Health Services Learning Hub

ANNEX 2:

Title

COVID-19 Health Service Readiness Assessments

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Key Learning Themes

These COVID-19 health assessments found that Counties are making progress in not only responding to the pandemic, but also maintaining the provision of essential services.

- Assessed representative facilities had significantly increased capacities to manage COVID-19 cases and maintain essential services during the assessment period.
- Most of the assessed facilities had approximately 10% of their beds reserved for COVID-19 critical cases (ICU) with another 10% available for conversion in the event of a surge in cases. There were adequate beds available for non-critical COVID-19 cases (about 2,000 in 74 COVID-19 treatment centers) with a similar number available for conversion to COVID-19 beds in-case of a surge.
- Oxygen was available in all COVID-19 treatment centers. Most facilities were using external oxygen cylinders which were reported to be quite expensive. Two of every three facilities had piped oxygen to the bedside, with ICU being the most common site for piped oxygen.
- Ventilator numbers had doubled in the assessed facilities between July and December 2020. In terms of PPE, although almost all facilities had surgical masks for staff, many were lacking other equipment (i.e. clinical gowns).
- Testing for COVID-19 was accessible in most facilities but results took on average three days to report. Drugs for treating COVID-19 were not adequately available in COVID-19 treatment centres.
- It was estimated that 10.4% of health workers had been diagnosed with COVID-19 in the past 3 months. Community health workers involved in managing COVID-19 did not feel adequately supported in their work.

Introduction

The COVID-19 pandemic has placed an enormous strain on the health system of many countries. In order to assess the capacity of health systems to maintain the provision of essential health services during the COVID-19 outbreak, there is an increasing demand for regular measurement and tracking of the performance. This includes an increased demand for real time data on COVID-19 morbidity and mortality, and health facility readiness, in the wake of subsequent waves of the pandemic.

Regular health facility assessments are useful for shedding light on the readiness to provide COVID-19 prevention and treatment services, while maintaining service delivery for other conditions. Readiness to respond to COVID-19 requires health facilities to not only have adequate health infrastructure (i.e., critical care beds with functional ventilators and oxygen) but also have an adequate supply of medical commodities such as personal protective equipment (PPE), infection prevention materials and appropriate drugs. Health workers who are trained and knowledgeable in responding to COVID-19 are critical for provision of much needed care services.

In Kenya as with many other countries, the initial response to the pandemic entailed repurposing resources from key program areas to keep up with the measures to contain the pandemic. Facility operating hours were changed following government directives on curfews; the scope of health services offered was reduced to focus on essential areas; and facilities started devising strategies to reach their local community in the midst of these challenges. Primary care facilities were expected to be adequately prepared to prevent the spread of infection and identify for referral suspected COVID-19 cases. This brief highlights the experience in Kenya, which conducted regular health facility assessments in the wake of the COVID-19 pandemic.

COVID-19 assessments

To respond to the increasing demand for information on preparedness, a number of facility assessments were conducted by the Ministry of Health. The objective was to assess the readiness of the facilities to provide the necessary and optimal care for suspected and confirmed COVID-19 patients, as well as the extent to which essential health services were being offered. The resulting reports were useful for informing policy makers and various stakeholders including Ministry of Health leadership and development partners. These assessments were led by the Monitoring and Evaluation Division at the Ministry of Health.

Round 1: June 2020

In May 2020, a team with representation from the various programs and departments within the Ministry of Health (i.e. reproductive, and maternal health, HIV, tuberculosis, malaria, health products and technology, primary healthcare and UHC), was formed, spearheaded by the Monitoring and Evaluation Division, to discuss the need to take stock of service delivery for COVID-19 and other health services. At the time, with limited community spread of COVID-19, only 25 out of the 47 counties in the country were considered high risk. The Ministry of Health had also directed all counties to set up COVID-19 isolation facilities and development of guidelines for management of COVID-19.

The main objective during round 1 of the assessment was to determine the readiness of the 25 counties to offer COVID-19 services. The focus was on assessing the static aspects of readiness, such as the number of ICU and isolation beds, number of functional ventilators and CPAP machines; availability of an oxygen supply system; availability of tools for screening, availability of IEC materials and access to COVID-19 testing.

The second priority was to assess the number of doctors and nurses available; availability of supplies like masks, gloves, gowns; availability of functional oxygen; isolation and ICU beds occupied; and number of ventilators occupied; COVID-19 information and training; and perceived readiness to manage COVID-19 patients. This dynamic data was expected to be collected on a weekly basis.

The methodology included a desk review of existing reports and data including the routine facility data from KHIS (DHIS2); development of tools and digitization; rapid data collection; rapid data analysis; and consolidation of the report.

Two tools were developed:

1. A rapid assessment tool of the status of the health facilities response to COVID-19.
2. A routine COVID-19 preparedness tool to collect routine health facility data.

Data collection took place over two weeks and involved close collaboration between the national and county governments. A number of training sessions for national and county level supervisors were undertaken virtually. The online tools were supported by forms with a unique email used for each health facility. The link to the data collection tools were sent to the facility in charge, who went through each online questionnaire on their mobile phones guided by the county supervisor.

Data collection was conducted in real time, and missing areas communicated and clarified where necessary. During data collection, completeness of reporting was monitored in real time. With the sufficiently large sample collected, the data were weighted to give both national and county representation. The team then reviewed the findings and compiled a summary report, which was shared in various fora, including the National COVID-19 Task Force. Moreover, 12 thematic summary reports were developed and published.

Lessons learnt and best practices

- Virtual trainings saved time and resources, while preventing the spread of COVID-19.
- Data collection by phone and real time receipt of data from the facilities saved time, resources and prevented COVID-19 transmission.
- Virtual data collection required tight monitoring of data completion.
- Data verification and validation was not possible as remote collection relied on the degree of engagement from the end user.
- Deciding which virtual data collection platform to use required careful consideration by balancing important factors - e.g. complexity in creating forms and question flow, offline availability, tools for monitoring implementation, requirement for app installation.
- Most facilities are in remote areas, and do not have emails or smartphones, yet the link with the tool needed to be sent on email. This required further follow up and use of personal emails. Ensuring correct email addresses proved to be challenging.
- It was not possible to collect weekly data from the sampled facilities due to competing priorities at both the national and health facility level.

Round 2: December 2020

The second round of the COVID-19 assessment was conducted in December 2020. Challenges in resource mobilization hindered the Ministry of Health from conducting a follow up assessment 3 months from the baseline assessment. The second round used tools were developed by WHO, which had harmonized various facility assessment surveys to maximize efficiency during the pandemic. The tool included standardized questions and response options that could be used in different settings.

Three tools were used:

1. **Community assessment tool**
   The objective of the community assessment tool was to conduct a rapid survey on the community health needs and perceptions around effective use of essential services during the COVID-19 pandemic. This was expected to provide information to implement coping strategies to continue to respond to the community's needs. Sentinel communities were identified, and questionnaires administered to community health workers and community representatives.
2. **Continuity of essential services tool**
   The objective of this tool was to rapidly assess the capacity of health facilities to maintain the provision of health services during the pandemic, and inform decision makers on where service delivery and utilization required modification and investment. This tool was administered in primary care facilities-health centers, dispensaries, and primary hospitals. It collected data on health workforce capacity, financial management of the facility, changes in service utilization, infection prevention and control capacities and COVID-19 primary care services. In addition, information on therapeutics and diagnostics was collected.
3. **Case management tool**
   This tool was administered in COVID-19 designated facilities, and secondary and tertiary hospitals. The main objective was to assess the availability and status of critical COVID-19 medicines, equipment, and supplies. Implementation of this assessment was undertaken when the country was recovering from the second phase of the pandemic. The tools were digitized using a line list.
   By the second round of assessment, all 47 counties were considered high risk. A sampling methodology was agreed upon, where all level 4, 5 and 6, and COVID-19 designated facilities were sampled. This was complimented by random sampling of level 2 and 3 facilities. All such facilities were identified as the sentinel facilities for future assessments.

Community units were also sampled based on the level 2-4 facilities identified. The interviews were conducted via phone, given the second wave of the pandemic. Prior to the interviews, the Monitoring and Evaluation Division sent out letters to the Counties informing them of the planned assessment, objectives, methodology and proposed sentinel facilities.

Data management was led by the MoH team supported by WHO. A comparison with the round one assessment was done for indicators that matched, given that some indicators in round one did not match on a one-to-one basis.

Lessons learnt and best practices

- Report was largely national based, with no county disaggregation.
- The phone interviews were quite efficient; however, it was difficult to verify information provided, for example, on availability of supplies and commodities.
- Some respondents were not responsive to the assessment calls.
- Administration of the two tools to the level 4 hospitals was seen to be cumbersome.
- The process of generating the report took longer than expected. This may be attributed to a need to align some charts and generate relevant indicators.

Round 3: April 2021

The third round for the COVID-19 assessment was conducted in April 2021. The initial plan was to involve physical data collection to verify findings at the health facilities. Resources had been mobilized in advance; thus, implementation of the assessment was timely. However, the implementation occurred when the country was experiencing the third wave of the COVID-19 pandemic, and therefore further travel restrictions had been put in place. This led to the assessment being conducted on phone, as was done during round two of the assessment.

The round two tools were used for this assessment, with exclusion of the community tools, as it was agreed that the community perceptions were unlikely to have changed much within three months. The country had just begun the COVID-19 vaccination drive, therefore the module on vaccines was included in this assessment.

The methodology was like round two, with the tools being administered in the sentinel facilities identified. The tools were digitized using an open-source application-KoboCollect, and data saved in the ministry of health servers. The basic skip patterns were applied to the tools, making data collection much better than during round two. The data management was country led with assistance from a technical advisor, and oversight by the WHO data team. The analysis was largely country led and a report generated. Challenges and best practices were documented to inform the next round of assessment.

Challenges

- Some level of exhaustion was noted in the second round of phone assessments and therefore these may not be sustainable as a regular mode of data collection on their own.
- The assessment did not measure availability of equipment and supplies based on a standard (i.e. availability per capita/per case load).

Lessons learnt and recommendations for improvement

- The use of sentinel sites helped facilitate comparison between health facilities over time.
- Harmonization of the assessment tools facilitated easier data collection amongst Level 4 facilities.
- The rapid dissemination of data to key stakeholders is key. Methods to assess how the data has been used to inform decision making is important and needs further work.
- It is recommended that further rounds of data collection involve a physical visit to facilities in order to verify findings.

- Key informant interviews at the national and county level complemented the quantitative findings from the facility assessments.
- Country driven data analysis and conduct of the assessment is key for strengthening of in-country capacity.
- In terms of readiness to administer the COVID-19 vaccine, although most facilities had adequate capacity for cold chain management, most indicated the need for more fridges, cold boxes, and vaccine carriers to efficiently administer the vaccine.