

Quick Brief

Lessons from Zambia's TB Situation Room

SUMMARY

Zambia's innovative TB Situation Room is ensuring that the country stays on track to make progress on TB-related goals, even during the challenging COVID-19 pandemic.

The virtual platform serves to connect the National TB Control Program with all province-based TB coordinators, allowing weekly data monitoring and focused resolution of problems in a timely manner.

Beyond the pandemic, this successful virtual tool will be continued, together with routine quarterly face-to-face sessions, enabling a hybrid and strengthened management model for the future.

Context

Disease outbreaks are not new in Zambia. The country has suffered numerous cholera outbreaks, with the most recent occurring in 2018, which has not only caused significant mortality and sickness, but also affected the delivery of health services overall, including the detection and treatment of infectious diseases such as tuberculosis (TB). Zambia's National TB Control Program registered a notable decline in TB notification rates during outbreaks. Particularly in the affected areas, the performance was below what was normally reported.

Swift action by the National TB Control Program. When Zambia reported its first case of COVID-19 on March 18, 2020, it was not surprising that TB services were rapidly affected. TB case notifications, which averaged 3,288 during the first quarter of 2020, fell to an average of 2,643 in the second quarter of 2020, as the number of confirmed COVID-19 cases began to rise in the country and disease containment measures were put into place. Given the experience during the cholera outbreaks as well as global evidence of the impact of pandemics on health services, the National TB Control Program took swift action, increasing attention to data and focusing on solving problems through a weekly TB Situation Room launched in May 2020 and still running in February 2023. This management intervention has been both timely and valuable, given the reach and duration of the COVID-19 crisis. It has helped Zambia to remain on track in identifying problems and actions in an effort to maintain momentum on addressing its TB-related public health goals.

How Zambia set up its TB Situation Room

Consultations on improvements in data reporting. The way had already been paved for action in Zambia with a round of consultations with all key stakeholders conducted by the National TB Control Program in April 2020. These consultations, which had been planned before the pandemic, had focused on the need for more frequent data reporting on TB in the country. Data was being reported quarterly, biannually, and annually; therefore, the proposed shift—to weekly data reporting—required a lot of effort and outreach at all levels. The consultative process began with the Ministry of Health; in particular, members of the National TB Control Program, and was then extended to partners working with the TB program. After receiving their

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inputs and consent, districts and grassroots-level stakeholders were brought on board. This effort to create broad buy-in laid a strong foundation and enabled quick action when the pandemic struck.

Committing to a TB Situation Room. A second quick round of consultations was held with the same stakeholders to introduce the idea of a TB Situation Room and ensure wide acceptance and understanding of the need to meet weekly to review data and solve problems using a virtual platform. The overall objective was to maintain and accelerate Zambia's encouraging progress on key TB-related detection and treatment targets despite the considerable challenges posed by the pandemic. Consultation was deemed necessary given the significant commitment of time and effort involved.

When you ask colleagues for an increased commitment of time and effort, the first step is to get their buy-in and agree on why it is necessary.

– Dr. Patrick Lungu, National TB and Leprosy Programme Manager, Zambia Ministry of Health

Participation and connectivity. Hundreds of people regularly attend the weekly TB Situation Room meeting, with about 80 to 120 connections and as many as five people connected at each location. Participants include TB coordinators across all 116 districts, including those with the highest TB burden, all facility staff, and partners. The virtual platform employed is Zoom, which participants are able to use easily. Some facilities already had internet connections through [Project ECHO](#) (Extension for Community Healthcare Outcomes), an existing cross-country initiative that integrates virtual collaboration and tele-mentoring in its approach. Partners within the TB program also contributed by purchasing internet bundles for some stakeholders. The TB Situation Room has a standing meeting link and meeting time, but connection information is shared every week to make it easy for people to join. The initiative was piloted first within the National TB Program, and then extended beyond, taking just three weeks from idea to implementation. Since then, the meeting has been held every week except on two occasions. Overall, connections are usually good, except during the rainy season in limited areas.

Running a typical meeting

1. Review of weekly data before the meeting. Data is reported weekly from subnational levels and pre-reviewed at the national level, so that questions can be prepared and brought to the meeting for discussion with the provinces. The data is aggregated into a database maintained at the national level, from which pivot charts on key indicators are generated and presented during the meeting.

Data tracked in the Weekly TB Situation Room

- Number of presumptive cases identified per week
- Proportion of presumptive cases whose sputum was examined in the lab for that particular week.
- Total number of TB patients notified
- Number and proportion of bacteriologically confirmed patients
- TB mortalities recorded in that particular week
- Number and proportions of contacts traced
- Number of contacts provided with TPT (mainly children < age 5)

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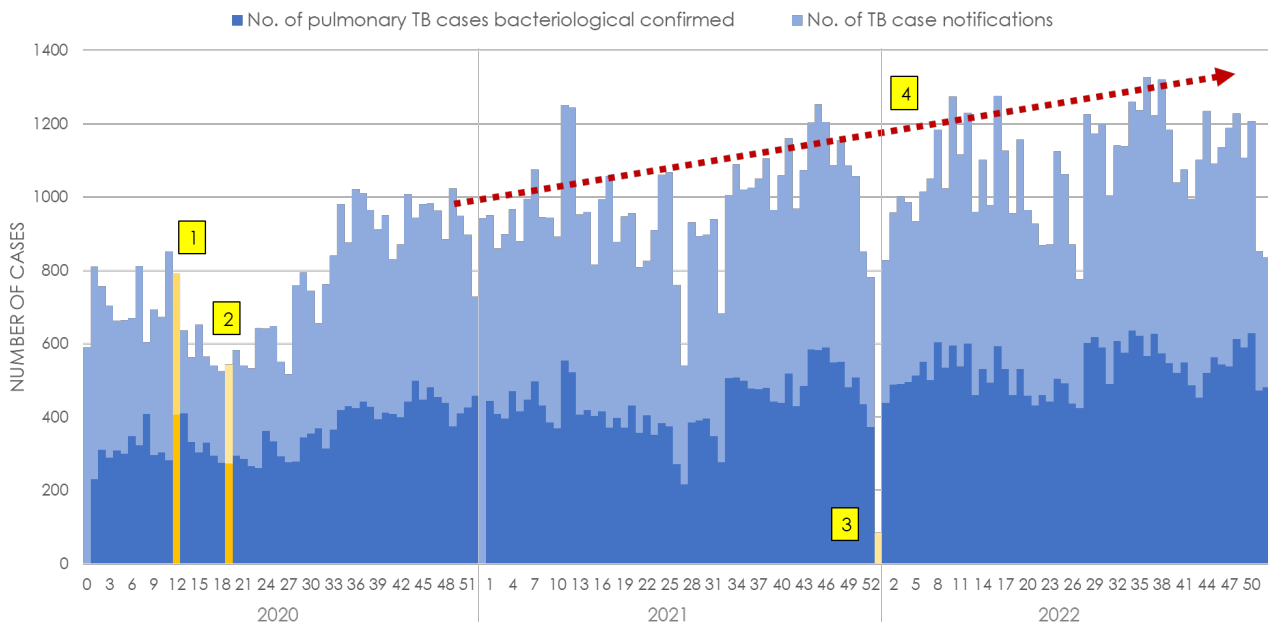
- 2. Presentation and discussion of data.** Once the data has been shared by a presenter at the national level, there is a free-flowing discussion on questions emerging from it. Districts share what they did to achieve results, e.g., conduct a contact investigation, so that everyone can learn best practices.
- 3. Early detection of problems.** Challenges are now being identified early. For example, provinces sometimes report stockouts of GeneXpert cartridges even though these are available in the central stores. Before the weekly meetings, such problems would take at least a month to be identified and resolved; now, the Ministry of Health and partners can act immediately to minimize service delivery interruptions.
- 4. Highlights and next steps:** Meetings are wrapped up by the chair with a brief summary of observations and agreed actions with the provinces.

Impact

Increases rather than declines in major TB indicators. Most countries have recorded declines in major TB indicators in 2020 alongside the disruptions associated with the COVID-19 pandemic. Zambia is among the few African countries that has recorded increases during this time—in fact, its best performance ever—an 8 percent increase in TB case notifications from 36,866 in 2019 to 40,756 in 2020, and a sustained treatment success rate at 90 percent. Further, the treatment success rate for MDR-TB increased from 72 percent in 2019 to 78 percent in 2020. While more effort continues to be required on bacteriological confirmation of pulmonary TB cases, GeneXpert utilization in Zambia increased by nearly 42 percent between 2020 and 2021 and about 20 percent between 2019 and 2020.

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FIGURE 1: IMPACT OF COVID-19 ON TB CASE FINDING IN ZAMBIA BY WEEK (2020 – 2022)



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| <p>1 The first case of COVID-19 detected in Zambia. Due to COVID-19 movement restrictions, TB case detection also decreased.</p> | <p>2 TB situation room launched to review TB national and subnational data on a weekly basis for decision making and ensuring continuity of TB services.</p> | <p>3 Drop on TB case detection due to holidays, and decreased community TB case findings and OPD attendance.</p> | <p>4 Effective use of data resulted in year-on year improvements on TB case notifications and bacteriological confirmations.</p> |
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As evident in Figure 1 above, there was an initial decline when the impact of COVID started to be felt in 2020, and then a quick and sustained recovery and upward trend alongside the regular data reviews made possible by the TB Situation Room. The number of patients put on TB preventive therapy also increased by 40 percent from 189,586 in 2019 to 301,245 in 2020. The progress highlighted in Figure 1 continues to be sustained and continuing to trend upwards, even after COVID-19. For example, a 19 percent increase has been seen in bacteriological confirmation of TB in the first 4 weeks of 2023, compared to the same period in 2022.

Quick improvements thanks to immediate knowledge sharing. When some provinces are called upon to explain weak or declining performance during the TB Situation Room, other provinces are ready to help. One example is the improvements in performance in Zambia's Northern Province, which ranks third-highest in the country for TB prevalence, after Lusaka and the Copper Belt Provinces¹. These improvements were largely attributable to knowledge sharing from other provinces enabled by the Situation Room. *See Box 1.*

Real-time guidance on Infection Prevention and Control (IPC). The National TB Program was able to contribute significantly to IPC in the context of COVID-19 given its pre-existing capacity. The TB Situation Room was used to provide IPC guidance. When laboratory staff were concerned about processing TB specimens for fear of contracting COVID-19, there were resulting delays in processing these specimens.

¹ National TB Prevalence Survey 2013-2014 Technical Report, Zambia Ministry of Health

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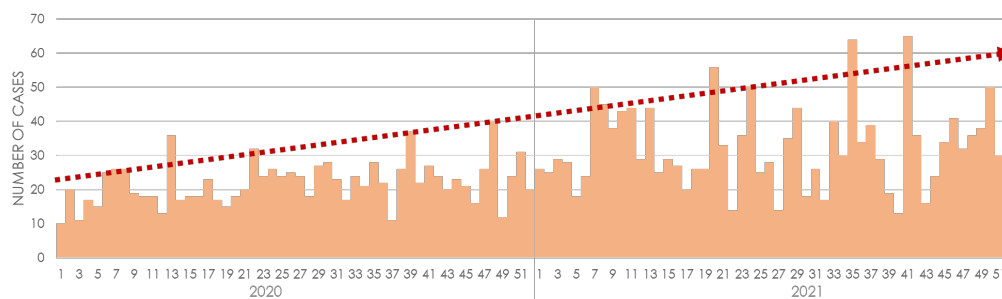
Laboratory staff were invited to the TB Situation Room and experts were brought in to address their concerns and provide guidance on IPC for both TB and COVID-19. After this, processing resumed normally.

Box 1: Performance improvements in Zambia's Northern Province, 2020-2021

Zambia's Northern Province consists of 12 districts with a population of over 1,520,000 and a TB prevalence of over 600 per 100,000 people (2013-14), making it one of the worst-affected provinces in the country.

Raising the positivity yield. In the first quarter of 2020, Northern Province was reporting a weekly average of 3 percent positivity yield (as detected by GeneXpert), which was low and of concern given its high burden of TB. During the Situation Room, this province learned from the Central Province, which was doing much better, that they should focus on the linkages with diagnostic sites, as some testing sites in Northern Province did not have GeneXpert machines. By the beginning of the second quarter of 2020, Northern Province introduced and strengthened a courier system to get samples to fully equipped sites. The positivity yield rapidly increased to an average of 6 percent by the close of 2020.

FIGURE 2: TB CASE NOTIFICATIONS FOR THE NORTHERN PROVINCE, BY WEEK
(2020 – 2021)



Exchanging ideas for sustained improvements. Further, the Northern Province opened up a regular line of communication with another peer, the Western Province, which had received an award in 2020 from the Ministry of Health for best-performing province. Weekly exchanges of ideas on intensified case finding (e.g., enhancing facility case finding by increasing the index of suspicion among health care workers; use of clinical teams and pediatric consultants as childhood TB champions to improve diagnosis of TB in children) helped the Northern Province to do similarly well overall.

The TB Situation Room has allowed peer-to-peer interaction with colleagues. It's also an opportunity to look at our short-term weekly data instead of waiting for the whole quarter to finish and to get immediate feedback from the national level.

– Mr. Enock Mwansa Kabeke, Provincial TB Coordinator,
Provincial Health Office, Northern Province

In 2021, the Northern Province had the highest TB coverage relative to the estimated subnational TB burden, and has in fact led Zambia on cumulative performance in TB case finding, maintaining 100 percent achievement of the cumulative performance targets set by the National TB program for 2021.

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Going forward

Beyond COVID-19. The virtual TB Situation Room has helped significantly during the pandemic to ensure that Zambia stays on track on its TB goals. However, it is no longer seen as an interim mechanism for the COVID-19 response, and has been institutionalized within the Government for more than two years. The meeting platform allows national leadership to connect with the provinces flexibly. Data reporting is evolving to cover a wider range of issues than just those of primary concern during the pandemic. It is also well understood now across the provinces that attention to data, knowledge sharing, and accountability are prerequisites for better performance. Despite occasional connectivity issues, the meetings remain a critical way to reach large numbers of staff and stakeholders regularly.

Moving to a hybrid management model. A virtual platform, however impactful, cannot solve every problem. The National TB Control Program will move to a hybrid management model for data review once the pandemic ends—resuming the quarterly structured mentorship meetings in Lusaka attended by provincial officials, while continuing the weekly virtual meetings. Some types of issues are best dealt with during weekly reviews, while others (for example one-on-one mentoring) are best done face-to-face.

For more information

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10 WAYS

A TB SITUATION ROOM CAN HELP

Better communication

1. Interaction between peers and free flow of ideas, best practices, strategies, and mentorship.
2. Opportunity for provinces to discuss issues with the national leadership.
3. Support on problem solving and resources from partners who hear about issues at the meeting.
4. Sensitization of health care workers, including doctors, who see the weekly data.

More strategic management

5. Greater participation of provincial leadership in the National TB Control Program.
6. Easy communication of guidelines from the national level to the provinces.
7. Identification of performance gaps on time and acknowledging good performance.

Increased ownership

8. A self-assessment platform for progress towards weekly, monthly, and quarterly targets.
9. Increased accountability and ownership among provincial and district TB coordinators.
10. Proactive and informed management at the national level.