South Sudan COVID-19 Weekly Epidemiologic Bulletin

Issue #: 03

18 October – 25 October 2020

Epidemiologic Week 43

Summary statistics for Epidemiologic Week 43

42	2888	1	56	14	39712	329
New Confirmed Cases	Total Confirmed Cases	New Deaths	Total Deaths	New Discharges	Cumulative Samples Tested	New Contacts Under Follow-

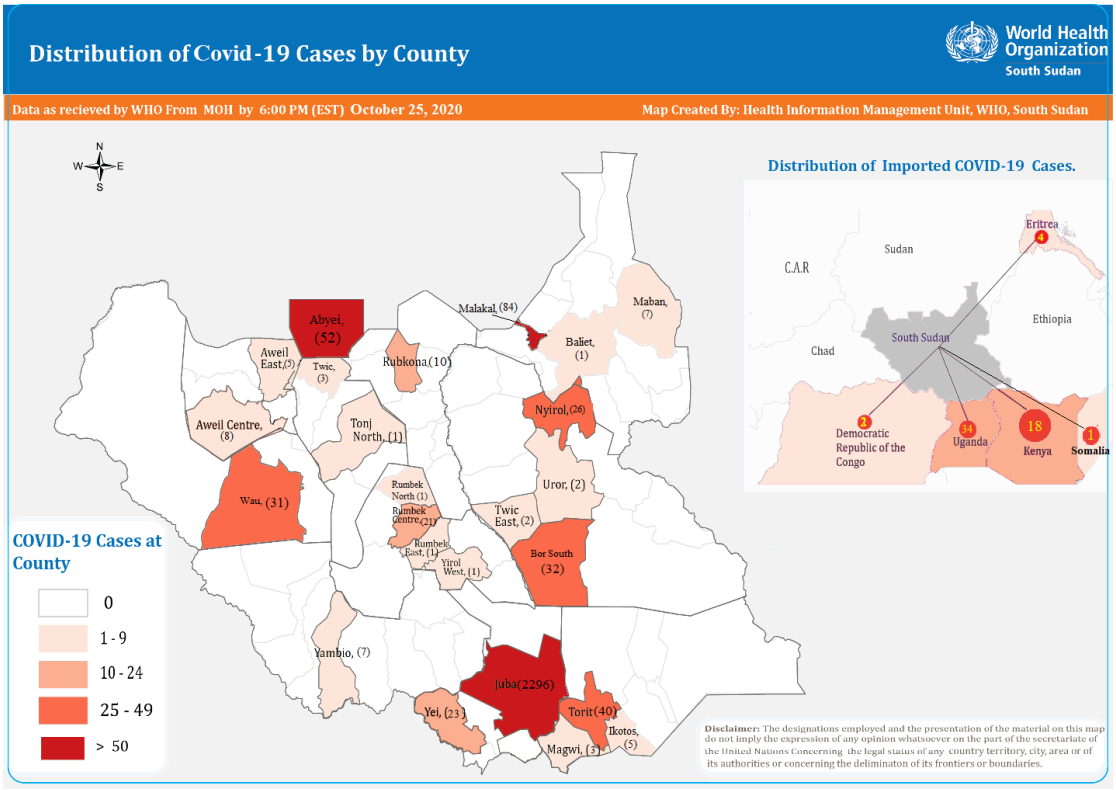

Figure 1. Map of cumulative reported COVID-19 cases by state. Map sourced from WHO weekly bulletin.

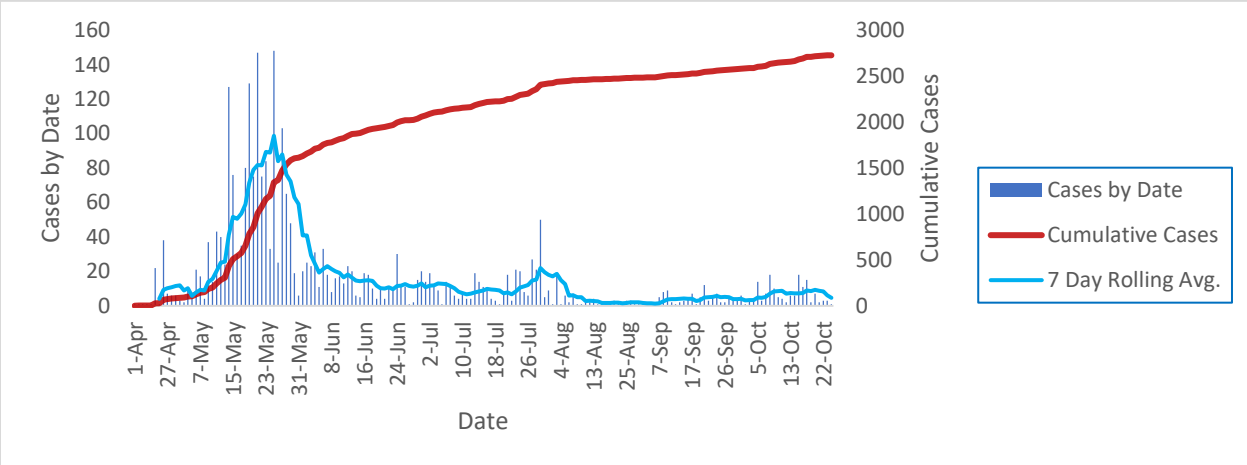

Figure 2. Epidemiological curve of reported cases through Week 43, showing new cases (blue bars), rolling 7-day average of reported cases (blue line), and total cumulative reported cases (red line)

Epidemiology and Surveillance Update

Forty-two new cases were identified in Week 43, bringing the cumulative number of confirmed cases to 2888. The case curve has remained low and relatively flat since August [Fig 2]. Cumulatively, the age distribution of cases reported is skewed towards people under 40 years old with most cases occurring in the 30-39 age group and skewed heavily towards males [Fig 3]. Most cases reported their nationality as South Sudanese (76.1%) [Fig 4]. In Week 43, most positive cases were reported through travel screening, while fewer came through POE screening, very few came through the hotline alerts, and no cases were detected through a sentinel site or through contact tracing [Fig 5]. This contrasts with Week 42, where most positive cases came through POE screening. Again, almost all new reported cases this week were from CES state, while 24% were from EES state and 5% were from WBGS [Fig 6]. The cases reported from EES, however, did not live in EES, and were rather imported.

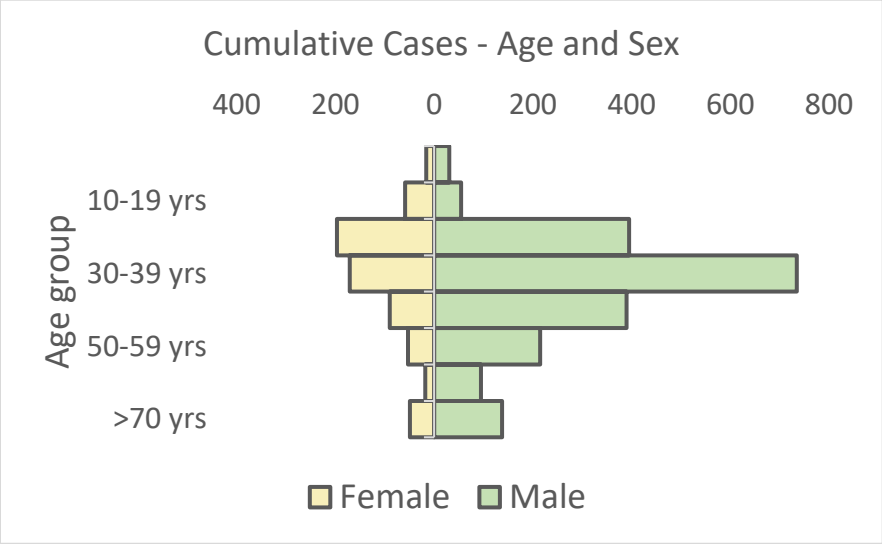

Figure 3. Distribution of cumulative reported cases by age and sex

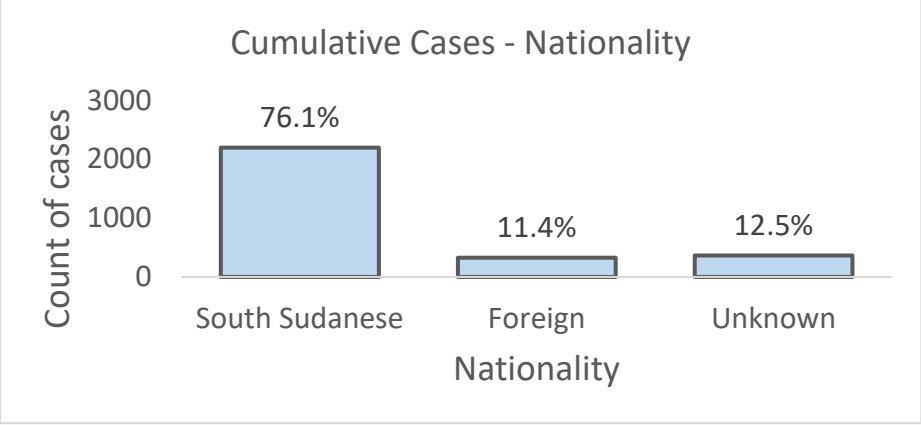

Figure 4. Distribution of cumulative reported cases by nationality

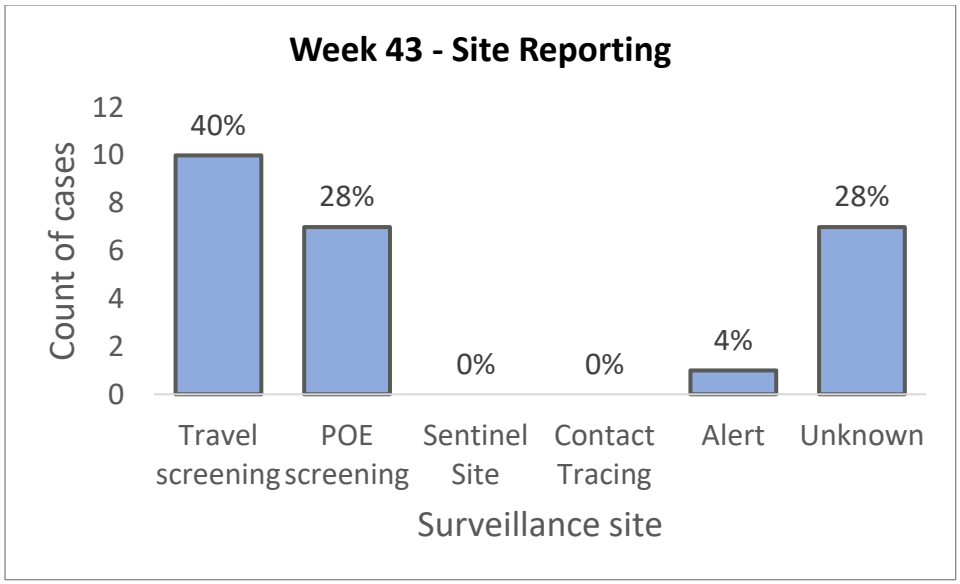

Figure 5. Distribution of reported cases by surveillance site reporting in Week 43.

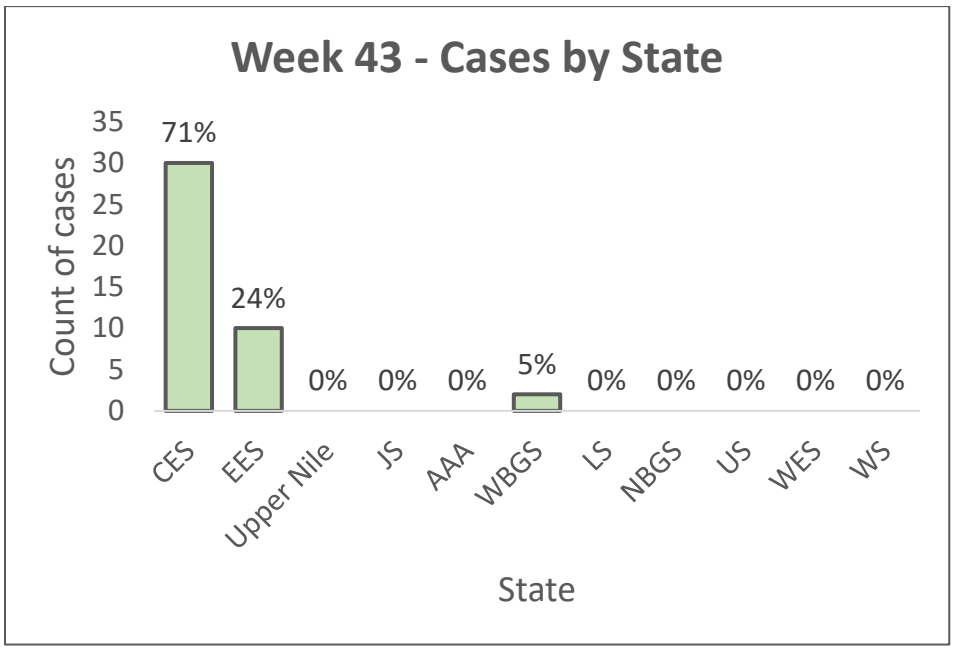

Figure 6. Distribution of cumulative reported cases by state in Week 43

Interpretation and recommendation

- The number of reported cases in Week 43 (42) is slightly lower than Week 42 (51), and represents an 18% decrease
- 76% of all cases were male while 24% were female.
- Better data on total people tested through each site and in each state and by nationality, age, and sex would help clarify what is causing observed patterns.

- Travel screening and POE screening represent the large majority of cases
- Very few cases have been detected from the states, indicating that decentralized testing and communication needs to be improved

Laboratory Update

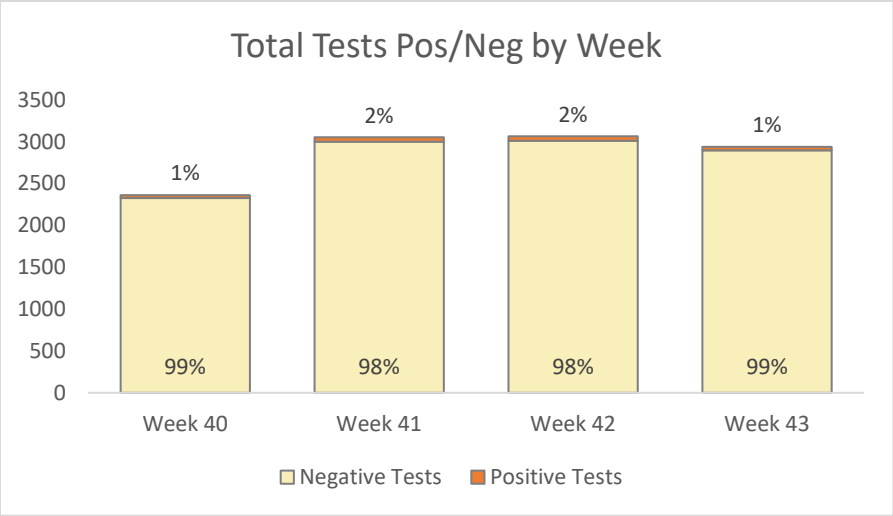

Figure 7. Number of negative and positive tests per week for Weeks 40-43.

Interpretation and recommendation

-The percent positive rate dropped slightly in Week 43 from 2% to 1%.

-More complete data on total tests run over time since testing began by date, lag between sample receival and result reporting, and total test capacity would provide a more complete picture of the status of testing and laboratory capacity. Further lab data would also enable reporting all other case numbers relative to the number of tests run rather than as an absolute number.

Hotline/Alert System Update

During Week 43, there were 37 potential COVID-19 alerts [Fig 8]. Of these, 29 (78 %) were verified and 29 of those verified (100%) were investigated by the rapid response team (RRT). Samples were collected from 29 (100%) of verified alerts [Figure 1]. About 57% of potential alerts were from Central Equatorial State followed by Warrap State [4 alerts, 13%] [Fig 9]. No alert returned positive for COVID-19.

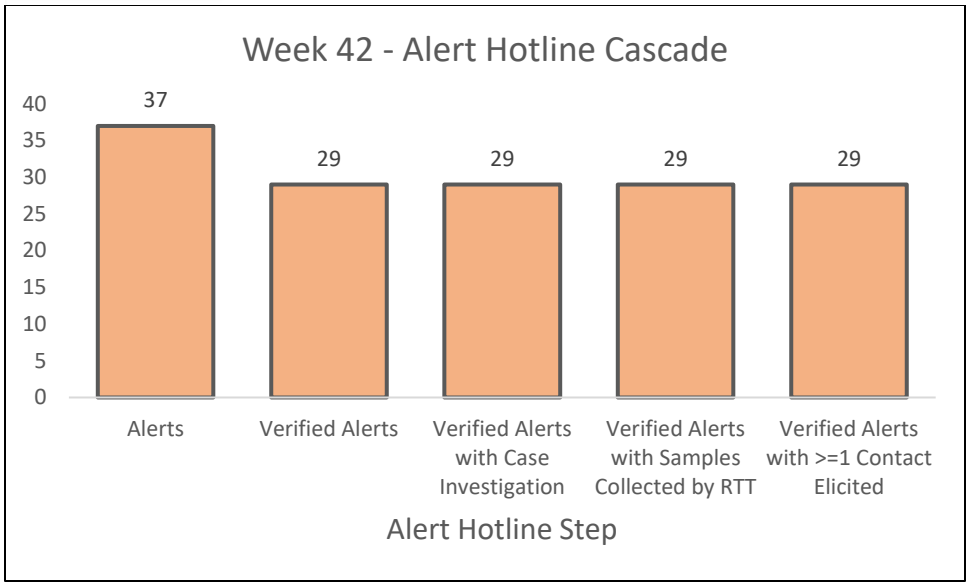

Figure 8: COVID-19 related alerts cascade for Week 43

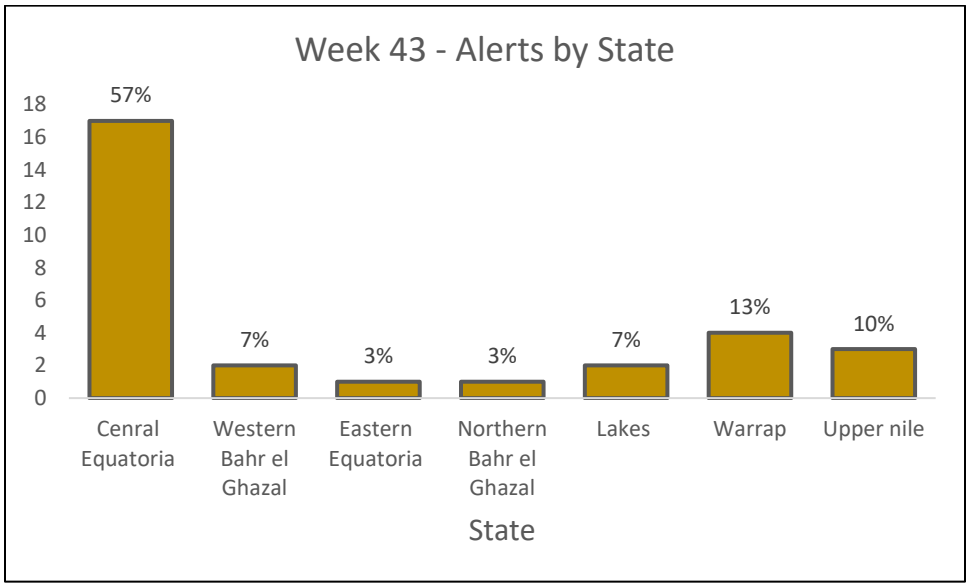

Figure 9: Distribution of Potential COVID-19 alerts by state for Week 43

Interpretation and recommendation

- All verified alerts were screened to meet case definition for COVID-19 and were sampled, indicating that once an alert is received only a certain percentage go on to meet the case definition and test positive.
- Alerts represent a small number of total tests run in South Sudan. Information on why so few alerts come through the hotline would assist in improving this surveillance system.
- Most alerts come from Central Equatorial, indicating gaps in the states mostly due to the ability to reach the system and the subsequent follow-up of the calls reverted to the state RRTs for their action.

Contact Tracing System Update

In this epidemiological week, 49 contacts completed 14 days of quarantine. This bring the cumulative number of contacts completing 14 days of follow-up to 8884. There were 329 new contact enrolled this week, and over the past few weeks, contacts enrolled has quickly increased; in Week 42, 229 new contacts were enrolled and in Week 41, 113 were enrolled. This brings the total of contacts ever enrolled in the program to 9481. Contact tracing recently switched to a new, community-based system, and as of Week 43, 143 contacts have been listed by index cases through this system. Of those, 46% are currently pending follow up, 39% were not able to be enrolled, and 15% accepted enrollment into the contact tracing system [Fig 10]. Reasons for not enrolling are shown in Table 1. Cumulatively, the case-to-contact ratio stands at about 1:3, but in Week 43 that ratio resulted from a heavily skewed distribution of contacts reported by index cases: many cases report zero contacts, and even among those reported at least one contact, most report 1-4 contacts, while a small number report a very high number of contacts [Fig 11]. In the contact data for 133 reported contacts collected since October 1, the average number of contacts reported for index cases reporting at least one contact is 5.8, but this average is largely driven by a single index case who reported 39 contacts (mostly passengers in his vehicle). There were no positive cases originating from traced contacts in the past week.

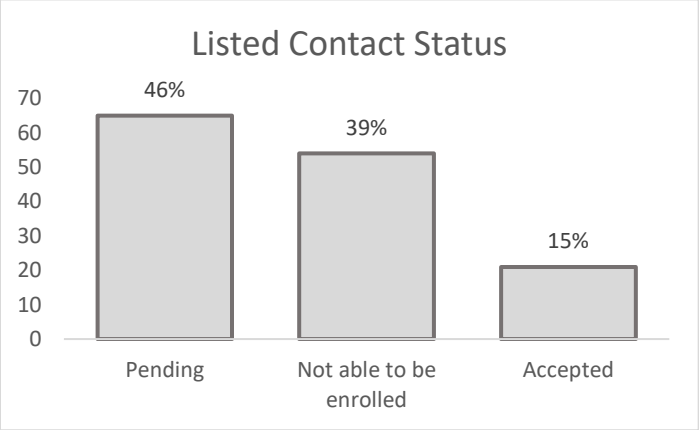

Figure 10. Status of contacts listed by index cases

Table 1. Reasons listed contacts could not be enrolled in contact tracing program

Reason contact could not be enrolled	Count
Death case and relatives declined to list any contact	1
Declined call	1
Denied Results	7
Languange Barrier	1
Dropped	38
No contact number	1

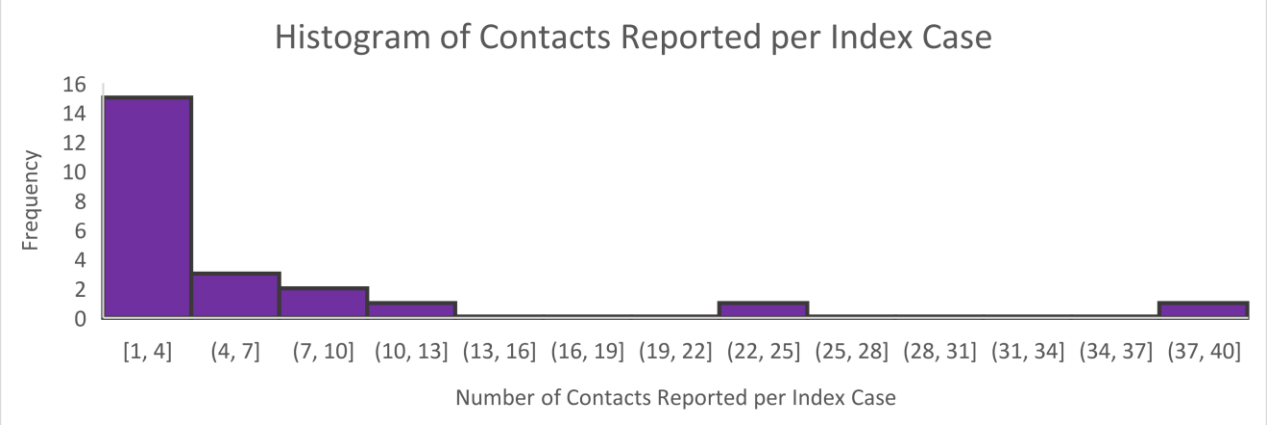

Figure 11. Histogram of the distribution of contacts reported by each index case. Each bracketed set of numbers on the x-axis represents a range (eg 1-4) of contacts reported, and the y-axis shows the number of index cases who reported that many contacts.

Interpretation and recommendation

- **The majority of cases report zero, one, or two contacts, and the contact to case ratio is driven by a very small number of index cases who report a very large number of contacts.** The contact tracing system could be improved
- **The number of contacts enrolled has increased significantly over the past few weeks. This reflects the addition of more than 40 contact tracers to the team in the past week.**
- The main barriers to successfully enroll contacts are
    1) A lack of cooperation from cases to share contacts
    2) Difficultly finding the correct contact address for contacts
    3) Difficulty getting contacts to respond to phone calls

Case Management Update

Most cases that record the type of case management are managed at home, with very few admitted to a health facility or hospital. Many cases have no case management type recorded at first contact with patient, and in Week 43 case management type was not recorded for any case. 93% of all cases are discharged as of Week 43. Only 56 total have died according to recorded data yielding a case fatality rate of just under 2% [Fig 12].

Table 2. Distribution of case management types for cumulative cases, showing total count and as a percent of total cases. Data is taken at date of first contact with patient.

Case management at first detection	Count	Percent of total cases
Home management	1699	59%
Hospital	15	1%
Isolation center	4	0%
UN health facility	2	0%

UN home management	3	0%
Died	10	0%
Unknown	1130	39%

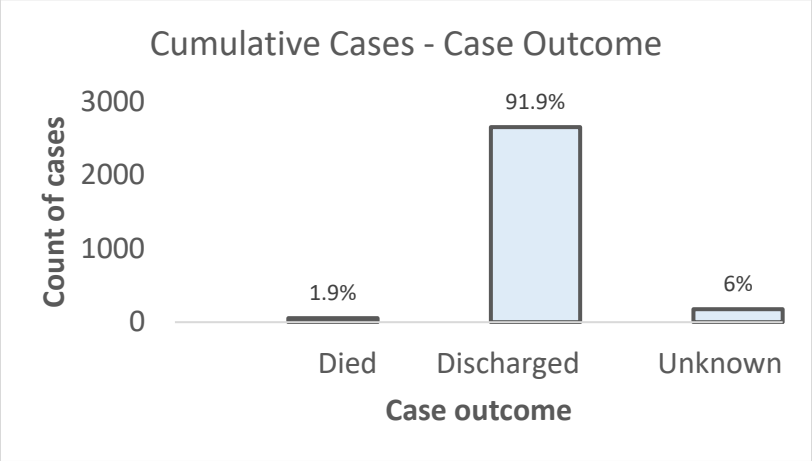

Figure 12. Distribution of case outcome for cumulative cases

Interpretation and recommendation

- Almost all cases with a case management type are managed at home. About a third of cases do not have case management type reported.
- **Case management type has not been recorded at all in the current database for Week 43 or Week 42.**
- The recorded death rate stands cumulatively at about 2%.

IPC/WASH Update

- 304 out of 897 people (34%) were observed (by NSDO, ACTED, AHA, CEDS) to use handwashing stations on entering churches, health facilities and schools, markets, and other public places in Pauams: Agoro, Magwi, Kapoeta, Rajaf (POCs), Kor-Al-Amer, Jin-Quarter, Jamjang, Nyalath, Baac, Madhol. More adherence to handwashing was observed at health facilities.
- 20 out of 100 people (20 %) who received a face mask wore it during sensitization activities organized by NSDO hygiene promoters in Rajaf (POCs) Payam in Juba County (CES)

Interpretation and recommendation

- Community compliance with COVID-19 mitigation measures such as mask wearing and hand washing has been an ongoing challenge in South Sudan, partially driven by strong stigma surrounding COVID-19