From 01 to 31 May 2023, a total of 65,399 individuals (13,810 households) reported to cross into South Sudan, representing 74% of the total number (89,010) of returnees and refugees that came into the country since begging of the Sudan crisis between opposing military factions, (the Sudanese Armed Forces (SAF) and the Rapid Support Forces (RSF), adding extra burden on the already fragile health system especially in areas with high number of returnees and refugees.

Ministry of health downgraded the cholera outbreak in Malakal County following the last two cholera cases reported since 16 May 2023. This suggesting that the cholera outbreak in Malakal County, Upper Nile State has been contained as per the Global task force for cholera control (GTFCC) guidance.

The Hepatitis E Virus (HEV) outbreak in Wau, Northern Bahr el Ghazal is still ongoing. By 31 May 2023, 168 cases were reported, 7 deaths.

Fourteen (14) measles cases reported among returnees and refugees from Sudan entering through Renk in South Sudan. Three (03) of the samples collected on 25 and 29 May from children aged 1 to 4 years turned positive for Measles. The rest of the suspected measles cases were clinically confirmed.

The persistent measles outbreak is still ongoing since 2022 with a cumulative number of 6,160 suspected cases reported 4,137 and 2,023 in 2022 and 2023, respectively.

A national measles follow-up campaign was conducted, targeting over 2 million children 6-59 months. As of 31 May, 86.3% of the target population were reached.

Over 6 million people estimated to be food-insecure (IPC Phase 3 or above), including 33,000 people in Catastrophe (IPC Phase 5) in Akobo and Fangak counties, Jonglei State and in Pibor County, the Greater Pibor Administrative Area.

Humanitarian needs in the Greater Upper Nile remained high with an estimated 2.4 million people (excluding refugees) projected to need humanitarian assistance and protection services.

Overall, the humanitarian situation in South Sudan remains dire, with over 9 million of people in need of humanitarian assistance.

In Warrap State, there are reported record of high number (53) of civilian casualties along the border areas with Lakes and Unity States, as cattle-raid related incidents between the communities in these areas persist, exacerbated by a security vacuum in the border region.

In Jonglei and Upper Nile States, small-scale sporadic incidents (14) against civilians by Murle armed elements continue to be reported.

In Eastern Equatoria State, cyclic retaliatory/ revenge violence between communities continues to be the major driver of civilian casualties reported in the region. During the reporting period, 7 civilian casualties were reported from these incidents.

The ongoing conflict has led to the displacement of millions of 2.3 million people. Violent clashes between armed cattle keepers and host community members resulting to vandalization, looting and attacks on health care.

The continued fighting in Sudan between opposing military factions, (the Sudanese Armed Forces (SAF) and the Rapid Support Forces (RSF)) in Sudan, leading to a growing number of refugees and returnees crossing into neighboring countries including South Sudan. As of 31 May 2023, some 89,010 refugees and returnees were reported to cross into South Sudan, adding extra burden on the already fragile health system especially in areas with high number of returnees and refugees.
burden on the below optimum health system especially in areas with high number of returnees and refugees. Partners providing health services in these locations will need extra resources to provide the much-needed health services.

- Wide spread of food insecurity continues to be experienced by many and for years due to conflict, displacement, and extreme weather conditions. According to the United Nations, over 6 million people in South Sudan, more than 60% of the population, are facing severe food insecurity including 33,000 people in Catastrophe (IPC Phase 5) in Akobo and Fangak counties, Jonglei State and in Pibor County, the Greater Pibor Administrative Area.
- South Sudan’s exposed floodplains and Nile Basin location render it especially susceptible to flooding. In upstream countries, rainfall elevates Lake Victoria and Lake Albert’s water levels, and increases the flow of other sources that feed the White Nile, which amplifies downstream flows in South Sudan. These factors, combined with intensified local precipitation and poor river management, further compound the flood risk in the country.

**Emergency Response Activities**

- **Coordination**: The Ministry of health through the leadership of the Honorable Ministry for Health, established a coordination structure for the ongoing influx of refugees and returnees crossing into South Sudan as a result of the Sudan Crises that broke out on 15 April 2023. A national health sector response plan for the refugees and returnees has been developed to guide the response activities. South Sudan Health Cluster led by WHO and co-lead by Ministry of Health is working with health cluster partners, observers, and health authorities to provide essential lifesaving health services.

- **Provision of emergency health supplies**: As of 31 May 2023, WHO distributed 10.5 metric tons of health emergency kits (218 inter-agency health emergency health kits (IEHK), 27 cholera investigative and treatment kits) to 6 locations that can benefit around 101,555 for three months. In addition, WHO provided non-communicable disease (NCD) kits each consists of 20-25 boxes are expected to serve 10,000 over 3 months.

- **Health service delivery**: WHO supported the health response, focusing on saving lives through surveillance to prevent disease outbreaks provide inter-agency health emergency kits to frontline health partners in the areas receiving returnees and refugees continue conduct medical screening at the border and provide emergency health care and referral to health facilities for timely treatment. WHO also supported in setting up mobile clinics in refugee camps or returnees hosting communities to support additional caseloads due to the influx. Vaccination of children against measles, polio and other vaccine preventable disease are also integrated into the mobile clinic strategy to prevent disease outbreak were also supported.

- **WHO** continue to support the deployment of 4 teams to conduct a health-related rapid assessment and as well provide medical support in key areas with high numbers of Refugees and Returnees.

- **Support to nutrition response**: Distributed 10 kits for management of medical complications among under five children associated with severe acute malnutrition and other essential medicines

- **Surveillance and Rapid Health Assessment**: WHO conducted initial rapid assessment among communities affected by the Sudan conflict in Paloch county. WHO also supported health cluster partners to conduct a rapid Joint assessment in communities receiving refugees and returnees in Fangak county. The purpose of the assessments is to identify gaps in the health response, including those which affect health in sectors such as WASH and nutrition. Common diseases found to be common among children include typhoid, bilharzia, malaria acute watery diarrhea, eye infections and respiratory infections. In addition, WHO and MOH trained 30 health workers on Integrated Disease Surveillance and Response (IDSR) third edition technical guidelines and training modules

- **Water quality testing and surveillance**: WHO collected and tested 68 water samples from different drinking water sources including treatment plant, stand taps, storage tanks and water pots in Raja (22), Renk (9) and Aweil (37). The purpose of this is to determine if the presence of contaminants in the water can lead to health issues, including gastrointestinal illness such as acute watery diarrhea. The laboratory test for Microbiological Analysis Results indicated the in Western Bahr el Ghazal state indicated 5 samples tested with Coliform forming Units (CFU/100mL) representing 23% of contamination rate with microbiological and 17 of water sampled tested with no Coliform forming Units (CFU/100mL representing 77%. Laboratory results for Microbiological Analysis Results in Northern Bahr el Ghazal state indicated 24 samples tested with Coliform forming
Units (CFU/100mL) representing 65% of contamination rate with microbiological and only 13 of water sampled tested with no Coliform forming Units (CFU/100mL representing 35%. In Upper Nile state, the laboratory test rest result of 7 samples tested with Coliform forming Units (CFU/100mL) representing 77.8 % of contamination rate with microbiological and only 2 of water sampled tested with no Coliform forming Units (CFU/100mL representing 22.2 %.

Surveillance, Epidemiological Update, and Response for Disease Outbreaks

Confirmed and suspected Outbreaks

Cholera Outbreak in Malakal County, Upper Nile

- South Sudan declared a cholera outbreak in Malakal County, upper Nile state on the 7 March 2023 after 2 cases tested positive for vibrio cholerae using polymerase chain reaction (PCR). The last two (02) cholera cases were reported on 16 May 2023, given a cumulative total number of 1471 cholera cases and 2 deaths (CFR - 0.14%) recorded since the onset of the outbreak. Overall, 767 (52%) of the cases are males and 704 (48%) are females. Children of age 1 – 4 years old are the most affected accounting for 714 (49%) of the total cases reported followed by <1 years old 503 (34%).

- Public health response implemented include:
  - Oral Cholera vaccination campaign commenced on 16 March 2023 targeting 66,121 individuals aged 1 year and above in the POC and Malakal town. Cumulatively, 54,538 people have been vaccinated (Malakal town and POC) with OCV achieving 82% coverage.
  - Ongoing blanket chlorination campaign of water points and households was started on 4th April 2023 and led by the Malakal municipality council with the participation of WASH/health partners
  - Acceleration of risk communication and community engagement (RCCE) interventions at POC and Malakal town
  - The MOH and WHO continue to monitor acute watery diarrhea (AWD) trends in Malakal and health cluster partners are encouraged to collect samples from suspected cholera cases

- The Global task force for cholera control (GTFCC) guidance in areas with sustained (year-round) transmission, cholera outbreaks are defined as an unexpected increase (in magnitude or timing) of suspected cases, over 2 consecutive weeks, of which some are laboratory confirmed. There has not been cholera cases recorded in the last 2 weeks which suggests that the cholera outbreak in Malakal has been contained

Measles Outbreak

- The ongoing Measles outbreak declared on the 10 December 2022, by Ministry of Health. Data obtained from January 1, 2022, to 31 May 2023, shows that a total of 63 counties across all 10 States have reported at least one suspected measles case, with confirmed outbreaks in 39 counties (23 in 2022 and 16 in 2023 including 2 counties from 2022).

- Cumulatively, 6,160 suspected cases have been reported: 4,137 and 2023 in 2022 and 2023, respectively. Of the 6,160 suspected measles cases, 3,117 (50.6%) are epi-linked, 616 (10%) lab-confirmed, 1,753 (28.5%) clinically compatible, and 674 (10.9) discarded cases have been reported from epidemiological week 1, 2022, to week 22, 2023. A total of 211 rubella positive cases from the discarded (negative measles cases). A total of 59 measles-related deaths were reported since January 2022, with only 3 deaths among the lab-confirmed measles cases and 41 among the epi-linked cases.

- Fourteen (14) measles cases reported among returnees and refugees from Sudan entering through Renk in South Sudan. Three (03) of the samples collected on 25th and 29th May from children aged 1 to 4 years turned positive for Measles. The rest of the suspected measles cases were clinically confirmed

- Public health response implemented include:
  - A national measles campaign was conducted among children 6-59 months. The campaign targeted 2,597,415 children and reached 2,383,771 representing 92% coverage as of 05 June 2023. However, some counties (Renk, Duk) recorded low coverages with need for mop up routine immunization (MURI).
  - South Sudan donated over 30,000 doses of measles vaccines to facilitate the reactive measles outbreak in Blue Nile in Sudan

Hepatitis E Virus (HEV) Outbreak; Wau in Northern Bahr El Ghazal State and in Bentiu IDP Camp in Unity State

Issue 3 | March and April 2023
On March 22, 2023, the national Ministry of Health was notified of clusters of cases and deaths of Acute Jaundice Syndrome in Wau. State MOH and WHO verified the alert and called for further investigations. As of 31 May 2023, a total of 168 cases of HEV were reported with 7 deaths (CFR 4.2%).

The persistent HEV transmission has been ongoing in Bentiu IDP Camp and the surrounding host community since 2019. Cumulatively, 4,165 cases and 27 (CFR, 0.7%) deaths were reported from 2019 to May 2023. Of the 4,165 HEV cases, 326 reported in 2023 with majority (40%) of the cases 40% of all the cases are in the age-group 15-44 years followed by children ages 1-4 years (24%)

Public health response implemented include:
- Case management and active case searches in locations with confirmed or suspected cases. Targeted WASH intervention, including distributing WASH supplies and health promotion is being undertaken.
- HEV vaccination campaign was conducted in Bentiu IDP Camp; the first round with a coverage of 91% and the second round with a coverage of 82% among those aged 16-40 years (incl. pregnant women. 6. Risk communication and awareness are enhanced through household health promoters/hygiene promoters; radio talk shows and messaging.
- Enhanced access to safe drinking water, sanitation facilities such as latrines, mass clean-up campaigns, regular water quality testing, and monitoring.

Operational gaps and challenges

The operation response has been affected by several challenges such as:
- Limited funding to respond to numerous emergencies and needs.
- Disruptive insecurity incidents and inaccessibility in conflict-affected counties.
- Huge operational costs measured against available donor funds.
- Inadequate human resources for health service delivery at sub-national levels.
- Limited resources to regular health service provision in the country impacting health services functionality.

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Key Donors

WHO South Sudan country office appreciates the support provided by all our donors to address numerous emergencies needs across the country. Please find below the list of our donors supporting emergency operations in South Sudan.

- The World Bank
- African Development Bank Group (AfDB)
- Central Emergency Response Fund (CERF)
- Contingency Fund for Emergencies (CFE)
- European Union Humanitarian Aid (ECHO)
- Foreign, Commonwealth and Development Office (FCDO)-UK
- Global Alliance for Vaccine Initiative (GAVI)
- Government of Japan
- United States Agency for International Development (USAID)
- European Union (EU)
- South Sudan Humanitarian Fund (SSHF)

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