# South Sudan COVID-19 Weekly Epidemiologic Bulletin

## Issue #: 33

## 16 – 22 August 2021

## Epidemiologic Week 33

# Summary Statistics for Epidemiologic Week 33

| 115 | 11310 | 0 | 120 | 596 | 209687 |
|---|---|---|---|---|---|
| New Confirmed Cases | Total Confirmed Cases | New Deaths | Total Deaths | Contacts Under Follow-up | Cumulative Samples Tested |

**COVID-19 Cases per County**



**COVID-19 Case Summary**

| | |
|---|---|
| Cumulative Cases: | 11310 |
| Recovered Cases: | 10948 |
| Returnees - South Sudanese: | 236 |
| Unknown Imported: | 100 |
| Imported Cases: | 408 |

**Legend**
COVID-19 Cases
Week 32 - 2021
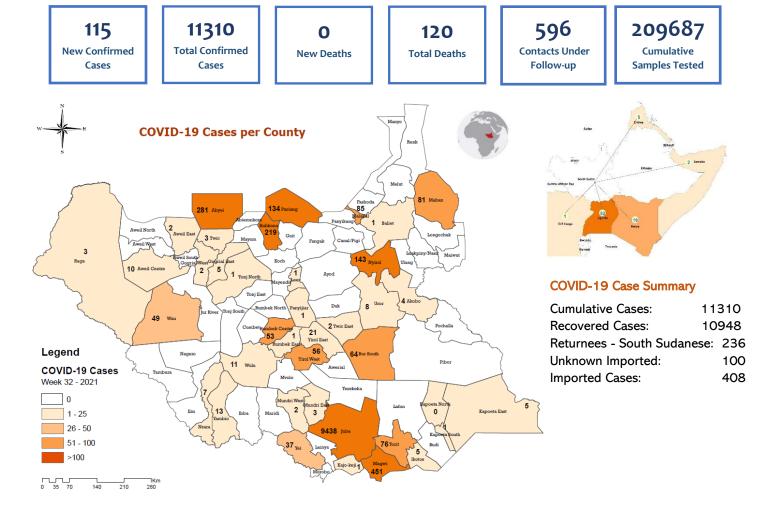- 0
- 1 - 25
- 26 - 50
- 51 - 100
- >100

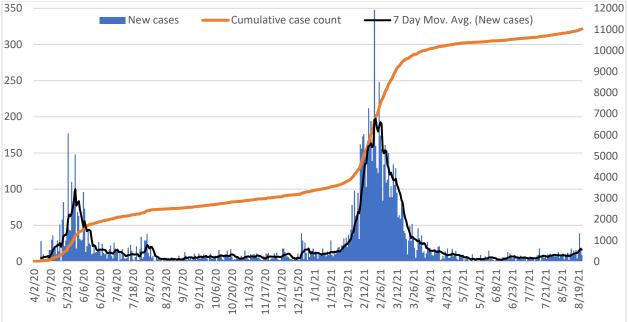Figure 1. Map of cumulative reported COVID-19 cases, by county

Figure 2. Epidemiological curve of reported cases through Week 33, 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 fifteen new cases were identified in Week 33, bringing the cumulative number of confirmed cases to 11310, including 408 imported cases mainly from South Sudanese returnees (236), Uganda (53), and Kenya (19). There were five new imported cases in Week 33 (all from the Nimule point of entry). Moving averages for yield, case count, and proportional daily case change are trending upward. For example, there was a 47.7% increase in the 7-day moving average for new cases in the last seven days. There were no reported deaths in Week 33, so the cumulative deaths remained at 120. 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 33 represents only 1.0% 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 33, 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-seven percent of cases reported their nationality as South Sudanese, with a significant proportion (22.3%) 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 increased lack of individual-level data and line lists especially from private testing facilities and GeneXpert (GXP) testing sites. This affects our ability to properly detect any changes in profiles.

About 67.0% of the cases in Week 33 were reported through traveler screening, with the remaining cases coming through alerts (2.6%) especially at the GXP sites, contact tracing (3.5%), and point of entry (PoE) screening at Nimule land crossing (27.0%). Cumulatively, pre-travel screening account for the greatest proportion of cases (62.3%), followed by contact tracing (10.9%), alerts (7.9%), and sentinel surveillance (7.6%) [Figure 5B]. Four testing sites (NPHL [22], Med Blue [18], Queens Medical Complex [23], and Nimule [31]) contributed most (81.7%) of the reported cases in Week 33. The cases reported in Week 33 came from Central Equatoria (70.4%), Eastern Equatoria (27.0%), Ruweng Administrative Area (1.7%), and Lakes (0.9%). Upper Nile, Jonglei, Abyei Administrative Area, Western Bahr el Ghazal, Northern Bahr el Ghazal, Unity, Western Equatoria, and Warrap did not report any cases in Week 33 [Figure 6]. In Week 33, four healthcare workers were confirmed as cases, bringing the cumulative case tally among healthcare workers to 274. Most of the cases among healthcare workers came from Central Equatoria (229), followed by Eastern Equatoria (16), 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].

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). However, it is still difficult to know if there is community transmission in the states because there is still not enough testing being done. Nevertheless, notable clustered outbreaks have been reported in past epi weeks in Nzara, Yirol, Bentiu, Bor, Lakien, Pariang, Ruweng, Mapourdit, and Pamir, although epidemiological data usually lag in communication to the national authorities once the outbreaks are in the flourishing stages. Overall, COVID-19 surveillance and testing at sub-national levels continue to be weak and are in need of scaling up.
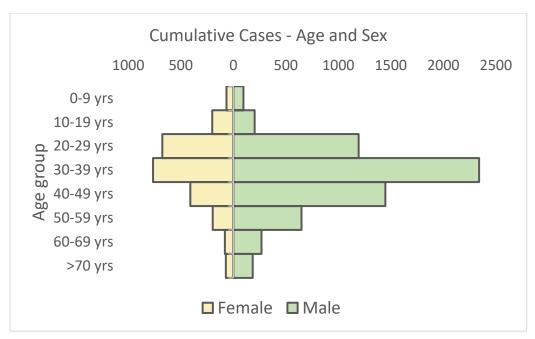


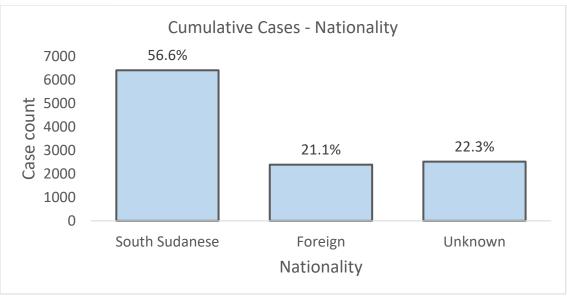Figure 3. Distribution of cumulative reported cases by age and sex

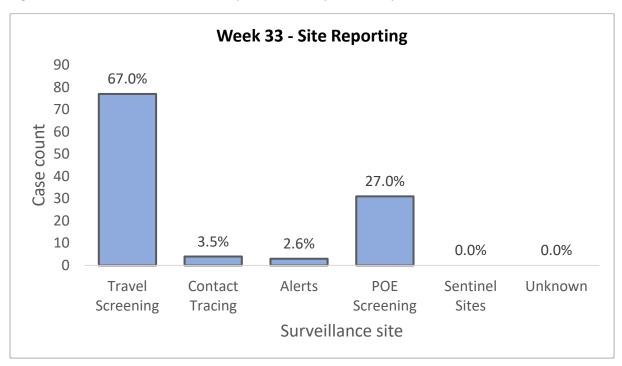Figure 4. Distribution of cumulative reported cases by nationality



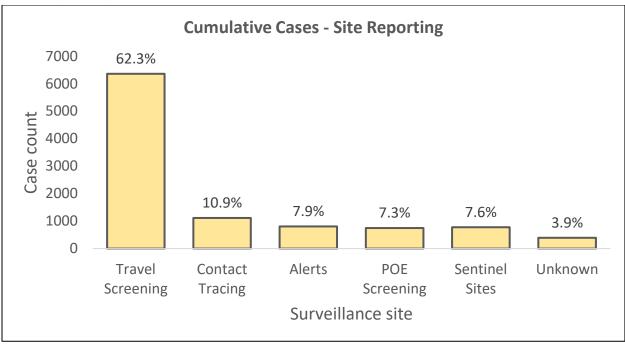Figure 5A. Case by surveillance site (Week 33)

**Cumulative Cases - Site Reporting**
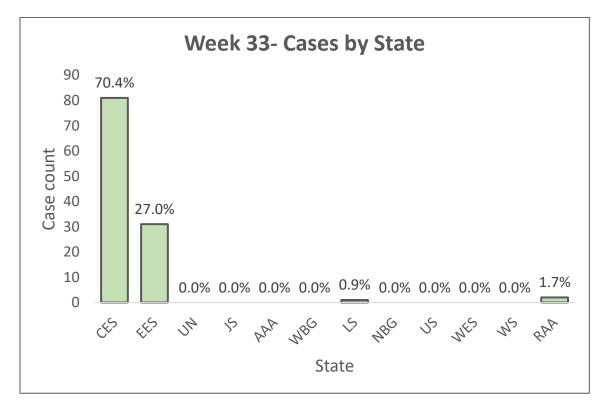
Figure 5B. Cases by surveillance site (cumulative)

**Week 33- Cases by State**

Figure 6. Case distribution by state (Week 33)

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

## Interpretation and recommendations

- **This week showed a 55.4% increase in the number of reported cases compared to Week 32. This is third consecutive week of recorded increase in new cases. There were no new deaths confirmed in Week 33.** However, there is a need for a more active mortality surveillance to identify COVID-19 deaths in the community. **As the country monitors the potential for a 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**
- Identification of duplicated cases is an ongoing activity by the EOC data management unit with support from partners. About 178 duplicated cases have already been identified using a combination of core variables (e.g., name, age, and phone number). The EOC will develop SOPs to standardize the process of removing duplicates and replacing them with new cases. **In addition, the MOH has mandated all private testing facilities to use the COVID-19 approved CIF, which is being customized into the e-governance system.** Use of the CIF will allow for duplicate cases to be easily identified using a core group of variables including name, age, phone number, sex, and having had a previous COVID-19 test
- 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 some private testing sites as well as from most facilities using GXP testing continues to affect our ability to fully describe the outbreak in South Sudan
- **Contact tracing and alerts accounted for 3.5% and 2.6% of this week's case tally respectively, with most cases still coming from pre-travel screening (67.0%).** Cumulatively, cases originating

from contact tracing (10.9%) and alerts (7.9%) remain important to improve case surveillance in these populations with timely screening/testing of suspects and all listed contacts

- Despite recent improvement in reporting of results from GXP testing sites at sub-national level and the addition of backlogged data, only 10.8% of all confirmed cases have been detected in states other than Central Equatoria and Eastern Equatoria. **In addition, about 83.4% of all cases have been detected in Juba compared to 16.6% outside of Juba, indicating that surveillance, testing, and reporting need to be improved and expanded in locations outside Central Equatoria**
- Although there is improved reporting of data from GXP testing sites, the data are currently provided in aggregate versus at the individual level format. **Partners supporting the GXP testing sites need to provide to the EOC Data Management Unit individual-level data for both positive and negative results in order to better characterize the outbreak in these locations**
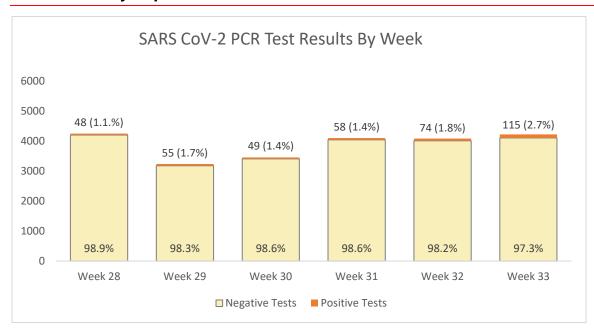
# Laboratory Update



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

## Interpretation and recommendations

- **Average positivity yields have been declining in recent epi weeks (after peaking at 22.4% in Week 07), reaching a low of 0.4% in Week 19 before increasing to 2.7% this week [Figure 8]**
- There are anecdotal reports of quality control challenges at the private testing clinics (e.g., positive result at a facility turning negative in another and re-testing cases before the stipulated follow-up period has elapsed). **The NPHL and EOC must implement a system of quality assurance 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**
- Positivity yields were as follows in Week 33: Crawford (1.6%), Med Blue (1.3%), NPHL (3.7%), Queens Medical Complex (2.9%), Nojum (1.3%), Nimule (6.6%), PIC Diagnostics (3.3%), Biolab

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(3.0%) [Figure 9A], Kapoeta (0.0%), Yirol (0.0%), Lankien (0.0%), Rumbek (0.0%), Makpandu (0.0%), Gordhim (0.0%), Tambura (0.0%), Lui (0.0%), Agok (0.0%), Mapourdit (25.0%), Pariang (0.0%), Gentil (0.0%), and Pamir (3.4%) [Figure 9B]. Approximately 209687 SARS-COV-2 PCR tests have been performed throughout the outbreak with 5.4% crude positivity

- **Currently, there is limited QA oversight of private testing facilities by the NPHL. As discussed above, the NPHL must implement a QA system for all COVID-19 testing laboratories in South Sudan**

- Reluctance to use MOH data capture tools, late and aggregate reporting (i.e., no individual-level data), and refusal to facilitate the work of the contact tracing and case management teams, have been major challenges from working with the private testing facilities. **It is important that the private testing laboratories fully cooperate with the country COVID-19 SOPs including on testing protocols and data collection and reporting requirements**

- 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
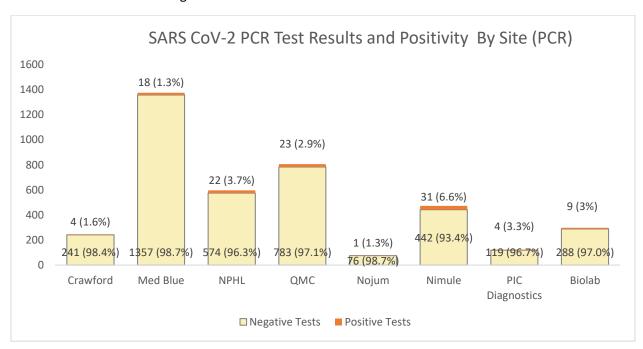


Figure 9A. SARS-COV-2 PCR test results and positivity by testing site [PCR] (Week 33)
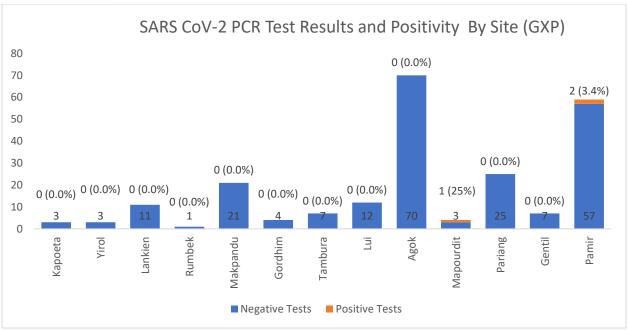
Figure 9B. SARS-COV-2 PCR test results and positivity by testing site [GXP] (Week 33)

# Hotline/Alert System Update

There were 22 potential COVID-19 alerts (all through the call center/hotline) in Week 33, a decrease of 12% from the alerts reported in Week 32. All 22 alerts were verified and investigated by the rapid response team (RRT). Samples were collected from all 22 (100%) of investigated alerts [Figure 10]. About 63.6% of the potential alerts were from Central Equatoria followed by Western Bahr el Ghazal and Jonglei (9.1%), and Eastern Equatoria, Northern Bahr el Ghazal, Unity, and Warrap (4.5%). Lakes, Western Equatoria, and Upper Nile did not report any alerts in Week 33 [Figure 11]. Three alerts tested positive for COVID-19 this week. Cumulatively, 3019[1] alerts have been reported, of which 2891 (95.8%) have been verified, and 2809 (97.2%) of the verified alerts were sampled.

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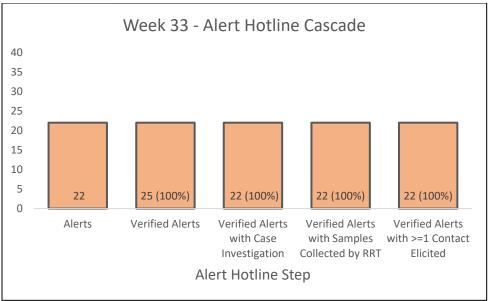[1] Excludes any alerts not reported by the Watch Desk
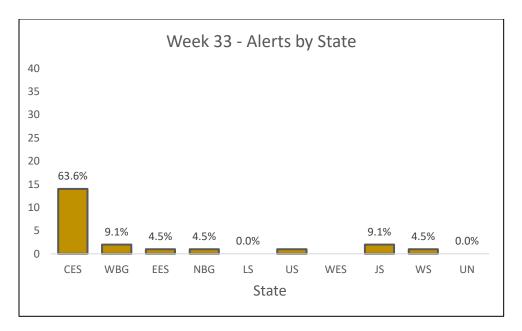
Figure 10: COVID-19 related alerts cascade (Week 33)



Figure 11: COVID-19 related alerts by state (Week 33)

## Interpretation and recommendations

- All verified alerts (22) screened to meet case definition for COVID-19 were investigated and sampled
- **Three of the sampled alerts in Week 33 tested positive**
- 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 33, there were 81 cases in Juba County, all (100%) of which were distributed to ICAP by the EOC for contact listing and tracing. Seventy-five (92.6%) of the 81 cases were eligible for contact listing (i.e., had valid phone numbers), of whom 33 (44.0%) provided contacts (down from 45.5% in Week 32). From the 33 cases that provided contacts, a total of 153 contacts were listed, providing a case to contact ratio of 1:4.6 (down from 1:4.7 in Week 32). Since community-based contact tracing started in early October 2020, a total of 6835 contacts have been elicited from 791 cases (a ratio of 1:8.6), of which 596 (8.7%) are still under active follow-up. Seventy-five contacts have completed their follow-up period this week, with a cumulative total of 4724 (69.1%) thus far. None of the 596 contacts followed up in Week 33 reported COVID-19 related symptoms. Samples were collected from 146 contacts this week. Four of the 146 contacts sampled this week tested positive for COVID-19. Cumulatively, 17268 contacts have been listed and followed up since the first confirmed case was reported in April 2020, of which 15481 (89.7%) have completed follow-up.

## Interpretation and recommendations

- Solicitation of contacts from cases continues to be a challenge for the contact tracing team. For example, 42 (56.0%) of the 75 cases with valid phone numbers this week did not list any contacts. These cases either denied they tested positive for COVID-19 (2), did not pick up their phone (18), or the phone number listed did not go through (21). The contact tracing team has embedded data clerks in five of the six private testing facilities to facilitate contact listing and checking of listed phone numbers for active status when the contact tracer is still engaged with the case
- The main barriers to enroll contacts successfully continue to be:
    1) Unwillingness of cases to list contacts
    2) Incorrect contact addresses (physical location and phone number)
    3) Contacts not answering their phones

# Case Management Update

Most cases that record the type of case management are managed at home (39.9%), with very few admitted to a health facility or hospital. A significant proportion of cases continues to have "unknown" (59.7%) case management type at first contact. Ninety-seven percent (10948) of all cases were discharged as of Week 33, with 242 cases (2.1%) under active follow-up. One hundred and twenty cases have died, yielding a case fatality rate of 1.06% [Fig 12].

| Case management at first detection | Count | Percent of total cases |
|---|---:|---:|
| Home management | 4474 | 39.9% |
| 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 | 6695 | 59.7% |

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
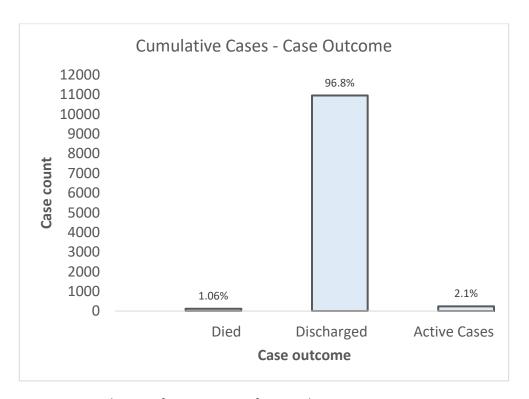


Figure 12. Distribution of case outcome for cumulative cases

## Interpretation and recommendations

- Most cases with a case management type are managed at home. About 59.7% of all cases do not have case management type reported, with documentation entirely absent for several reporting weeks. The coordination of case management data needs to be improved between all reporting and receiving parties
- **The case fatality rate stands at about 1.06%**

# Risk Communication and Community Engagement Update

The following achievements were registered during Week 33 under the risk communication and community engagement (RCCE) pillar:

- Community-based contact tracers supported by ICAP, provided information about COVID-19 to 1151 persons
- Main challenges for the RCCE pillar include:
  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 3872 (2660 males, 1212 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 August 22, 2021 is 662728.

Most of the travelers screened at Nimule PoE this week were truck drivers and returnees. Of the 3872 inbound travelers, 2008 were returnees, 479 were other nationals other than truck drivers, and 1385 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 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.

# Vaccination Update

South Sudan has exhausted its first batch of vaccines from the COVAX facility in Week 28. The second batch is expected in late-August 2021. So far, South Sudan has vaccinated 57096 people, of whom 4763 are fully vaccinated and 52313 have received one dose.

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