

# Embracing Technology: Digitalization of Mass ITNs Replacement Campaign in Zanzibar

Salim Faki Salim (BScENVH)

Zanzibar Malaria Elimination Program

Movenpick Hotel, Nairobi









#### PRESENTATION OUTLINE

#### □Introduction

- History background of ITNs mass campaign
- Challenges faced before mass ITNs digitalization

#### **□**Overview of campaign digitalization

- Highlight digitalization implemented experience
- Digital tool and platform used and collaboration /partnership formed during campaign
- ☐ Improvement and Key achievement in campagn implementation due to digitalization
- □Challenges during implementation of campaign and how they were overcome
- ☐ Lesson learned and recommendation for future digitalization in similar campaign

Historical background of mass ITNs in Zanzibar

- Zanzibar has implemented six rounds of MRC (2006, 2012, 2016, 2020, 2021, and 2023)
- Formerly,the ITNs mass campaign in Zanzibar was conducted traditionally
- By that time household registration, micro quantification, and ITN issuance were done manually through tough paper-based works
- After registation Beneficiaries were received a physical card to prove eligibility for ITN collection during the issuing dates





### Challenges faced before mass ITNs digitalization

#### Manual Errors

 Due to paper-based system during registration and issuance of ITNs

#### Delaying of Data entry

 Transition of data from paper to digital format was led time wastage and campaign delay to some extant

#### **■** Tracking in real-time was unavailable.

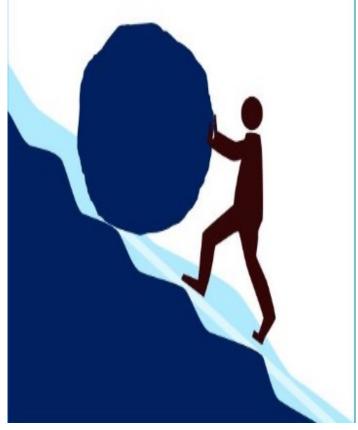
 Tracking the number of ITNs issued in real time was challenging due to manual processes to be difficulty and time waste

#### Loss of record

 Hardcopy files were prone to be misplaced, damaged, or destroyed leading of missing of essential information campaign

#### Cheating

■ In the coupon given to registered individual eg no. 1 can be changed to 7, 2 to 8,



Overview of digitalization implementation experience

- ■Transform from manual HH registration to electronic using smartphone devices
  - Total of 1,110 RAs to cover 2,100 distribution posts
- Mass ITNs App Dashboard (real time track)
  - Count automatic number of HH registered and ITNs issued
  - Analysis of the entire campaign and final produce numerical report
- Quantification was done automatic rather that manual
- ITNs digital campaign was accurate efficient and real time



## Digital tool and platform used in caimpaign

- Android smartphone and mass ITN app downloaded from play store were fully utilized during the campaign
- Server-Data Management Systems also were used in campaign to store registration and issuance household data
- Open Data Kit: Enables offline data collection with android devices, syncing connected to the internet
- SMS based MRC was designated to remind household members
  - upcoming of the campaign
  - to be registered and
  - distribution points and issuing dates
- E-commerce mobile money such as Tigo was used for incentive payments to field workers



### Collaboration /partnership formed during campaign

• The campaign involved multiple partnerships for effective planning and ITN distribution, bringing together expertise, funding, logistics, and technology.





- Ministry of health Zanzibar (MOHZ) Lead campaign planning
- GF na PMI/USAID for funding support and ITNs procurement
- A to Z and Simba logistic for produce and supply ITNs
- Path & Digital square for tecnical assistance and digital innovation
- Telecom campanies such as Tigo and Zantel (Yas) for support mobile transaction and SMS reminder to the household
- Blackthrough Action (BA) and CHW for mobilization and Health education about ITNs access and utilization













## Improvements in campaign planning and implementation due to digitalization

#### Improved Coverage Accuracy

■ Before MRC 2024 the coverage was below 80% but on MRC 2024 coverage was 99.09%

#### Improved accurate tracking of ITN distribution

• For all previous MRC tracking of ITNs was unvailable in real time

#### Minimize fraud and duplication in ITN allocation

■ ITNs Mass digitilization was having chance to clear the multiple registration before issuance

#### ■ Improved community participation and engagement

- Through the digital SMS and platform for upcoming of campaign
- Improved the ITNs supply chain and logistics to all targeted areas

#### Improved human-related competency to use the innovation technology

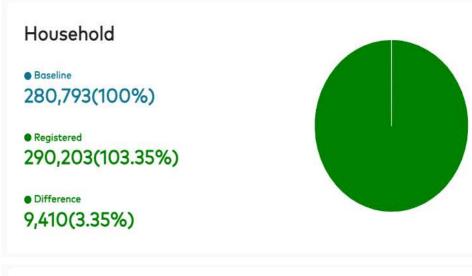
Since all RAs used smartphone and application software to register and issue ITNs

## Camparison between the Non digitilized MRC and Digitilized MRC in Zanzibar

- All previous non-digitilized ITNs campaign, the coverage were low, with none reaching above 81%. However, the coverage of digitalized mass ITNs in 2024 was 99.09%.
- Digitilized mass campaigns are significantly 40% faster due to the use of mobile technology to register and issue ITNs.
- Real-time tracking was available for digitilized campaigns, but it was not available for nondigitilized campaigns.
- The digitilized campaign used SMS and Instagram clips to enhance ITN utilization rates. In contrast, Zanzibar non-digitilized campaign involved the community meeting and IPC to improve the ITN use
- Results from the digitilized campaign are available on Mass ITNs software, while previous non-digitilized campaigns their recods on paper and some have been misplaced or damaged.

## Key achievements resulting from digitalization.

- A total of 290,203 (103.35%) households have been registered out of target of 280,793 (100%)
- **Moreover**, a total of 1,578,562 people were registered during the campaign
- At the end of the campaign
  - a total of 857,325 (99.09%) ITNs have been issued to registered people
  - the baseline target was to issue 865,186 (100%) ITNs
- The campaign was supported with intensive pre, during and post SBC campaign
- Monitoring ITNs issuing on real time through MRC dashboard and physical visits to all campaign areas





● Est.ITNs

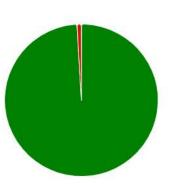
865,186(100%)

Issued ITNs

857,325(99.09%)

Difference

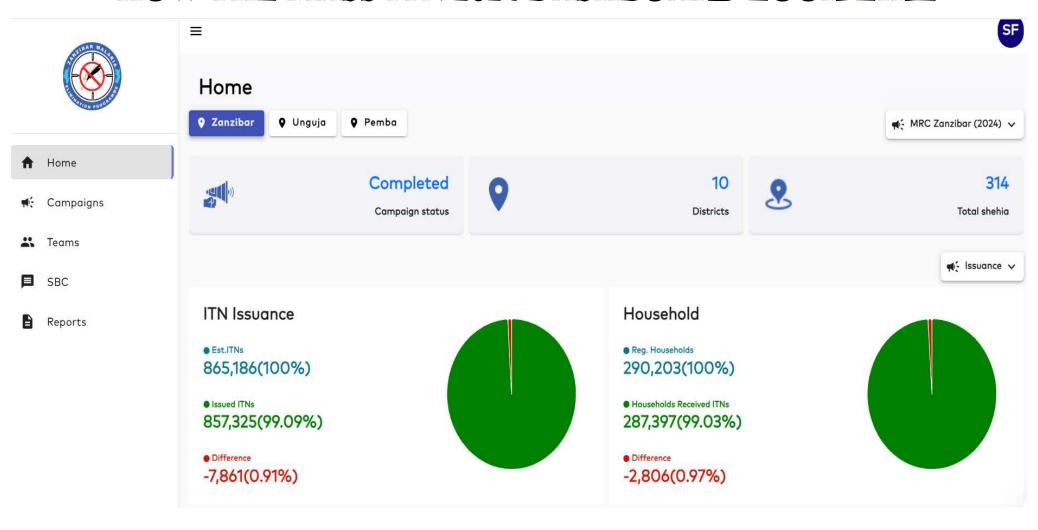
-7,861(0.91%)



### Number of ITNs issued in 314 shehias during the MRC April,2024

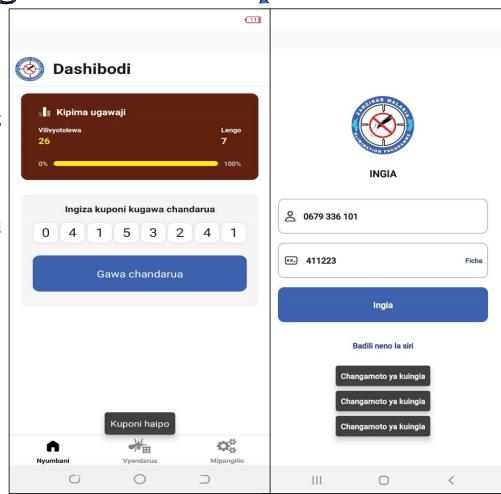
SN.	DISTRICTS	BASELINE POPULATION	REGISTERED POPULATION	BASELINE HOUSEHOLD	REGISTERED HOUSEHOLD	ESTIMATED ITNs	ISSUED ITN	% of ITNs ISSUED
1	Kaskazini A	157,369	175,923	33,257	37,088	98,049	97,563	99.50
2	Kaskazini B	99,921	116,200	21,553	24,106	64,457	63,903	99.14
3	Kati	131,561	139,971	30,278	30,549	77,999	77,093	98.84
4	Magharibi A	205,012	227,197	40,264	38,879	123,578	122,328	98.99
5	Magharibi B	194,326	188,601	40,344	33,570	102,682	99,372	96.78
6	Mjini	92,152	103,886	18,736	20,021	57,034	56,171	98.49
7	Chake Chake	136,298	161,194	24,557	27,279	87,740	87,522	99.75
8	Micheweni	123,379	146,760	21,948	23,800	79,694	79,501	99.76
9	Mkoani	135,052	150,566	23,229	26,075	82,433	82,388	99.95
10	Wete	148,712	168,264	26,627	28,836	91,520	91,484	99.96

#### HOW THE MASS ITN 2024 DASHBOARD LOOK LIKE



### Challenges faced during digitalization implementation

- Poor internet connectivity
- Data Accuracy and Integrity
  - multiple record and incomplete information during registration
- Inadequate Digital Literacy
  - Some RAs were not familiar with mobile application and digital tool
- Limited server space
  - Led slow flowing of registration data
- The mobile app could not pick up some coupons for unknown reasons



## How they were overcome

System developers has been updated app to work offline and sync data when connected to the internet.

Supervision and monitoring has been conducted to fix all mistakes arosed

■ Data clearance before issuance has been conducted by ITNs officer and system developer to fix multiple registration

System developers upgraged the server space from 8 cores to 12 cores

# Key lessons learned from the digitalization process

- The digitization of the campaign provided program management with real-time data to inform decisions addressing operational campaign issues/challenges.
- Digital record ensure highest ITNs coverage due to availability of real time dashboard
- Enhancing the strong colaboration and community mobilization on benefit of collected ITNs due to the regular reminder digital SMS
- Improved Data Accuracy(Digitalization alway reduces error in all registration and distribution record
- Digital platform ensure ITNs reach to the right and targeted household
- Digitilization Implementation of MRC take short time compare to Tradional due to elimination of manual error

## Recommendations for future digitalization efforts in similar campaigns

- Stronger collaboration between government, donor and community leaders
- Uses of fingerprint during registration can minimize the multiple registration
- App should be work offline during data collection and sync when connected to the internet
- Provide real-time campaign progress for public and stakeholder accountability.
- Capacity building to ensure field workers can effectively use smartphone and apps before campaign.
- Introduction of Geospatial Mapping (GPS) to track the distribution and issuance coverage
- Community engagement through digital advocacy such a SMS through their phone on progress of campaign

## Thank you very much + CIFRC for sponsorship

Karibu Zanzibar







