World Health Organization

HEALTH CLUSTER

***Flooding in Ethiopia***

Date: 24 May 2024

# Public Health Situation Analysis (PHSA)

| Typologies of emergency | Main health threats | WHO grade | Security level (UNDSS) | INFORM risk (rank) |
|---|---|---|---|---|
| Conflict<br>Food security<br>Displacement<br>Epidemics<br>Drought and floods | Malnutrition and child health<br>Maternal and Neo-natal conditions<br>Malaria<br>Measles<br>Diarrheal diseases<br>Poliomyelitis (cVDPV2) | **Grade 2** (Flooding across East Africa) | **Substantial:** Central, North West, South, South East and West<br>**Moderate:** Addis Ababa, East, North, North East. | **INFORM Risk (0-10):** 7 (Very High)<br>**Global Ranking 2024 (1-191 countries):** 12 |

## SUMMARY OF CRISIS AND KEY FINDINGS

Weeks of relentless rainfall have plunged East Africa into a state of emergency, affecting hundreds of thousands of people across Burundi, Ethiopia, Kenya, South Sudan, Rwanda, Somalia, and Tanzania. [1]Heavy rains and flash floods continued to cause damage and displacement with an estimated 1.6 million people affected, including 473 people who lost their lives and nearly 410 350 people who have been displaced, as of 17 May. [2] The International Organization for Migration (IOM) described the climatic events as "the worst flooding seen in decades".[3]

In Ethiopia, more than 560 000 people have been affected by the heavy rains and flooding experienced in April and early May in several districts, including Afar, Amhara, Central Ethiopia, Oromia, Sidama, Somali, South Ethiopia and South West Ethiopia People's, Tigray regions and Dire Dawa City Administration, according to the Ethiopian Disaster Risk Management Commission (EDRMC).[4]

Nearly 57 000 people have been displaced, some of whom have since returned home. [5] Houses, public infrastructure, and croplands have sustained significant damage, thus further limiting the population's access to services, particularly in areas already affected by conflict, prolonged drought, ongoing cholera outbreak, as well as pre-existing poor road infrastructure. [6]

- **Somali Zone:** The Somali Region, where rivers overflowed, is the most affected area, with at least 51 000 people displaced, according to preliminary reports.[7] Two deaths have been reported. There are also reports that 17 925 households, home to 25 445 individuals, have been impacted.[8] Key infrastructure, including roads and bridges, has been washed away or damaged, disrupting the movement of essential goods and affecting local businesses. Most of the flood-affected communities now have no access to basic services and markets. The lack of safe drinking water, collapsed latrines, overcrowding, and shortage of sanitation facilities pose serious health risks, potentially leading to outbreaks of waterborne diseases and respiratory illnesses.[9] Reports from the Shebelle Zone, Somali region, indicate that the livelihood of pastoralist and agro-pastoralist communities in the area have been severely affected.[10] The flood has destroyed a total of 20 365 hectares of irrigation farms. [11] Additionally, nine irrigation pumps were washed away by the flood and livestock losses include 1 150 animals.[12] In Somali region, health facilities have been severely impacted, including five health posts and one health center in reporting damage. None of these facilities are currently operational.[13]
- **Amhara Region:** Heavy rains experienced at the beginning of May in the Amhara Region led to floods in the displacement site Jari #2, in South Wollo Zone, reportedly causing damage to tents, leading to the displaced having to share tents, in a congested shelter condition, with associated health and protection challenges.[14]

- **Oromia Region:** Heavy rainfall since early May has caused severe flooding, affecting 9 villages of the Gujis, in southern Oromia; flooding has also been reported in some areas of Sidama, Central Ethiopia and South Ethiopia. [15] In West Guji alone, 120 481 people have been affected, with 102 128 people displaced and five deaths. Above 3 000 houses have been totally or partially destroyed and 13 779 hectares of farming land has been damaged, worsening the already dire food security situation in the area.[16]
- **South Ethiopia**: In South Ethiopia, 4 000 individuals were affected and three deaths reported. Further flooding is expected, as the National Flood Contingency Plan for the 2024 Belg/Gu season (March-May) has anticipated above-normal rainfall affecting most of the southern parts of the country.[17]
- **Central Ethiopia:** In Central Ethiopia, 4 065 were displaced, with six deaths reported, 100 houses destroyed and 774 hectares of crop land damaged. [18] The devastation includes the destruction of 6 huts and 7 houses, along with the loss of livestock. [19] Additionally, 77 hectares of maize farms have been destroyed. [20]

To date there is limited information available on the health needs of the impacted population. A REACH assessment published in May 2024 also found that at least 39% of assessed households in Somali region had at least one member with an unmet healthcare need.[21] The top three most frequently cited healthcare needs included acute illness consultation (64%), preventative consultation (25%) and chronic illness consultation (10%).[22]

***Forecast***

The IGAD Climate Prediction and Applications Centre (ICPAC) issued the June to September 2024 seasonal forecast indicating an increased likelihood of above-normal rainfall over most parts Djibouti, Eritrea, central and northern Ethiopia, Kenya, Uganda, South Sudan, and Sudan.[23] A forecast of heavy rainfall exceeding 200 mm is expected in specific areas of north-eastern Somalia and western Ethiopia. Moderate rainfall ranging between 50-200 mm is likely across most parts of South Sudan, central to western Ethiopia, and north-eastern Somalia. [24]

On the other hand, parts of northern Somalia, isolated areas over western Ethiopia, and north-western South Sudan are expected to experience drier-than-normal conditions. [25] The temperature forecast shows a probability of warmer-than-normal conditions across the region, particularly over northern Sudan, central and western Ethiopia, Somalia, Kenya, Rwanda, Burundi, and Tanzania. [26]

Additionally, frequent heavy rainfall is anticipated, leading to potential flash floods in flood-prone areas, including city administrations. Similarly, north-eastern, eastern, central, and southwestern Ethiopia are projected to experience above-normal rainfall, while north-western Ethiopia will receive normal to above-normal rainfall. [27] Overall, considering the prevailing and projected climate scenarios, the Belg 2024 season is expected to feature above-normal rainfall in Belg rainfall-benefiting areas of southern and south-eastern Ethiopia.[28]

***Background to crisis***

The floods are occurring against a confluence of reoccurring crises. The government of Ethiopia's most recent assessment of food security needs projected that 15.8 million people will face hunger and need food assistance in 2024.[29] This includes over 4 million people who are internally displaced and 7.2 million who have high levels of acute food insecurity and need emergency assistance.[30] Moreover, increasing outbreaks of diseases such as malaria, cholera and measles are worsening the situation in different parts of the country. Limited access to health services, medical supplies, water, sanitation and hygiene (WASH) services, and trained health workers remain to be gaps in responding to the different disease outbreaks that affect the country.[31]

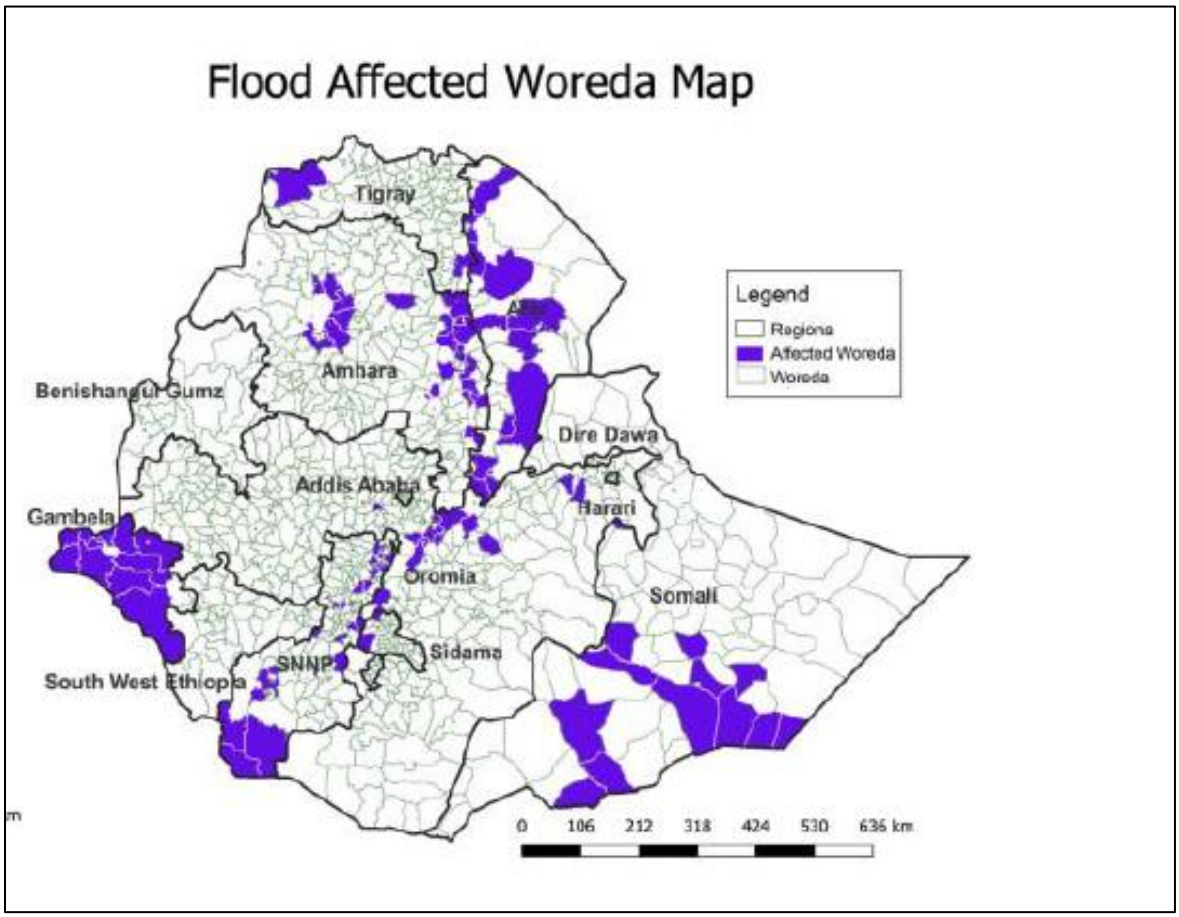


*Figure 1 – Flood Affected Woreda Map*[32]

## HUMANITARIAN PROFILE

**AFFECTED BY FLOODS**

560 000 people[33]

**PERSONS WITH DISABILITIES (PWD) ACROSS ETHIOPIA**

**PWD**: 7.8 million[34]

**HEALTH NEEDS 2024 (HRP)**

**PiN**: 16.4 million[35]

**Target**: 6.7 million[36]

**DISPLACEMENT**

**Flood Displaced:** 57 000[37]

**National Displacement Caseload:** 4.6 million[38]

**Flooding Response:** Humanitarian partners across the Eastern Africa region continue to support governments in search and rescue operations, conducting needs assessments, pre-positioning available stocks, and providing urgent assistance. Additional funding to scale up response as heavy rains and floods spread is needed.[39]
However, the humanitarian community has struggled to secure funding for its response.[40]Current rapid response capacities in the country are very limited due to other conflict and climate-related shocks. The Ethiopian Red Cross Society reports that their contingency stocks are fully depleted.[41]

In Ethiopia, the Government has distributed cereals for the displaced people in Afder and Shebelle and reportedly reached 13 500 people. However, access impediments caused by poor physical road infrastructure in the Liban zone has rendered partners unable to deliver supplies in the area.[42]

The national flood contingency plan estimates that under the worst-case scenario, 2 million people across 165 districts will be affected by floods and 1.1 million people displaced.[43] This was following a Flood Alert was issued in January 2024 by the Federal Government calling for preparedness and early response for the March-May rainy season. In addition to two million people potentially impacted, one million people may be displaced in areas at risk.[44] In response, the EDRMC has developed a flood contingency plan, mapping out all potential risk areas. The plan has an estimated budget of 7.6 million USD for a health response.[45]

The overall leadership for disaster response, including flooding, in Ethiopia rests with the Federal Ethiopian Disaster Risk Management Commission (EDRMC) and regional, zonal, and woreda disaster preparedness/prevention bureaus. At the federal level, the Flood Task Force, led by EDRMC and comprising representatives from line ministries, donors, UN agencies, and NGOs, oversees operational planning and response coordination. Through the Flood Task Force, close monitoring, planning, and response coordination activities are conducted for flood emergencies. [46]

Most regions, especially those anticipated to be affected by flooding this year, have incorporated flood preparedness and response into their Emergency Preparedness and Response Plans (EPRPs), with a map below. [47] These regions are thus prepared, to some extent, to execute search and rescue operations and coordinate joint impact assessments and humanitarian responses to flood-affected communities and displaced households. The EPRPs help inform coordination efforts through the Flood Task Force, Emergency Operation Centres, and Incident Command Posts. [48] Local governments are responsible for creating community awareness about the threats of flooding and taking appropriate actions, including relocating at-risk populations to higher ground. Activities include disseminating flood alert messages, providing continuous monitoring updates, and coordinating flood emergency responses during times of flooding. [49]

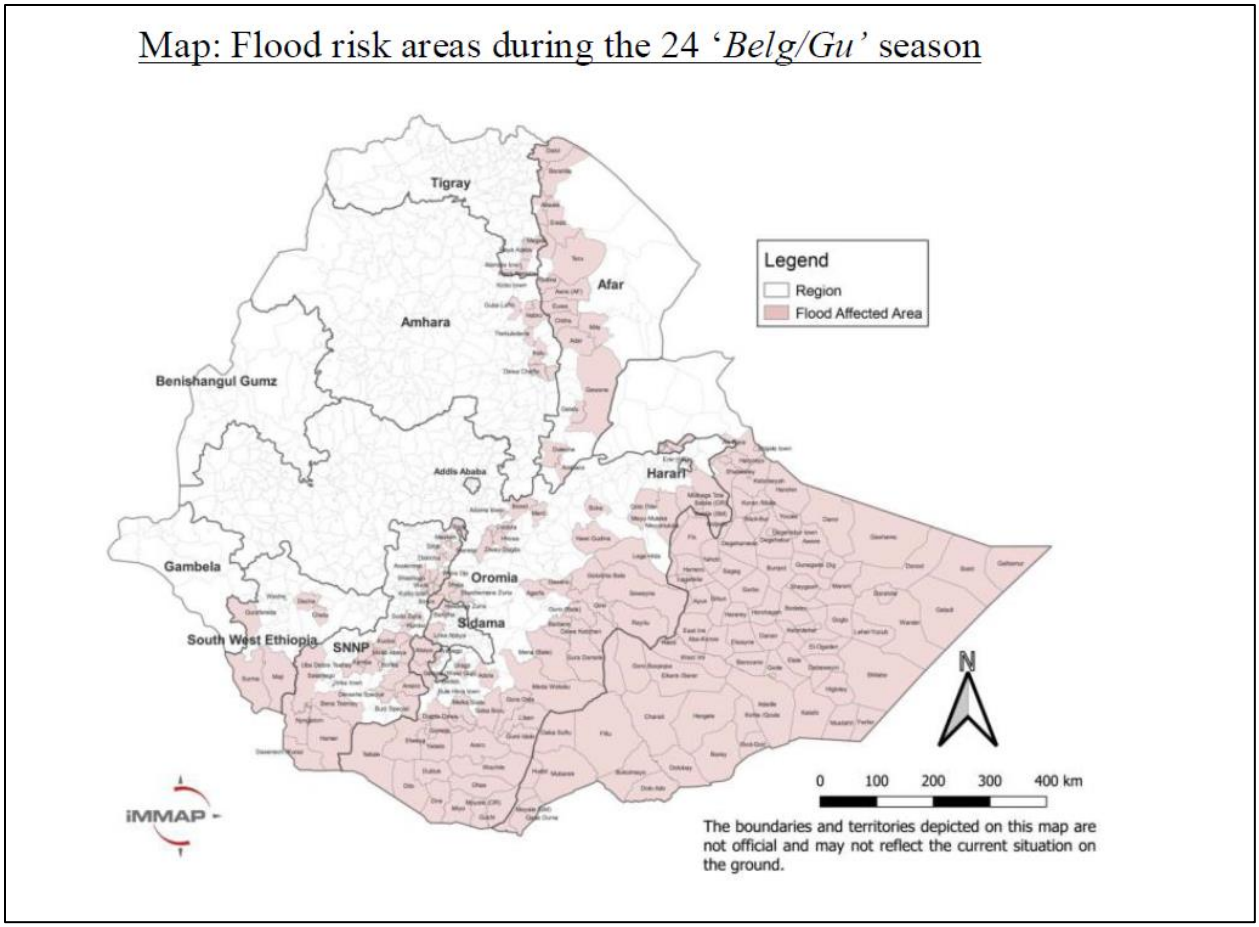


*Figure 1 Map of Potentially Impacted Areas, February 2024*[50]

**El Nino Impact on Flooding:** Ethiopia is among seven countries globally considered to be at the highest risk of severe humanitarian impacts caused or worsened by El Niño.[51] Seasonal flooding affects large parts of the country every year, impacting communities and their livelihoods. The 'Belg' season, which runs from February to May, is particularly susceptible to the El Niño effect.[52] Between October- December 2023, floods affected more than 56 woredas in five regions affecting over 1 431 347 people and displaced over 682 197 people and resulted in the deaths of 44 people, mostly from Somali region.[53] Repeated shocks have eroded the coping capacities of households, this may reduce how communities can respond to the potential impacts of El Niño.[54]

In addition, meteorologists have indicated a 60 to 80 per cent chance that a La Niña phenomenon will unfold later this year, bringing more rain to some regions and drought to others.[55] Events of El Niño tend to favor drought in numerous tropical and subtropical land areas, whereas events of La Niña tend to favor wetter conditions in numerous locations. In Ethiopia, the main ways that climate variability appears are in trends such as rising temperatures and falling rainfall.[56]

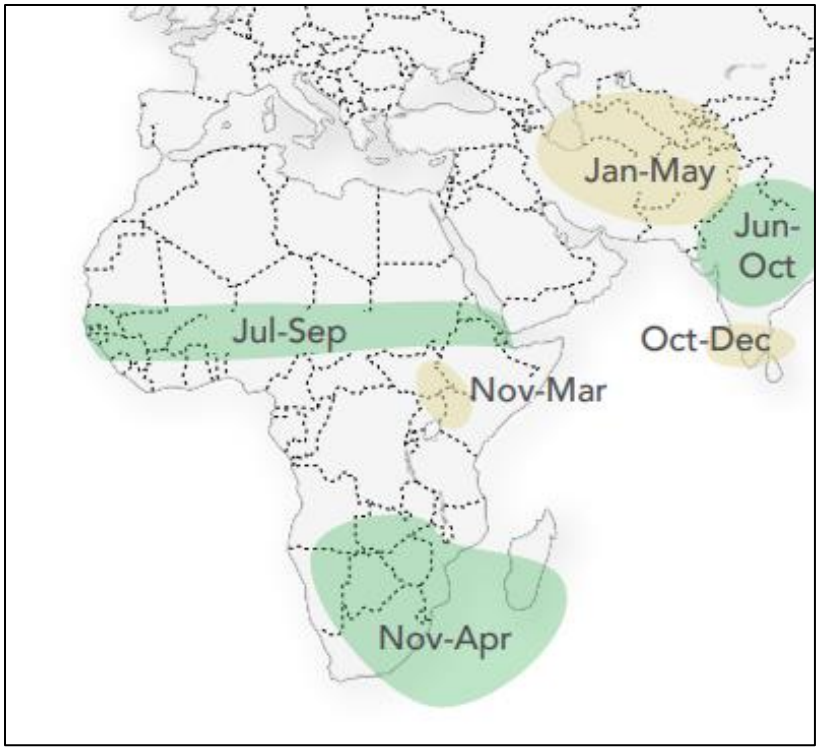


*Figure 2: The regions and seasons shown on the map indicate typical but not guaranteed impacts of La Niña.*[57]

**Food Insecurity:** In the Somali region, one of the many regions in Ethiopia grappling with the impact of this multi-faceted crisis, households are now confronting historically high levels of acute food insecurity and the collapse of their livelihoods.[58] Five consecutive failed rainy seasons since 2020 have devastated communities, particularly pastoralists whose livelihoods depend on access to water and grazing lands for their herds. Further compounding the situation were the 2023 Deyr floods, exacerbated by El Niño. The floods impacted nearly a quarter of the population in the Somali region, particularly in Daawa, Liban, and Afder.[59] More than two thirds of the households (70%) were not able to meet more than half of their basic needs, and more than a quarter of households resorted to emergency level coping strategies.[60]

More broadly, Ethiopia remains one of FEWS NET's countries of highest concern as it faces a third consecutive year of rising food assistance needs. Crisis (IPC Phase 3) and Emergency (IPC Phase 4) outcomes are expected in northern, central, southern, and eastern Ethiopia.[61] The government of Ethiopia's most recent assessment of food security needs projected that 15.8 million people will face hunger and need food assistance in 2024.[62] This includes over 4 million people who are internally displaced and 7.2 million who have high levels of acute food insecurity and need emergency assistance.[63] Just like in northern Ethiopia, food insecurity and high rates of malnutrition are adding to protracted needs for water, health, protection, agriculture, and livelihood support in pockets of Oromia, Somali, South Ethiopia, and South West Ethiopia regions.[64]

**Displacement**: Nearly 57 000 people have been displaced, some of whom have since returned home.[65] More broadly, as of October 2023, the national displacement caseload was estimated to be around 4.6 million (2024 Ethiopia - Humanitarian Needs Overview) in both accessible and inaccessible locations across the twelve regions.[66] Somali region hosts the highest number of Internally Displaced Persons (IDPs) primarily due to drought.[67] An estimated 2.53 million returning IDPs were identified in over 2 000 villages across 11 regions.[68] Ethiopia is the third largest refugee-hosting country in Africa, mainly from South Sudan, Somalia, and Eritrea. The ongoing drought has also severely impacted refugees, particularly in the Somali and Oromia regions.[69]

## HEALTH STATUS AND THREATS

**Population mortality:** Maternal mortality fell significantly in 2020, from 871 in 2000 to 401 maternal deaths per 100 000 live births.[70] Between 1990 and 2015, child deaths declined by two thirds.[71] Ethiopia has also achieved significant improvement in life expectancy, reaching 63/67 years (m/f) in 2015—up from just 49 years in 1990.[72] Yet there remain lagging health outcome indicators such as stunting rates and neonatal mortality, which have either stagnated or showed only minor improvement.

| MORTALITY INDICATORS | ETHIOPIA | YEAR | SOURCE |
|---|---|---|---|
| Life expectancy at birth | 63/67 years of age (m/f) | 2015 | WHO |
| Crude mortality | 6 per 1,000 people | 2020 | World Bank |
| Infant mortality rate (deaths < 1 year per 1000 births) | 37 per 1000 people | 2019 | GAVI |
| Child mortality rate (deaths < 5 years per 1000 births) | 51 per 1000 people | 2019 | GAVI |

The leading causes of premature mortality for all sexes in Ethiopia in 2019 were neonatal disorders, diarrhoeal diseases, lower respiratory infections, tuberculosis, stroke, HIV/AIDS, ischaemic heart disease, cirrhosis, congenital defects, and diabetes.[73]With high Socio-demographic Index (SDI) and life expectancy for all sexes, Addis Ababa, Dire Dawa, and Harari regions had low rates of premature mortality from the five leading causes. This contrasts with regions with low SDIs and life expectancy for all sexes (Afar and Somali), which had high rates of premature mortality from the leading causes.[74]

The major causes of under-five mortality in Ethiopia are acute respiratory tract infection (ARTI) (18%), diarrhoea (13%), prematurity (12%), new-born infection (10%), asphyxia (9%), meningitis (6%), injury (6%), measles (4%), malaria (2%), TB (3%), congenital anomalies (2%), HIV (2%), pertussis (1%) and others (17%).[75] Malnutrition is a major contributor to child mortality in Ethiopia as underlying cause for nearly 50% of under-five deaths.[76]

**Vaccination coverage:** Despite making considerable progress in routine immunisation (RI) programming over the past few decades, Ethiopia still has high numbers of zero-dose children, ranking among the top five countries globally.[77] Only 44 % (age 12-23 months) have received all the basic vaccinations.[78] A 2020 study found full vaccination coverage among children in urban and rural areas were 60.9% and 29.7% respectively, while it was highest in the capital Addis Ababa at 81.6% and lowest in the Afar region at 12.4%.[79] According to the 2024 HNO, over 50% of children diagnosed with measles had not received any vaccination, highlighting a critical gap in immunization coverage.[80]

In 2022, the Tigray Health Bureau reported that the percentage of children in the region receiving routine vaccines had fallen below 10%.[81] According to the Tigray Emergency Recovery Plan (June 2021), only 37% of the region's health facilities provided some basic health services and only 16 %of the health facilities in the region provided immunization services.[82]

To address this pressing issue and the lack of existing guidance in the national immunisation strategy on missed or late vaccination, the Ethiopian Ministry of Health (MoH) took action to develop national catch-up guidelines in 2021, which received approval for roll-out in 2022.[83] More broadly, since the COVID-19 pandemic, DTP3 coverage among countries in Africa began to recover in 2022, up 1 percentage point (from 72% in 2021 to 73% in 2022). However, there is still work to be done to recover to 2019 / pre-pandemic levels, when DTP3 coverage stood at 77%.[84]

Regarding COVID-19 vaccination, as of November 2023, 38% of the total population were vaccinated with a total of 68 856 793 vaccine doses administered.[85]

| ETHIOPIA VACCINATION DATA (GAVI) | |
|---|---|
| DTP3 - WHO/UNICEF estimates (2019) | 69% |
| DTP3 - Official country estimates (2020) | 99% |
| Household survey: Last DTP3 survey (2017) | 61% |
| % Districts achieving > 80% DTP3 coverage (2020) | 77% |
| % Districts achieving < 50% DTP3 coverage (2020) | 4% |
| MCV WHO/UNICEF estimates (2020) | 60% |

## DISEASE RISK ANALYSIS

| KEY HEALTH RISKS IN COMING MONTHS | | |
|---|---|---|
| **Public health risk** | **Level of risk*** ** | **Rationale** |
| Trauma and injuries | | To date 13 deaths have been reported from across the flood affected areas. In Somali region, two deaths have been reported.[86] In Oromia region, there were five death reported.[87] In Central region, there were six deaths reported.[88] Drowning generally accounts for 75% of deaths in flood disasters.[89] |
| Malnutrition and child health | | The floods impact on agriculture precipitates a dearth of food supplies, exacerbating food insecurity and malnutrition among impacted communities.[90] This exacerbates Ethiopia's already high malnutrition rates, elevating the risk of infectious diseases.[91] In 2024, its estimated 4.9 million individuals require nutrition assistance including 1 million children across Ethiopia with severe acute malnutrition in need of treatment and 1.5 with moderate acute malnutrition.[92] Furthermore, a recent rapid assessment carried out in Dasenech woreda, in South Ethiopia (SE) region, revealed high levels of malnutrition, with proxy Severe Acute Malnutrition (SAM) at 8 per cent and Global Acute Malnutrition (GAM) at 34 per cent, despite the ongoing response with multiple partners.[93] |
| Maternal and Neo-natal conditions | | To date there is limited information about maternal and neo-natal services functionality in the flood affected areas. Floods severely impact the health of pregnant women and may exacerbate a range of negative psychological and physiological child and reproductive health outcomes.[94] More broadly, extremely high maternal and perinatal mortality rates occur throughout Ethiopia. The number of maternal deaths between 1 January and 21 May 2023 were significantly higher than in 2022 and 2021.[95] Health facilities are largely overstretched in resources, capacity and staff to provide comprehensive health services.[96] |
| Malaria | | Flooding and waterlogging can lead to higher burden of malaria.[97] Although extensive work has been conducted by the Federal Ministry of Health (FMoH) and the Ethiopian Public Health Institute (EPHI) to prevent vector-borne diseases like malaria by providing long-lasting insecticide-treated nets (LLINs) to all high-risk woredas, flood damage to houses is likely to destroy these nets.[98] Number |

| | | |
|---|---|---|
| | | of malaria cases is already higher than reported during the same period in 2023, as of February 2024.[99] |
| Measles | | Flooding can have direct effects in the form of suspending routine vaccination drives, and preventing vaccination teams to reach their targeted populations.[100] Over 50 % of children diagnosed with measles had not received any vaccination, highlighting a critical gap in immunization coverage.[101] For measles, it is necessary to vaccinate children under 15 years old, who make up 45% of the total population in flood-risk areas. Mass vaccination campaigns should also be conducted for the total at-risk population to prevent vaccine-preventable diseases.[102] |
| Diarrheal diseases (including cholera, acute watery diarrhea) | | In addition to the existing water scarcity in some at-risk woredas, flooding can damage or contaminate clean water sources, significantly increasing the risk of water-borne disease outbreaks such as cholera and other diarrheal illnesses. [103] Since August 2022, a cholera epidemic has been ongoing in Ethiopia and there is increased risk because of cross border transmission with neighbouring countries which also have active outbreaks.[104] |
| Poliomyelitis (cVDPV2) | | As of 18 May 2024, there were 7 seven cVDPV2 outbreaks reported in Ethiopia: Gambella (4) in Itang and Neuer, Amhara (2) in Waghimra, and Afar (1) in Zone2. To date there are 5 cases and the other 2 positives are contacts to the case. As of week 50, 2023, there have been a total of 69 reported cases of circulating cVDPV2. [105] All viruses were detected in human cases, with two identified from healthy contacts in Gambella.[106] |
| Acute Respiratory Tract Infection (including COVID-19) | | Since the inception of the COVID-19 pandemic response until February 25, 2024, a total of 5 585 272 COVID-19 tests were conducted. [107] Among these tests, 501 373 confirmed cases and 7 574 total deaths were reported, resulting in a Case Fatality Rate (CFR) of 1.5%. The positivity rate (PR) was calculated to be 9%.[108] In epidemiological week 08 of 2024, 543 laboratory tests were conducted, indicating a >100% increase compared to epidemiological week 07 of 2023. During this week, 21 new cases were detected, resulting in a positivity rate of 3.87%. Notably, 14 of these new cases (66.67%) were from the Addis Ababa City Administration.[109] |
| Meningitis | | Cases of meningitis were last reported in Ethiopia in 2023 and 2024. However, the key challenge is low in-country laboratory and technical capacity to ensure quality reporting.[110] Weakened immune systems in malnourished children, low vaccination coverage rates, and crowded living conditions exacerbate the issues. |
| Dengue Fever | | The El-Nino driven drought has impacted Ethiopia's summer rains, resulting in conditions for increased transmission.[111] |
| Tuberculosis (TB) | | Among the top 30 high TB burden countries, Ethiopia ranked seventh in the world in 2021.[112] TB is a major public health problem. Disruptions to health systems are impacting services to existing patients. |
| Mental health | | The psychological toll of the flooding, displacement, loss, and upheaval to livelihoods precipitates significant mental health and psychosocial challenges among affected individuals, necessitating specialized support and intervention.[113] |
| Non-Communicable Diseases (NCD) | | Non-communicable diseases are a priority as the burden is high and patients lack access to diabetic medication and for conditions such as arterial hypertension. [114] Food insecurity is shown to lead to malnutrition and |

| | | |
|---|---|---|
| | | obesity, which was highly associated with several NCDs such as diabetes, cancer, and cardiovascular disease, causing premature deaths.[115] |
| Anthrax | | In Ethiopia, anthrax is assumed to be endemic, although laboratory confirmation has not been previously routinely performed.[116] |
| HIV/AIDS | | National HIV prevalence in Ethiopia is 0.9%, and the epidemic is heterogeneous by sex, geographic areas, and population groups.[117] Looking at HIV prevalence by regional states, it is the highest in the Gambella region (4.8%), and Addis Ababa city (3.4%).[118] |
| Scabies | | In the aftermath of floods, there is an increased risk of infection of scabies.[119]A 2020 study across Ethiopia found that the prevalence of scabies infestation was 14.5% (high).[120] |
| Visceral Leishmaniasis | | Since June 28, 2022, cases of leishmaniasis have persisted in the Gamo and South Omo zones of the South Ethiopia region, as well as in six woredas of the Somali region.[121] |
| Rift Valley Fever | | The viral disease, which affects both animals and humans, was first identified in 1931 during an outbreak of sudden deaths and abortions among sheep along the shores of Lake Naivasha in Kenya's Rift Valley and had caused sporadic outbreaks in other parts of Africa since then.[122] Potential for cross border transmission. |
| Mpox | | Since May 2022, cases of mpox have been reported from countries where the disease is not endemic and continue to be reported in several endemic countries. Suspected cases have been reported in Amhara but are not confirmed. |

****[Select cell and fill with the colour]*

Red: **Very high risk**. Could result in high levels of excess mortality/morbidity in the upcoming month.

Orange: **High risk**. Could result in considerable levels of excess mortality/morbidity in the upcoming months.
Yellow: **Moderate risk.** Could make a minor contribution to excess mortality/morbidity in the upcoming months. Green: **Low risk.** Will probably not result in excess mortality/morbidity in the upcoming months.

## DETERMINANTS OF HEALTH

**Drought**: The El-Nino driven drought has impacted Ethiopia's summer rains, resulting in severe water shortages, dried pastures and reduced harvests in many areas.[123] The ongoing drought has impacted communities across Afar, Amhara, Tigray, and parts of Oromia, Somali, and Southern regions.[124] The ongoing drought has had a cascading impact on livelihoods, resulting in staggering 28% drop in livestock due to dwindling resources, crop failure, resulting in a 35% decrease in household income and a notable decline in levels of food consumption. With over two-thirds of assessed households struggling to meet even half their basic needs, 41% have been forced to adopt emergency coping strategies to survive, primarily to access or pay for food, healthcare, shelter and education. [125]

**Water Sanitation and Hygiene (WASH):** Flooding can impair water supply systems which escalates health risks, fostering mosquito breeding and unsanitary conditions, thus heightening the threat of vector-borne diseases and water-borne illnesses like cholera, dysentery, and typhoid. [126] The absence of clean drinking water forces communities to resort to unsafe sources, exacerbating health hazards. The overflow of sewage and dirty water fosters unsanitary conditions, fuelling the spread of diseases and the proliferation of pests like rats.[127]

In terms of access to clean drinking water, Ethiopia ranks among the lowest in Sub-Saharan Africa and is thought to have one of the worst drinking water infrastructures in the world.[128] Around 31% of the population in Ethiopia uses unimproved sources of drinking water across the country. [129] The conflict also had a devastating effect on the country's WASH infrastructure. In addition to the physical damage to critical infrastructure, such as water tanks, reservoirs, pumping stations, and distribution lines, there has been extensive looting of equipment vital to sustain WASH operations, including vehicles, rigs, computers, and monitoring equipment. Reinstatement of services seems a distant prospect in many areas given the insecurity and extensive damage. While the total damages caused to water supply by the conflict are estimated at over US$95 million, insufficient data are available to quantify all physical damages and economic losses related to sanitation.[130]

**Protection Risks**

- **Gender Based Violence (GBV):** In Ethiopia, GBV continues to be a key concern in communities affected by conflict and climate shocks (drought and floods). GBV forms include violence, sexual assault, physical violence, abduction, rape, child marriage, and harmful traditional practices.[131]
- **Child Protection:** The country has the second highest number (23.8 million) of girls and women in the world having undergone female genital mutilation (about 65% of those aged 15-49). [132] However, studies show that attitudes towards the practice of FGM are shifting at the community level in Ethiopia, with more than 8 in 10 girls and women opposing the continuation of the practice and 78% of boys and men reporting that men and boys in their community are willing to marry a woman who did not undergo FGM, which was the opposite one decade ago.[133]
- **Mine Action:** Ethiopia has experienced a series of internal and international armed conflicts throughout its history, leaving a legacy of landmines scattered throughout the country, with unaddressed contamination totalling 726 square kilometre.[134] According to data collected in 2023, 1 500 (1014 male and 486 female) victims of Explosive Ordnance have been reported in Northern Ethiopia, although not all cases have been verified. It is believed that many other accidents go unreported. Initial analysis shows that children make more than 25% of all casualties known.[135]

## HEALTH SYSTEMS STATUS AND LOCAL HEALTH SYSTEM DISTRIBUTIONS

**Pre-crisis health system status**

In Ethiopia, there remain lagging health outcome indicators such as stunting rates and neonatal mortality, which have either stagnated or showed only minor improvement.[136] Assessment of the health services in Ethiopia is hampered by a lack of credible data, including outdated population with the last census conducted as way back as 2007. This has made it difficult to establish the number of healthcare facilities and medical staff per given population size.[137] Since 2020, the country has faced consecutive challenges to public health service delivery and overall health security. There were continued weaknesses in systems for emergency preparedness, operations, and financing, combined with the emergence of new and emerging infectious diseases such as COVID-19.[138]

Ethiopia's health service is structured into a three-tier system: primary, secondary and tertiary levels of care. The primary level of care includes primary hospitals, health centres and health posts.[139] The lowest level of the primary health care are the health posts staffed with two women each to take care of their communities. They have around 15 000 health posts and about 30 000 women trained to run them. [140] Access to primary health care stood at 90% in 2019.[141] Ethiopia had 434 hospitals, 3 890 health centres, and 18 090 health posts in 2020. The country also had 14 314 doctors and 69 550 nurses in 2020, giving a ratio of 12.5 doctors per 10 000 population and 67 nurses per 10 000 population.[142]

According to the World Health Organization, Ethiopia's healthcare sector is financed by multiple sources including loans and donations from all over the world (46.8%), the Ethiopian Government (16.5%), out-of-pocket payments (35.8%), and others (0.9%).[143] The country allocated US$ 1.6 billion to health care in 2015 and of total health expenditure, approximately 15% goes to primary health care.[144]

Furthermore, ongoing insecurity in Amhara, Benishangul Gumuz, Western Oromia, and Tigray is impeding the delivery of basic health services including immunization, distribution of bed nets, surveillance and transport of samples for laboratory confirmation, resulting in increased risk of undetected disease outbreaks.[145]

Major access barriers to health services have been reported as including a lack of inclusive services for people with restricted mobility, lack of information on available services, lack of essential drugs, lack of medical equipment, and lack of skilled health care workers.[146] Incidents of GBV against health workers are consistently being reported through regional health bureaus.[147] The health workforce has also suffered greatly because of the conflict, with more than 10 000 health workers forced to flee their duty stations.[148]

**In crisis health system status**

To date there is limited information about damage to health facilities. However, in Somali region, health facilities have been severely impacted, including five health posts and one health center in reporting damage. None of these facilities are currently operational.[149] Furthermore, in February 2024, damage to health facilities due to flooding was reported by the Ethiopia Health Cluster, leaving many without access to healthcare services. Due to the floods, risk of disease outbreaks increased, with cholera remaining a high concern considering the deteriorating WASH situation in the region.[150]

A REACH assessment published in May 2024 also found 29% of those assessed were not able to access healthcare when needed.[151] On average, those assessed need to travel 35 minutes to reach the nearest functional healthcare facility.[152] The main barriers listed to accessing healthcare included unavailability (37%), no functional healthcare facility nearby (34%), cost too hight (29%), long waiting times (26%) and finally not enough staff (10%).[153]

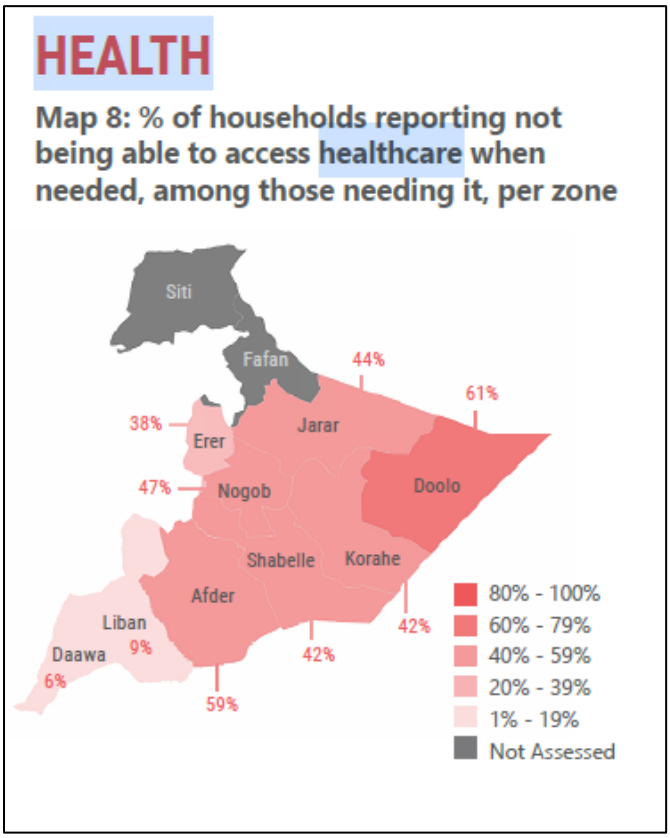


*Figure 3- Somali Region: % of households reporting not being able to access healthcare when needed*[154]

## HUMANITARIAN HEALTH RESPONSE

**Ethiopia Humanitarian Response Plan (HRP) 2024:** The 2024 Humanitarian Response Plan (HRP) targets some 15 million people, with funding requirements of US$3.237 billion.[155] Despite this urgency of the crises facing Ethiopia, the international community has pledged only a fraction of the funds needed to address this crisis. Ethiopia's recent high-level pledging conference in April 2024 raised $630 million of the $1 billion target to boost aid for just the next five months. In fact, the overall response which identified more than 21 million people in need, requires $3.24 billion but is currently only 8.9% funded.[156]

**Health Cluster Overview for 2024:** For the Health Cluster, 16.4 million people have been identified as in need of health services, while 6.7 million people will be targeted with US$ 187.3M in funding required. However, the Health Cluster expects a 50% decrease in donor funding for 2024 compared to 2023.[157] As of February 2024, the Cluster was only 24% funded.[158]

**Health Cluster Flood Response:** For flood response, health cluster partners are providing essential health services to affected populations, including in IDP sites, mostly through Mobile Health Teams. Similarly, partners support with last-mile delivery of lifesaving supplies and training of health workers, besides the support to ongoing cholera, measles, and malaria outbreaks.

More broadly, the Health Cluster has been operational in Ethiopia since 2015, co-coordinated between WHO and the Ministry of Health.[159] According to the 2024 HNO, the Health Cluster currently has 57 operational partners including national and international NGOs, the Red Cross Movement, UN agencies, the Ministry of Health, and the Ethiopian Public Health Institute (EPHI).However, the Health Cluster faces various challenges including limited funding, insecurity and lack of access.[160] Local health partners have a unique role to play in health service provision, access to population in insecure/conflict & hard-to-reach areas, last-mile delivery of supplies, and disease outbreak response in areas with difficult access to government, and UN agencies.[161]As of April 2024, health cluster partners have reached a more than 1.6 million beneficiaries with various health services representing about 24% of the 2024 target

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| INFORMATION GAPS / RECOMMENDED INFORMATION SOURCES | | |
|---|---|---|
| | **Gap** | **Recommended tools/guidance for primary data collection** |
| **Health status & threats for affected population** | Surveillance data in conflict and remote areas | Early Warning Alert and Response (EWAR) |
| | Health needs information is limited | Health needs assessments |
| **Health resources & services availability** | Information on Health services availability, disruption and functionality in several areas | HeRAMS (WHO) |
| | Limited information on health workers availability and capacity | HeRAMS (WHO) |
| | Attacks on health | SSA (WHO) |
| **Humanitarian health system performance** | Information on quality of humanitarian health services provided to beneficiaries (accountability to affected populations) | Beneficiary satisfaction survey |
| | Gaps in health service provision for IDPs in some areas | Support from IOM, INGOs, NGOs, Regional Health Bureaus and local health authorities required |

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