

Public health emergencies: preparedness and response

WHO's work in health emergencies

Report by the Director-General

1. This report is submitted pursuant to requests in resolution EBSS3.R1 (2015)¹ and decision WHA68(10) (2015)² on strengthening preparedness for health emergencies: implementation of the International Health Regulations (2005). It provides information on all WHO Grade 3 emergencies, United Nations Inter-Agency Standing Committee Level 3 emergencies, and public health emergencies of international concern that required a response by WHO between 1 January and 31 August 2020. It also responds to the request in resolution WHA73.8 (2020) about the methodology and the implementation and findings of the Surveillance System for Attacks on Health Care in complex humanitarian emergencies. The response to the request in that same resolution for the Director-General to consult and make proposals on possible complementary mechanisms to be used by the Director-General to alert the global community about the severity and/or magnitude of a public health emergency in order to mobilize necessary support and to facilitate international coordination is contained in an accompanying report.³

ACTIVE GRADE 3 EMERGENCIES DURING THE PERIOD FROM 1 JANUARY TO 31 AUGUST 2020

2. During the period under review, WHO responded to 116 emergencies in 193 countries, territories and areas, including 60 graded emergencies (see Annex). Of these 60, eight were WHO Grade 3 and United Nations Inter-Agency Standing Committee Level 3 emergencies, including two public health emergencies of international concern: the outbreak of Ebola virus disease in eastern Democratic Republic of the Congo and the global pandemic of coronavirus disease (COVID-19) (see Table). Given their scale, complexity and inherent operational challenges, these Grade 3 emergencies required the highest level of Organization-wide support. Of the seven new graded emergencies that arose during the review period one was Grade 3 (COVID-19), five were Grade 2 and one was Grade 1.

¹ Resolution EBSS3.R1 (2015) on Ebola: ending the current outbreak, strengthening global preparedness and ensuring WHO's capacity to prepare for and respond to future large-scale outbreaks and emergencies with health consequences.

² Decision WHA68(10) (2015) on 2014 Ebola virus disease outbreak and follow-up to the Special Session of the Executive Board on the Ebola emergency.

³ Document EB148/17.

Table. Grade 3/Protracted Grade 3 emergencies active between 1 January and 31 August 2020 (in chronological order from initial grading)

Country	WHO region	Date of initial grading	Status as at 31 August 2020
Global (COVID-19)	Global	14 January 2020	Ongoing: G2 upgraded to G3 on 25 January 2020; public health emergency of international concern declared on 30 January 2020
Democratic Republic of the Congo, Ebola virus disease (North Kivu, South Kivu and Ituri)	African	15 August 2018	Grade removed 25 June 2020
Democratic Republic of the Congo (Kasai)	African	29 August 2017	Ongoing (Protracted Grade 3)
Somalia	Eastern Mediterranean	9 May 2017	Ongoing (Protracted Grade 3 since 8 August 2019)
Nigeria (north-east)	African	18 August 2016	Ongoing (Protracted Grade 3 since 10 October 2018)
Yemen	Eastern Mediterranean	1 July 2015	Ongoing (Protracted Grade 3 since 6 May 2020)
South Sudan	African	12 February 2014	Ongoing (Protracted Grade 3 since 1 May 2017)
Syrian Arab Republic	Eastern Mediterranean	3 January 2013	Ongoing (Grade 3)

3. In line with WHO's Emergency Response Framework, all graded emergencies have been managed through WHO's Incident Management System. Where required, initial funds to establish incident management structures were provided from the Contingency Fund for Emergencies, which can release funding within 24 hours; by the end of August 2020, a total of US\$ 32 million had been released to support WHO's emergency response operations.

4. For all graded and protracted emergencies, WHO developed plans for strategic responses and joint operations with national health authorities and partners. It supported national governments' efforts to increase the quality and coverage of health services; strengthen primary health, secondary health and hospital care by deploying mobile teams and reinforcing health facilities; improve surveillance and early warning systems; conduct vaccination campaigns; distribute medicines and supplies; and train health workers. As the Inter-Agency Standing Committee Cluster Lead Agency for Health). Following revisions to the COVID-19 Global Humanitarian Response Plan, the number of people targeted by health cluster assistance has risen to 107 million, in partnership with more than 900 national and international partners. The increase is mainly related to COVID-19 requirements. In collaboration with national authorities, the Inter-Agency Standing Committee, the United Nations Office for the Coordination of Humanitarian Affairs and other global partner networks, WHO is actively strengthening context-specific coordination and multisector collaboration to achieve better health outcomes.

5. Implementing emergency response operations with health sector partners at country level has been especially challenging owing to the unprecedented scale and nature of disruption caused by the COVID-19 pandemic, which has exacerbated pre-existing impediments to implementation such as

limited humanitarian access; lack of sufficient funding to ensure sustainable and continuous life-saving health services to crisis-affected and vulnerable populations; attacks on health care workers and facilities; and escalating field costs.

PREPAREDNESS, RESPONSE, READINESS AND COORDINATION ACTIVITIES AT GLOBAL, REGIONAL AND COUNTRY LEVELS FOR ACTIVE GRADE 3 EMERGENCIES

COVID-19

6. The outbreak of COVID-19 was declared a public health emergency of international concern on 30 January 2020. The United Nations Crisis Management Team, chaired by WHO, was activated on 4 February 2020, bringing together 23 entities of the United Nations system for coordinated planning, policy development and the implementation of: the United Nations framework for the immediate socio-economic response to COVID-19¹ (WHO leads Pillar 1: Health First); the COVID-19 Global Humanitarian Response Plan;² WHO's Strategic Preparedness and Response Plan³ and associated guidelines; and the United Nations COVID-19 supply chain system.⁴ The Inter-Agency Standing Committee Principals agreed to activate the System-Wide Scale-Up Protocols, adapted to respond to the COVID-19 pandemic, in April 2020 for an initial period of six months.

7. The Strategic Preparedness and Response Plan provided a template that countries could adapt and use with support from the international community. The Secretariat updated its COVID-19 global strategy in April 2020 to help to guide the public health response to COVID-19 at national and subnational levels. By 9 November 2020, 176 countries reported having a COVID-19 preparedness and response plan, compared with 91 on 1 March 2020. To facilitate uptake of the global strategy, WHO published operational guidance and launched the COVID-19 Partners Platform⁵ in March 2020. The platform promotes coordination and planning in a transparent manner and on a global scale. As at 19 November 2020, the platform was being used by 140 Member States, more than 600 partner entities and 74 donors to track the implementation of readiness and response actions. WHO launched the monitoring and evaluation framework for the COVID-19 Strategic Preparedness and Response Plan on 5 June 2020 to monitor its implementation performance and to drive and improve operational delivery. The framework established global and country indicators across the nine pillars of the plan and additional aspects of the response both to support strategic planning, operational tracking and real-time

¹ UNDP. A UN framework for the immediate socio-economic response to COVID-19. New York: United Nations Development Programme; 2020 (<https://unsdg.un.org/resources/un-framework-immediate-socio-economic-response-covid-19>, accessed 23 November 2020).

² United Nations Coordinated Appeal, April–December 2020. Global humanitarian response plan, COVID-19. Geneva: United Nations Office for the Coordination of Humanitarian Affairs; 2020 (<https://www.unocha.org/sites/unocha/files/Global-Humanitarian-Response-Plan-COVID-19.pdf>, accessed 23 November 2020).

³ WHO. 2019 Novel coronavirus (2019-nCoV): strategic preparedness and response plan. Geneva: World Health Organization; 2020 (<https://www.who.int/docs/default-source/coronaviruse/srp-04022020.pdf>, accessed 23 November 2020).

⁴ WHO. COVID-19 supply chain system: requesting and receiving supplies. Geneva: World Health Organization; 2020 (<https://www.who.int/publications/m/item/covid-19-supply-chain-system-requesting-and-receiving-supplies>, accessed 23 November 2020).

⁵ WHO. COVID-19 Partners Platform. Geneva: World Health Organization; 2020 (<https://covid19partnersplatform.who.int/>, accessed 23 November 2020).

evidence-based decision-making and to enable advocacy and ensure transparency between donors, United Nations entities and partners involved in the response.

8. Substantial operational support has been provided to countries through the Global Outbreak Alert and Response Network. Partners had deployed 97 experts through it by 15 August 2020. WHO has undertaken more than 130 technical and operational missions and provided dedicated virtual support through webinars and trainings. Headquarters and regional offices have convened weekly briefings for Member States to enable the sharing of country responses and lessons learned. Through the emergency medical teams initiative¹ the Secretariat has facilitated more than 40 international medical support missions and provided technical standards and support for the mobilization of national medical teams, helping to repurpose and expand hospital-bed capacity worldwide.

9. In mid-January 2020, WHO first published COVID-19 technical guidance² and tools for surveillance, laboratory testing and best practice, infection prevention and control, clinical management, readiness, points of entry and international travel and transport, and on essential commodities. Subsequently, it has published 400 COVID-19 guidance documents and hundreds of other information products, ranging from technical and operational guidance and tools to scientific briefs, technical reports and risk-communication products. Guidance on existing and new topics continues to be updated to reflect the latest scientific evidence and is developed in close collaboration with global experts from technical networks, WHO collaborating centres, the Strategic and Technical Advisory Group for Infectious Hazards, WHO's formal guideline-development groups, external groups conducting rapid literature reviews for each of the areas listed above, civil society, patient groups and several international associations. WHO has produced and continues to develop comprehensive technical guidance on surveillance for COVID-19 for maritime and aviation traffic and ground crossings, with inputs from the International Maritime Organization, International Civil Aviation Organization, the International Air Transport Association, International Organization for Migration, United States Centers for Disease Control and Prevention, and major industry associations. In addition, the Secretariat has established a COVID-19 Publications Review Committee that examines all proposals for new guidance for COVID-19 to ensure coherence, facilitate adherence to methodological processes and ensure that the guidance produced is timely and relevant.

10. At the request of the United Nations Secretary-General and the UN Crisis Management Team, a task force was convened to establish the COVID-19 supply chain system. The system, coordinated by WHO, was established to scale up the procurement and delivery of personal protective equipment, testing and diagnostics supplies, and biomedical equipment such as ventilators and oxygen concentrators. The task force capitalized on the capabilities and expertise of each partner to identify procurement needs and negotiate with suppliers. As at 15 August 2020, WHO had delivered 131 million items of personal protective equipment – including medical masks, respirators, goggles, face shields, gowns and gloves – to 147 countries. Within the biomedical equipment market, WHO has been able to acquire oxygen concentrators amid limited production of these life-saving supplies for individuals with severe disease. WHO has negotiated the procurement and distributed as at 3 December 2020 151 pulse oximeters, 16 573 oxygen concentrators, 4649 patient monitors and 1493 ventilators.

11. The first COVID-19 polymerase chain reaction test protocol was developed by a WHO partner laboratory and made publicly available by WHO on 13 January 2020. WHO then engaged companies

¹ WHO. Emergency medical teams. Geneva: World Health Organization (<https://www.who.int/emergencies/partners/emergency-medical-teams>, accessed 23 November 2020).

² WHO. Country & Technical Guidance – Coronavirus disease (COVID-19). Geneva: World Health Organization; 2020 (<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance>, accessed 23 November 2020).

to produce and distribute polymerase chain reaction diagnostic kits, with the first shipments to 150 laboratories worldwide by the first week of February. Since then, through the diagnostics consortium of the COVID-19 supply chain system, more than 17.3 million diagnostic tests and 3.7 million sample-collection kits have been delivered, or are in transit, to laboratories worldwide. All 194 countries surveyed by WHO had reported by 21 July that they have COVID-19 laboratory testing capacity. In addition, WHO's Global Influenza Surveillance and Response System¹ has been co-opted to provide virus detection capacity, laboratory quality control, monitoring transmission of SARS-CoV-2, and a data-sharing mechanism. More than 30 000 sentinel specimens are tested for COVID-19 each week through the System and the data are shared through WHO's platforms.

12. WHO's Strategic Preparedness and Response Plan includes actions to coordinate international research and development efforts. In February 2020, WHO convened a multistakeholder research and development forum with more than 400 experts to identify research priorities, and issued a road map to accelerate the development of COVID-19 countermeasures and research about the disease. A follow-up research forum was held in July 2020. WHO is directly coordinating and providing technical and financial support for several global scientific studies called for by the road map, such as its Solidarity Therapeutics Trial (launched in March 2020), its Unity Studies on seroepidemiology, clinical data platforms and implementation research for new diagnostics. Through the WHO R&D Blueprint and its Scientific Advisory Group and Global Coordination Mechanism,² WHO promotes communication and interaction among researchers, scientific institutions, developers, manufacturers, funders and other stakeholders to ensure that COVID-19 research is coordinated and quickly implemented. The R&D Blueprint also aims to facilitate the rapid sharing of clinical samples and virus materials through Standard Material Transfer Agreements. WHO continually maps and reports global progress on COVID-19 research priorities.

13. The research road map and an accompanying framework for coordinated investment enable funders and researchers to prioritize investment and research options for COVID-19, and ensure that research adheres to three core principles: speed, scale and access. On 24 April 2020, commitment to these principles was cemented with the launch of the Access to COVID-19 Tools (ACT) Accelerator,³ a collaboration to accelerate the development and production of new COVID-19 essential health technologies and to ensure their equitable distribution. The ACT-Accelerator combines expertise from public and private sectors, from research and development to in-country delivery, and has harnessed the existing public health assets for unprecedented collaboration to rapidly make its vision a reality. WHO provides overall coordination and leads the cross-cutting workstream on access and allocation. It also provides technical leadership in all pillars of the ACT-Accelerator, including those for norms and standards, policies and technical guidance, and regulatory processes, including WHO prequalification for new tools. Ambitious targets for the distribution of new COVID-19 tools include the provision of two billion doses of vaccine to all countries by the end of 2021 and 245 million treatment courses and 500 million diagnostic tests to low-income and middle-income countries by mid-2021.

14. The Secretariat has published more than 200 COVID-19 global epidemiological and operational situation reports, collating and analysing data reported from all Member States. This work includes

¹ WHO. Global Influenza Surveillance and Response System (GISRS). Geneva: World Health Organization (https://www.who.int/influenza/gisrs_laboratory/en/, accessed 23 November 2020).

² WHO. A coordinated global research roadmap. Geneva: World Health Organization; 2020 (<https://www.who.int/blueprint/priority-diseases/key-action/Roadmap-version-FINAL-for-WEB.pdf?ua=1>, accessed 16 December 2020).

³ WHO. Access to COVID-19 tools (ACT) Accelerator. Geneva: World Health Organization; 2020 ([https://www.who.int/publications/m/item/access-to-covid-19-tools-\(act\)-accelerator](https://www.who.int/publications/m/item/access-to-covid-19-tools-(act)-accelerator), accessed 23 November 2020).

geospatial analysis as well as the development, production and maintenance of a WHO COVID-19 dashboard providing the most up-to-date and verified national and regional data. The Secretariat implemented continuous COVID-19 epidemic intelligence and set up a global surveillance system through which all Member States report essential data. The Secretariat continues to communicate, coordinate and work collaboratively with Member States through the regional offices, providing analysis, situation updates, risk assessments and other guidance to facilitate the response and monitor the pandemic. Since early January 2020, WHO has coordinated and helped to establish research priorities for modelling groups around the world, and developed and operationalized a response monitoring framework. Staff were promptly deployed to the Regional Office for the Western Pacific and participated in an early visit to Wuhan, China.

15. WHO's Epidemic Intelligence from Open Sources initiative, which strengthens early detection, verification, assessment and communication of public health threats (see paragraph 65), expanded to more teams within the Organization as well as to Singapore, Uganda and the International Federation of Red Cross and Red Crescent Societies (in the context of the Global Outbreak Alert and Response Network). This expansion included collaboration with Africa Centres for Disease Control and Prevention to train incoming analysts in event-based surveillance using the initiative's platform, and working closely with Member States and regional offices to track and verify events related to COVID-19 and other emerging threats.

16. The Secretariat has also spearheaded innovative communication and information-sharing initiatives, platforms and tools to manage the overabundance of information, hosting conferences in April and July 2020 that brought together world experts and more than 12 000 online participants to discuss the process and the scientific underpinnings of the management of this situation.

17. The Secretariat has worked with more than 50 social media and technology companies to promote WHO's evidence-based information about COVID-19 and to limit the spread of false information. The Director-General and senior managers have held more than 100 weekly press conferences to update the world's media on the evolution of evidence-based guidance and to answer questions. WHO's Information Network for Epidemics¹ continues to provide timely, accurate and easy-to-understand advice and information for a variety of audiences and sectors. Hundreds of webinars have been produced on COVID-19-related topics as well as live sessions on social media and "ask the experts" sessions. The Secretariat has provided peer-to-peer mentorship on COVID-19 laboratory diagnostics to more than 1000 participants from more than 120 Member States through global and regional webinars. More than four million course enrolments have been made on OpenWHO, WHO's open-access learning platform, which currently offers 141 COVID-19 courses in 42 languages (as at December 2020).

18. To support Member States, the Secretariat has published technical and operational guidance on maintaining essential health services in the context of COVID-19.² The subjects covered include: the practical actions that countries can take to maintain access to high-quality essential health services; the role of community-based health care; and a range of programme-specific guidance including life course stages, immunization, long-term care, communicable and noncommunicable diseases, health workforce, supply chain, and blood supply. The Secretariat has reviewed COVID-19 national response plans from

¹ WHO's Information Network for Epidemics: EPI-WIN. World Health Organization; 2020 (<https://www.who.int/teams/risk-communication>, accessed 23 November 2020).

² WHO. Coronavirus disease (COVID-19) technical guidance: maintaining essential health services and systems. Geneva: World Health Organization; 2020 (<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/maintaining-essential-health-services-and-systems>, accessed 23 November 2020).

Member States in all WHO regions to evaluate their alignment with such operational guidance and has recommended actions for improvement. It is closely monitoring the impact of the pandemic on essential health services. In August 2020, WHO reported the results of a global pulse survey¹ which described disruptions across all services and mitigation strategies to maintain essential health services through the life course. The Secretariat is providing support to Member States in fast-tracking actions to ensure continued delivery of essential health services in the context of COVID-19, with a particular focus on primary health care as a cornerstone for universal health coverage.

Democratic Republic of the Congo: protracted complex emergency

19. WHO continued to respond to the graded crises in the Democratic Republic of the Congo, in areas also affected by humanitarian crises arising principally from displaced populations, by ensuring delivery of essential medicines and supplies and by making available a minimum package of essential health services. The Secretariat also continued to provide technical support and coordination for integrated disease surveillance and response and prevention of communicable diseases. During the reporting period, a cholera vaccination campaign was launched in South Kivu reaching about 93% of the population.

Democratic Republic of the Congo: outbreak of Ebola virus disease in North Kivu, South Kivu and Ituri

20. The outbreak of Ebola virus disease in the North Kivu, South Kivu and Ituri provinces was registered as a Grade 3 emergency in 2018, and was declared a public health emergency of international concern on 17 July 2019. WHO deployed staff on the ground from the outset of the outbreak, maintaining as many as 700 staff to support the Government-led response. With clinical operations partners, WHO has led innovations in the design of treatment units, optimization of supportive care and timely delivery of live-saving therapeutics, all of which helped to reduce mortality. Following the sustained fall in the incidence of new cases from July 2019, few cases were reported in the first six months of 2020, and on 25 June 2020 the country's Government declared the outbreak over. The Secretariat will continue to work with the Government and partners to maintain surveillance and rapid-response capacities and build a stronger, more resilient health system over the long term. It also continues to support survivors of the disease, with a survivor care programme that provides follow-up care and counselling for almost all the 1169 survivors of the outbreak in 26 health areas in North Kivu, South Kivu and Ituri, and helps to reduce the risk linked to long-term persistence of the Ebola virus in survivors' body fluids.

21. On 1 June 2020, an eleventh outbreak of Ebola virus disease was declared in Equateur Province, unrelated to the outbreak in the eastern parts of the country. As at 15 August 2020, 88 confirmed and probable cases were reported in 30 health areas of 10 health zones. The Equateur outbreak was declared a Grade 2 event.² Since its beginning, the Secretariat has deployed teams to support the Ministry of Health to scale up and strengthen capacity for surveillance, laboratory vaccination, infection prevention and control within health facilities, and case management. WHO currently serves as the technical lead

¹ WHO. In WHO global pulse survey, 90% of countries report disruptions to essential health services since COVID-19 pandemic [News release]. Geneva: World Health Organization; 2020 (<https://www.who.int/news/item/31-08-2020-in-who-global-pulse-survey-90-of-countries-report-disruptions-to-essential-health-services-since-covid-19-pandemic>, accessed 23 November 2020).

² The Ministry of Health in the Democratic Republic of the Congo declared the outbreak over on 18 November 2020.

for the response in support of the ministry, while working alongside the United Nations Office for the Coordination of Humanitarian Affairs to support partner coordination and improve logistics capacity.

22. On 28 September 2020, WHO was outraged by recent reports of alleged sexual exploitation and abuse in the context of the Ebola virus disease response in the country, despite a zero-tolerance policy with regard to such behaviour in any of WHO staffs, contractors or partners. On 15 October, the Director-General opened an investigation into the claims, establishing an Independent Commission with as Co-Chairs Aïchatou Mindaoudou, Niger's former minister of foreign affairs and social development, and Julienne Lusenge, a Congolese human rights activist. The Director-General appointed two senior staff in the Secretariat to coordinate and interact with the Commission's Co-Chairs. The Commission will be composed of up to seven members, covering a broad range of disciplines and experience and will establish mechanisms for constant and regular communication and coordination. An external consultant company will undertake fact-finding. The Commission aims to identify and give support to survivors, ensuring that, if found, any ongoing abuse has stopped, and to hold perpetrators to account. The Director-General's Global Policy Group has already taken immediate actions at all levels of the Organization for strengthening the systems for prevention of sexual exploitation and abuse with a zero-tolerance policy, in addition to supporting a speedy and efficient investigation. In parallel, on 17 October, the Inter-Agency Standing Committee started its mission to the country with the experts from various organizations in the United Nations system.¹

Nigeria: complex emergency

23. The Secretariat continues to support the Federal Government's efforts to meet the needs of vulnerable populations in north-east Nigeria through the use of mobile medical teams to provide integrated health care services in hard-to-reach areas. It has also invested in community health workers to provide home-based care in their local communities.

South Sudan: complex emergency

24. In South Sudan, an estimated 7.5 million people need humanitarian assistance, 1.6 million people are internally displaced and 2.4 million are refugees. WHO continues to respond to the health effects of displacement, outbreaks of violence, malnutrition, flooding and communicable diseases. It has strengthened contingency planning against emerging communicable diseases and supported the vaccination of almost one million children in civilian areas under United Nations' protection. It has also provided emergency supplies to bridge gaps at the primary care level and donated emergency medical kits to health partners operating in flood-affected areas across the country.

Syrian Arab Republic: complex emergency

25. WHO has maintained a swift and scalable response to meet the health needs of populations affected by conflict, continued to fill critical gaps in primary and secondary health care, and continued to provide essential medicines and medical supplies and strengthen cross-conflict-line and cross-border medical supply chains.

26. Throughout the reporting period health sector partners administered 5.8 million medical procedures and 3.2 million treatment courses, of which WHO provided 863 000 and 2.7 million, respectively. The Secretariat delivered life-saving medicines and medical equipment to fill gaps in

¹ International Organization for Migration, United Nations Children's Fund, United Nations High Commissioner for Refugees, United Nations Office for the Coordination of Humanitarian Affairs, and WHO.

primary health care services in 12 governorates; donated six ambulances and 31 mobile clinics to the Ministry of Health and its health partners; and supported 72 hospitals across the country. In response to the COVID-19 pandemic, it continues to bolster supplies of personal protection equipment in the country, with a focus on protecting health workers. It has delivered more than 7.4 million such items.

27. The life-saving and life-sustaining medicines and medical equipment provided by WHO over the reporting period were sufficient to cover 25% of gaps in the north-west of the country, and provided vital support to five secondary and tertiary hospitals. WHO also positioned health emergency kits in Aleppo, Idleb, Al-Hasakeh, Ar-Raqqa, Deir-ez-Zor, Homs and Lattakia governorates. In the north-east of the country, WHO and health partners positioned vaccines and trauma and other surgical supplies. It continues to strengthen local capacities in immunization and the treatment of mental health and disability. The Organization also continued to expand partnerships with civil society and to scale up referral networks and outreach services. In addition, it continues to lead the health cluster from all response hubs (cross-conflict-line and cross-border), and to improve the collection and analysis of real-time health information for evidence-based planning and response.

Yemen: complex emergency

28. In cooperation with the Ministry of Public Health and Population of Yemen, authorities in the country and other health partners, the Secretariat continued to support the provision of primary and secondary health care services to affected populations in the north and south of the country. WHO and Health Cluster partners continued to provide incentives to almost 25 000 frontline staff in April 2020 and trained more than 800 doctors and an estimated 4000 nurses during the reporting period. In response to a cholera outbreak, the Secretariat sustained its operations and continued to support the establishment of 333 multidisciplinary rapid response teams that can be deployed to investigate outbreaks. In response to COVID-19, the Secretariat has supported the establishment of additional rapid response teams in 84 districts. WHO, in collaboration with partners, also conducted oral cholera vaccination campaigns in high-risk districts, administering 3.8 million vaccine doses. More than one million children were protected from vaccine-preventable diseases; more than 100 000 children aged under 5 years have been saved from death by severe acute malnutrition; and around 24 500 children were treated for diseases such as bloody diarrhoea, malaria and pneumonia.

29. WHO ensured that antenatal care was provided to more than 800 000 pregnant women during the reporting period. Two new mammography machines were installed in hospitals in Aden and Sana'a to help to improve early detection of breast cancer. Anti-cancer medicines were also distributed to seven cancer centres across the country.

30. In late 2019 WHO initiated a United Nations medical air bridge operation for transporting patients in need of specialized medical attention unavailable in Yemen to agreed locations abroad. Thanks to diplomatic efforts by the United Nations and some individual Member States, the first flights took off in February 2020, and a group of Yemeni patients was transported from Sana'a to Amman, Jordan. In response to the COVID-19 pandemic, WHO and United Nations partners have procured more than 15 000 metric tons of medical equipment, testing kits and medicines, of which more than 13 000 metric tons had arrived in Yemen by the end of the reporting period. Altogether 788 intensive care unit beds and six laboratories are now functional with COVID-19 testing capacity; more than 642 000 items of personal protective equipment have been provided, and 11 700 oxygen cylinders are re-filled on a monthly basis as a result of WHO's collaborative work with health partners.

Somalia

31. In cooperation with the Federal Ministry of Health and other partners, the Secretariat continued to provide primary and essential health care services to the crisis-affected populations in Somalia. In response to an ongoing cholera outbreak, it scaled up its operations, supporting surveillance and oral cholera vaccination campaigns that protected over 600 000 people against cholera. Through health cluster support, partners also provided integrated life-saving health and nutrition services to more than 800 000 persons from host communities and camps for the internally displaced. As a result of a nationwide integrated campaign of polio and measles vaccination, 1.9 million children aged under 5 years were vaccinated against polio and more than 1.7 million children aged 6 to 59 months received measles vaccination and vitamin A supplementation throughout the reporting period.

32. Since the scaling up of response operations to drought in September 2019, about 450 000 internally displaced persons were reached with emergency health services in 15 drought-affected districts of Hishabelle, Galmudug, Jubaland and South-West states.

33. Since the first COVID-19 case was confirmed in Somalia on 16 March 2020, the Secretariat has worked closely with the Federal Ministry of Health and Health Cluster partners to provide technical and operational support for: operational coordination; surveillance; laboratory testing; patient care and information; and data collection, analysis and sharing. As at mid-August 2020, WHO had established three polymerase chain reaction testing laboratories with additional laboratory supplies and equipment to ensure uninterrupted testing of samples for COVID-19. In addition, more than 3500 health workers and frontline community health workers have been trained and deployed to 49 districts to conduct community and facility-based surveillance and enhance case detection, investigation and testing for COVID-19 in the country. WHO has also supported the establishment and management of two isolation centres to provide care to patients with COVID-19, provided essential items of personal protective equipment and trained health workers in case management.

HEALTH EMERGENCY PREPAREDNESS

34. Throughout the reporting period, the Secretariat continued to expand the monitoring and evaluation of International Health Regulations (2005) capacities in all six WHO regions, obtaining responses from 172 of 196 States Parties using the self-assessment annual reporting tool through the web-based platform to facilitate online reporting.¹ As at 13 July 2020, a 100% submission rate was recorded in the African and South-East Asia regions. Reported national capacity scores increased by about 2% overall between the 2019 and 2020 reporting periods, with the exception of capacity related to human resources, which remains unchanged. Almost all States Parties are performing better than in the previous reporting period in key capacities such as surveillance, laboratory, coordination and IHR National Focal Points functions. Points of entry (ports, airports and ground crossings), and chemical safety and radiation emergency capacity continue to be areas for improvement. The improvement of the core capacities of the Regulations through regular monitoring and evaluation has proved to be essential in the context of COVID-19 and other health emergencies. Detailed information on the annual reporting by States Parties is published on the new platform and other WHO websites.²

¹ WHO. e-SPAR: State Party annual report (available at <https://extranet.who.int/e-spar>, accessed 23 November 2020).

² WHO. Strategic Partnership for IHR (2005) and Health Security (available at <https://extranet.who.int/sph/>; and the Global Health Observatory (available at [https://www.who.int/data/gho/data/themes/international-health-regulations-\(2005\)-monitoring-framework](https://www.who.int/data/gho/data/themes/international-health-regulations-(2005)-monitoring-framework), all accessed 23 November 2020).

35. By the end of the reporting period a total of 113 joint external evaluations had been completed, 136 simulation exercises undertaken and 64 after-action reviews conducted. In July 2020, WHO supported an after-action review of the response to flooding emergencies in South Sudan. A total of 64 countries had developed all-hazards strategic risk assessments by the end of the reporting period using WHO's Strategic Tool for Assessing Risks. This tool supports risk-informed programming that catalyses emergency preparedness action to reduce the level of risk associated with a particular hazard and its consequences. Member States in all six WHO regions were supported in strengthening operational readiness capacity through training and development of contingency planning and business continuity planning.

36. By the end of the reporting period a total of 68 countries had been supported in developing national action plans for health security; these guide countries on priority actions for building stronger capacities required by the Regulations, including those across the human–animal interface. To improve detection and response at the human–animal health interface, 32 national bridging workshops and 16 joint risk assessment pilot workshops under the One Health approach have been held. Collectively, this work has yielded greater understanding of national preparedness levels.

37. WHO is continuing to use its benchmark tools¹ to support building core capacity under the International Health Regulations (2005) and to map national IHR (2005) and health systems components as part of strengthening emergency preparedness. The benchmarks and corresponding actions can be applied to improve countries' emergency preparedness through the development and implementation of national action plans for health security. WHO has also issued a benchmarks reference library² to provide Member States, partners and public health stakeholders with direct access to relevant guidance, tools and materials that support the implementation of proposed capacity-building actions.

38. In 2020, WHO published the multisectoral preparedness coordination framework,³ which provides Member States and relevant national sectors with an overview of the key elements required to strengthen overarching, all-hazard, multisectoral coordination for building the core capacities under the Regulations and emergency preparedness and health security.

39. The Secretariat continued to provide support to countries in carrying out national resource mapping and impact analysis on health security investment with WHO's tool and process to identify all financial and technical resources available for capacity-building for the Regulations and for implementation of COVID-19 preparedness and response plans, in line with recommendations and priority actions arising from monitoring and evaluation of fulfilment of the Regulations. During the reporting period, support for such mapping and analysis was provided in Chad, Niger and Senegal.

40. The WHO Strategic Partnership for International Health Regulations (2005) and Health Security Portal was expanded during the reporting period to better include tracking and monitoring of national preparedness investments toward relevant capacity-building activities including those contained in national action plans for health security. The portal was further extended to include links to the

¹ WHO. WHO benchmarks for International Health Regulations (IHR) capacities. Geneva: World Health Organization; 2019 <https://apps.who.int/iris/handle/10665/311158>, accessed 23 November 2020).

² WHO. Strategic Partnership for International Health Regulations (2005) and Health Security (SPH). Geneva: World Health Organization; 2020 (<https://extranet.who.int/sph/>, accessed 10 December 2020).

³ WHO. Multisectoral preparedness coordination framework: best practices, case studies and key elements of advancing multisectoral coordination for health emergency preparedness and health security. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/332220>, accessed 23 November 2020).

COVID-19 Partners Platform in order to support investments and planning for longer-term preparedness and health security.

41. In 2020, WHO published a glossary of health emergency and disaster risk management terminology.¹ It provides national policy-makers, practitioners and other public health stakeholders with standardized terminology.

42. The Secretariat provided support to countries in all WHO regions to scale up safe health facilities. Policy advice, technical guidance and tools were developed to facilitate this, including a rapid readiness tool to assess, monitor and maintain capacities related to COVID-19 in hospitals.²

43. The Secretariat continued to lead the United Nations system's work on resilience and disaster risk reduction for emergency preparedness. This included strengthening collaboration between the WHO/World Meteorological Organization Joint Office for Climate and Health and WHO's climate change unit to better address climate-related risks in the context of health emergency preparedness and disaster risk management. WHO also contributed to the United Nations' guidance note on using climate and disaster risk management to help to build resilient societies.³

44. WHO has published interim guidance⁴ to support countries to invest in and build longer-term health emergency preparedness during the COVID-19 pandemic and "build back better". It is also supporting countries to apply lessons learned from national all-hazard risk assessments to facilitate recovery from COVID-19 and integration of whole-of-society approaches to preparedness. In order to further strengthen national whole-of-society approaches to preparedness, WHO has also worked with the Global Education and Training Institute of the United Nations Office for Disaster Risk Reduction and United Nations Institute for Training and Research to develop and host e-learning courses on designing local disaster risk reduction and resilience strategies and on a multisectoral approach to integrating public health and disaster risk management. It has also published a manifesto for a healthy and green recovery from COVID-19,⁵ aiming at resilience and aligned with targets to help to reduce the impact of climate change.

45. The Secretariat continued providing technical support to countries wishing to strengthen capacities under the International Health Regulations (2005) for prevention, readiness, early detection

¹ WHO. Glossary of health emergency and disaster risk management terminology. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/331716>, accessed 24 November 2020).

² WHO. Rapid hospital readiness checklist: Interim Guidance: Harmonized health service capacity assessment in the context of the COVID-19 pandemic. Geneva: World Health Organization; 2020 (<https://www.who.int/publications/i/item/WHO-2019-nCoV-hospital-readiness-checklist-2020.1>, accessed 24 November 2020).

³ UN Office for Disaster Risk Reduction. Integrating disaster risk reduction and climate change adaptation in the UN Sustainable Development Cooperation Framework: guidance note on using climate and disaster risk management to help build resilient societies. Geneva: United Nations Office for Disaster Risk Reduction; 2020 (<https://reliefweb.int/sites/reliefweb.int/files/resources/Integrating%20disaster%20risk%20reduction%20and%20climate%20change%20adaptation%20in%20the%20UN%20Sustainable%20Development%20Cooperation%20Framework.pdf>, accessed 24 November 2020).

⁴ WHO. Investing in and building longer-term health emergency preparedness during the COVID-19 pandemic: interim guidance for WHO Member States. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/332973>, accessed 24 November 2020).

⁵ <https://www.who.int/docs/default-source/climate-change/who-manifesto-for-a-healthy-and-green-post-covid-recovery.pdf>.

and response to public health events, including at points of entry. WHO issued a handbook for public health capacity-building at ground crossings and cross-border collaboration,¹ a collaborative effort by WHO, the International Organization of Migration and the United States Centers for Disease Control and Prevention. In addition to the development and dissemination of technical guidance and tools, field assistance including training has been given in countries to address gaps identified through the monitoring and evaluation process of the Regulations, as well as on an ad hoc basis at the request of countries.

46. WHO continues to collaborate with partners to promote implementation of the Regulations. WHO and the International Maritime Organization reviewed amendments related to public health in the Annex of the Convention on Facilitation of International Maritime Traffic, with the aim to aligning the Annex with relevant articles of the Regulations.

47. The International Health Regulations secretariat continues to provide support to States Parties by providing access to an online course and face-to-face training for ship inspection and the issuance of ship sanitation certificates in order to enhance capacities for inspecting ships engaged in international voyages, as prescribed by the Regulations.

48. The WHO Secretariat provided support to strengthen laboratory capacity through the development and dissemination of technical guidance and the provision of technical assistance to priority countries. WHO promptly classified clinical samples from patients with suspected or confirmed COVID-19 as category B biological substances in order to facilitate safe shipment of samples on the basis of its interim guidance on laboratory biosafety. In order to ensure proper training and certification when face-to-face training is not possible, distance-based training was piloted in Malawi.

49. The Secretariat continued to coordinate training workshops and provided laboratory proficiency testing. It continued to develop the Global Laboratory Leadership Programme, a collaborative effort between WHO and partner organizations, aimed at developing a new generation of laboratory leaders. The programme was successfully validated in Pakistan, and the lessons learned will be used to further improve the content and future delivery of the programme.

50. The International Health Regulations secretariat, in particular, continues to develop and update learning programmes, including innovative tools and online learning courses geared to National IHR Focal Points and other stakeholders.

51. The WHO Secretariat continued to support countries in building national medical response capacity. Its Emergency Medical Teams initiative is working with 15 countries with the highest “disaster risk”² in order to strengthen the readily available health workforce in countries. Between February and August 2020, more than 40 international medical support missions were undertaken, most by 29 internationally-classified emergency medical teams or teams that were in the process of being classified.

¹ WHO. Handbook for public health capacity-building at ground crossings and cross-border collaboration. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/331534>, accessed 24 November 2020).

² WorldRiskReport 2019. Aachen, Germany: Bündnis Entwicklung Hilft; 2020 (https://reliefweb.int/sites/reliefweb.int/files/resources/WorldRiskReport-2019_Online_english.pdf, accessed 24 November 2020).

PREVENTING EPIDEMICS AND PANDEMICS

52. In 2020, WHO has continued working with its partners from a wide range of fields to elaborate global strategies for preventing and controlling high-threat infectious hazards and scaling these strategies to regional and country levels. The Strategic and Technical Advisory Group for Infectious Hazards,¹ an overarching advisory group on pandemic and epidemic diseases, reviews and advises WHO on risk assessment, disease-specific programmes and cross-cutting innovation and research needs. Since early January 2020, it has been convened regularly more than 40 times to monitor WHO's global risk assessment of COVID-19, learn from country presentations and provide strategic and technical advice.² It also met to conduct a technical review of the tenth outbreak of Ebola virus disease in the Democratic Republic of the Congo.

53. The global strategy to eliminate yellow fever epidemics is in its fourth year of a 10-year plan. Vaccine supply has improved significantly, and it is estimated that 125 million people in Africa have been protected through a combination of routine, preventive and reactive campaigns. These unprecedented numbers are testament to the engagement of the African Region, the Region of the Americas and the Eastern Mediterranean Region, all of which are affected by yellow fever.

54. Since the launch of the report of the Global Task Force on Cholera Control and its road map to 2030,³ Bangladesh, the United Republic of Tanzania and Zambia have formally launched comprehensive plans for cholera elimination. Somalia has finalized its plan; and Ethiopia, Kenya, Mozambique, South Sudan and Zimbabwe are currently developing their national cholera control plans along the lines set out in the Global Roadmap. By mid-2020, 69 million doses of oral cholera vaccines had been shipped to 25 countries.

55. In accordance with the global road map for defeating meningitis by 2030, approved by the Seventy-third World Health Assembly in November 2020,⁴ the Secretariat has supported the immunization of more than 50 million individuals through preventive or reactive vaccination in 13 African countries. The result has been the elimination of meningococcal serogroup A epidemics and control of seven major outbreaks due to other serogroups. Implementation of a platform for integrated surveillance is starting in Member States of the African Region. Validation of a rapid diagnostic test for meningitis is under way.

56. The Secretariat continues to implement global prevention and control activities for high-threat respiratory pathogens, including the MERS-related coronavirus, which was the basis for early guidance,

¹ WHO. Strategic and Technical Advisory Group for Infectious Hazards. Geneva: World Health Organization; 2020 (<https://www.who.int/emergencies/diseases/strategic-and-technical-advisory-group-for-infectious-hazards/en/>, accessed 24 November 2020).

² WHO. 2020 STAG-IH COVID-19 virtual conferences. Geneva: World Health Organization; 2020 (https://www.who.int/emergencies/diseases/strategic-and-technical-advisory-group-for-infectious-hazards/2020_STAG_IH_COVID_19_Virtual_Conferences.pdf?ua=1, accessed 24 November 2020).

³ Global Task Force on Cholera Control. Ending cholera: a global roadmap to 2030. Geneva: World Health Organization; 2017 (<https://www.who.int/cholera/publications/global-roadmap.pdf?ua=1>, <https://www.gtfcc.org/about-gtfcc/roadmap-2030/>, accessed 24 November 2020).

⁴ WHO. Defeating meningitis by 2030: a global roadmap. Geneva: World Health Organization; 2019 (<https://www.who.int/docs/default-source/immunization/meningitis/defeatingmeningitisroadmap.pdf>, accessed 24 November 2020).

information products, training and strategies that were adapted during the early weeks of the COVID-19 pandemic.

57. WHO's Global Influenza Strategy 2019–2030¹ continues to provide a framework for approaching influenza holistically through tailored national programmes – from surveillance to disease prevention and control – with the goal of strengthening seasonal, zoonotic and pandemic preparedness.

58. Since the emergence of SARS-CoV-2, advantage has been rapidly taken of influenza capacities, including: laboratory detection capacity at national influenza centres; sentinel surveillance of COVID-19 through WHO's Global Influenza Surveillance and Response System and associated influenza surveillance systems; reporting of sentinel surveillance data on influenza and COVID-19 through global and regional influenza platforms (namely FluNet); adaptation of WHO's external laboratory quality assurance mechanisms to COVID-19; and the shipping of SARS-CoV-2 samples through existing influenza shipping mechanisms. In addition, at the start of the COVID-19 outbreak, the mechanism for sharing genetic sequence data provided a valuable platform for sharing such data on SARS-CoV-2. However, beginning in March 2020, global disruptions to routine influenza surveillance and declines in sharing global influenza viruses and data were observed that have the potential to impact the functioning of the global influenza systems and capacities. Therefore, the Secretariat increased its technical assistance and advocacy efforts to encourage Member States: (1) to remain vigilant for influenza, including seasonal influenza virus variants and influenza viruses with pandemic potential; (2) to resume or maintain routine influenza sentinel surveillance to monitor the trends and co-circulation of influenza and other respiratory viruses, including SARS-CoV-2; (3) to resume or maintain timely and routine reporting of influenza virological and epidemiological surveillance data to WHO through global or regional platforms; and (4) to maintain routine influenza vaccination programmes.

59. During the reporting period, WHO has recognized one new National Influenza Centre, in Suriname, taking the total number of national influenza centres to 147 in 123 Member States. Through the implementation of the Pandemic Influenza Preparedness Framework,² WHO has secured 10% of future pandemic influenza vaccine production through legally binding agreements. Using current production technologies, this represents more than 400 million doses of pandemic vaccine, or four times the amount that was available during the 2009 pandemic. Since 2012, WHO has raised more than US\$ 200 million from the Pandemic Influenza Preparedness Partnership to strengthen national preparedness capacities in more than 80 countries, of which 63 are being supported to develop influenza pandemic preparedness plans linked with their national action plans for health security.

60. WHO is preparing a global arbovirus initiative, whose aim is to coordinate the development of a global strategy for arboviral disease preparedness, prevention, detection and response in countries with or at risk of arbovirus transmission. This integrated approach builds on existing disease-specific programmes (on dengue, yellow fever, chikungunya and Zika virus disease) so as to strengthen national integrated arbovirus disease programmes and will enable optimal use of limited resources to achieve the greatest impact, particularly in countries with a high arboviral disease burden. The initiative was under final review and discussion by global experts and in regional offices at the end of the reporting period.

¹ WHO. Global influenza strategy 2019-2030. Geneva: World Health Organization; 2019 (<https://apps.who.int/iris/handle/10665/311184>, accessed 24 November 2020).

² WHO. Pandemic influenza preparedness framework for the sharing of influenza viruses and access to vaccines and other benefits. Geneva: World Health Organization; 2011 (<https://apps.who.int/iris/handle/10665/44796>, accessed 24 November 2020).

61. In 2020, WHO published guidance on a stepwise approach to implementing regulatory requirements for biosafety and biosecurity in biomedical laboratories.¹ The aim is to promote proper national oversight mechanisms, the lack of which is identified as a common challenge according to the reports of many voluntary joint external evaluation missions.

DETECTING, ASSESSING AND COMMUNICATING POTENTIAL HEALTH EMERGENCIES

62. The Secretariat manages a global event-based surveillance system that has detected an estimated 7500–8000 signals of public health threats every month so far in 2020. It works 24 hours a day, seven days a week to detect these signals and identify all public health events and potential public health emergencies across the world. Once an event is identified, the Secretariat assesses and communicates the level of risk and sounds the alarm to help to protect populations from the consequences of outbreaks, disasters, conflict and other hazards. Rapid communication of public health events of potential international concern is shared with designated National IHR Focal Points through the confidential Event Information Site. During the reporting period, 105 events/announcements were posted to that Site.

63. From January until 15 August 2020, 373 public health events were recorded in WHO's event management system for 219 countries: 327 (88%) were attributed to infectious diseases; 35 (9%) were natural disasters; and the remaining 11 (3%) related to chemical, radiological or nuclear products or food safety events.

64. In the reporting period, a formalized rapid risk assessment was conducted for 24 events in 12 countries. The risk at national level was assessed as very high or high for 75% of the events. The countries in which the most assessments were conducted were China and the Democratic Republic of the Congo; most assessments were for Ebola virus disease, COVID-19, cholera and yellow fever. For the first time during any reporting period, three global-level assessments were undertaken, for COVID-19.

65. It is crucial to strengthen early detection of all hazards that have the potential to become acute public health events. The Epidemic Intelligence from Open Sources (EIOS) initiative² is a unique collaboration between WHO and various stakeholders. It brings together new and existing initiatives, networks and systems to create a unified all-hazards, One Health approach to early detection, verification, assessment and communication of public health threats, using open source information. As at August 2020, it has been adopted by multiple national, international and supranational organizations, including 16 Member States. The system is now used by several Member States such as Japan, Nigeria and the Republic of Korea - it was expected to be used at the forthcoming Games of the XXXII Olympiad in Tokyo, which have been postponed to July-August 2021 owing to COVID-19. The pandemic of COVID-19 has accelerated multiple technology projects for the system, including the development of several artificial intelligence algorithms to further support the synthesis and assessment of publicly available information related to the pandemic (including misinformation). Facilitated training workshops are currently being revamped for remote delivery to support adoption by additional

¹ WHO. WHO guidance on implementing regulatory requirements for biosafety and biosecurity in biomedical laboratories: a stepwise approach. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/332244>, accessed 24 November 2020).

² For more information, see WHO. Epidemic intelligence from open sources (EIOS): saving lives through early detection. Geneva: World Health Organization (<https://www.who.int/eios> (accessed 24 November 2020)).

requesting Member States and organizations in late 2020/early 2021 as the system and initiative continue to grow and evolve.

66. The Secretariat has provided support for surveillance, epidemiology and health information management primarily through remote support for all graded emergencies.

67. In support of the incident management system for the Ebola virus disease outbreaks in the Democratic Republic of the Congo, regular situation updates and briefings, and advanced epidemiological analysis to guide response activities, were provided by teams based in WHO country offices, regional offices and headquarters and through epidemiological cells positioned at emergency operations centres in-country, supported by WHO and the Global Outbreak Alert and Response Network. The analytic cell based in the emergency operations centre in Goma (Democratic Republic of the Congo) included representatives of the country's Ministry of Health, WHO, UNICEF, Epicentre, the International Federation of the Red Cross, and the United States Centers for Disease Control and Prevention, among other visiting partners, and conducted advanced epidemiological and social science analyses in-field to guide response activities.

68. The Health Resources and Services Availability Monitoring System,¹ which assesses and monitors access to health care, has provided vital information to decision-makers on health systems capacities, gaps and priorities, and has contributed substantially to the reinforcement of health information systems and management throughout the reporting period. It was reinforced in Burkina Faso, Mali, Nigeria, Philippines and Yemen, and newly deployed in Somalia; a scoping mission for implementation was undertaken in Congo. The process, platform and technical support were adjusted in March 2020 to support the response to COVID-19 through the creation of a specific module, which following pilot testing in Mali is now available globally. Collaboration with United Nations bodies and academic institutions is increasing the use of the information gathered by the Monitoring System and supporting analysis of and research on accessibility to essential health services and associated barriers.

69. The Early Warning, Alert and Response System,² including the deployment of its field data-collection tool, was enhanced or implemented during emergencies in the Rohingya refugee camps in Cox's Bazar, Bangladesh; north-east and north-west Cameroon; the Democratic Republic of the Congo; Fiji; north-east Nigeria; South Sudan; and northern Syrian Arab Republic. The System supports the early detection of priority communicable diseases including COVID-19 in high-risk vulnerable settings, enabling rapid response. It enables systematic management of disease alerts from health centres, hospitals, points of entry and communities to link case investigations and rapid response. Investments have been made to make real-time data transfer possible in emergency settings and to improve inter-operability with other outbreak and surveillance tools.

70. WHO publishes *Disease Outbreak News* to inform the public, public health practitioners, the media, and others of new outbreaks and new information related to specific outbreaks. Issues contain an epidemiological summary, the public health actions taken in response to the event, WHO's risk assessment, and WHO's advice. Between 1 January and 15 August 2020, altogether 58 updates on 11 diseases in 24 countries were published in *Disease Outbreak News*. On the Ebola virus disease outbreaks in the Democratic Republic of the Congo alone, 73 updates were published in the first eight months of 2020. The first five updates on COVID-19 were published between 5 and 21 January 2020,

¹ WHO. Health resources and services availability monitoring system (HeRAMS) (<https://www.who.int/hac/herams/en/>, accessed 24 November 2020).

² WHO. Early Warning, Alert and Response System (EWARS). Geneva: World Health Organization (<https://www.who.int/emergencies/kits/ewars/en/>, accessed 25 November 2020).

relating to cases in China, Thailand, Japan and the Republic of Korea. More than 700 000 people accessed these reports in January 2020, with more than 1.8 million people accessing the reports between January and August 2020.

DOCUMENTING ATTACKS ON HEALTH CARE

71. WHO continued to collect data on attacks on health care in 2020 using the Surveillance System for Attacks on Health Care, focusing on countries with complex humanitarian emergencies. The System, launched in December 2017, allows WHO to collect data on the incidence of attacks on health care directly from primary sources and disseminate verified information through its online platform. The verification is done by WHO staff members through triangulation of information and evidence on the occurrence of the incident and the immediate impact in terms of number of deaths and injuries of health care workers and patients. Each incident is given a certainty level based on the strength of the information used for verification. Information on events with a degree of certainty is then published on the online dashboard, which shows minimal data points to illustrate the incident. WHO neither verifies nor publishes data related to perpetrators or the type and provenance of weapons used in each incident.

72. The System continues to be implemented in countries with complex humanitarian emergencies that have instances of attacks on health care reported to WHO. The number of countries reporting has increased steadily. In 2020, between 1 January and 9 December, the System received reports from 14 countries of 196 incidents that had resulted in 187 deaths and 226 injuries among health care workers and patients. Although the use of individual weapons was the most common type of attack reported, heavy weapons were used in an almost equal proportion of attacks, which accounts for the high average number of deaths and injuries per attack incident. The trend in reported data shows that the occurrence of attacks coincided with intensified conflict in an area. WHO uses this information to highlight the issue and advocate prevention against attacks and protection of health care. The information is also used so that measures for protection of health care against attacks can be better incorporated into the emergency operations.

ACTION BY THE EXECUTIVE BOARD

73. The Board is invited to note this report.

ANNEX

ACTIVE GRADED EMERGENCIES DURING THE REPORTING PERIOD (1 JANUARY–31 AUGUST 2020)

Country	Region	Date of initial grading	Type of crisis	Initial grade	Date of last grading	Latest grade
Multi-State	Globally	14 January 2020	COVID-19	2	25 January 2020	G3 (public health emergency of international concern)
Democratic Republic of the Congo (Kivu)	African	15 August 2018	Ebola virus disease outbreak	3/L3 (public health emergency of international concern)	25 June 2020	G3 removed
Somalia	Eastern Mediterranean	9 May 2017	Complex emergency outbreak (drought/ cholera)	3	8 August 2019	P3
Nigeria (north-east)	African	18 August 2016	Complex emergency	3	11 November 2019	P3 extension
Yemen	Eastern Mediterranean	1 July 2015	Complex emergency	3	6 May 2020	P3
South Sudan	African	12 February 2014	Conflict/civil strife	3	1 May 2017	P3
Syrian Arab Republic	Eastern Mediterranean	3 January 2013	Conflict/civil strife	3	21 July 2019	G3/L3 extension
Democratic Republic of the Congo (Kasai)	African	29 August 2017	Acute humanitarian crisis	3	19 April 2018	G3 extension
Lebanon	Eastern Mediterranean	5 August 2020	Beirut explosion	2		
Democratic Republic of the Congo (Equateur)	African	3 June 2020	Ebola virus disease outbreak	2		
Djibouti	Eastern Mediterranean	10 March 2020	Floods	2		
Central African Republic	African	11 February 2020	Measles outbreak	2		
Nigeria	African	6 February 2020	Lassa fever outbreak	2		
Djibouti	Eastern Mediterranean	5 March 2019	Malaria outbreak	1	11 December 2019	G2

Country	Region	Date of initial grading	Type of crisis	Initial grade	Date of last grading	Latest grade
Togo	African	8 August 2019	Polio outbreak	2		
Zambia	African	8 August 2019	Polio outbreak	2		
Lake Chad basin (Cameroon, Central African Republic, Chad, Niger, Nigeria)	African	27 May 2019	Vaccine-derived poliovirus outbreak	2		
Mozambique	African	22 March 2019	Floods and cyclone Idai	3/L3	4 September 2019	G2
Burundi	African	2 August 2019	Malaria outbreak	2		
Angola	African	17 May 2019	Polio outbreak	2		
Burkina Faso	African	27 June 2019	Humanitarian crisis	2		
Uganda	African	13 June 2019	Ebola virus disease outbreak	2		
Pakistan (Sindh)	Eastern Mediterranean	25 May 2019	HIV infections	2	27 July 2020	G2 extension
Countries in the European Region	European	7 May 2019	Measles outbreak	2		
Bangladesh	South-East Asia	9 October 2017	Rakhine conflict/measles, mumps and rubella outbreaks	2	1 May 2019	P2
Iran (Islamic Republic of)	Eastern Mediterranean	26 March 2019	Floods	1	19 August 2020	P2 removal
Malawi	African	19 March 2019	Floods and cyclone Idai	2		
Zimbabwe	African	19 March 2019	Floods and cyclone Idai	2		
Mozambique	African	11 January 2019	Polio outbreak	2		
Cameroon	African	9 November 2018	Humanitarian crisis in north-west and south-west regions	2		
Zimbabwe (Harare)	African	12 September 2018	Cholera outbreak	2		

Country	Region	Date of initial grading	Type of crisis	Initial grade	Date of last grading	Latest grade
Niger (Maradi)	African	12 September 2018	Cholera outbreak	2		
Ethiopia (Gedeo and West Guji)	African	23 August 2018	Humanitarian crisis (internally displaced persons)	2		
Horn of Africa	African/Eastern Mediterranean	2 August 2018	Polio outbreak	2 (public health emergency of international concern)		
Democratic Republic of the Congo	African	12 July 2018	Polio outbreak	2		
Iraq	Eastern Mediterranean	12 August 2014	Conflict/civil strife	3	4 February 2019	P2
occupied Palestinian territory	Eastern Mediterranean	16 February 2018	Complex emergency	2	5 May 2019	G2
Myanmar	South-East Asia	12 June 2017	Conflict/civil strife	2	10 January 2019	P2 extension
Sudan	Eastern Mediterranean	24 April 2017	Complex emergency	2	1 October 2018	G2
Sao Tome and Principe	African	14 February 2017	Necrotizing cellulitis outbreak	2	3 May 2018	P2
Libya	Eastern Mediterranean	3 March 2016	Armed conflict escalation	2	16 July 2019	G2 extension
Niger	African	1 April 2015	Conflict/civil strife	2	1 May 2017	P2
Cameroon	African	1 April 2015	Conflict/civil strife	2	1 May 2017	P2
Central African Republic	African	3 June 2015	Humanitarian crisis	2	1 May 2017	P2
Ukraine	European	20 February 2014	Conflict	2	9 April 2018	P2
Afghanistan	Eastern Mediterranean	28 October 2015	Displacement	1	27 August 2020	G2 extension
Multi-State	Globally	1 June 2014	Middle East respiratory syndrome outbreak	2		
Lebanon	Eastern Mediterranean	18 December 2019	Conflict/civil strife	1	18 May 2020	G1 extension
Vanuatu	South-East Asia	10 April 2020	Tropical cyclone Harold	1		
Albania	European	26 November 2019	Earthquake	1		

Country	Region	Date of initial grading	Type of crisis	Initial grade	Date of last grading	Latest grade
Myanmar	South-East Asia	8 August 2019	Vaccine-derived poliovirus outbreak	1		
Indonesia (Papua)	South-East Asia	7 March 2019	Circulating vaccine-derived poliovirus type 1 outbreak	1		
Namibia	African	1 August 2018	Hepatitis E outbreak	1		
Kenya	African	22 June 2018	Rift Valley fever outbreak	1	22 June 2018	
Ethiopia	African	11 August 2017	Outbreak of acute watery diarrhoea/ humanitarian crisis	3	12 June 2018	P1
Angola	African	11 January 2018	Cholera outbreak	1		
Chad	African	6 January 2017	Hepatitis E outbreak	1		
Kenya	African	28 June 2017	Cholera outbreak	1		
United Republic of Tanzania	African	15 December 2015	Cholera outbreak	2	1 May 2018	P1
Mali	African	16 October 2015	Complex emergency	1	1 May 2017	P1