



Factors Affecting Covid-19 Surveillance Data Daily Reporting in Uganda during the First Phase of the Epidemic

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Summary

COVID-19 has spread rapidly around the world, affecting every community directly or indirectly. In Uganda, surveillance of COVID-9 required districts to report daily; however by June 16th 2020 only 56% of districts were reporting. We conducted a rapid assessment through phone calls to district surveillance focal persons to ascertain and document the data collection processes and flow and assessed challenges affecting daily reporting for COVID-19. Seventy percent of districts in Uganda were reached. Majority of the districts (99%) reported that they collected data on indicators using the ODK daily while only 20% of the districts collected the Institutional quarantine data daily. 85% (81/95) of the districts used ODK for reporting to the national level and 55% (52/95) of the districts reported heavy workload as the main challenge affecting daily surveillance reporting. We recommended assignment of more personnel to the surveillance teams to reduce on workload. The multiple reports were merged following the dissemination of this report.

Background

In March 2020, the World Health Organization (WHO) declared Coronavirus Disease 2019 (COVID-19) as a new pandemic caused by the Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2). The virus spread globally at an alarming rate, with 8,385,440 confirmed infections and 450,686 deaths as of June 19, 2020. In Uganda, the first case was reported on the 21st of March. By the 19th of June 2020, a total of 763 confirmed cases had been reported with 65% of these cases being imported cases. Most of the new cases were mainly among truck drivers intercepted at the major point of entries in the country.



In Uganda, COVID-19 surveillance data as of June 2020 was reported, compiled, and analyzed daily at the national level. All districts in the country were expected to report to the national level on defined COVID-19 standard indicators on a daily basis.

District surveillance focal persons were responsible for responding to alerts in the community, collecting data from the different sources and submitting on a daily basis to the national level. Data was collected from the community through Village Health Teams and other community members and health facilities through health workers. The data was compiled at the district and submitted to the national level, surveillance team on a daily basis.

The data collected and submitted include; the daily COVID-19 situational report which summarizes the progress on the different COVID19 response sub committees at the district; the Open Data Kit (ODK) report which summarized the daily situation in the districts and contained data on number of calls, alerts, health worker information, specimen collected and cases, among others; the institutional quarantine report which summarizes data on alerts, contacts, persons in quarantine and isolation and samples collected among others; and the point of entry (PoE) report which summarizes the total number of persons screened at the borders.

Only 56% (75/135) of the districts were reporting on a daily basis as reported on 16th June 2020 in the COVID19 surveillance subcommittee meeting. We ascertained and documented the data collection processes and flow and assessed challenges affecting daily reporting for COVID-19 in the districts to inform the national task force on evidence-based recommendations to improve reporting.

Methods

We conducted a rapid assessment through phone calls to the District Surveillance Focal Persons (DSFP) for the 135 districts in Uganda using an assessment tool. We obtained data on the type of COVID19 data, source of data, how data is collected, where and how data is submitted, challenges faced during data collection and submission. The assessment was done for 5 days from 22nd to 26th June.



Findings

Surveillance focal persons from 70% (95/135) districts were reached for the assessment. Districts obtained their data for reporting from the following sources: community members, VHTs, health facilities, and local leaders. All the districts 100% (95/95) reported to obtain their data from community, VHTs and health facilities; 32% of these districts also obtained their data from other sources, which included the Local Council leaders, the Police, UPDF, and other politicians. Majority of the districts (99%) reported that they collected data on indicators using the ODK daily, while 35% of districts collected data for situational reports daily, and only 20% of the districts collected the Institutional quarantine data daily. All the districts (100%) reported using phone calls when collecting data and 55/95 (58%) used SMS to collect data.

Districts were required to submit daily reports to the Ministry of Health. 100% of the districts submitted the reports to the Ministry of Health. Additionally, 31% of the districts also submitted the same reports to Regional Referral Hospitals and 6.3% to the WHO Regional Offices (WRO).

The main method of data submission was by use of ODK 91% (86/95), while 48% (46/95) submitted the daily situation reports by use of emails, and 16.8% (16/95) submitted their reports to regions using the WhatsApp platform.

The major challenges experienced by the district teams in COVID-19 surveillance data reporting were: lack of internet data bundles to submit reports, poor network connectivity in some areas, lack of facilitation for the district teams and heavy workload for surveillance team who had to respond to all alerts in the district and also compile reports daily. (Figure 1). Additionally, each report type was associated with specific challenges (Table 1).



Figure 1: Challenges faced by districts in submitting reports

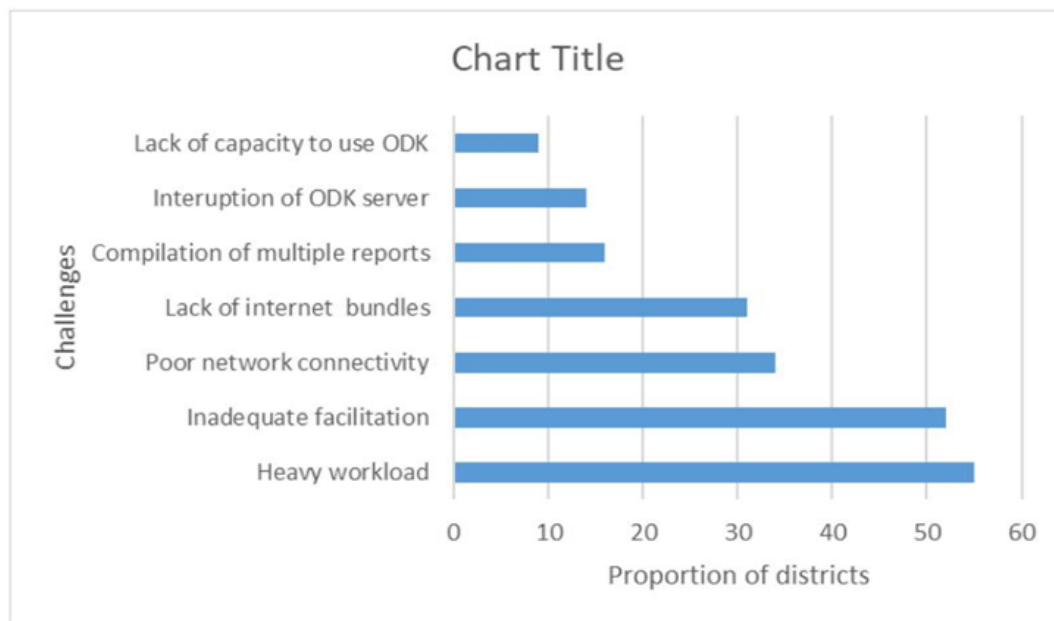


Table 1: Specific challenge associated with each report type

Report type	Reporting method	Challenges associated with report type
Situational Reports	Email	Heavy workload Lack of internet bundles Inadequate facilitation
Daily situational reports on ODK	ODK	Heavy workload Inadequate facilitation Poor network connectivity Lack of internet bundles Compilation of multiple reports Interruption of ODK server Capacity to use ODK
Point of entry data	ODK	Heavy work load Lack of internet bundles Compilation of multiple reports Interruption of ODK server Lack of capacity to use ODK
Institutional quarantine data	ODK	Heavy work load Lack of internet bundles Compilation of multiple reports Interruption of ODK server Capacity to use ODK



Discussion

Few studies on Covid-19 surveillance system have evaluated daily Covid-19 surveillance reporting rates within and among countries. In many of the papers published on Covid-19 surveillance reporting, the focus was on the burden of the disease in terms of cumulative number of cases, incidence, and deaths by country and region. A more robust public health surveillance system study should actually focus on both the disease burden and the completeness and timeliness of the reporting because the reporting rate affects the caseloads reported.

This study ascertained and documented the data collection processes and flow from the community to the national level and assessed challenges affecting daily reporting for COVID-19 from the districts to the national level. Most districts collected their data using phone calls and SMS from the community and used ODK to submit reports. The main challenges experienced were work load and inadequate facilitation for surveillance focal persons. The surveillance focal persons were expected to respond to all alerts in the district and compile all the reports required on a daily basis at the end of the day. Furthermore, there was limited facilitation in terms of allowances and transport to enable the surveillance team carry out their duties effectively. In absence of allowances the surveillance focal persons were left to work either alone or with one or two more people since it was considered their responsibility. Many organizations and partners required districts to report to them using different templates and this also increased the work load. Poor network connectivity and lack of internet bundles were also cited as key challenges in some districts especially districts bordering other countries. Most focal persons thought that they should be provided with internet bundles if they were to report daily.

Conclusion

Most of the districts were aware of the data flow process, when and where they were supposed to submit reports though there were multiple challenges affecting reporting. We recommended district COVID-19 response budgets to adequately cover reporting teams including allowances and internet bundles, assignment of more personnel to the surveillance teams to reduce on workload, re-orient districts on ODK use in reporting and streamlining reporting channels to avoid submission of multiple reports



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