South Sudan COVID-19 Weekly Epidemiologic Bulletin

Issue #: 37

13 – 19 September 2021

Epidemiologic Week 37

Summary Statistics for Epidemiologic Week 37

109	11814	1	121	464	225918
New Confirmed Cases	Total Confirmed Cases	New Death	Total Deaths	Contacts Under Follow-up	Cumulative Samples Tested

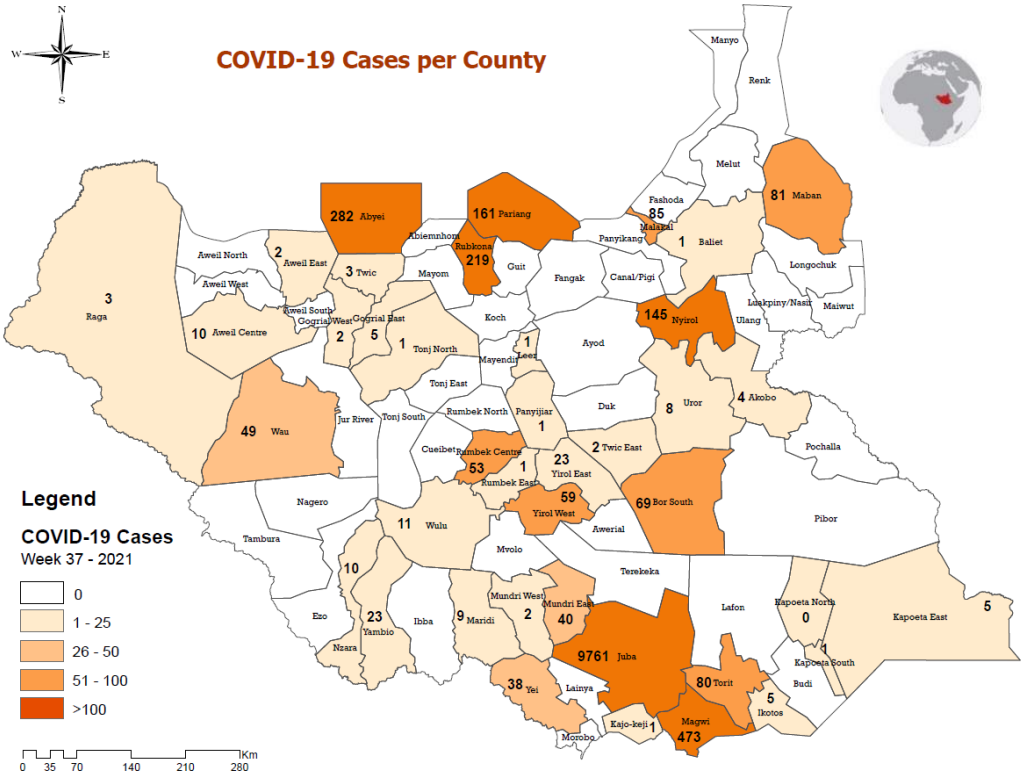

Figure 1. Map of cumulative reported COVID-19 cases, by county

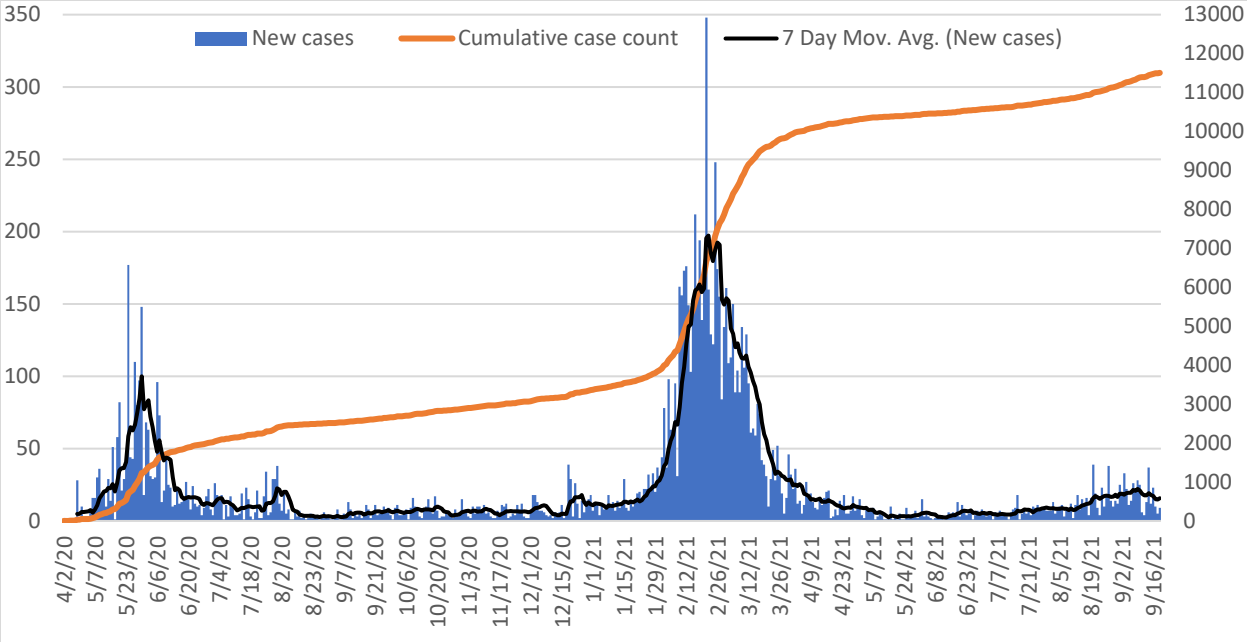

Figure 2. Epidemiological curve of reported cases through Week 37, showing new cases (blue bars), rolling 7-day average of reported cases (black line), and total cumulative reported cases (yellow line)

Epidemiology and Surveillance Update

One hundred and nine new cases were identified in Week 37, bringing the cumulative number of confirmed cases to 11814[1], including 418 imported cases mainly from South Sudanese returnees (246), Uganda (53), and Kenya (19). There were four new imported cases in Week 37. There was one reported death in Week 37, bringing the cumulative deaths to 121. However, mortality surveillance and reporting in the community needs to be more active (i.e., the mortality surveillance team needs to respond to all community death alerts and visit mortuaries every day to look for suspect deaths and swab them). The case tally for Week 37 represents only 0.9% of the cumulative case total, compared to a high of 19.8% in Week 07 during the peak of the second wave [Figure 2].

At the end of Week 37, 35 (43.8%) of the 80 counties in the country have a confirmed case [Figure 1]. There was no county with a first confirmed case this week. Cumulatively, the age distribution of cases reported is skewed towards people under 50 years old, with most cases occurring in the 20-49 age group and skewed heavily towards males [Figure 3]. Fifty-six percent of cases reported their nationality as South Sudanese, with a significant proportion (23.0%) with unknown nationality [Figure 4]. Despite expanded testing and increases in cases, the demographic breakdown profiles of the cases have not changed since the beginning of the outbreak. However, certainty about the case profiles is affected by lack of individual-level data and line lists especially from the GeneXpert (GXP) testing sites. This affects our ability to properly detect any changes in profiles.

[1] Fifty-five backlogged cases were added to the cumulative tally in Week 37

About 61.5% of the cases in Week 37 were reported through traveler screening, with the remaining cases coming through alerts (33.9%) especially at the GXP sites, point of entry screening at Nimule land crossing (3.7%), and contact tracing (0.9%). Cumulatively, pre-travel screening account for the greatest proportion of cases (62.8%), followed by contact tracing (10.4%), alerts (8.5%), and sentinel surveillance and POE screening (7.3%) [Figure 5B]. Five testing sites (Queens Medical Complex [31], NPHL [22], Lui Hospital [16], Maridi [9], and Biolab [8]) contributed most (78.9%) of the reported cases in Week 37. The cases reported in Week 37 came from Central Equatoria (65.1%), Western Equatoria (23.9%), Eastern Equatoria (3.7%), Lakes and Ruweng Administrative Area (2.8%), and Jonglei and Abyei Administrative Area (0.9%). Upper Nile, Western Bahr el Ghazal, Northern Bahr el Ghazal, Unity, and Warrap did not report any cases in Week 37 [Figure 6]. In Week 37, no healthcare worker was confirmed as a case, so the cumulative case tally among healthcare workers remained at 284. Most of the cases among healthcare workers came from Central Equatoria (238), followed by Eastern Equatoria (17), Abyei (13), and Jonglei (10). Three states (Upper Nile, Western Bahr el Ghazal, and Northern Bahr el Ghazal) have not reported any cases among healthcare workers [Figure 7].

Although we have been seeing more testing reported from the states, mostly driven by further decentralization of GXP machines throughout the country (at least 30 sites), it is still difficult to know if there is community transmission in the states because there is still not enough testing being done. Overall, COVID-19 surveillance and testing at sub-national levels continue to be weak and need scaling up.

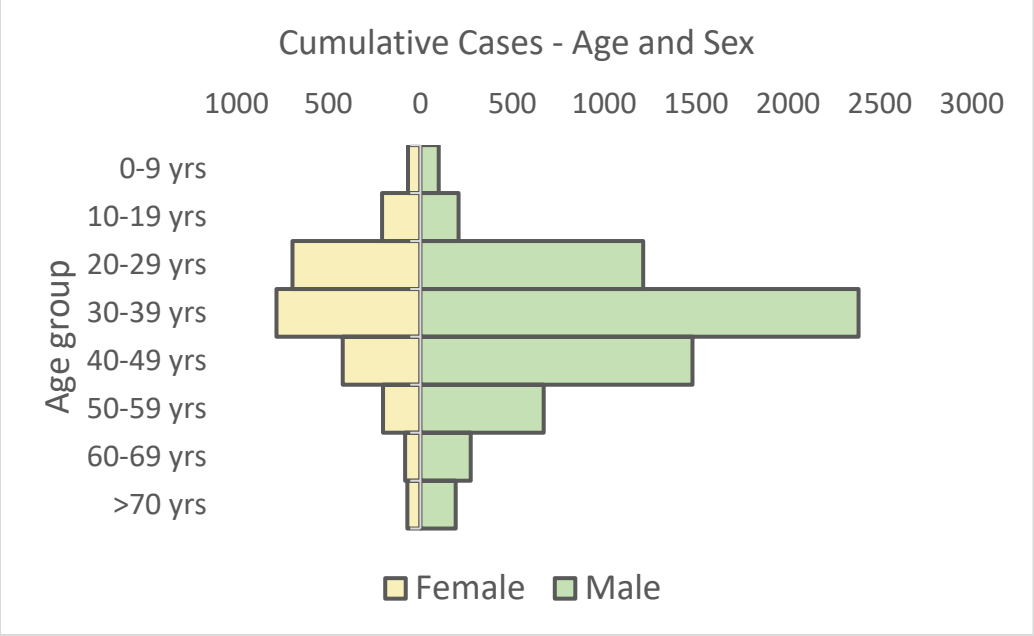

Figure 3. Distribution of cumulative reported cases by age and sex

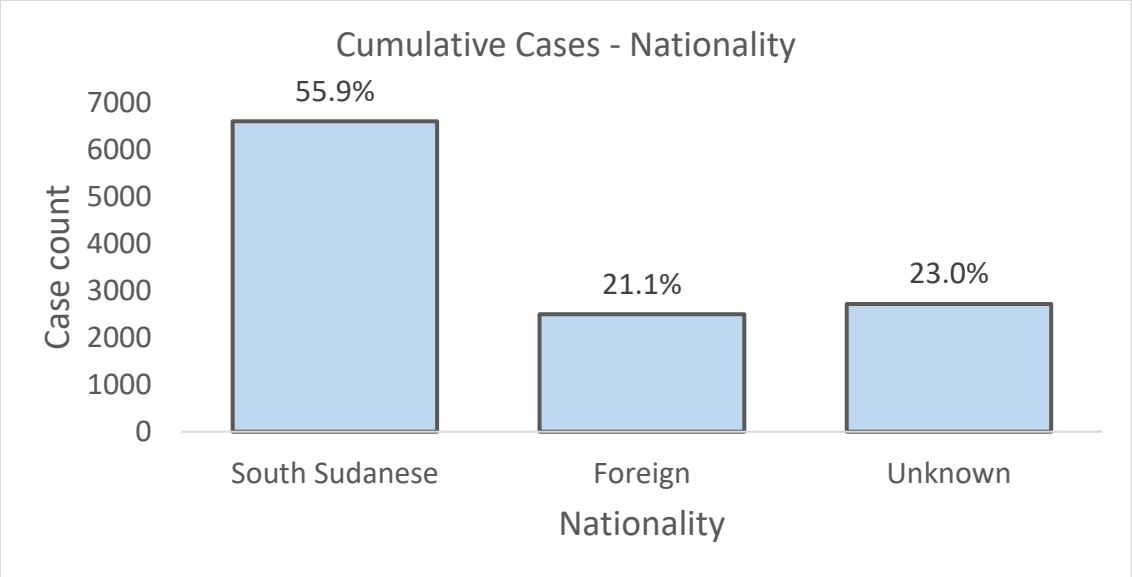

Figure 4. Distribution of cumulative reported cases by nationality

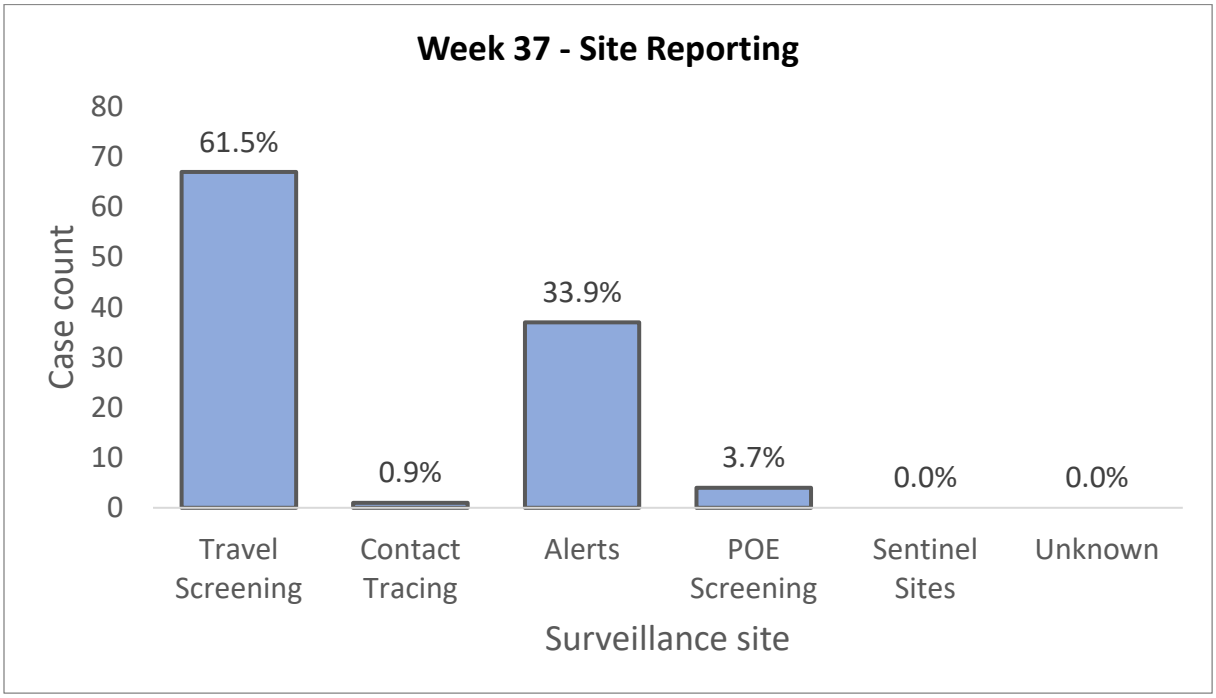

Figure 5A. Case by surveillance site (Week 37)

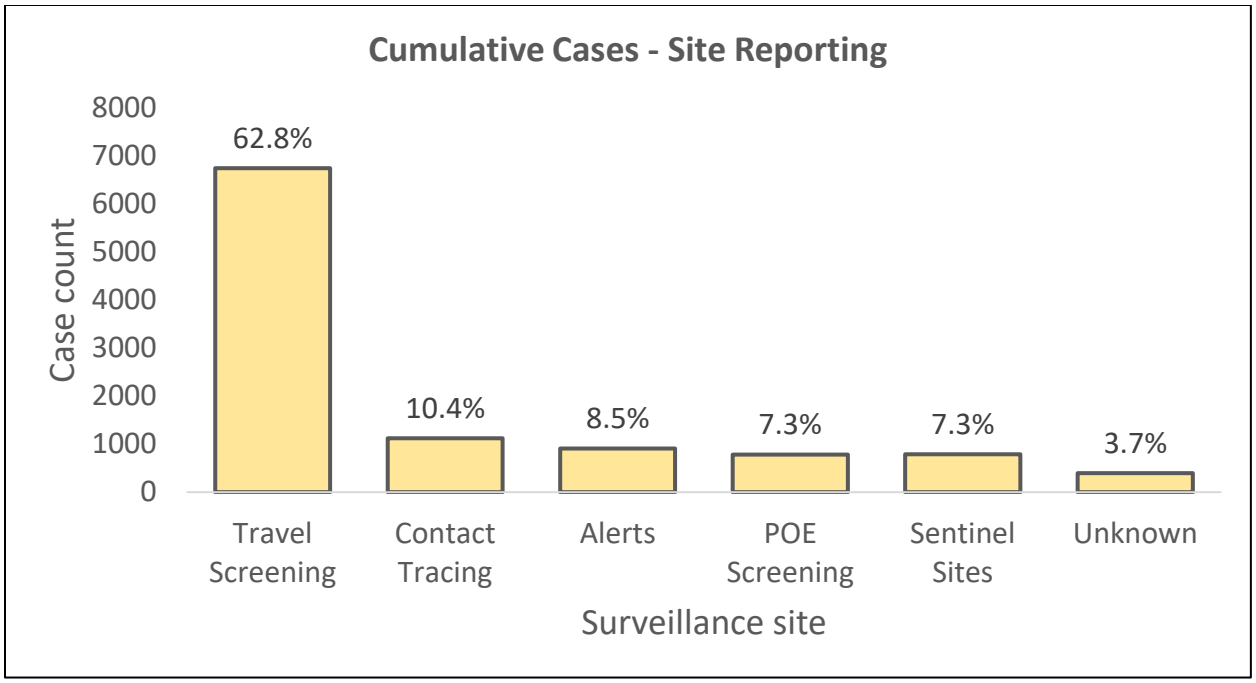

Figure 5B. Cases by surveillance site (cumulative)

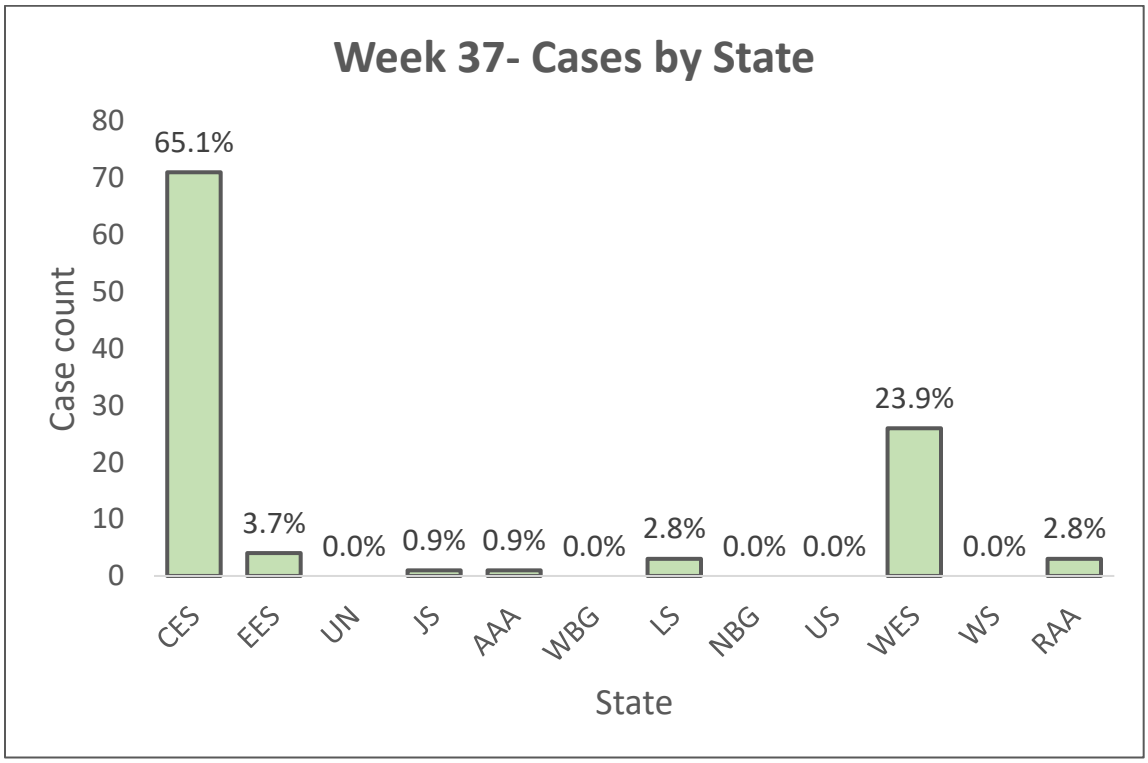

Figure 6. Case distribution by state (Week 37)

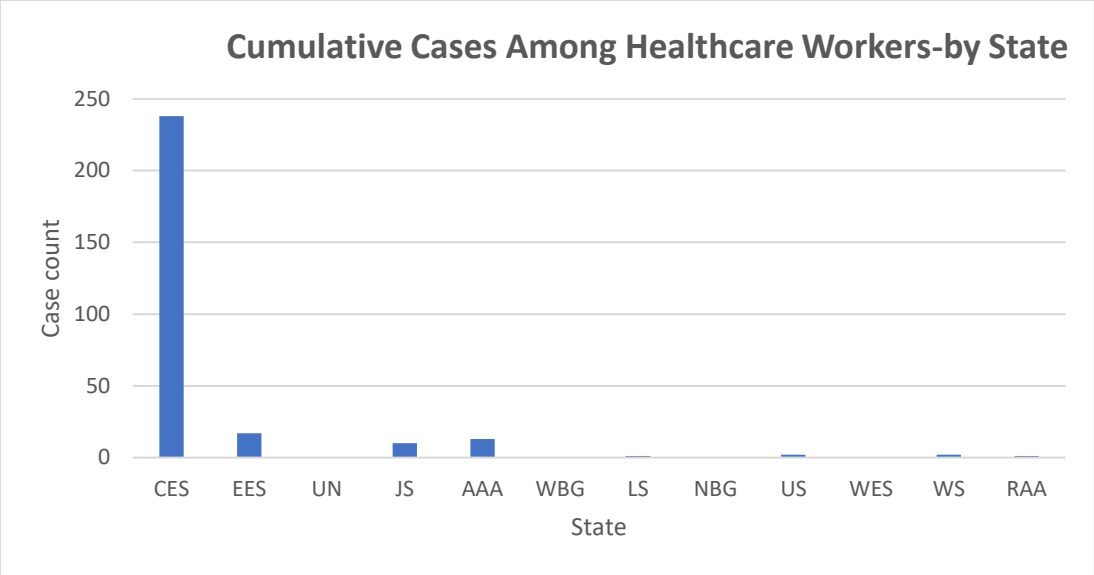

Figure 7. Cases among healthcare workers by state (cumulative)

Interpretation and recommendations

- **This week showed a 12.1% decrease in the number of reported cases compared to Week 36. This is the second consecutive week of recorded decrease in new cases after five consecutive weeks of recorded increase. As the country monitors COVID-19 trends for a potential third wave, it is important to conduct regular genomic sequencing to know which variants of SARS-CoV-2 are in circulation since they might change the transmissibility, clinical presentation, and severity of the disease among the population. So far three variants of concern (Alpha [B.1.1.7], Beta [B.1.351], and Delta [B.1.617.2]) have been identified in the country, with the Delta variant predominating (93% of the latest sequencing results)**
- Improved quality of data collection on individuals tested with key variables including surveillance site, nationality, age, sex, previous test history, clinical profile/symptomology remains critical to understand and characterize cases. The lack of complete individual-level data from the e-governance system as well as from most facilities using GXP testing continues to affect our ability to fully describe the outbreak in South Sudan. **The e-governance team and partners supporting the GXP testing sites need to provide to the EOC Data Management Unit individual-level data for both positive and negative results to better characterize the outbreak in the country**
- Despite recent improvement in reporting of results from GXP testing sites at sub-national level, only 11.1% of all confirmed cases have been detected in states other than Central Equatoria and Eastern Equatoria. **In addition, about 83.0% of all cases have been detected in Juba compared to 17.0% outside of Juba, indicating that surveillance, testing, and reporting need to be improved and expanded in locations outside Central Equatoria**

Laboratory Update

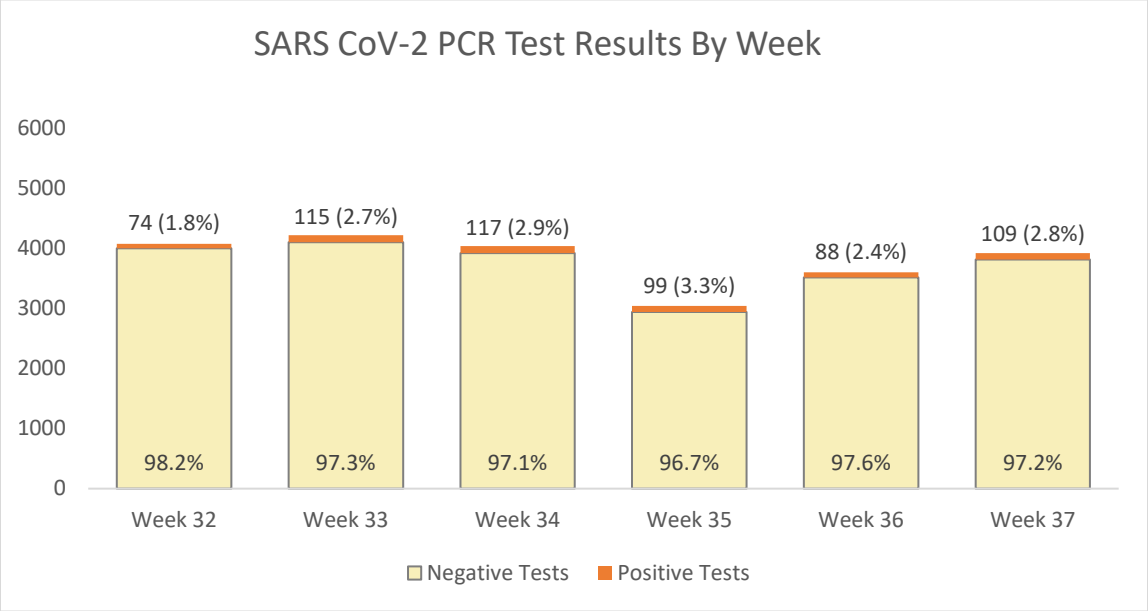

Figure 8. SARS-COV-2 PCR test results by week

Interpretation and recommendations

- **Average positivity yields increased for five consecutive epi weeks, reaching 3.3% in Week 35 before falling to 2.8% this week [Figure 8]**
- Positivity yields were as follows in Week 37: Crawford (1.0%), Med Blue (0.3%), NPHL (2.8%), Nimule (1.6%), Queens Medical Complex (4.6%), Nojum (1.6%), Biolab (2.7%), PIC Diagnostic Center (1.2%), Life Link (0.0%), Check Up (0.0%) [Figure 9A], Maridi (42.9%), Gordhim (0.0%), Torit (0.0%), Kapoeta (0.0%), Yirol (0.0%), St. Theresa/Nzara (12.5%), Lui (39.0%), Agok (1.0%), Bentiu (0.0%), Pariang (6.7%), Lankien (25.0%), Maban (0.0%), Rumbek (0.0%), Mapourdit (60.0%), and Pamir (5.9%) [Figure 9B]. Approximately 225918 SARS-COV-2 PCR tests have been performed throughout the outbreak with 5.2% crude positivity
- **Currently, there is limited QA oversight of private testing facilities by the NPHL. The NPHL must implement a QA system for all COVID-19 testing laboratories in South Sudan. This can be adapted from the quality assurance (QA) system already in use for HIV and tuberculosis in the country**
- Lastly, the EOC needs to produce a comprehensive testing dataset (combining positive and negative results with the CIF variables). This is important to calculate yields of sub-groups presenting for testing to see whether the epidemiology is changing for any of them (e.g., age groups, sex, clinical profile, testing category, etc.). For example, despite expanded testing and increases in cases, the demographic breakdown profiles of the cases have remained unchanged. A comprehensive testing dataset could tell us if the profile of those presenting for testing is the same as it was during the first six months of the outbreak

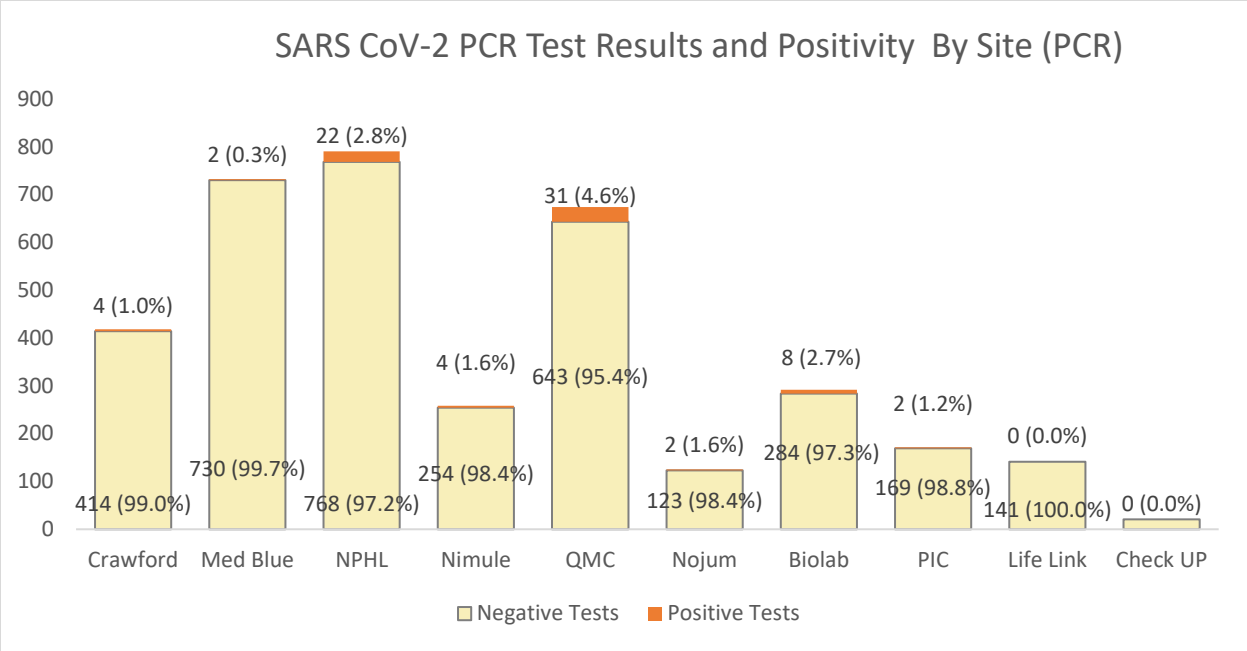

Figure 9A. SARS-COV-2 PCR test results and positivity by testing site [PCR] (Week 37)

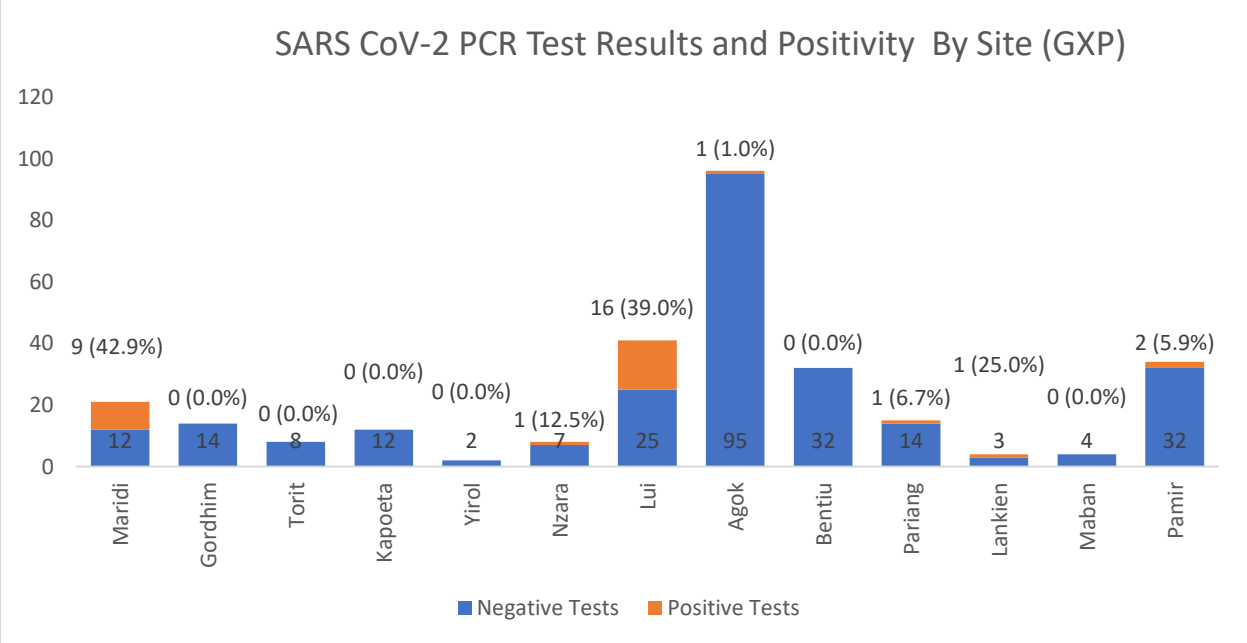

Figure 9B. SARS-COV-2 PCR test results and positivity by testing site [GXP] (Week 37)

Hotline/Alert System Update

There were 52 potential COVID-19 alerts (51 through the call center/hotline and 1 self-reported) in Week 37, an increase of 67.7% from the alerts reported in Week 36. All 52 alerts were verified and investigated by the rapid response team (RRT). Samples were collected from 33 (63.0%) of investigated alerts [Figure 10]. About 63.5% of the potential alerts were from Central Equatoria followed by Western Equatoria (13.5%), Upper Nile (7.7%), Warrap, Lakes, and Eastern Equatoria (3.8%), and Northern Bahr el Ghazal, and Western Bahr el Ghazal (1.9%). The other two states did not report any alerts in Week 37 [Figure 11]. Thirty-seven alerts tested positive for COVID-19 this week. Cumulatively, 3177[2] alerts have been reported, of which 3049 (96.0%) have been verified, and 2966 (97.3%) of the verified alerts were sampled.

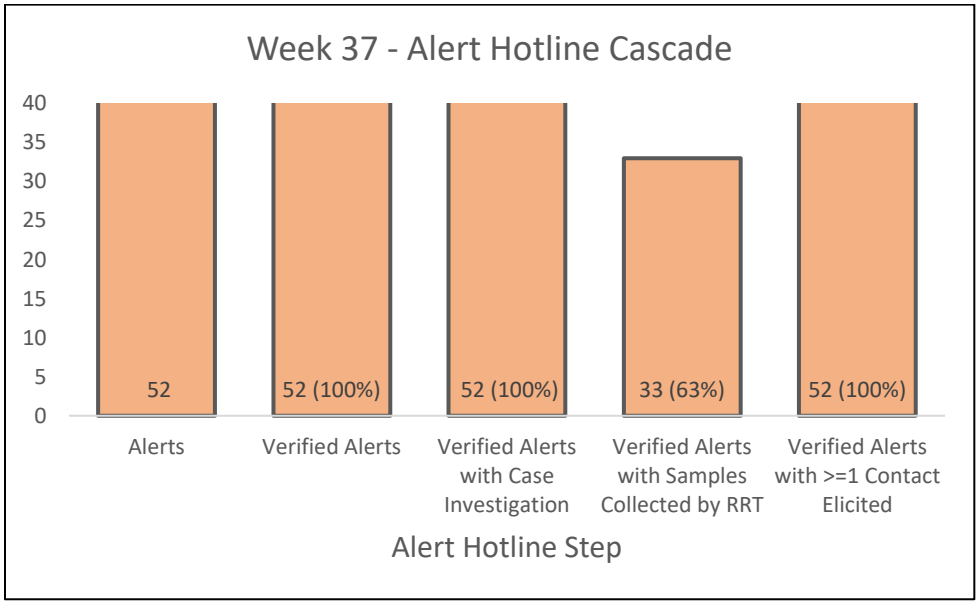

Figure 10: COVID-19 related alerts cascade (Week 37)

[2] Excludes any alerts not reported by the Watch Desk

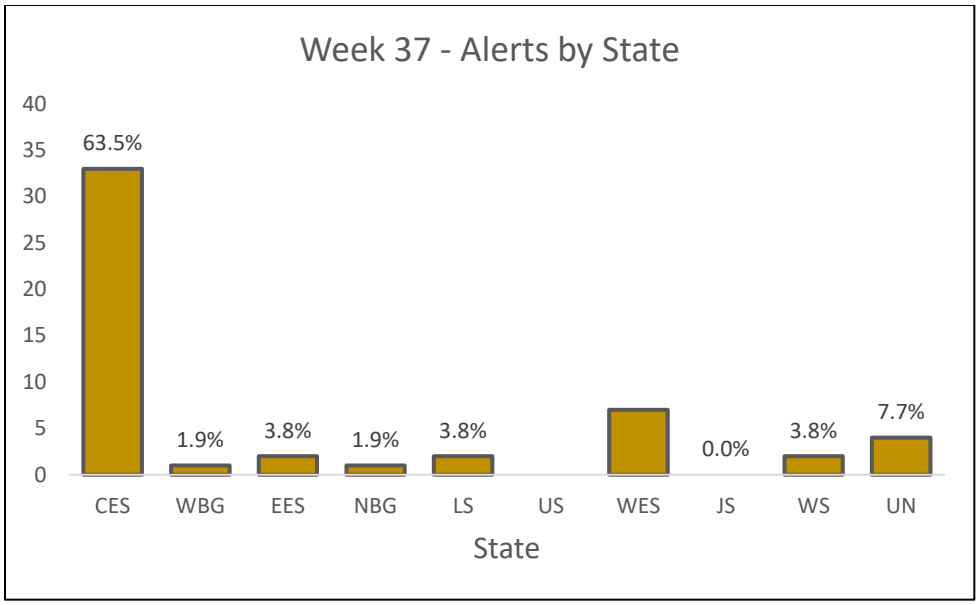

Figure 11: COVID-19 related alerts by state (Week 37)

Recommendations

- Alerts represent a small number of total tests run in South Sudan (1.3%). Understanding the reasons behind the low number of alerts via the call center/hotline should be investigated to identify root causes and potential drivers to remediate. Moreover, alerts outside of Central Equatoria are generally limited. Ongoing discussions to strengthen the hotline system and RRT, case investigation, contact tracing, sentinel sites, and mortality surveillance teams continue to be needed

Contact Tracing System Update

During Week 37, there were 72 cases in Juba County, all (100%) of which were distributed to ICAP by the EOC for contact listing and tracing. Fifty-seven (79.2%) of the 72 cases were eligible for contact listing (i.e., had valid phone numbers), of whom 47 (82.5%) provided contacts (up from 61.9% in Week 36). From the 47 cases that provided contacts, a total of 118 contacts were listed, providing a case to contact ratio of 1:2.5 (down from 1:4.1 in Week 36). Since community-based contact tracing started in early October 2020, a total of 7514 contacts have been elicited from 911 cases (a ratio of 1:8.2), of which 464 (6.2%) are still under active follow-up. Forty-eight contacts have completed their follow-up period this week, with a cumulative total of 5182 (69.0%) thus far. None of the 464 contacts followed up in Week 37 reported COVID-19 related symptoms. Samples were collected from 176 contacts this week. One of the 176 contacts sampled this week tested positive for COVID-19. Cumulatively, 17845 contacts have been listed and followed up since the first confirmed case was reported in April 2020, of which 16046 (89.9%) have completed follow-up.

Recommendations

- Solicitation of contacts from cases continues to be a challenge for the contact tracing team. Ten (17.5%) of the 57 cases with valid phone numbers this week did not list any contacts. Reasons for non-listing of contacts include denial by the case of the positive COVID-19 result (1), non-pick up of phone (6), and phone number listed did not go through (1). Embedment of contact tracers in six of the eight private testing laboratories to facilitate contact listing and checking of listed phone numbers for active status, has had limited impact on improving contact elicitation

Case Management Update

Most cases with documented type of case management are managed at home (39.1%), with very few admitted to a health facility or hospital (0.2%). In Week 37, there were four cases in facility-based case management. However, a significant proportion of cases continues to have "unknown" (60.5%) case management type at first contact. Ninety-five percent (11195) of all cases were discharged as of Week 37, with 498 cases (4.2%) under active follow-up. One hundred and twenty-one cases have died, yielding a case fatality rate of 1.02% [Fig 12].

Case management at first detection	Count	Percent of total cases
Home management	4581	39.1%
Hospital	20	0.2%
Isolation center	4	<0.1%
UN health facility	2	<0.1%
UN home management	3	<0.1%
Died	10	0.1%
Unknown	7091	60.5%

Table 1. Distribution of case management type for cumulative cases, showing total count and as a percent of total cases. Data obtained for date of first contact with the patient

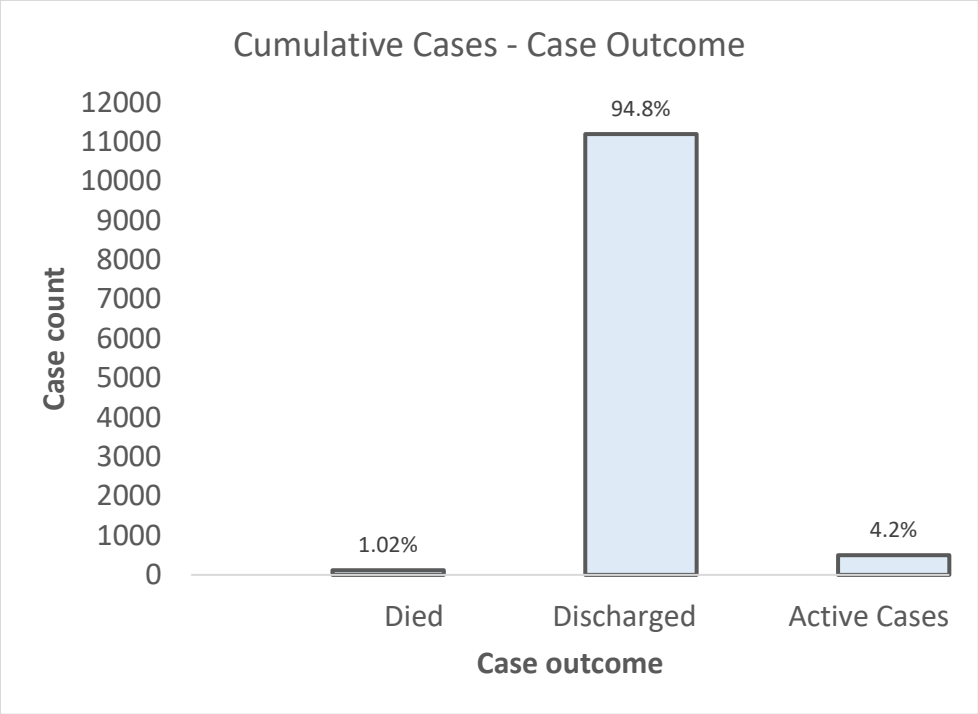

Figure 12. Distribution of case outcome for cumulative cases

Recommendations

- About 60.5% of all cases do not have case management type reported. The coordination of case management data needs to be improved between all reporting and receiving parties

Risk Communication and Community Engagement Update

The following achievements were registered during Week 37 under the risk communication and community engagement (RCCE) pillar:

- Community-based contact tracers supported by ICAP, provided information about COVID-19 to 1762 persons
- Main challenges for the RCCE pillar continue to be:
    1) Community non-compliance with COVID-19 preventive measures
    2) Stigmatization of COVID-19 prevents people from reporting suspected cases to the hotline

Points of Entry Update

During the epidemiological week, IOM screened 3332 (2411 males, 921 females) travelers from Nimule land crossing. Nimule PoE screens only arriving travelers. No traveler underwent secondary screening.

The cumulative number of travelers screened for COVID-19 from Feb 15, 2020 to September 18, 2021 is 672935.

Most of the travelers screened at Nimule PoE this week were truck drivers and returnees. Of the 3332 inbound travelers, 1448 were returnees, 582 were other nationals other than truck drivers, and 1302 were truck drivers. The returnees from the camps are allowed to proceed to their destination without undergoing quarantine or presenting COVID-19 certificates but random samples are taken from at least one traveler per household. Other nationals and truck drivers are required to present valid COVID-19 free certificate to enter South Sudan.

IOM continues to support point of entry surveillance at Nimule PoE and actively participate in all the established coordination mechanisms for COVID-19 including technical working groups, state task force and national taskforce meetings in Nimule. This week, IOM attended a COVID-19 cross border country meeting in Nimule, which was attended by the IGAD Secretariat, National Coordinator for IGAD – South Sudan, COVID-19 Incident Manager - South Sudan, representatives of MOH – Uganda, and border officials including community leaders from the two borders.

Vaccination Update

South Sudan has so far received three batches of vaccines from the COVAX facility. More vaccines are expected before the end of the year. So far, South Sudan has vaccinated 103309 people, of whom 29423 are fully vaccinated and 73886 have received one dose. Detailed information about the vaccination program can be found in the link below (https://app.powerbi.com/view?r=eyJrIjoiYzZkMGRmYjQtZTQzYS00MTVjLWEzNzItMDI0YzU4NGQ5NjJlIiwidCI6ImY2MTBjMGI3LWJkMjQtNGIzOS04MTBiLTNkYzI4MGFmYjU5MCIsImMiOjh9)

For more information, please contact the South Sudan Public Health Emergency Operation Centre [PHEOC]

Email: sspheoc@gmail.com
Tel #: +211922202028
For additional information follow these links:
http://moh.gov.ss/daily_updates.php
http://moh.gov.ss/covid-19.php

Note: COVID-19 testing in South Sudan is free of charge for alerts, contacts of cases, and suspected cases