

28. The Independent Oversight and Advisory Committee (IOAC), tasked with monitoring the development and performance of the WHO Health Emergencies Programme, conducted a field visit to Colombia in November 2016 to review WHO's response to the Zika outbreak. The IOAC team observed that the WHO Office in Colombia, led by a PAHO/WHO Representative, already had an established record of close and trusted collaboration with the Ministry of Health and Social Protection and local partners even before the introduction of the Health Emergencies Programme. In IOAC's desk review of the yellow fever outbreak in Angola and Democratic Republic of Congo (which coincided with a DRC cholera outbreak), it commended WHO for its release of CFE funding and rapid response, and outcomes facilitated under one integrated incident management system with support from numerous partners. However, interviews indicated room for improvement in clarifying roles, responsibilities and reporting lines at all three levels. Since it was apparent that the Health Emergencies Programme had only recently been discussed at WHO Regional meetings, the IOAC considered that it was premature to assess the impact of the Programme at this stage. The full findings of the IOAC on its mission to Colombia and desk review of the yellow fever outbreak for DRC are in the reports on the website of the IOAC.⁹

Global Pandemic Supply Chain Initiative

29. In January 2015, participants at the World Economic Forum Annual Meeting in Davos agreed on the importance of improving coordination across sectors and, in particular, of improving supply chain logistics to enable medical intervention to proceed during the challenging circumstances of a pandemic. The Global Supply Chain for Pandemic Preparedness and Response Initiative ("Global Pandemic Supply Chain Initiative") was

⁹ http://www.who.int/about/who_reform/emergency-capacities/oversight-committee/en/

subsequently launched by World Food Programme (WFP), the World Health Organization (WHO), the World Bank, Becton Dickinson, Henry Schein, United Parcel Service (UPS) and the World Economic Forum (WEF).

30. In January 2016, partners agreed on a mission statement and protocol for engagement for the Global Pandemic Supply Chain Initiative. The Initiative held its fifth face-to-face meetings in October 2016, to discuss ongoing work to develop a supply chain information platform, map supply sources, and improve logistics capacities. A flowchart was created to map the actions to be taken during various stages of an outbreak. This flowchart was tested during a desktop simulation exercise in November 2016, conducted by the University of Minnesota, one of the Initiative’s partners. Additionally, the initiative has designed a Pandemic Supply Chain Information Platform framework and defined the top 60 critical response items that are needed for an emergency.

31. In the coming months, the Global Pandemic Supply Chain Initiative expects to
- a. Develop relevant standards and protocols for the usage of the Information Platform;
 - b. Define governance structures, with establish roles and responsibilities for the public and private sector partners;
 - c. Map the locations of commercial supplies for and the top 60 critical items; and
 - d. Compile an inventory of strategic reserves of pandemic supplies.

Inter-Agency Standing Committee procedures applicable to infectious disease events

32. The Task Force members affirmed that the Inter-Agency Standing Committee (IASC) provides an important platform for UN and non-UN stakeholders involved in humanitarian action to come together. The activation of the IASC system in humanitarian crises is governed by a protocol on “Humanitarian System-Wide Emergency Activation.”¹⁰ Given the specific requirements of mobilizing during infectious disease events, WHO and IASC developed procedures to address these situations. In December 2016, the IASC circulated the “Level 3 Activation Procedures for Infectious Disease Events”¹¹, endorsed by IASC Principals. Both protocols are designed to ensure predictable mobilisation across the IASC community, to include the immediate deployment of surge capacity and activation of appropriate field level leadership arrangements. The activation procedures for infectious disease events establish a link between the responsibilities of the WHO and its Director-General under the International Health Regulations and the capacities and emergency response tools of the IASC. The activation procedures for infectious disease also provide an opportunity for non-IASC actors to feed into decision-making on activation and on the response strategy.

33. Annex 2 compares the procedures applicable to L3 activation during humanitarian crises and infectious disease events. Some of the procedures applicable to humanitarian crises, as set out in the table, are not expressly mentioned in the original L3 activation protocol, but reflect current practice.

¹⁰ [Humanitarian System-Wide Emergency Activation \(PR/1204/4078/7\)](#).

¹¹ [IASC Level 3 Activation Procedures for Infectious Disease Events](#).

UN system coordination on health crises communications

34. The Department of Public Information (DPI) is responsible for providing support and guidance to the UN system on communications issues during health crises. In November 2016, DPI expanded a regular communications coordination teleconference call on Zika and yellow fever to cover global health crises and outbreaks. These calls are convened by DPI in partnership with WHO and serve as a platform for coordination on communications by the UN system on emerging and ongoing health crises. DPI serves as the Secretariat for the UN Communication Group (UNCG) and invites all relevant UNCG entities and partners to participate in the calls. At present, these calls are convened twice a month. Frequent participants include the World Bank Group, UNDP, UN Women and UN Foundation. DPI regularly shares talking points, briefing notes and other communications products to a list that includes over 20 partners.

Testing capacities and processes for global health crises response through simulations

Task Force observations and advice

- The Task Force affirmed that simulation exercises are needed to sensitise senior leaders to the importance of integrating pandemic preparedness in their operational planning. The simulations need to be conducted in different settings, at all levels (local, national, regional and global) and with different audiences. Observations and conclusions drawn from these exercises should be collected and shared to support follow-up action.

35. During its annual meeting, the World Bank Group conducted a simulation exercise on pandemic preparedness for Ministers of Finance and policymakers from 11 countries.¹² This exercise was aimed at promoting awareness among Ministers of Finance about the economic impacts of pandemics and discussing the roles of Ministries of Finance in supporting relevant sectors to strengthen pandemic preparedness at the national and regional levels.

36. The exercise identified a number of challenges in financing pandemic preparedness and response. Competing priorities and insufficient political support make it difficult to allocate the necessary resources to strengthen health systems and response to outbreaks. It would be useful to have more information on the level and amounts of investments needed for pandemic preparedness, and clearer guidance on how different ministries, sectors and agencies can contribute to pandemic preparedness. Bureaucratic processes need to be streamlined to permit the rapid approvals required during a response for procurement of materials, entry and exit of health workers and budget reallocations.

37. Some measures that governments have adopted to address these challenges include the creation of contingency, emergency and reserve funds; the establishment of multi-sectoral pandemic preparedness plans; and participation in the Joint External Evaluation process. Participants considered the need to explore other solutions such as waivers for procurement, issuance of work authorizations for international health workers and implementing agencies, costing preparedness plans, identifying triggers for the allocation of additional resources to

¹² Bangladesh, Cote d'Ivoire, Ethiopia, Ghana, Guinea, Guinea Bissau, Mozambique, Nigeria, Senegal, Sierra Leone, and Trinidad and Tobago.

contain an outbreak, establishing regional centres of excellence, and adopting regional approaches to strengthening preparedness. International Development Association financing and the Pandemic Emergency Financing Facility were highlighted as potential sources of financing for pandemic preparedness and response.

38. During their meeting in December 2016, IASC Principals agreed to engage in a system-wide simulation exercise to test the new L3 Activation Procedures for Infectious Disease Events in 2017. WHO, working with the IASC secretariat, will convene an inter-agency task team to plan and implement a simulation exercise in July 2017.

Catalysing focused research and innovation relevant to global health crises

Task Force observations and advice

- The Task Force members stressed the importance of pursuing scientific collaboration at the location of an outbreak; of including local researchers and clinicians as full and equal partners in the design, conduct, and analyses of studies; and of giving due credit and recognition to local partners and researchers.
- The Task Force members welcomed the finalization of WHO's Guidance for Managing Ethical Issues in Infectious Disease Outbreaks. In its future work on establishing a Global Coordination Mechanism (in collaboration with the Wellcome Trust and Chatham House), developing templates for material transfer agreements, and preparing guidance on regulatory pathways, WHO should continue to consult with institutes, researchers and clinicians from countries that are most likely to be affected by health crises.
- The establishment by UNICEF of a global partnership to conduct research on community engagement addresses a gap that has been observed by the Task Force in its meetings. Recalling the critical role played by anthropologists during the Ebola response, the Task Force considered that it will be useful for this initiative to develop rosters of anthropologists and social science researchers for each region who can be deployed at short notice.

39. The Task Force members stressed the importance of pursuing scientific collaboration where an outbreak is taking place to develop capabilities and build trust. These collaborative partnerships with the host country organisations and others, need to be established before an outbreak. Once collaboration is established on the ground, laboratories and other resources can be adapted to address other diseases and threats. In connection with building trust, the Task Force members acknowledged the need for local researchers and clinicians to be full and equal partners in the design, conduct, and analyses of studies and for local partners and researchers to be given due credit and recognition.

40. The Task Force members considered it useful to have a mapping of initiatives involved in research and development relevant to current or potential global health crises. Such a mapping is set out in Annex 3, which focuses on multi-stakeholder initiatives and does not list the numerous individual entities that provide financing research and innovation. For each of the initiatives, Annex 3 looks at three components:

- a. Role – financing, coordination, implementation, information-sharing;
- b. Stage of involvement – research, trials, production, distribution, stockpiling; and

- c. Type of product – diagnostics, vaccines, medicines, or all products.
41. The Task Force members identified areas where work is needed to advance progress on research and development relevant to global health crises. These include:
- a. Prioritising work on specified pathogens, while recognizing that any list of prioritised pathogens should not be restrictive since outbreaks often occur with pathogens that are unanticipated;
 - b. Coordinating on data and sample sharing;
 - c. Improving existing mechanisms, such as the International Clinical Trials Registry Platform, to ensure greater clarity on trials that have commenced but then ended at Phase I or II;
 - d. Resolving ethical, safety, regulatory and legal issues in advance of an emergency, to the greatest extent possible;
 - e. Conducting research in the social sciences, on topics such as community engagement, risk communication, cultural and local health seeking practices, crisis preparedness and management, ethics, and anthropology.

Progress on WHO R&D Blueprint

42. The framework for WHO’s work in research and development is set out in its “R&D Blueprint for Action to Prevent Epidemics: Plan of Action” (“R&D Blueprint”) issued in May 2016 and was welcomed by the World Health Assembly in the same month.¹³ Ongoing progress on the R&D Blueprint in the second quarter is summarised below.

Prioritisation of pathogens

43. In November 2016, WHO convened an informal consultation to review a proposed advanced methodology for prioritising diseases requiring accelerated research and development. The methodology was first discussed at a workshop in December 2015 and relies on an analysis of nine elements.¹⁴ Subsequently, informal consultations validated the general approach of the methodology and examined draft tools to be used. There was an agreement to hold annual reviews of the list of priority diseases, as well as biennial reviews of the methodology.

44. In December 2015, a groups of experts convened by WHO identified five priority diseases needing urgent R&D attention and three serious diseases requiring action by WHO to promote R&D as soon as possible. To date, target product profiles have been finalised for vaccines for Ebola, multi-valent filovirus, Zika and MERS-CoV vaccines, and for Ebola and Zika diagnostics.¹⁵ Filovirus diseases (for example, Ebola virus disease) and MERS coronavirus diseases are among the priority diseases, while congenital abnormalities and other neurological complications associated with Zika virus are considered to be serious

¹³ [WHO R&D Blueprint for Action to Prevent Epidemics.](#)

¹⁴ [Meeting report from workshop on prioritization of pathogens \(8-9 December 2015\).](#) These nine elements are: (i) human transmissibility; (ii) severity of case fatality rate, (iii) spillover potential, (iv) evolutionary potential, (v) available countermeasures, (vi) difficulty of detection or control, (vii) public health context of the affected area(s), (viii) potential scope of outbreak, and (ix) potential societal impacts.

¹⁵ Specifically, WHO Target Product Profiles have been finalised for Ebola Zaire vaccines (outbreak response and long-term protection); multivalent filovirus vaccines (long-term protection); Zika vaccine (in emergencies); Ebola diagnostics; Zika diagnostics; MERS-CoV vaccines (2 human profiles and 1 camel vaccination profile)

diseases. These target product profiles are intended to provide guidance to the developers of diagnostic tests and vaccines on the expectations of public health policy-makers.

Improving conduct of clinical trials

45. Clinical trial designs for testing the efficacy of vaccines and therapies against R&D Blueprint priority diseases are being discussed by experts convened by WHO in view of reaching agreement before an outbreak. This will allow quick implementation in case of need, country ownership and fosters partners' coordination. Work is underway on a decision-making tool and annotated protocols for Phase III vaccine trials. Completion of this work is expected by the third quarter of 2017. A future phase of this work will focus on efficacy trial protocols for the therapeutics.

46. An ad hoc committee of the National Academies of Sciences, Engineering, and Medicine is reviewing and conducting an analysis of the clinical trials conducted during the 2014-2015 Ebola virus disease (EVD) outbreak in West Africa. The final deliverable from this committee will be a consensus report that explores and analyses the scientific and ethical issues related to clinical trial design, conduct, and reporting. Particular emphasis will be given to clinical trials for vaccine and therapeutic candidates for EVD conducted by the international community in settings where there is limited healthcare and research infrastructure. The NAM report, expected to be ready by April 2017 will:

- a. Assess the scientific value of the different EVD vaccine and therapeutic clinical trials conducted in Liberia, Sierra Leone, Guinea and the data derived from them;
- b. Make recommendations for how, in the context of an international emerging or re-emerging infectious disease event, clinical trials can best be prioritized and conducted to (1) speed data collection; (2) inform clinical management and vaccines; (3) assess the safety, efficacy, and effectiveness of therapeutics and vaccines; and (4) improve/augment outbreak control efforts;
- c. Address whether adjustments to scientific or ethical standards are appropriate in the conduct of research in outbreak settings, and if so, under what circumstances; and
- d. Identify opportunities for collaborative investment to achieve long-term ethical and scientific gains from clinical trials conducted during emerging infectious disease events.

Coordinating on data and sample sharing

47. In November 2016, WHO, Wellcome Trust and Chatham House (an independent policy institute based in London) convened a meeting on the establishment of a global coordination mechanism for research and development to prevent and respond to epidemics. Participants in the meeting agreed that WHO should lead such a global coordination mechanism, under the auspices of the R&D Blueprint and that three areas requiring immediate attention would be data sharing, ethics and regulation. The development of terms of reference for such a mechanism and a review of papers on the three priority areas are planned for 2017.¹⁶

¹⁶ [Chatham House Summary of Meeting on Establishing a Global Coordination Mechanism for Research and Development to Prevent and Respond to Epidemics.](#)

48. In December 2016, WHO and the Institute Pasteur convened a consultation in Paris on building capacity for material transfer agreements (MTAs) in public health emergencies. The consultation identified a range of existing MTA provisions that could be relevant to emergency settings and highlighted the need for clear principles to guide the development of the proposed MTA tool. WHO will prepare a draft tool for developing MTAs which could be tested in countries affected by diseases prioritised under the R&D Blueprint.

Managing ethical and regulatory issues in advance of a health emergency

49. In October 2016, WHO issued its “Guidance for Managing Ethical Issues in Infectious Disease Outbreaks” (“Guidance”).¹⁷ The ethical issues associated with the response to the Ebola outbreak served as an impetus for the development of the guidance. While ethical guidance has previously been issued with respect to specific pathogens, WHO considered it important to focus on the cross-cutting ethical issues that apply to infectious disease outbreaks generally, recognizing that decisions during an outbreak often need to be made on an urgent basis, in the context of scientific uncertainty, and social and institutional disruption. The Guidance is based on the principles of justice (equity and procedural justice), beneficence, utility, respect for persons, liberty, reciprocity, and solidarity. Another related document under development within WHO is a Good Community Participation Practices guidelines.

50. Some of the challenges addressed by the Ethical Guidance relate to allocating scarce resources, conducting public health surveillance, restricting freedom of movement, administering medical interventions, storing biological specimens, and deploying foreign humanitarian aid workers. With regard to the ethical conduct of research during infectious disease outbreaks, the Guidance stresses involving local research institutions, supporting local research ethics review and scientific capacity, accelerating ethics review in emergency situations, recognizing and addressing fear and other barriers to informed consent, sharing data and assuring equitable access to the benefits of research. The Guidance suggests conditions under which it can be ethically appropriate to offer experimental interventions on an emergency basis outside clinical trials. The Guidance stipulates that, at minimum, the protection of the rights of frontline response workers includes minimising the risk of infection, and providing priority access to health care, appropriate remuneration, support for reintegrating into the community and assistance to families.

51. Additionally, from 29 November – 2 December 2016, the International Conference of Drug Regulatory Authorities (ICDRA) was held in South Africa, bringing together over 360 delegates from national regulatory authorities.¹⁸ The conference adopted recommendations to WHO and Member States to promote regulatory preparedness for public health emergencies. The ICDRA recommended that WHO consider forming a task force that can be deployed to advise on regulatory issues during a public health crises and conduct consultations on the further development of mechanisms for emergency use approval and listing. It also recommended that WHO develop guidance and facilitate dialogue on regulatory pathways, platform technologies and trial designs for products to counter emerging infectious disease pathogens, while taking care to ensure that such guidance covers pregnant women, children and other vulnerable populations. For Member States, the ICDRA recommended the participation of national regulatory authorities in national preparedness

¹⁷ [WHO Guidance for Managing Ethical Issues in Infectious Disease Outbreaks \(October 2016\)](#).

¹⁸ [17th International Conference of Drug Regulatory Authorities](#).

planning processes, support for product development for infection control products (rather than focusing on diagnostics, vaccines and therapeutics), the development of communication plans for crises and capacities for effective communication, establishment of platforms for regulatory collaboration, advocacy for the national benefits of sample and data-sharing and the improvement of systems to monitor the safety of investigational products.

Advancing research in the social sciences

52. In October 2016, UNICEF and the Institute for Development Studies at the University of Sussex in the United Kingdom established a secretariat for a global partnership to carry out research on effective community engagement and risk communication needs. The partnership will aim to generate knowledge and summarise research on community engagement and building resilience in humanitarian contexts, including public health emergencies. It will also synthesise research on cultural practices and communities to guide response and recovery efforts, and develop a network of social science researchers in the global south who can be deployed during an emergency. The secretariat currently has funding to operate to the end of 2017. The partnership builds on the work of the Ebola Response Anthropology Platform.

Securing sustainable financing for work on global health crises

Task Force observations and advice

- The Task Force members stressed the importance of engaging ministers of finance and establishing linkages between health activities and the investment of concessional finance.
- Members also flagged their concern about the substantial funding shortfall for the WHO Health Emergencies Programme, in all three of its components – core budget, appeals and the WHO Contingency Fund for Emergencies.
- Financing of health emergency preparedness and response must be part and parcel of national development plans. Financing research and development should be linked to national financing for preparedness. There are insufficient processes to ensure returns on government funding to academic institutions. The private sector needs to be incentivised to ensure their engagement in research and developments.
- The Task Force members look forward to the advice and recommendations of the International Working Group on Financing Preparedness and Response. It encourages the Group to examine the components identified by the Task Force members as requiring investment to ensure preparedness for unanticipated threats.

53. The Task Force members stressed the importance of engaging ministers of finance and establishing linkages between health activities and the investment of concessional finance. Attracting financing requires an improved narrative, to provide donors with a holistic and strategic view of how their funding will be used year by year. It requires assurances in terms of value for money and cost-effectiveness. Domestic challenges such as increasing tax revenues, demonstrating value for money and cost-efficiencies, and stemming illicit financial flows need to be addressed.

54. The Task Force members considered the challenges of financing research and development. Governments provide funding to academic institutions but there are insufficient processes to ensure returns. Financing research and development should be linked to national financing for preparedness. The private sector needs to be incentivised to ensure their engagement. Regional collaboration and funding could fill gaps where it is not feasible for individual countries to develop their own expertise and infrastructure.

55. The Task Force members discussed the investments that will be needed to ensure preparedness for unanticipated threats. In general, preparedness should include investments in:

- a. Sensitive and reliable surveillance systems;
- b. Research technology platforms and strategies that can be adapted to address new disease challenges;
- c. Generic, appropriate technology platforms that are easily deployable to the field and across different types of pathogens;
- d. Practical, rapid diagnostic tools that can be used in the field;
- e. Rapid response teams and surge capacity;
- f. Personal protective equipment and training for health workers;
- g. Research in issues relevant to any outbreak;
- h. Locally appropriate research infrastructures, including well-functioning laboratories, regulatory structures, and research support entities;
- i. Mechanisms for community engagement;
- j. Academic programs that generate well-trained researchers and care providers;
- k. Health literacy;
- l. Organizational, managerial and coordination arrangements; and
- m. Simulation exercises.

56. In November 2016, the International Working Group on Financing Preparedness and Response (“International Working Group”) was established under the chairmanship of Peter Sands (Harvard Kennedy School), with the World Bank serving as its Secretariat. In its first meeting, the International Working Group will focus on developing a business case for increasing investments in preparedness, engaging the private sector in financing preparedness, generating resources for preparedness using hypothecated taxes, increasing fiscal space by improving tax collection, and developing standardized costing plans following a JEE. The International Working Group is expected to provide an interim report with recommendations to the World Bank Group – IMF Spring Meetings, the G20, and World Health Assembly and the Task Force.

Focusing attention on the gender dimensions of global health crises

Task Force observations and advice

- The Task Force members affirmed the importance of sensitivity to gender in all dimensions of health crises. Firstly, this requires paying attention to issues that are specific to women and girls – for example, the establishment of a working group to address maternal and child health issues that Emergency Medical Teams will need to address during health crises is a positive development. Secondly, it also requires ensuring

that gender is mainstreamed into all activities and policymaking – for example, collecting sex-disaggregated data and ensuring the inclusion of women in clinical trials.

57. The “Guidance for Managing Ethical Issues in Infectious Disease Outbreaks” issued by WHO in October 2016 included a chapter on addressing differences based on sex and gender, noting that these differences have been associated with differences in susceptibility to infection, levels of health care received, and the course and outcome of illness. Information collected by public health surveillance programmes should disaggregate information by sex, gender and pregnancy status to monitor variations in risks, modes of transmission, impact of disease and efficacy of interventions. Similarly, research on experimental treatments and preventive measures should identify any sex- or gender-related differences in outcomes. Women of childbearing age should not be inappropriately excluded from participation in research and should have access to relevant health-related information and the full range of high-quality reproductive health-care services during an outbreak. Policy-makers and outbreak responders need to pay attention to gender-related roles and social and cultural practices, including vulnerability to interpersonal violence, when developing health intervention and communication strategies.

58. The issue of gender-sensitive statistics, including disaggregation of data by sex, has also arisen with respect to the monitoring of the Sustainable Development Goals. In September 2016, UN Women launched a Gender Statistics Flagship Programme Initiative to support countries to improve the production, accessibility and use of gender statistics over the next five years. At the country level, the Initiative will support assessment of policies and practices governing the production of gender statistics, provide technical support to national statistical offices to produce gender statistics, and support information exchange platforms. At the regional level, the Initiative will promote south-south cooperation and facilitate regional partnerships. At the global level, the Initiative will support the global monitoring of gender-related goals and targets, and link normative and technical work on gender statistics at the global level to the regional and national levels.

59. UNICEF notes that in addition to gender dimensions, strengthening of national health systems and cross-sectoral outbreak response capacities should also take into account specific considerations for children:

- a. Systematic collection of age and sex-disaggregated data in national surveillance systems (including contact tracing) and monitoring of interventions (including prevention, case management) is critical in understanding risks specific to children, impact of the disease and efficacy of interventions.
- b. Risk and vulnerability assessments should also specifically take into account, the direct as well as potential indirect impact of the disease outbreak on children. (e.g. children left orphaned, unaccompanied/separated due to death or hospitalization of caregiver; stigma; school closures)
- c. In addressing the specific needs and vulnerabilities of children during large-scale outbreaks, cross-sectoral engagement including Ministries of Health, Child and Social welfare, as well as Education is key, as seen in the Ebola and Zika outbreak response.

60. During the Global Meeting of Emergency Medical Teams in November 2016, the terms of reference for a maternal and child health working group were developed. The purpose of the working group is to reduce overall mortality and morbidity for pregnant

women and children affected by emergencies by developing principles and standards of care for EMTs delivering maternal and child health services. Additionally, the working group will focus on the improvement of maternal and child health data collection, identify key areas for training and propose exit strategies to facilitate the continuum of maternal and child health care after the departure of EMTs.¹⁹

Ensuring resilience and health crises are a priority on global political agendas

Task Force observations and advice

- The Task Force members welcomed the continued engagement of the General Assembly on issues of global health. Engagement by the United Nations governing bodies is particularly constructive on issues requiring high-level political commitment and inter-ministerial collaboration, such as addressing antimicrobial resistance, protecting health workers and facilities from attacks in humanitarian settings and supporting progress on health employment and economic growth.
- Other issues that could be brought to the attention of the General Assembly and other United Nations bodies include: (i) compliance with the International Health Regulations, including refraining from the adoption of disproportionate health measures; (ii) promoting norms on sharing of data and sample sharing; (iii) facilitating the access of health workers and transport of supplies during health emergencies; (iv) ensuring sufficient and predictable financing for preparedness and response to health emergencies and the WHO Health Emergencies Programme; and v) coordination among relevant stakeholders/partners for preparedness and response.

61. The General Assembly has continued to remain engaged on issues of global health. On 11 November 2016, the President of the General Assembly convened an informal briefing on UN system coordination on outbreaks and health emergencies. During the briefing, WHO provided an update on the Health Emergencies Programme and OCHA reported on the adaptation of the existing IASC protocol on Level 3 activation to the specificities of a large-scale infectious disease event.

62. In November 2016, the Secretary-General submitted two reports on global health prepared by WHO to the General Assembly. The first report on “State of health security”²⁰ noted the drivers of international health crises – infectious hazards, political instability and insecurity, attacks on health care, population displacement and migration, urbanization and shifting demographics, changing weather patterns and other climate-related risks. It cited recent achievements in strengthening normative frameworks to promote health, including the 2030 Agenda for Sustainable Development, the Sendai Framework for Disaster Risk Reduction and the Agenda for Humanity emerging from the World Humanitarian Summit. The report examined the challenges posed by antimicrobial resistance to the control of tuberculosis, malaria, HIV and influenza and highlighted the need for coordinated action among multiple international sectors, including human and veterinary medicine, agriculture, food production, finance and environment.

¹⁹ [Maternal and Child Health Working Group: Terms of Reference.](#)

²⁰ Report of the World Health Organization on the state of health security (A/71/598).

63. With regard to the International Health Regulations, the report discussed the development of a new joint external evaluation tool and a draft strategic framework for emergency preparedness. In 2016, Emergency Committees were convened with respect to three outbreaks: Ebola (declared to no longer constitute a PHEIC in March 2016), poliovirus (declared as a PHEIC in May 2014), and Zika and associated disorders (declared as a PHEIC in February 2016, a designation which ended in November 2016). A 2014 amendment to the International Health Regulations to accept the validity of a yellow fever vaccination certificate for the life of the person vaccinated, as opposed to 10 years, entered into force in July 2016.

64. The second report transmitted to the General Assembly related to “Lessons learned in the public health emergency response to and management of previous international crises with health consequences”.²¹ The report noted eight reviews on the preparedness of the world and of the WHO to respond to health crises and summarised actions taken by WHO in response to recommendations common to these reviews. The report discussed the efforts underway to support resilient national health systems, to build a new Health Emergencies Programme in WHO, to improve coordination using the Inter-Agency Standing Committee as the primary mechanism for inter-agency coordination of humanitarian assistance, to explore options for sustainable, scalable and predictable financing for preparedness and response, and to catalyse research and development of medical countermeasures to prevent and respond to disease outbreaks.

65. In December 2016, the General Assembly adopted a resolution on “Global health and foreign policy”.²² A resolution on global health and foreign policy has been adopted by the General Assembly on an annual basis since 2008. These resolutions stem from an initiative launched by the foreign ministers of Brazil, France, Indonesia, Norway, Thailand, Senegal and South Africa to urge foreign policy makers to take up the challenges of global health, as set out in the 2007 Oslo Ministerial Declaration.²³ In the 2016 resolution, the General Assembly urged Member States to continue to consider health in the formulation of foreign policy and encouraged greater coherence among the United Nations bodies and entities on matters related to global health and foreign policy.

66. The resolution focused on the theme of health employment and economic growth, welcoming the report of the High-level Commission on Health Employment and Economic Growth. It expressed deep concern of the global mismatch between supply, need, demand and distribution of health workers and the estimated shortfall of 18 million health workers required for the effective implementation of the 2030 Agenda for Sustainable Development. It encouraged action on the Commission’s recommendations to create health and social sector jobs, develop inter-sectoral plans, and invest in education and promote decent work. The General Assembly recognized that investments in health workers “essentially constitute the first line of defence against international health crises”, underlined the critical role that the domestic health workforce play as the primary responder in all countries, and called on Member States to develop effective preventive measures for the protection of health workers.

²¹ Report of the Director-General of the World Health Organization on the lessons learned in the public health emergency response to and management of previous international crises with health consequences (A/71/601).

²² General Assembly resolution 71/159. At the time of the writing of this report, the translation of the resolution has not been completed, and the final version of the draft resolution can be found in A/71/L.41.

²³ [Oslo Ministerial Declaration of 20 March 2007](#).

67. Other issues addressed by the resolution included strengthening the global partnership for development through North-South, South-south and triangular cooperation, accelerating the transition towards universal health coverage, and supporting technology transfer arrangements. It welcomed high-level meetings on HIV/AIDS and antimicrobial resistance in 2016 and decided to hold a high-level meeting on tuberculosis in 2018. The General Assembly welcomed the establishment of the Global Health Crises Task Force and requested the Secretary-General to provide periodic updates on the work of the Task Force. The resolution also requested the Secretary-General to promote discussion among Member States and relevant stakeholders on appropriate policy options to promote access to medicines, innovation and health technologies.

68. In December 2016, Germany assumed the presidency of the G20. For the first time, a meeting of G-20 health ministers will be convened in May 2017, in advance of the G20 summit. During this meeting, health ministers will discuss improving global health crises management and undergo a simulation exercise to test response and coordination mechanisms. The improvement of healthcare systems and addressing antimicrobial resistance will also be examined by the G20.²⁴ Expert meetings to prepare for the G20 Health Ministers Meeting were convened in December 2016.

²⁴ [German Federal Ministry of Health: "The G-20's joint responsibility for global health".](#)

Annex 1: Recommendations and key targets in draft five year action plan on the report of the High-level Commission on Health Employment and Economic Growth

	Key targets and activities
A. Cross-cutting immediate actions	
Galvanize commitments	<ul style="list-style-type: none"> • Commitments made at national, regional and international forums to implement the Commission’s recommendations
B. Recommendations (2017 – 2021)	
1) Stimulate investments in creating decent health sector jobs	<ul style="list-style-type: none"> • Establish social dialogue mechanisms • Support dialogue for health workforce strategies • Conduct labour market and fiscal space analysis • Develop national health workforce strategies • Align domestic and foreign investments with health workforce strategies
2) Maximize women’s economic participation and foster empowerment	<ul style="list-style-type: none"> • Develop global policy guidance, support capacity and accelerate initiatives to address gender biases and inequalities
3) Scale up transformative, high-quality education and lifelong learning	<ul style="list-style-type: none"> • Integrate scale-up of education, learning and inter-sectoral cooperation into health workforce strategies • Scale up professional, technical and vocational education and training and strengthen relevant systems in 20 priority countries • Develop tools to assess health workforce skills and labour markets • Establish platform for knowledge exchange on health labour market skills
4) Reform service models to focus on prevention and on provision of primary and ambulatory care	<ul style="list-style-type: none"> • Improve governance mechanisms • Develop relevant guidance on health worker practice, multidisciplinary care, proportion of workforce in primary health care, access of underserved areas and groups
5) Harness ICT to enhance health education, health services and health information systems	<ul style="list-style-type: none"> • Publish review of ICT tools
6) Ensure investment in the IHR core capacities and protect the security of health workers and health facilities	<ul style="list-style-type: none"> • Integrate IHR and risk management response skills into occupational standards, and health workforce strategies • Revise IHR monitoring framework to reflect occupational health and safety • Produce data collection tools and guidance on attacks on healthcare • Provide technical support to protect occupational health and safety
7) Raise funding from domestic and international sources, and consider health financing reform	<ul style="list-style-type: none"> • Link national development and health workforce strategies • Establish funding mechanisms for health workforce • Improve predictability and alignment of ODA for health workforce • Review tools and methodologies to analyse health workforce productivity, performance and wages
8) Promote intersectoral collaboration and align international cooperation to support investments in the health workforce	<ul style="list-style-type: none"> • Establish global health workforce network and strategic hubs • Establish mechanisms for intersectoral coordination • Align global health initiatives with national health workforce strategies
9) Advance international recognition of health workers' qualifications	<ul style="list-style-type: none"> • Establish platform to maximize benefits of health worker migration • Support implementation of international instruments and policy dialogue for voluntary commitments on labour mobility • Improve institutional capacity to manage and ensure benefits from health workforce migration
10) Undertake robust research and analysis of health labour markets	<ul style="list-style-type: none"> • Publish annual report on global health labour market and progress against the Commission’s recommendations • Support National Health Workforce Accounts implementation and reporting • Establish an inter-agency data exchange and interactive dashboard • Publish 2030 health workforce research agenda, including research on socio-economic returns on health workforce investments

Annex 2: L3 activation for humanitarian crises and for infectious disease events

Procedures highlighted in red indicate variations or additional procedures to be taken during an infectious disease event.

	Humanitarian crisis	Infectious disease event
1. Initial situation assessment		
a. Responsibility and timeframe	<ul style="list-style-type: none"> Within 18 hours of event, OCHA will compile assessment 	<ul style="list-style-type: none"> WHO reports high risk infectious disease events to SG and ERC within 72 hours of detection or reporting Within 18 hours of receiving the WHO assessment, OCHA to complement this with perspectives of humanitarian organizations at the country, regional and headquarters levels as appropriate.
2. Consultation and decision-making		
a. Contact with national authorities	<ul style="list-style-type: none"> ERC, supported by RC/HC 	<ul style="list-style-type: none"> ERC and WHO DG, supported by RC/HC
b. Emergency Directors Group (EDG) advice/recommendations	<ul style="list-style-type: none"> Convened to discuss situation and provide a set of recommendations for the IASC Principals 	<ul style="list-style-type: none"> Convened to discuss situation and provide a set of recommendations for the IASC Principals (with technical input from WHO)
c. IASC Principals meeting	<ul style="list-style-type: none"> Meet within 48 hours of onset of crisis 	<ul style="list-style-type: none"> Meet within 48 hours of WHO notification of event (with technical input from WHO) May invite Principals of other relevant non-IASC entities (e.g. GOARN, MSF, CDC, OIE) WHO to provide technical support as needed
d. Criteria	<ul style="list-style-type: none"> 5 IASC criteria (scale, urgency, complexity, capacity and reputational risk) 	<ul style="list-style-type: none"> 5 IASC criteria (scale, urgency, complexity, capacity and reputational risk) or scale and urgency of response needed to prevent a crisis
3. Activation		
a. Decision on L3 activation	<ul style="list-style-type: none"> Aim to have consensus of Principals but final decision by ERC 	<ul style="list-style-type: none"> Aim to have consensus of Principals but final decision by ERC, in consultation with WHO DG
b. Decisions Taken	<ul style="list-style-type: none"> L3 activation Leadership Model Composition of surge capacity Duration of L3 In-country coordination mechanism (typically cluster activation, if not already active) Common advocacy priorities Other specific arrangements 	<ul style="list-style-type: none"> L3 activation Leadership Model Composition of surge capacity Duration of L3 In-country coordination mechanism (activation cluster/cluster-like mechanism) Common advocacy priorities Contingency plan for international spread Other specific arrangements
c. ERC notification	<ul style="list-style-type: none"> Notification to SG, IASC Principals, HCT via HC (or UNCT via RC), Lead UN Department, Chair of UNDG 	<ul style="list-style-type: none"> Notification to SG, IASC Principals, HCT via HC (or UNCT via RC), Lead UN Department, Chair of UNDG

d. Inform national authorities	<ul style="list-style-type: none"> Notification by ERC 	<ul style="list-style-type: none"> Notification by ERC and WHO DG (if zoonotic, also consultation with FAO DG and OIE DG)
4. Deactivation		
a. Duration	<ul style="list-style-type: none"> Initial duration to be decided by Principals during first meeting, but should not exceed 3 months. 	<ul style="list-style-type: none"> Initial duration to be decided by Principals during first meeting, but should not exceed 3 months.
5. Implications of activation		
a. At the level of IASC member organizations	<ul style="list-style-type: none"> Ensure that they put in place the right systems and mobilize resources to contribute to the response as per their mandate areas, Cluster Lead Agency responsibilities, and commitments made by the IASC Principals 	<ul style="list-style-type: none"> Ensure that they put in place the right systems and mobilize resources to contribute to the response as per their mandate areas, Cluster Lead Agency responsibilities, and commitments made by the IASC Principals
b. At the system-wide level	<ul style="list-style-type: none"> Establishment of the HCT (if not already in place), with the current RC re-hatted as HC a.i. pending decision on the most appropriate leadership model Deployment of a Senior Emergency Humanitarian Coordinator within 72 hours Deployment of surge capacity Implementation of a multi-sectoral rapid assessment Elaboration of a statement of strategic priorities within 5 days of the crisis onset by the HC/HCT Immediate initial CERF allocation 	<ul style="list-style-type: none"> Establishment of HCT (if not already in place), with the current RC re-hatted as HC a.i. , and, if appropriate, the WHO Representative or another senior WHO manager/incident manager appointed as Deputy HC a.i. pending decision on the most appropriate leadership model Designation/deployment of a Senior Emergency Humanitarian Coordinator within 72 hours, and of a WHO Incident Manager to assist by directing the technical aspects of the response Deployment of surge capacity Implementation of a multi-sectoral rapid assessment Elaboration of a statement of strategic priorities by the HC/HCT with technical contribution of the WHO Representative/senior manager Statement of appropriate public health, trade and travel interventions, based on current information, by the HC/HCT with technical contribution of the WHO Representative/senior manager Immediate initial CERF allocation
6. Other measures		
a. Additional elements	<ul style="list-style-type: none"> IASC Principals to meet 7-10 days from activation to review leadership and coordination arrangements. Deployment of Operational Peer Review IASC Principals to meet at end of 3 month activation period to review activation and recommend way forward. 	<ul style="list-style-type: none"> IASC Principals to meet 7-10 days from activation to review leadership and coordination arrangements. Deployment of Operational Peer Review IASC Principals to meet at end of 3 month activation period to review activation and recommend way forward Adaption of measures in the event of a multi-country, regional or global infectious disease event

Annex 3: Initiatives involved in research and development related to global health crises

1. Initiatives	2. Mission	3. Role Financing Coordination Implementation Information-sharing	4. Stage & type of product Diagnostics (D), vaccines (V), medicines (M), all products (ALL)				
			Research	Trials	Production	Distribution	Stockpiling
WHO Global Observatory on Health R&D	The Global Observatory on Health Research and Development (R&D) is a centralized platform hosted at WHO that monitors and analyses what health R&D is being conducted globally, where it is being conducted, by whom and how. The Observatory is able to identify R&D needs, which can guide research capacity building efforts and feed into global priority setting mechanisms so that new investments in R&D are driven by public health needs. http://www.who.int/research-observatory/en/	Information-sharing	ALL				
WHO International Clinical Trials Registry Platform	The ICTRP is a global initiative that aims to make information about all clinical trials involving humans publicly available. Its mission is to ensure that a complete view of research is accessible to all those involved in health care decision making. This will improve research transparency and will ultimately strengthen the validity and value of the scientific evidence base. http://www.who.int/ictrp/en/	Information-sharing		ALL			
Clinical Research Initiative for Global Health (CRIGH)	CRIGH serves as a support structure for international collaboration on clinical research for the benefit of patients, healthcare professionals, and health systems. It will seek to optimize clinical research programs in participating countries, to develop global standards on clinical research, and to promote the take-up of innovative methodology and technologies. http://www.ecriin.org/event/crigh-kickoff-meeting	Coordination Information-sharing	ALL	ALL			
WHO R&D Blueprint	The R&D Blueprint is a global strategy and preparedness plan to ensure that targeted R&D can strengthen the emergency response by bringing medical technologies to patients during epidemics. Its aim is to fast-track the availability of effective tests, vaccines and medicines that can be used to save lives and avert large scale crisis. With WHO as convener, the broad global coalition of experts who contribute to the Blueprint come from several medical, scientific and regulatory backgrounds. WHO Member States welcomed the development of the Blueprint at the World Health Assembly in May 2016. http://www.who.int/csr/research-and-development/r_d_blueprint_plan_of_action.pdf?ua=1	Coordination	ALL				
Global Research Collaboration for Infectious Disease Preparedness (GLOPID-R)	GLOPID-R brings together research funding organizations on a global scale to facilitate an effective research response to a new or re-emerging infectious disease with pandemic potential. Specific objectives of GLOPID-R: (i) facilitate the exchange of information; (ii) address scientific, legal, ethical and financial challenges, (iii) implement a 'One Health' approach, (iv) establish a strategic agenda for research response, (v) connect infectious	Financing Coordination Information-sharing	ALL	ALL			

1. Initiatives	2. Mission	3. Role Financing Coordination Implementation Information-sharing	4. Stage & type of product Diagnostics (D), vaccines (V), medicines (M), all products (ALL)				
			Research	Trials	Production	Distribution	Stockpiling
	disease research networks, and (v) actively involve developing countries. http://www.glopid-r.org/						
Global Health Innovative Technology Fund (GHIT Fund)	The GHIT Fund is an international non-profit organization headquartered in Japan that invests in the discovery and development of new health technologies such as drugs, vaccines, and diagnostics. It has a current portfolio of projects totalling USD 75 million aimed at addressing malaria, tuberculosis and neglected tropical diseases. https://www.ghitfund.org/	Financing	ALL	ALL			
Global Health Investment Fund (GHIF)	The Global Health Investment Fund (GHIF) is a USD 108 million social impact investment fund designed to provide financing to advance the development of drugs, vaccines, diagnostics and other interventions against diseases that disproportionately burden low- and middle-income countries. http://www.ghif.com/	Financing	ALL	ALL			
Innovative Medicines Initiative (IMI)	IMI is a partnership between the European Union and the European pharmaceutical industry. It has a €3.3 billion budget for the period 2014-2024. IMI is working to improve health by speeding up the development of, and patient access to, innovative medicines, particularly in areas where there is an unmet medical or social need. It does this by facilitating collaboration between the key players involved in healthcare research. https://www.imi.europa.eu/	Financing	ALL	ALL			
European & Developing Countries Clinical Trials Partnership	The European & Developing Countries Clinical Trials Partnership (EDCTP) aims to accelerate the development of new or improved drugs, vaccines, microbicides and diagnostics against HIV/AIDS, tuberculosis and malaria as well as other poverty-related infectious diseases in sub-Saharan Africa, with a focus on phase II and III clinical trials. http://www.edctp.org/	Financing	ALL	ALL			
UNITAID	UNITAID plays an important part in the global effort to defeat HIV/AIDS, tuberculosis and malaria, by facilitating and speeding up the availability of improved health tools, including medicines and diagnostics. http://www.unitaid.eu/en/	Financing Coordination	ALL	ALL		ALL	ALL
Global Fund to Fight AIDS, Tuberculosis and Malaria	The Global Fund to Fight AIDS, Tuberculosis and Malaria was created in 2002 to raise, manage and invest the world's money to respond to three of the deadliest infectious diseases the world has ever known.	Financing				ALL	ALL

1. Initiatives	2. Mission	3. Role Financing Coordination Implementation Information-sharing	4. Stage & type of product Diagnostics (D), vaccines (V), medicines (M), all products (ALL)				
			Research	Trials	Production	Distribution	Stockpiling
	http://www.theglobalfund.org/en/						
Coalition for Epidemic Preparedness Innovations	<p>CEPI will create an innovative partnership between the public, private, philanthropic and civil society sectors, to take an “end-to-end” approach to vaccine development, predominantly in cases where there is no commercial market. It will:</p> <ul style="list-style-type: none"> • Advance the development of specific, effective vaccines to the stage where there is proof of principle of efficacy and safety, ready for full trials or emergency use. • Plan and execute the manufacture and stockpiling of such vaccines, and resolve issues such as indemnity and trial design, so vaccines can be deployed swiftly. • Provide a ‘hub’ for global coordination of efforts around development of vaccines. • Partner with the organizations that have the potential to reach vaccination target populations, so that development success translates into immunization. <p>http://cepi.net/</p>	Financing Coordination Implementation	V	V	V		
Gavi, the Vaccine Alliance	<p>Gavi brings together public and private sectors with the shared goal of creating equal access to vaccines for children, wherever they live. The 2016-20 strategy has four goals: (i) accelerate equitable uptake and coverage of vaccines; (ii) increase effectiveness and efficiency of immunisation delivery as an integrated part of strengthened health systems; (iii) improve sustainability of national immunisation programmes; and (iv) shape markets for vaccines and other immunisation products.</p> <p>http://www.gavi.org/</p>	Financing			V	V	V
WHO International Coordinating Group (ICG) on Vaccine Provision	<p>The ICG was established in 1997 to manage and coordinate the provision of emergency vaccine supplies and antibiotics to countries during major outbreaks. The ICGs have been established to provide access to vaccines for cholera, meningitis and yellow fever.</p> <p>http://www.who.int/csr/disease/icg/qa/en/</p>	Coordination Implementation				V	V
Developing Countries Vaccine Manufacturers Network (DCVMN)	<p>DCVMN is a public health driven, international alliance of manufacturers, working to strengthen vaccine manufacturers through the provision of information and professional training programs, technology improvements, innovative vaccine research and development, encouraging technology transfer initiatives, and educating the public about the availability of safe, effective and affordable vaccines for all people.</p> <p>http://www.dcvmn.org/</p>	Coordination Implementation Information-sharing			V	V	
International Vaccine	<p>IVI is dedicated to discovering, developing and delivering vaccines for global health. IVI</p>	Financing	V	V		V	V

1. Initiatives	2. Mission	3. Role Financing Coordination Implementation Information-sharing	4. Stage & type of product Diagnostics (D), vaccines (V), medicines (M), all products (ALL)				
			Research	Trials	Production	Distribution	Stockpiling
Institute (IVI)	provides technology transfer, and support for process development and scale-up to clinical development to registration and WHO prequalification. Technology transfer is conditional upon the manufacturer producing vaccines at high-quality standards at a low-cost in a country with a WHO-approved National Regulatory Authority. http://www.ivi.int/	Implementation					