

December, 2018

# Building a Digital Health Investment Road Map

## A Look Back at What Worked

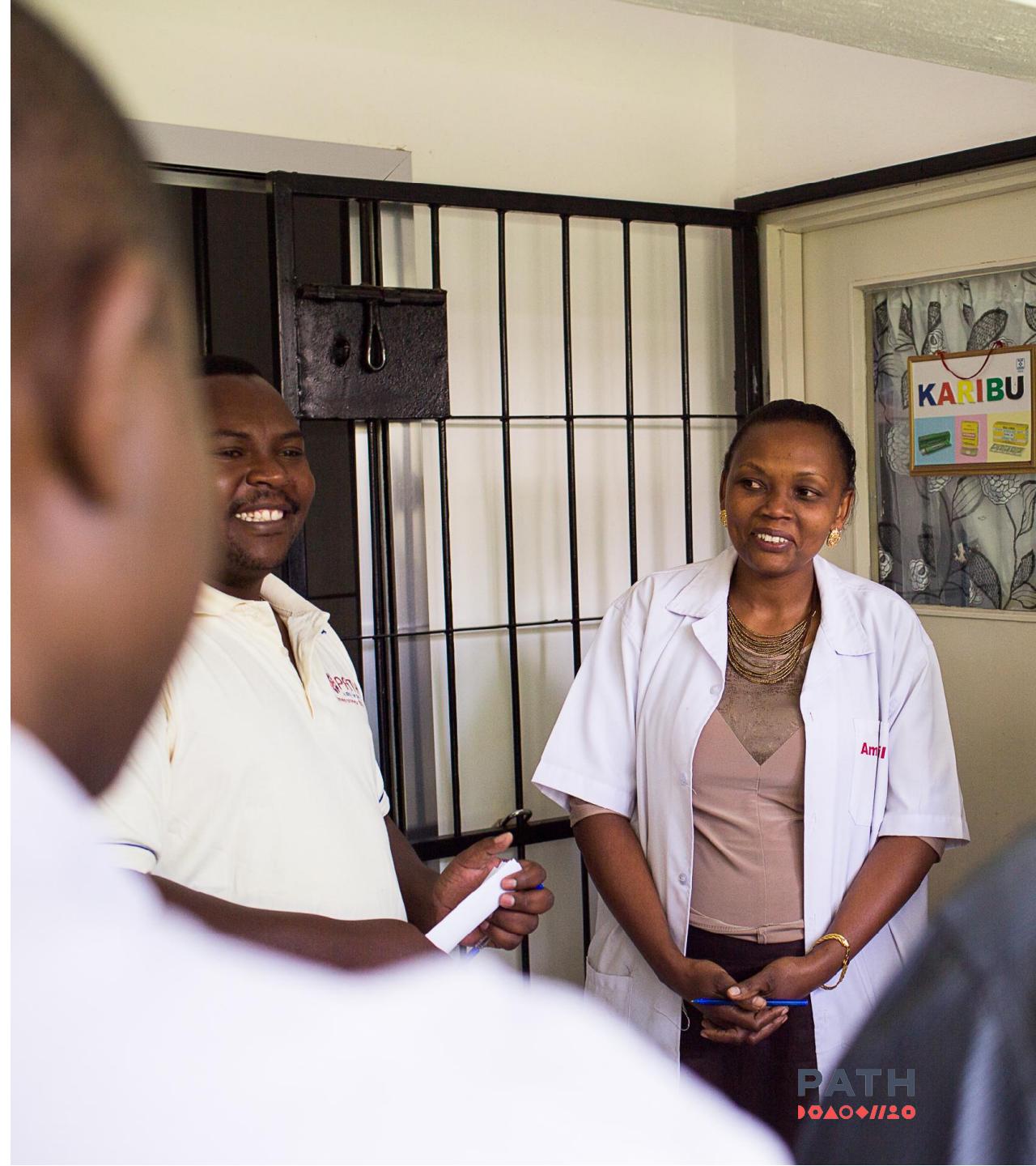
Henry Mwanyika, Regional Digital Health Director, Africa  
Breese McIlvaine, Program Officer



# Tanzania's Digital Health Investment Road Map

The Road Map outlines 17 investment recommendations that aim to:

- Enhance service delivery;
- Strengthen health system performance;
- Optimize resource management;
- Improve data supply and demand; and
- Connect and harmonize data systems.



# What can we learn from DUP?

DUP identified 8 critical factors to developing a successful digital health investment road map.



Start with the country's vision.



Know the local context.



Build on an existing policy foundation.



Apply a global approach.



Take time to build relationships.



Amplify political champions.



Seek out and use a wide range of input.



Foster shared understanding of data.



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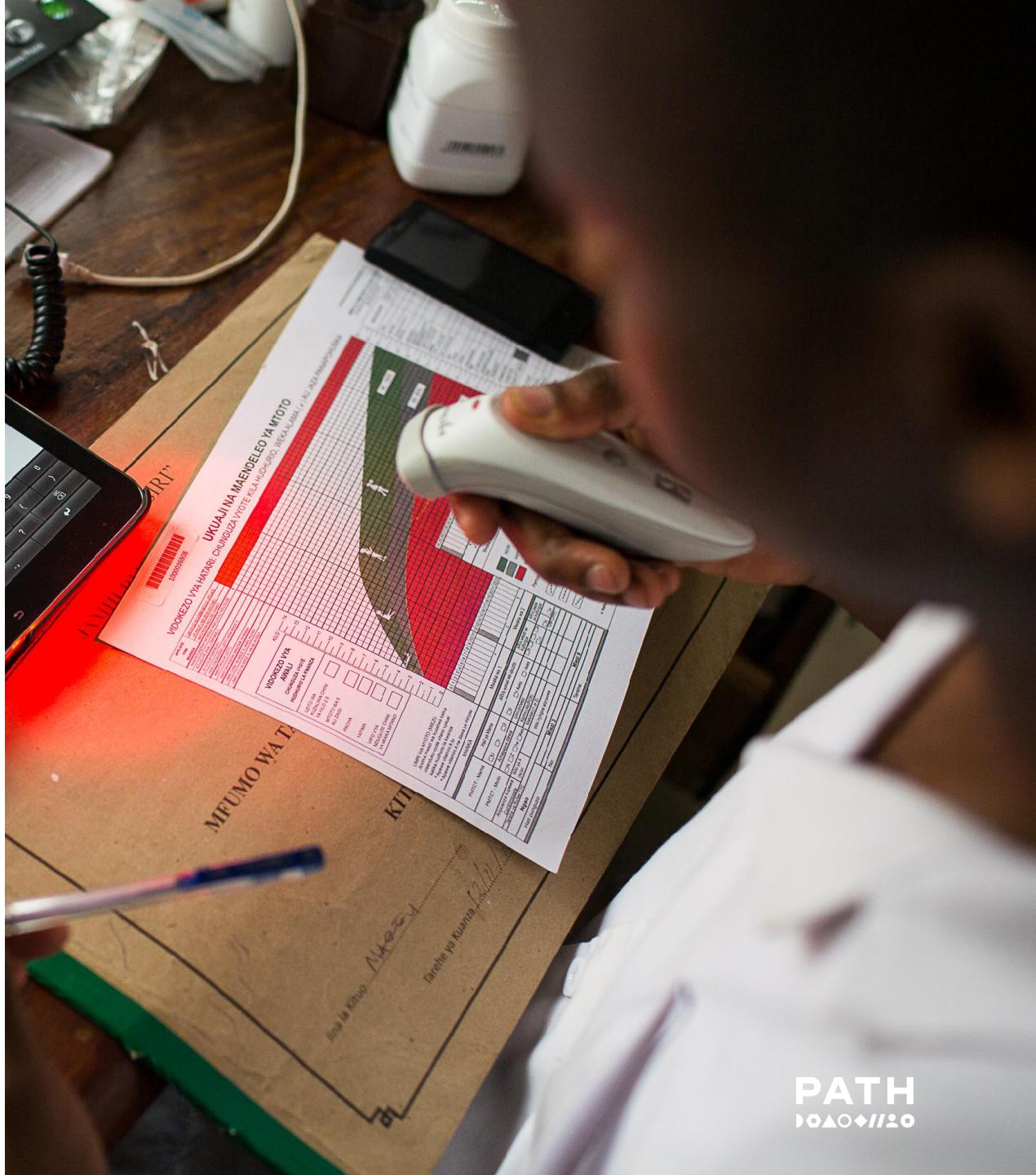


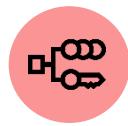


Know the local context.



Apply a global approach.





Seek out and use a wide range of input.



Foster a shared understanding of data.



“We see the Investment Road Map  
as a critical component of  
improving our health system in  
Tanzania by having better data  
which will result in better outcomes  
for Tanzanians.”

— Peter Serukamba, Chairman of the Social Services Parliamentary Committee for the Government of Tanzania



Thank you.

**PATH**  
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Ministry of Health and Population

# A Governance & Implementation Perspective on Using a National mHealth Registration & Landscape Analysis





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COOPER / SMITH

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# mHealth 360 Assessment

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In 2017, the Secretary for Health and Population required that all Malawian mHealth projects complete a formal registration process.

31 mHealth projects officially registered. Information about the projects was extracted during registration.

Additionally, a list of known mHealth projects was cross-referenced using existing databases.

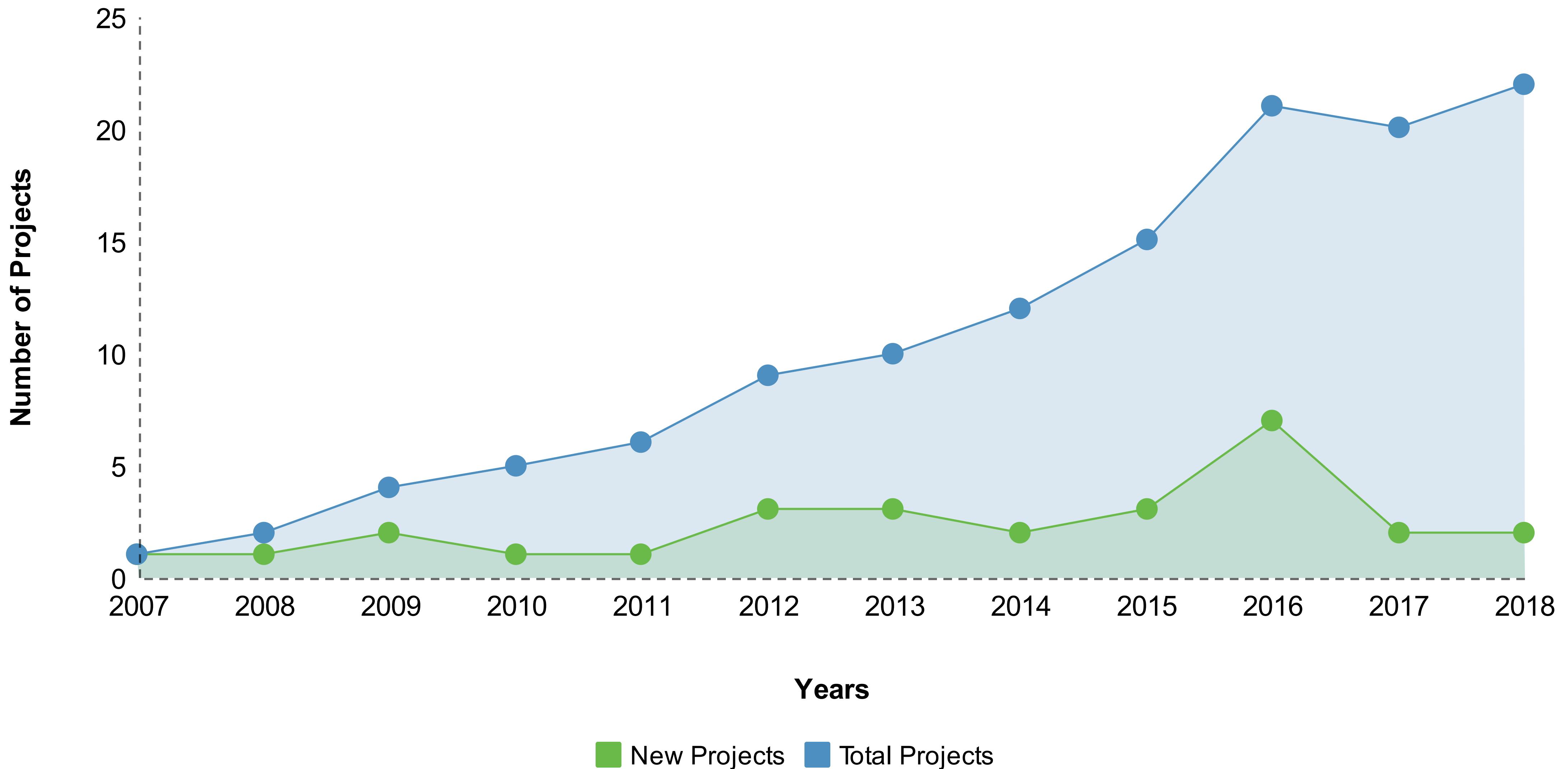
31

mHealth Projects in Malawi

# Timeline of mHealth in Malawi

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## mHealth Projects in Malawi Over Time



# Malawi Ministerial Statement to the World Health Assembly

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*"The study identified 31 different mobile applications under implementation to support health service delivery in Malawi with some of the geographical locations having as many as half of these applications being implemented in the same district reflects a fundamental challenge in the implementation of mHealth in developing countries.*

*It is a clear demonstration of lack of harmonization among implementing partners resulting in duplicate efforts and inefficiencies in use of investments."*

The Government has Identified 5 Key Issues using the mHealth Registration and Landscape Analysis

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**Need to focus new investments on existing mHealth Investments**

**Need to increase efficiency in mHealth investments**

**Need to develop comprehensive mHealth applications**

**Need to provide standards for mHealth applications**

# 1. Need to Focus New Investments on Existing mHealth Investments

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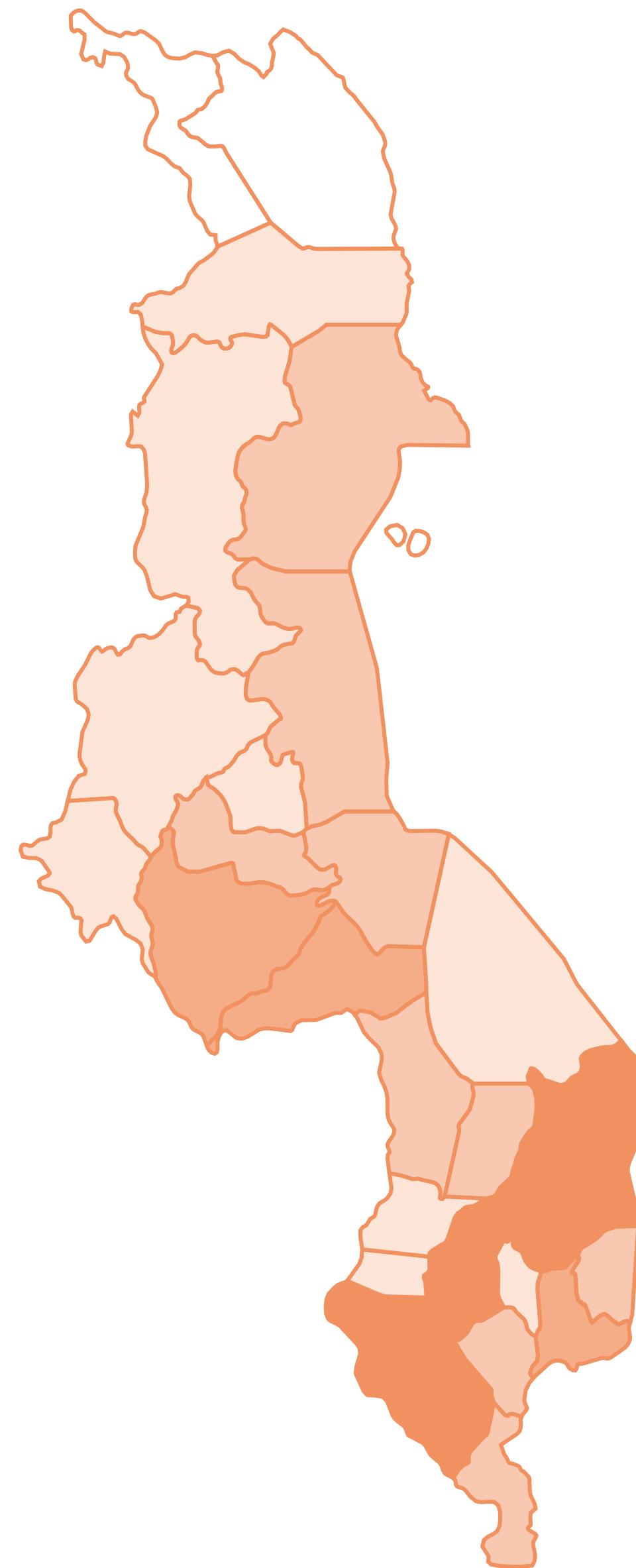
Average project lifespan in Malawi

- Study found that average lifespan is five years
- Coincidentally donor grants and funds average around 5 years
- Means mHealth Projects dies as funding winds up

## 2. Need to Increase Efficiency in mHealth Investments

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- With an average of 8 investments per district in 13 in one, there is need to address inefficiency
- Coordination challenges, maintenance challenges, sustainability challenges

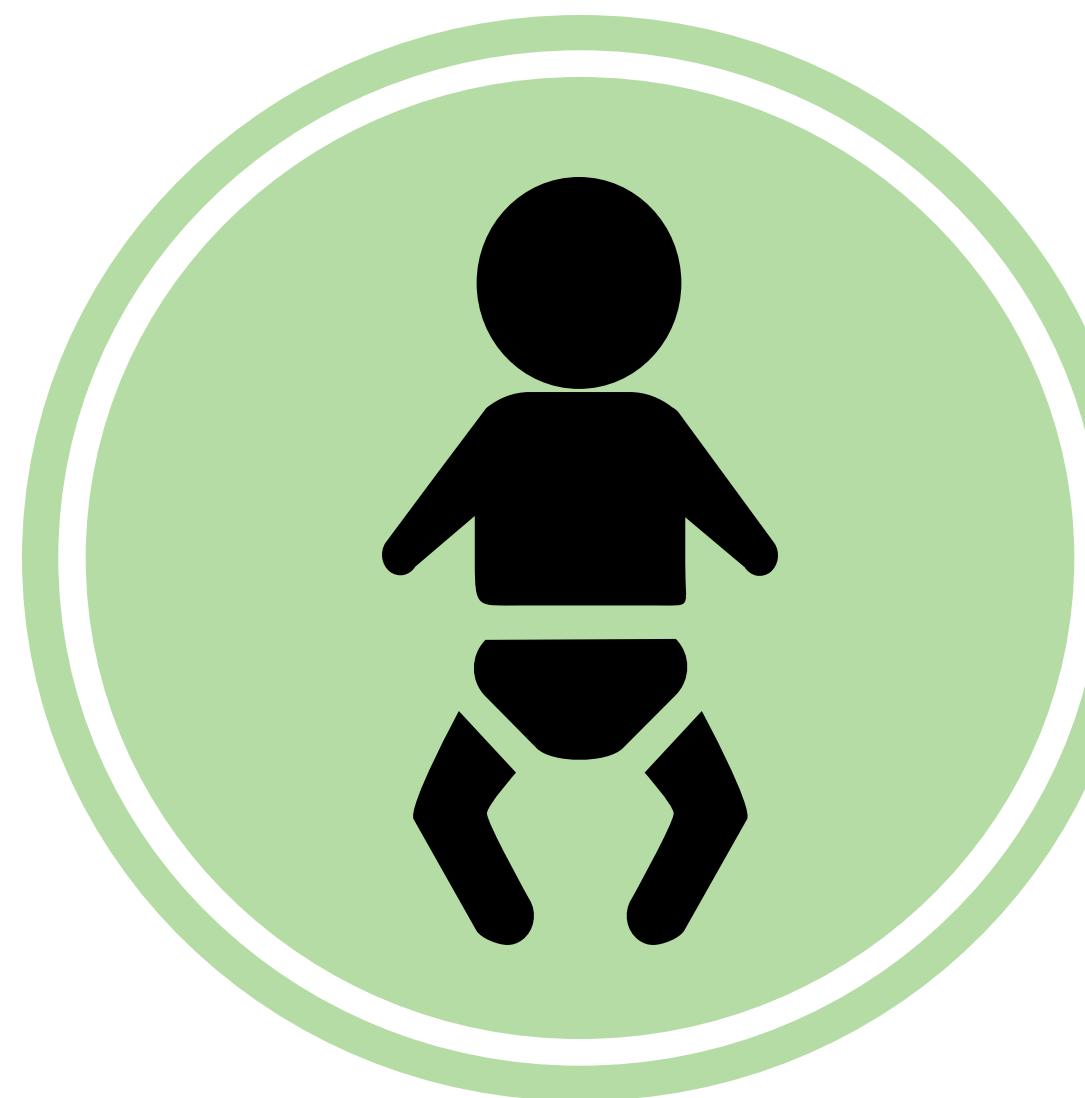


### 3. Need to Develop Comprehensive mHealth Applications

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Maternal and  
Reproductive  
Health



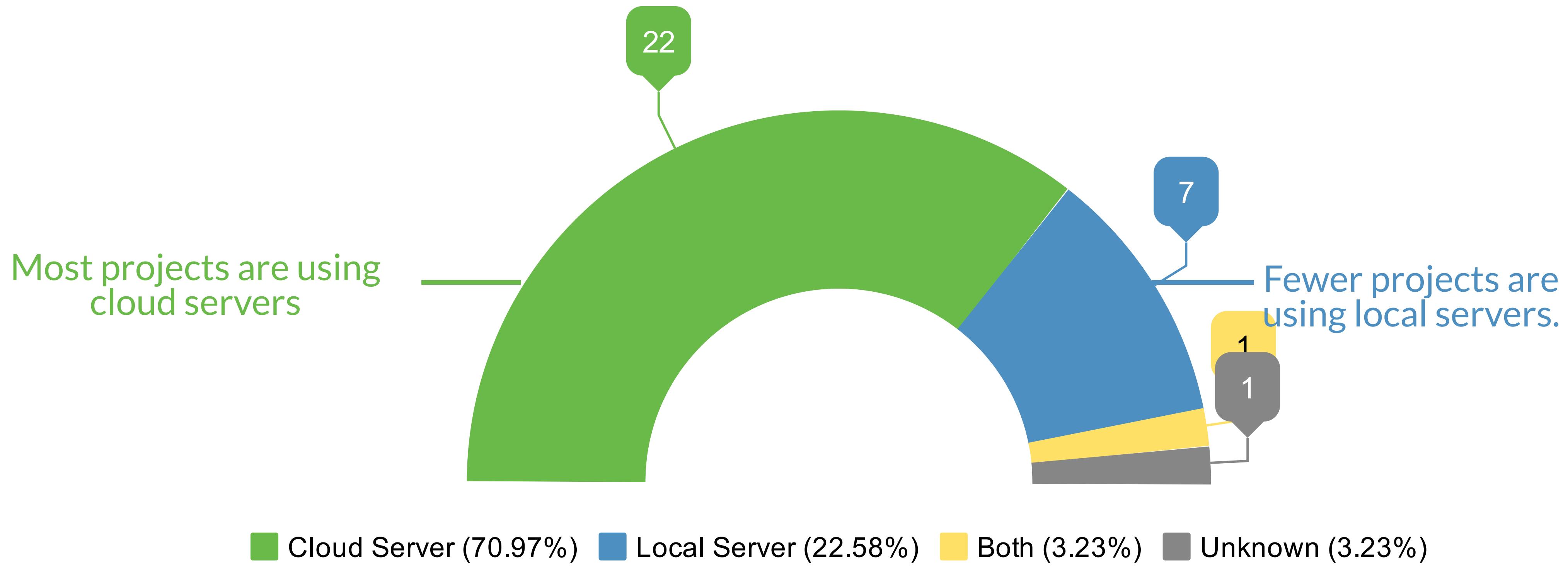
Infant and Child  
Health



Community Health

- Assessment found that majority of mHealth projects in Malawi are currently working in the areas of maternal and reproductive ; infant and child health, and community health
- There is need for mHealth Applications to shift from narrow health area focus to comprehensive applications.

# 4. Need to Implement Comprehensive Policies Around Data



- Access to data post grant
- Security of patient level data vs. Access to Cross boarder legal remedies around data companies
- Ownership of data vs. Access to data vs. Possession of data

## 5. Need to Provide Standards for mHealth Applications

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Study found the following common features in each mHealth Application:

- Hardware (devices)
- Software
  - Configuration/ customization
  - Maintenance/ updates
- Hosting/Servers
- Internet
- Power
- Rollout & Implementation
- Training and technical support

There is, therefore, need to provide standards at national level on hardware specifications; security provisions; power specifications for mHealth applications and devices.

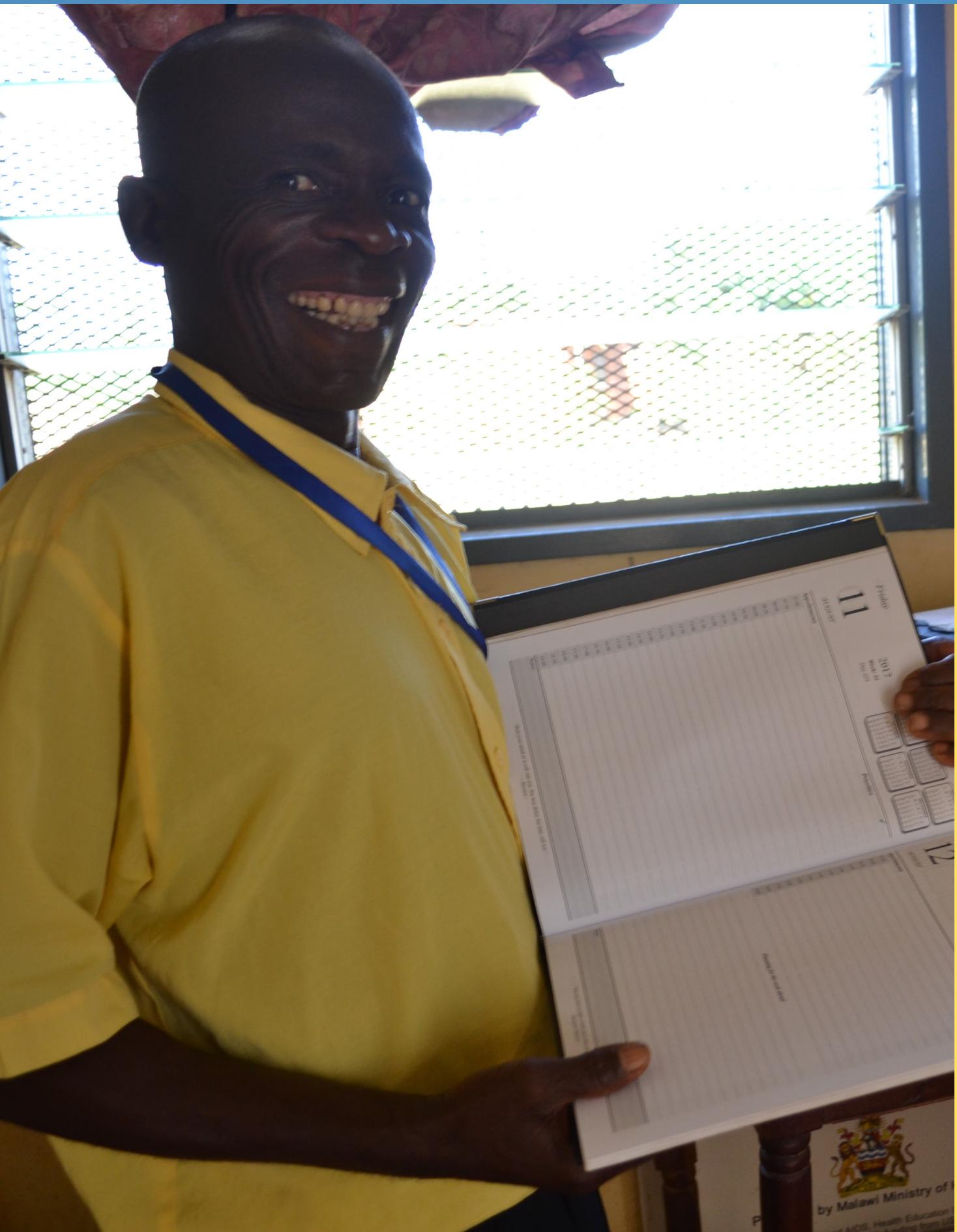




# KUUNIKA

## Data for Action

### OVERVIEW



#### Investing in better health data

- 1** Kuunika is working with the Government of Malawi to get the best health results with current resources
- 2** The Bill and Melinda Gates Foundation is supporting Malawi's Efforts to reach coverage targets, address inefficiencies and improve service quality by encouraging a data use culture
- 3** Kuunika's focus is on HIV but the all activities and architecture benefit the health system broadly

# KUUNIKA CORE CAPABILITIES

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1

Triangulate HIV Program data with epidemiological input and resource data to inform planning, management, and impact assessment

2

Set performance and quality targets, routinely measure performance against targets and assign and manage corrective action

3

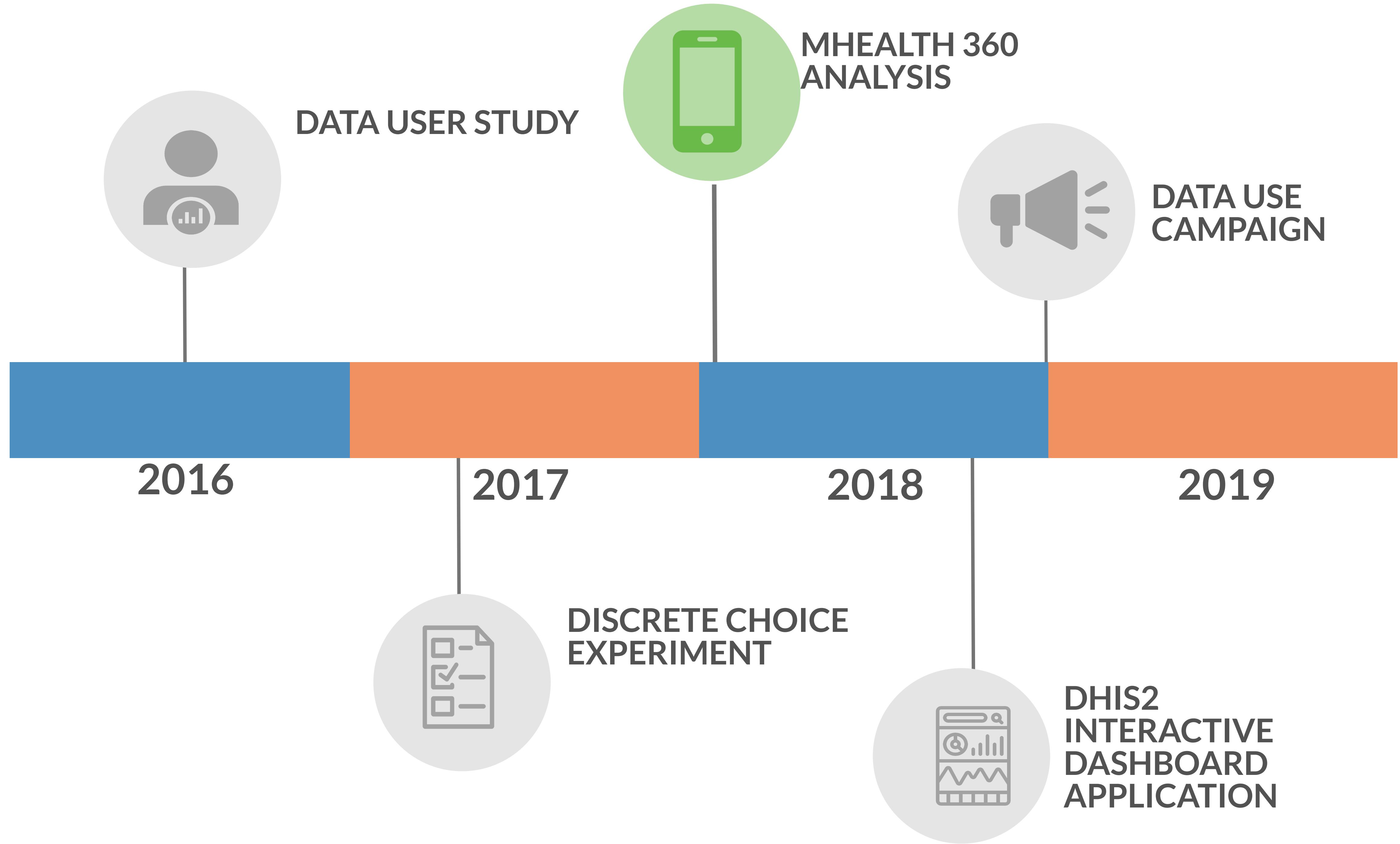


4

Generate accurate, unique patient counts and measure patient mobility

Adapt and differentiate HIV care based on insights from patient level data

# Using the Analysis in Implementation



# DATA USER STUDY



Conducted study to better understand what data was being used to make decisions at facilities and districts.

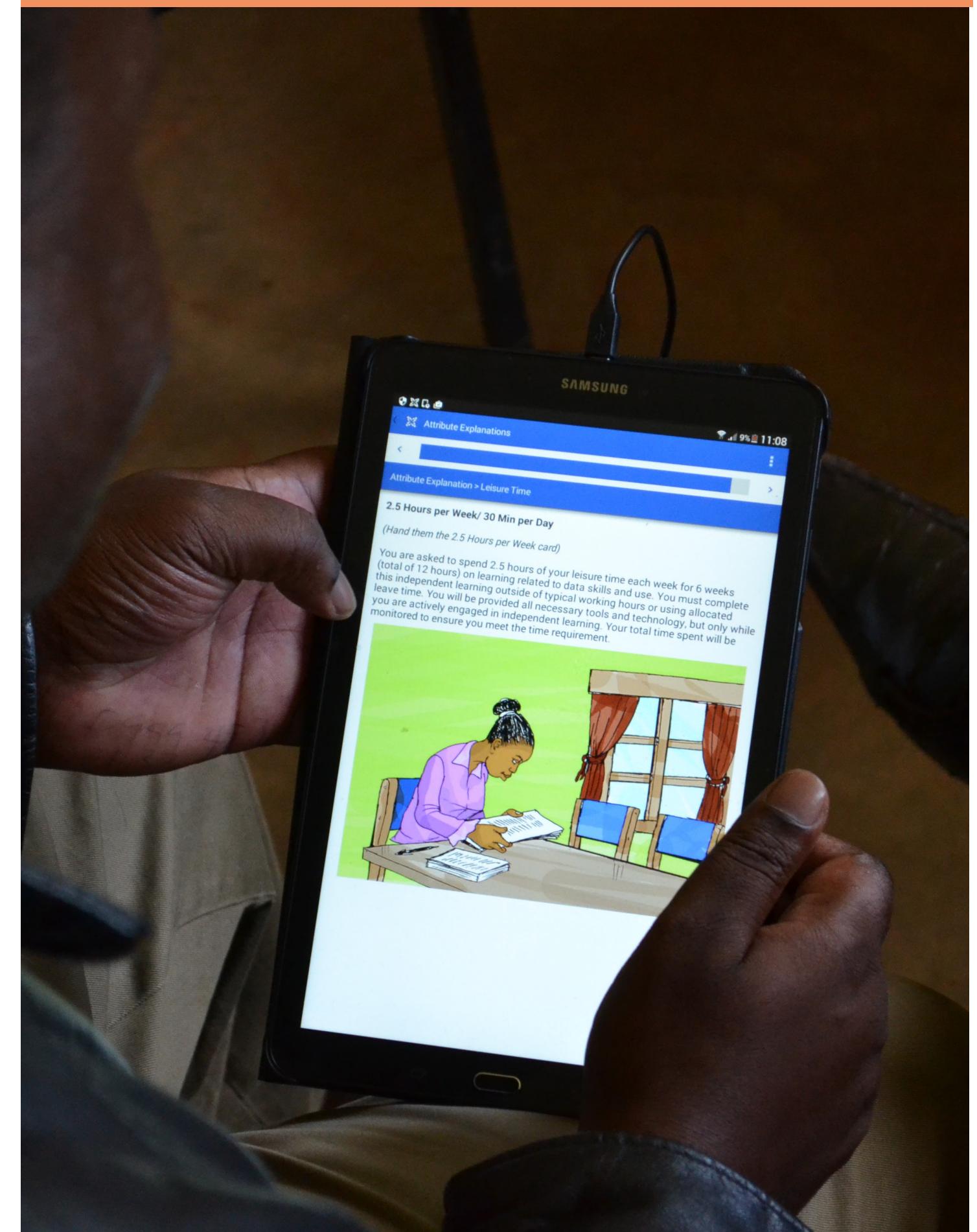
65% of nurses and clinicians had smartphones. That number jumps to 85% with District Staff.

Users identified technology to view data as a key way to improve the system.

Conducted study to better understand what data was being used to make decisions at facilities and districts.

Participants wanted a smartphone application to view data 1.5 times more than other options given.

## DISCRETE CHOICE EXPERIMENT



# MHEALTH 360 ANALYSIS



Ministry of Health and Population



mHealth in Malawi  
— Landscape Analysis —

May 2018

KUUNIKA  
Data for Action

COOPER / SMITH

31 apps in Malawi, but few DHIS2 applications, even though they exist and it is the national HMIS.

No DHIS2 data visualization application

High costs in software development, hardware, and training

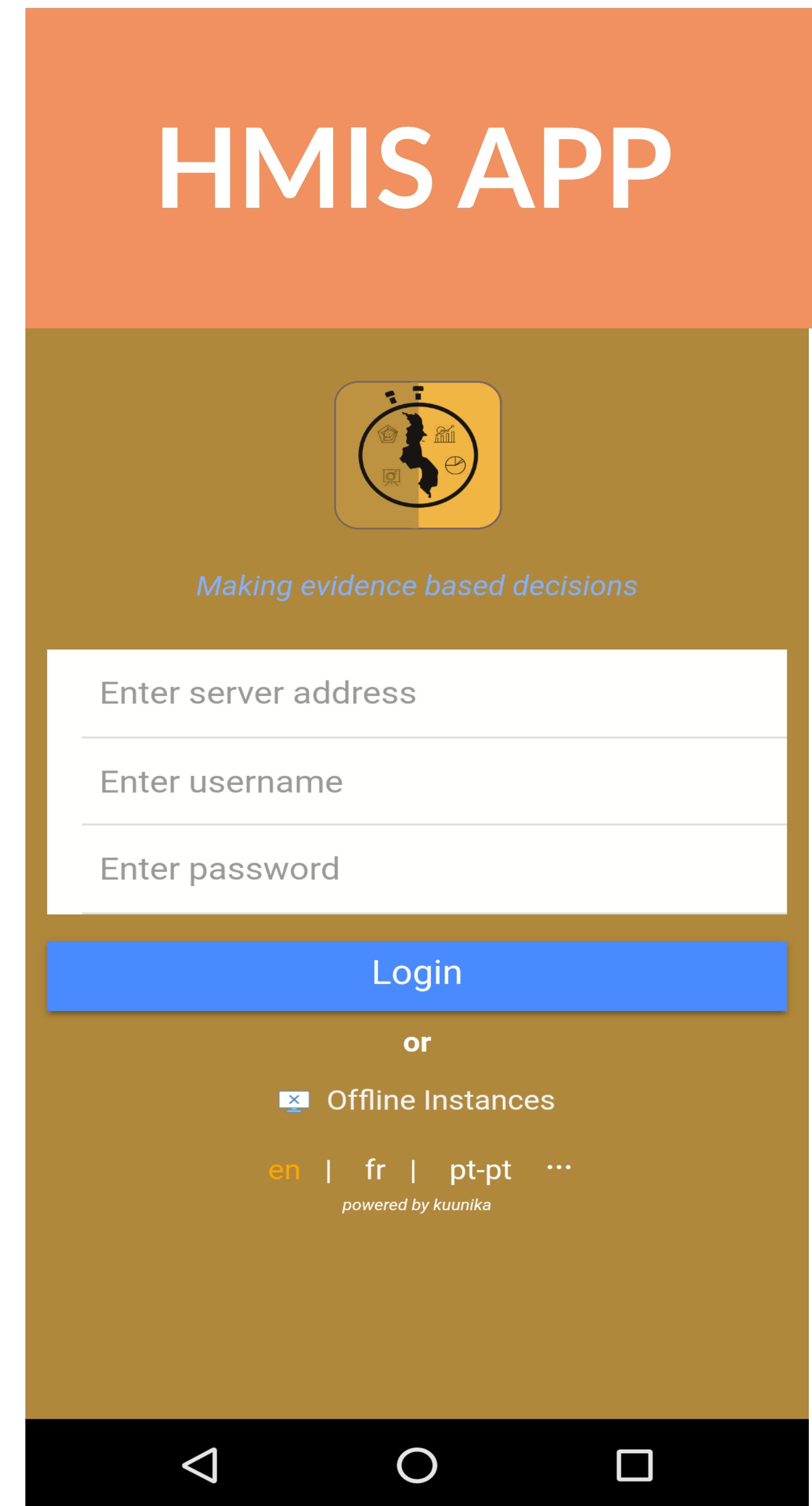
Need for better data and understanding of end users

Created new dashboards in DHIS2 based on District Implementation Planning, findings from Data User Study, and Ministry Department consultations

Adopted Tanzania DHIS2 Interactive Dashboard Application to Malawi

Openly available on the app store, DHIS2 login needed to view data

Less than 1 month to develop the application



## DATA USE CAMPAIGN



Deployed 8 teams of 2 consultants to all facilities in a district. 5 Districts to start, one district per month for 6 months.

Download application onto available smartphones, orient facility staff on application, and walk through data use case studies

Bring your own device model

Tracking users with google analytics

# Zomba District Pilot



42 facilities in 2 weeks



420 Participants



229 App Downloads



60.6% of users do not have access to a computer



98% would recommend app to colleague



60% of current users are returning users

Zikomo!

Thank you!