



Global Health
Supply Chain Summit

[ABSTRACT 74]
[TRACK 14]
[14TH NOVEMBER]

LAGOS, NIGERIA ~ NOVEMBER 12-15

2024

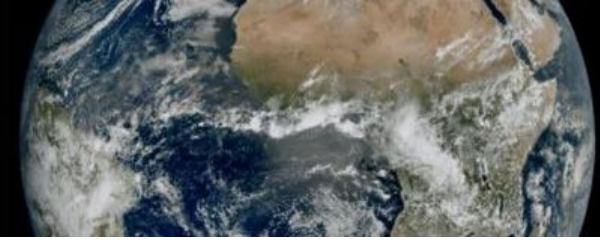
**VALUE CHAIN INNOVATIONS FOR UNIVERSAL HEALTH
COVERAGE**



Real time data to improve vaccine delivery

Jacqueline Minja – inSupply Health Tanzania, Majaliwa Mtoroki – Ministry of Health of Tanzania, Zainabu Nyamungumi - Ministry of Health of Tanzania, Ikombola Juma – inSupply Health Tanzania, Matiko Machagge - inSupply Health Tanzania, Hannah Mills – Nexleaf Analytics, Erin Ross – Nexleaf Analytics

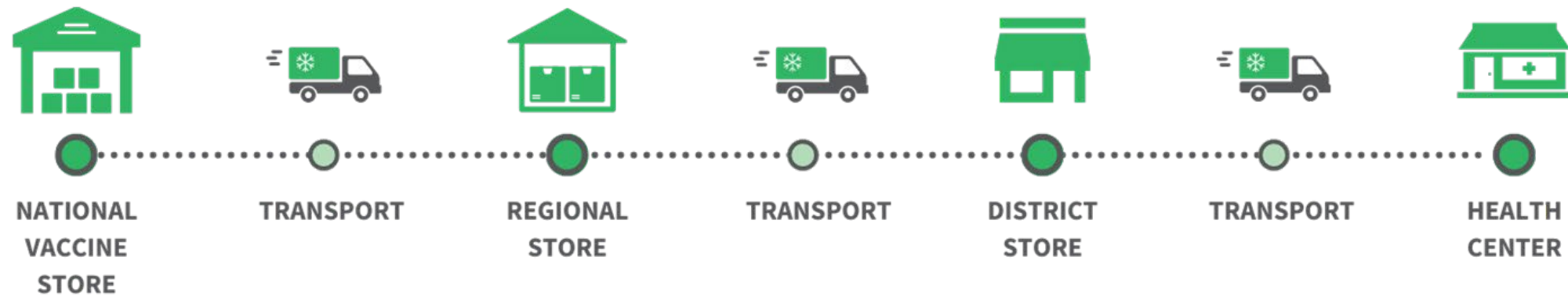
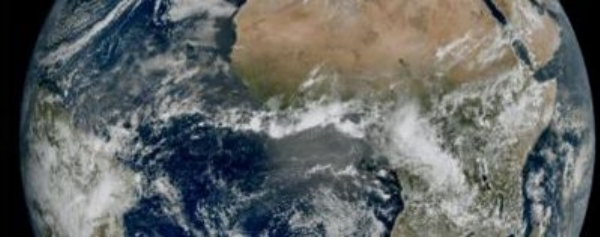
The Critical Role of End-to-End Visibility in the Cold Chain



- Every vaccine dose takes an intricate **journey through the cold chain** to reach a recipient
- **Temperature excursions** can compromise vaccine potency
- **End-to-end visibility prompts active response** when risks arise



Vaccine Transportation: A critical link



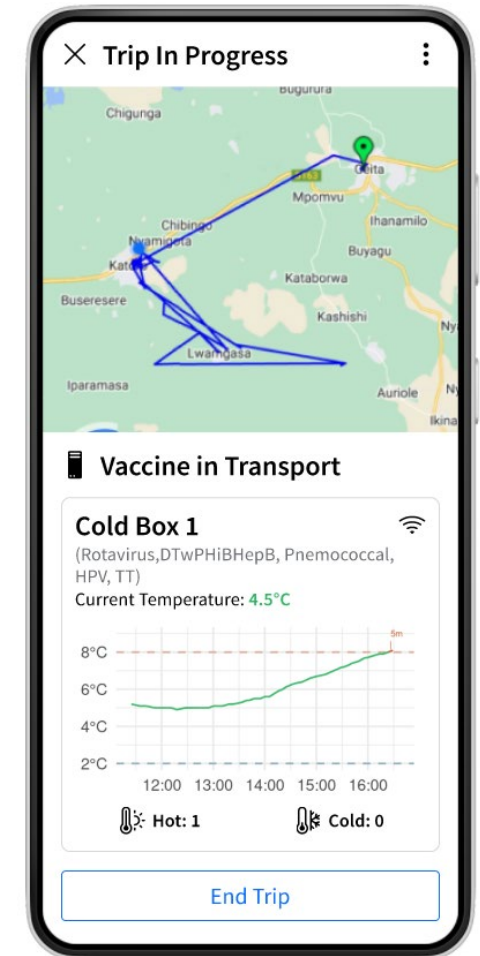
- **Transport** accounts for **multiple critical links** in the vaccine cold chain
- Vaccine delivery hinges on **unpredictable variables**, like:
 - **difficult terrains**
 - **weather (seasonal floods)**
 - **lengthy distribution routes**
 - **resource limitations** (lack of vehicles, funding, etc.)

ColdTrace Transport: Bringing real-time visibility to vaccine transportation



ColdTrace Transport

- **bluetooth-based sensor**
- pairs with a **smartphone app**
- **temperature + GPS** data
- instant **real-time alerts**



ColdTrace Transport Pilot



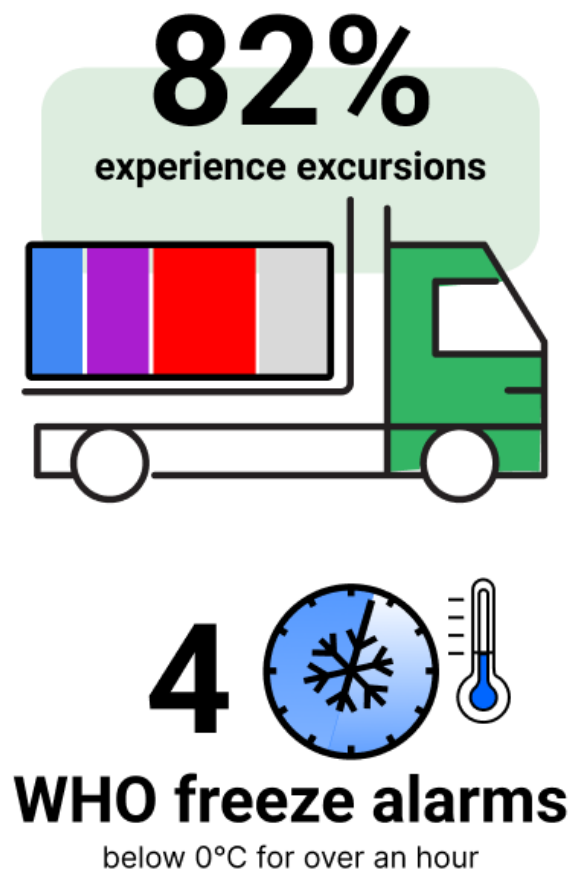
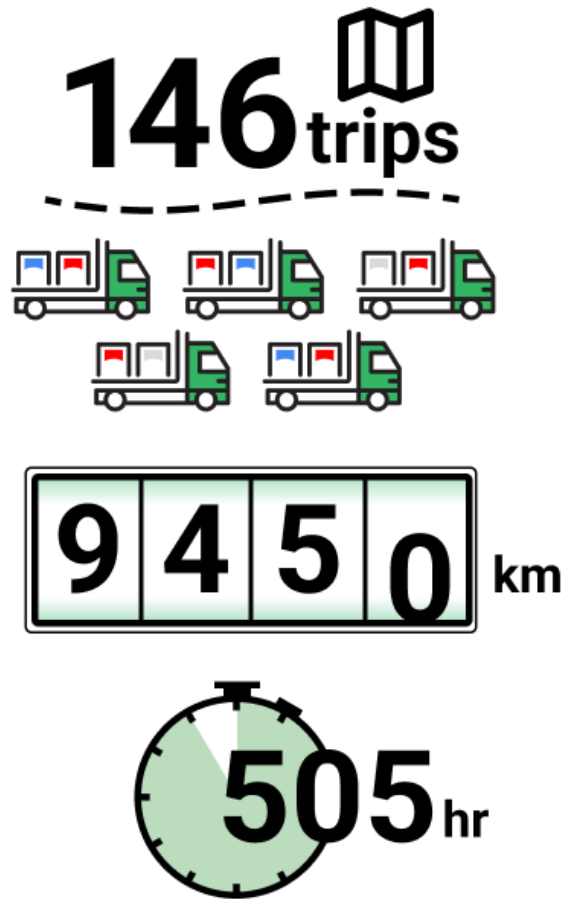
Data-driven approach to **improve vaccine distribution** and thus **enhance immunization performance and accessibility.**

Pilot Phase:

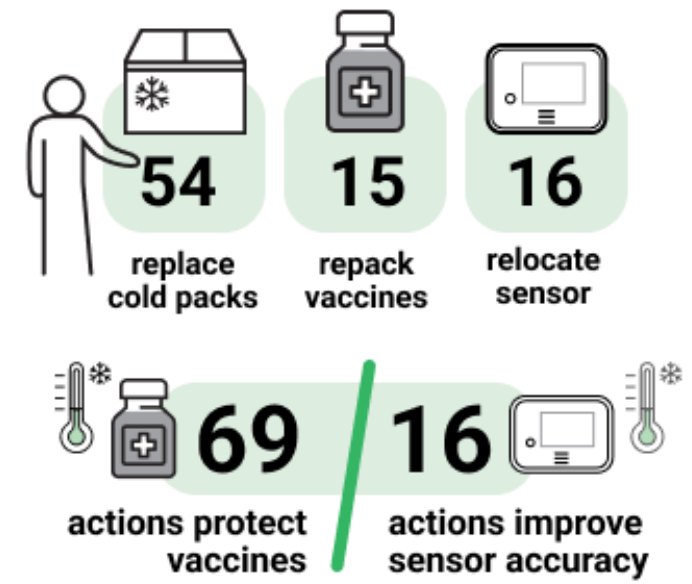
- 10 district councils in **Mwanza and Geita** provinces
- **June 2022-March 2023**
- Regional Immunisation and Vaccine Officers (**RIVOs**) + District Immunisation and Vaccine Officers (**DIVOs**) received **training**
- Supportive supervision
- Facilitated data review meetings (the IMPACT approach)
- A WhatsApp group for RIVOs and DIVOs
- Gathered feedback, identified challenges, co-designed



Pilot Results



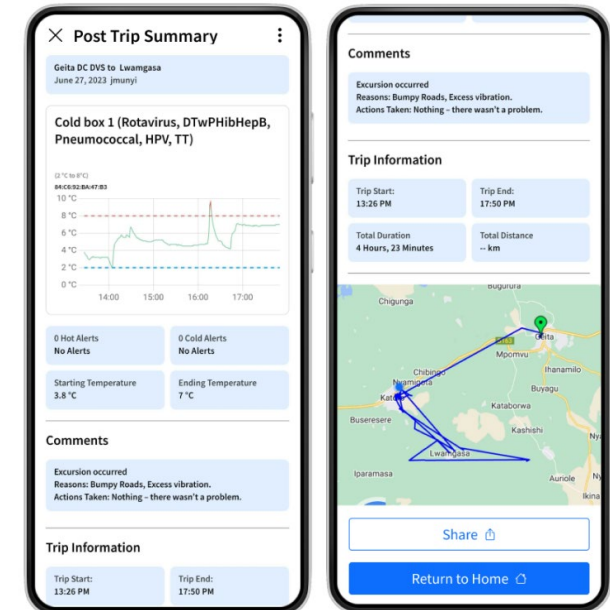
85 actions



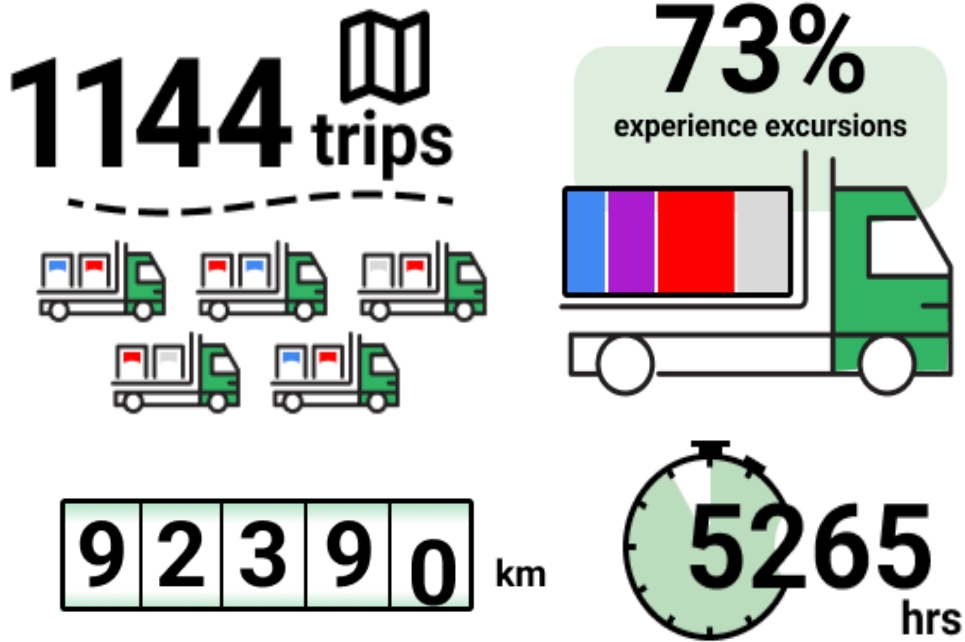
Nationwide Scale-Up



- **450 immunization subnational officers from 31 regions** in Tanzania Mainland and Zanzibar trained (Jan-May 2024)
- Supportive supervision visits followed
- Users received **post-trip summary reports** and **monthly data reports** to share + discuss
- Data from ColdTrace Transport is useful every level:
 - **Facility level:** records of doses, temperature, VVM, and delivery time
 - **Council / Regional levels:** reports are shared (CHMT groups, monthly meetings) for planning + budgeting.
 - **National level:** reports to aid planning and provide visibility



Proactive Health System Action: Nationwide Scale-Up Results



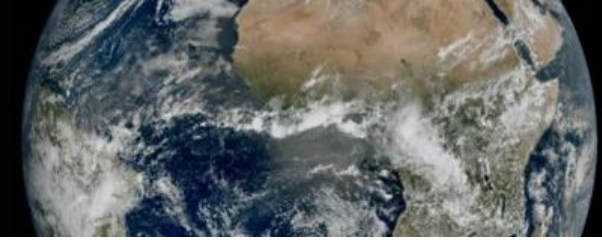
Process changes from **Transport data + discussions**:

- New **National SOP for Vaccine Packing**
- Revised **Temperature Monitoring SOP**
- Improved understanding of **handling requirements**
- **Streamlined** distribution routes
- **Early morning hours** targeted for distribution
- **Closed-top** vehicles
- **Cost savings**
 - optimized route management
 - reduced vaccine wastage



Key Lessons Learned

1. Importance of **Proper Training**
2. Vehicle **Suitability**
3. **Agility** and **Flexibility**
4. **Government Involvement** and **Ownership**



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