

WHO's Operational Update on Health Emergencies

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On 6 August 2023, a woman from the local Maasai community gets a mark on her finger to indicate that she's received the oral cholera vaccine (OCV) in Ilkilynieti, Kajiado, Kenya. 24 to 30 April 2024 marks world immunization week. Credit: WHO/Billy Miaron.

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



WHO is currently responding to 43 graded emergencies across the world, including:

8 grade 3 emergencies

7 protracted grade 3 emergencies

13 grade 2 emergencies

11 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 major/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.



In 2024, US\$ 21.5 million were released by [WHO's Contingency Fund for Emergencies \(CFE\)](#) to fourteen health emergencies. The largest allocations were for the Dengue Global Outbreak, Israel and the occupied Palestinian territory hostilities and the Northern Ethiopia Humanitarian Response.



The Global Outbreak Alert and Response Network (GOARN) has supported 25 deployments in 2024 (of which five started in 2023 and ended in 2024). In March 2024, the highest number of GOARN deployments were in response to the escalation of violence in Israel and the occupied Palestinian territory (seven), the Greater Horn of Africa drought and food insecurity (three), and the cholera outbreak in Zambia (three).



OpenWHO.org totaled 8.6 million enrolments across 270 online public health courses, with learning available in 72 national and local languages. To date, there have been 255 000 enrolments in 2024.



In 2024, [Standby Partners](#) have supported WHO's response to 13 graded emergencies through the deployment of 43 surge personnel for a total of 213 months to 19 WHO offices. WHO is an active member of the [Standby Partner Network](#) and the [International Humanitarian Partnership](#).

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

Reducing risks and mitigating impacts of health emergencies: a closer look at the first outcome of WHO's GPW 14 'protect pillar'

WHO's [Fourteenth General Programme of Work](#) (GPW 14), which is currently under development, will set a high-level roadmap for global health and guide the Organization's work from 2025 to 2028, further to adoption by the seventy-seventh World Health Assembly in May 2024. The GPW 14 is being co-created with Member States and partners through widespread consultation and stakeholder input, with an agreed overarching goal for global health of 'promoting, providing and protecting health and wellbeing for all'. These three pillars are supported by WHO's enabling functions to power and perform for health.

As details of the GPW 14 are agreed and finalized, WHO's Operational Update on Health Emergencies (WOU) features a series of articles spotlighting one of the three pillars: **to protect people from emergencies**. The first article in the series [introduced the protect pillar](#) and provided context for its relevance and significance in today's world. This second article in the series focuses on WHO's strategy to attain the first of four outcomes of the protect pillar: "risks of health emergencies from all hazards are reduced and impacts mitigated".



Severe Acute Respiratory Infection (SARI) Isolation and Treatment Centres (ITCs) for COVID-19, Cox's Bazar, Bangladesh. Credit: WHO / Blink Media - Fabeha Monir

In today's rapidly changing world, intersecting threats to human health are growing across the globe. Conflicts, infectious disease outbreaks and other humanitarian emergencies often driven by climate change - such as heatwaves, wildfires, floods, tropical storms and hurricanes - are increasing. Before such health crises arise, WHO acts like a shield for communities and the global community, much like the human immune system protects individuals. WHO's Health Emergencies Programme works relentlessly to prevent small risks from becoming bigger, using its unique expertise to rapidly identify and minimize threats, to prevent health systems from weakening or collapsing in the event of a crisis. Reducing risks and mitigating the impacts of all hazards is an essential component of WHO's work to enhance global health security and necessitates sustained investments to strengthen national health systems through capacity building, effective partnerships and technical support.

Hazards differ by country and regions and need to be understood to develop appropriate prevention and mitigation strategies. Even within regions, countries' health threats can vary considerably. In WHO's Western Pacific Region, for example, Mongolia faces risks associated with extreme winter freezes while Papua New Guinea is home to active and dangerous volcanoes. WHO adopts an all-hazards approach to health emergency prevention and mitigation, since health threats in any given country are usually complex, multi-faceted and in some cases rapidly changing as a result of climate change. In partnership with Member States, WHO helps to identify threats and vulnerabilities - utilizing existing tools such as the Strategic Toolkit for Assessing Risks (STAR) - and supports interventions to avert and mitigate their risks. This assistance will remain important in the years to come, as hazards and vulnerabilities evolve globally.

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AMR testing at a laboratory in Dushanbe, Tajikistan. Credit: WHO/Mukhsin Abidjanov

Health emergencies begin and end in communities, and WHO is committed to effective risk communication and community engagement before crises strike. Many lessons were learnt from COVID-19, including a greater understanding that misinformation can undermine preventive health interventions. This has propelled WHO's strategies for infodemics management and the provision of reliable and accessible health information for all, not only during but also prior to health emergencies. One regional example is the Africa Infodemic Response Alliance (AIRA) which is hosted by the WHO Africa Regional Office. AIRA is a network that brings together fact-checking and media organizations, big data, AI and innovation bodies and leading inter-governmental and non-governmental organizations with an aim to share safe, proven facts on health and to counter dangerous health misinformation on a continuous basis. Understanding why people make certain choices about their health is also essential when devising health communication interventions: being responsive to behavioural insights helps to build communities' trust in health risk mitigation activities and motivate them to practise the recommended public health and social measures such as getting vaccinated or hand washing. Looking ahead, WHO will continuously work with communities before health emergencies, to promote informed decision-making to protect health when crises arise.

Prioritising the safety of health workers, patients and community members during a health emergency is also critical, to mitigate the impacts of such events. This requires health facilities and communities to be equipped with the knowledge and means to uphold infection prevention and control (IPC) and water, sanitation and hygiene (WASH) standards, to contain the spread of diseases in the event outbreaks. The design of a novel, rapidly deployable infectious disease treatment centre, which WHO is supporting through a multi-agency partnership (INITIATE²), exemplifies the benefits of advancing innovations before an emergency occurs. Once operationalised, it will

enable infectious disease centres to be established within 24 hours rather than weeks, which will save lives in the future. In GPW 14, WHO will support countries, partners and communities by providing evidence-based guidelines and tools, building capacity and implementing innovative solutions to minimize the impact of infectious disease outbreaks which can rapidly overwhelm health systems.

Integrating human, animal, and environmental health strategies is essential to addressing the root causes of many hazards, and WHO is committed to the One health approach to tackle complex challenges such as antimicrobial resistance (AMR). WHO's efforts to address the threat of AMR - which is driven by the misuse and overuse of antimicrobials in humans, animals and plants - enshrines a collaborative, multisectoral, and transdisciplinary approach. This extends to fragile and conflict affected countries, such as Yemen, where WHO is supporting the implementation of a National Action Plan to combat AMR with emphasis on a One Health approach. In this example, the depleted veterinary services, damaged WASH infrastructure, and severely strained health system make this support all the more necessary and all the more challenging to implement. The capacities that are being strengthened for AMR are the same essential functions that are key to reducing risks of health emergencies more broadly and, moving forward, WHO will continue to apply a One Health approach in all settings, to minimize threats to human health.

To conclude, WHO's strategies and approaches to mitigate the impacts of health risks are robust but require continuous investment. Global health security is never permanently attained, however by proactively identifying and averting emerging risks WHO aims to reduce the frequency and severity of future emergencies. Considerable gains can be lost if these efforts are not sustained, and in GPW 14 WHO must and will adapt to evolving health threats and support countries and communities to protect the health of people everywhere.

The Pan American Health Organization (PAHO) protects the lives and health of Brazil's Amazon populations as severe climate-driven health emergency strikes



Severely reduced river water levels in the municipality of Atalaia do Norte. This river covers a large part of the Vale do Javari Indigenous Land, the largest reserve of isolated Indigenous people in the world. Credit: PAHO/WHO/Paula Raia

The Amazon Rainforest, the world's largest, covers around 60% of Brazil's land and harbours unmatched biodiversity. Since 2023, Brazil's Amazon Region has faced its most severe drought in 43 years, directly affecting over 2 million people. Many now lack access to safe water and food, posing grave risks to life. In late 2023, 79 municipalities in Amazonas and Acre states declared a state of emergency, underscoring the urgent need for assistance to mitigate the impact on public health and community well-being. With just 14% and 21% of expected rainfall in January and February 2024, the climate-induced crisis continues, with Roraima now the most severely impacted state.

Rivers, streams and lakes are essential for survival in the Amazon Region as communities, particularly indigenous populations, rely on their water for drinking, cooking, washing and for transport. The effects of the drought profoundly hinder transportation and movement of people and essential goods. Rivers are also essential to health system access for the population. The drought emergency has been further compounded by wide-spread devastating forest fires. In February 2024 alone, there were 2057 fires recorded in the state of Roraima, which corresponds to 45% of all fire outbreaks in Brazil recorded in this current emergency.

Development indicators in the Brazilian Amazon are the most fragile in the country, marked by poor access to primary and specialized healthcare, public health interventions, and safe water and sanitation. The ongoing climate-drive disaster exacerbates these challenges, further straining communities already lacking basic services and adequate healthcare. The combined effects of fires and drought heighten the risks of increased illness and death, stemming from untreated existing conditions and the emergence of new health issues. These include respiratory illnesses from poor air quality, infectious diseases due to limited access to clean water and immunization,

and malnutrition caused by damaged crops and disrupted access to consumer goods.

PAHO, as the sole UN agency integrated within Brazil's National Emergency Operations Center (EOC), has played a pivotal role in aiding national and sub-national authorities' responses. Since the outset of the crisis, PAHO has collaborated with partners, deploying expert technical teams to address critical needs. The organization has provided logistical and technical assistance in environmental health, disease surveillance, response planning, and emergency coordination and information management.

A PAHO health emergency consultant deployed to Amazonas recounted the challenges faced by municipalities in providing assistance to affected local communities, such as limited transportation options for health teams to access remote areas, difficulties in transferring critical patients by air transport, and shortages of drinking water, medicines, and food.

“As the emergency progressed, it became evident that nearly the entire state was severely affected, making it difficult to prioritize limited response resources.”

Paula Maria Raia Eliazar

Health emergency consultant, PAHO

In response, PAHO distributed essential supplies such as drinking water, food baskets, sodium hypochlorite, and medicines to address the most urgent needs of vulnerable communities.

More than six months after the onset of the crisis, PAHO continues to assist affected states to assess unmet health needs of local populations and support targeted response operations in areas most affected by this crisis.

As Yemen conflict enters its 10th year, WHO works tirelessly to protect the health of children from infectious diseases and malnutrition



A nurse gives baby Maria a plumpy nut supplement at the WHO-supported Bajil Therapeutic Feeding Centre in Al-Hudaydah Governorate, Yemen. Credit: WHO/Gabreez

Yemen, classified by WHO as a grade three emergency, is experiencing a complex and sustained crisis. On 25 March 2024, the conflict in Yemen entered its 10th year, with over half of the country's population in desperate need of aid and an estimated 17.8 million people requiring health assistance, 50% of them children.

Children are particularly vulnerable to diseases such as polio, measles, pertussis and diphtheria. Almost a decade of conflict in Yemen has led to devastating outbreaks of vaccine-preventable diseases due to limited public health infrastructure and services, insufficient water availability, and growing levels of vaccine denial and hesitancy. A quarter of Yemeni children have not received all of the recommended vaccinations on the national routine immunization schedule. In the context of such persistent risks, 333 rapid response teams remain alert across Yemen to ensure timely response to disease outbreaks. In 2023 and 2024 these teams carried out more than 69 000 and 14 000 field visits respectively, in locations vulnerable to ongoing disease outbreaks such as cholera.

Having been free of wild poliovirus since 2006, from 2021 to 2023 Yemen reported 237 cases of variant poliovirus type 2 which is known to emerge in contexts of chronic under-immunization. In response, WHO supported the implementation of four vaccination campaigns in 2022 and 2023. Rising levels of vaccine hesitancy were observed, however, resulting in missed children. In February 2024, the Ministry of Public Health and Population, WHO, UNICEF and other partners successfully implemented another polio vaccination campaign, reaching more than 1.29 million children aged under five years in 12 governorates.

Children in Yemen are also suffering from alarmingly high malnutrition rates. Nearly half of all children under five, close to 2.4 million children, suffer from moderate to severe stunting. Despite great strains on resources, WHO is currently supporting 96 therapeutic feeding centres (with a bed capacity to serve about 30 000 children per year) and providing nutrition

screening services in more than 270 districts. These centres are achieving impressive results, with 96% cure rates – well above the international standard.

Yemen is among the world's most vulnerable countries to climate change which both compounds and drives humanitarian needs in the country. Last year, climate-related factors, particularly heavy rains and flash flooding, emerged as the primary cause of new displacement in Yemen. Approximately 4.5 million individuals remain internally displaced, with women and children accounting for approximately 80% of this affected population. The situation remains dire, yet in the last five years WHO's funding for the country has declined by over 60%.

“After 9 years of conflict, deteriorating health outcomes and destroyed infrastructure, emergency health and humanitarian needs control the lives of millions of Yemenis and limit their ability to achieve inclusive sustainable development. This is compounded by a significant decline in international support, leaving communities vulnerable to worsening conditions. Every day under such conditions affects the future of millions for many years to come.”

Dr Arturo Pesigan

WHO Representative and Head of Mission in Yemen.

In 2024, WHO [needs US\\$ 77 million](#) to continue to provide life-saving health assistance to vulnerable people in this country that continues to be ravaged by the intersecting threats of conflict, disease, hunger and climate change.

For more information, click [here](#), and for WHO's 2024 Health Emergency Appeal for Yemen click [here](#).

One year since the start of war in Sudan, the scale of the catastrophe far outstrips the international attention it deserves

One year since war broke out in Sudan, [25 million people](#) are in need of humanitarian assistance, which is half of the country's population. With 8.6 million people displaced within Sudan and in its neighbouring countries of Central African Republic, Chad, Egypt, Ethiopia and South Sudan, this is now the largest displacement and humanitarian crisis in the world. As many as 18 million people face acute food insecurity, 5 million are on the brink of famine, and one in seven Sudanese children under the age of five are acutely malnourished. Women and girls are particularly vulnerable to the effects of the war, with high rates of gender-based violence being reported, including rape. These figures are a stark reminder of the devastating humanitarian crisis which has continued unabated since the conflict started on 15 April 2023.



WHO shipment of medical supplies arrives at the Egyptian border crossings with Sudan (May 2023). Credit: WHO

While the health need of the people of Sudan are growing, its health system is under attack and collapsing. WHO has verified [62 attacks on health care](#), however this is known to be under reported. Less than [a third of the country's health facilities are now functioning](#), and these are overwhelmed by the influx of people seeking care, and constrained by severe shortages in essential medical supplies. Care for pregnant women and newborn babies is hampered, vaccination of children is disrupted, and patients living with diabetes, hypertension, cancer, or kidney failure face risks of severe complications or death. Conditions are rife for the spread of infectious diseases including cholera, dengue, malaria and measles.

Despite challenging conditions, since the start of the crisis WHO has been on the ground delivering life-saving health assistance in Sudan and surrounding countries. To meet the growing demand for health services, WHO and the state ministries of health [launched mobile clinics](#) which, since August 2023, have provided essential primary health care. With medical supplies in short supply, WHO is also working intensively to distribute medicines, medical supplies and equipment including trauma kits, blood bags, medicines for chronic diseases and

infectious diseases, diagnostic kits, cold-chain equipment and incinerators. WHO's partnerships enable cross border activities, which is vital to ensuring that supplies reach those who most need them.

Faced with devastatingly high levels of malnutrition among Sudanese children, WHO is now supporting [121 state-run stabilization centres](#) where inpatients suffering from severe acute malnutrition (SAM) with medical complications are treated. Support includes technical training and continuous supportive supervision for stabilization centre staff, provision of medical supplies and SAM kits for treatment, and training volunteer health and nutrition cadres in nutrition assessment to identify and treat malnourished children who are displaced and living with relatives in host communities or in camps for displaced people.

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Cholera outbreak treatment centre in Port Sudan, March 2024. Credit: WHO/Inas Hamam

“Stabilization centres are a lifeline to more than 100 000 children who are severely acutely malnourished and suffer from medical complications. Keeping these centres open and running is a high priority for WHO. Our dedicated staff are on the ground, in the communities and in the stabilization centres, to support these centres.”

Dr Mohammad Daoud Altaf

WHO Sudan Health Emergency Lead

To address infectious disease risks, WHO is supporting state health authorities in disease surveillance and outbreak response through capacity building of health care workers, the deployment of Rapid Response Teams and strengthening the Public Health Laboratory in Port Sudan. Where access permits, WHO has supported cholera and measles vaccination campaigns.

These are among WHO’s actions to meet the health needs of the people of Sudan, yet much more is needed. In its [2024 Health Emergency Appeal for Sudan](#) WHO is targeting to reach 14.7 million people for health assistance, an aim which is severely impeded by security, access and resource constraints. WHO’s total Sudan funding requirements of US\$ 53.8 million for 2024 still face a 72% gap.

Speaking at the International Humanitarian Conference for Sudan and the neighbouring countries - which took place on 15

April 2024 in Paris, France - WHO’s Director-General Dr Tedros Adhanom Ghebreyesus [raised three priorities](#) to facilitate this humanitarian response. Firstly, unimpeded humanitarian access to populations in need across borders and humanitarian corridors. Secondly, respecting international humanitarian law and human rights law and stopping attacks on health. And thirdly, increasing financial support.

These would enable WHO to scale its critical operations in Sudan, Chad, and South Sudan, to provide lifesaving care and outbreak prevention and control, especially in the hard to reach areas which often are not under government control and where the needs are greatest.

“Without a stop to the fighting and unhindered access for the delivery of humanitarian aid, Sudan’s crisis will dramatically worsen in the months to come and could impact the whole region. The international community has not done enough to help the people of Sudan. We must urgently do more.”

Dr Tedros Adhanom Ghebreyesus

WHO Director-General

Now is the time to act to protect the lives and health of the people of Sudan. Delayed action will see more lives lost, more families broken and more communities irreparably altered.

For more information, click [here](#), and [here](#).

WHO Regional Office for Europe conducts operational reviews to address noncommunicable diseases in humanitarian emergencies



Field primary health care services provided to earthquake-affected population in Türkiye. Credit: WHO

Noncommunicable diseases (NCDs), such as cardiovascular disease, cancer, chronic respiratory disease and diabetes, are responsible for 75% of deaths worldwide. People affected by humanitarian emergencies are at increased risk of NCDs: it is estimated that stroke and heart attacks are up to three times more likely following a disaster. People living with NCDs in humanitarian crises are also more likely to see their condition worsen due to trauma, stress, or the inability to access medicines or services. However, care and treatment for NCDs are often neglected in humanitarian emergency preparedness, response and recovery efforts.

Against this backdrop, in January and February 2024 WHO's Regional Office for Europe collaborated with the relevant Ministries of Health to conduct operational review missions to analyse the response to NCDs in three emergencies: the 2023 earthquakes in Türkiye, the war in Ukraine, and the refugee response in Republic of Moldova. Funded through the generous support of Norwegian Agency for Development Cooperation (NORAD), the three reviews aimed to identify good practices, document lessons learned, and make recommendations on how to address challenges in response efforts while contributing to systems strengthening and resilience for future emergencies.

Specifically, the operational reviews examined the impact of these different emergencies on both the health needs of the population and the impact on health systems including services for NCDs in Republic of Moldova, Türkiye and Ukraine. They assessed the strategies applied to address challenges during the respective emergency responses, identified key success factors in implementing these strategies, reviewed progress made in addressing NCDs following the emergencies, and suggested next steps to take these learnings forward.

An example from Ukraine: mobile primary health care units

Attacks on healthcare and immense internal displacement in conflict-affected Ukraine has led to a shortage of healthcare professionals and severe disruptions to continuity of health care including for NCDs.

In Ukraine, WHO has supported the Ministry of Health (MoH) to address the disrupted access to NCD services. One key strategy was utilizing mobile primary health care units to reach conflict-affected or remote areas. Together with the MoH and through the NGO Academy of Family Medicine of Ukraine, WHO developed and implemented this project to deliver health outreach services via mobile primary health care units, including essential services for NCDs. The project was piloted in Kyiv region from May to August 2022, and scaled up to six additional regions from September to November 2022.

The operational review revealed a much higher demand for services at these mobile primary care units than anticipated, indicating a significant unmet need for NCD primary care in remote regions of Ukraine. Additionally, it identified improvements in the detection and diagnosis of common NCD risk factors and high levels of patient satisfaction with services. Overall the strategy was deemed beneficial in helping to address the challenge of disruptions to NCD care in Ukraine.

The evidence gathered through the operational reviews also informed discussions during the Global [high-level technical meeting](#), co-organized by the WHO and the UN Refugee Agency (UNHCR), which took place from 27 to 29 February 2024. This meeting raised awareness of the critical need to consider NCDs as part of emergency preparedness and response, and to advance dialogues on how best to support Member States in delivering NCD prevention and control services in humanitarian efforts. Outputs will feed into recommendations made in the 2024 progress report to the UN Secretary-General, and will inform the Fourth UN High-level meeting on NCDs in 2025.

The Patient Liner: a revolutionary design to safely and respectfully hospitalize patients affected by infectious diseases

The [Technical Science for Health Network \(WHO-Téchne\)](#) is a WHO network of architects, engineers, designers and public health practitioners from several institutions globally, that aims to make health settings and structures safer and reduce the risk of hospital-acquired infections. Since it was established in 2020, Téchne has become a key logistical response network helping with preparedness and response to global health emergencies.

In recent years, the design of infectious disease treatment centers for health emergency response has undergone a remarkable transformation. Fueled by a series of innovations, many of which emerged during recent Ebola outbreaks, these centers have evolved from mere isolation units into comprehensive treatment facilities crafted around the needs of patients, staff, and the surrounding community. The advent of the SARS-CoV-2 pandemic and its heightened airborne transmission risk further spurred the rapid deployment of cutting-edge engineering solutions for infectious disease treatment center design, enhancing quality of medical care, infection prevention and control (IPC), patient comfort, and community acceptance.

One such groundbreaking innovation is the Patient Liner, spearheaded by a technical partnership between global health entities including WHO, UNICEF, and MSF. Developed under the umbrella of the Health Emergency Facility (HEF) initiative and with the technical support of [WHO-Téchne](#), the Patient Liner represents a paradigm shift in infection control strategies by allowing for the division of [High-Performance Tents](#) into individual rooms. In so doing, the Patient Liner not only elevates the level of care but also reinforces stringent infection control measures.

The Patient Liner incorporates transparent windows which fosters vital visual contact between patients and healthcare

providers, promoting connectivity while facilitating patient monitoring and delivery of care. Moreover, this feature enables safe connection between family members that are isolated from each other during treatment.

The Patient Liner was showcased in 2023 at the MSF headquarters in Paris and tested in February 2024 at the MSF supply and logistics centre in Bordeaux, in the presence of WHO, UNICEF and MSF experts who provided their feedback. A final simulation exercise will take place within 2024, to re-test and validate the Patient Liner before its market launch.

The broader impact of such innovations extends beyond the immediate confines of treatment centers. As infectious disease treatment facilities evolve into hubs for comprehensive care, they engender greater community acceptance and support. This not only enhances patient outcomes but also fosters resilience in the face of future health emergencies.

In conclusion, the transformation of infectious disease treatment centers represents a pivotal moment in healthcare innovation. As the global community continues to grapple with emerging infectious threats, the evolution of treatment center design stands as a testament to human ingenuity and adaptability. Through collaboration, innovation, and a steadfast commitment to patient-centric care, WHO-Téchne will continue to support such initiatives to pave the way for a healthier, more resilient future.



Patient Liner: view from staff area. Credit: WHO/Michele Di Marco



Patient Liner: view from patient area. Credit: Heta Kosonen

WHO and its partners strengthen the capacity of the Rapid Response Mobile Laboratory Network through a comprehensive simulation exercise

Rapid Response Mobile Laboratories (RRLMs) play a crucial role in rapidly responding to and monitoring emergency events and outbreaks within and beyond the WHO European Region. RRMLs allow for onsite laboratory service, testing and analysis during public health emergencies, and increased speed and capacity for responding to remote or complex emergencies. Through the implementation of a classification structure and standards for RRMLs, they are supported to function optimally, be interoperable in the field, and form part of a larger international response team.

An Interregional Full-Scale Simulation Exercise (IFX.02) for Rapid Response Mobile Laboratories (RRMLs) was held in Georgia from 15 to 17 February 2024, led by the World Health Emergencies Programme (WHE) at the WHO Regional Office for Europe, and co-organized with the WHO Collaborating Centre for the Global Outbreak Alert and Response Network (GOARN) at the Robert Koch Institute (Germany), and IFRC. Hosted by the Ministry of Labor, Health, and Social Defense of Georgia, National Centre for Disease Control and Prevention, and Public Health Centre, the event marked the successful completion of the first-ever series of simulation exercises for RRMLs.

The IFX.02 in Georgia built on the experience gained from the previous two stages – a full scale interregional simulation exercise held in Türkiye (19 to 23 June, 2023) and a tabletop exercise in Germany (3 to 4 May, 2023). United by one extensive and increasingly complex scenario, a series of exercises enabled the assessment of the comprehensiveness, applicability, and feasibility of the RRML Minimum Operational Standards (MOS), while also examining on-site coordination procedures to enhance deployment mechanisms.

With the participation and contribution of laboratory specialists from over 35 countries working across the globe, this exercise offered a distinct chance for the RRML community to practice coordination under Emergency Operation Centers (EOCs). It fostered mutual learning and tested interoperability with Emergency Medical Teams (EMTs) as well as Rapid Response Teams run by the International Federation of Red Cross and Red Crescent Societies (IFRC) and National Red Cross and Red Crescent Societies.

A team of validators and observers documented the RRMLs' work during the exercise, and feedback will inform revisions and improvements to the MOS developed by the RRML community of practice. This will ensure that people in emergencies receive quality diagnostics services, and the RRML professionals can coordinate more effectively in future crises.

“This simulation exercises series embodies the spirit of collaboration, learning, and preparedness that defines our global health efforts.”

Oleg Storozhenko

Partnerships Officer, WHO Health Emergencies Programme at the Regional Office for Europe



International experts from the Mobile Suitcase Laboratory team perform sample testing during the IFX.02. Credit: WHO/Koka Daraselia

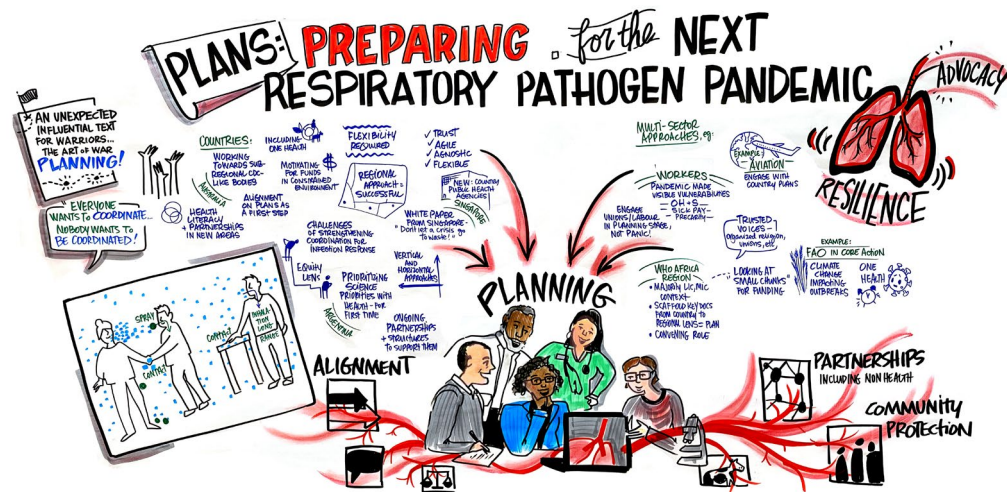
“The RRML initiative provides a crucial opportunity to assist countries in emergency preparedness, readiness and response. It delivers quality-assured, interoperable, coordinated, and standardized capacity, essential for saving lives during crises. Simultaneously, it offers a unique opportunity to enhance national and subnational diagnostics capabilities, ensuring communities are ready and resilient for emergencies in their daily lives. This builds the necessary capacities to mobilize RRML swiftly and respond effectively when needed.”

Nedret Emiroglu

Director, Country Readiness Strengthening for Health Emergencies, WHO Health Emergencies Programme

Moving forward, WHO and partners will work towards the seamless integration of RRML capacities into the Global Health Emergency Corps, fostering harmonious alignment with established deployment and coordination mechanisms during health emergencies, including GOARN, EMTs, European Civil Protection Mechanism and others.

Are you “PRET”? Anglophone countries in East Africa prepare for the next respiratory pathogen pandemic



Graphic design from the PRET Call to Action and Launch.

From 19 March to 22 March 2024, five East African countries participated in a multi-country multidisciplinary workshop in Kampala, Uganda, on “Pandemic Preparedness Planning for Respiratory Pathogen Using [Preparedness and Resilience for Emerging Threats \(PRET\)](#) Guidance”. Convened by the WHO Regional Office for Africa with support from the [Pandemic Influenza Preparedness Framework Partnership Contribution](#) and WHO Country Office Uganda, the workshop aimed to guide countries in developing their draft national respiratory pandemic plans. With the attendance of representatives of the ministries of health, national public health institutes and veterinary services from Kenya, Rwanda, Uganda, United Republic of Tanzania, and Zambia, this was the fourth multi-country, multidisciplinary PRET workshop in the WHO African Region, which has now introduced the PRET approach to 21 of 47 countries.

The PRET initiative is an innovative and efficient approach to improving pandemic preparedness. PRET acknowledges that the same systems, capacities, knowledge and tools can be leveraged and applied for groups of pathogens based on their mode of transmission. Workshop participants recognized the importance of applying the PRET approach which emphasizes whole-of-government and whole-of-society inclusion in pandemic preparedness and response in the African Region.

“Using the PRET guidance, we can anticipate and mitigate the impact of future respiratory pathogens pandemics, fostering resilience across our region. The PRET initiative facilitates shared expertise and resources to improve respiratory pathogen pandemic preparedness using a multisectoral approach. Together, we are stronger.”

Dr Hugues Valois Mucunguzi

Ag. Director of Avian Flu and Highly Pathogenic Diseases Unit, Rwanda Biomedical Centre

Participants particularly appreciated that PRET complements existing preparedness processes and that the investments made under existing initiatives and plans such as the International Health Regulations ([IHR 2005](#)) capacities, [Health Emergency Prevention, Preparedness Response and Resilience](#) framework, [Promoting Resilience of Systems for Emergencies](#) flagship project and National Actions Plans for Health Security ([NAPHS](#)), could be capitalized on for respiratory pandemic preparedness.

“Using the Joint External Evaluation (JEE), IHR States Parties Self-Assessment Annual Reporting Tool (SPAR) and other documents to develop the pandemic preparedness plan will definitely complement the NAPHS and move us a step further in preparedness. The meeting has been a mosaic of information, which when put together makes a beautiful masterpiece.”

Dr Paul Msanzya Zulu

Assistant Director – Emergency Preparedness and Response, Zambia National Public Health Institute

The four-day workshop provided a platform for participants to share valuable insights and expertise on pandemic preparedness planning. Outcomes from each country at the end of the workshop were (i) a draft of a national respiratory pandemic plan from each country, using the PRET guidance, and (ii) a clear roadmap with timelines, responsibilities and milestones for finalization and endorsement of the plan.

Pandemic planning is gaining momentum and WHO will continue to support countries in finalizing and implementing their respiratory pathogen pandemic plans to strengthen pandemic preparedness and health security in the African Region.

For more information click [here](#) for a video

WHO Member States strengthen risk communication through behavioural insights

The Asia Pacific Health Security Action Framework prioritizes actions to ensure that countries' emergency response communication activities are community-centred and informed by data and behavioural insights. To help Member States implement the Framework, the WHO Western Pacific Region is taking concrete steps to build Member States' skills and capacity in priority areas including risk communication and community engagement.



Documenting community outreach in Lao People's Democratic Republic. Credit: WHO/W. Seal

WHO's [Communication for Health \(C4H\)](#) approach advocates the use of behavioural insights – understanding why people make certain choices about their health – to inform health communication activities, including during health emergencies.

Capitalizing on the momentum and capacity built during the COVID-19 pandemic for risk communication, WHO hosted a workshop on “Using Social and Behavioural Insights to Support Risk Communication in the context of Emergencies in the Western Pacific Region”. The workshop, which took place from 10 to 12 April 2024, brought together Ministry of Health representatives from seven countries in the Region: Cambodia, the Lao People's Democratic Republic, Malaysia, Mongolia, Papua New Guinea, the Philippines and Viet Nam. Member State participants developed a list of priority actions to promote the use of social and behavioural sciences for future emergencies.

“Communication that is effective, reliable and based on solid evidence is key during a health emergency and it can save lives. Understanding why people behave the way they do, and using these insights to design communication activities should be at the heart of any emergency response.”

Dr Babatunde Olowokure

WHO's Regional Emergency Director for the Western Pacific Region

The COVID-19 pandemic crystallized the importance of using behaviourally informed communication to inform the public about infection risks and motivate them to practise the recommended public health and social measures. From 2021

to 2023, a series of studies was conducted in the Western Pacific Region to better understand people's perceptions and behaviours and this knowledge was used to address the drivers of transmission through the design and implementation of effective communication campaigns. Insights from this research helped both WHO and governments in the Region to build an evidence-based approach to communicating risk during emergencies.

Examples of addressing audience-specific barriers to increase COVID-19 vaccine uptake

In the Lao People's Democratic Republic, older adults identified accessibility as the primary barrier to COVID-19 vaccination. One survey participant said: “I did not get vaccinated because I could not go by myself, and my children could not bring me because they were working.” In subsequent campaigns, the Ministry of Health focused on making vaccines more accessible to vulnerable groups, and used targeted communication to spread the word to those groups. Subsequently, vaccination rates nearly quadrupled.

In Cambodia, surveys showed vaccine hesitancy was prevalent among pregnant women. Using this insight, the Ministry of Health disseminated risk communications material specifically targeted at pregnant women, invited women to press briefings and shared video content featuring pregnant women to encourage vaccine uptake among this group.

WHO will continue working closely with governments and partners across the Western Pacific Region to leverage the power of behavioural science for health, through implementation of the Regional Action Framework on C4H and the Asia Pacific Health Security Action Framework.

For more information, click [here](#)

Development of the National Action Plan for Health Security in Uzbekistan for 2024-2028

The National Action Plan for Health Security (NAPHS) is critical to ensure national capacities in health emergency prevention, preparedness, response and recovery are planned, built, strengthened and sustained, in order to achieve national, regional and global health security. Typically developed by a country's Ministry of Health in collaboration with other government agencies and stakeholders, NAPHS adopts a One Health for all-hazards, whole-of-government approach.



Uzbekistan's IHR NFP with key stakeholders and development partners during the discussion of NAPHS benefits. Credit: WHO Country Office in Uzbekistan

NAPHS is often informed by the Joint External Evaluation (JEE) which evaluates a country's capacity to detect, prevent, and respond to public health emergencies. Uzbekistan successfully conducted the JEE in 2022, which serves as the main evidence base for the NAPHS development. With financial support from USAID, the NAPHS development process in Uzbekistan started in December 2022, with the first draft developed in mid-2023. The plan was finalized during the multisectoral expert workshop meeting held from 12 to 14 March 2024, in Tashkent, Uzbekistan.

The meeting convened key stakeholders from healthcare, public health, emergency response and other relevant sectors, along with donors and operational partners in Uzbekistan. Participants discussed the added value of the NAPHS and reviewed the roles and reiterated responsibilities of different sectors in its implementing, while emphasizing the importance of collaboration and coordination. The participants also discussed strategies for mobilizing resources, funding and technical support to effectively implement NAPHS initiatives.

Furthermore, the meeting included a session on planning for pandemic preparedness to demonstrate opportunities for synergizing the two closely linked processes. The session provided a concrete example of how NAPHS is fundamental to areas such as strengthening preparedness for future pandemics and how pandemic preparedness efforts can capitalize on the momentum and funding opportunities associated with the NAPHS process.

“The process of developing NAPHS requires comprehensive and effective multisectoral and interdisciplinary coordination at all stages, and also plays an important role in ensuring the IHR core capacity strengthening, aligning with WHO recommendations and supporting countries' capacity-building efforts.”

Dr. Rustamjon Ikramov

National IHR Focal Point representative Head of
Epidemiology, Department of Committee of Sanitary
Epidemiology and Wellbeing

Moving forward, the National Focal Point of the International Health Regulations (IHR), with WHO technical assistance, will further facilitate the process to get the NAPHS finalized and endorsed by the government, with an agreed regular review and monitoring mechanism.

Preparing Senegal for health threats: a field epidemiology initiative



20th Senegal FETP cohort receives diplomas for frontline-level program. Credit: WHO Country Office in Senegal

In a concerted effort to strengthen surveillance of health events in Senegal, a cohort of 25 physicians in field epidemiology (Field Epidemiology Training Program, FETP) were trained in the first quarter of 2024 through a collaboration between WHO in Senegal, the United States Centers for Disease Control and Prevention (US-CDC), the African Field Epidemiology Network (AFENET) and the Ministry of Health and Social Action. This initiative improves the country's ability to rapidly detect and respond to public health emergencies.

Field epidemiology is a crucial discipline that allows health professionals to detect and investigate health events. With global health risks on the rise, it is essential to invest in capacity building for health professionals, especially in resource-limited countries such as Senegal.

This FETP cohort training consisted of three face-to-face sessions interspersed with two field sessions and followed the "frontline- level": a continuing education program focused on the detection and response to diseases and events of public health importance and international interest. Since the inception of FETP in Senegal in 2016, WHO has provided technical support to all frontline-level cohorts (21 cohorts, 350 trained staff) and to all "intermediate" cohorts (three cohorts, 75 trained staff). The "intermediate" FETP, which complements the "frontline" level, is a nine-month training program that focuses on strengthening epidemiological capacity at the intermediate and national levels of the health system.

“These field epidemiology trainings are a capital investment. They enable frontline actors to detect a health event early, to describe it, to identify its determinants and the level of risk with a view to making appropriate public health decisions for the response.”

Dr Ibrahim Omar BA

Emergency Management Expert, WHO Senegal

The trainees, which constitute doctors, surveillance focal points and midwives, play a crucial role in disease surveillance including detection, investigation, data analysis and reporting. Their expertise allows districts, which are the operational administrative level of the system, to carry out quality surveillance and produce information that is useful for decision-making for the management of public health emergencies.

“FETP has given me an in-depth understanding of methods for collecting, analysing and interpreting epidemiological data, strengthening my ability to conduct accurate investigations to detect and control infectious diseases.”

Dr Fatou Ndour

FETP 20th cohort trainee

Beyond training, this collaboration also aims to set up a network of professionals commonly known as "FETPians", spearheading the Rapid Response Teams (RRTs) at the regional and district level and likely to be deployed within the country if needed.

The training of several cohorts of doctors, surveillance focal points and midwives in field epidemiology represents an important step in strengthening Senegal's capacity to respond to health threats. As a result, the country is better prepared to deal with public health challenges and to protect its population from epidemics.

For more information, click [here](#) (in French)

WHO reports high compliance with IHR self-assessment among States Parties

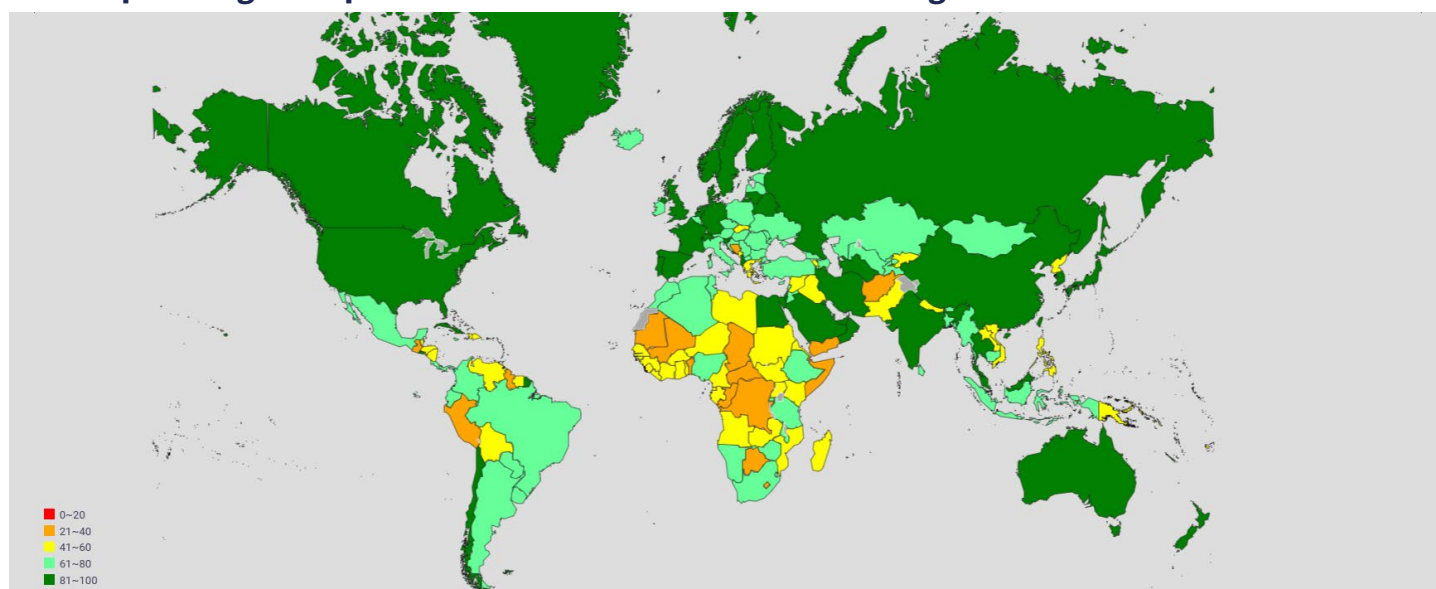


Figure 1. SPAR 2023 submission and average capacity scores.

WHO announced that 194 out of 196 States Parties (99%) have submitted their International Health Regulations (IHR) States Parties Self-assessment Annual Report (SPAR) for the year 2023 (Figure 1). This is the highest submission rate since the SPAR tool was introduced in 2010 and reflects the increased commitment and accountability of States Parties to implement the IHR and prepare for health emergencies.

The [SPAR tool](#) is the only mandatory tool that assesses countries' progress in implementing the IHR, a set of legally binding rules that require countries to prevent, detect, report, and respond to public health risks and events of international concern. Consisting of indicators for IHR capacities across 15 areas, the tool uses a five-level scoring system to measure the implementation status for each capacity. It was revised in 2020, taking into account lessons from the COVID-19 pandemic.

“It is truly remarkable to witness such a significant increase in the IHR SPAR submissions, particularly from Pacific Island countries. This is a testament of States Parties' dedication to global health security. The SPAR data is not only a country's official report on their capacity to prevent, prepare and respond to health emergencies, but is also crucial for informing capacity building, shaping policies and programmes that foster collaborative efforts towards bolstering pandemic preparedness. At WHO, we remain committed in our support to State Parties to ensure the timeliness and accuracy of SPAR submissions, which empower them to confront health challenges and protect their people from health emergencies.”

Dr Stella Chungong

Director, Health Security Preparedness Department, WHO Health Emergency Programme

The data from the SPAR is used for various purposes, such as measuring progress towards the WHO General Programme of Work 13 (and eventually 14), the United Nations Sustainable Development Goals, the Lancet Countdown on Health and Climate Change, and the World Health Statistics Report.

The SPAR data not only identifies capacity gaps in States Parties' health emergency prevention, preparedness, response and resilience, but also informs technical partners and WHO technical teams and programmes dedicated to universal health coverage, health systems strengthening, infection prevention and control, food safety, pandemic influenza preparedness, polio eradication, and others. In addition, the SPAR data is used by countries to draft proposals to secure the Pandemic Fund support.

“More countries, especially Pacific Island Countries, are sharing updates on their core capacities. This is a major step forward in our collective efforts to strengthen health security.”

Dr Gina Samaan

Regional Emergency Director, Director Division of Health Security and Emergencies, Regional Office for the Western Pacific

To achieve increased submission and reliability of the SPAR data, WHO works across the three levels of the Organization to support States Parties in interpreting the tool and ensuring a multisectoral approach in the SPAR process. The States Parties National IHR Focal Points, who lead the process, work together with WHO to ensure timeliness in the submission and quality of SPAR data.

The [e-SPAR platform](#), developed in 2018 and introduced to States Parties in 2019, has facilitated States Parties' SPAR submissions. The platform contains the SPAR questionnaire in the six UN languages and Portuguese, preformatted reports, and learning resources. Report templates are undergoing improvements to maximize data use by States Parties and WHO.

WHO Global Logistics Hub’s Monthly Update

WHO’s Global Logistics Hub (the Hub), based within the International Humanitarian City in Dubai, United Arab Emirates, has the largest repository of pre-positioned health supplies and equipment within WHO’s global supply chain. The operation rapidly delivers essential medicines and equipment in response to acute and protracted health emergencies around the world and across all six WHO regions. Effective partnerships are essential to these efforts. This includes emergency charter flights and operational support provided by the International Humanitarian City (IHC), the Government of Dubai, and the Government of the United Arab Emirates, as well as dedicated transportation support provided by World Food Program (WFP) to help WHO reach affected populations in the most complex emergencies with access challenges.

In the first quarter of 2024 (Q1 2024), the WHO Global Logistics Hub managed the largest ever value of health supplies in a single quarter (Figure 2) simultaneously completing the largest number of charter flights in a single quarter (Figure 3). As the Hub continues to serve as a lifeline for countries experiencing health emergencies, these increasing trends are among the many indicators that underscore a troubling reality: that more people around the world are in need of humanitarian health assistance than ever before, owing to intersecting threats to health such as infectious disease outbreaks, natural disasters, climate-change related events, conflict, and fragile health systems.

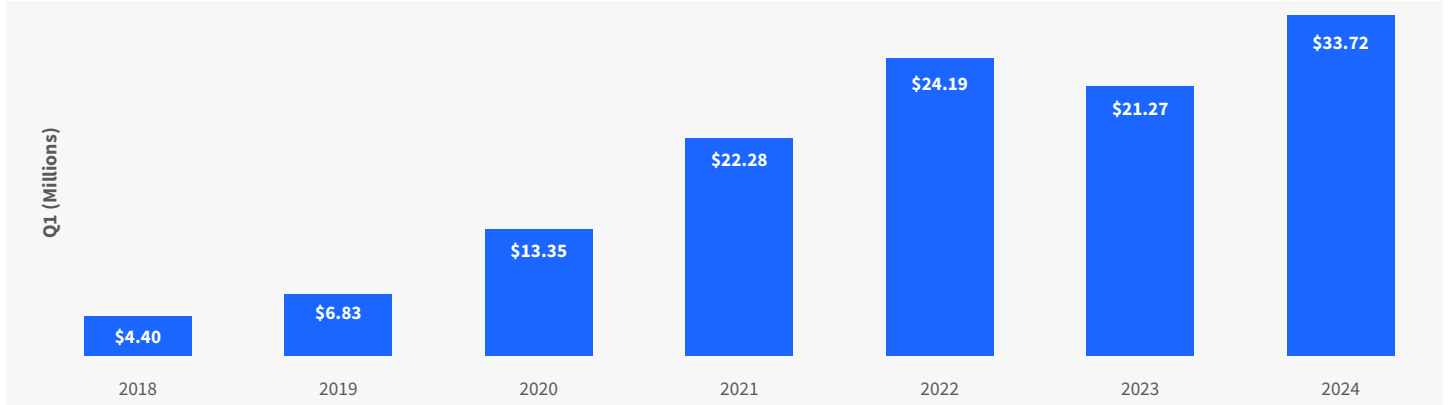


Figure 2. Value of health supplies (US\$) in and out of WHO's Global Logistics Hub in Q1, by year (2018-2024)

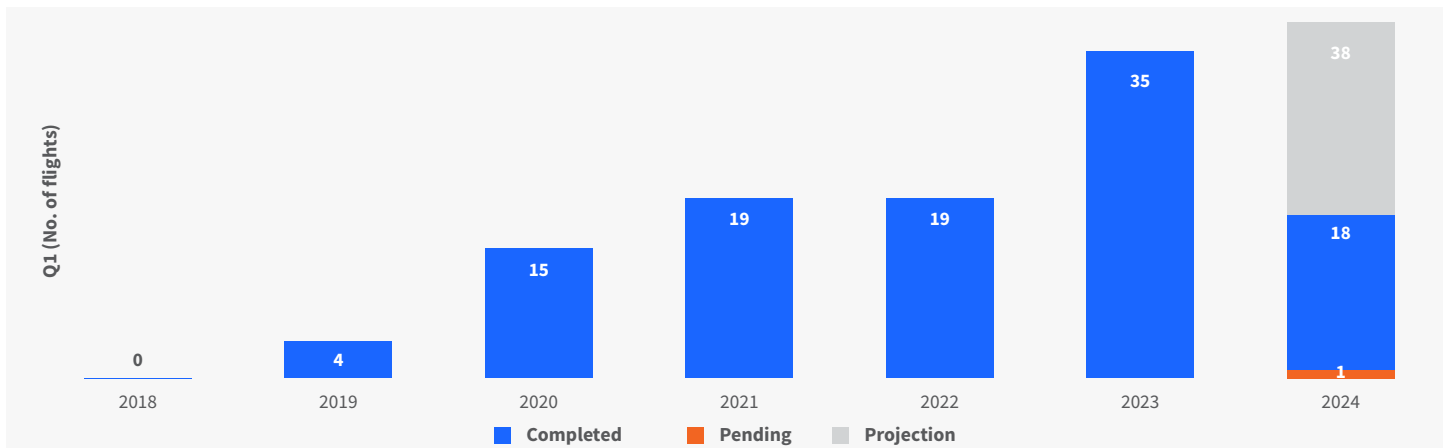


Figure 3. Number of charter flights completed through WHO's Global Logistics Hub, flights by year (2018 to 2024)

Thanks to the generosity of donors such as the Government of the United Arab Emirates and the European Civil Protection and Humanitarian Aid Operations (ECHO), 50% of all transportation costs for WHO are in-kind which enables the Health Emergencies Programme to rapidly reach more people with lifesaving supplies at their time of greatest need.

OPERATIONS IN 2024 (AS OF 15 APRIL 2024)



US\$ 23 MILLION (658 METRIC TONNES)
Value of Goods Received



US\$ 12 MILLION Value of Goods Delivered



US\$ 7 MILLION* In-Kind Received

*from United Arab Emirates through the Dubai Government's International Humanitarian City and ECHO, to support transportation for ongoing emergency operations



18 CHARTER FLIGHTS COMPLETED



40 COUNTRIES REACHED ACROSS ALL 6 WHO REGIONS



210 REQUESTS FOR ASSISTANCE



32 REQUESTS UNDER PROCESS

OpenWHO courses in Bahasa Indonesia bridge language gap in Indonesian healthcare training

Indonesia, with its diverse population and vast archipelago, faced a unique challenge in rapidly training healthcare workers during the COVID-19 pandemic: training materials were mostly available in English, creating a language barrier in the nation's early days of pandemic response.

In March 2020, Indonesia reported its first COVID-19 cases and, shortly after, WHO declared a global pandemic. Recognizing the severity, the Ministry of Health (MoH) of Indonesia sought help from WHO to translate two key OpenWHO.org courses into Indonesian: [eProtect respiratory infections](#) and [Infection Prevention and Control in the context of COVID-19](#). The Incident Management Team led the translation efforts, and the two courses were launched in March 2020.

As the pandemic continued, more courses were translated, resulting in a total of 11 COVID-19 courses available by December 2021. The course links were shared through prominent websites managed by the MoH and the Indonesia Hospital Association (PERSI), extending their reach. In May 2021, WHO launched the [Serving Countries: Indonesia](#) webpage that compiles OpenWHO courses in Indonesian, further expanding access to essential knowledge.

One notable best practice is the utilization of the COVID-19 vaccination training for health workers course which became a prerequisite for COVID-19 vaccinators, equipping them with comprehensive knowledge about vaccine types, logistical procedures, cold chain preparation and implementation steps. The course has attracted more than 12 300 participants since its launch in February 2021 and became one of MoH's key references in responding to inquiries from subnational levels concerning COVID-19.

“WHO is committed to supporting Indonesia to strengthen the capacity of healthcare workers and effectively respond to health emergencies. We understand the critical role that language plays in accessing essential knowledge. Our collaboration with Indonesia in translating OpenWHO aims to remove language barriers and ensure that vital healthcare information reaches those on the front lines.”

Dr N. Paranietharan

WHO Representative to Indonesia

To date, there are 16 active courses in the Indonesian language on OpenWHO. These courses have seen over 44 000 enrollments from 34 000 unique users, mainly in Indonesia, with continuous growth since the start of the pandemic (see Figure 4). The majority of course participants are women (57%), and enrolments cover a wide age range with 52% falling between 20-29 years old and 21% between 30-39 years old. While in 2022 healthcare professionals made up 57% of participants, in 2023 the distribution became more diverse with students constituting 36%.

Currently, five more OpenWHO courses are being translated into Indonesian: two for disease outbreaks and three on tuberculosis. The courses were selected based on the need of MoH's programmes. This ongoing collaboration is instrumental in efforts to combat health emergencies and beyond, with the goal of delivering health for all Indonesians. Overall, OpenWHO's [Serving Countries portal](#) provides 17 countries with easy access to courses in their official languages through dedicated learning channels, most recently launching a channel for Afghanistan.

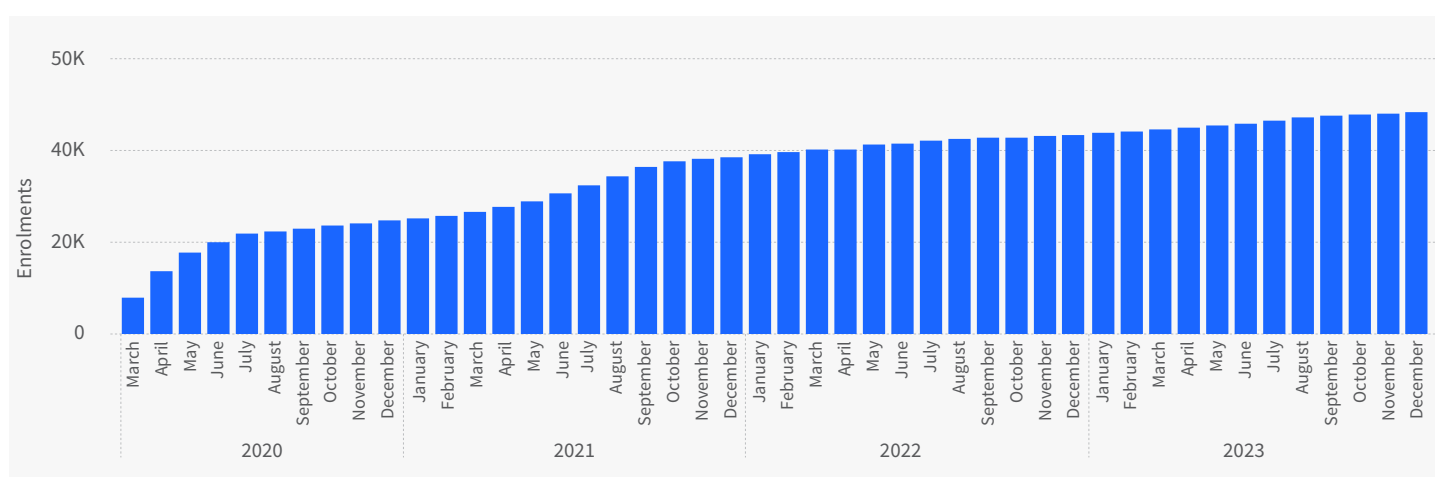



Figure 4. Cumulative enrolments in OpenWHO Indonesian courses, March 2020-December 2023


WHO's work in emergencies


For updated information on where WHO works and what it does, visit the [WHO Health emergencies page](#), the [WHO Health Emergency Dashboard](#), the [Disease Outbreak News \(DONs\)](#) and the [Weekly Epidemiological Record](#).


 **Outbreak and Crisis Response Appeal 2024**
In 2024, 300 million people are facing humanitarian crisis with severe health impacts. In 2024, WHO 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 on WHO's Health Emergency Appeal 2024, 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](#).

 **EPI-WIN**
For EPI-WIN: WHO Information Network for Epidemics, click [here](#).

 **WHO Publications and Technical Guidance**
For updated WHO Publications and Technical Guidance, click [here](#).

 **Health Cluster**
For information on health cluster activities, 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

- [WHO commends Iraq's world-first in polio transition](#)
- [Six months of war leave Al-Shifa hospital in north Gaza in ruins](#)
- [Ethiopia Strengthens Emergency Response with One Health Rapid Response Team Training](#)
- [Free essential health care for refugees in eastern Chad \(in French\)](#)
- [What we learnt from 2023 nutrition in emergencies response in Ethiopia](#)
- [One step closer to making novel medicines more accessible: WHO EURO](#)
- [Colombia adopts the initiative "Resilient Hospitals in the Face of Health Emergencies and Disasters"](#)
- [Purified Waters, Lives Saved: Haiti's Fight Against Cholera Continues \(in French\)](#)
- [Ensuring continuity of essential health services post-earthquake in West Nepal](#)
- [Malawi curbs cholera through enhanced outbreak control](#)
- [North Macedonia: 1st country in the Western Balkans to adopt a NAPHS](#)
- [In world first, Nigeria introduces new 5-in-1 vaccine against meningitis](#)
- [1.2 million children under one are unprotected from vaccines in the Americas \(in Spanish\)](#)
- [WHO delivers over 50 metric tons of medical supplies to Sudan](#)
- [Triple risk of harm for Ukraine's health transport workers over other health-care staff](#)
- [PAHO calls for collective action in response to record increase in dengue cases in the Americas](#)
- [Dzud emergency in Mongolia moves to risk of floods and environmental contamination](#)
- [Global deployment of rapid diagnostic tests to boost fight against cholera](#)
- [WHO prequalifies new oral simplified vaccine for cholera](#)
- [Joint UN agencies programme to support Iraq, Jordan and Lebanon in climate change response](#)

Highlights

- [World Health Day: call for action to uphold right to health amidst inaction, injustice and crises](#)
- [World Immunization Week: 24 to 30 April 2024](#)
- [World Malaria Day: 25 April 2024](#)
- [Weekly Influenza Update N° 471](#)
- [Informing the pandemic response: the role of the WHO's COVID-19 WEU](#)
- [WHO notified about case of human infection with influenza A\(H9N2\) virus in Viet Nam](#)
- [Leading health agencies update terminology for pathogens that transmit through the air](#)
- [Ethiopia Public Health Situation Analysis \(PHSA\)- 15 April 2024](#)
- [WHO notified about first confirmed fatal human case of rabies in Timor Leste](#)
- [WHO notified about case of human infection with Avian Influenza- United States of America](#)
- [WHO sounds alarm on viral hepatitis infections claiming 3500 lives each day](#)
- [Negotiations to finalize world's first pandemic agreement to resume](#)
- [Multi-country outbreak of cholera- Situation report, 17 April 2024](#)
- [WHO announces Health for All Film Festival shortlist and jury](#)
- [1st Knowledge Forum on Refugee and Migrant Health held in Malta: 16 to 18 April 2023](#)
- [WHO launches CoViNet: a global network for coronaviruses](#)
- [Outcomes of the ICMRA-WHO joint workshop on COVID-19 vaccines strain change](#)
- [Launching the public health and social measures \(PHSM\) Bibliographic Library](#)
- [Statement following the Thirty-eighth Meeting of the IHR Emergency Committee for Polio](#)
- [Novel Oral Polio Vaccine Type 2 Use for Polio Outbreak Response: A Global Effort for a Global Health Emergency](#)



Science in 5 is WHO's conversation in science. In this video and audio series WHO experts explain the science related to COVID-19. Transcripts are available in Arabic, Chinese, English, French, Farsi, Hindi, Maithili, Nepali, Portuguese, Russian and Spanish.

Dengue Fever (27 March 2024)

Why is Dengue fever spreading to places it did not exist before? What are the symptoms and treatments? What about vaccines? Dr Raman Velayudhan explains in Science in 5.

Disease X (15 March 2024)

How are scientists working to prevent the next pandemic? What do countries need to do to prepare? Ana Maria Henao-Restrepo outlines the R&D needs that the world needs to invest in to prevent and prepare for the next pandemic.