

Public health 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 It provides information on all WHO Grade 3 emergencies, on United Nations Inter-Agency Standing Committee Level 3 emergencies, and on public health emergencies of international concern, in which WHO took action between 1 January and 31 December 2019. At a meeting of the Officers of the Executive Board held in October 2019 on the organization of the Board's 146th session, it was agreed that the scope of the present report should be expanded to include reporting on the rehabilitation of the health system after crisis and on WHO's role as the health cluster lead in humanitarian emergencies. The Executive Board at its 146th session considered an earlier version of this report.³ The Board also adopted resolution EB146.R10 (2020). The present report has been expanded to provide information on the Secretariat's response to the outbreak of coronavirus disease (COVID-19).

WHO's response and coordination in severe, large-scale emergencies

2. During the period under review, WHO responded to 58 graded emergencies in more than 44 countries and territories (see Annex). These included WHO Grade 3 and United Nations Inter-Agency Standing Committee Level 3 emergencies, one public health emergency of international concern and other large-scale emergencies of a protracted nature, along with lower-graded emergencies. In addition to the ongoing responses to the previously graded emergencies, WHO had 21 new graded emergencies in the period from 1 January to 31 December 2019.

3. Among the acute events, there were six emergencies classified as Grade 3, of which four were later converted into Protracted Grade 3. That is the highest severity level based on WHO's Emergency Response Framework. It requires substantial and continuous Organization-wide support for the collective response with health partners in the field, to ensure that the emergency health needs of the affected population are addressed in the most efficient, effective and sustained way. Of the four Protracted Grade 3 emergencies, a complex refugee crisis associated with the Rohingya conflict in Bangladesh and Rakhine State, Myanmar, was later downgraded to Protracted Grade 2. The Grade 3 emergencies in Mozambique, the Democratic Republic of the Congo and Yemen are also Inter-Agency

¹ Resolution EBSS3.R1 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) 2014 Ebola virus disease outbreak and follow-up to the Special Session of the Executive Board on the Ebola Emergency.

³ Document EB146/17; see also the summary records of the Executive Board at its 146th session, eighth meeting, section 1, and fourteenth meeting, section 2.

Standing Committee system-wide Level 3 emergencies, in which national authorities, United Nations agencies and civil society partners work in close coordination to meet urgent health needs and provide life-saving support to the affected population. For Mozambique, the Inter-Agency Standing Committee Level 3 designation was deactivated in May 2019 although WHO continued supporting the event as a Grade 3 declaration until 4 September 2019 when it was lowered to Grade 2. On 17 July 2019 the Ebola virus disease outbreak in the Democratic Republic of the Congo was declared a public health emergency of international concern. By December 2019, WHO had ongoing responses to four simultaneous Grade 3 emergencies: the Ebola virus disease outbreak in the eastern provinces of the Democratic Republic of the Congo, and the humanitarian crises in the Kasai region of the same country; in Yemen, and in the Syrian Arab Republic; and three protracted Grade 3 emergencies in north-east Nigeria, in Somalia and in South Sudan. Given their scale, complexity and the operational difficulties inherent to them, these emergencies required the highest level of Organization-wide support.

Table. Summary of WHO's activation of Grade 3/Protracted Grade 3 emergencies between 1 January and 31 December 2019 (in chronological order)

Country	WHO Region	Grade 3 activation date	Status as of 31 December 2019
Syrian Arab Republic	Eastern Mediterranean	3 January 2013	Ongoing (Grade 3)
South Sudan	African	12 February 2014	Ongoing (Protracted Grade 3 since 1 May 2017)
Yemen	Eastern Mediterranean	1 July 2015	Ongoing (Grade 3/Level 3)
Nigeria (north-east)	African	18 August 2016	Ongoing (Protracted Grade 3 since 10 October 2018)
Somalia	Eastern Mediterranean	9 May 2017	Ongoing (Protracted Grade 3 since 8 August 2019)
Democratic Republic of the Congo	African	29 August 2018 (Kasai) 15 August 2018 Ebola virus disease (Kivu)	Ongoing (Grade 3) Ongoing (Grade 3/Level 3, public health emergency of international concern)
Bangladesh/Myanmar	South-East Asia	9 October 2017	Conversion to Protracted Grade 3 (21 November 2018), later recategorized at Protracted Grade 2 as from 17 April 2019
Mozambique	African	22 March 2019	Ongoing (Level 3 removed and emergency recategorized at Grade 2 as from 4 September 2019)

4. In line with the Emergency Response Framework, all higher-graded emergencies have been managed through the WHO Incident Management System to fulfil its six critical functions (leadership, partnership coordination, information and planning, health operations and technical expertise, operations support and logistics, and finance and administration). This allowed incident management structures to be rapidly established at country, regional and headquarters levels in order to scale up operational and technical support to national health authorities. These structures were supported by funds from the WHO Contingency Fund for Emergencies which has the ability to release funding within

24 hours. Throughout 2019, a total of US\$ 83 million was disbursed from the Contingency Fund, to fast-track support for WHO's emergency response operations.

5. Although WHO is increasing its own operational capacity, the strengths and expertise of operational partners remain vitally important for delivering essential services to affected populations. For all graded and protracted emergencies WHO developed strategic response and joint operations plans with national health authorities and partners. The Organization 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, to 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, WHO has led health sector coordination through 30 Health Clusters (28 national, two regional), targeting the health and humanitarian needs of 68 million people, in partnership with over 900 national and international partners. 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.

6. Constraints to WHO's emergency responses and its health sector partners at country level in 2019 included: the scale and magnitude of simultaneously occurring crises, accompanied by mass population movements; ongoing insecurity; limited humanitarian access; lack of sufficient funding to ensure sustainable and continuous life-saving health services to crisis-affected and vulnerable populations; limited human resources capacities; looting; attacks on health care workers and facilities; and escalating field costs.

Response, readiness and coordination at regional and country levels

7. The majority of WHO higher-graded public health emergencies are occurring in the African Region. In 2019, that region continued to experience prolonged disease outbreaks, population displacements and escalating long-term humanitarian crises. In addition, the countries in southern Africa were heavily impacted by the devastating tropical Cyclone Idai. WHO has scaled up its emergency response activities to address the urgent health needs of the affected populations throughout the region.

8. WHO responded to the protracted 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. WHO also continued to provide technical support and coordination for disease surveillance and response, and prevention of communicable diseases. In the reporting period, a cholera vaccination campaign was completed in the Greater Kasai region in response to ongoing outbreaks, reaching over 1.2 million individuals. A first round of cholera vaccination was implemented in north Kivu and in the Goma, Karisimbi and Nyiragongo health zones, reaching close to 800 000 individuals. Over 4 million children were vaccinated against measles by WHO and partners in at least 116 health zones. The Organization declared the measles outbreak a Grade 2 emergency and released US\$ 500 000 from the Contingency Fund.

9. In **South Sudan**, WHO responded to the health effects of increased displacements; outbreaks of violence; malnutrition; and increases in communicable diseases; it strengthened contingency planning against emerging communicable diseases. With the support of WHO, the country conducted a five-day course for the training of trainers to accelerate infection prevention and control in health facilities. The Organization provided emergency supplies to bridge gaps at primary care level. To mitigate the risk of

cholera outbreak, WHO in collaboration with the Ministry of Health and UNICEF immunized about 144 000 people against cholera in Renk, a county bordering Blue Nile state in Sudan where the cholera outbreak was declared in September 2019.

10. In **Nigeria**, mobile medical teams were strengthened in order to increase response capacities to acute events; WHO took action in respect of floods and increases in communicable diseases, including measles and cholera, and provided case management training to health care workers dealing with patients suffering from those diseases. The Organization assisted the staff of the cholera treatment centres by providing logistical support for the treatment of patients, as well as by prepositioning of supplies and commodities.

11. The **Ebola virus disease outbreak in the Kivu region of the Democratic Republic of the Congo** was registered as a Grade 3 emergency in 2018 and was declared a public health emergency of international concern on 17 July 2019. Accordingly, WHO has deployed and maintained more than 700 staff on the ground, to support the Government-led response, together with national and international partners, and is implementing outbreak control interventions in case management, surveillance, infection prevention and control, and conducting research and preparedness activities.

12. WHO and its partners have been supporting the work of the Democratic Republic of the Congo in strengthening surveillance at points of entry in the Ebola virus disease response. Since the beginning of the outbreak, over 136 million health screenings were performed with 30 confirmed cases identified in around 100 operational points of entry and points of control that were established in strategic places along important travel, transportation and trade routes mapped through population mobility mapping exercises. Ninety-nine per cent of travellers were screened, 100% of travellers and communities surrounding points of entry and points of control were sensitized on Ebola virus disease, and more than 95% of alerts were investigated within two hours.

13. WHO continued to engage with the Global Outbreak Alert and Response Network, the Emerging and Dangerous Pathogens Laboratory Network, the Emerging Diseases Clinical Assessment and Response Network, and the emergency medical teams, as well as with regional operational partners and collaboration centres in the African Region, to deploy experts and multidisciplinary teams for the response, and to support intensive preparedness and readiness activities in neighbouring and at-risk countries. Pockets of insecurity in the affected areas, along with localized security incidents, continued to hinder such response activities as safe and dignified burials, vaccination, contact tracing and case reporting.

14. WHO responded to the health impacts of Cyclone Idai (Grade 3) and Cyclone Kenneth in **Mozambique** by supporting the deployment of 20 emergency medical teams providing life-saving care, restoring essential primary and secondary health service access and helping to provide temporary replacements for some of the 55 damaged health facilities. As an example of localization of coordination, WHO supported the Ministry of Health to retain direct coordination and reporting on all activities through the Government's Emergency Operation Centre. The Organization coordinated over 48 partners within the Health Cluster and deployed experts from WHO headquarters and country and regional offices, and through the Global Outbreak Alert and Response Network, to help set up a disease surveillance system. In response to the increasing number of cholera cases, WHO and partners immediately delivered over 800 000 doses of oral cholera vaccine in a mass vaccination campaign with 98.5% reported coverage, thus preventing a potentially devastating outbreak of the disease.

15. In the reporting period, the **Eastern Mediterranean Region** continued to face an unprecedented scale of humanitarian and health emergencies in many countries. The Region now hosts two Grade 3 emergencies, in the Syrian Arab Republic and Yemen, one Protracted Grade 3 emergency in Somalia,

as well as a number of other long-term protracted emergencies. The Region continues to host the highest number of populations affected by crises.

16. In the **Syrian Arab Republic**, WHO maintained a swift and scalable response to meet the health needs of the populations affected by conflict, continued to fill critical gaps in primary and secondary health care, ensure provision of essential medicines and medical supplies and strengthen cross-line and cross-border medical supply chains. Throughout 2019, WHO and its health partners provided more than 25 million medical treatments including outpatient consultations, mental health and trauma care, and deliveries by a skilled birth attendant. In the first half of 2019, WHO delivered life-saving medicines and medical equipment to fill gaps in primary health care services in 12 governorates; donated 15 ambulances and 15 mobile clinics to the Ministry of Health; and supported 79 hospitals across the country. The Organization provides monthly supplies of life-saving medicines and medical equipment to around 100 health facilities in the north-west of the country, prepositions sufficient stocks of health emergency kits in Aleppo, Homs and Lattakia, and supports five WHO-funded surgical units in Idleb. WHO continues to support building capacity of health expertise in such necessary fields as mental health and disability, increasing vaccination coverage rates, and expanding partnerships with civil society capacity to scale up referral networks and outreach services. These activities are concentrated especially in underserved areas and areas with massive population displacement such as Aleppo, Al-Hasakeh, Deir-ez-Zor, Homs (from Rukban), Idleb and Raqqa. At Qamishly hub, WHO and health partners prepositioned lifesaving supplies and vaccines for almost 314 000 medical treatments as well as trauma and surgical supplies for 500 trauma patients. In addition, WHO continues to lead the health cluster from all response hubs (cross-line and cross-border) and improve the collection and analysis of real-time health information for evidence-based planning and response.

17. In **Yemen**, in cooperation with the Ministry of Public Health and Population and other health partners, WHO supported the provision of primary and secondary health care services to the affected populations in the north and south of the country. In response to a cholera outbreak, WHO scaled up its operations and supported the establishment of 333 multidisciplinary rapid response teams. At the same time, it conducted oral cholera vaccination campaigns in high-risk districts, vaccinating 2.2 million people. From January to August 2019, WHO and partners provided health assistance to 10.4 million people out of 15.8 million targeted. Throughout 2019, WHO managed to provide dialysis supplies to support 21 dialysis centres for 600 000 dialysis sessions in 13 governorates (Aden, Amanat Al Asimah, Al Bidha, Dhamar, Hadramout, Hudaydah, Ibb, Al Mahrah, Ma'rib, Sa'adah, Sana'a, Shabowa and Taiz) to cover urgent needs of more than 3500 patients requiring life-saving dialysis sessions to ensure continued treatment. 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 almost 800 000 pregnant women have received antenatal care. In late 2019 WHO initiated a United Nations medical air bridge project for transportation of patients in need of specialized medical attention unavailable in Yemen to agreed locations abroad. Thanks to tremendous diplomatic efforts by the United Nations and some Member States, the first medical air bridge operation was launched in February 2020 and a group of Yemeni patients was delivered from Sana'a to Amman, Jordan.

18. In **Somalia**, in cooperation with the Federal Ministry of Health and other partners, WHO provided primary and essential health care services to the crisis-affected populations in the country. In response to an ongoing cholera outbreak, WHO scaled up its operations, supporting surveillance and oral cholera vaccination campaigns that protected over 600 000 people against cholera. Together, partners provided over 800 000 consultations through integrated health and nutrition mobile units and fixed primary health care facilities to serve a growing population of internally displaced persons and host communities. Reproductive health services were provided to over 230 000 pregnant women receiving antenatal care. Several partners provide specialized referral services, including services for gender-based violence survivors. As a result of a nationwide integrated polio and measles vaccination campaign, 1.7 million

children aged under five years were vaccinated against polio and more than 1.5 million children aged six to 59 months received measles vaccination and vitamin A supplementation. In 2019, WHO delivered 130 metric tons of emergency medical supplies to health facilities across Somalia to support primary health care services of around 120 000 patients. Since the scaling up of response operations to drought in September 2019, about 162 000 internally displaced persons were reached with emergency health services in 10 drought-affected districts of Hishabelle, Jubbaland and south-west states.

19. In the **South-East Asia Region**, the Grade 3 emergency in **Bangladesh**, which started in 2017, was downgraded to a Protracted Grade 2 emergency on 17 April 2019. That grade of emergency still requires a sustained WHO operational presence and response. In 2019 the Organization, working together with 119 health sector partners, continued providing emergency health support to the affected population.

20. In 2019, WHO conducted over 3.6 million patient consultations and established a disease early warning alert and response system covering 95% of the affected population. Five mass immunization campaigns against diphtheria were undertaken by WHO and partners, averting further potential outbreaks. An oral cholera vaccine campaign was conducted for the Rohingya camps in December 2019 with strong coverage in all camps. In 2018, WHO provided over 220 metric tons of essential medicines, supplies and equipment, set up a field laboratory in Cox's Bazar and a water testing laboratory ensuring continuous water quality surveillance. An external review of the health services delivery led to further adjustments to the health partners' planning for 2019. A joint WHO operational review in October 2018 resulted, as mentioned above, in the downgrading of the emergency to a protracted emergency, and the establishment of a WHO emergency sub-office at Cox's Bazar.

Health emergency preparedness

21. In 2019, WHO continued to expand the monitoring and evaluation of the International Health Regulations (2005) capacities in all six regions, obtaining 165 national responses to the States Parties' self-assessment annual reporting (SPAR) tool in 2019. As of 16 March 2020, a 100% submission rate was recorded in the African and South-East Asia regions. A new web-based platform, the e-SPAR, has now been launched, allowing online reporting and making the self-assessment reporting process easier for States Parties.

22. There have been 113 Joint External Evaluations completed as at 9 April 2020 (21 in the reporting period), representing a significant achievement. During the reporting period, 16 after-action reviews and 29 simulation exercises were also conducted (128 simulation exercises and 62 after-action reviews in total since 2016). As of 13 March 2020, 64 countries have developed their all-hazards disaster risk profile, which supports the development of hazard-specific contingency plans for emergencies and also provides an evidence base for all emergency planning and national emergency response planning (15 in the reporting period). All six WHO regions were supported to strengthen operational readiness capacity through training and development of contingency planning and business continuity planning.

23. During the reporting period, the Secretariat finalized the development and publication of the WHO guidance for after action reviews¹ which presents the methodology for planning and implementing a successful review of actions taken in response to public health events. The guidance also facilitates the implementation of after-action reviews as a routine management tool for continuous learning and system improvements. The vast majority of simulation exercises carried out in 2019 focused on

¹ Guidance for after action review (AAR). Geneva: World Health Organization; 2020 (<https://www.who.int/ihr/publications/WHO-WHE-CPI-2019.4/en/>, accessed 9 April 2020).

strengthening Member States' preparedness and response capacities at the national level, however many exercises focused on regional and subnational levels were also carried out, as well as several simulation exercises to strengthen public health capacities of non-State actors, international partners and WHO emergency operations. The largest ever cross-border field simulation exercise in the African Region took place along the Kenya–United Republic of Tanzania border during June 2019, in collaboration with the East African community. That exercise involved over 250 participants, spread across 23 exercise locations. To improve detection and response at the human–animal health interface, 32 national bridging workshops were held (including the 11 during the reporting period). Collectively, this work has yielded greater understanding of national preparedness levels. Sixty-seven countries have used these findings to develop national action plans for health security, which guide how countries address priority actions for building stronger International Health Regulations (2005) capacities, including those across the human–animal interface (20 countries during the reporting period).

24. In 2019, WHO published a guide for countries in implementing the national action plan for health security¹ and developed and disseminated related training.

25. In 2019, WHO published the WHO Benchmarks for International Health Regulations (IHR) capacities² which supports building capacities required by the International Health Regulations (2005). Twenty-two countries used the benchmark actions to develop their national action plans for related capacity-building. WHO is also using this as a key reference document to facilitate the development of a health systems for health security framework.

26. The WHO Health Emergencies Programme contributed to the background paper on the status of country preparedness capacities, to support the first annual report of the Global Preparedness Monitoring Board,³ which was launched during the United Nations General Assembly in New York in September 2019. The WHO Health Emergencies Programme also supported Inter-Parliamentary Union's efforts to advance universal health coverage by 2030 through a resolution that takes into account the close links that health systems have with health security. The WHO Health Emergencies Programme also supported countries in building operational readiness to mitigate the impact of imminent public health threats. This has included developing the capacities to detect imminent importation of Ebola virus disease in the nine countries surrounding the Democratic Republic of the Congo. WHO developed and supported Member States to implement public health emergency operations centre standards and best practices through the public health emergency operations centre network (EOC-NET) initiative. This contributes to improved coordination and effectiveness of health emergency preparedness and response in general.

27. The WHO Health Emergencies Programme published the Health Emergency and Disaster Risk Management Framework⁴ to support countries in integrating or adopting all-hazard whole-of-society risk management approaches to emergency and disaster management mechanisms. The Framework was

¹ NAPHS for all: A country implementation guide for National Action Plan for Health Security (NAPHS). Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/bitstream/handle/10665/312220/WHO-WHE-CPI-19.5-eng.pdf?sequence=1>, accessed 9 April 2020).

² WHO Benchmarks for International Health Regulations (IHR) Capacities. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/bitstream/handle/10665/311158/9789241515429-eng.pdf?sequence=1>, accessed 9 April 2020).

³ A World at Risk – Annual report on global preparedness for health emergencies. Geneva: World Health Organization; 2019 (https://reliefweb.int/sites/reliefweb.int/files/resources/GPMB_annualreport_2019.pdf, accessed 9 April 2020).

⁴ <https://www.who.int/hac/techguidance/preparedness/health-emergency-and-disaster-risk-management-framework-eng.pdf?ua=1>, accessed 9 April 2020.

launched at the 6th Global Platform for Disaster Risk Reduction in Geneva in May 2019, with further guidance for the countries to facilitate the use of the Framework.

28. In 2019, the WHO Health Emergencies Programme 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.

29. A monitoring tool has been developed and is in the process of finalization to better monitor the implementation of the Sendai Framework for Disaster Risk Reduction in countries. This will further support the implementation of disaster risk management action for emergency preparedness in countries.

30. The WHO Health Emergencies Programme developed technical guidance and tools to assist State Parties in strengthening the IHR requirements for prevention, early detection and response to public health events at points of entry including conveyances. This includes the Handbook for public health capacity-building at ground crossings and cross-border collaboration,¹ a collaborative effort by WHO, the United States Centers for Disease Control and Prevention (CDC) and the International Organization of Migration (IOM). This handbook presents a unique opportunity to address specific challenges at ground crossings and their adjacent communities; an online course on public health event management in air transport developed in collaboration with the International Civil Aviation Organization (ICAO), aiming to meet a compelling need of global outreach to the health professionals working at points of entry; a trainers' and tutors' manual for vector surveillance and control at points of entry to support countries in augmenting capacities in mitigating the introduction and spread of new pathogens and vectors into new areas and to safeguard the health of travellers and populations through points of entry.

31. The WHO Health Emergencies Programme collaborated with its partners to promote the implementation of the International Health Regulations (2005). WHO and the International Maritime Organization (IMO) reviewed amendments related to public health in the Annex of the Convention on Facilitation of International Maritime Traffic (FAL), with the aim to align it with relevant articles of the Regulations.

32. The WHO Health Emergencies Programme actively supported countries in providing point of entry assistance based on results of monitoring and evaluation activities related to the International Health Regulations (2005), and on an ad hoc basis when the need arises; areas of support included point of entry core capacity assessment, event management at points of entry, vector surveillance and control at points of entry, training workshops for point of entry workforce development and simulation exercises. The Secretariat continues to provide support to the States Parties by providing access to an online course as well as face-to-face training for ship inspection and issuance of ship sanitation certificates. Since 2007, 111 out of a total of 152 coastal States Parties and four landlocked States Parties with inland ports have sent WHO the list of ports authorized to issue ship sanitation certificates as required by the Regulations.

33. Based on the gaps and weaknesses identified through these monitoring and evaluation activities and in line with the priorities identified by the countries in their national plans, the Secretariat provided support to strengthen laboratory and biosafety capacity through the development and dissemination of technical guidance and the provision of technical assistance to priority countries. The WHO guidance on the shipping of infectious substances was updated and WHO continued to train and certify shippers of infectious substances. Technical assistance was provided to improve access to quality-assured

¹ 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 9 April 2020).

laboratory diagnostic capacity in safe and secure facilities. WHO coordinated training workshops and provision of laboratory proficiency-testing. The Secretariat also developed the Global Laboratory Leadership Programme, a collaborative effort between WHO and partner organizations, aimed at developing a new generation of laboratory leaders.

34. The Secretariat continues to develop and update learning programmes, including innovative tools and online learning courses geared to National IHR Focal Points and other stakeholders. In 2019, the Secretariat released several learning resources including the IHR Orientation Programme, the Basics of One Health, Public Health Preparedness for Mass Gathering Events. Version 1 for the Health Emergency Preparedness and IHR Compliance game (EPIC Game) is now available to be used in workshop settings. IHR learning resources are available on the Health Security Learning Platform. The Secretariat also supports the Knowledge Networks of National IHR Focal Points at the global and regional levels to promote social learning, information sharing and exchange of experiences between practitioners at the field level.

Preventing epidemics and pandemics

35. In 2019, WHO continued to develop global strategies with its partners from a wide range of fields to prevent and control high-threat infectious hazards and scale these strategies to regional and country level. 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. Through its twice-a-year meetings and virtual conferences, the group provided a list of priority actions.² The global strategy to eliminate yellow fever epidemics is in its third 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 numbers and the engagement of the African Region, the Region of the Americas and the Eastern Mediterranean Region, which are all affected by yellow fever with 40 high-risk countries, are unprecedented. Since the launch of the report of the Global Task Force on Cholera Control: Ending Cholera: A Global Roadmap to 2030,³ the United Republic of Tanzania, including Zanzibar, and Zambia have formally launched comprehensive plans for cholera elimination. Bangladesh, 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-2019, 58 million doses of oral cholera vaccines had been shipped to 25 countries. Defeating Meningitis by 2030: A Roadmap⁴ was considered favourably by the Strategic and Technical Advisory Group for Infectious Hazards and by the Strategic Advisory Group of Experts on immunization. During the 2018–2019 biennium, WHO supported the immunization of more than 50 million individuals during preventive or reactive vaccination in 13 African countries, confirming the elimination of meningococcal

¹ STAG-IH <https://www.who.int/emergencies/diseases/strategic-and-technical-advisory-group-for-infectious-hazards/en/> (accessed 6 May 2020).

² WHO Strategic and Technical Advisory Group for Infectious Hazards (STAG-IH) report of the 4th face-to-face meeting, 3–4 December 2019, Geneva, Switzerland, Weekly epidemiological record No 5, 2020, 95, 37–48 <https://extranet.who.int/iris/restricted/bitstream/handle/10665/330686/WER9505-eng-fre.pdf?ua=1&ua=1> (accessed 6 May 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>, accessed 9 April 2020).

⁴ “Defeating Meningitis by 2030”: A Roadmap. Geneva: World Health Organization; 2019 (https://www.who.int/immunization/sage/meetings/2019/april/1_DEFEATING_MENINGITIS_BY_2030_A_ROADMAP_Draft_goals_and_milestones.pdf?ua=1, accessed 9 April 2020).

serogroup A epidemics and controlling seven major outbreaks due to other serogroups. A platform for integrated surveillance has been set up and implementation is starting in the African Region. Validation of a meningitis rapid diagnostic test is under way. As a flagship project under the WHO draft Global strategy on digital health 2020–2024,¹ EpiBrain,² an epidemic forecasting tool that harnesses the power of artificial intelligence, has been developed, and a pilot initiated in South Sudan with the engagement of the Ministry of Health, United Nations agencies and nongovernmental organizations. WHO's Global Influenza Strategy 2019–2030,³ launched on 11 March 2019, provides a framework for the Organization, States Parties and partners to approach influenza holistically through tailored national programmes – from surveillance to disease prevention and control – with the goal of strengthening seasonal, zoonotic and pandemic preparedness.

36. Global supplies of essential vaccines are limited by manufacturing capacity and their production is often subject to substantial lead times.⁴ During large-scale disease outbreaks and humanitarian crises, centrally-managed vaccine stockpiles can ensure the availability of vaccines, facilitate their quick mobilization in response to surges in demand, and facilitate their equitable allocation at the global level. WHO is the secretariat to the International Coordinating Group (ICG) for Vaccine Provision which is a mechanism for allocation of vaccines from global stockpiles to respond to emergency requests in major infectious disease outbreaks and humanitarian emergencies. In 2019, a new governance oversight committee was established. In conjunction with the oversight committee, an Accountability Framework has been established that defines the roles and responsibilities of the partners. This has enhanced stakeholder trust and will drive improvements in the effectiveness of the ICG process and the response to new challenges. A new ICG-like mechanism for the provision of Ebola virus disease vaccine is under development.

37. Eight new National Influenza Centres have been recognized by WHO: in Bolivia (Plurinational State of), Cyprus, Dominican Republic, Haiti, Kenya, North Macedonia, Turkmenistan and Ukraine, taking the total number of National Influenza Centres to 147 in 124 countries. In 2019, over 3 million specimens were collected by Global System laboratories, informing influenza vaccine strain selection and supporting influenza risk management. Through the implementation of the Pandemic Influenza Preparedness Framework,⁵ more than 400 million doses of pandemic vaccine have been secured, which is over four times the amount that was available during the 2009 pandemic. WHO raised US\$ 200 million from the Pandemic Influenza Preparedness Partnership Contributions, and those funds have been used to strengthen national preparedness capacities in 72 countries across the globe. Of those, 39 countries are being supported to develop influenza pandemic preparedness plans linked with their national action plans for health security.

38. The first WHO simulation exercise to use game-based methodology has been developed to enable countries to establish national deployment and vaccination plans for pandemic influenza vaccines. In 2019, this simulation was rolled out in the Region of the Americas, the European Region and the Western

¹ Available at <https://www.who.int/docs/default-source/documents/gshdaa2a9f352b0445bafbc79ca799dce4d.pdf> (accessed 17 April 2020).

² For further information on EpiBrain, see: <https://www.epi-brain.com/> (accessed 17 April 2020).

³ Global Influenza Strategy 2019–2030. Geneva: World Health Organization; 2019 (<https://apps.who.int/iris/bitstream/handle/10665/311184/9789241515320-eng.pdf>, accessed 17 April 2020).

⁴ Yen C, Hyde TB, Costa AJ, et al. The development of global vaccine stockpiles. *Lancet Infect Dis.* 2015;15(3): 340–347.

⁵ Pandemic influenza preparedness Framework for the sharing of influenza viruses and access to vaccines and other benefits. Geneva: World Health Organization; 2011 (https://www.who.int/influenza/resources/pip_framework/en/, accessed 17 April 2020).

Pacific Region and has already benefited 23 countries. The very first antiviral agent for smallpox, Tecovirimat, was approved by the United States Food and Drug Administration in July 2018 and, in September 2019, vaccinia vaccine was approved by the Food and Drug Administration for adults at risk of smallpox or monkeypox infection, marking a change in landscape for the pharmaceutical treatment of orthopoxviruses. While vaccinia vaccine has already been approved within the European Union and in Canada for smallpox, the United States' approval of the vaccine for monkeypox is a world first.

Detecting, assessing and communicating on potential health emergencies

39. The WHO Health Emergency Programme manages a global event-based surveillance system that detected an estimated 7500–8000 public health threat signals every month in 2019. WHO 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 WHO Health Emergency Programme assesses and communicates the level of risk and sounds the alarm to help protect populations from the consequences of outbreaks, disasters, conflict and other hazards. Rapid notification of public health events of potential international concern is communicated to designated National IHR Focal Points through the confidential Event Information Site. During the reporting period, 81 events were posted to the Event Information Site.

40. In 2019, 500 public health events were recorded to WHO's event management system for 140 countries (a 3% increase from 2018) of which 331 (66%) were attributed to infectious diseases, 70 (14%) were natural disasters, 36 (7%) were events related to chemical, radiological or nuclear products or food safety events, and the remaining 63 (13%) were other (such as societal events) or undetermined. A formalized rapid risk assessment was conducted for 64 of these events occurring in 33 countries. The countries with the most risk assessments conducted were the Democratic Republic of the Congo, Nigeria, Bangladesh, Pakistan and the Bolivarian Republic of Venezuela; the events with the highest number of risk assessments conducted were Ebola virus disease, measles, vaccine-associated acute paralytic poliomyelitis, cholera and dengue fever. The risk at national level was assessed as very high or high for 63% of the 64 events.

41. It is critical to strengthen early detection of all hazards that have the potential to become acute public health events. The Epidemic Intelligence from Open Sources (EIOS) initiative¹ 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 and assessment of public health risks and threats, using open source information. It will initially be deployed in 10 Member States, and the WHO Health Emergencies Programme is working in close collaboration with several Member States, including Nigeria and Singapore, in anticipation of roll-out. The system was used in Japan during the 2019 Rugby World Cup, and it is anticipated that it will also be used at the next Olympics, also to be held in Japan. The Republic of Korea hosted the second EIOS Global Technical Meeting from 12 to 14 November 2019.

42. Surveillance, epidemiology and health information management support was provided through field deployment in Bangladesh, Chad, Democratic Republic of the Congo, Guyana, Mozambique and Pakistan, and through remote support as well to all other graded emergencies. In support to the incident management system for the Ebola virus disease outbreak in the Democratic Republic of the Congo, an

¹ For more information, see: <https://www.who.int/eios> (accessed 6 May 2020).

epidemiological cell provided guidance on surveillance activities, regular situation updates and briefings, and advanced epidemiological analysis to guide response activities.

43. The Health Resources Availability Monitoring System,¹ which is critical in assessing and monitoring access to health care was deployed in eight new countries and reinforced in six others. The Early Warning, Alert and Response System,² including the deployment of the System's field data collection tool, was enhanced or implemented during emergencies in four countries.

44. An analysis of the public health situation, one of the key products in the Public Health Information Services,³ was prepared for 16 countries. The analysis provides comprehensive background and contextual information, response capacity, hazards and risk during major emergencies, which can be used by ministries of health and partners to set up priority interventions and coordinate responses. The Public Health Information Services set out the information management services and products needed to inform response to major crisis in three areas: health status and threats faced by the affected population; availability of health resources and services; and health system performance.

45. In order to better support Member States in fulfilling their obligations under the International Health Regulations (2005) regarding early detection of events potentially of public health concern, a global WHO surveillance and early warning strategy was developed to guide investment and priority activities.

46. The WHO Health Emergencies Programme has developed a method of mapping emergencies and, using geospatial analytics, presenting the details in the form of maps or infographics. These can then be used by the affected countries, to allow them to take more informed public health decisions. To give one example, to prevent the spread of Ebola virus disease from the Democratic Republic of the Congo into neighbouring countries, in 2019 WHO undertook risk-mapping exercises to identify the alternative routes taken by people by-passing designated points of entry. The alternative crossing points, thus identified, were subsequently monitored and a series of activities was implemented. These activities included: screening travellers for signs and symptoms of Ebola virus disease; mapping their history of exposure; identifying contacts lost to follow-up; and informing travellers of the risks involved.

47. Remote geographical information systems support was also provided from WHO headquarters to inform senior managers and the first-line responders of the latest situation of various health emergencies. In 2019, a total of 1328 geospatial information products were produced by the team for events such as, but not limited to: Ebola virus disease, Zika virus disease, yellow fever, cholera, meningitis, plague, and the Horn of Africa food insecurity crisis, humanitarian crisis in multiple countries.

48. The Weekly Epidemiological Record serves as an essential instrument for the rapid and accurate dissemination of epidemiological information on cases and outbreaks of diseases under the International Health Regulations and on other communicable diseases of public health importance, including emerging or re-emerging infections. During the 2019 reporting period, weekly publication of 52 bilingual (English/French) issues of the Weekly Epidemiological Record occurred. A special issue

¹ WHO's Health Resources Availability Monitoring System (HeRAMS) (<https://www.who.int/hac/herams/en/>, accessed 6 May 2020).

² WHO's Early Warning, Alert and Response System (EWARS) (<https://www.who.int/emergencies/kits/ewars/en/>, accessed 6 May 2020).

³ Standards for Public Health Information Services (PHIS). Geneva: World Health Organization; 2017 (<https://www.who.int/health-cluster/resources/publications/Final-PHIS-Standards.pdf?ua=1>, accessed 6 May 2020).

of 28 pages was published on 18 January 2019, providing insights into the control of Ebola virus disease in Équateur Province of the Democratic Republic of the Congo. A second special edition of 48 pages was published on 24 May 2019, covering the prevention and detection of, and response to, emergencies, focusing on the outcomes of country emergency preparedness.

49. WHO's Disease Outbreak News publications¹ are designed to inform the public, public health practitioners, the media, and others of new outbreaks and new information related to specific outbreaks. They contain an epidemiological summary, the public health actions taken in response to the event, a WHO risk assessment, and WHO advice. Since the start of the Ebola virus disease outbreak in the Democratic Republic of the Congo, the WHO Health Emergencies Programme has produced regular Disease Outbreak News publications, working together with the Regional and Country Offices.

50. The WHO Research and Development (R&D) Blueprint is a global strategy and preparedness plan that allows the rapid activation of research and development activities 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. Through the R&D Blueprint, WHO has established a Global Coordination Mechanism to facilitate regular dialogue among stakeholders in research and development in preparedness and response. Numerous interactions were held under this mechanism during 2019. Key stakeholders and different products in different stages of development were also mapped for the priority pathogens, and the information made available on the WHO website.²

51. A major success of the R&D Blueprint to date has been the development of a vaccine against Ebola virus disease. The vaccine was licensed by the European Medicines Agency and Food and Drug Administration of the United States and prequalified by WHO at the beginning of 2020. The WHO R&D Blueprint also supported the identification of two antiviral medicines that are effective against Ebola disease.

Outbreak of coronavirus disease (COVID-19) – overview as of 30 March 2020

52. On 31 December 2019, WHO was alerted to several cases of pneumonia of unknown origin in Wuhan City, Hubei Province of China. The origin was found to be a novel coronavirus, belonging to the same family of viruses that cause the common cold, as well as the viruses that cause severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS). The disease caused by this novel virus has been named COVID-19.

53. In early February 2020, WHO and the Global Research Collaboration for Infectious Disease Preparedness organized a global research and innovation forum to mobilize international action in response to the novel coronavirus. The forum brought together a large group of scientists, developers, regulators, ethicists and public health experts to outline a coordinated global research road map for the novel coronavirus. The meeting highlighted several areas for immediate research action:³ accelerating the development of rapid diagnostics tests; evaluating the effectiveness of care approaches, including adjunctive and supportive therapies; optimizing the use of personal protective equipment and other infection prevention and control measures in health care and community settings; enhancing

¹ WHO's Disease Outbreak News (DONs) publications (<https://www.who.int/csr/don/en/>, accessed 9 April 2020).

² R&D Blueprint mapping tool. Available at <http://who-blueprint-mapping-tool.surge.sh> (accessed 17 April 2020).

³ For more information see the report of the forum: COVID-19 Public Health Emergency of International Concern (PHEIC). Global research and innovation forum: towards a research roadmap, 11–12 February 2020. Geneva: World Health Organization; 2020 (https://www.who.int/blueprint/priority-diseases/key-action/Global_Research_Forum_FINAL_VERSION_for_web_14_feb_2020.pdf?ua=1, accessed 17 April 2020).

understanding of the virus and epidemiology of the disease; accelerating the evaluation of therapeutics and vaccines; maintaining communication among funders for implementation of critical research; and broadly sharing virus materials, clinical samples and data for public health purposes.

54. To support these actions, WHO continues to develop and publish a range of guidance materials for research including laboratory guidance, biosafety guidance and diagnostic strategies for prioritized testing in resource-constrained settings. Validated COVID-19 kits are being distributed over 120 countries in all WHO regions. Six sero-epidemiological and clinical investigation core protocols and data collection forms are available on the WHO COVID-19 technical guidance website. The Secretariat regularly coordinates the global clinical network meetings where research challenges are addressed, and best practices are shared.

55. Through the WHO R&D Blueprint and its Scientific Advisory Group and Global Coordination Mechanism, the Secretariat is maintaining a high degree of communication and interaction among researchers, scientific institutions, developers, manufacturers, funders and other stakeholders to ensure that COVID-19 research is coordinated and quickly implemented. It also broadly and rapidly facilitates the sharing of clinical samples and virus materials through standard Material Transfer Agreements.

56. The outbreak of COVID-19 was declared a public health emergency of international concern on 30 January 2020. As at 30 March, the number of COVID-19 cases had surpassed 690 000 with more than 33 000 deaths. The cases are found worldwide across 190 different countries or territories. WHO is providing coordination, training and support to health workers, countries and partners to prepare and respond to this emergency. The Strategic Preparedness and Response Plan outlines how the international community stands ready to provide international coordination, support to the public health response and mitigate socioeconomic impacts. To enable countries, implementation partners, WHO and donors to interact, rapidly detect, diagnose and prevent the further spread of the virus, WHO has provided a unique online forum, the COVID-19 Partner Platform.¹ The platform promotes coordination and planning in a transparent manner and on a global scale.

57. WHO provides regular press briefings and situation reports and has launched the first-of-its-kind COVID-19 Solidarity Response Fund. The Go.Data outbreak investigation tool has been deployed as well as the COVID Action Platform, launched in partnership with the World Economic Forum. Personal protection equipment was shipped to 74 countries and the #SafeHands Challenge and WHO Health Alert messaging service were launched. On 18 March a global “Solidarity” clinical trial was initiated to generate global data on the most effective treatments.

58. In response to the COVID-19 pandemic, the Strategic Preparedness and Response Plan developed by WHO has subsequently informed the COVID-19 Global Humanitarian Response Plan, a joint effort by agencies of the Inter-Agency Standing Committee with a humanitarian mandate to analyse and coordinate the response to the direct public health and indirect immediate humanitarian consequences of the pandemic on the population in countries already facing other crises. Implementation builds upon existing humanitarian mechanisms including the Health Cluster to meet specific needs related to COVID-19 through a multi-partner, multisectoral response to the pandemic.

59. The WHO Health Emergencies Programme produced and continues to develop comprehensive technical guidance on surveillance for COVID-19 for maritime and aviation traffic and ground crossings

¹ COVID-19 Partners Platform (<https://covid-19-response.org/>, accessed 27 March 2020).

with inputs from IMO, ICAO, the International Air Transport Association, CDC, IOM, as well as major industry associations.

60. The WHO Health Emergencies Programme developed a generic COVID-19 table-top simulation exercise package to support countries to strengthen their preparedness levels in relation to the current outbreak of the novel coronavirus. The exercise aims to examine and strengthen existing plans, procedures and capabilities to manage an imported case of COVID-19 and targets health authorities at the national level. Using a progressive scenario together with a series of scripted questions for discussion, the simulation exercise enables participants to consider the outbreak impact on their health system, plans, procedures and capacities. The COVID-19 exercise package has been published in English, French and Russian on the WHO website.¹ It has been used in various countries and regions to enhance preparedness and response capacities and was also used during the training on enhanced surveillance at points of entry conducted in partnership with the Africa Centres for Disease Control and Prevention in February 2020. The WHO Health Emergencies Programme provided technical support for COVID-19 planning to the WHO Country Technical Support Team, including for mapping the needs of regional offices through a query tracking system, and issuing COVID-19 operational planning guidelines to support country preparedness and response.

61. The WHO Health Emergencies Programme has provided analyses of data from country reports to support global monitoring and implementation of the COVID-19 strategic preparedness and response plans. Data from the IHR State Party self-assessment annual reports are used as part of the preparedness index and operational readiness index; these indices are used to assess the levels of risk that countries face in terms of COVID-19 and to guide the implementation of operational readiness capacity-building. WHO's data analysis also involves support for risk-based modelling assessments to assess the risk of introduction and spread of COVID-19.

62. The WHO Health Emergency Programme's work to support country preparedness capacities for COVID-19 involves the development and costing of the COVID-19 Strategic Preparedness and Response plan. It also includes the development of WHO recommendations for reducing risk of transmission of emerging pathogens from animals to humans in live animal markets, and COVID-19 operational planning guidelines using the WHO benchmarks for capacities required by the International Health Regulations (2005), supporting animal health, human health and environmental-based scientific research to determine the origins of the COVID-19 virus, and identification of effective management measures that can be applied at the human-animal interface. WHO's Advisory Committee on Variola Virus Research² is closely monitoring both variola virus and the coronavirus responsible for COVID-19. WHO implemented continuous COVID-19 epidemic intelligence and set up a global surveillance system for all Member States to report essential data to WHO. 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 establish research priorities for modelling groups around the world; developed and operationalized a response monitoring framework; published, as of 27 March 2020, 66 COVID-19 daily situation reports; and published six Disease Outbreak News products on the WHO website. Staff were promptly deployed to the WHO Regional Office for the Western Pacific and participated in an early visit to Wuhan, China; they continue to be deployed to support that region on a rotational basis. In parallel, WHO's Epidemic Intelligence

¹ <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/training/simulation-exercise> (accessed 6 May 2020).

² For more information, see: <https://www.who.int/csr/disease/smallpox/variola-virus-research/en/> (accessed 6 May 2020).

from Open Sources (EIOS) Initiative, which aims to strengthen early detection, verification, assessment and communication of public health threats, expanded to more teams within WHO as well as to Uganda, Singapore 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 EIOS platform, and working closely with the regional collaborating centres and Member States to track and verify events related to COVID-19 and other emerging threats.

63. WHO also established a COVID-19 Situation Dashboard which was developed to inform the general public about the current situation of the outbreak, available in two United Nations languages. The WHO COVID-19 dashboard provides epidemiological information that has been confirmed by WHO Member States with regards to its accuracy and shows the true picture of the disease globally at a point in time. This dashboard is accessed approximately 4.6 million times per day by various users globally. Other geospatial information products such as summaries of the overall epidemiological situation, flight passenger volumes and laboratory networks have been used by WHO and others to support response activities and public health decision-making.

64. In tackling the COVID-19 pandemic, WHO is also fighting a second outbreak, an “infodemic”, in which an over-abundance of information – some accurate and some not – is making it hard for people to find trustworthy sources and reliable guidance when they need it. In response to the high demand for timely and reliable information about COVID-19, WHO has established the Information Network for Epidemics (EPI-WIN) which unites technical and social media teams working closely to track and respond to misinformation, myths and rumours and provide tailored information and evidence for action.

ACTION BY THE HEALTH ASSEMBLY

65. The Health Assembly is invited to note this report and to adopt the draft resolution recommended by the Executive Board in resolution EB146.R10.

ANNEX

**LIST OF ACTIVE GRADED EMERGENCIES IN THE REPORTING PERIOD
(1 January–31 December 2019)**

Countries, territories or areas	WHO region	Date of initial grading	Type of crisis	Initial grade	Date of last grading	Latest grade
Democratic Republic of the Congo – Kasai	Africa	29 August 2018	Acute humanitarian crisis	Grade 3	19 April 2018	Grade 3 extension
Democratic Republic of the Congo – Kivu	Africa	15 August 2018	Ebola virus disease outbreak Public Health Emergency of International Concern	Grade 3/ Level 3		
Nigeria (NE)	Africa	18 August 2016	Complex emergency	Grade 3	10 October 2018	Protracted Grade 3 extension
Somalia	Eastern Mediterranean	9 May 2017	Complex emergency/drought/ cholera	Grade 3	8 August 2019	Protracted Grade 3
South Sudan	Africa	12 February 2014	Conflict/civil strife	Grade 3	1 May 2017	Protracted Grade 3
Syrian Arab Republic	Eastern Mediterranean	3 January 2013	Conflict/civil strife	Grade 3	21 July 2019	Grade 3 extension
Yemen	Eastern Mediterranean	1 July 2015	Complex emergency	Grade 3	23 July 2019	Grade 3/ Level 3 extension
Pacific Island countries (PIC)	Western Pacific	20 December 2019	Measles outbreaks	Grade 2		
Pakistan	Eastern Mediterranean	8 October 2019	Dengue fever	Grade 2		
Lebanon	Eastern Mediterranean	24 September 2019	Measles outbreak	Grade 2		
Mozambique	Africa	22 March 2019	Floods and Cyclone Idai	Grade 3/ Level 3	4 September 2019	Grade 2
Afghanistan	Eastern Mediterranean	28 October 2015	Displacement	Grade 1	17 July 2019	Grade 2 Extension
Angola	Africa	17 May 2019	Poliomyelitis outbreak	Grade 2		
Bangladesh/ Myanmar	South-East Asia	9 October 2017	Rakhine conflict	Grade 2	17 April 2019	Protracted Grade 2
Burkina Faso	Africa	27 June 2019	Humanitarian crisis	Grade 2		
Burundi	Africa	2 August 2019	Malaria outbreak	Grade 2		
Cameroon	Africa	1 April 2015	Conflict/civil strife	Grade 2	1 May 2017	Protracted Grade 2

Countries, territories or areas	WHO region	Date of initial grading	Type of crisis	Initial grade	Date of last grading	Latest grade
Cameroon	Africa	9 November 2018	Humanitarian crisis in north-west and south-west regions	Grade 2		
Central African Republic	Africa	3 June 2015	Humanitarian crisis	Grade 2	1 May 2017	Protracted Grade 2
Countries of the WHO European Region	Europe	7 May 2019	Measles outbreak	Grade 2		
Democratic Republic of the Congo	Africa	12 July 2018	Poliomyelitis outbreak	Grade 2		
Ethiopia (Gedeo and west Guji)	Africa	23 August 2018	Humanitarian crisis/ internal displacement	Grade 2		
Global	All Regions	1 June 2014	Middle East respiratory syndrome Coronavirus outbreak	Grade 2		
Horn of Africa	Africa/Eastern Mediterranean	2 August 2018	Poliomyelitis outbreak Public Health Emergency of International Concern	Grade 2		
Albania	Europe	26 November 2019	Earthquake	Grade 1		
Iran	Eastern Mediterranean	26 March 2019	Floods	Grade 1	9 April 2019	Grade 2
Iraq	Eastern Mediterranean	12 August 2014	Conflict/civil strife	Grade 3	4 February 2019	Protracted Grade 2
Libya	Eastern Mediterranean	3 March 2016	Armed conflict escalation	Grade 2	16 July 2019	Grade 2 extension
Madagascar	Africa	25 December 2018	Measles outbreak	Grade 2	21 May 2019	Removed
Malawi	Africa	19 March 2019	Floods and Cyclone Idai	Grade 2		
Mozambique	Africa	11 January 2019	Poliomyelitis outbreak	Grade 2		
Myanmar	South-East Asia	12 June 2017	Conflict/civil strife	Grade 2	10 January 2019	Protracted Grade 2 extension
Myanmar	South-East Asia	8 August 2019	Poliomyelitis outbreak	Grade 1		
Niger	Africa	1 April 2015	conflict/civil strife	Grade 2	1 May 2017	Protracted Grade 2
Niger (Maradi)	Africa	12 September 2018	Cholera outbreak	Grade 2		
Pakistan (Sindh)	Eastern Mediterranean	25 May 2019	HIV/AIDS	Grade 2		
occupied Palestinian territory, including east Jerusalem	Eastern Mediterranean	16 February 2018	Complex emergency	Grade 2	19 July 2019	Protracted Grade 2

Countries, territories or areas	WHO region	Date of initial grading	Type of crisis	Initial grade	Date of last grading	Latest grade
Sao Tome and Principe	Africa	14 February 2017	Necrotizing cellulitis	Grade 2	3 May 2018	Protracted Grade 2
Sudan	Eastern Mediterranean	24 April 2017	Complex emergency	Grade 2	1 October 2018	Grade 2
Uganda	Africa	13 June 2019	Ebola virus disease outbreak	Grade 2		
Ukraine	Europe	20 February 2014	Conflict/civil strife	Grade 2	9 April 2018	Protracted Grade 2
Zimbabwe (Harare)	Africa	12 September 2018	Cholera outbreak	Grade 2		
Zimbabwe	Africa	19 March 2019	Floods and Cyclone Idai	Grade 2		
Angola	Africa	11 January 2018	Cholera outbreak	Grade 1		
Chad	Africa	6 January 2017	Hepatitis E outbreak	Grade 1		
Djibouti	Eastern Mediterranean	5 March 2019	Malaria outbreak	Grade 1	22 August 2019	Grade 1 extension
Djibouti	Eastern Mediterranean	11 December 2019	Floods	Grade 1		
Ethiopia	Africa	11 August 2017	Acute Watery Diarrhoea/ Humanitarian crisis	Grade 3	12 June 2018	Protracted Grade 1
Indonesia	South-East Asia	3 October 2018	Earthquake	Grade 1	23 July 2019	Removed
Indonesia	South-East Asia	7 March 2019	Vaccine-derived poliovirus	Grade 1		
Kenya	Africa	28 June 2017	Cholera outbreak	Grade 1		
Kenya	Africa	22 June 2018	Rift Valley fever outbreak	Grade 1		
Mali	Africa	16 October 2015	Complex emergency	Grade 1	1 May 2017	Protracted Grade 1
Myanmar	South-East Asia	8 August 2019	Vaccine-derived poliovirus	Grade 1		
Namibia	Africa	1 August 2018	Hepatitis E virus outbreak	Grade 1		
Nigeria	Africa	2 July 2018	Cholera outbreak	Grade 1	11 October 2019	Removed
Pakistan	Eastern Mediterranean	12 February 2019	Drought	Grade 1	18 July 2019	Grade 1 extension
United Republic of Tanzania	Africa	15 December 2015	Cholera outbreak	Grade 2	1 May 2018	Protracted Grade 1

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