WHO's Operational Update on Health Emergencies

In this issue

Wivine's two daughters, aged 3 and 9, were treated for mpox at the mpox treatment centre in Kavumu, Democratic Republic of the Congo. Wivine was vaccinated against mpox and given a hygiene kit which she uses with her children, teaching them to wash their hands following the advice she was given. Credit: WHO / Daniel Paluku KAHANDUKYA

Key figures on WHO's work in emergencies (as of 15 December 2024)

WHO is currently responding to 42 graded emergencies across the world, including:

10 Grade-3 emergencies

7 protracted Grade-3 emergencies

11 Grade-2 emergencies

10 protracted Grade-2 emergencies

4 Grade-1 emergencies

Graded emergency: An acute public health event or emergency that requires WHO's moderate response (Grade-2) or maximal response (Grade-3). If a graded emergency persists for more than six months, it may transition to a protracted emergency. WHO continuously updates the graded emergencies figures based on inputs from the Organization's three-levels.

US$ 50 million has been released by WHO's Contingency Fund for Emergencies (CFE) to provide humanitarian health assistance for 28 emergencies or events. The largest allocations have been for the Sudan conflict and refugee crisis, the Ethiopia humanitarian response, the global dengue outbreak, the crisis in the occupied Palestinian territory, and the escalation of hostilities in Lebanon.

The Global Outbreak Alert and Response Network (GOARN) has supported 65 deployments in 2024. The highest number of deployments were in response to the escalation of violence in Israel and occupied Palestinian territory (13), the outbreak of Marburg virus disease in Rwanda (12), and global and multi-country support for cholera (10).

OpenWHO.org totaled 9.2 million enrolments across 317 online public health courses, with learning available in 75 national and local languages. To date, there have been 884 000 enrolments in 2024.

In 2024, Standby Partners have supported WHO's response to 16 graded emergencies through the deployment of 55 new deployments of surge personnel to 19 WHO offices with a total deployment duration of 226 months. The estimated in-kind support mobilized through the SBP mechanism amounted to US$ 3.4 million.

On 20 December 2024, the Ministry of Health of Rwanda declared the end of the Marburg virus disease (MVD) outbreak, as per the WHO recommendations. The outbreak had been declared on 27 September 2024.

For the latest data and information on WHO's work in emergencies, see the WHO Health emergencies page and the WHO Health Emergency Dashboard.

Second meeting of the International Health Regulations (2005) (IHR) Emergency Committee on Mpox (2024): key observations, recommendations and next steps

On 22 November 2024, the WHO Director-General convened the second meeting of the International Health Regulations (2005) (IHR) Emergency Committee regarding the upsurge of mpox 2024, to advise him about whether the upsurge of mpox in the WHO African Region continued to constitute a Public Health Emergency of International Concern (PHEIC) and to provide its advice on the proposed prospective temporary recommendations. Notwithstanding some progress towards controlling the spread of mpox resulting from national and international response efforts, the Committee noted the rising number and continuing geographic spread of mpox cases, especially those due to monkeypox virus clade Ib infection; operational challenges in the field necessitating stronger national commitments; and the need to mount and sustain a cohesive response across countries and partners. The WHO Director-General concurred with the advice of the Committee that the event continued to constitute a PHEIC and issued revised temporary recommendations in relation to this PHEIC.

Key observations

Epidemiology: since August 2024, mpox cases have increased globally, with sustained transmission of Monkeypox Virus (MPXV) clade Ib in the WHO African Region, particularly in the Democratic Republic of the Congo (DRC), Burundi, Uganda, Rwanda and Kenya. Where transmission is well established such as in the DRC, the epidemiology shifts from initially affecting mostly adults infected through sexual contact to broader community transmission through close prolonged interpersonal contact, particularly within households. This is reflected in the age distribution shifting from predominantly adults to both adults and children. Travel-related cases have been reported in other regions, including Africa, the Americas, Europe, and Southeast Asia. Adults over 50 years are less affected, likely due to prior smallpox vaccination. Mortality of clade Ib remains lower than what has previously been reported for clade Ia in endemic areas of the DRC, and largely linked to immunosuppression, particularly uncontrolled HIV. Most deaths from mpox continue to be reported from endemic areas (areas affected by clade Ia) and is highest amongst young children. It is not clear whether differences of mortality are linked to underlying population vulnerability factors, access to healthcare, surveillance bias (the majority of cases and deaths reported in endemic areas are not tested) or clade-specific virulence factors.

Risk assessment: the clade-specific public health risk varies, with clade Ib posing high risks for international spread.

Response challenges: operational challenges include limited local-level implementation of interventions such as surveillance, contact tracing, vaccination and public education. Competing health priorities, resource gaps, and vaccine hesitancy and regulatory barriers hinder effective response.

International coordination: collaborative efforts by WHO and Africa CDC have improved response mechanisms, including vaccine allocation under the Access and Allocation Mechanism (AAM). However, national-level resource mobilization and sustained political commitment are needed. Effective response requires intensified local-level interventions and community engagement. Funding shortfalls remain, with only US$40.6 million of the required US$87.4 million secured as of 22 November 2024.

Summary of temporary recommendations issued by the WHO Director General on 27 November 2024

1. **Emergency coordination**
   - Secure political commitment for intensified hotspot-focused prevention and response efforts.
   - Establish mechanisms to monitor and adapt local responses in identified hotspots and enhance international cooperation including by introducing accountability mechanisms.
2. **Collaborative surveillance and laboratory diagnostics**
   - Enhance geographically comprehensive surveillance and diagnostics access, including genomic sequencing.
   - Strengthen contact tracing and case investigations to prevent onward transmission.
3. **Safe and scalable clinical care**
   - Expand access to supportive clinical care (clinical, nutritional and psychosocial support) for patients with mpox, targeting vulnerable groups such as children and HIV patients.
   - Improve health worker training in infection prevention and control (IPC) measures.
4. **Vaccination**
   - Implement targeted vaccination strategies in hotspots, focusing on high-risk groups.
   - Address vaccine hesitancy through community engagement and evidence-based communication.
5. **Community protection:**
   - Strengthen risk communication and reduce stigma through meaningful engagement.
   - Promote IPC and water, sanitation, and hygiene (WASH) measures in households, schools, and transit areas.
6. **Governance and Financing:**
   - Mobilize national and external funding to scale up prevention and response efforts.
   - Integrate mpox interventions into broader disease control programs to optimize resources.
7. **Addressing research gaps:**
   - Invest in research on zoonotic spillover, vaccine effectiveness, and MPXV epidemiology.
   - Expand genomic sequencing and field studies to refine control strategies.
8. **Implementation reporting:**
   - States Parties are to report quarterly to WHO on progress and challenges in implementing temporary recommendations.

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Next steps

Sustained commitment from national authorities and coordinated international efforts are crucial to address the evolving epidemiology, mitigate risks of international spread, and overcome response challenges. WHO and Africa CDC will continue to align strategies under the *Mpox Continental Preparedness and Response Plan* to support implementation of the temporary recommendations which have been refined to enhance local-level responses and ensure equitable vaccine access, strengthened surveillance, and community engagement.

For more information, click here.

The first meeting of the Emergency Committee (EC) convened by the WHO Director-General under the International Health Regulations (2005) (IHR) regarding the upsurge of mpox 2024 took place on 14 August 2024. Credit: WHO / Lindsay Mackenzie

SELECTED MPOX OPERATIONAL RESPONSE FIGURES

SINCE MPOX OUTBREAK BEGAN ON 1 JANUARY 2022 (AS OF 16 DECEMBER 2024)

110 Number of countries reached with mpox supplies

US$ 3.30 MILLION Value of mpox supplies procured

Supplies delivered:

242 629 Test items

732 140 PPE items

598 therapeutics*

142 995 OpenWHO Mpox course enrolments** from all six WHO regions

SINCE DECLARATION OF PHEIC ON 14 AUGUST 2024 (AS OF 16 DECEMBER 2024)

45 Number of countries reached with mpox supplies (with a further 13 awaiting supplies)

US$ 2.50 MILLION Value of mpox supplies procured

Supplies delivered:

85 208 Test items

731 820 PPE items

0 therapeutics*

28 841 Total OpenWHO Mpox course enrolments** from all six WHO regions

432 180 vaccine doses received by or allocated to three countries (as of 18 December 2024)

62 deployments to support mpox response

*through Mpox Monitored Emergency Use of Unregistered and Experimental Interventions (MEURI) framework
**includes three courses: 'Mpox: Introductory course for African outbreak contexts'; 'Mpox: Epidemiology, preparedness and response for African outbreak contexts'; and 'Mpox and the 2022-2023 global outbreak'.

November 2024 response update: addressing critical health needs in Gaza

The humanitarian crisis in Gaza has placed immense pressure on the health system. Since the escalation of hostilities in October 2023, WHO has been at the forefront in leading, coordinating, and implementing life-saving interventions to address critical health needs, despite unprecedented challenges.

Facilitating medical evacuations for patients who cannot access specialized care within Gaza

WHO has facilitated medical evacuations for thousands of patients in Gaza, providing a lifeline for individuals requiring specialized care unavailable locally.

Between 7 October 2023 and 7 May 2024, 4947 patients were evacuated out of Gaza. Following the closing of the Rafah border, between 7 May to 28 November, 362 patients were evacuated, highlighting the challenges in meeting the needs of critical patients and increase in unmet needs. The majority of medical evacuations thus far have been for cancer treatment and war injuries, followed by severe inpatient cases and kidney dialysis.

Approval delays have hampered evacuation efforts, leaving thousands of patients awaiting critical care and exacerbating unmet medical needs. Limited access to border crossings, compounded by administrative and security hurdles, continues to jeopardize patient outcomes.

From 5 to 6 November 2024, WHO and partners evacuated 229 patients and companions from Gaza to United Arab Emirates (UAE) and Romania, in collaboration with the Government of UAE and Romania and the European Union. Patients included those with autoimmune diseases, blood diseases, cancer, kidneys conditions, and trauma injuries. Credit: WHO

> "We urge for all corridors from Gaza to be utilised to ensure medical evacuations can happen smoothly and quickly — thousands of patients are still waiting for specialist health care."
>
> **Dr Tedros Adhanom Ghebreyesus**
> Director-General of WHO

National EMTs: localization as a strategy for health system resilience in Gaza

As of November 2024, less than half of Gaza's hospitals and only 37% of primary care facilities remain partially functional. International Emergency Medical Teams (EMTs) have played an essential role in keeping the health system operational through the provision of specialized care in the domains of surgery and trauma care, maternal-child health, communicable and non-communicable diseases and through the implementation of stand-alone clinics and field hospitals.

Since deployments began in January 2024, international EMTs have provided over 2 million consultations in Gaza. However the restricted access into and within Gaza amidst the ongoing conflict has highlighted the importance of localized responses.

As outlined in the EMT 2030 strategy, National EMTs are a critical component of emergency preparedness and building healthcare systems resilience: they provide rapid response and surge capacities, ensuring swift, locally adapted approaches to emergencies, and enhancing a country's ability to manage crises with existing resources. Recognizing the importance of localized responses, in 2023 the Gaza Health Authorities — with support from the WHO occupied Palestinian territory office — established National EMTs comprised of 132 personnel as part of emergency preparedness planning. This was done prior to the escalation of hostilities in October 2023.

In September 2024, the Gaza National EMT initiative resumed operations with the support of local authorities, WHO and MAP-UK to address Gaza's ongoing escalating health needs, prioritizing quality of care and self-sufficiency as core principles to effectively contribute to the health response. Their work was instrumental in the resumption of Al Shifa Medical Complex — once Gaza's largest tertiary hospital, which suffered extensive damage in April 2024 — by providing acute trauma stabilization, surgery, emergency care for communicable and non-communicable diseases, and referrals for critical cases.

Since reactivating the National EMT has provided over 7681 consultations, 318 emergency surgeries, and care to 2164 critical trauma patients, as of 8 December 2024 (see: EMTCC Web app).

By embedding local expertise within the emergency response, the National EMT has bridged gaps in healthcare access in areas that remain difficult for international teams to consistently reach, such as Gaza City. Their efforts have not only restored critical health services but also strengthened Gaza's local health workforce, building capacity, leadership and resilience in the face of ongoing conflict. A plan for establishing an additional National EMT is currently under discussion, specifically to improve access to highly specialized services for patients and support retention of national health care workers.

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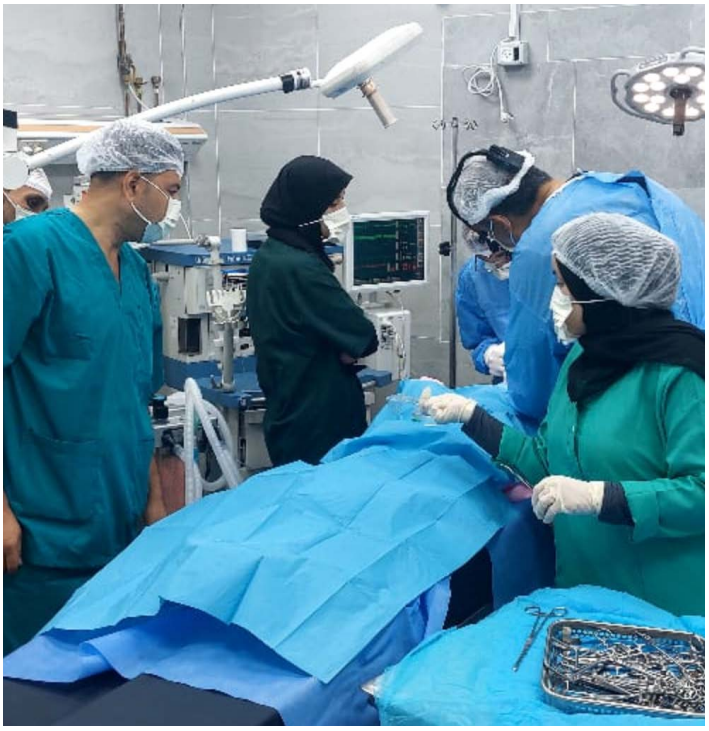
The contribution of Gaza's National EMT highlights the broader importance of localizing emergency health responses. In addition to providing immediate support, these teams are vital for local capacity building and post-crisis recovery. By integrating local expertise with global standards, National EMTs can ensure continuity of care, enhance system resilience, and offer a scalable model not only in Gaza but also in other fragile settings.

For more information, click here and view the EMTCC Gaza web application.



National EMT operating on a patient in Al Shifa Hospital, Gaza. Credit: National EMT in Al Shifa Hospital

WHO's Gender-Based Violence (GBV) response in Gaza and integrating the Prevention of Sexual Exploitation and Abuse (PSEA) into the operational plan

The ongoing crisis has exacerbated pre-existing GBV in Gaza, affecting women, girls, and increasingly men and boys. Factors such as continuous displacement, overcrowded shelters, lack of dignified and safe bathing or latrines and shortages of food and clean water contribute to heightened risk.

In response to this, a joint WHO-UNFPA training programme was run to train and mentor four trainers over two months. These trainers have trained 125 health providers from July to October 2024. WHO further provided technical support to the Ministry of Health to produce short guidance for the health response to GBV including clinical management of rape (CMR) and has procured dignity kits, emergency contraception pills and sexually transmitted infection (STI) drugs. Delivery of these essential items has been complicated by difficulties in access and the looting of supplies.

A comprehensive SEA risk assessment of 106 health facilities and services is underway in Gaza, co-led by WHO with support from the health cluster and in partnership with the United Nations Children's Fund (UNICEF) and the Prevention of Sexual Exploitation and Abuse (PSEA) Network Civil Society Organizations (CSOs). Health-specific mitigation measures are being developed to address the identified risks.

PSEA has been firmly integrated into WHO's operational response plan and monitoring and evaluation framework. The 749 social mobilizers involved in community engagement for the polio vaccination campaign received training on PSEA in Gaza, and PSEA messages integrated into risk communication messaging reached an estimated half a million individuals throughout the campaign.

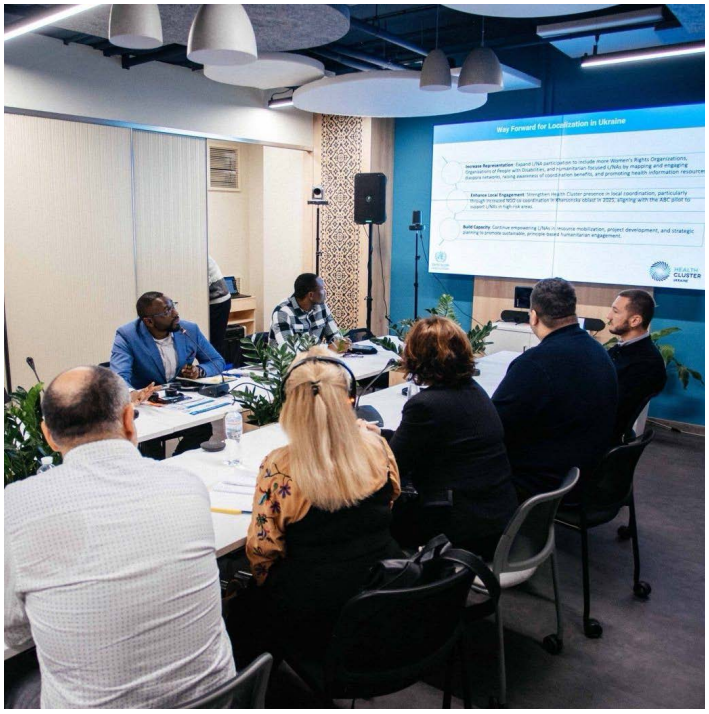
WHO teams train vaccinators engaged in the polio campaign in Gaza. Credit: WHO

In addition, 491 Emergency Medical Team (EMT) members and 70 WHO Country Office staff members have been briefed and trained on PSEAH protocols and concepts.

Call for Action

WHO urgently calls for a ceasefire, expanded humanitarian access, and active protection of civilians and healthcare facilities. Establishing robust medical evacuation processes for the more than 12 000 critical patients requiring urgent care remains a priority. WHO remains committed to supporting Gaza's healthcare system under extraordinary circumstances, ensuring lifesaving aid reaches those in need.

WHO's three-level mission to Ukraine



Participants of the three-level mission engage in critical discussions on strengthening health system resilience in Ukraine. Credit: WHO

19 November 2024 marked 1000 days since the Russian Federation's full-scale invasion of Ukraine. The toll on the health of the Ukrainian population and its health-care system has been immense. The war has escalated health needs, especially in areas such as mental health, trauma care and noncommunicable diseases (NCDs), affecting millions who face continuous attacks, trauma and restricted access to health care due to ongoing hostilities and financial barriers. Ukrainian citizens are bearing increased physical and psychological strain, heightening the need for accessible care across all health services.

This war remains the largest ongoing emergency in the WHO European Region, with 2134 confirmed attacks on health care as of 18 November 2024. Ukraine continues to face heavy attacks on critical public infrastructure which disrupt access to electricity, water, heating, and essential services including healthcare. Each day, lives are lost and the war continues to reshape the lives of millions.

Throughout this time, the health system and healthcare workers have remained working to address immediate needs while laying the foundation for recovery and community support. Health remains a cornerstone of Ukraine's future and WHO is a committed technical health partner to the country, supporting the health response by delivering essential strategies, capacity-building initiatives and strengthening healthcare systems to ensure that care reaches all who need it.

Amidst the pressing challenges of the third winter of war, WHO launched a three-level mission in Ukraine from 17 to 22 November 2024, bringing together experts from the WHO Country Office in Ukraine, the Regional Office for Europe, and WHO headquarters to discuss further collaboration and a coordinated approach to meeting the country's health needs. During the mission, WHO representatives met with Ukrainian health authorities, including the Deputy Minister of Health of Ukraine and the Acting Director of the Public Health Department. The delegation discussed ongoing efforts to support Ukraine's healthcare system, focusing on health emergency responses and preparedness beyond the third winter of the war, monitoring public health, and preparing for the challenges of 2025. They also emphasized the importance of collaboration between the Ministry of Health of Ukraine and WHO to ensure continuous improvement of healthcare systems during this highly challenging time.

This joint effort aims to address immediate health needs while also supporting strengthening of the health system resilience and recovery efforts. The mission represents a pivotal shift in WHO's efforts in Ukraine, from addressing immediate emergencies to building a sustainable and robust health system. By balancing support for urgent emergency responses with mid to long-term recovery strategies, WHO aims to ensure that Ukraine's health system remains operational even under the direst circumstances.

WHO continues to support Ukraine through joint implementation of critical health infrastructure projects, supporting capacity-building across emergency management, health system strengthening and cross-cutting areas, donating equipment, and helping to build resilient healthcare policies to meet both immediate and long-term needs.

WHO's support for Ukraine's long-term recovery aligns with the Sustainable Development Goals, with a focus on building a stronger, more resilient health system capable of enduring current and future challenges.

Read more here.

Launch of first malaria vaccine campaign in Sudan reflects collective determination to protect children's lives amid devastating conflict

Health care worker vaccinates a young infant during the first malaria vaccination campaign in Sudan. Credit: WHO

On 4 November 2024, Sudan's Federal Ministry of Health, in partnership with WHO, the United Nations Children's Fund (UNICEF) and Gavi, the Vaccine Alliance, rolled out malaria vaccines for the first time in the country, to bolster efforts to protect children from the deadly disease. Sudan is among 16 African countries, and the first in the WHO Eastern Mediterranean Region, to introduce the malaria vaccine. This represents a remarkable accomplishment in a country grappling with a devastating conflict that has rendered up to 70% of hospitals in conflict-affected areas non-operational.

> "Despite enormous challenges, Sudan has taken an important step to fight the scourge of malaria and protect the population from severe illness and death. WHO continues to advocate for a comprehensive approach to malaria intervention, integrating the malaria vaccine with other prevention and control measures."
>
> **Dr Shible Sahbani**
> WHO Representative to Sudan

Malaria is one of the world's deadliest diseases, killing nearly half a million children under the age of five years each year in Africa. WHO recommends the use of malaria vaccines for the prevention of Plasmodium falciparum (P. falciparum) malaria in children living in malaria-endemic areas, prioritizing areas with moderate to high transmission.

Sudan has the highest malaria incidence rates in the WHO Eastern Mediterranean Region. In 2023, more than 3.4 million malaria cases were estimated in Sudan, and the disease claimed an estimated 7900 lives, though cases and deaths are likely to be severely underreported due to the ongoing conflict and communication breakdown. Recommended for children aged five to 18 months, the malaria vaccine is expected to reduce child hospital admission and mortality from the disease.

The launch of the vaccination campaign followed the arrival of the first consignment of 186 000 doses of the malaria vaccines to Sudan in October 2024. Vaccinations have begun in health facilities in 15 localities in Gedaref and Blue Nile states, benefitting more than 148 000 children under the age of 12 months. In 2025 and 2026, the vaccine will be introduced in 129 localities across Sudan.

In Sudan, the delivery of vaccines and routine immunization activities have been hindered by insecurity and the collapse of national health systems. National vaccination coverage has plummeted from 85% before the war to approximately 50%. In active conflict zones, immunization rates are averaging 30%, a critically low rate of coverage. Low immunization coverage and frequent disease outbreaks, such as cholera, malaria, measles, and polio, are exposing millions of unvaccinated children to fatal yet preventable diseases.

The Federal Ministry of Health – supported by its partners WHO, UNICEF and EMPHENET – developed malaria vaccine implementation plans and communication strategies, trained health workers and engaged communities, and ensured sufficient cold chain capacity.

> "This initiative reflects our strong and unwavering commitment to malaria control and our collective determination to protect the lives of our children."
>
> **Dr Haitham Mohamed Ibrahim Awadallah**
> Sudan's Federal Minister of Health

For more information, click here.

Cuba's triple crisis: confronting disasters, energy shortages and public health challenges

Polyclinic in San Antonio del Sur, Guantanamo, in the aftermath of Hurricane Oscar, which affected hundreds of health facilities in Cuba. Credit: Ministry of Public Health of Cuba.

For several years now, Cuba has been enduring an economic crisis which was exacerbated by the onset of the COVID-19 pandemic and has persistently worsened over time. Economic hurdles, inflationary pressures, medication and supply scarcities, and growing migration of healthcare personnel have strained the Cuban healthcare system and collectively impacted the population's wellbeing and health outcomes.

In this challenging context, Cuba is currently experiencing an unmatched crisis due to converging disasters, energy failures, and acute public health challenges. In less than a month, the island has been struck by a series of disasters, including two hurricanes and two earthquakes, which have damaged homes, infrastructure and crops, and have further complicated the ongoing energy crisis that began with a nationwide power outage in October 2024. These events have impacted nearly 1.3 million people across seven provinces and 17 municipalities and caused significant disruptions in key sectors crucial to the well-being of the population, their livelihoods, and the country's socioeconomic development.

Hurricane Oscar which struck the Guantánamo province on 20 October 2024, and Hurricane Rafael which hit Artemisa region shortly after on 6 November 2024, inflicted important damage to health infrastructure. These extreme weather events disrupted health services in nearly 385 facilities, including hospitals, polyclinics, and family doctor-and-nurse offices.

Additionally, two earthquakes of 6.0 and 6.7 magnitude on Richter scale respectively struck Granma and Santiago de Cuba provinces on 10 November 2024, causing significant damage to critical health infrastructures and impacting care delivery capacity in a time of heightened healthcare needs.

These natural disasters occurred in a complex epidemiological environment, with concurrent outbreaks of dengue, oropouche and various respiratory viruses, and increased risks of further transmission in the post-hurricane conditions. Indeed, arboviral diseases are a significant health concern in Cuba. Since May 2024, an epidemic outbreak of Oropouche fever has spread across the entire country, with a total of 21 464 reported cases as of 16 November 2024. Additionally, 965 dengue fever cases have been confirmed as of 3 August 2024, including six severe cases. In the current context, the risks of transmission of epidemic-prone diseases in affected areas are accentuated by the inability of the health system to respond promptly and efficiently enough to deal with disease outbreaks.

> "This series of crises in Cuba has led to a complex socioeconomic situation that impacts multiple sectors and leaves affected communities, especially in Guantánamo and Artemisa, in a state of vulnerability. The recent disasters, along with the power outages, have disrupted the production of basic goods and the provision of essential services, including healthcare."
>
> **Dr Mario Cruz Peñate**
> PAHO/WHO Representative in Cuba

Coordinated response by PAHO/WHO

In support to national authorities and the Ministry of Health, and in close coordination with other United Nations (UN) agencies and the UN Office for the Coordination of Humanitarian Affairs (OCHA), PAHO/WHO is addressing the urgent health needs of vulnerable Cubans affected by the current health emergency and socio-economic situation. Thanks to the financial and operational support of Direct Relief, the European Union through its Civil Protection and Humanitarian Aid Operations Directorate (ECHO) and the United Nations Central Emergency Response Fund (CERF), PAHO/WHO's response operations are focused on ensuring the continuity of healthcare delivery to the local population, primarily the most vulnerable population groups.

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To do so, PAHO/WHO is providing medical supplies, including fuel oil generators and other operational supplies to reference hospitals and other strategic health facilities, and coordinating recovery actions with the Ministry of Public Health's Disaster Management Office. Over four tonnes of essential supplies, including medical and trauma care materials as well as personal protective equipment, have already been dispatched from PAHO's regional strategic reserve in Panama and distributed to the regions in Cuba most affected by the recent disasters.

In partnership with other United Nations agencies, funds, and programmes, PAHO/WHO has joined recovery efforts in Cuba. Pictured here is the first air cargo arriving in Santiago de Cuba on 10 November 2024, carrying emergency health kits (IEHK 2017) to provide care to over 20 000 people for three months. Credit: United Nations in Cuba

To address the spread of Oropouche cases in the country, PAHO donated reagents and materials to support the molecular detection of the virus and facilitated the training of several Cuban laboratory professionals on whole genome sequencing, as well as the serological and molecular detection of Oropouche infection, and the production of essential reagents for detecting antibodies against this pathogen.

In September 2024, PAHO regional experts in virology, epidemiology, clinical management, entomology, and maternal and child health conducted a mission to Cuba to assess the current Oropouche fever situation, analyze the factors driving the ongoing outbreak, identify gaps, challenges and opportunities for strengthening response and control efforts, and propose research to address knowledge gaps related to transmission, seroprevalence, clinical characterization of severe cases, the role of various vectors, and other key areas.

> "PAHO/WHO will continue to support Cuba's efforts to deepen the understanding of the Oropouche virus (OROV), which are critical to increasing the broader regional knowledge of the disease, especially in light of the recent detection of OROV fever cases in areas with no previous history of circulation."
>
> **Dr Jairo Mendez**
> Advisor for Viral Diseases at PAHO/WHO Health Emergencies Department

Health system resilience and remaining challenges

PAHO/WHO continues to provide technical and logistical support, emphasizing the need for sustained collaboration to strengthen Cuba's health system.

Cuba's response underscores the importance of integrating disaster preparedness across health, energy, and infrastructure systems. Collaboration with PAHO/WHO and international partners has been vital in addressing immediate needs and setting the stage for recovery.

Key priorities moving forward include:

- Investing in disaster-resilient health infrastructure
- Strengthening supply chains for essential medicines and health supplies
- Enhancing epidemiological surveillance systems to rapidly detect and respond to disease outbreaks and emerging infectious hazards

To achieve full recovery, sustained international support and collaboration will be necessary. PAHO/WHO response actions are part of a broader effort by the UN system and the European Union to support recovery in Cuba. PAHO/WHO and its partners will continue to work closely with national authorities and the Cuban Ministry of Public Health to ensure timely and coordinated technical cooperation in line with the priorities established by the Cuban government, for the health and wellbeing of Cuban people.

For more information click here and here.

The family medicine center of Yacabo Abajo, in the province of Guantanamo, is one of the many health structures that were impacted by Hurricane Oscar, hindering access to health services for the local population. Credit: Ministry of Public Health of Cuba.

WHO responds to a spate of tropical storms, typhoons and cyclones in the Western Pacific

WHO assesses the health risks and needs of affected communities in Lao Cai, Viet Nam. Credit: WHO

In early September 2024, Typhoon Yagi impacted several countries in the Western Pacific region — including China, Lao People's Democratic Republic, the Philippines and Viet Nam — leaving a trail of destruction with its intense rainfall, powerful winds, flooding, and landslides. In the Philippines, Typhoon Yagi was followed by other typhoons that placed considerable pressure on local communities and the government's capacity to respond effectively.

Since the onset of these natural disasters, WHO leveraged its convening power to coordinate response efforts among ministries of health, government agencies and international partners in the Lao People's Democratic Republic, the Philippines and Viet Nam. This included assessing health risks and needs in hard-hit areas, developing and implementing joint response plans with other UN agencies, supporting access to safe drinking water to prevent diarrhoeal diseases, facilitating the delivery of public safety messages and working towards minimizing disruptions in health service delivery.

Severe storms and subsequent flooding increase the risk of water-borne diseases such as typhoid, cholera, and leptospirosis.

WHO worked with national and local authorities to provide healthcare facilities and communities with access to safe drinking and potable water, so as to prevent the spread of waterborne diseases. WHO provided over 2 million water purification tablets and 1500 portable jerry cans to affected provinces in Viet Nam. Similarly, in Lao People's Democratic Republic, WHO worked with the Ministry of Health and National Center of Environmental Health and Water Supply in multiple provinces to disseminate water testing and treatment equipment, water storage supplies, chlorine tablets and reagents to test for e-coli, often in collaboration with UNICEF.

WHO also assisted Ministry of Health and provincial health education teams to rapidly deploy across impacted areas, and provide health messages to the community on preventing the spread of water- and food-borne diseases. In the Philippines, WHO distributed 256 000 water purification tabs and 2500 collapsible jerrycans and tents to affected communities.

Ensuring the continuity of health services has been another response priority, given that extreme weather events also damage healthcare facilities and interrupt essential service delivery, particularly for affected communities. In Lao People's Democratic Republic, WHO supported the activation of a community health post in an affected area and provided health checkups as well as information to prevent the spread of diseases.

In the Philippines, back-to-back severe storms damaged more than 200 health facilities, destroying medical supplies and vaccines that in turn affected the delivery of health services. An emergency medical team (EMT), the Philippines Emergency Medical Assistance Team (PEMAT), deployed in response to the typhoons, providing outpatient and emergency treatment to affected populations. EMTs form an integral part of the health emergency workforce, comprising a network of trained and equipped emergency responders that can surge when required. EMTs in the Philippines — ready, equipped and trained to deploy in response to any emergency — are an outcome of years of preparedness efforts implemented in collaboration with WHO.

WHO response efforts were made possible by generous support from Luxembourg, USAID and other development and UN partners.

For more information, click here.

JADE 2024: building resilience to extreme weather events in the WHO European Region

The exercise management team from the WHO Regional office for Europe managing the JADE 2024 exercise from the Emergency Operations Centre in Copenhagen, Denmark. Credit: WHO

As the climate crisis wreaks more havoc across Europe and central Asia year after year, WHO Member States are urgently seeking to strengthen their readiness for a range of emergencies, both individually and in collaboration with each other. Within this context, the annual Joint Assessment and Detection of Events (JADE) exercise – the WHO European Region's biggest simulation exercise – was conducted from 19 to 21 November 2024. JADE is a functional simulation exercise designed to mimic real-world public health events that requires cross-border communication and coordination. It aims to test and enhance communication between National IHR Focal Points (NFPs) and WHO IHR Regional Contact Points, as outlined in Articles 5-11 of the International Health Regulations (IHR 2005).

In this year's JADE exercise, participants from 46 of the 53 Member States of the WHO European Region faced the scenario of a fictional flood with public health consequences. 2024 was declared the hottest year on record both in Europe and globally, and the focus on extreme weather in this year's JADE was at the request of Member States, reflecting countries' efforts to prime and adapt their preparedness and alert systems. Drawing on real-life examples and best practices from various parts of the Region, the exercise offered valuable insights and templates for future action.

JADE 2024 was led by the WHO Country Health Emergency Preparedness and IHR team at the WHO Regional Office for Europe, in close collaboration with the European Centre for Disease Prevention and Control, DG SANTE, and the National Institute for Public Health and the Environment of the Kingdom of the Netherlands. The event was funded by the European Union.

Countries working jointly to combat climate change and its impacts on health is one of the commitments in the groundbreaking Budapest Declaration that emerged from the Seventh Ministerial Conference on Environment and Health in 2023. Preparedness for extreme weather is also an important part of Preparedness 2.0, the Region's newly adopted Strategy and action plan for emergency preparedness, response and resilience which was developed by Member States with support from WHO Regional Office for Europe. Both the WHO Regional Office for Europe in Copenhagen, Denmark, and the WHO European Centre for Environment and Health in Bonn, Germany, collaborate closely with Member States in the Region to support their efforts in addressing the challenges of extreme weather.

The JADE exercise serves as a powerful example of how simulation exercise can strengthen preparedness, enhance coordination, and build resilience across the WHO European Region in the face of public health emergencies.

For more information, click here.

> "Simulations such as JADE give us a taste of crisis. They offer the participants a chance to stop their routine activities and take stock of their strengths and weaknesses. They force them to think about the procedures, the mandate, the functions and the tasks required to deal with and act on information that they receive, simulating reality."
>
> **Paula Vasconcelos**
> Support Unit of the National Health Authority in Portugal/Public Health Emergency Operations Centre.

Integrated outbreak analytics (IOA) workshop held in Senegal

Integrated outbreak analytics (IOA) workshop participants. Credit: WHO

Integrated Outbreak Analytics (IOA) emerged as a response to the need for operational solutions during outbreaks, initially taking shape during the 2018 to 2020 Ebola virus disease (EVD) outbreak in Democratic Republic of the Congo. IOA is a collaborative, multi-disciplinary, and multi-actor approach which focuses on developing locally based solutions to public health challenges. IOA integrates various stakeholders and types of data to gain a holistic understanding of outbreak dynamics and inform a comprehensive, coordinated and accountable response. While its implementation may vary by context, the principles of collaboration, multi-disciplinary analysis, local-level response, and evidence-based practice remain constant.

The IOA model was used in various outbreaks in Democratic Republic of the Congo - including for COVID-19, other EVD outbreaks, measles and the plague - and is being implemented in the ongoing mpox outbreak. IOA was also utilised in Guinea (EVD, 2021), Republic of the Congo (COVID-19, 2022), Ghana (Marburg, 2022), Uganda (Sudan Virus Disease, 2022), and more recently in Haiti (standing IOA cell).

IOA brings added value by:

- operating at local level where the outbreak unfolds;
- involving all local health actors, thus ensuring ownership and accountability;
- building local capacity for critical appraisal;
- developing methodologies for the rapid integration of non-traditional contextual information;
- bringing wider perspectives, data (even if incomplete or imperfect), and intelligence from an array of disciplines and sources of information;
- producing rapid and operational evidence to provide holistic situational understanding and to inform response action; and
- systematically creating a forum for public health authorities, communities, and relevant stakeholders to interact and share actionable information.

For more information on IOA, click here.

From 26 to 28 November 2024, an IOA workshop took place in Dakar, Senegal to share country experiences in informing efficient outbreak response mechanism through holistic analytics (such as IOA), and to prepare for the handover in WHO leadership of IOA from WHO headquarters to WHO Regional Office for Africa. Countries with previous experience of IOA shared their experiences with the group, while countries without prior IOA experience shared their existing outbreak response mechanisms and reflected on how they may be able to introduce IOA in their response.

An IOA core team, representing key agencies involved in performing IOA, is in place as a mechanism for developing and disseminating the principles and practice of IOA. During the workshop, members of the current IOA core team – which includes representation from WHO, Epicentre - Médecins sans frontières (MSF), International Federation of the Red Cross (IFRC), UNICEF and the United States of America Centers for Disease Control (US CDC) – presented an IOA toolkit that is currently being piloted and will be published in March 2025.

> "IOA represents a multidisciplinary approach to data collation and analysis, aimed at driving a comprehensive and effective response to outbreaks. In essence, IOA is the practical embodiment of collaborative surveillance during an outbreak, seamlessly aligning with the Integrated Disease Surveillance and Response framework."
>
> **Etien Koua**
> Program Area Manager (Health Emergency Information & Risk Assessment) at WHO Regional Office for Africa

WHO will continue to support the use of IOA during public health emergencies when it is deemed relevant, with an emphasis on collaboration as key to successful responses.

No health without peace, no peace without health: an update from WHO's Global Health and Peace Initiative (GHPI)

CONNECT (Community Network Engagement for Essential Healthcare and COVID-19 Responses through Trust) workshop engaged communities to build trust and empowerment in health care facilities, Lao People's Democratic Republic (February 2023). Credit: WHO/ Enric Catala

The Global Health and Peace Initiative (GHPI) was launched in November 2019 following extensive consultations led by the Sultanate of Oman and Switzerland, in collaboration with WHO's Regional Office for the Eastern Mediterranean. It seeks to strengthen the role of WHO and the health sector as contributors to improving the prospects for peace. The GHPI builds on the experience of PAHO's *Health as a Bridge for Peace* framework from the 1980s to 1990s and complements the long-standing work done by civil society around the world on linking health and peace.

> "The health of all peoples is [also] fundamental to the attainment of peace and security."
>
> **WHO's Constitution**

The relationship between health and peace is bidirectional. As WHO's Constitution states, *"the health of all peoples is [also] fundamental to the attainment of peace and security"*. Health emergencies such as Covid-19 and Ebola have illustrated the potential of health events to trigger tensions and deepen societal divisions, but also an ability to strengthen cohesion and solidarity.

Increasingly, WHO interventions are carried out in such a way that they have tangible, albeit secondary, peace outcomes. These include reducing exclusion and strengthening trust between populations and the authorities through health dialogues, reinforcing social cohesion between and within communities through inclusive and participatory health governance and preventing violence by designing health activities for vulnerable groups at particular risk of violence.

In May 2022, the 75th World Health Assembly (WHA) requested WHO to develop a Roadmap for the GHPI based on consultations with Member States, Observers and other stakeholders – a process that took place between August 2022 and November 2023. The achieved roadmap (now in its fifth version) provides a transparent framework for WHO to operationalize the GHPI.

In May 2024, WHO Member States at WHA77 adopted a Resolution (WHA77.9) on the GHPI, a major milestone for the GHPI and WHO as it gives WHO a clear mandate to gather evidence on the contribution health programmes can make to peace; conduct communication and awareness-raising; build capacities; and develop dialogue and partnerships pursuant to the GHPI.

The adoption of resolution WHA77.9 is an acknowledgement from WHO's Member States of the added value of the Initiative towards achieving WHO's Triple Billion targets. It is also a confirmation that WHO can play a role in contributing to *Sustainable Development Goal (SDG) 16* on peace, justice and strong institutions, as well as to the *Sustaining Peace Agenda*, within the framework of its mandate, as has been expected from all UN organizations since 2016.

In 2025, GHPI will be continuing its recently launched 'Health meets Peace' webinar series and launching a handbook on Health and Peace programming. Partnerships are crucial to the GHPI's work. The secretariat will continue to deepen and nurture existing collaborations and forge new ones, with the aim of expanding its knowledge on best practices, challenges and strategic opportunities in linking health and peace.

For more information, click here or contact the Secretariat within the IPE unit on ipeunit@who.int

Four years of WHO-Techne innovation for safer, healthier, and more sustainable emergency health facilities for all

In an era of increasingly complex health emergencies, the Technical Science for Health Network (WHO-Techne) is a key resource in global health emergency preparedness and response. Established by WHO in early 2020, WHO-Techne unites a global network of accredited architectural and engineering universities, institutions, and associations to strengthen emergency response worldwide.

WHO-Techne was established in response to the urgent demand for strengthening health infrastructure during the COVID-19 pandemic. Driven by innovation, WHO-Techne's mission is to design and implement innovative solutions for health facilities, to ensure safety for healthcare workers, patients, and communities. In the four years from 2020 to 2024, this dynamic network has evolved into a critical logistical and operational asset, transforming health emergency preparedness and response.

WHO-Techne core objectives

1. Innovative health facility design: developing solutions for new treatment centres and redesigning existing facilities to address infectious disease outbreak challenges.
2. Customized technical support: working closely with Member States and health partners to address diverse regional health system needs.
3. Multidisciplinary collaboration: bringing together people with diverse expertise to create technically advanced and culturally appropriate designs.

Strengthening health systems through design and innovation is at the core of WHO-Techne's work. A notable achievement for the group was the development, in collaboration with the Uganda Ministry of Health, of preliminary designs for three infectious disease treatment centres in Uganda, incorporating advanced care, natural ventilation, and sustainable materials, to ensure safe and effective patient-centered environments.

Artistic impression/rendering of the Rwekubo Treatment center demonstrating family and patients' visual contact. Credit: WHO-Techne

Moreover, as the war in Ukraine devastated health facilities, in 2023 WHO-Techne collaborated with the WHO Country Office for Ukraine to launch a knowledge-sharing project to design sustainable, inclusive, and modular primary health care (PHC) facilities which prioritize community resilience and offer a replicable model for rebuilding Ukraine's health infrastructure.

WHO-Techne has also led the design development of the Health Emergency Facility (HEF) and the Infectious Disease Treatment Module (IDTM), key infrastructure solutions showcased during a simulation in November 2024. Using guidelines and a digital planning tool, emergency staff can select and customize pre-designed health facility layouts tailored to outbreaks, prioritizing children and families. The tool generates procurement lists of essential items needed to open and manage a treatment center

In fragile health systems, infectious disease outbreaks significantly increase the vulnerability of children and families. To address this, UNICEF, WHO, MSF, and the Techne network developed a rapidly deployable, family-friendly HEF to screen, isolate, and prevent disease spread. Moreover, the IDTM which was developed under INITIATE allows for the delivery of advanced medical care from the outset of an outbreak by deploying rapid, transportable, self-contained treatment centers that integrate with local health services.

Set up of IDTM and the HEF modular solutions during the Filovirus simulation in Ghana, November 2024. Credit: WFP

WHO-Techne's work goes beyond physical infrastructure, by fostering skills and knowledge globally through capacity building and knowledge sharing. Over 200 000 learners have participated in international webinars and courses on platforms such as OpenWHO. Through summer schools, WHO-Techne has provided hands-on workshops and mentorship opportunities to equip local talent with the skills to sustain improvements in public health systems.

WHO-Techne remains committed to innovation and collaboration, with a focus on expanding its global network; deploying sustainable, adaptable solutions for emerging health threats; and enhancing training programs to build capacity at local and global levels. WHO-Techne welcomes architects, engineers, and built-environment specialists to join this transformative initiative. Together, we can build a world better prepared to respond to health emergencies: saving lives, fostering resilience, and ensuring equity in healthcare delivery.

For more information on joining WHO-Techne or exploring its initiatives, visit WHO-Techne's official page and access the latest activity report.

GOARN Steering Committee meets in Geneva to discuss strengthening partner collaboration on prevention, preparedness, readiness and response to public health emergencies and to welcome the new chair and co-deputy chairs

GOARN Steering Committee convenes to enhance partner collaboration for public health security and welcome new leadership team. Credit: WHO

The Global Outbreak Alert and Response Network's (GOARN's) Steering Committee (SCOM) held its 36th meeting from 3 to 4 December 2024, in Geneva. The discussions focused on the implementation of GOARN's strategy, taking stock of current achievements and paving the way to increase collaboration among partners to achieve GOARN's strategic objectives. SCOM renewed its commitment to provide rapid multi-disciplinary technical support for outbreak response, enhancing capacity building activities, and operational research, among others. GOARN's broader focus remains on strengthening partner collaboration on prevention, preparedness, readiness and response to public health emergencies.

During the meeting, the steering committee elected the next chair and deputy chair: Dr Mohannad Al-Nsour, Eastern Mediterranean Public Health Network (EMPHNET) as Chair, and Dr Daniela Garone, Médecins Sans Frontieres, International and Dr Edmund Newman, UK Public Health Rapid Support Team (UK-PHRST) as co-deputy chairs. Under the new leadership, the Steering Committee and GOARN partners will continue advancing health security, strategic partnerships and communication, and strengthening the emergency public health workforce capacity.

The meeting was an opportunity to review activities of the GOARN 2022-26 strategy implementation plan and to highlight several milestones achieved over the past six months. This includes work in spearheading and finalizing the national outbreak response handbook; the monitoring, evaluation, accountability and learning (MEAL) framework and the communication strategy. GOARN has also established diagnostic surge capacities (DiSC), a strategic group which has seen the transitioning of the Rapid Response Mobile Laboratories (RRML) initiative to a global level with a focus on strengthening laboratory surveillance of infectious diseases and ensuring the availability of essential diagnostics during outbreak responses. Additionally, Go.Data - the information management tool developed by GOARN - has become a trusted and key tool used by partners globally during outbreak response. In 2024, Go.Data was recognized as a PATH Digital Square global good, and as a digital public good by the Digital Public Goods Alliance (DPGA).

Together, these areas of work streamline processes and build on the technical expertise of the network to create standard operating procedures (SOPs), forge frameworks, and establish regulations that support the work of the network and expand capacities globally.

> "GOARNs valuable and strategic partnerships have played an instrumental role in serving vulnerable communities around the world. The Go.Data, the national outbreak response handbook, the monitoring, evaluation, accountability and learning (MEAL) framework, the diagnostic surge capacities (DiSC) are all significant milestones highlighting our joint commitment to address global health challenges. We are grateful for the continued support of our partners and are committed to continue working jointly to addressing global health challenges."
>
> **Dr Michael J. Ryan**
> Executive Director of Health Emergencies Programme and Deputy Director General of WHO

For more information on GOARN, click here.

Developing emergency learning that meets industry standards

Field visit to Rohingya refugee camps in Cox's Bazar, Bangladesh. Credit: WHO/Mehak Sethi

A key online course on WHO's Emergency Response Framework has gained Continuing Professional Development (CPD) accreditation, becoming the seventh emergency management course to be recognized for high-quality learning.

Accreditation of courses is organized through the WHO Health Emergencies Programme's Learning and Capacity Development Unit to give teams assurance that their courses meet recognized industry standards. WHE has also been an approved provider for humanitarian learning since 2022 under the Humanitarian Leadership Academy's 'HPass' programme.

Accreditation is part of the drive to create trusted, formally recognized learning pathways for emergency managers. Everyone working in health emergencies for WHO must also be familiar with the Organization's approach to emergency management. WHO has invested in developing training courses that explain WHO's role in emergencies and equip participants with the competencies needed to work within public health emergency response. CPD accreditation also means that learners can count certified courses as part of their professional training requirements.

Seven core WHO emergency management courses have been accredited by the CPD Certification Service. The newest addition on WHO's Emergency Response Framework (ERF) is publicly available on OpenWHO.org and was the most popular course on the platform in 2024. The ERF outlines how the Organization manages the assessment of, grading of and response to public health events in support of Member States and affected communities.

Four additional OpenWHO courses are CPD certified that focus on the Public Health Emergency Operations Centre framework, Health Cluster Coordination and all-hazards emergency response (Ready4Response Tiers 1 and 2). The final two certified courses make up the Leadership in Emergencies programme, which helps WHO and Ministry of Health staff build non-technical skills to be an effective leader in emergency contexts. The programme consists of 100 hours of blended learning for nominated individuals.

> "We will continue to pursue quality certifications for our learning programmes so we can ensure they are meeting the standards that professionals need. This is a critical foundation for keeping communities safe in health emergencies."
>
> **Heini Utunen**
> Unit Head, Learning and Capacity Development, WHO Health Emergencies Programme

Table 1. Enrolments in CPD-certified online courses on OpenWHO.org

Accredited open-access course	Total enrolments
Health Cluster Coordination	34 559
Introduction to the Emergency Response Framework	26 099
Ready4Response Tier 1: Response context and principle	11 924
Ready4Response Tier 2: Systems, structures and skills	7014
The Public Health Emergency Operations Centre	34 352

Table 2. Individuals trained in CPD-certified leadership courses for nominated participants

Accredited specialized course	Total trained
Leadership in Emergencies Phase 1	669
Leadership in Emergencies Phase 2	321

WHO's Health Emergency Appeal 2024
In 2024, 300 million people are facing humanitarian crisis with severe health impacts. In 2024, WHO is appealing for US$1.5 billion to fund cost-effective, high impact solutions that protect health, lives and livelihoods during a time of significant intersecting humanitarian emergencies. For more information, click here.

GOARN
For updated GOARN network activities, click here.

Emergency Medical Teams (EMT)
For updated EMT Network activities, click here.

OpenWHO
For all OpenWHO courses, click here.

Health Cluster
For information on health cluster activities, click here.

EPI-WIN
For updates on EPI-WIN: WHO Information Network for Epidemics, click here.

WHO Publications and Technical Guidance
For updated WHO publications and technical guidance, click here.

Health Security Learning platform
To learn about or get involved in strengthening health security, click here.

For more information WHO's regional response:

African Regional Office
Eastern Mediterranean Regional Office
European Regional Office
Regional Office of the Americas
South-East Asia Regional Office
Western Pacific Regional Office

News and Highlights

- Disease Outbreak News: Oropouche virus disease - Region of the Americas (5 December 2024)
- WHO looks back at 2024: A year of health highlights, breakthroughs and challenges
- Disease Outbreak News: Acute respiratory infections complicated by malaria (previously undiagnosed disease) - Democratic Republic of the Congo (27 December 2024)
- Special edition: COVID-19 epidemiological update (24 December 2024)
- Multi-country outbreak of mpox, External situation report (23 December 2024)
- Disease Outbreak News: Marburg virus disease outbreak declared over- Rwanda (20 December 2024)
- Multi-country outbreak of cholera, External situation report (18 December 2024)
- Sudan conflict – Situation in refugee-hosting countries, Multi-country External Situation Report (covering the reporting period November 2024)
- WHO urgent flash appeal for the health emergency response in Syria: US$ 56.4 million for critical needs on multiple fronts
- Updated joint FAO/WHO/WOAH public health assessment of recent influenza A(H5) virus events in animals and people
- Kamal Adwan Hospital in North Gaza out of service following a raid and repeated attacks since October
- Yemen reports the highest burden of cholera globally
- Kyrgyzstan receives aid from WHO to detect the mpox virus
- The arrival of Mpox in Angola - a call for preparation and compassion
- UN backs cholera vaccination in South Sudan
- PAHO highlights increase in dengue, Oropouche, and avian influenza cases in the Americas, and advises control measures
- Equatorial Guinea inaugurates its first public oxygen plant
- Strengthening epidemic preparedness and response: building resilience after Ghana's 2023 floods
- Trusted messengers, community anchors and agents of change: engaging health and care workers in times of crisis
- WHO donates life-saving cholera logistics to Ghana
- Poliovirus detections in European Region underscore importance of vaccination and vigilance
- PAHO calls on countries of the Americas to maintain mpox surveillance and genomic sequencing
- Strengthening surveillance and response capabilities in Yemen
- Living through the scars of war: the struggle of Sudan's displaced families
- Caribbean public health professionals strengthening health emergencies response
- Reinforcing expertise in safe and dignified burials during outbreaks in Senegal
- Togo: strengthening the fight against epidemics thanks to the Pandemic Fund (In French)
- Inauguration of two oxygen production plants in N'Djamena, Chad
- Mpox preparedness and readiness in Malawi
- Simulation exercise helps Western Pacific countries prepare for future outbreaks
- Enhancing leadership in laboratories across Asia and the Pacific

Science in 5 is WHO's longest running video and audio series. Originally created in late 2020 to explain the science related to COVID-19, it has since expanded to cover a much broader range of topics related to health.

Flu season is here: are you ready? (12 December 2024)

How do we track the Influenza virus every season to decide what strains of the virus to include in a vaccine? Is the vaccine safe and when should you get vaccinated? Shoshanna Goldin explains in Science in 5.

Syphilis: Protect yourself and others (5 December 2024)

Why are syphilis cases rising? Who is at risk and how does it spread? Learn about prevention of syphilis from Dr Teodora Elvira Wi in Science in 5.