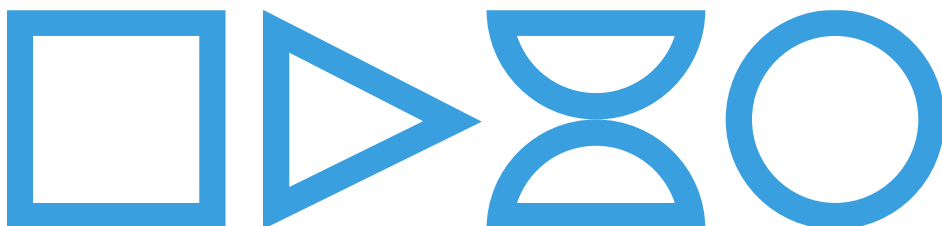


Guidance

Acting Ahead of Epidemics

As of February 2026





Masisi, Nord-Kivu, DRC. 27 June 2025. A water point constructed by partners and funded by CERF and DRC HF to combat the cholera outbreak in Masisi. Credit: UNOCHA/Wassy Kambale.

Anticipatory Action is grounded in the principles of timeliness, efficiency and effectiveness - ensuring that life-saving humanitarian assistance reaches vulnerable populations ahead of anticipated disasters. Anticipatory action is defined as “acting ahead of a predicted hazardous event to prevent or reduce the impacts on lives, livelihoods and humanitarian needs before they fully unfold. This works best when activities, as well as trigger thresholds or decision-making rules, are pre-agreed, and decisions are made to guarantee the fast release of pre-arranged funding” (see [Grand Bargain](#) on anticipatory action).

Anticipatory action is part of OCHA’s objectives to promote a proactive humanitarian response. Since 2020, OCHA has facilitated coordinated anticipatory action to get ahead of climate-related disasters and cholera outbreaks. For more up-to-date information about the OCHA-facilitated anticipatory action portfolio, please check OCHA’s [Anticipatory Action website](#).

Designed for OCHA and partners at country, regional and headquarters-level, this guidance was developed in 2025 with the objective of giving an idea of suitable triggers and assistance packages for anticipatory action. It will be regularly updated with learning and good practices from implementation, in an effort to support continuous improvement of coordinated anticipatory action.



Introduction

Infectious diseases remain one of the most devastating yet often preventable public health threats and disproportionately affect vulnerable populations in fragile contexts. They are caused by pathogens such as bacteria, parasites or viruses and are frequently driven by a lack of access to proper water, sanitation and hygiene, as well as insufficient health services. Poverty, conflicts, displacement or natural hazards such as floods, droughts or tropical cyclones are also important determinants. Climate change is expected to further increase the likelihood of infectious disease transmission.

While eliminating or controlling infectious diseases requires systemic and long-term solutions, anticipatory action has the potential to help reduce the humanitarian impact of outbreaks, prevent a further escalation, and enable a more (cost-)effective and efficient response. Anticipating large-scale epidemics thus also alters the trajectory of the hazard itself, an outcome that sets it apart from anticipatory actions for climate-related events.

While OCHA's current focus is on cholera outbreaks, the same principles outlined below are applicable to other diseases. Furthermore, extreme climate events such as floods or droughts increase the risk of infectious disease transmission. Consequently, OCHA-facilitated, coordinated anticipatory action covering these shocks also aims to lower the risk of epidemics. Whenever possible, anticipatory

action, including triggers, activities etc., should be designed in close collaboration with national health authorities and aligned with national and regional public health policy.

This brief provides guidance on anticipating large infectious disease outbreaks, including trigger modalities, actions, as well as financing and learning considerations. It is based on the experience and lessons learned from several framework activations for cholera and other hazards as well as best practices and policy guidance, for example by the [Anticipation Hub's Working Group on Anticipatory Action and Health](#). This brief aims to support partners interested in applying anticipatory action to mitigate infectious disease epidemics, including in the context of climate-related events.

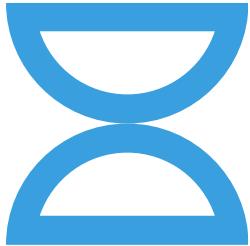
Financing AA frameworks

Pre-arranged financing is important to enable timely, effective anticipatory action. OCHA-facilitated anticipatory action is not limited to only OCHA-managed pooled funds, but can feature different funding sources, including other pooled funds, government budgets, and organizations' own resources.

While for most hazards the pre-arranged funding is usually released in full as soon as an action trigger is met, in the case of infectious disease outbreaks it may be reasonable to split the envelope into smaller tranches so as to trigger its release based on several localized events. For instance, the [cholera framework](#) in the Democratic Republic of the Congo may activate up to four times in a two-year period at the health zone level, each time releasing \$750,000.

For the Central Emergency Response Fund (CERF), the Humanitarian Coordinator (HC) or Resident Coordinator (RC) can request the Emergency Relief Coordinator (ERC) to pre-arrange funding. The amount of financing pre-arranged for a cholera anticipatory action framework depends on several factors, including an analysis of previous CERF allocations to the country, CERF's funding outlook, and level of cholera risk (Refer to the CERF Handbook for further guidance). CERF will disburse funds pre-arranged for anticipatory action only when three conditions are met: (1) Endorsement by the RC/HC of an anticipatory action framework and the CERF application package, including agency project proposals and budgets; (2) endorsement by the ERC of the finalized framework, as well as the CERF agency project proposals and budgets; and (3) activation of the pre-agreed triggers once the framework is fully approved and operational.

For OCHA-managed Country Funds and Regional Funds, see the [Global Guidelines](#).



Triggers

Four principal trigger approaches to get ahead of infectious disease outbreaks have been identified. Given their complex causes, predicting the timing and location of a specific infectious disease outbreak poses significant challenges when compared to climate hazards such as floods or cyclones. As a result, some triggers - rather than forecasting the onset of an outbreak - rely on predicting a possible escalation of an outbreak beyond the ordinary to ensure an early response.

Trigger approach

Trigger approach 1: Using real-time surveillance data (current standard for OCHA-facilitated frameworks)

This approach monitors available epidemiological data such as the number of suspected or confirmed cases, deaths, or the incidence rate over a specified period of time in a given administrative unit (e.g. health zone, district, province) to trigger action. This action may take place in the areas in which the pre-defined threshold has been met or in neighboring regions. Thresholds for the indicators are determined based on an analysis of historical data and are set to detect unusually large outbreaks. This approach requires consistent (e.g. weekly) access to timely and reliable surveillance data. Using epidemiological data allows for real-time monitoring of outbreak dynamics and provides fairly high certainty that resources are allocated in response to out-of-the-ordinary events. This approach uses observational data to trigger action when the outbreak has already begun, with the aim of containing it before it spreads further.

Trigger methodology for the cholera anticipatory action framework in the Democratic Republic of the Congo

The anticipatory action framework for cholera in the DRC has two trigger scenarios – one for endemic and one for non-endemic provinces – and uses surveillance data provided by the National Program for the Elimination of Cholera and the Control of Other Diarrheal Diseases (PNECHOL-MD). The approach is the same for both scenarios; they only differ with respect to the specific thresholds.

Three epidemiological indicators are monitored at the health zone level on a weekly basis: a) number of suspected cases, b) reported deaths, and c) cases per population. Two main calculations are performed for each indicator: The weekly rate increase as well as the percentile compared to a historical baseline calculated from past data. These values are then reclassified based on the two tables below. The trigger activates if one or more indicators is classified as level 3 for three consecutive weeks. In addition, one confirmed case is required.

Classification criteria:

Percentile	Classification	Weekly rate increase
0 – 50	0	0 – 2 x
50 – 95	1	2 – 3 x
95 – 99	2	3 – 4 x
> 99	3	>4 x

Below are the percentile-based trigger thresholds required for level 3 classification.

Metric	Endemic	Non-endemic
Cases	99	65
Deaths	7	10
Cases/population	0.037%	0.054%

Trigger approach 2: Using forecasts of extreme climatic events

Extreme climate events such as floods, droughts or cyclones increase the risk of infectious disease outbreaks. For instance, floods and storms that damage water and sanitation systems are strongly linked to diarrheal diseases such as cholera. Consequently, forecasts of imminent climate hazards or (sub-)seasonal forecasts may be used to anticipate certain diseases and to take action in regions where there is an established link between the hazard and the disease, mitigating the outbreak risk before it fully unfolds. Many OCHA-facilitated AA frameworks for extreme climatic events, for example, include relevant activities such as the distribution of water purification tablets ahead of a predicted shock (see below).

Trigger approach 3: Using observations of environmental and socioeconomic risk factors in combination with real-time surveillance data

This approach combines risk factors for outbreaks such as population movement, disease vectors, weather changes, or conflict, with epidemiological indicators. Integrating these in a phased approach can help mitigate the risk of an outbreak while scaling up support when surveillance data indicates increased transmission. The Red Cross Red Crescent Movement, for instance, has developed a phased trigger system that integrates environmental, socioeconomic, and epidemiological data to guide anticipatory action for infectious diseases. Pre-arranged funding can be released in stages. When environmental or socioeconomic triggers are met, interventions such as hygiene promotion or awareness campaigns may be implemented on a no-regrets basis, even before cases appear. Once epidemiological thresholds are reached, more targeted interventions—such as active case finding, the establishment of oral rehydration points, and emergency WASH measures—are activated to interrupt transmission.

Trigger approach 4: Using data-driven approaches for outbreak forecasting

One of the disadvantages of some of the previous approaches is the short lead time they provide to act ahead of an outbreak. In some cases, they only trigger when the outbreak is already manifest, but before it escalates. Forecasting future outbreaks, for example using climate variables, has the potential to enable action before disease outbreaks occur. While models are constantly improving and pilot projects such as MSF's Malaria Anticipation Project are already planned, this approach has not yet been applied in OCHA-facilitated frameworks and requires more piloting before it can be scaled up.

Process of setting and monitoring triggers

These four approaches demonstrate different options to design anticipatory action triggers for disease outbreaks. In practice it may be reasonable to combine or adjust different approaches depending on the context, availability of data, hazards exposure etc.

As anticipatory action tackling epidemics is scaled up and more diseases are covered, these trigger models and approaches may evolve and expand to reflect disease-specific dynamics.

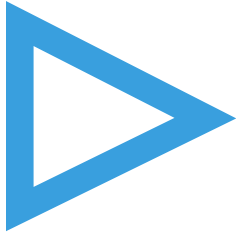
Whenever possible, any trigger that is part of an OCHA-facilitated framework must be validated against historical data and meet specific criteria to ensure a high probability of reliably identifying out-of-the-ordinary events.

Trigger Identification and Development: OCHA supports in-country partners in identifying suitable triggers for anticipatory action. This is a collective effort which involves collaboration with national health authorities, technical institutions, United Nations agencies, CERF, and OCHA country offices. Triggers are developed based on historical outbreak information, surveillance data, forecast models (if applicable) and operational requirements by implementing partners.

Monitoring Triggers: During the hazard season, OCHA coordinates with national health authorities to continuously monitor surveillance data and relevant hazard forecasts. Data is assessed against the pre-agreed trigger thresholds. The monitoring process ensures that available data is actionable and aligned with operational capacities of in-country partners.



Communicating Triggers: When a trigger threshold is reached, all relevant in-country partners are immediately notified. Notifications are sent via pre-agreed channels, including email and (where applicable) instant messaging services. The mailing list is designed to be as comprehensive as necessary to enable rapid, coordinated action. It should include all partners aligned with the framework, not only direct funding recipients. OCHA headquarters and funding providers (CERF, Country Funds, Regional Funds, or other relevant mechanisms) are also included in the communication loop to ensure timely payout of funds.

The process of identifying, monitoring, and communicating triggers is country-led. The Centre for Humanitarian Data (CHD) has been providing technical support for anticipatory action across the different phases of trigger development, helping to strengthen forecasts, refine triggers, and ensure that anticipatory action is effectively activated.



Actions

OCHA promotes coordinated anticipatory action covering the most critical sectors to mitigate potential humanitarian impact on lives, livelihoods and assets of populations most at risk. Action plans to contain infectious disease outbreaks are well established and follow national and global guidelines, while ensuring interventions are responsive to the needs of the most vulnerable such as women and girls. Cholera response activities, for instance, have been defined by the [Global Task Force on Cholera Control \(GT FCC\)](#). These include coordinated multi-sectoral interventions in the WASH and Health sectors as well as a strong emphasis on risk communication and community engagement. Any activity included in an anticipatory action framework for diseases needs to be implemented promptly. Consequently, preparedness activities such as longer-term capacity building, pre-positioning of items and other such actions need to occur before trigger thresholds are met. The figure below summarizes the activities included in the [AA framework for cholera in the DRC](#).

 Water, Sanitation and Hygiene	 Health
<p>UNICEF</p> <p>“Case-area targeted interventions”</p> <p>Activities:</p> <ul style="list-style-type: none"> • Deployment of Rapid Response Teams (RRTs) • Early case detection • Distribution of cholera kits • Household disinfection • Establishment of chlorination points 	<p>“Surveillance and Early Detection”</p> <ul style="list-style-type: none"> • Distribution of rapid diagnostic tests (RDTs) and Cary Blair transport materials • Provision of surveillance tools to health facilities • Investigation of suspected cases • Household disinfection • Establishment of chlorination points
<p>WHO</p> <p>“Quadrillage”</p> <p>Activities:</p> <ul style="list-style-type: none"> • Disinfection of case households and surrounding households • Chlorination at water points and sensitization 	<p>“Medical care for infected patients”</p> <ul style="list-style-type: none"> • Pre-positioning of cholera health kits • Training of community relays and other health personnel on cholera management • Protection against infection in health care facilities

Climate hazards such as floods, cyclones or droughts also increase the risk of infectious diseases, for example those causing respiratory illnesses, malaria, cholera, typhoid, dengue and others. Therefore, some anticipatory action frameworks for these hazards also include activities aiming to mitigate disease transmission and treat people who have been infected. The table below provides an overview.

Anticipatory Action & Early Response

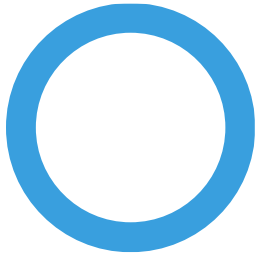
Anticipatory actions aim to protect those most at risk before an outbreak occurs or escalates. The following criteria are considered:

- *Anticipatory character*: The assistance is effective in reducing the humanitarian impact of an outbreak.
- *Operational capacity*: Partners have the necessary institutional capacity (thematic, logistic, administrative, financial, human resources) to deliver the assistance at scale within the lead time.
- *No regrets approach*: In case of a false alarm, the proposed assistance still benefits people and causes no harm.

Table 2: Activities designed to mitigate risk of epidemics in AA frameworks for climate hazards

Sector	Activities ¹	Modality	Anticipatory scope/purpose
Health	Distribution of health kits and supplies (e.g. cholera kits, mosquito nets, medicines, testing capabilities)	In-kind	Mitigate health impacts of hazards
	Deployment of Rapid Response Teams (RRT)	Services	Ensure early detection of epidemics and reduce the risk of large-scale outbreaks
	Disease surveillance and early detection	Services	Reduce morbidity and mortality
	Refresher training for community health workers and community sensitization on infectious diseases, e.g. respiratory illnesses	Services	
Water, Sanitation and Hygiene (WASH)	Hygiene promotion activities	Services	Provide safe water and ensure access to hygiene and sanitation services
	Installation/maintenance of water, sanitation and hygiene infrastructures in evacuation centers, communities and public institutions	Services	Improve hygiene practices
	Provision of WASH kits and items (e.g. water testing, water purification tablets, soap, water storage)	In-kind	Reduce the risk of disease transmission

¹ While this guidance does not cover animal diseases, OCHA-facilitated frameworks for some hazards, especially drought, also incorporate activities to prevent or treat these such as deworming or vaccinations.



Learning

Learning is essential for continuous improvement of the approach and to ensure alignment with humanitarian objectives. Learning activities are designed to capture lessons on what worked well, what didn't, and why – with focus on refining trigger criteria / thresholds, designing appropriate packages of assistance and improving timely delivery, strengthening coordination, and making resource allocation more efficient.

Pre-agreeing learning activities is important to ensure results are captured in a timely manner ([WFP FbF M&E Guide, 2021](#)). As good practice, learning activities should be decided earlier, with arrangements made for implementation (e.g. data collection), in case the framework is activated.

Examples of coordinated learning activities are:

- **Post-distribution monitoring.** Generally, each agency uses its existing monitoring and evaluation systems to collect and track data on implementation progress and outputs achieved. As good practice, partners conduct joint post-distribution monitoring in case of an activation.
- **Impact evaluations** are critical to generating evidence on anticipatory action: they prove its relevance, guide its design, and support the transition from pilot projects to systematic, large-scale practice. Impact evaluations

should highlight whether interventions reduce humanitarian needs, losses, and costs compared to late response.

- Other types of learning activities can be conducted in addition to or instead of impact evaluations in order to examine the value of anticipatory action in contexts where sufficient data is available. For example, return on investments, cost effectiveness studies. United Nations agencies and partners have developed tools which can be adapted to different contexts.
- **After-action Reviews** are conducted to gather lessons learned from the development and potential implementation of the framework. The after-action review should be done with all partners involved, including Government, Red Cross/ Red Crescent and NGOs at all levels. This should cover the more qualitative aspects of the project.

Coordinated monitoring, evaluation and learning exercises require partners' commitment to provide relevant inputs at various stages. For some exercises, sharing of data on targeted people will be required for monitoring and evaluation teams to identify and collect data from people assisted. This must be done in line with existing regulations and policies to ensure safe and confidential handling of beneficiary data. Ideally, all learning activities should be done in close coordination and communication with participating agencies.