

# Championing Cold Chain Data Use through a Partnership with the Malawi Ministry of Health

Patience Mfune, Tisaye Kalua, Diana Harper, Hannah Mills, *Nexleaf Analytics*; Gray Phiri, *Malawi Ministry of Health*  
Contacts for poster focal persons: [patience@nexleaf.org](mailto:patience@nexleaf.org), [grayphiri@gmail.com](mailto:grayphiri@gmail.com) & [hannah@nexleaf.org](mailto:hannah@nexleaf.org)

## BACKGROUND

Since 2021, Nexleaf Analytics has partnered with the Malawi Ministry of Health (MoH) to install over 800 remote temperature monitoring devices (RTMDs) in 953 Cold Chain Equipments (CCEs) covering 86% of facilities across the country. RTMDs provide users with real-time data and alerts to monitor vaccine storage temperatures and make decisions to protect the vaccine cold chain. Additionally, Nexleaf supports the MoH in fostering a culture of data, which ensures appropriate access, Remote Temperature Monitoring (RTM) skills, and motivation to use RTM data.

## METHODS

To drive forward a culture of data, Nexleaf and the MoH:

- Trained all Cold Chain Technicians and Expanded Program on Immunization (EPI) coordinators in 28 districts on how to use and troubleshoot RTMDs,
- Conducted frequent outreach and supportive supervision to gather feedback on RTMD use,
- Held regular meetings with EPI staff and partners,
- Identified regional Data Champions to provide peer support,
- Developed a data use course with the Malawi University of Business and Applied Sciences (MUBAS).

Assessments on data skills and use were initially gathered through feedback from 60 training participants, 32 site visits in 10 districts, coupled with midway RTM knowledge, attitude and behavior assessments from the same cohort and data use course evaluation forms and final exams from 116 students.

## CONCLUSION

Beyond technology tools, cold chain personnel require targeted, sustained support to understand and use cold chain data – especially to make proactive and wide-scale improvements in the health system and to sustain data use over time. By owning this process, the MoH has begun to sustainably integrate RTM and cold chain data use into its processes and culture.

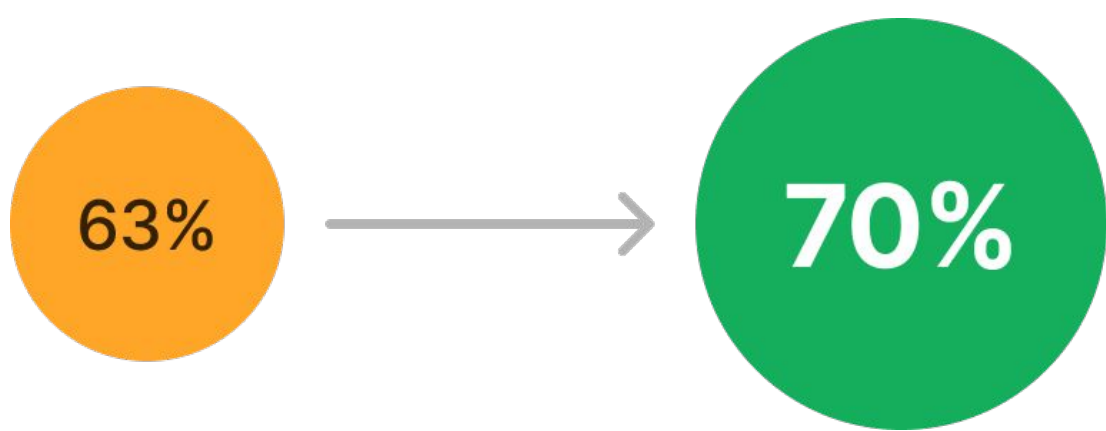
## RESULTS

The introduction of RTMDs and efforts to foster a culture of data resulted in improvements in vaccine cold chain performance over 18 months of the project.

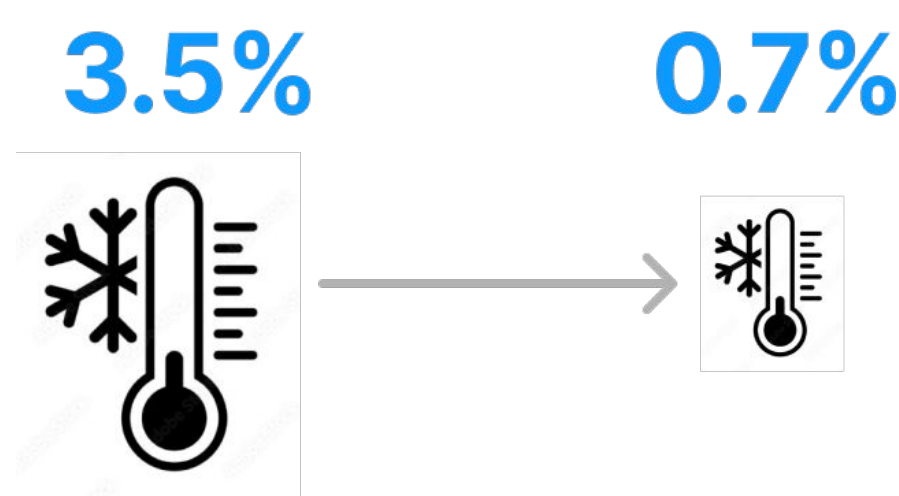
### RTMD Use at Facilities



### CCE Time Spent in Safe Storage Temperatures



### CCE Time Spent in Dangerous Freezing Temperatures



Sustained efforts by Nexleaf and the MoH set the foundation for future successful use of RTMDs and cold chain data. Nearly all project participants reported positive improvements in their data knowledge, skills, and attitudes as a result of this effort.

