CLINTON HEALTH ACCESS INITIATIVE

World Health Organization
REGIONAL OFFICE FOR Africa

Integrated Digitization of Health Campaigns

Results and Lessons from Four Countries (2021-2025)

Nigeria, DRC, Benin, and Kenya

November 2026

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BACKGROUND AND FRAMING

KANO (NIGERIA)

- Country overview
- Results: *Governance and Capacity* | *Strength of digitization*
- Impact: *Data quality* | *Data Use* | *Coverage* | *Resource requirements*

DRC

- Country overview
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BENIN

- Country overview
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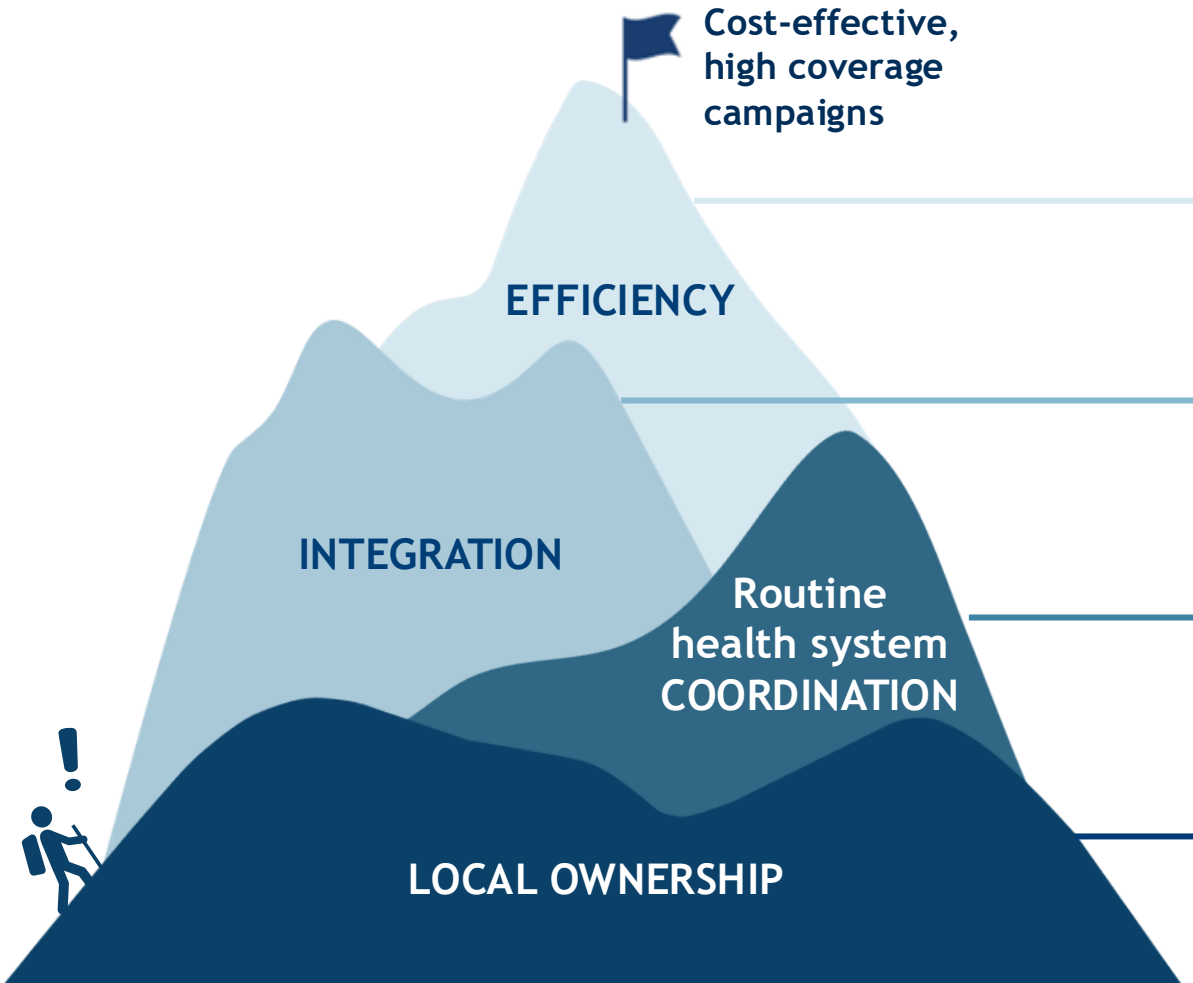
REFLECTIONS

COMMUNITY AND RESOURCES

Campaigns remain an important platform for delivering public health interventions, but they commonly struggle with achieving goals efficiently

Why Campaigns?

- Well-organized campaigns can achieve coverage levels higher than routine service delivery alone
- 545+ campaigns in 2025 alone, delivering millions of bednets, vaccines, drugs, and other preventive tools



Maximizing coverage and impact depends on overcoming key challenges:

- Complexities of managing large supply chains, large workforces
- Data limitations (outdated denominators, inaccurate measurement)

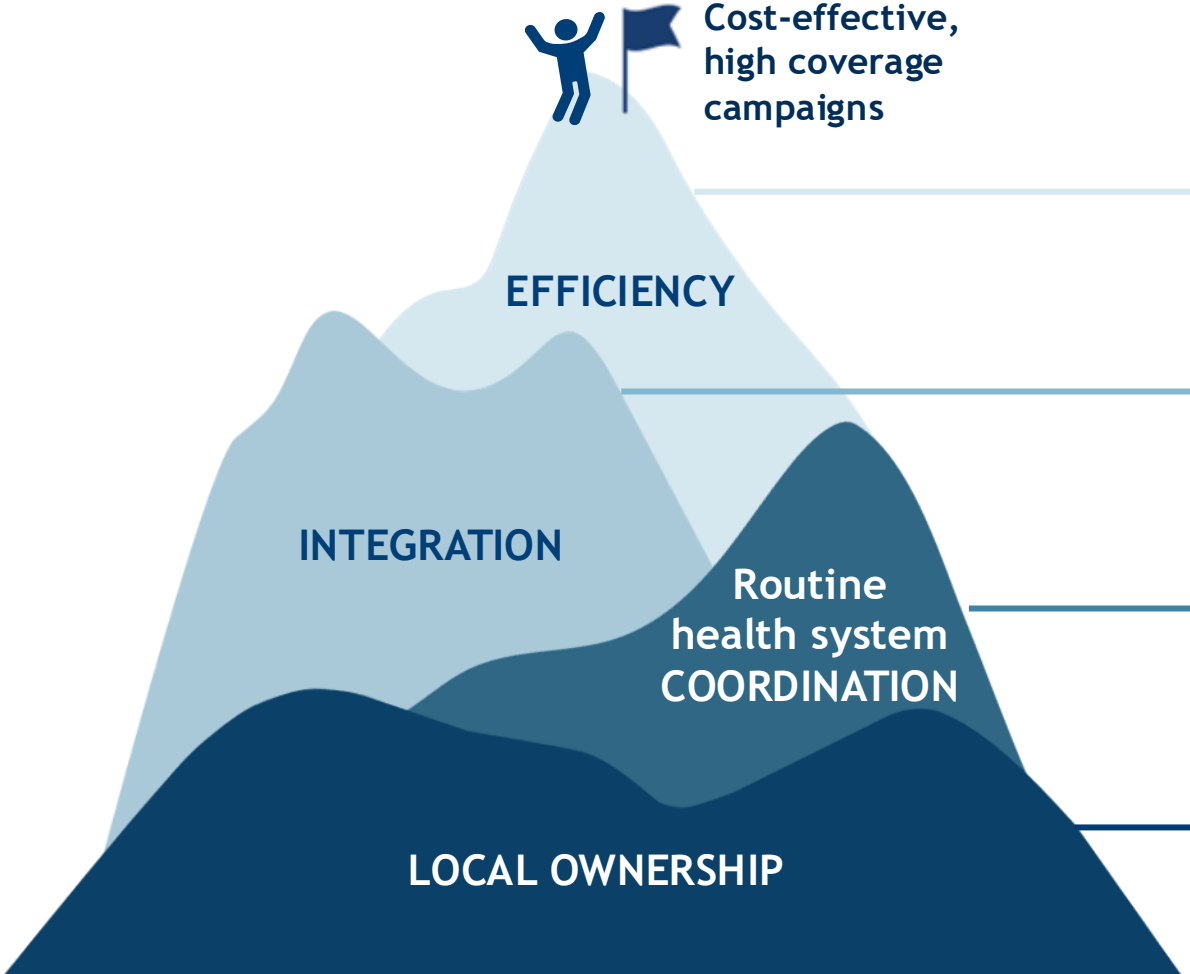
- Parallel, disjointed efforts: multiple funding, planning, and M&E workstreams w. different disease programs + actors per campaign)
- Siloed data storage and management

- Limited application of routine service practices (e.g., established processes for supply chain management)
- Resource diversion from routine services

- Lack of Ministry of Health (MOH) ownership, coordination, or involvement of local stakeholders

Several countries have taken a deliberate approach to digitization as a catalyst for addressing these challenges

Technology alone does not drive campaign outcomes. **Digitization serves as a catalyst when paired with deliberate investments** in governance, local technical capacity, cross-program coordination, and data use structures and processes. This report presents what we learned about each of these pathways.



What digitization and digital tools can do:

- Better manage campaign logistics and campaign workers
- Improve measurement + visibility on intervention delivery and gaps

- Establish mechanisms for campaigns to share information, align workforces, remit timely payments, and avoid duplication

- Allow routine services to benefit from rich campaign data on populations, diseases, and intervention coverage
- Bolster campaign planning w. existing geo-registries + health data

- Facilitate monitoring of partner progress on campaign objectives/targets
- Flag potential campaign-related stressors on the routine health system to inform MOH resource allocation decisions

While each country tailored approaches to their health system context, the four countries presenting had common aims in integrated digitization

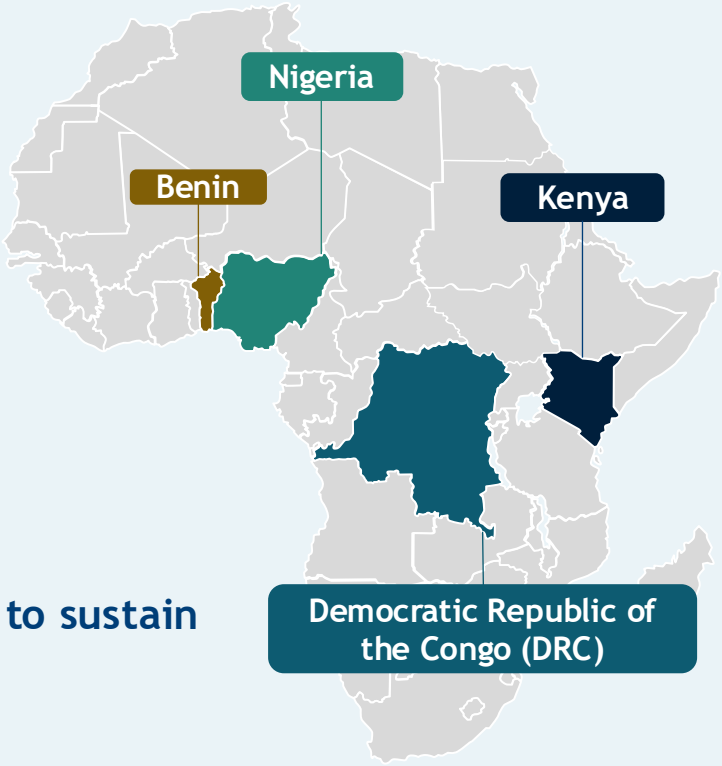
What were those aims?

Across all countries, aims included:

Integrated
Sharing technology and data infrastructure across campaign types, reducing duplication

End-to-end
Digitizing the full campaign cycle — planning, data collection, reporting, real-time coverage monitoring

Government-owned, built to sustain
Local ownership and capacity-building so systems continue beyond project support



Integrated digitization* → Improved data quality → Data use to guide ops → Improved coverage** → Better health outcomes

**Coordinated governance and institutional capacity underpin successful integration*
***Integrated digitization reduces cost of identifying and closing coverage gaps*

Why these settings?

1. Government engagement
Strong advocates for digitization and campaign coordination within MOH and relevant programs

2. Campaign operations
Multiple planned campaigns across malaria, NTDs, polio, and immunization — sufficient scale for technology to have impact

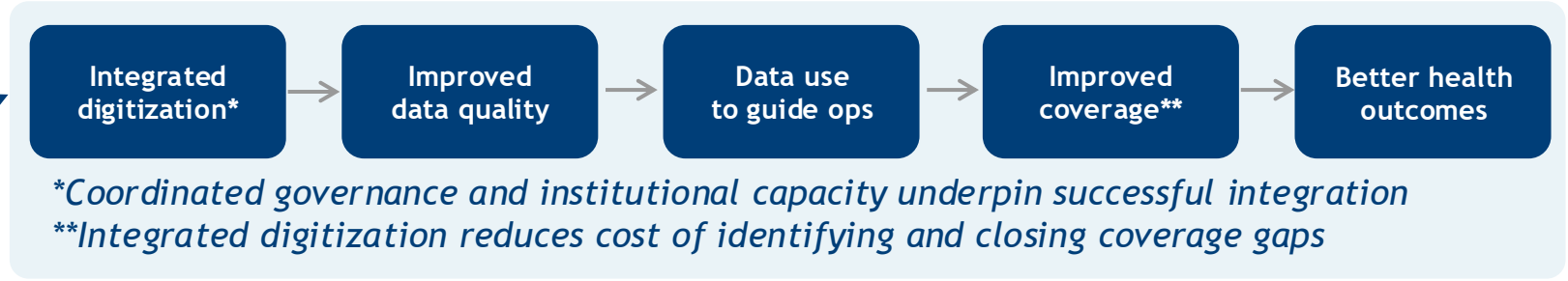
3. Digital health capacity
Existing foundational capacity to support digital tools

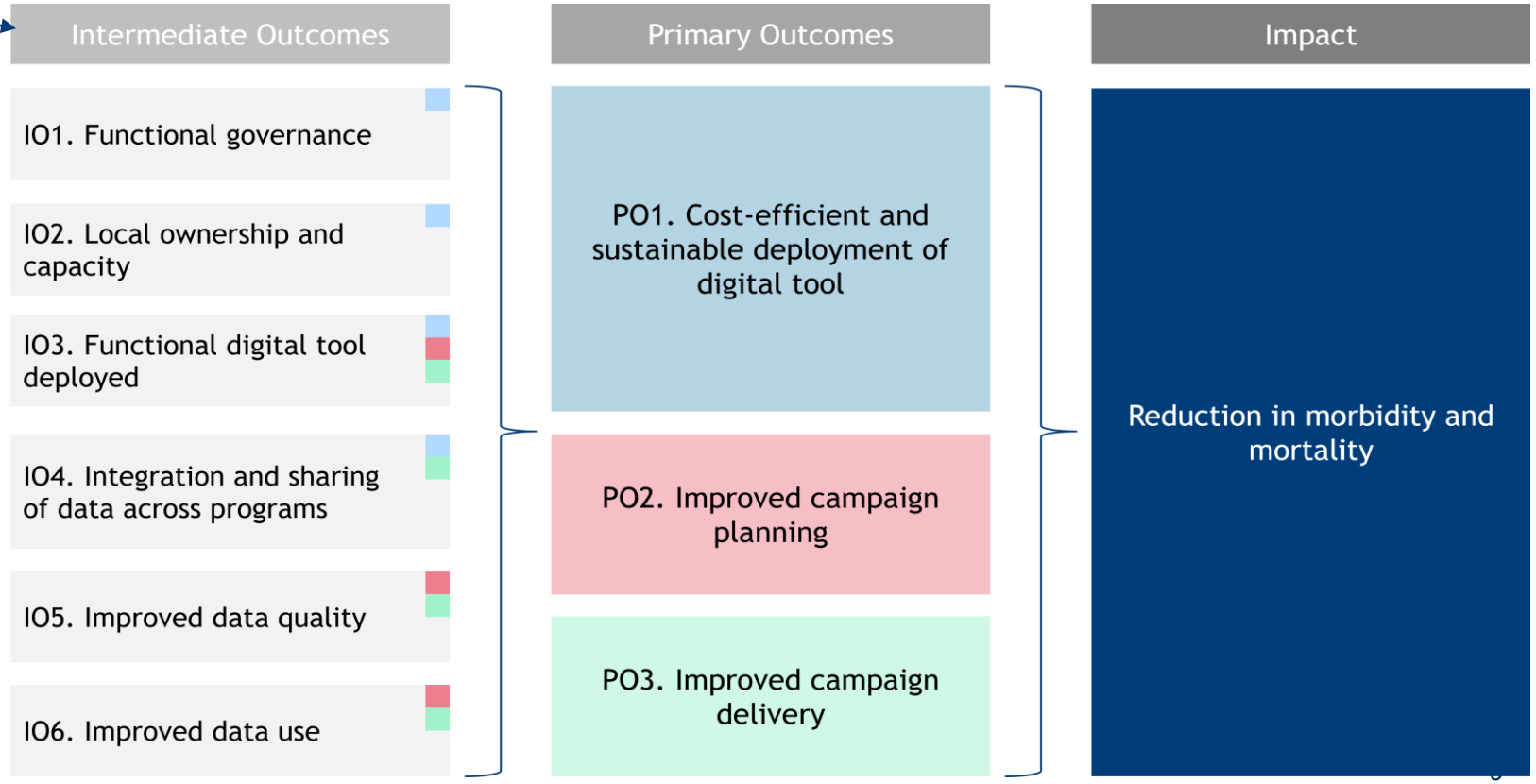
4. Sustainability
Existing or growing digital health ecosystem, including local partners to support and maintain, and financial likelihood to sustain

Each country's presentation follows the structure of the WHO framework on monitoring, evaluation, and learning, which was used to measure results

M&E approach

WHO's Integrated Digitization of Health Campaigns MLE framework was adapted to each country's context to develop and measure progress against indicators





WHO IDHC MLE framework (abbreviated).

Digitization of health campaigns can drive better coverage and impact; with adequate investments in governance, data use, and capacity

At-a-glance

Digitization of health campaigns can drive **better coverage and impact** but requires **upfront costs** in digital infrastructure and operations that reduce significantly with scale and maturity.

4 countries advanced the integrated digitization of campaigns, **reaching approximately 24M people**. Some snapshots of impact:

97%

Kano digital coverage, vs.56-62% with paper

(and similar demonstrable increase in Benin SMC coverage)

$0.12

per person additional cost of digitization

after scale up in Kano, 2025 SCH campaign

3,038

zero-dose children identified in DRC

Digital data from polio revealed and located children who had never been vaccinated

240+

National + sub-national staff trained in 4 countries

who now independently manage digitized campaign deployments

What did we learn?

Digitization is more than technology. It requires sustained focus on governance, capacity, and data use to succeed.

Solutions are most likely to sustain when they fit the local ecosystem and are locally owned.

Benefits beyond coverage (e.g., better program management, cross-program data use) are also the hardest to measure, leaving a gap in how we demonstrate value.

Where do we go from here? (a) Sustainability requires active management everywhere — the challenge is sharper where systems are not yet embedded in national infrastructure or where operational models remain costly. (b) Denominator alignment challenges persist in most countries, and (c) data use processes remain weak in several.
Addressing these gaps will be critical to translating early progress into lasting impact.

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Nigeria (Kano)

Kano State, Nigeria's fragmented, partner-led digitization became a government-owned, scalable platform with integrated data use structures/processes

Landscape in 2021

- Digitization fragmented across programs — e.g. **CommCare** for immunization, **RedRose** instances for LLIN/SMC, and **paper-based** NTDs
- Digital tools **partner-led** with government in peripheral role; limited capacity for configuration and troubleshooting
- Lacked practical **dashboards and data use feedback loops**; post-campaign data analyzed too late for course corrections

Vision & approach

- **Establish a unified digital platform** for end-to-end campaign delivery across health programs, enabling progressive integration.
- Strengthen **government ownership and stewardship** of digital systems to ensure sustainability and scale.
- Institutionalize **real-time data use for daily decision-making** through an integrated coordination structure leveraging existing Polio Operations Centre infrastructure and experience.

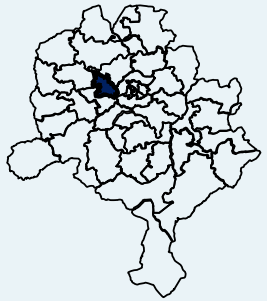
Technology approach

Platform: DIGIT HCM (common platform architecture) | **Why:** With no strong MOH preference for platform within existing campaign solutions, DIGIT offered scalability across campaigns and coverage of key use cases within one platform; BYOD-compatible

Approach toward scale

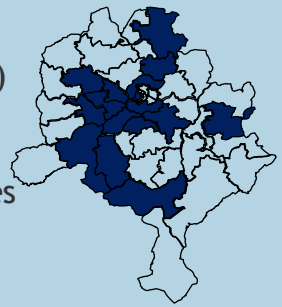
2024 — Proof of Concept

1 campaign (LF MDA)
1 LGA
140k reached
Digitized: Enumeration, H2H delivery, stock management, dashboards



2025 — Scale-Up

Schisto MDA, Integrated NCAS Campaign (Oncho, MR, Polio)
16 LGAs
2.5M+ reached
Expanded digitization: Microplanning, multi-delivery modes (H2H, fixed point, integrated), dashboards, supervision, worker management, stock tracking



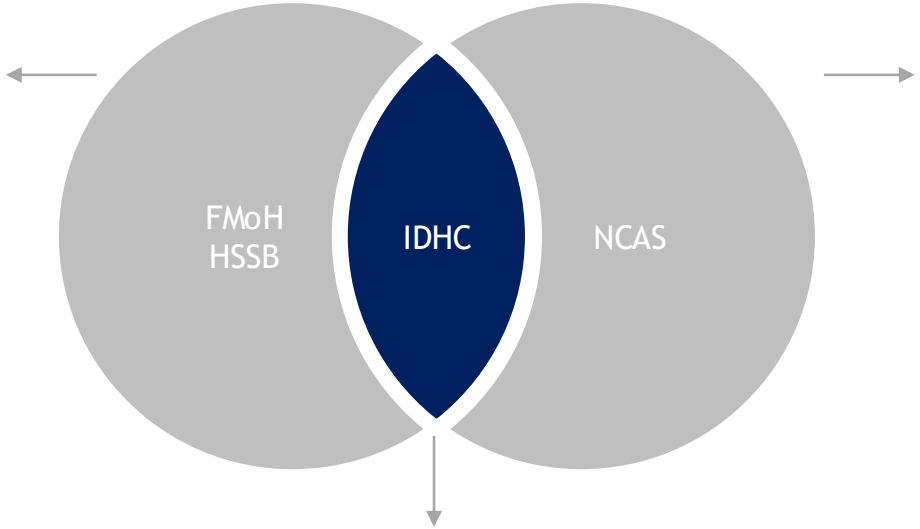
Key government leadership, stakeholders, and structures

Lead institution: SMOH (EOC) | **Key programs & stakeholders:** Dep. Of Public Health. Dep. Of Planning, Health Research and Statistics, State Malaria & NTD, SPHCMB, SMEP, NPHCDA, State Operations Room, CHAI, HANDS | **Structure:** Steering Committee, Strategic Team, and Technical Team

Aligning with the Nigeria Collaborative Action Strategy & the Health Sector Strategic Blueprint positioned IDHC as the backbone that transforms delivery

Health Sector Strategic Blueprint (HSSB) for 2023-2027

- Lays out a national plan to transform Nigeria's health system (2023–2026)
- Positions digitization as the backbone for unifying fragmented data into a 'single source of truth' and enabling evidence-based decisions.
- Commits to implementing a strengthened national data governance framework, deploying a unified national digital data system



Integrated Digitization of Health Campaigns

- Promotes a unified, coordinated approach to health campaigns, supported by a common integrated digital tool used across all programs.
- It aligns planning, implementation, and monitoring across programs to reduce fragmentation and duplication, while feeding into a central campaign data repository.

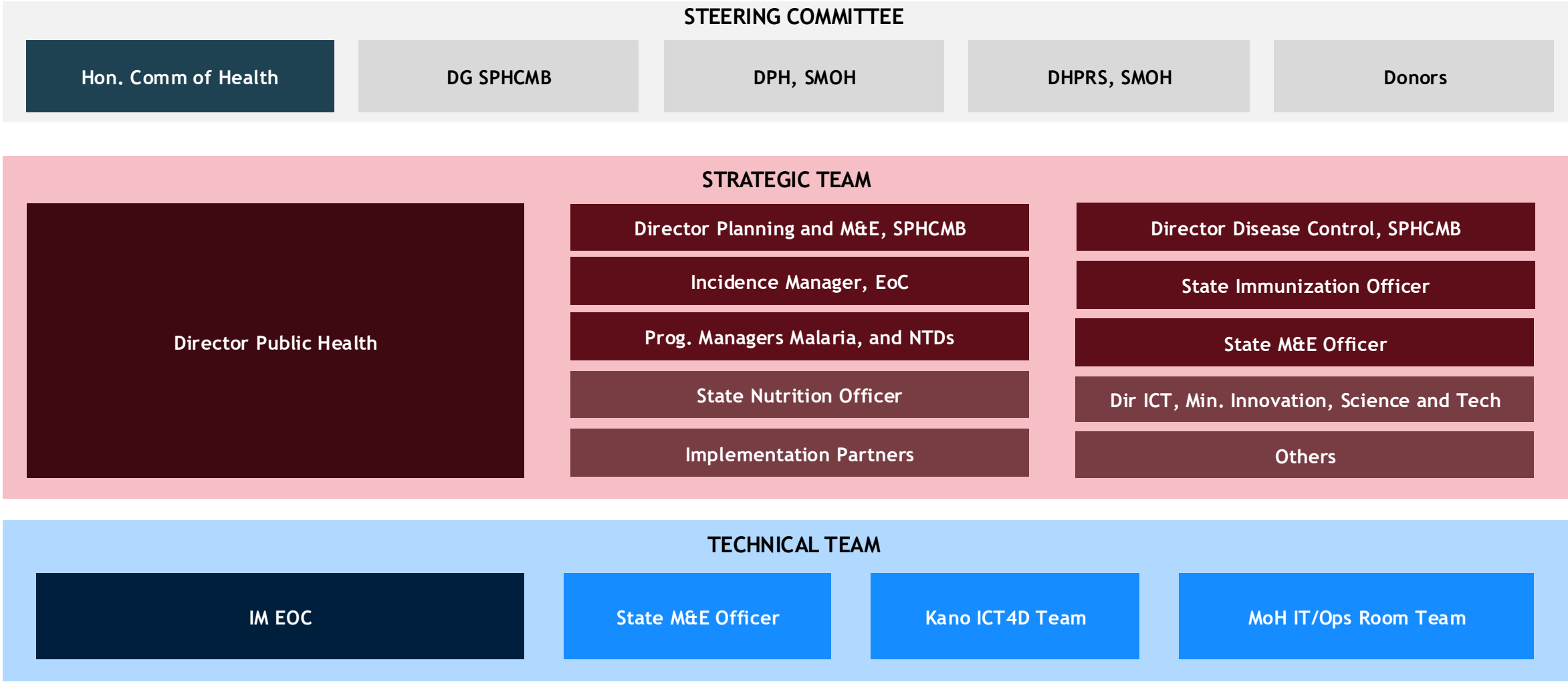
Nigeria Collaborative Action Strategy (NCAS)

- The NCAS provides a unified framework to coordinate all health campaigns under one national approach.
- It strengthens alignment across government and partners to ensure campaigns are planned and executed more efficiently.
- The strategy reduces duplication, improves resource use, and enhances campaign impact through shared systems and processes.

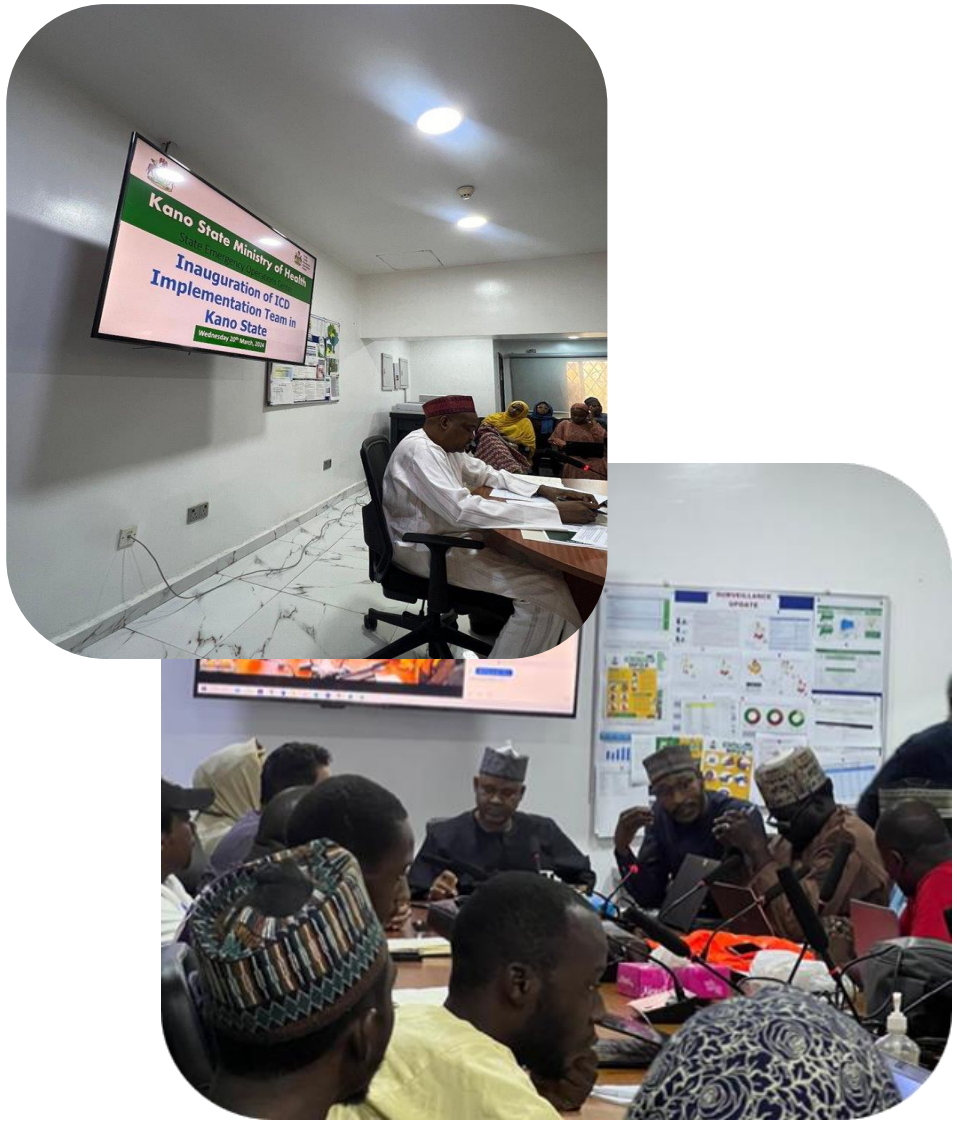
FINDINGS:

Governance & capacity

The IDHC governance structure integrated political leadership, technical capacity, and partner support under a unified structure



Political commitment drove digitization from pilot to a state strategy



What Changed?

- Director of Public Health convened and led decision-making forums through the Strategic and Steering Committee at the EOC.
- Platform choices were deliberate, considering sequencing, consolidation, and coexistence with other parallel tools.
- Governance discussions have shifted from **"whether to digitize"** to **"how and when to institutionalize,"** reflecting greater maturity and prioritization.
- A dedicated technical team was established to drive implementation.

Lessons Learned

- Political leadership was critical in enabling cross-program coordination and resource mobilization
- Establishing a shared vision for **why to integrate before deciding what tools to use** helped avoid fragmented digitization efforts
- Aligning Kano's IDHC with the broader CAS framework strengthened sustainability and national uptake.

A five-step transition plan was developed which put hosting and operations in state hands within a year

STEP 01

Establishment of government hosting infrastructure, access controls

STEP 02

Deployment of DIGIT HCM services on government-managed infrastructure

STEP 03

Migration and restoration of application databases and analytics data

STEP 04

Testing and verification of application functionality, mobile tools, and dashboards

STEP 05

Cutover to government-owned environment and decommissioning of legacy hosting

~1 year of technical handholding by the eGov team, migrating hosting from AWS to state MIST infrastructure

FINDINGS:

Strength of digitization & integration

DIGIT grew from a tool supporting single-disease campaigns into a platform capable of managing co-delivery of multiple interventions

01
Enumeration
Reusable registry of households and implementation units

02
Beneficiary IDs
Unique IDs so the registry carries across campaigns

03
Microplanning
Daily implementation plans for targeted delivery

04
Service delivery
Real-time reporting across house-to-house, school, fixed post and integrated

05
Worker management
Attendance, daily activity and performance tracking

06
Supply chain
Last-mile commodity tracking across all levels

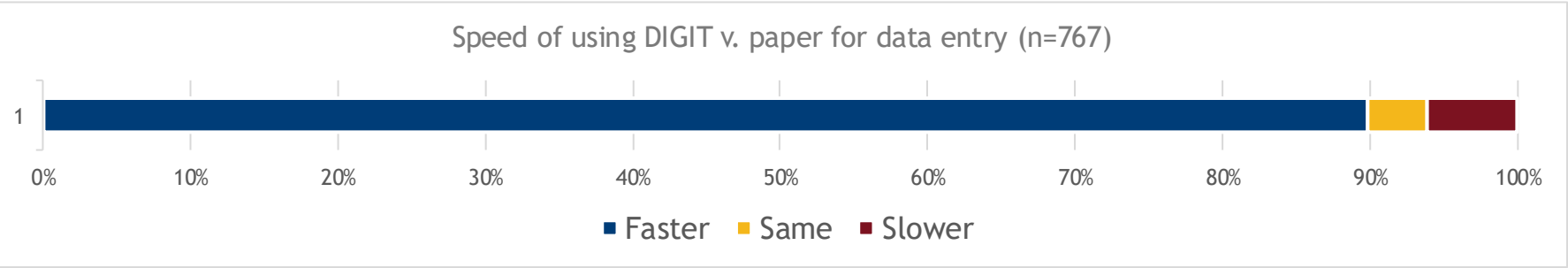
07
Non-compliance
Rejections and adverse effects tracked to resolution

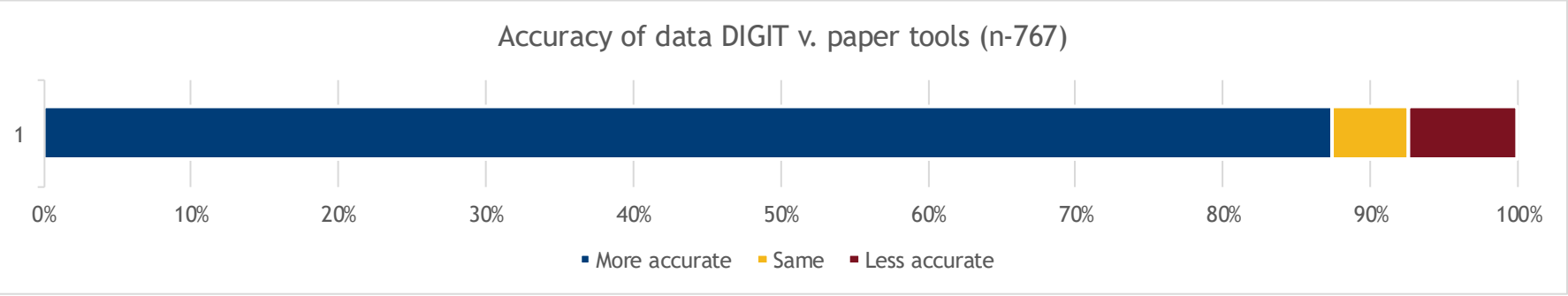
08
Admin console
Government-led campaign setup and configuration

Tool flexibility was critical: The platform was adapted across delivery approaches (household, school, and fixed-post) and campaign types (standalone and co-delivery), enabling end-to-end digitization across programs.

Strong user acceptance and preference for DIGIT over paper systems despite technical challenges during integrated campaign

- Users consistently described DIGIT as "far superior to paper-based reporting," with respondents stating "nobody would prefer paper forms" after experiencing the digital system
- Despite encountering technical challenges during the integrated campaign, respondents expressed strong support for continuing to use digital tools in future campaigns
- Automatic error checking was called out as a specific feature liked by many users



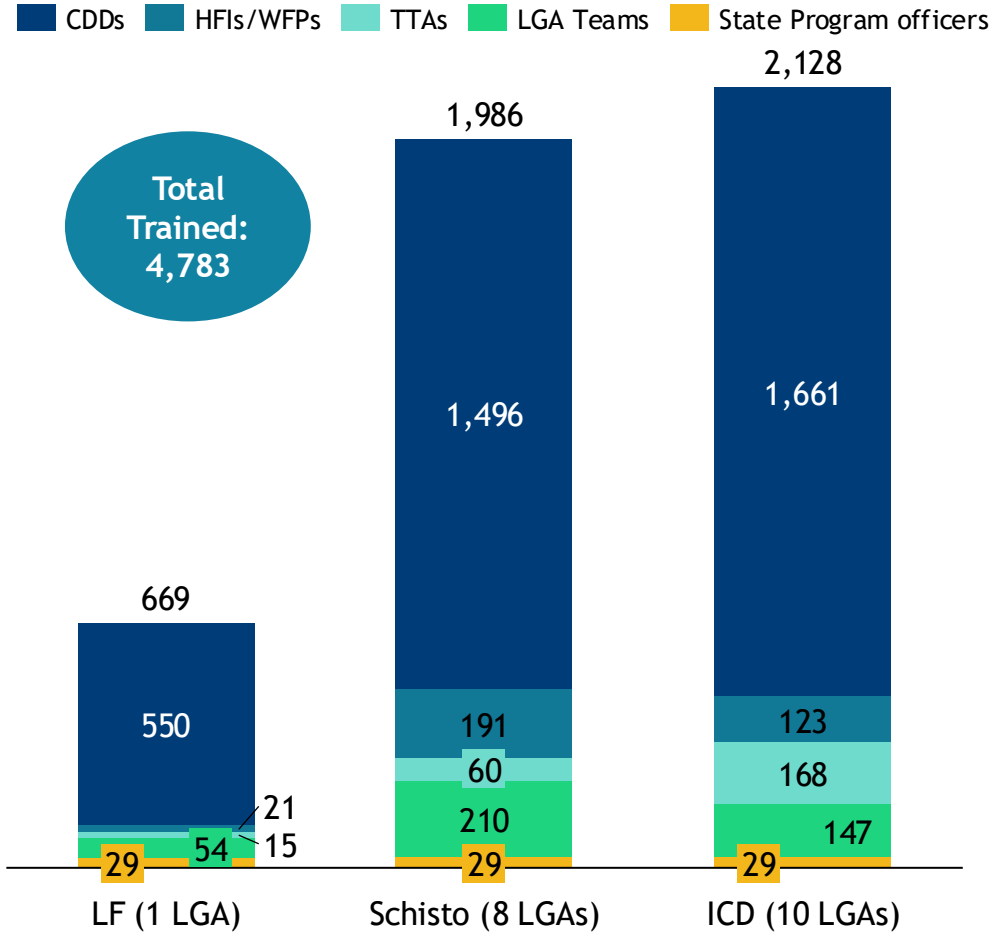


>90% of CDDs rated their experience with DIGIT positively.

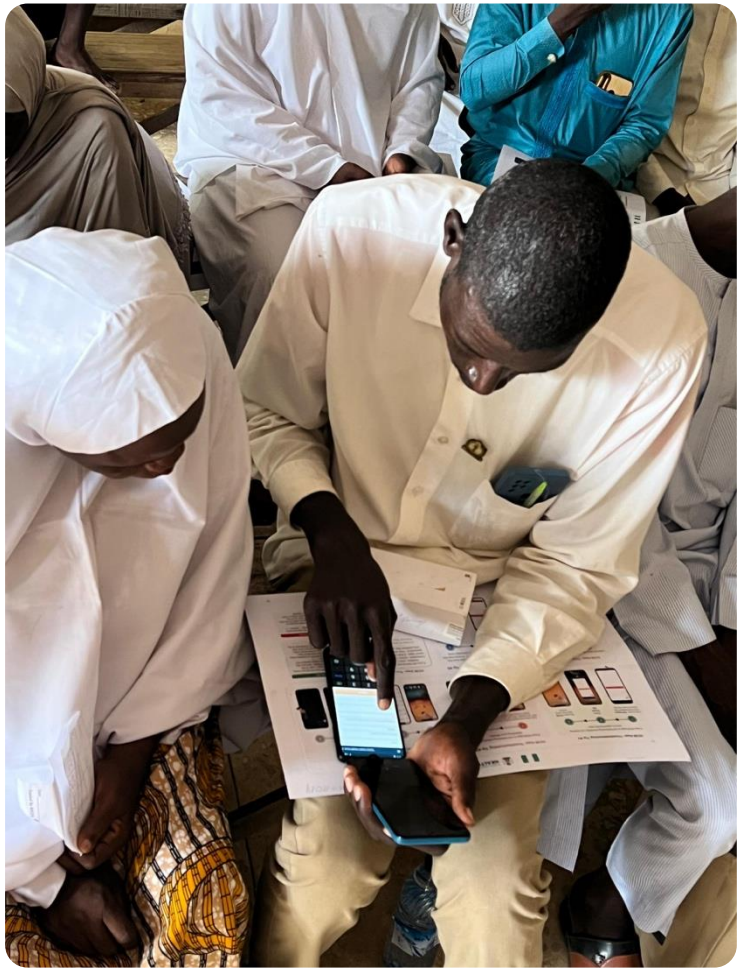
Lessons learned

- Technical background matters for training needs: Users with technical experience found training sufficient; those without wanted more hands-on practice

Re-hiring across campaigns has contributed to a base of DIGIT-literate campaign workers in Kano



Number of users trained on DIGIT HCM across cadres and implementations; 2025-2025



Lessons learned

- Embedding digital training within existing campaign structures was more effective than standalone training.
- Maintaining a pool of trained users reduced retraining needs, requiring only brief refreshers across campaigns.
- Prior digital campaign experience shortened the learning curve and reduced the need for additional support.

BYOD approach functional but requires ongoing management

>90%

of 2,720 users in the 2025 implementations used their own devices, including CDDs

- Enabled rapid scale without delays associated with procuring and distributing state-owned device
- Reduced dependency and minimized losses and damage during implementation
- Achieved savings of up to $2,039 in MDM costs and over $300,000 in device procurement by leveraging personal devices.

Key challenges:

- Synchronization issues on some personal devices
- Battery optimization settings blocked background syncing
- Affected devices needed manual configuration, delaying reporting

Lesson learned: enforce minimum device standards and build configuration checks into onboarding

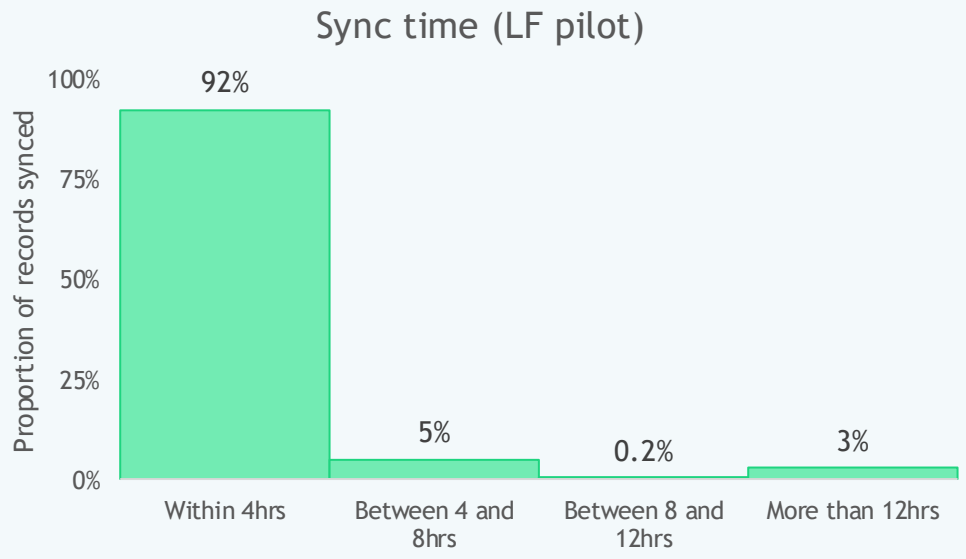
FINDINGS:

Data quality & use

DIGIT enabled improvements in data timeliness, accuracy, and completeness, with users also reporting that digitization has improved quality

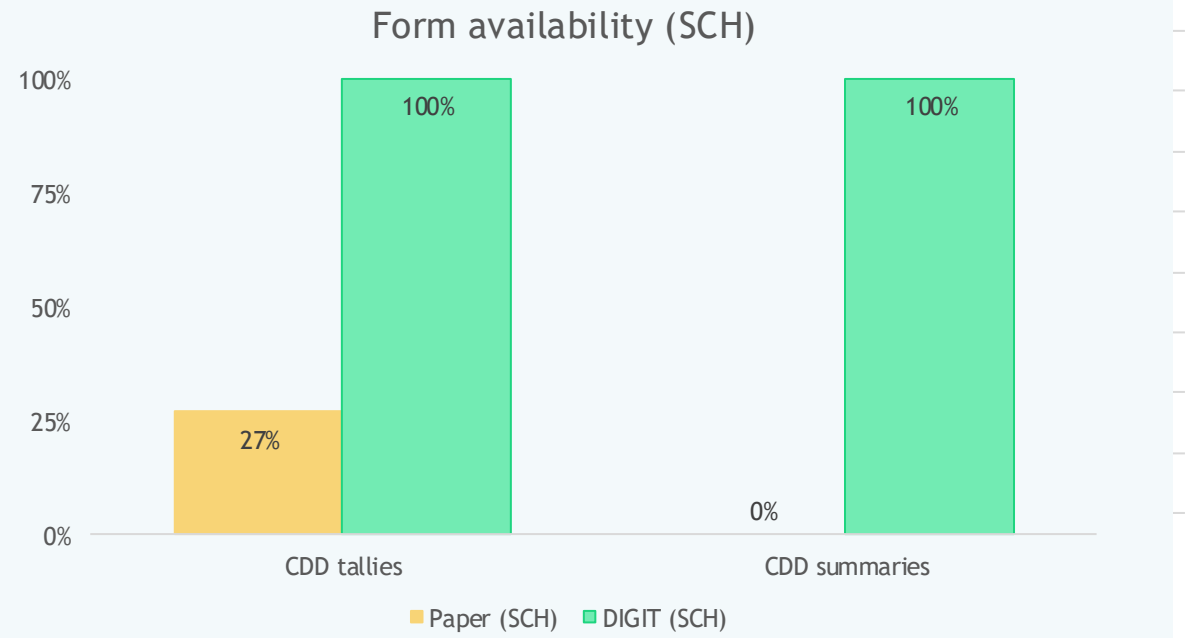
Timeliness

96% of records synced within 4 hours, compared with 60+ days for paper-based reporting, making data available for near real-time decision-making and eliminating delays and errors from manual aggregation.

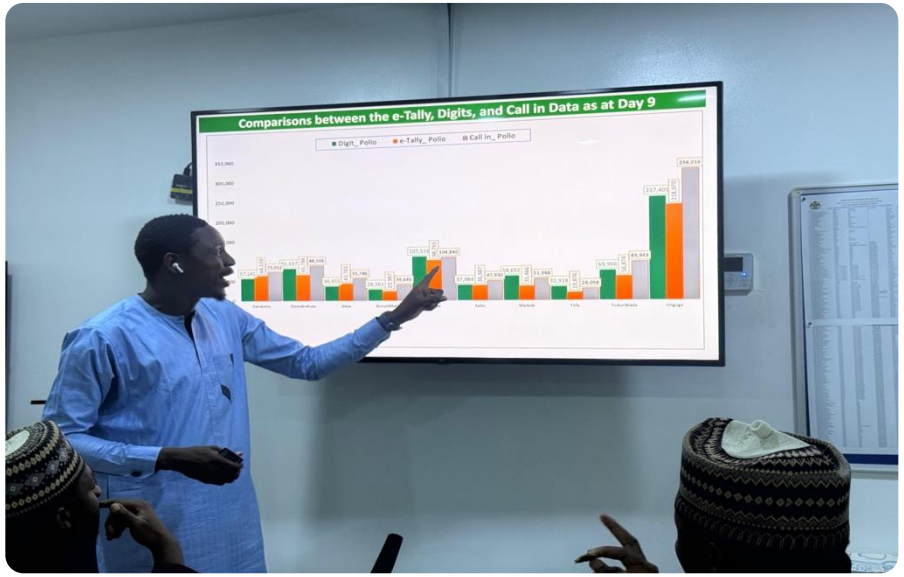


Completeness

In a data quality comparison in Kano, only 27% of paper CDD registers and none of the CDD summary sheets were fully completed. Thanks to built in form controls, 100% of submissions through DIGIT were complete.



Operations Room model institutionalized daily data review for real-time decision-making



100%

of campaign days included a formal data review session

2–8 PM

daily, staffed entirely by government teams from NTD, malaria, immunization, ICT and EOC

FROM DASHBOARD TO FIELD, WITHIN THE SAME DAY

01

Ops Room reviews geospatial data to identify missed communities

02

Missed settlements communicated to TTAs and facility teams

03

Supervisors visit the facility/ward and revise daily plans and address issues

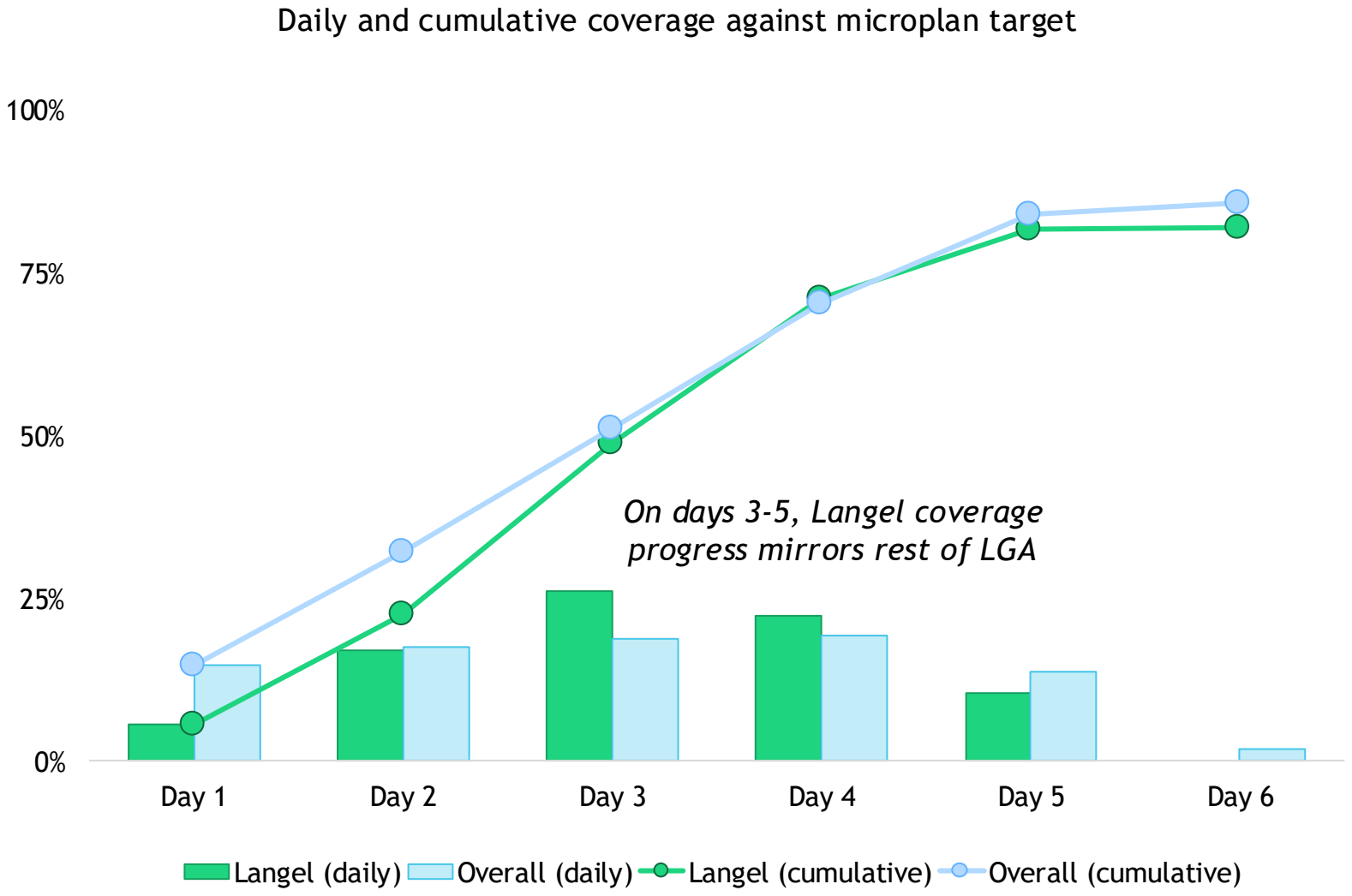
04

Facility in-charges deploy CDDs to the missed settlements

Lessons learned

- Government ownership of the Operations Room was critical for sustainability, ensuring continuity beyond partner-supported campaigns
- Explicit documentation of decisions and follow-up actions is essential to close the loop from diagnosis to action.

Dashboards moved data from reporting to diagnosis: In Langel ward, acting on Day 2 data lifted coverage 17 points above the failure threshold



ISSUE

Langel lagging on coverage, Days 1–2 — reporting rates ruled out a sync problem (93% and 100% respectively)

ACTION

Seven additional CDDs recruited

RESULT

They submitted 33% of Langel's records; the ward closed at 82% therapeutic coverage against 86% for Tofa

Without taking action on the data, Langel would have fallen below the 65% coverage threshold

FINDINGS:

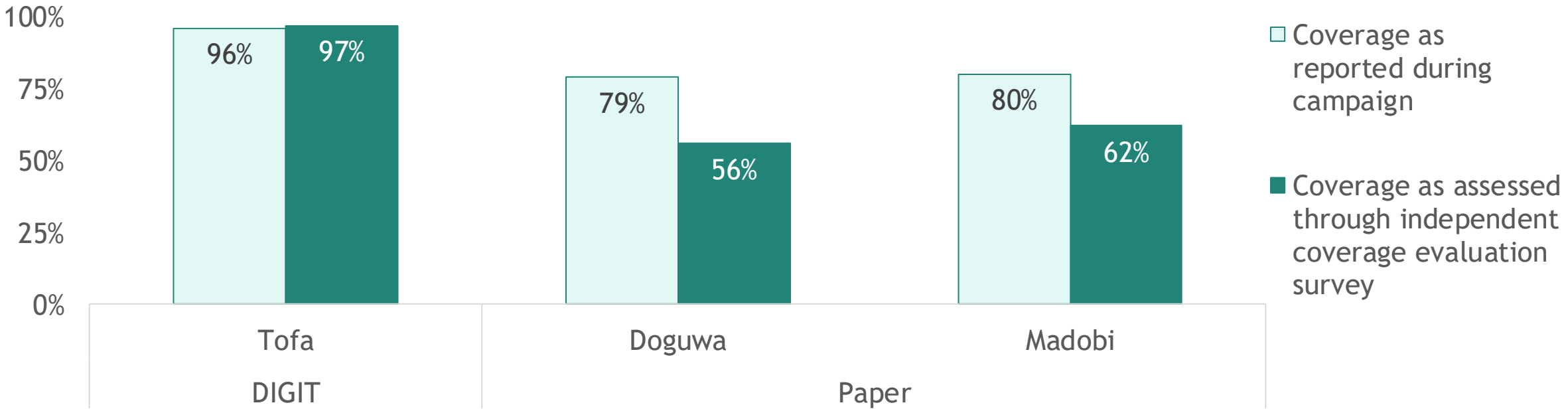
Coverage & operational improvements

Coverage efficiencies

The digitized LGA achieved a 96% coverage, substantially higher than non-digitized LGAs, and its reported figures were validated by survey results

In Kano:

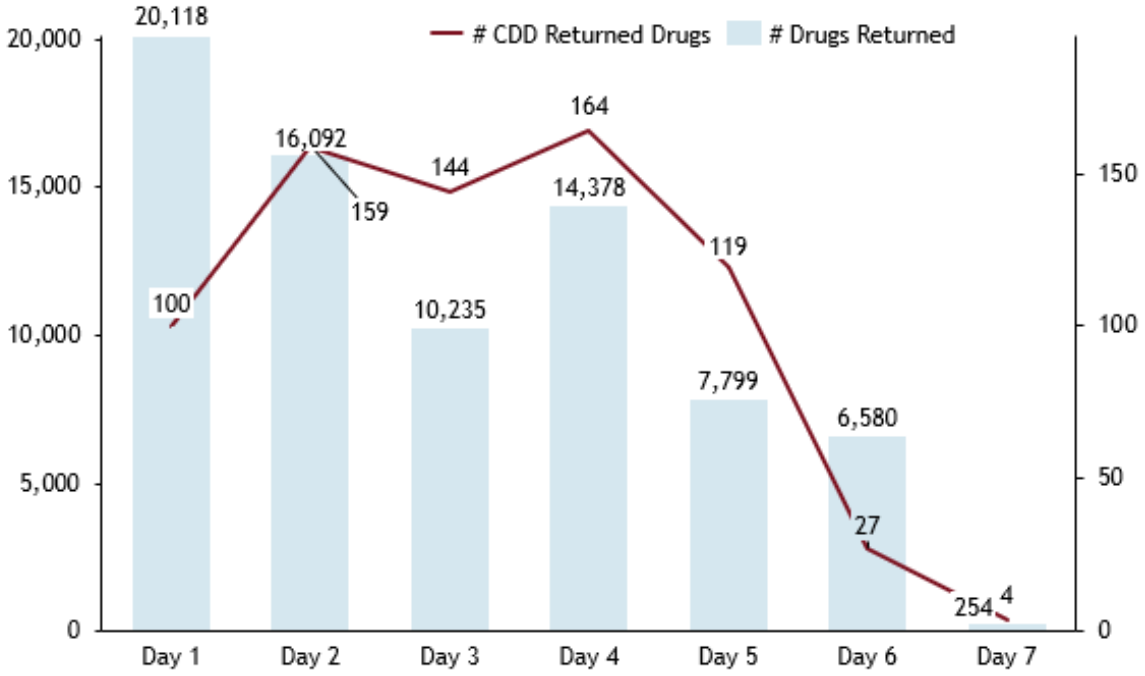
- In undigitized LGAs (Doguwa and Madobi), reported coverage significantly exceeded independent survey results (79% vs 56%, 80% vs 62%), suggesting data quality issues masked by paper-based systems that lack real-time verification and accountability mechanisms.
- In Tofa, where DIGIT was deployed with robust data use structures, administrative and survey coverage aligned closely (96% vs 97%), demonstrating that digital tools combined with real-time review and corrective action can address coverage gaps during implementation rather than discovering them only post-campaign.



Stock coverage

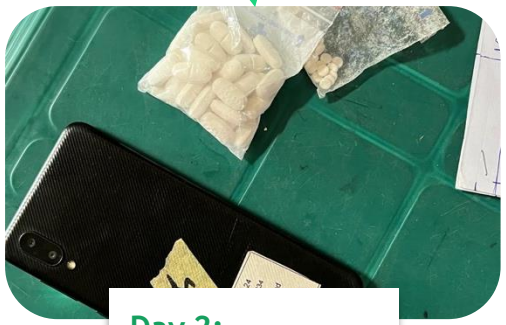
Digital tracking revealed scale of stock accountability gaps and enabled targeted intervention to improve drug returns

- Stock visibility during campaigns was noted as a persistent challenge across countries during landscaping. Digital data helped measure the scale of the problem and chart a path forward for improvement.
- In this Nigeria example, real-time DIGIT tracking revealed that only 100 of 164 CDDs returned drugs on Day 1, exposing previously invisible accountability gaps in stock management.
- Monitoring data enabled targeted accountability and retraining. By Day 4, all 164 CDDs were returning drugs (decline in returns after Day 4 is due to cycling out of CDDs due to covering their campaign areas).





Day 1:
CDD discarding remaining drugs



Day 2:
Same CDD returning drugs

FINDINGS:

Resource requirements & cost-effectiveness

With efficient implementation models, even house-to-house digitization models can remain a small share of total campaign budgets

$0.20
per person in the 2024 LF pilot — 20% of total campaign cost

$0.12
per person by the 2025 SCH campaign — 11% of total cost

−48%
AWS hosting cost from LF (1 LGA) to SCH (8 LGAs)

WHAT DROVE IT DOWN

- BYOD eliminated device procurement
- Servers shut down off-peak; UAT deactivated after training
- Estimated annual hosting at scale: US$22,000 for all campaigns

WHAT THIS DOES NOT MEAN

- Most campaign costs — personnel, transport, commodities, supervision — are unchanged by digitization

Evidence from Tofa suggests that in the right context, the marginal cost of digitization can be recovered through the coverage improvements it enables

PAPER PATH
Cost: $0.84 per person targeted

No real-time view of coverage during campaign.

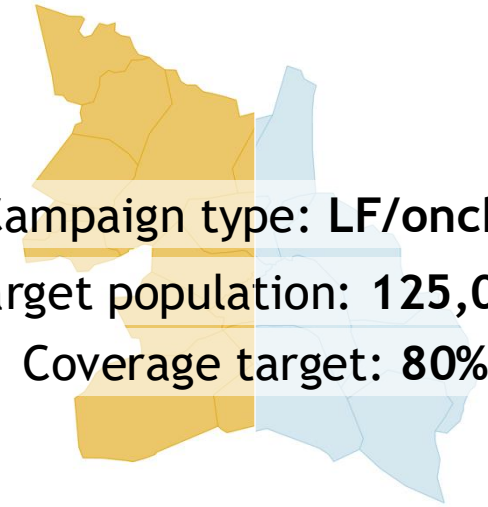
Administrative coverage looks fine. Do not pursue mop up.

Coverage survey shows coverage below threshold. Additional round will be needed prior to stop survey.

TOTAL COST OF 1 ROUND: **$105k**

TOTAL COST OF 1 EFFECTIVE ROUND: **$210k***

**assuming coverage issues addressed in next round*



Campaign type: **LF/oncho**

Target population: **125,000**

Coverage target: **80%**

Situational assumptions:
- *Suspected wide discrepancies between reported and "true" coverage.*
- *Capacity and will in place to use digital data and act on issues during campaign.*

DIGITAL PATH
Cost: $0.96 per person targeted

Real-time view of coverage during campaign.

Actively use data to rectify areas falling below expected coverage during campaign.

Coverage survey shows coverage exceeds threshold. No additional round to be added to timeline prior to stop survey.

TOTAL COST OF 1 ROUND: **$120k**

TOTAL COST OF 1 EFFECTIVE ROUND: **$120k**

Key success factors supporting IDHC implementation in Kano

WHAT DROVE SUCCESS

Existing state technical capacity to build on

Strong sub-national buy-in and a functional TWG

A national policy hook through NCAS

One platform reused across campaign types, not a tool per program

WHAT WERE THE CHALLENGES

At scale, integration drifts back into silos without enforced workflows

A rigid single template across programs creates resistance — shared principles, tailored workflows

Where co-deployment was not feasible, partial integration was accepted and documented

HOW WE LEVERAGE THIS

Institutionalize the data use workflows that delivered the benefits

Keep IDHC anchored in NCAS to hold the cross-program mandate

Use the Kano governance model as the template for other contexts

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DRC

From fragmented, partial digitization to a unified DHIS2 platform, with governance formalized by decree

Landscape in 2021

- Fragmented tools: LLIN on ODK, COVID-19 and polio on DHIS2/Tracker, cholera not digitized, NTDs not digitized
- No cross-program coordination; no real-time data use, with post-campaign data analyzed too late for course corrections
- No governance structure or clear MoH and partner roles defined

Vision & approach

- One DHIS2 platform, end-to-end, for all campaigns (LLIN, polio, yellow fever; next SMC, measles, NTD, cholera)
- MoH ownership by ministerial decree; Technical Group under ANICNS
- HMIS (SNIS) integration; unified population database with GRID3/Bluesquare

Technology approach

Platform: DHIS2 | Why: covers priority campaign use cases; already used and invested in by the MoH.

Approach toward scale

	2023	2024	2025	2026+
Campaigns	Polio (pilot)	Polio (integrated enumeration)	ITN, Polio, Yellow Fever, SMC (developed only)	+ SMC, Measles, NTD, Cholera
Geographies	2 health zones (Haut Lomami)	Kinshasa	Kwango 2 HZ (ITN), full province (Haut Lomami) for polio and YF	National coverage
Tool features	Enumeration, stock, delivery, dashboards	Enumeration, stock, delivery, dashboards	Enumeration, stock, delivery, dashboards, + HMIS link	*+ Microplanning, payments*

Increasing scale

Key government leadership & stakeholders

Lead: ANICNS (digital health) & DSNIS (health information systems) | **Stakeholders:** PEV, PNLP, WHO, HISP DRC, IMA, SANRU, CHAI |
Structure: Technical Group (GTT) under ANICNS leadership, established via ministerial decree Q1 2022

FINDINGS:

Governance & capacity

Integrated digitization is anchored in a 2022 ministerial decree and a ministry-level coordination framework

2022

Ministerial decree: governance framework and roadmap for integrated campaign digitization.

2024

Digitization embedded in ANICNS plans and the 2025–2028 Digital Health Strategy; scale-up steered by the new Digital Health Steering Committee.

Coordination

- Monitoring recommendations from committee
- Implementing strategies
- Identifying members of various technical working groups



Technical working groups

- Meeting and exchange around specific topics linked to digital health governance



Secretariat

- Meeting preparation
- Report production



Lessons learned

- Persistent advocacy is key to institutionalizing new ministerial structures, and these new structures then need regular meetings and continuous staffing to turn decisions into action.

Over time, technical ownership has been shifting to the MoH across various responsibility domains

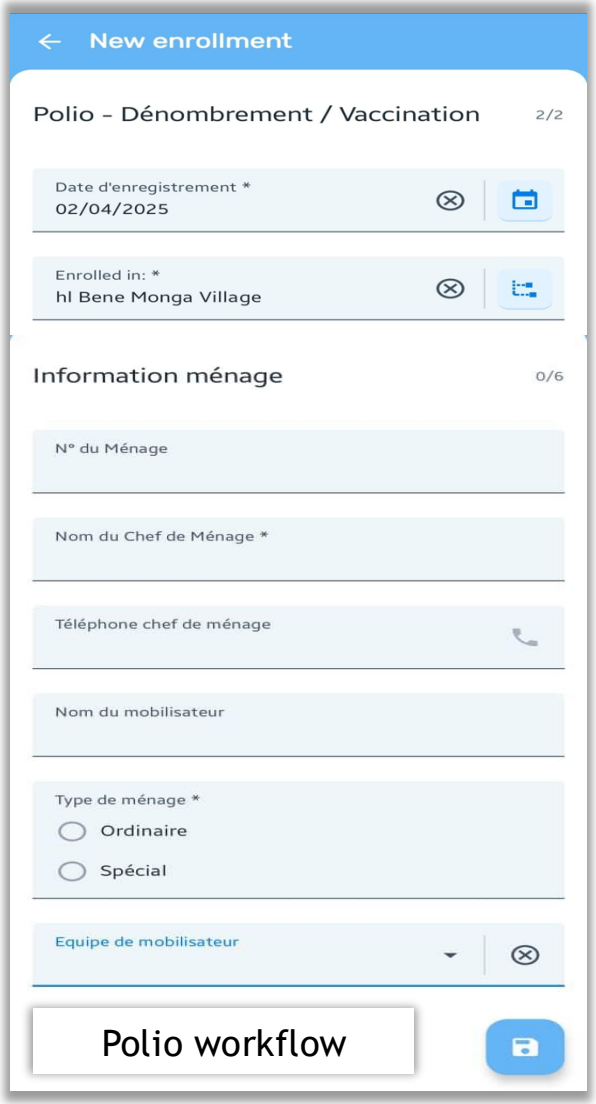
Area	Where we started	What was done	Where we are today
Server hosting	Server managed by an external partner	23 MoH ICT staff trained in advanced DHIS2 administration	ANICNS has initiated absorption of health databases hosted abroad for targeted states, through a public-private partnership framework
Configuration	Configuration and metadata updates depended on HISP	MoH staff trained on configuration	ANICNS/DSNIS and programs manage forms, indicators and org units; HISP continues to support execution
Equipment	Equipment mobilization relied on external coordination	ANICNS started advocacy; key partners mobilized include SANRU, PEV, WHO and IMA	Implementing partners remain key to equipment mobilization; ANICNS continues advocacy
Helpdesk	Helpdesk and field support depended on the implementing partner	Provincial and health zone trained and participated in field support	MoH teams continue building the experience to take over; implementing partners remain critical to this transition

FINDINGS:

Strength of digitization & integration

A functional DHIS2 solution was built iteratively with users, progressively covering end-to-end campaign workflows

- Needs assessment first: user needs and tools for polio campaigns.
- Technical groups drafted functional and non-functional requirements; specifications validated by all stakeholders.
- HISP WCA configured DHIS2 and deployed a test instance (rdccampagne.sidhis2.org) on a five-tier health pyramid aligned to GRID3 and SNIS.
- 10,500 concurrent users; offline-first with network sync and GPS capture.
- Iterative testing improved forms: sync buffering, dropdown logic, alert prompts, skip logic for multi-child households, sync status indicators.

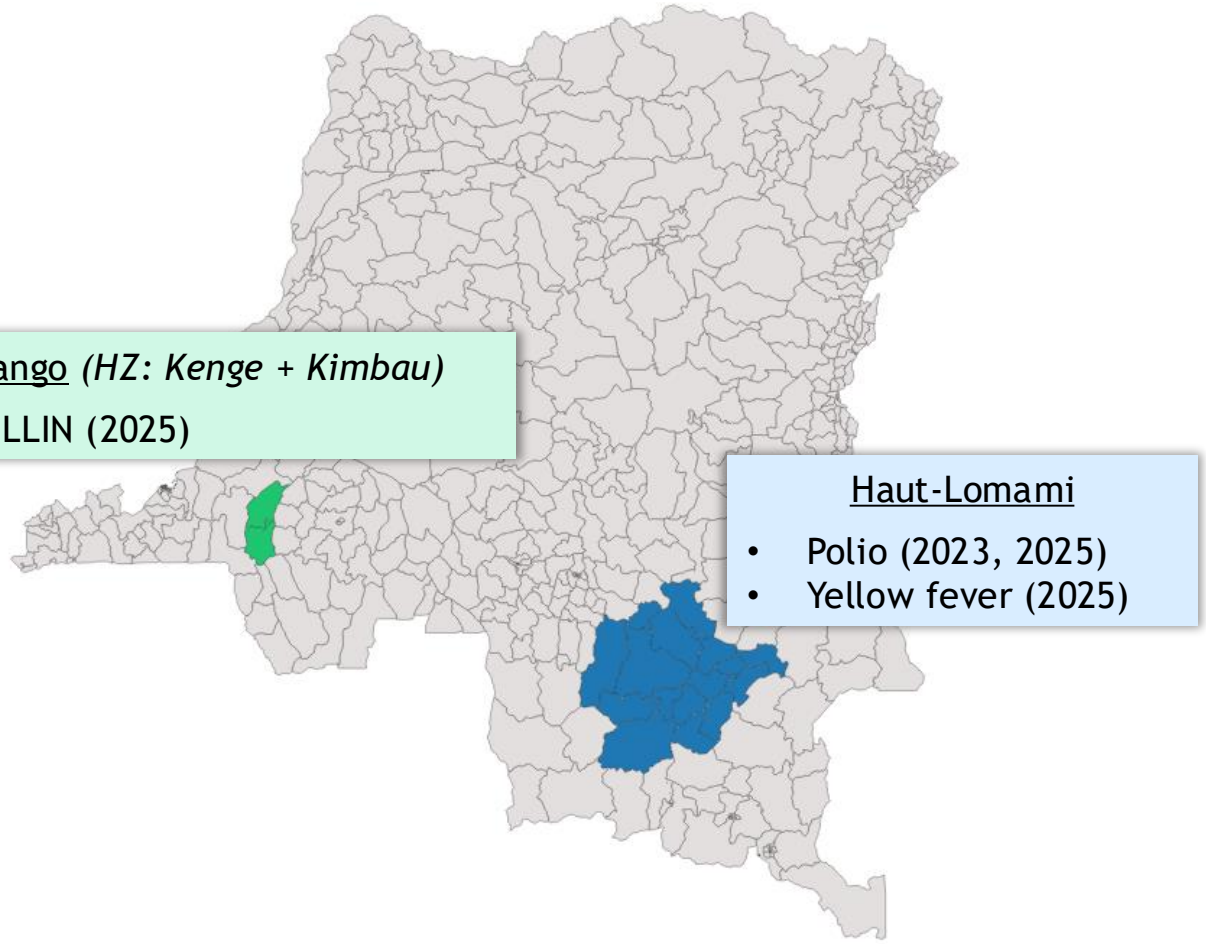


Polio workflow

Lessons learned

- Fast feedback loops are critical. Build test-and-iterate cycles into the pre-campaign timeline.
- Complex features (microplanning, payments) need alignment time — deprioritized in 2024 for that reason, not technical limits.

DHIS2 for campaigns was deployed for three campaign types in two provinces — 12 health zones, over 4.6 million people



Kwango *(HZ: Kenge + Kimbau)*

- LLIN (2025)

Haut-Lomami

- Polio (2023, 2025)
- Yellow fever (2025)

Lessons learned

- Plan for connectivity and equipment constraints before deployment. In Haut-Lomami and Kwango these were known, yet still caused delays and data gaps.

ICD DHIS2 instance continues to be used and is undergoing expansion over time

High user acceptance across campaigns, alongside implementation challenges reported qualitatively



Major challenges observed and qualitatively reported

Connectivity issues

Unstable connectivity delayed data sync in remote health zones

+5000 campaign actors trained on DHIS2.

Training challenges

Short training, often just before the campaign, limited tool mastery — especially for community health workers

Adoption issues

Perceived time burden and discomfort kept paper in use, which need continued improvement

"The digital tool is preferable and even better: data entry is easy and fast, the data is reliable, and errors can be corrected in real time."

"Because it's easy. In campaigns with paper, we were asked to take the scoring sheets, start, then encode on the summary sheets and send it. But with the digital tool, it is sent directly to the server and you are comfortable"

"Because if you go around to the households, there's no way you'll forget if there's a child to pick up. You're not going to forget because you're going to mark the households on the app. But on paper, you lose sight of these children."

"The main issue is the connection… With paper we collect the data, store it, compile it and send it to the central office."

FINDINGS:

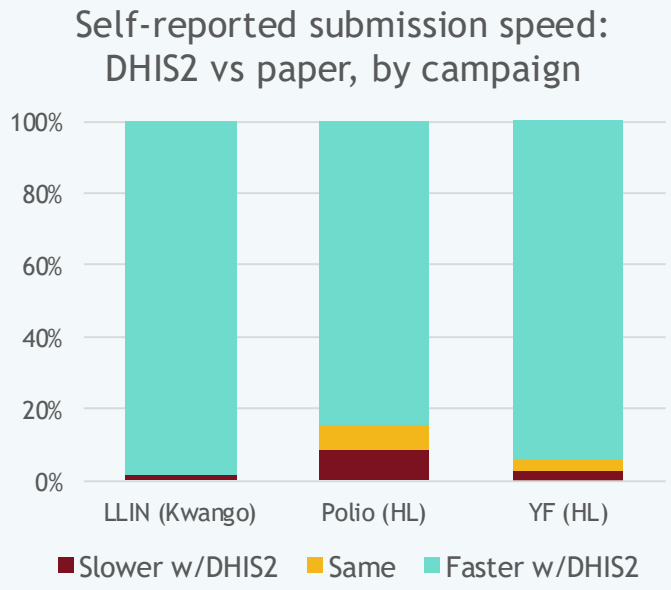
Data quality & use

Users and observation point to better data quality with DHIS2 than paper, though no formal campaign data quality audit has been conducted

***Reference point**: A 2021 audit of routine facility reporting found only 52% of health zones reported on time, and vaccination data diverged from survey data in 88% of provinces. However, this audit was of routine, not campaign, data, so only offers context for paper-based quality challenges, not a comparable baseline.*

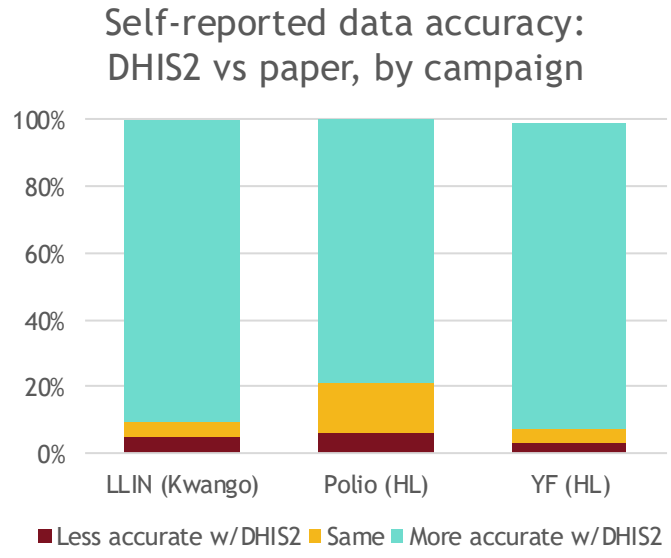
Timeliness

Sync delays persisted in low-connectivity zones, but 85–99% of users found DHIS2 faster than paper.



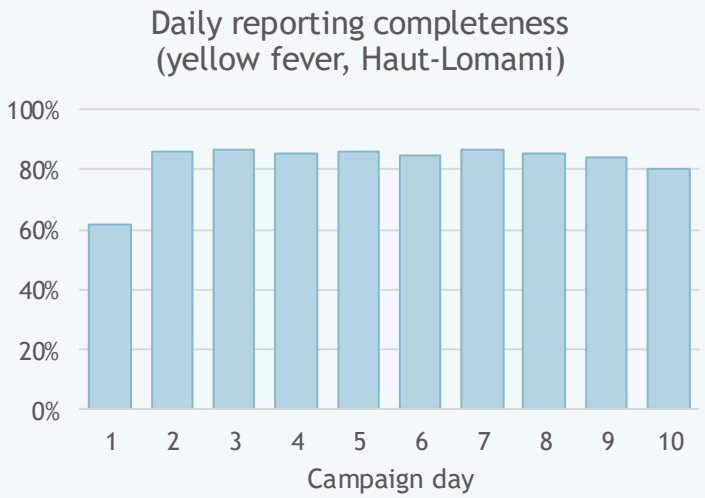
Accuracy

Paper systems produced transcription and aggregation errors. Most users across campaigns found DHIS2 more accurate.



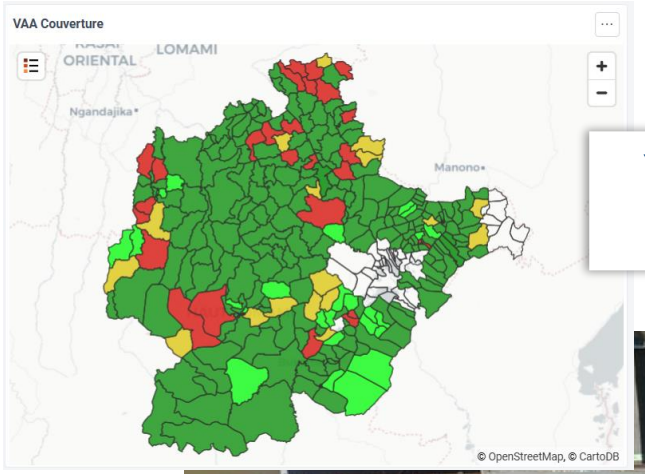
Completeness

After a low day 1, completeness exceeded 80% in most zones, enabling real-time decisions. Remaining gaps call for stronger supervision and reporting protocols.



Real-time dashboards built and used during campaigns, making digital data usable during implementation

- Dashboards developed and user-tested before every campaign: enumeration, coverage, supervision, stock.
  - **LLIN:** stock flow, logistics, supervision coverage and distribution across Kenge and Kimbau; adapted after user testing
  - **Polio:** household enumeration, child-level vaccination progress, GPS-tagged visits, stock distribution
  - **YF:** built on the modular structure from earlier campaigns
- Also built for a paused SMC campaign; simulations drove child-level logic for multi-child households and dynamic inventory alerts.



Yellow fever dashboard

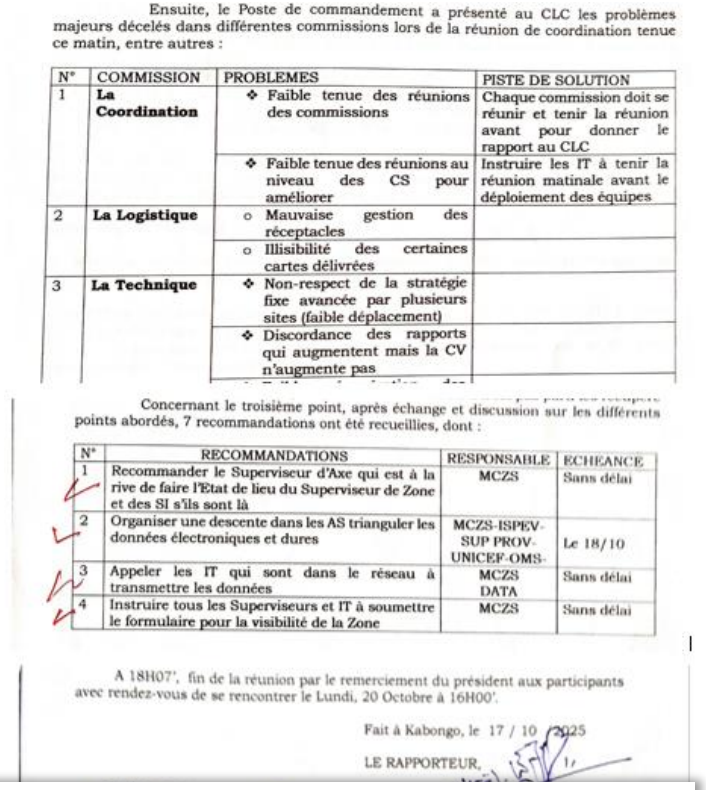


Dashboard use training

Lessons learned

- Dashboards need a data-to-action framework to ensure the right indicators are displayed and used.

Some examples of data use during the campaign, but not yet broadly institutionalized



Ensuite, le Poste de commandement a présenté au CLC les problèmes majeurs décelés dans différentes commissions lors de la réunion de coordination tenue ce matin, entre autres :

N°	COMMISSION	PROBLEMES	PISTE DE SOLUTION
1	**La Coordination**	❖ Faible tenue des réunions des commissions	Chaque commission doit se réunir et tenir la réunion avant pour donner le rapport au CLC
		❖ Faible tenue des réunions au niveau des CS pour améliorer	Instruire les IT à tenir la réunion matinale avant le déploiement des équipes
2	**La Logistique**	o Mauvaise gestion des réceptacles	
		o Illisibilité des certaines cartes délivrées	
3	**La Technique**	❖ Non-respect de la stratégie fixe avancée par plusieurs sites (faible déplacement)	
		❖ Discordance des rapports qui augmentent mais la CV n'augmente pas	

Concernant le troisième point, après échange et discussion sur les différents points abordés, 7 recommandations ont été recueillies, dont :

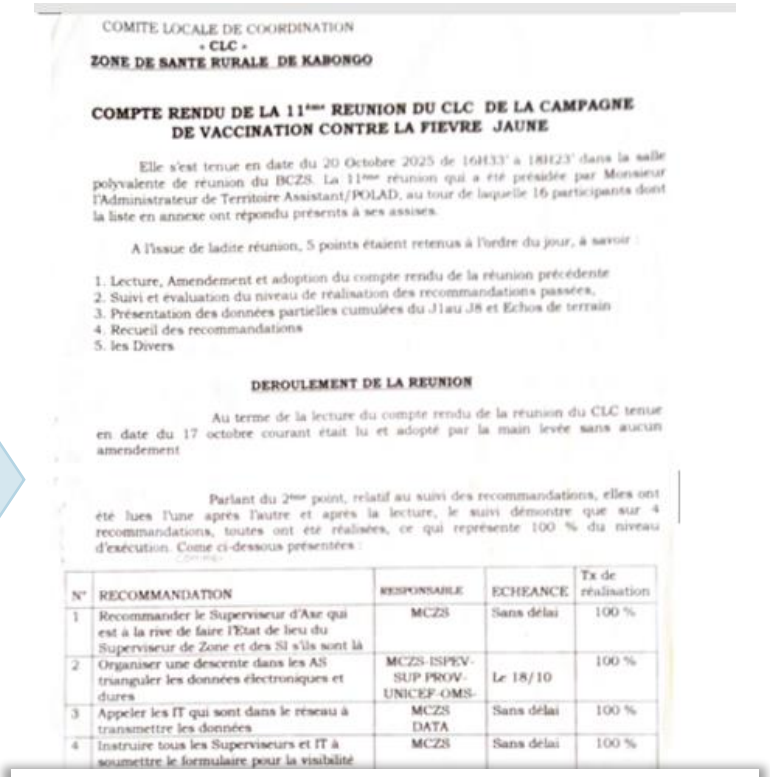
N°	RECOMMANDATIONS	RESPONSABLE	ECHEANCE
1	Recommander le Superviseur d'Axe qui est à la rive de faire l'Etat de lieu du Superviseur de Zone et des SI s'ils sont là	MCZS	Sans délai
2	Organiser une descente dans les AS trianguler les données électroniques et dures	MCZS-ISPEV-SUP PROV-UNICEF-OMS-	Le 18/10
3	Appeler les IT qui sont dans le réseau à transmettre les données	MCZS DATA	Sans délai
4	Instruire tous les Superviseurs et IT à soumettre le formulaire pour la visibilité de la Zone	MCZS	Sans délai

A 18H07', fin de la réunion par le remerciement du président aux participants avec rendez-vous de se rencontrer le Lundi, 20 Octobre à 16H00'.

Fait à Kabongo, le 17 / 10 / 2025

LE RAPPORTEUR,

1. Kabongo CLC, 17 October: dashboards showed reports rising while coverage did not. Four recommendations, including a field visit on 18 October to triangulate electronic and paper data.



COMITE LOCALE DE COORDINATION

« CLC »

ZONE DE SANTE RURALE DE KABONGO

COMPTE RENDU DE LA 11ème REUNION DU CLC DE LA CAMPAGNE DE VACCINATION CONTRE LA FIEVRE JAUNE

Elle s'est tenue en date du 20 Octobre 2025 de 16H33' à 18H23' dans la salle polyvalente de réunion du BCZS. La 11ème réunion qui a été présidée par Monsieur l'Administrateur de Territoire Assistant/POLAD, au tour de laquelle 16 participants dont la liste en annexe ont répondu présents à ses assises.

A l'issue de ladite réunion, 5 points étaient retenus à l'ordre du jour, à savoir :

1. Lecture, Amendement et adoption du compte rendu de la réunion précédente
2. Suivi et évaluation du niveau de réalisation des recommandations passées.
3. Présentation des données partielles cumulées du J1au J8 et Echos de terrain
4. Recueil des recommandations
5. les Divers

DEROULEMENT DE LA REUNION

Au terme de la lecture du compte rendu de la réunion du CLC tenue en date du 17 octobre courant était lu et adopté par la main levée sans aucun amendement

Parlant du 2ème point, relatif au suivi des recommandations, elles ont été lues l'une après l'autre et après la lecture, le suivi démontre que sur 4 recommandations, toutes ont été réalisées, ce qui représente 100 % du niveau d'exécution. Come ci-dessous présentées :

N°	RECOMMANDATION	RESPONSABLE	ECHEANCE	Tx de réalisation
1	Recommander le Superviseur d'Axe qui est à la rive de faire l'Etat de lieu du Superviseur de Zone et des SI s'ils sont là	MCZS	Sans délai	100 %
2	Organiser une descente dans les AS trianguler les données électroniques et dures	MCZS-ISPEV-SUP PROV-UNICEF-OMS-	Le 18/10	100 %
3	Appeler les IT qui sont dans le réseau à transmettre les données	MCZS DATA	Sans délai	100 %
4	Instruire tous les Superviseurs et IT à soumettre le formulaire pour la visibilité	MCZS	Sans délai	100 %

2. Kabongo CLC follow-up, 20 October: all four recommendations confirmed at 100% implementation, including the triangulation field visit.

3. Kabongo reached ~91% coverage. The contribution of active data management cannot be confirmed, but this cycle — problem identified, action taken, follow-up verified — is how in-campaign data use protects coverage.

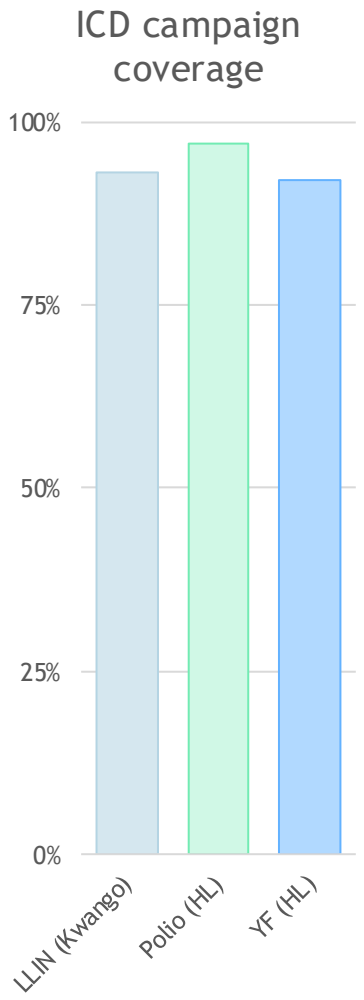
FINDINGS:

Coverage & operational improvements

Coverage remained high through the digital transition, but denominator uncertainty continues to impede confidence in “true” coverage

Indicator(s): Intervention coverage rate

- Reported coverage met or exceeded national targets across all three campaigns. Critically, this suggests that introducing DHIS2 did not disrupt operations in such a way as to cause coverage to drop.
- However, the denominator problem persists. In the polio campaign, 10 of 16 health zones reported coverage exceeding 100%, pointing to unresolved mismatches between macroplan and enumeration populations. In YF, microplan and dashboard population figures diverged by up to 87,000 in a single health zone. These population denominator challenges are well-known.
- A 2023 national vaccination coverage survey (measuring complete vaccination in children 6-23 months, not campaign-specific) found survey-measured coverage at 38% against much higher administrative figures, suggesting the gap between reported and true coverage in DRC can be substantial. While not a direct baseline, these figures are suggestive of the issues with “true” coverage in DRC.



Lessons learned

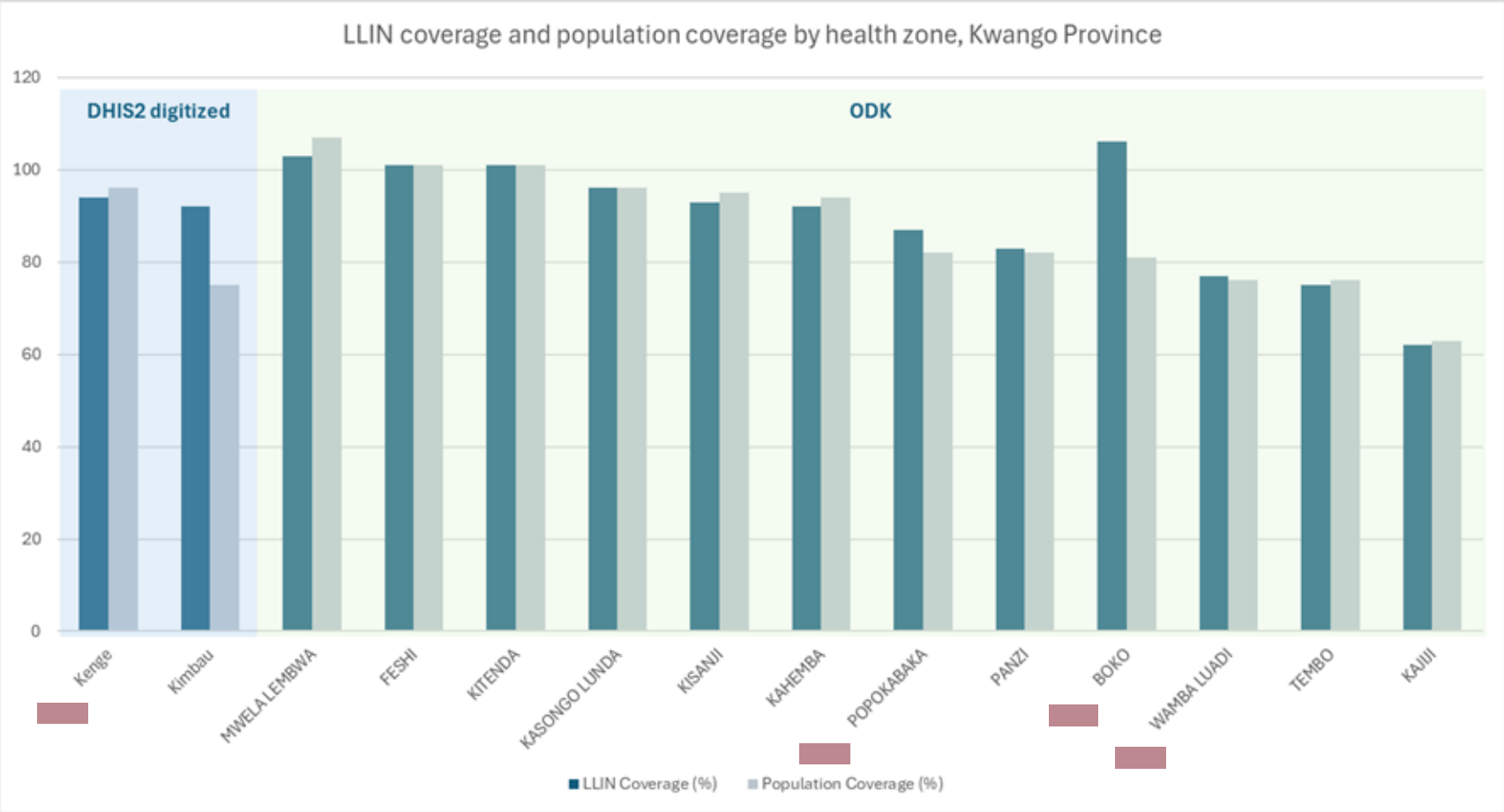
- Multiple data sources now exist for triangulation. The value of these sources depends on programs and government sharing data openly and updating denominators as new information becomes available.
- No single source is authoritative. Building the habit of comparing across sources during campaign planning and implementation is the critical practice change.

Next steps

Continue to advocate for unified denominators and formal data sharing protocols across programs, with ANICNS coordinating alignment between disease programs.

LLIN (Kwango): Reported LLIN coverage in DHIS2-digitized zones was comparable to the ODK control zone, confirming digitization did not disrupt delivery.

Three ODK zones fell below the 80% coverage threshold, and the 5% verification exercise flagged discrepancies between nets distributed and households reached in several areas. These are types of issues real-time digital data can flag early enough to act on.



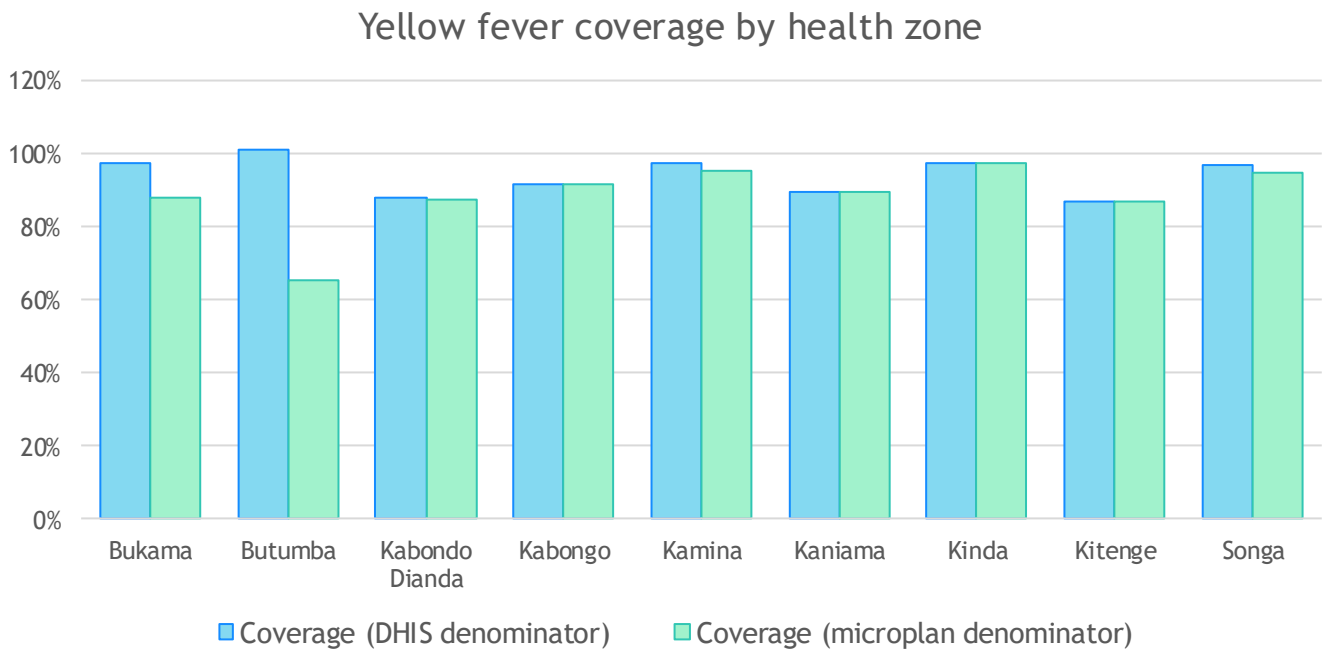
COUVERTURE DES MENAGES EN MII

N°	Zone de Santé	# Ménages visités	# Ménages servis en MII	couverture de ménages servis en MII
1	BOKO	600	524	87,3%
2	FESHI	987	967	98,0%
3	KAHEMBA	1519	1519	100,0%
4	KAJIJI	850	848	99,8%
5	KASONGOLUNDA	1220	1195	98,0%
6	KENGE	1965	1798	91,5%
7	KIMBAU	1282	1276	99,5%
8	KISANJI	825	825	100,0%
9	KITENDA	1099	1194	108,6%
10	MWELALEMBWA	575	575	100,0%
11	PANZI	1175	1174	99,9%
12	POPOKABAKA	1250	1175	94,0%
13	TEMBO	725	721	99,4%
14	WAMBALUADI	719	653	90,8%
	TOTAL	14791	14570	98,1%

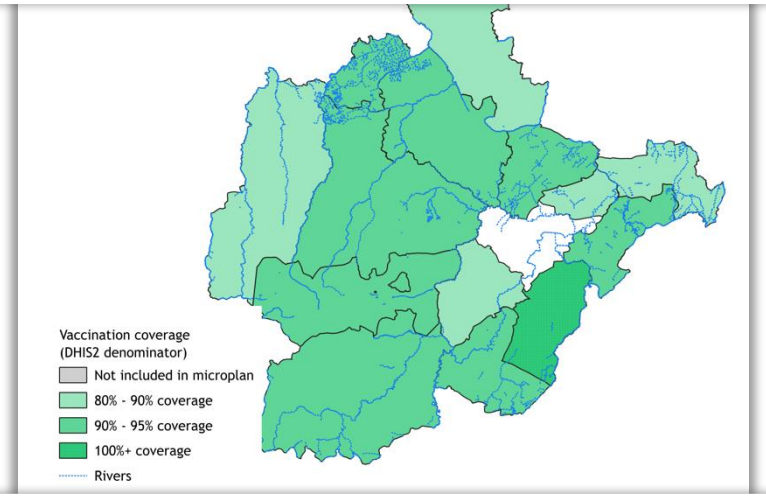
Results of the 5% household verification exercise conducted during the LLIN campaign. The table shows households visited versus households served per health zone. Red rows indicate zones where discrepancies were identified between distributed nets and households reached. Those health zones are red flagged in the graph to the left.

Yellow fever (Haut-Lomami): coverage met targets, but the ability to disaggregate health area reveals pockets of low coverage within health zones

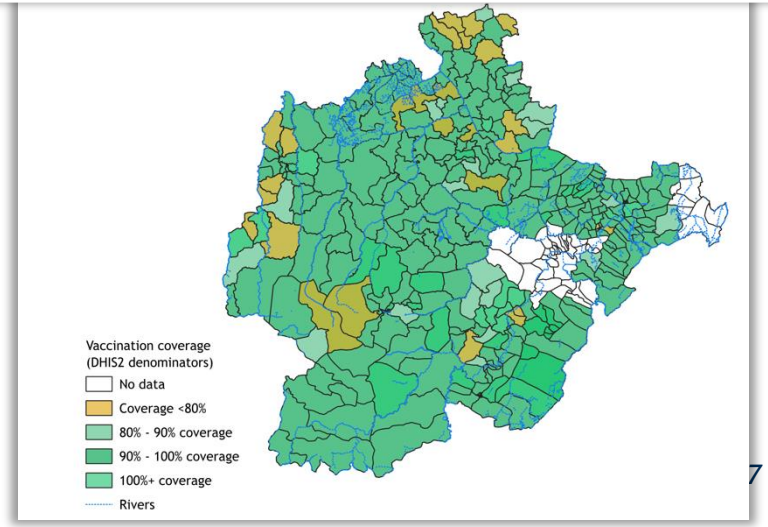
- YF coverage was 92%, above the 90% target. As with polio, the two denominators diverge in several zones — a denominator source shared across programs would cut last-minute discrepancies.
- Zone aggregates are insufficient: high zone-level coverage masks pockets of low coverage at health area level (white and yellow, lower map) that paper reporting never surfaced. Access barriers, mobility, or denominator errors?



High YF vac. coverage at health zone aggregation…

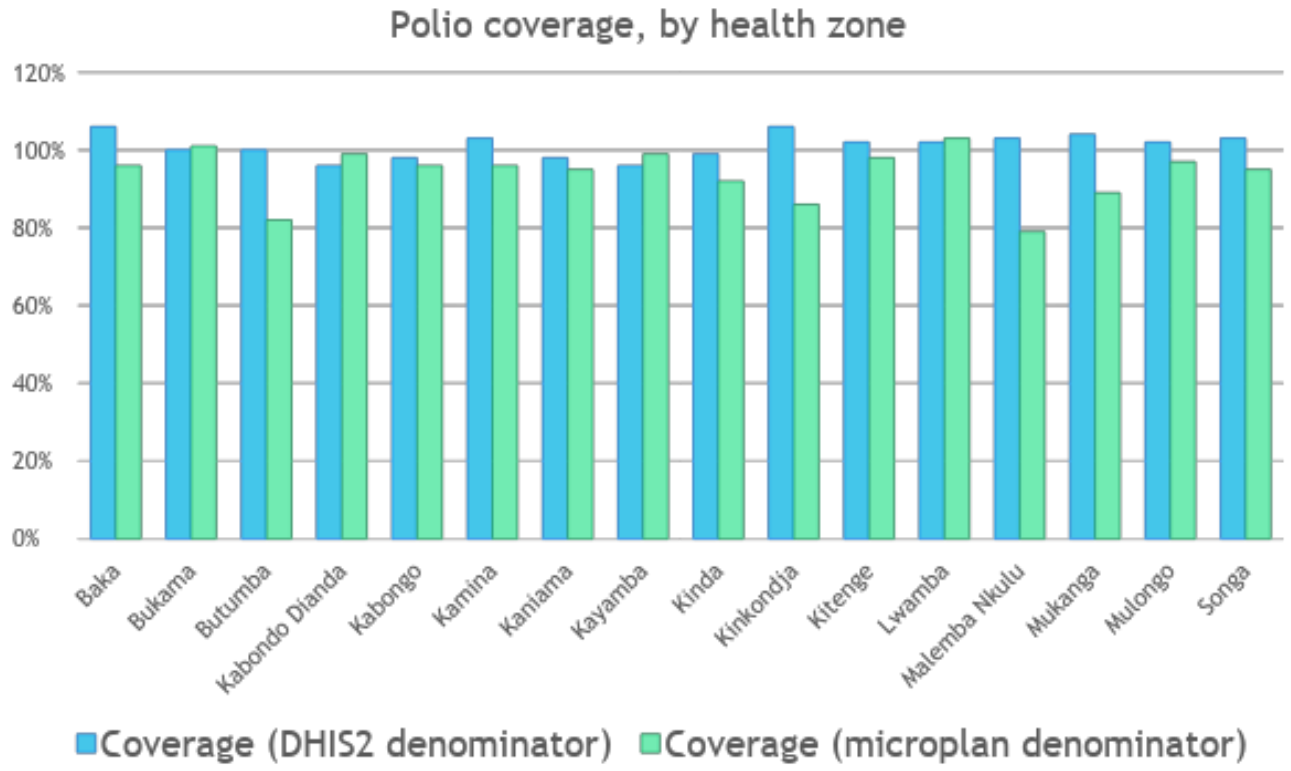


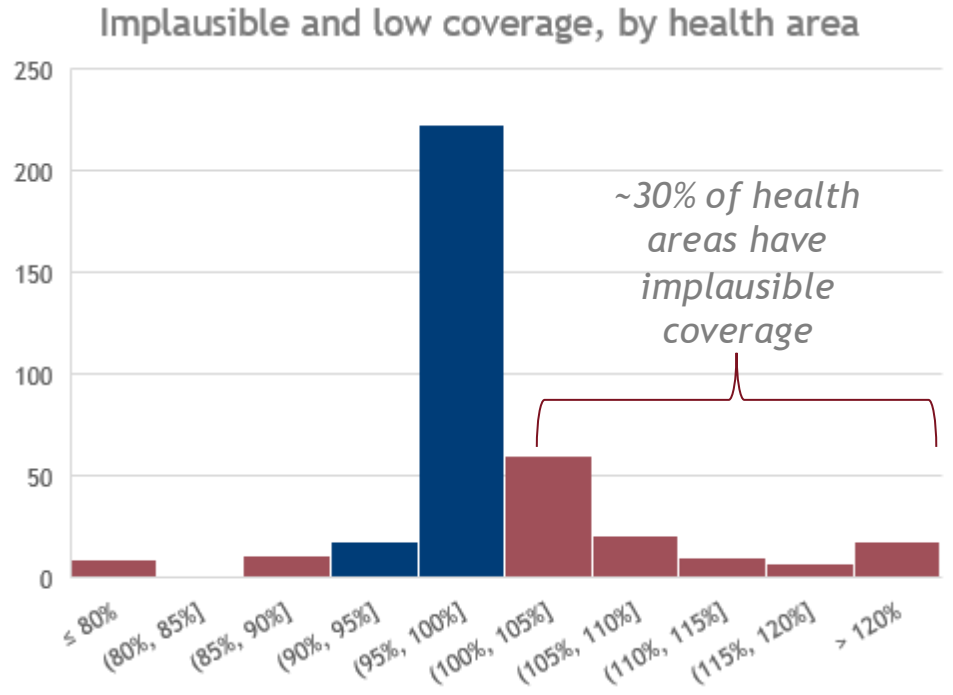
…disguises pockets of low coverage



Polio (Haut-Lomami): Coverage met 90% threshold in most zones, but coverage exceeding 100% in multiple health zones speaks to ongoing denominator issues

- Coverage met the 90% national target across all 16 health zones when using the DHIS2 denominator, with most zones also meeting the target using the microplan denominator. The two denominators tell meaningfully different stories in several zones, most visibly in Kinda and Kayamba where the gap between the two is largest.
- Roughly 30% of health areas reported coverage above 100%, which is implausible and points to unresolved mismatches between enumerated and extrapolated populations. A small number of health areas also fell below 80%, which are genuine underperformance cases worth investigating. Digitization makes both problems visible at health area level.





The increased ease of triangulating data sources can improve microplan estimates, but a verified and unified population reference remains a critical gap

Microplan accuracy strengthened

- Microplan discrepancies are not a digitization problem. They are structural, rooted in a population base last measured by census in 1984 and updated only through extrapolation since then.
- Microplans are built bottom-up but overridden at higher levels. Health zones submit their own figures, but the plan they receive back sometimes differs from what they consolidated themselves.
- Programs use different population sources and percentages without reconciling them. As one health area manager in Haut-Lomami put it: "DHIS2 gives their percentage, and we use our own. That's where the discrepancy lies. We don't know whether to use the total population of the Health Area or the 92%."
- DHIS2 makes these discrepancies visible and comparable in real time rather than surfacing only in post-campaign reviews. That is the foundation for resolution, but resolution requires institutional agreement on sources, not just better data collection.

"DHIS2 will help us a lot because we have just completed the campaign, the real enumeration has just been done, and it will help us for 3 years later to have the real data that will allow us not to make too much guesswork about what we observed as a discrepancy during this campaign... Because with demography, the enumeration we have just done will now be well managed, well kept" - Stakeholder interview

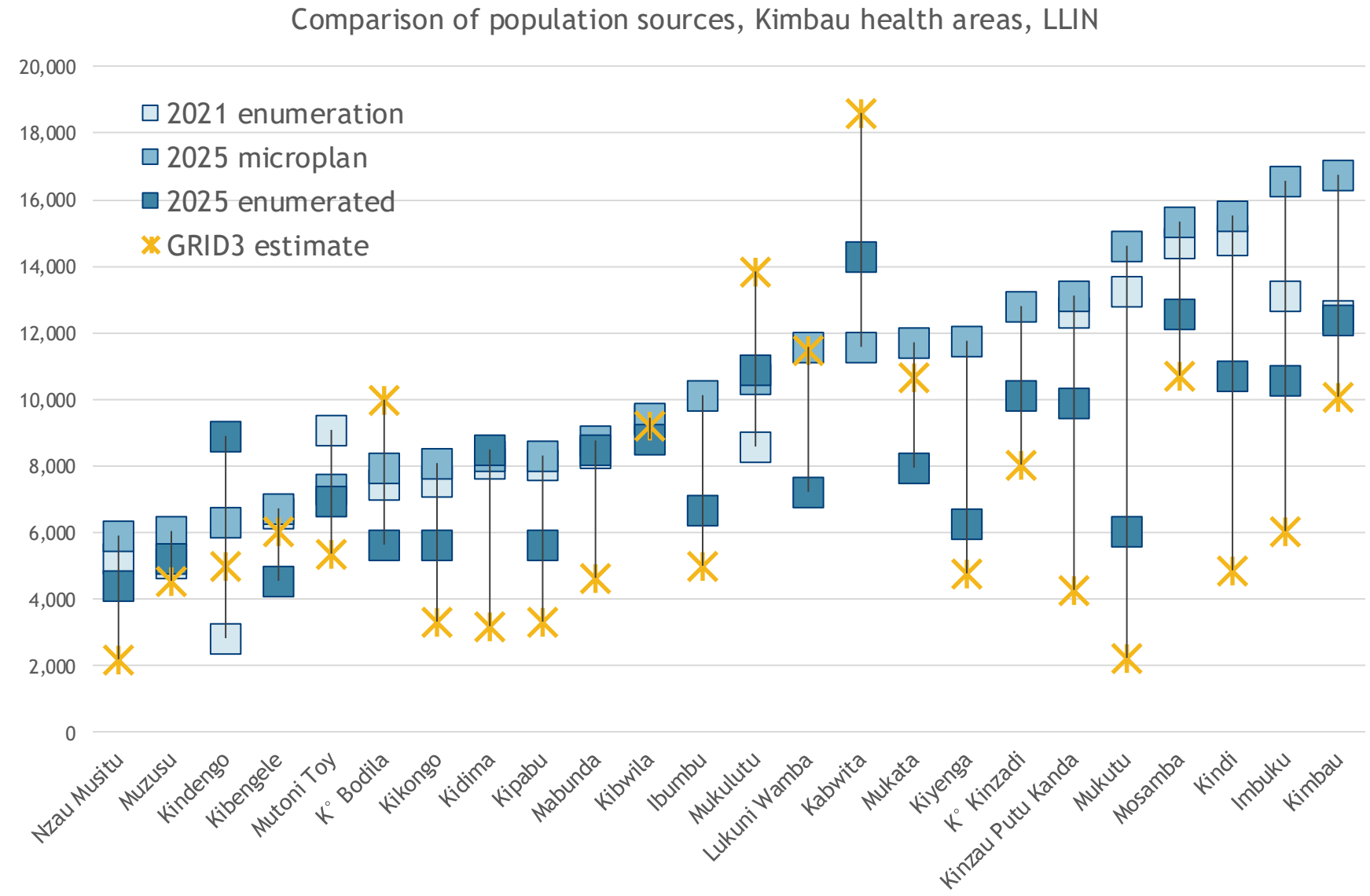
Lessons learned

- Triangulating across population data sources is feasible, but the harder problem is getting programs, provinces, and partners to agree on which figures to use and to update them consistently.

Next steps

- Establish protocol for feeding campaign enumeration data back into microplan denominators.
- Leverage initiative to build a common geo-registry to continue to strengthen agreement and alignment of administrative unit locations and accompanying population triangulation.

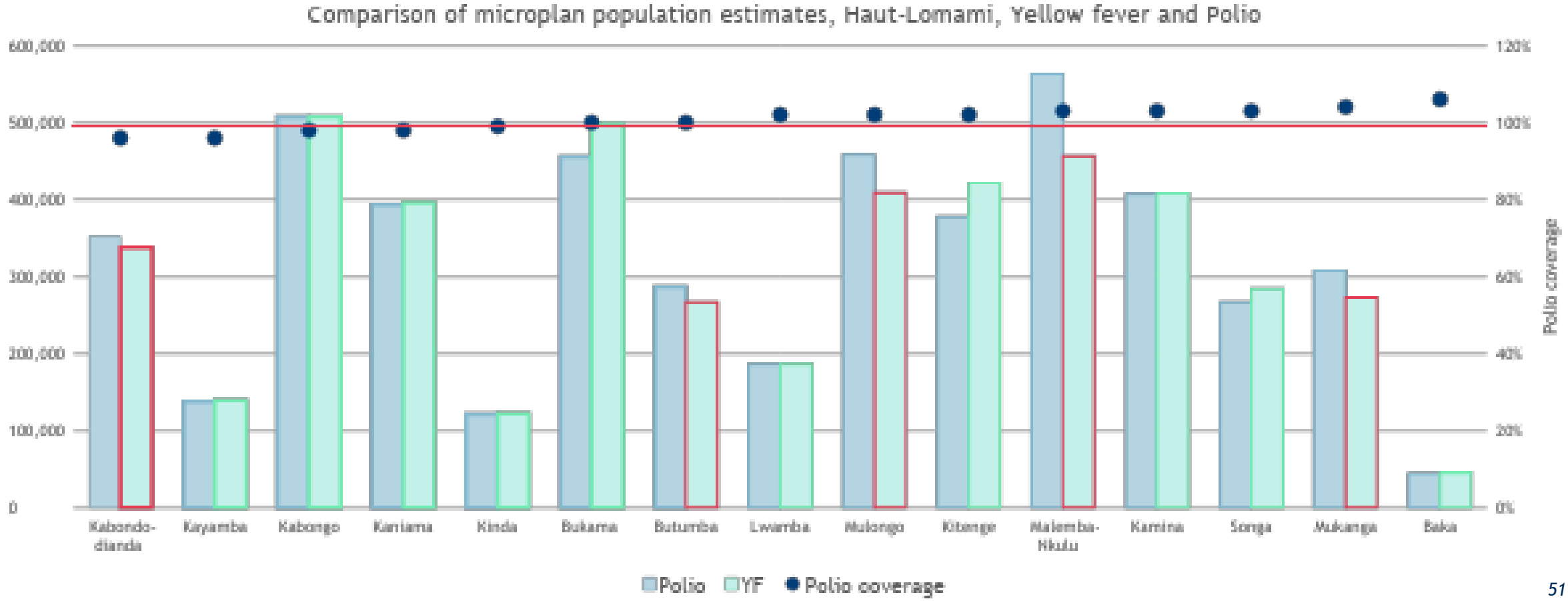
LLIN: Diverging population estimates point to the need for integrated, consistent data use across programs to arrive at appropriate denominators



- Comparison of population **confirm that no single source is authoritative and stakeholders must combine knowledge to understand best population estimates**. Across Kimbau's 24 health areas, 2025 microplan, 2025 enumerated, 2021 enumerated, and GRID3 estimates all diverge, often substantially.
- Where 2021 enumeration data exists (18 of 24 health areas), 13 of those 18 show higher enumerated populations in 2021 than the 2025 microplan estimates. This is counterintuitive given population growth and **may point to health area renaming, boundary reformulation, or fundamental uncertainty about what geographic area each source is actually measuring**.
- The gap between **sources tends to widen as health area estimated population increases**, suggesting that larger, likely more rural or harder-to-reach health areas are where denominator uncertainty is most consequential for coverage calculations.
- **GRID3 is consistently lower than the microplan across almost all health areas**, a pattern not seen in other countries and worth investigating. It may reflect conservative modelling assumptions, boundary differences, or misattribution of population.

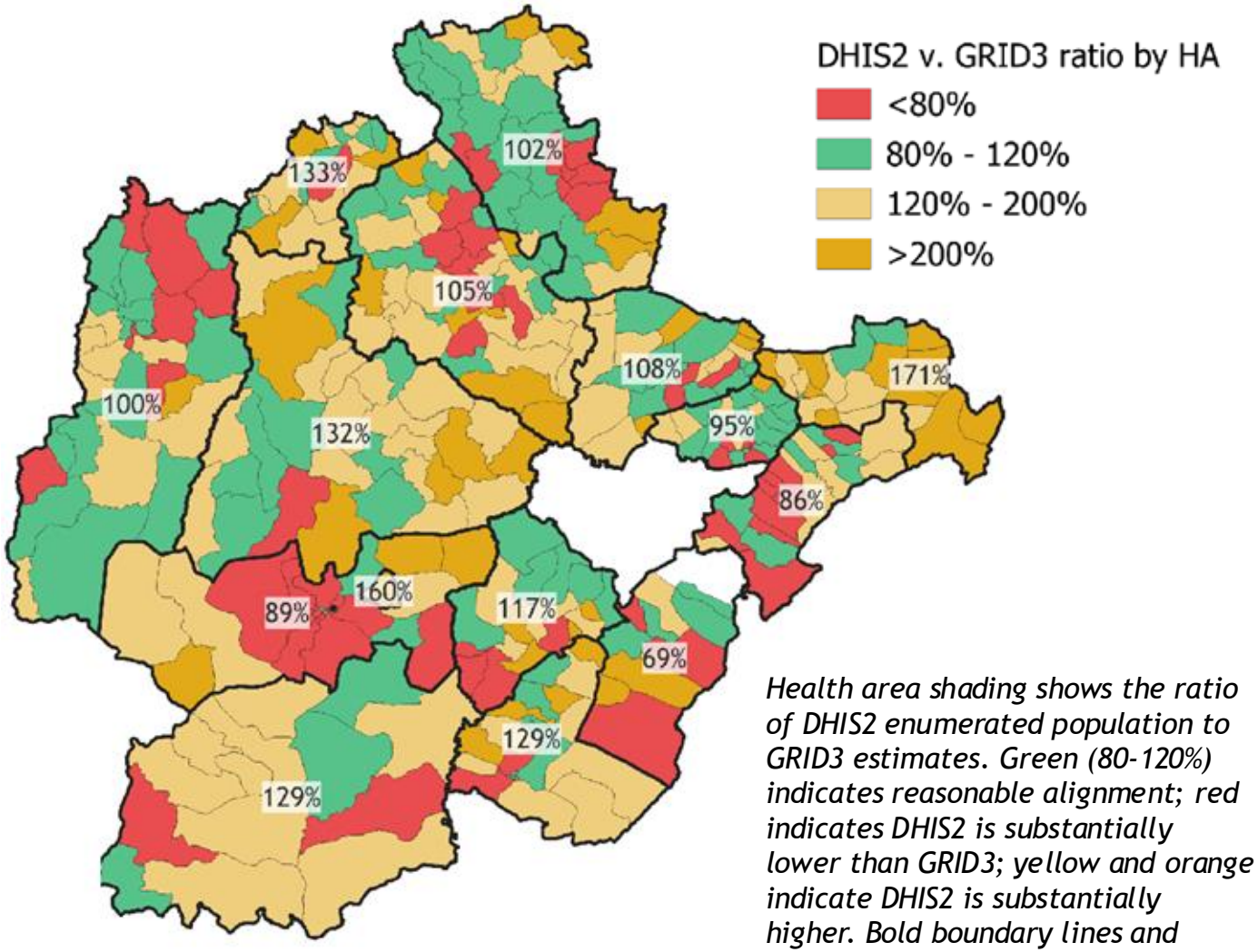
Polio and yellow fever: Microplan population estimates varied between polio and yellow fever campaigns in the same province and year, pointing to the value of cross-campaign reconciliation

- Microplan population estimates differed between the polio and yellow fever campaigns at the health zone level for Haut-Lomami. In several health zones (highlighted in red), YF microplan figures were lower than polio despite polio achieving >100% coverage, which is an indication that targets are too low.
- Comparing numerators and denominators across campaigns is how an integrated system starts to close in on more reliable estimates. No single campaign's figures are definitive, but patterns across campaigns can flag where reconciliation is most needed.



DHIS2 and GRID3 population estimates diverge at both health zone and health area level, reinforcing the need for continuous cross-source reconciliation vs. reliance on a single estimate

- As with the LLIN campaign in Kwango, GRID3 estimates are consistently lower than DHIS2 figures across most health areas, a pattern not observed in other countries and worth investigating further.
- Health zone level figures appear relatively close in several zones, but the map shows this masks considerable within-zone variation. Several health zones with ratios near 100% contain health areas ranging from below 80% to above 200%.
- In DRC, where geographic accessibility is a key implementation constraint, health area level discrepancies matter greatly for efficiency and coverage. Getting commodities to the right place depends on knowing how many people are actually there. A health area that looks adequately planned at zone level may be significantly over or under-supplied on the ground.



Health area shading shows the ratio of DHIS2 enumerated population to GRID3 estimates. Green (80-120%) indicates reasonable alignment; red indicates DHIS2 is substantially lower than GRID3; yellow and orange indicate DHIS2 is substantially higher. Bold boundary lines and labels show the aggregate ratio at health zone level.

Key success factors supporting implementation in DRC

WHAT HAS DRIVEN SUCCESS IN DRC?

- Ministerial decree anchored governance at the top, giving ANICNS a cross-program mandate where none had existed.
- DHIS2 chosen through a participatory MoH-led process — a government system, not a donor tool.
- Repeated use built real capacity: polio teams needed lighter support for yellow fever, and training time fell measurably.

HOW CAN WE LEVERAGE THESE MOVING FORWARD?

Formalize the Secretary General's coordination role in the TWG ToRs, so governance does not depend on individuals or external funding.

Replicate rather than rebuild deploy new provinces from the Haut-Lomami configurations as baseline.

Protect government ownership as digitization scales. Resist any arrangement that routes decisions or technical control back to partners.

Key challenges that impeded implementation in DRC

WHAT CHALLENGES – ANTICIPATED OR NOT - WERE WE ABLE TO OVERCOME?

- Persistent device shortages constrained campaign deployment.
- Slow partner buy-in and misaligned campaign calendars repeatedly delayed tool deployment, training and device mobilization.

HOW CAN THESE LESSONS HELP US ANTICIPATE OTHER ISSUES AND ADJUST OUR APPROACH?

Device procurement cannot run campaign by campaign through partner relationships. Pooled inventory and an ANICNS-led SOP must precede each new province.

Treat campaign calendar alignment across partners, including WHO, as a governance function: shifting dates cascade into compressed training, rushed configuration and device shortages.

CONTENTS

BACKGROUND AND FRAMING

KANO (NIGERIA)

- Country overview
- Results: *Governance and Capacity* | *Strength of digitization*
- Impact: *Data quality* | *Data Use* | *Coverage* | *Resource requirements*

DRC

- Country overview
- Results: *Governance and Capacity* | *Strength of digitization*
- Impact: *Data quality* | *Data Use* | *Coverage* | *Resource requirements*

BENIN

- Country overview
- Results: *Governance and Capacity* | *Strength of digitization*
- Impact: *Data quality* | *Data Use* | *Coverage* | *Resource requirements*

KENYA

- Country overview
- Results: *Governance and Capacity* | *Strength of digitization*
- Impact: *Data quality* | *Data Use* | *Coverage*

REFLECTIONS

COMMUNITY AND RESOURCES

Building on early RedRose campaign digitization success, Benin transitioned to a unified, MOH-owned AlafiaComm platform with progressive capacity transfer

Landscape in 2021

- Multiple campaigns digitized (LLIN, Oncho, SMC) using RedRose platform since 2020, but largely **partner-led** and requiring **parallel financing**
- No deliberate transition strategy to MOH ownership; **limited ministry ownership** of digital tools
- Lacked coordination structure; ~2 years of advocacy needed to establish Steering & Technical Committees

Vision & approach

- **Choose a national-owned single platform** for all campaign service delivery, replacing partner-owned RedRose instances – maintaining key use cases with new platform
- **Transfer full technical and operational capacity to DSI**, from 17 contracted IT (2021 SMC) to 22 trained MoH IT (2025)
- **Integrate with national information system architecture** and strengthen the real-time, granular data use for decision-making

Technology approach

Platform: AlafiaComm (CommCare) | **Why:** Commitment to CommCare for community health digitization (CHWs also support most campaigns); ability to handle all RedRose-implemented use cases

Approach toward scale

	2020-21 LLIN, Oncho, SMC	2022-23 LLIN, Oncho, SMC	2023 SMC	2024 Oncho	2024 SMC	2025 Oncho	2025 SMC	2026 LLIN and onward…
Platform	RedRose	RedRose	RedRose	AlafiaComm	AlafiaComm	AlafiaComm	AlafiaComm	AlafiaComm
Tech lead	CRS	CRS	Hybrid (5 partner + 10 DSI)	DSI	DSI	DSI	DSI	DSI
Funding	Digital grant	Digital grant	Digital grant	Digital grant	Campaign budget	Campaign budget	Campaign budget	Campaign budget

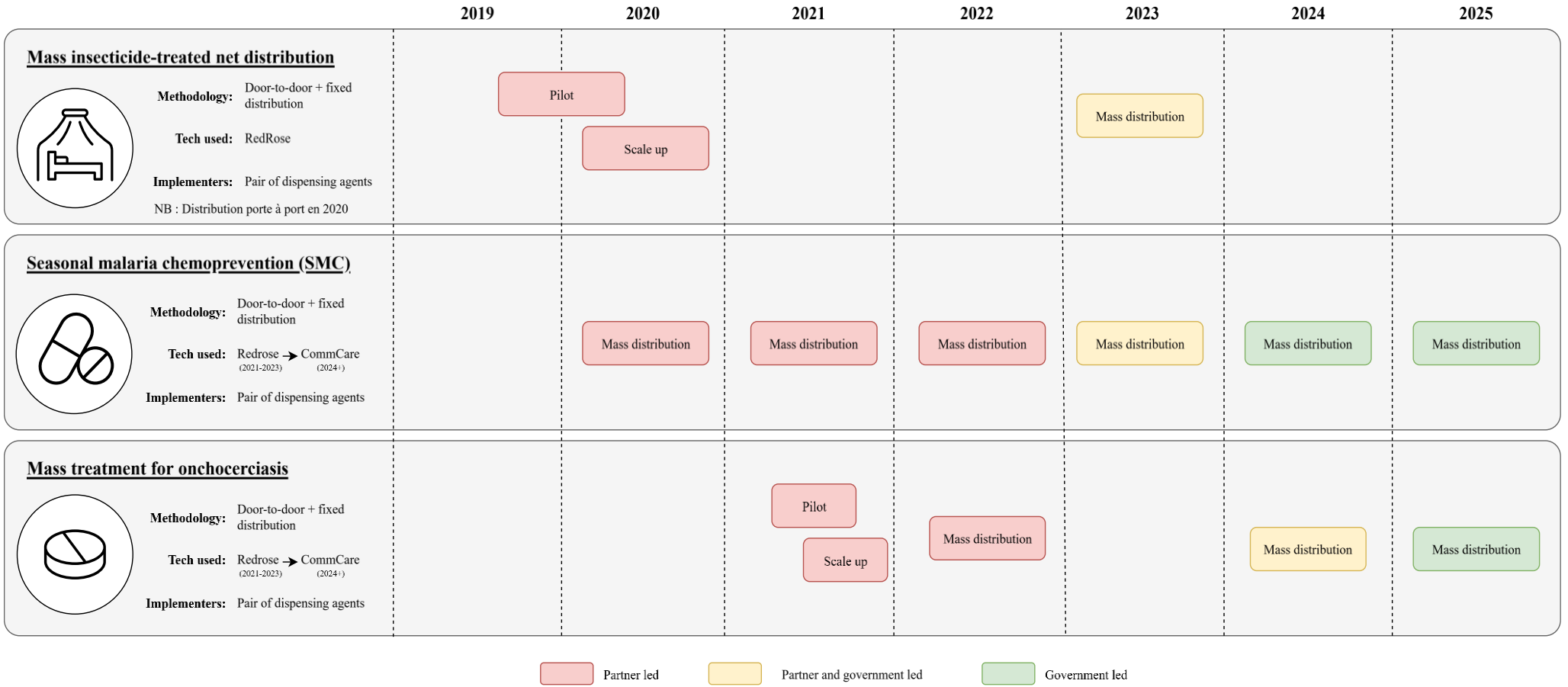
Key government leadership, stakeholders, and structures

Lead institution: DSI (Direction des Systèmes d'Information) | **Key programs & stakeholders:** PNLP, PNLMT, WHO, Dimagi, Sightsavers, CRS, FHI 360, WHO, CHAI | **Structure:** Steering Committee + Technical Committee (est. 2023 by MoH Decree), however weakness in actualizing formal structure

Governance & capacity

Over time, DSI capacity was strengthened to fully manage campaign digitization, with support from our technology partner

With support from Dimagi (technology partner) and technical partners on digitization, such as CHAI and WHO, the technical capacities of the DSI staff have been strengthened, with a reduction in external consultants (17 ICT4D consultants for SMC 2021 and 14 for Oncho 2022), followed by the gradual absorption into internal management.



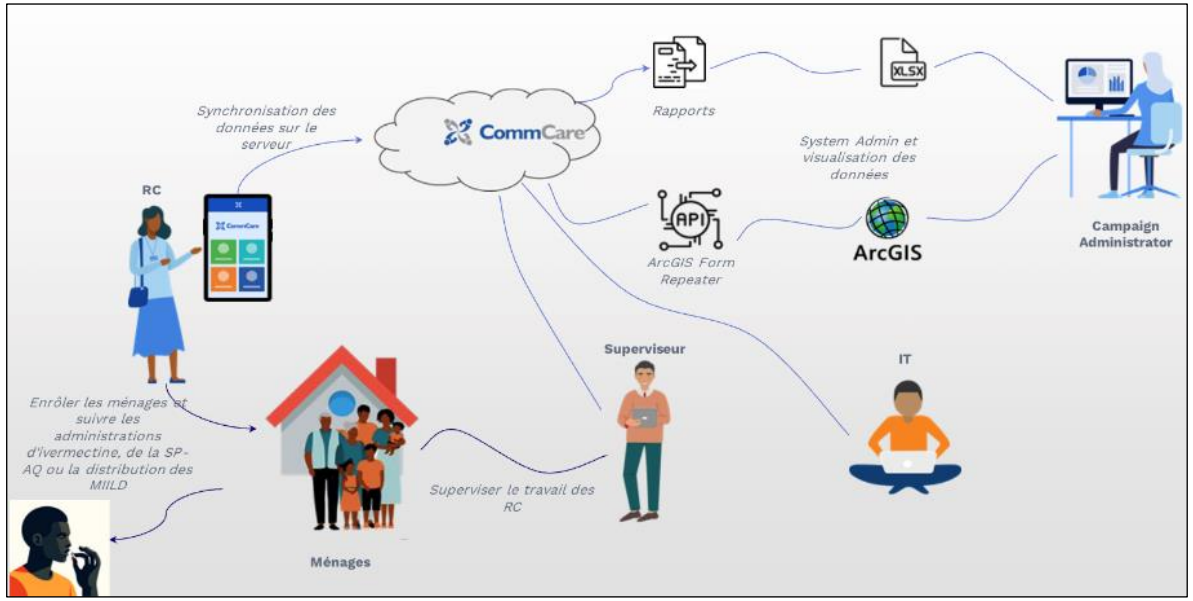
100%
Reduction in external consultants required to support the campaigns.

Lessons learned

- Capacity strengthening can progressively integrate government IT personnel into campaign operations with implementing partners to enable hands-on learning.
- Building true ownership worked better through phased transitions rather than disruptive handovers from external to internal staff.

Established partnerships to support technical aspects of campaign digitization were put in place to formalize the supportive ecosystem

- Dimagi partnership established for AlafiaComm technical support on data collection tools
- ArcGIS and PowerBI licensing and support transferred to DSI management to ensure data visualization



Lessons learned

- Using staff with dual expertise in technology and program management was helpful in achieving success. This approach enhanced collaboration with technical partners by establishing a shared understanding and common language between all stakeholders, ultimately improving project quality and execution.
- Successful technology transfer remains critical for long-term program sustainability, enabling government ownership and reducing dependency on external technical support while building local capacity for ongoing digital health initiatives.

A formal governance framework was established, however still requires strengthening to sustain strong implementation and adaptation to lessons

- Steering Committee and Technical Working Group created by Ministerial decree in July 2023 with representation from key stakeholders (DSI, PNLP, PNLMT, partners).
- High turnover in the governance leading teams creates lack of continuity and decision-making effectiveness.
- Governance structure lacks clear operational plan, understanding of a dedicated budget to cover their meeting, and formal communication protocols needed for sustained functionality beyond project period.

Lessons learned

For sustained governance effectiveness, define committee positions by institutional roles rather than individuals, ensuring continuity through staff transitions.

STEERING COMMITTEE	
PRESIDENT	Technical Advisor on Partnership and Health Policy to the Health Minister
VICE PRESIDENT	National Director of Public Health
SECRETARY	Director of Information Systems, Ministry of Health
ROLE	Governance and general supervision body of the Project.
MEETING FREQUENCY	Monthly
MEMBERS	• Deputy SG, MOH • Director of Planning, Admin, and Finance • Ministry of Digital Affairs and Digitaliz. • National Agency for ID • National Institute of Statistics • PNLP coordinator • NTD program coord. • National Council on HIV, TB, and malaria • CHAI • WHO

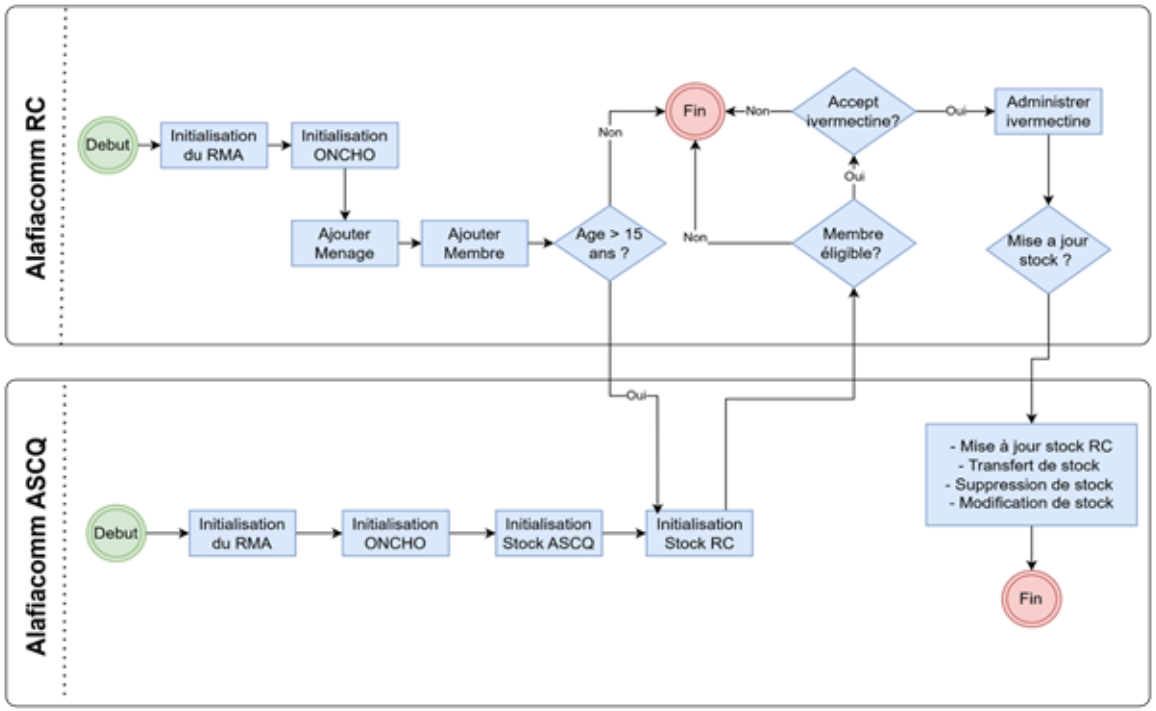
TECHNICAL COMMITTEE	
CHAIRMAN	Director of Information Systems (DSI), Ministry of Health
SECRETARY	Head of infrastructure and sytems, DSI, MOH
ROLE	Responsible for implementing the directives of the Steering Committee and coordinating the execution of the project.
MEETING FREQUENCY	Monthly and ad hoc as required
MEMBERS	• M&E Unit, MOH • PNLP (IT manager) • NTD program • Immunization program • DSI staff • National Agency for ID • WHO • CHAI • Catholic Relief Services (CRS) • Unicef • FHI360

Strength of digitization & integration

A consultative, DSI-led tool selection process identified AlafiaComm (CommCare-based) for integrated campaign digitization

- The AlafiaComm (CommCare-based) platform was chosen to align with MOH community health digitization strategy and enable integrated campaign management.
- Technical specifications created through iterative process with DSI, PNLP, and PNLMT teams to ensure workflows match operational needs.
- Workflow development maintained proven elements from the RedRose implementation to build on successes.

Oncho workflow



Lessons learned

- Aligning digital tool selection with existing government health strategy enabled sustained adoption and created a foundation for integrated campaign management across multiple health programs.
- Leveraging tools prioritized by other programs within the Ministry of Health provided a proven platform and facilitated cross-program collaboration and funding during implementation.

AlafiaComm offered similar functionality to RedRose while aligning with community health vision, to enable local ownership

Campaign specific functionality

Function	RedRose	AlafiaComm
Enumeration	Household registry, geographic register (ArcGIS)	Household registry, geospatial mapping
Planning	Limited built-in functionality	Limited built-in functionality
Delivery	Distribution tracking, real time reports	Distribution tracking, beneficiary registration and tracking
Supply Chain	Self-declaration and stock tracking at facility level	Self-declaration and stock tracking at facility level
Training	Biometrics and attendance management	Registration, verification, training, and attendance
Payment	Generate attendance report for payment, MoMo	Through a payment gateway (mobile money, bank)
SBCC	Limited built-in functionality	Reminders by SMS / Chatbot / IVR for follow-up visits
M&E	Requires a link to external dashboard tools (ArcGIS)	Requires a link to external dashboard tools (ArcGIS)

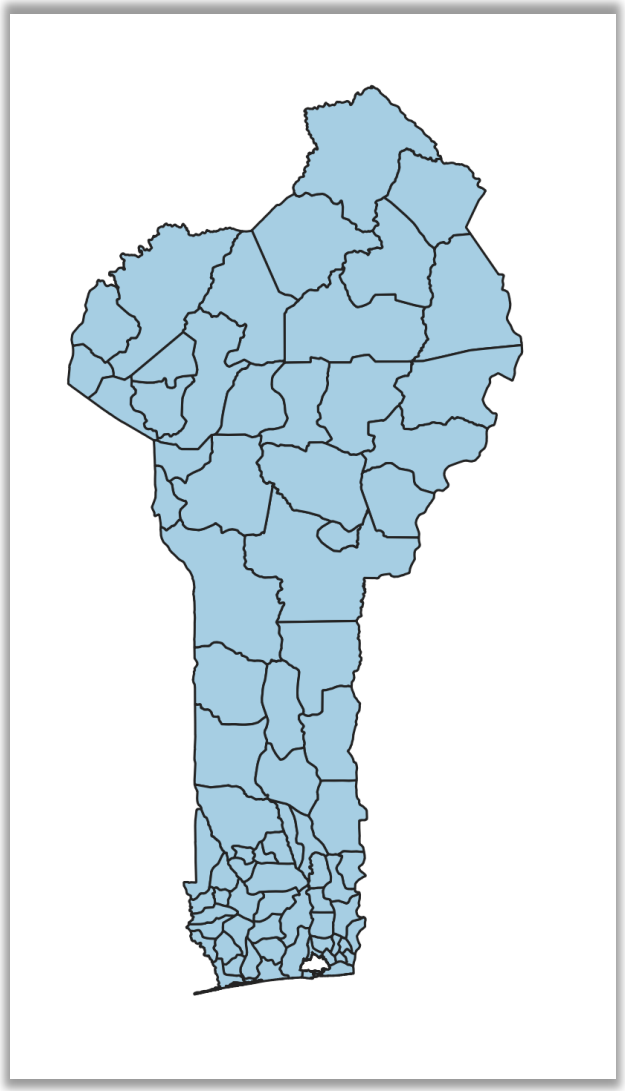
Implementation considerations

Function	RedRose	AlafiaComm
Adaptability	Rapid deployment possible for simple use cases within 2 weeks	Rapid deployment through template-based application, configurable workflows, and modular applications
Transferability	Proprietary solution less aligned with our community health vision	Solid knowledge base (documentation, videos, toolkits, etc.)
Interoperability	Limited interoperability with other digital systems in Benin's architecture	Compatible with OpenHIE (FHIR), DHIS2, OpenMRS, and other third-party applications
Cost	Can be expensive and cannot be used without a contract with RedRose or a partner	Scale up and assistance can be expensive if local capacity is not available, but tool shared across CHWs and campaigns

*** Comparisons done in 2022 and may not be reflective of the current state of these applications**

AlafiaComm now supports multiple campaigns and with all campaign workers trained nationally

- AlafiaComm platform now supports 3 campaign types: SMC, oncho, and LLIN module.
- Over 13,000 community health workers have been trained on AlafiaComm across SMC, Oncho and LLIN campaigns, including 800 supervisors.
- AlafiaComm has been deployed nationwide for the oncho, SMC and LLIN campaigns, representing all 77 communes.



Over 16,000 users trained

Health workers have been trained to use AlafiaComm for campaigns nationwide.

Lessons learned

- Using one platform across different campaign types reinforces health worker skills and maximizes training value, as staff become more proficient through repeated use of the same core functions.

Data quality & use

Data quality benefits were sustained through transition to AlafiaComm

- Data quality improvements (improved timeliness and completeness of submissions) achieved during initial digitization (RedRose) have been maintained throughout the AlafiaComm platform transition and handover from partner to government-managed system.
- All required data elements captured in AlafiaComm modules with campaign-specific requirements incorporated, including SMC individual tracking and oncho refusal reason.
- Automatic data pipeline established from CommCare to ArcGIS dashboard (implemented SMC 2024 Round 2), enabling real-time data availability for supervision and decision-making without manual transfer delays.
- Built-in data quality checks and real-time error detection protocols were integrated into AlafiaComm system prevent incomplete submissions and enable immediate correction of data issues.

Lessons learned

- All workflows should include built-in data quality checks to provide data quality benefits.
- Active alert detection can help identify and address quality issues in real time.

Dashboard data used for real-time supervision, malpractice detection, and corrective actions

- ArcGIS dashboard integrated with AlafiaComm uses a rigorous data protocol with custom alert system that identifies uncovered areas, administration irregularities, and protocol violations, providing supervisors with direct links to exact locations and village-level names.
- Alert-driven supervision enables targeted follow-up with health workers flagged for performance issues and supports strategic resource redeployment to improve coverage outcomes.
- Geographic visualization capabilities allow precise supervision targeting based on real-time field data and performance indicators.

Lessons learned

- Even with data flags and alerts, building staff capacity to use data across all levels takes time, training, and clear role definitions.
- Using separate platforms for data capture and visualization can create challenges, including maintaining consistent subscriptions and ensuring seamless data transfer between systems.

Example of an alert – hundreds are generated over the course of each campaign.

Numéro de l'alerte	Description de l'alerte	Capture d'écran de l'alerte	Groupe (s) whatsapp de publication	Feedback	Date de création de l'alerte	Date de publication de l'alerte
Alerte N° P2GGN	Observation: The area shown in the image is not covered for dose 1.Action to be taken: All supervisors around this area are requested to check whether the teams assigned to this area are active and, if not, assign the necessary agents to cover this area so they can identify the target beneficiaries and administer the dose. Click on the link below to access the area. Link to the location: < Google maps link > Village: [redacted] District: [redacted] ommune: [redacted] couverte pour la dose 1 te zone sont priés de actives et si non, zone afin qu'ils puissent ose. Cliquez sur le lien ETUhwNU6 Village : BADOU Arrondissement : BAGOU Commune : GOGOUNOU		ZS_KGS Campagne CPS SP GOGOUNOU CPS 2023	Non	26/08/2023	26/08/2023

Example of system alerts providing clear action steps for supervisors to address coverage gaps and campaign's protocol violations

Observation: The area shown in the image is not covered.

Action to be taken: All supervisors around this area are requested to check whether the team(s) assigned to this area are active, and if not, assign them to cover this area so they can identify the target beneficiaries and administer the dose.



Oncho 2025 campaign alert example

Observation: The attached image shows a team that administered the doses in a place other than the beneficiaries' households. This is contrary to the protocol of the campaign.

Action to be taken: All supervisors around this area are asked to:

- Verify whether there are beneficiaries at this location;
- Verify whether the team has physically administered the doses to the beneficiaries.
- Check the work of the team in the phone
- Remind the team that beneficiaries must receive their doses in their respective households

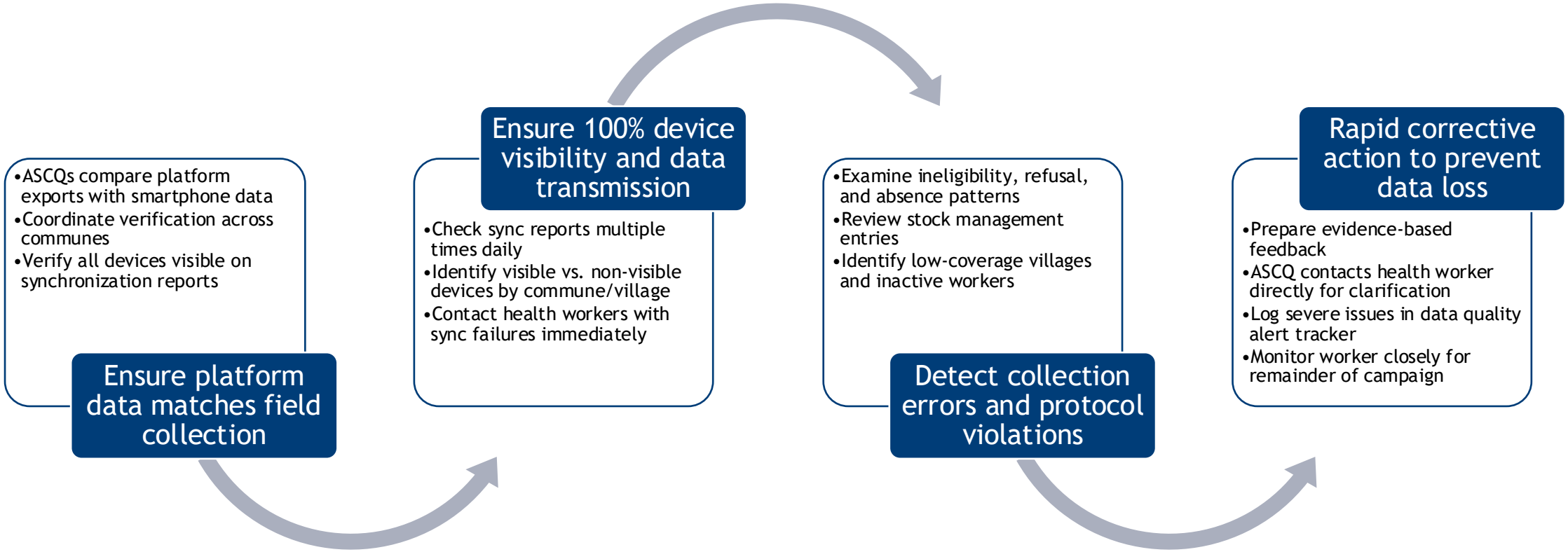


Oncho 2025 campaign alert example

Multi-layered monitoring protocol enables real-time detection and correction of data issues

Key roles:

- **ITs (DSI):** Coordinates verification, analyzes coverage reports, identifies low-coverage areas with evidence-based recommendations
- **ASCQs:** Verify health worker data, monitor device synchronization, conduct field investigations, document feedback
- **Campaign coordinators:** Multiple synchronization checks throughout each day enable real-time identification and correction



Alert management workflow: From data collection to corrective action

Health workers use AlafiaComm on tablets with GPS → Data populates ArcGIS dashboard real-time → Identifies uncovered zones, protocol violations → Alerts sent to supervisors with GPS links → Supervisors investigate and document response

Numéro de l'alerte	Description de l'alerte	Capture d'écran de l'alerte	Groupe (s) whatsapp de publication	Feedback	Date de création de l'alerte	Date de publication de l'alerte
Alerte N° P2GGNJ2-01	Observation: The area shown in the image is not covered for dose 1.Action to be taken: All supervisors around this area are requested to check whether the teams assigned to this area are active and, if not, assign the necessary agents to cover this area so they can identify the target beneficiaries and administer the dose. Click on the link below to access the area. Link to the location: < Google maps link > Village: [redacted] District: [redacted] ommune: [redacted]		ZS_KGS Campagne CPS SP GOGOUNOU CPS 2023	Non	26/08/2023	26/08/2023

An alert for location re-assignment to field agents, in order to cover children missing 1st dose of SMC 2023

Standardized data validation workshops and review meetings institutionalized at departmental level

- Standardized data validation workshops institutionalized at provincial and departmental levels with structured review of campaign findings, performance analysis, and identification of corrective actions needed.
- Attendees include technical and program staff, and field supervisors to share observations, discuss challenges, and develop targeted recommendations for specific communes or areas.
- Real-time data analysis protocols operationalized during campaigns enabling identification and correction of population targeting errors, coverage gaps, and implementation issues through daily coordination sessions.
- Post-campaign data analysis framework standardized with systematic procedures for coverage calculation review, methodology discussions, and lessons learned documentation to inform future campaign planning.

Lessons learned

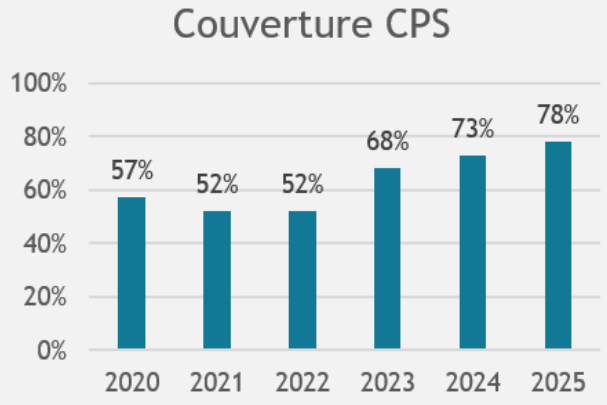
- Institutionalizing data review processes requires dedicated funding, as validation workshops only occur consistently when budget lines are secured.

Coverage & operational improvements

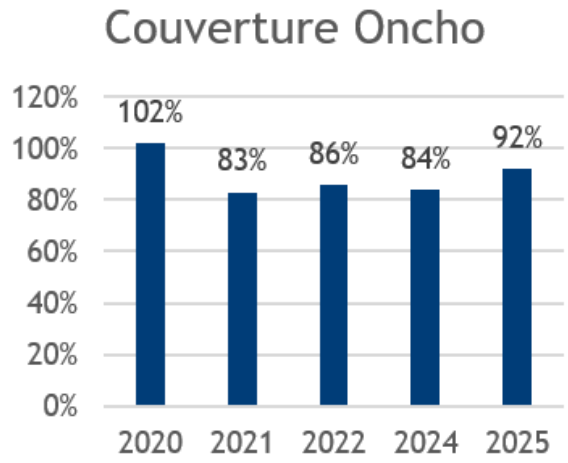
Sustained high coverage was achieved alongside enhanced tracking, accountability, and measurement capabilities

- High coverage achieved during initial RedRose digitization has been improved upon or sustained through the transition to AlafiaComm, demonstrating platform changes do not compromise service delivery.

- **SMC** digitization enabled individual tracking of children across multiple rounds, allowing for accurate assessment of full-cycle coverage (all doses received) rather than single-dose coverage only.



- **Oncho** coverage decreased from paper-based levels but remained above 80% WHO threshold, with stable treatment numbers indicating this reduction reflects improved population denominator estimates and microplanning rather than reduced service delivery.



+21% improvement in measured SMC coverage

Lessons learned

- Digitized campaigns can maintain high coverage rates, proving the approach is scalable without compromising outcomes.

AlafiaComm data enhanced mobile money payment verification and reduced errors

- Digital platform data used to verify worker performance and cross-check mobile money payment lists, reducing payment errors to less than 20 out of 8,000 workers through improved phone number validation and task completion verification before training, during training, during implementation and after campaign end.
- Activity report sheets generated from AlafiaComm enable coordination teams to validate worker participation before processing mobile money payments, improving payment accuracy and accountability.

<1% error rate
In payments made to campaign workers

Lessons learned
- Staff information quality cannot depend on manual compliance alone—staff list verification safeguards are essential to prevent payment errors regardless of user adherence to data protocols.

Next steps
- Implement comprehensive data validation to ensure community health worker and actor information is accurately captured before importing into digital systems.
- Integrate Know Your Customer (KYC) functionality into the platform to automate phone number alignment with mobile money gateways.

Cost-effectiveness & Resource requirements

Multiple strategies pursued to realize cost savings for campaigns in order to ensure sustainability of digitization workstream

Campaign digitization cost optimization over time:

- Strategic cost-reduction measures achieved 50% savings on Oncho 2024 campaign ($311K actual vs $631K budgeted) and reduced SMC 2024 technical assistance to $15K total budget.
  - Training efficiency improvements replaced full-day workshops with 2-3 hour working sessions, eliminating meal costs while maintaining quality.
  - Field supervision optimized based on actual needs rather than predetermined schedules, reducing unnecessary travel and per diem expenses.

Infrastructure cost savings:

- Warehouse costs reduced from 21 million CFA to 4 million CFA by using government facilities with security payments instead of renting commercial space.

50% reduction in needed budget for 2024 oncho campaign digitization

Lessons learned

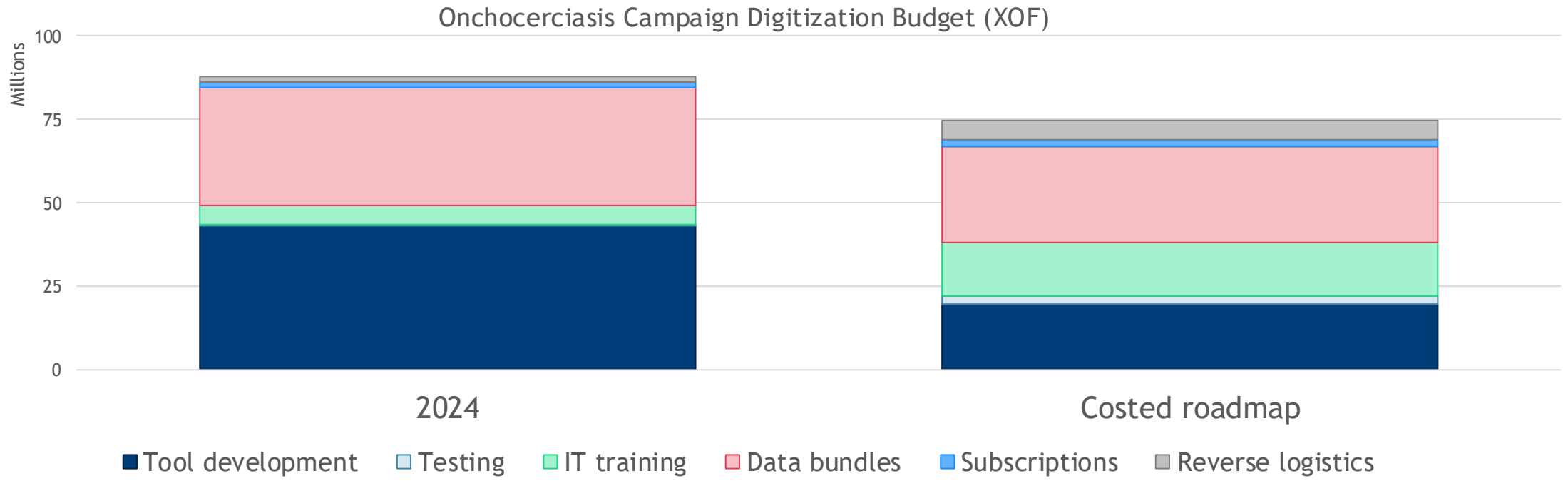
- Thorough analysis of campaign budgets can identify savings across different activities that can be redirected to support digitization investments

Digitization costs appear to be decreasing as infrastructure becomes more established

Campaign cost-efficiencies achieved

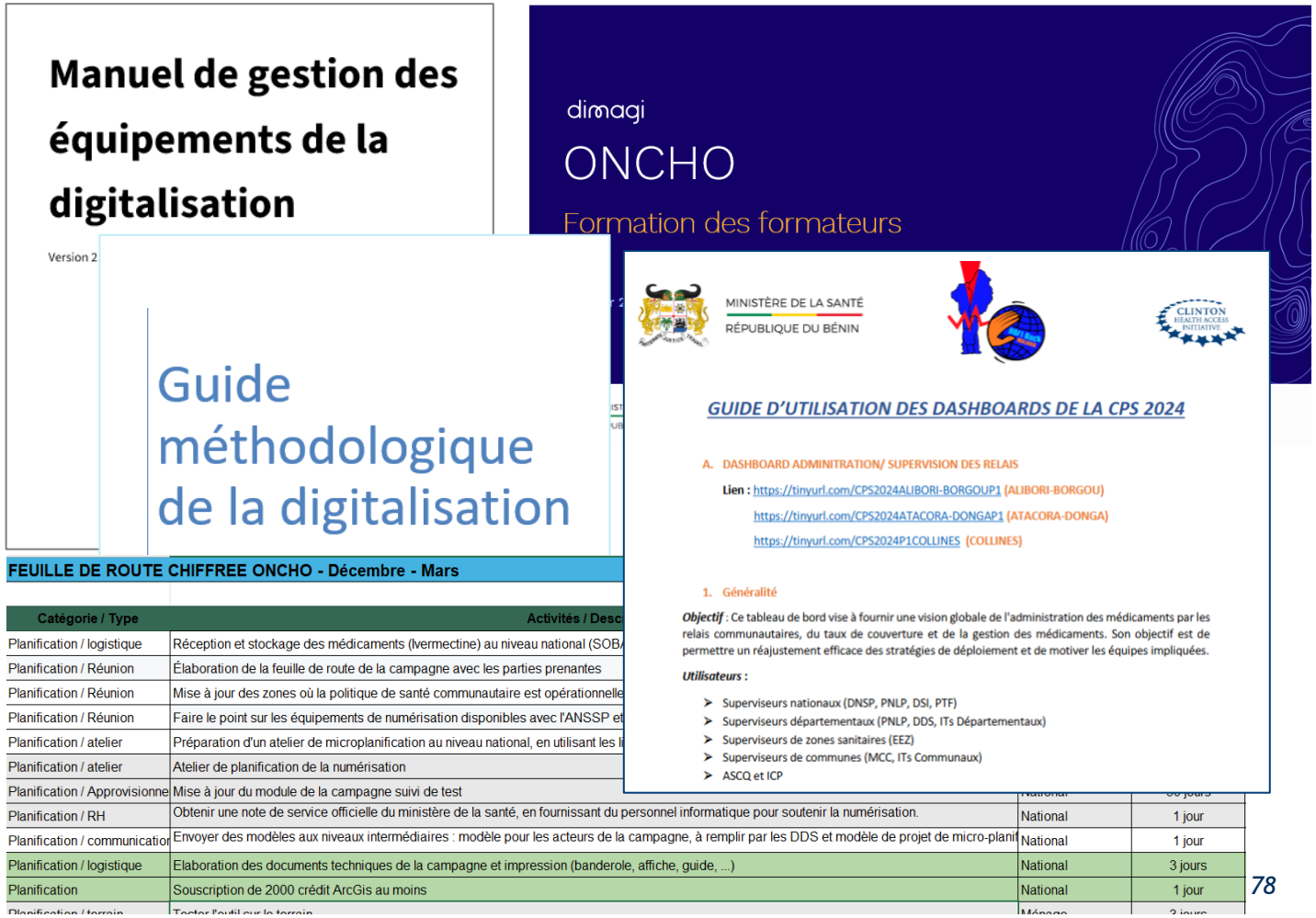
Early data suggests digitization costs are declining across campaign types as:

- Digital infrastructure is established and reused.
- Systems and processes become standardized.
- Technical capacity is built within MoH.



Technical partners supported transition with documentation, capacity building, and typical campaign budgets development

- Comprehensive user guides and training materials developed for dashboard use and AlafiaComm platform implementation.
- Complete sustainability documentation package created, including methodology guides, equipment management procedures, and costed roadmaps for all three campaign types.
- Skills assessment conducted to identify capacity building needs and inform targeted training for digitization staff.



Key success factors supporting campaigns digitization in Benin

WHAT HAS DRIVEN SUCCESS IN BENIN?

- **Government-led approach:** MOH committed to digitization, driving tool selection and implementation.
- **Strategic alignment:** AlafiaComm selection aligned with broader community health digitization goals and existing MOH priorities.
- **Strong culture of data use:** Real-time dashboards and standardized validation processes enable immediate decision-making and course corrections

HOW CAN WE LEVERAGE THESE MOVING FORWARD?

Reinforce the established governance structures with MoH backing to ensure sustained commitment beyond project cycles

Assess tools already prioritized by other programs to leverage existing momentum and create favorable conditions for integration

Invest in real-time data systems and institutionalize data review processes with dedicated funding to maximize digitization value

Key challenges that impeded implementation in Benin

WHAT CHALLENGES – ANTICIPATED OR NOT - WERE WE ABLE TO OVERCOME?

- The specific nature of each campaign and the competing priorities of stakeholders made it difficult, in some places, to have a coherent governance structure in place and to maintain it.
- Complex policy requirements that extended system integration timelines beyond initial expectations.

HOW CAN THESE LESSONS HELP US ANTICIPATE OTHER ISSUES AND ADJUST OUR APPROACH?

Beyond setting up a heterogeneous governance body made up of all the key stakeholders common to all campaigns, establish an ad hoc governance body specific to each campaign.

Build in additional time for legal/regulatory compliance processes when planning system integration

CONTENTS

BACKGROUND AND FRAMING

KANO (NIGERIA)

- Country overview
- Results: *Governance and Capacity | Strength of digitization*
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DRC

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REFLECTIONS

COMMUNITY AND RESOURCES

Kenya

Building on its own eCHIS and digitized Community Health Promoters workforce, Kenya's Ministry Of Health created one integrated, government-owned campaign platform

Landscape in 2021

- Mostly paper-based; **13+ fragmented low-scale digital tools**
- Tools mostly owned and run by partners
- Campaign data siloed, with **minimal linkage to routine systems**

Vision & approach

- **One interoperable platform (eCHIS)** for end-to-end campaigns
- **MOH-led governance,** for coordination and scaling campaign by campaign
- **Integration with Routine Health Systems KHIS** for real-time data use

Technology approach

PLATFORM	**eCHIS** Electronic Community Health Information System, built on CHT	WHY eCHIS	**Already in CHPs' hands** The tool CHPs use daily for routine community service delivery	BENEFIT	**Reuse, not rebuild** MOH reuses its investment; CHPs use one tool

Approach toward scale: MOH phased the rollout, from groundwork in 2022 to sustainable scale from 2025

2022 Groundwork	2023 Design & build	2024 Pilot & training	2025 Scale-up	2026+ Sustainable scale
Landscape assessment	Co-designed workflows	NTD pilot, 2 wards	SCH/STH: 9 counties	Trachoma: 2 Counties
Governance set up	NTD module built	Users trained	SMC & ITN added FGC Trachoma	National Scale Up & integration

Use cases built on one platform

Macro/ micro-planning | Supply chain | Service delivery | Payments | Analytics & dashboards

▼ *built on shared registries* ▼

Household registry | CHW registry | KHIS link

Government leadership, structures and partners

GOVERNMENT (MOH-LED)
Lead: **Division of Community Health Services**
Programmes & agencies: **NTD, Malaria, MOH ICT, KNPHI, DHA**

STRUCTURE
MOH-led Secretariat + eCHIS TWG

PARTNERS

WHO | Medic | Amref | AIHD | Sightsavers | Operation Eyesight | inSupply Health | CRS | Lwala | Living Goods

FINDINGS:

Governance & capacity

Success hinged on government leadership: MOH brought all players and stakeholders to one table to build consensus, co-design, and track results together

eCHIS is anchored within DCHS, which gave the government a clear lead role from design to scale-up

ICD Secretariat
Government + partners

Jointly steered priorities and decisions in regular meetings

MOH ICT & DHA
Technology & devices

Provided CHP phones; architecture, hosting and standards

Partners
Technology & implementing

Build & maintain the tool, training & rollout

DCHS
eCHIS anchored here

Primary driver: convenes and aligns all players

MOH programmes
NTD, Malaria, Immunization

Set campaign needs and co-designed the workflows

Counties
CHMTs/ SCHMTs

Led rollout, supervision and CHP mobilization

CHPs & CHAs
End users

Tested the tools in the field and shaped thought process

WHY IT WORKED

- **One anchor:** eCHIS sits within DCHS, giving the work a clear government driver
- **One table:** government and partners sat together in the Secretariat
- **Shared design:** what was co-designed was co-owned and adopted

CAPACITY BUILT AT EVERY LEVEL

105
national staff

151
county focal persons

12,000+
CHPs & CHAs

Takeaway: digitization succeeds when government leads and every stakeholder co-owns the design

FINDINGS:

Strength of digitization & integration

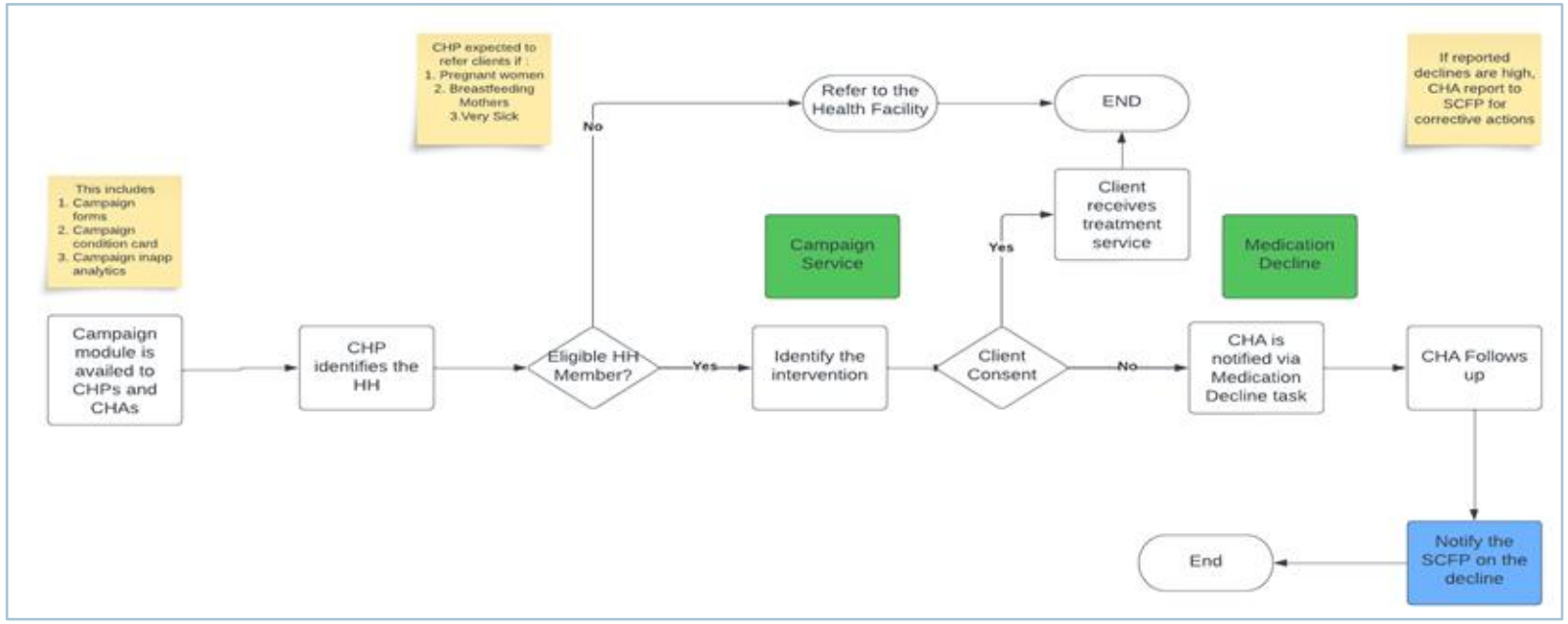
Requirements came from the users: MOH co-designed the campaign modules with key players and stakeholders and end users

Designed with the people who run and deliver campaigns, then refined in the field

HOW THE MODULES WERE CO-DESIGNED

1. **Co-design workshops**
   NTD, malaria programs, county teams, and end users (CHPs/CHAs) mapped workflows together
2. **Shared specifications**
   Household registration, treatment tracking and commodity management: a common core re-used across campaigns
3. **Test in the field**
   User acceptance testing and field observation during live deployments
4. **Fix and iterate**
   Gaps missed on paper were fixed between successive campaigns

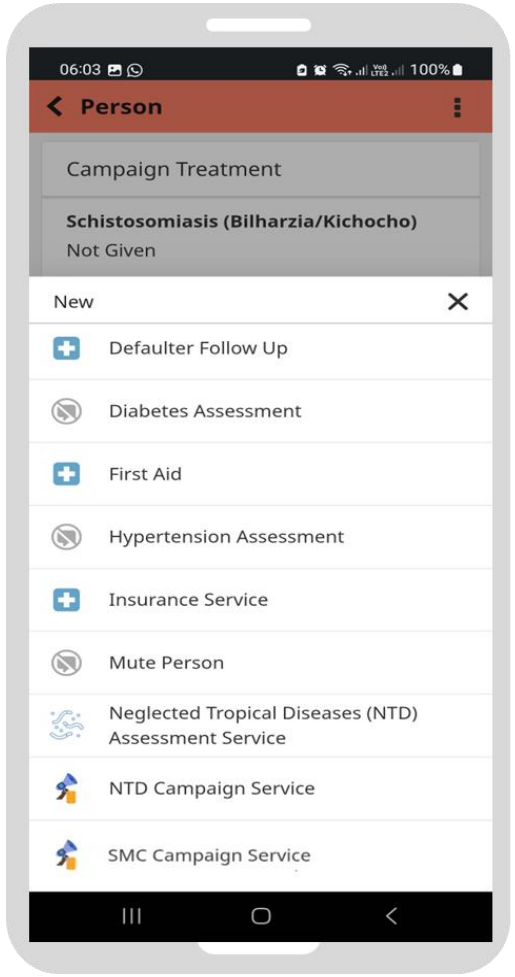
EXAMPLE: NTD CAMPAIGN WORKFLOW, AS SPECIFIED FOR THE eCHIS MODULE

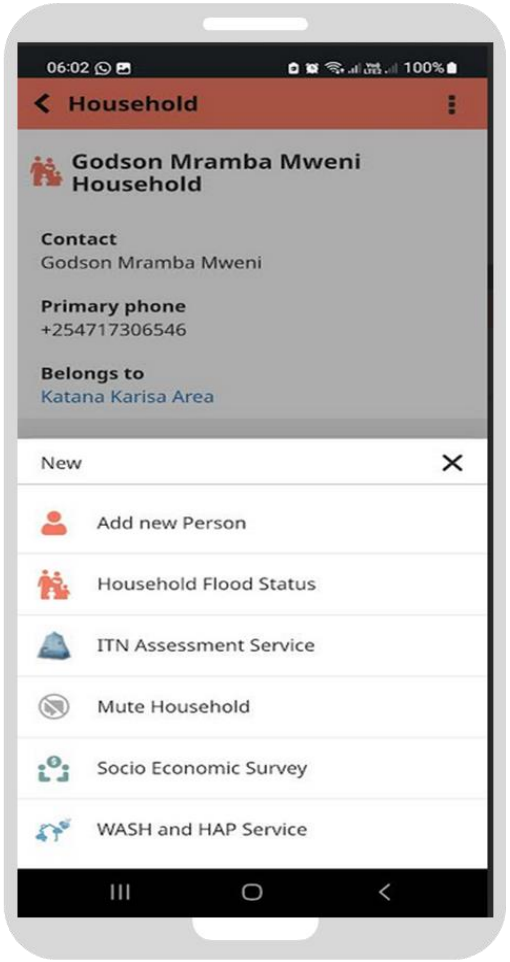


The CHP identifies the household and checks eligibility; with consent, they provide and record treatment. Declines trigger a CHA follow-up task, and the CHA reports high declines to the sub-county focal person (SCFP) for corrective action.

One integrated government platform now covers key campaign use case, from microplanning to payment

Built once in eCHIS and reused across NTD, malaria (SMC) and ITN campaigns

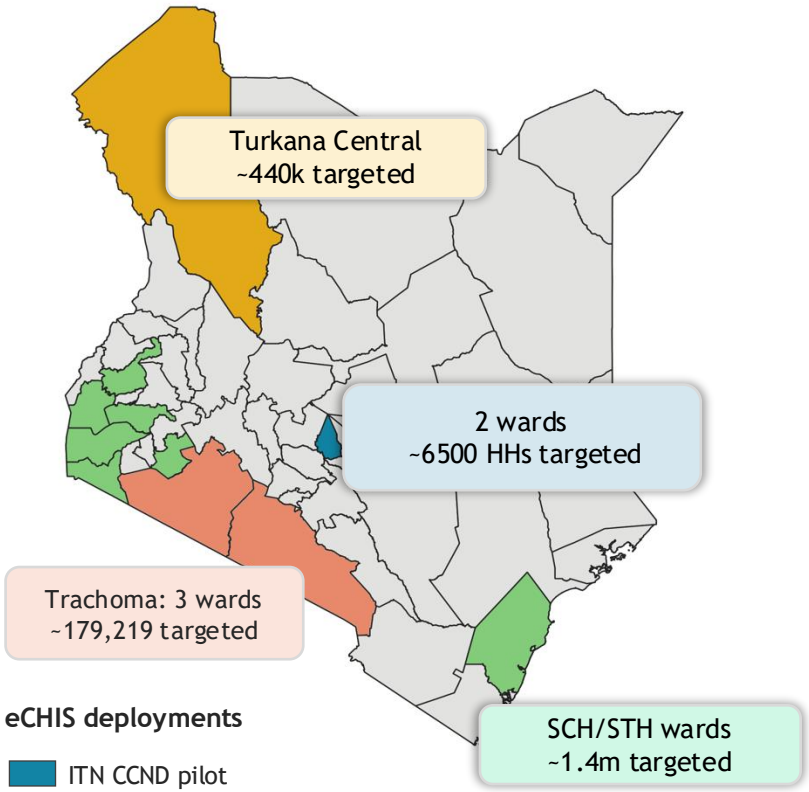




1	**Microplanning** Auto-calculates commodities, workforce and budget	Ready
2	**Campaign activation** Sub-county switches modules on for chosen wards and dates	Ready
3	**Household registry** Households and members: the shared campaign denominator	In use
4	**Service delivery** Treatment, adverse events and medication declines	In use
5	**Task management** CHP and CHA follow-ups: declines, adverse events, missed doses	In use
6	**Commodity management** Issue, receive, track and return stock	In use
7	**Analytics & dashboards** In-app coverage for CHPs; Superset dashboards for supervisors and stakeholders	In use
8	**Digital payments** CHP self-assessment → CHA verification → payroll in 6 days	Ready
9	**National HMIS/data repository integration** NTD link to KHIS and NTD IDB in progress	Partial

Three campaign workflows (NTD MDA, SMC, ITN CCND) now run on eCHIS

Scale came through the existing CHP workforce, with no new cadre or parallel tools



SCALE

3 campaign types

9 counties

29 sub-counties

12,040 CHPs (11,276) & CHAs (764) trained

REACH: PEOPLE AND HOUSEHOLDS TARGETED

~1.4M people targeted
SCH/STH mass drug administration (NTD)

~179k people targeted
Trachoma MDA (NTD), 3 wards

~440k people targeted
Malaria SMC, Turkana Central

~6,500 HHs targeted
ITN CCND pilot, 2 wards

LESSON FOR SCALE-UP

- Brief counties and implementing partners well before launch
- Use pre-deployment checklists: devices, mapped boundaries, baseline registration

A new model: eCHIS lets MOH deliver campaign interventions through routine CHP visits

BEFORE: MASS CAMPAIGN

Standalone 5-day campaign with separate teams, logistics and paper tools

NEW: ROUTINE DELIVERY ON eCHIS

CHPs deliver during regular household visits; every contact recorded and tracked in real time

TWO PILOTS TESTED THE MODEL

NTD drug delivery through routine visits

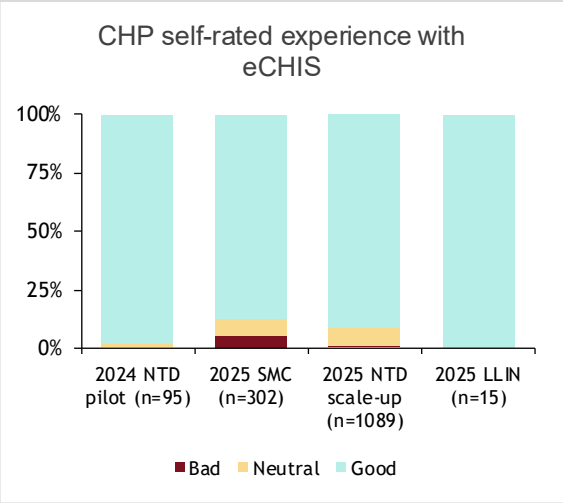
TESTED	NTD medicines delivered over 30 days during regular CHP visits, instead of a 5-day campaign	
WHY	A more cost-efficient delivery model	
RESULT	Mixed uptake	High coverage in some areas, struggles in others
LEARNING	Needs subnational and partner buy-in, plus close real-time monitoring	

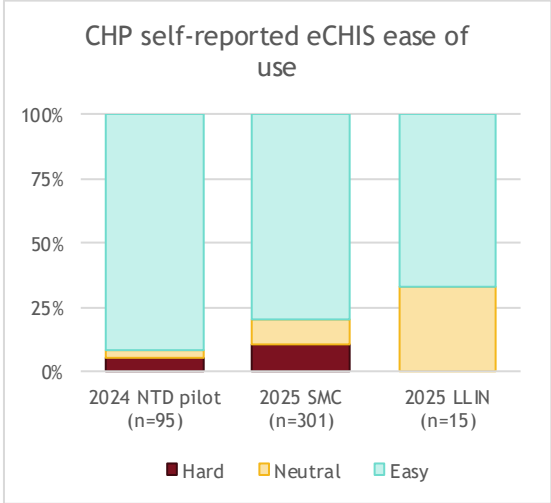
ITN net assessment through routine visits

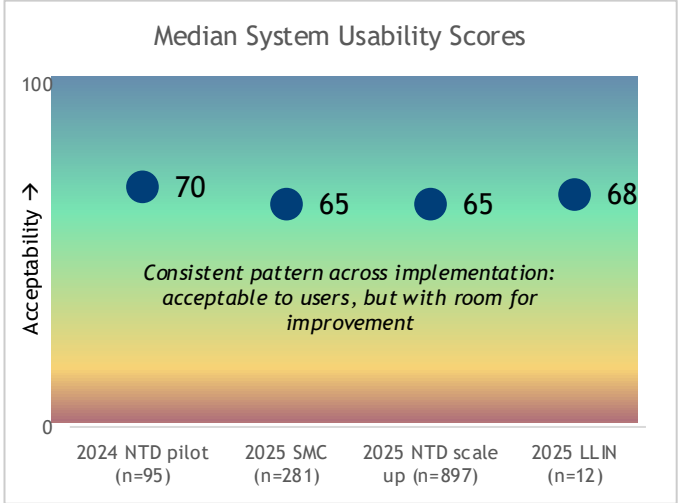
TESTED	CHPs check net condition and issue replacement vouchers during routine visits	
WHY	Prepare for less funding for mass ITN campaigns	
RESULT	Feasible	High voucher allocation; redemption still needs work
LEARNING	CHP training and community sensitization drive redemption	

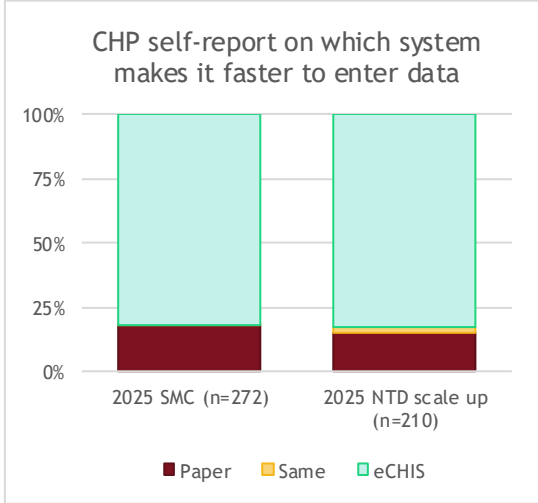
Why this matters for MOH: as funding for mass campaigns shrinks, routine delivery on eCHIS offers a lower-cost path, but only with strong subnational buy-in and real-time monitoring.

CHPs rate eCHIS acceptable, easy to use and faster than paper, and field challenges are driving targeted improvements









WHY CHPs LIKE IT: IN THEIR WORDS

> *"Improved equity… because it is a formula, people have less complaints."*

> *"It reminds me about unfinished tasks."*

> *"The data can't get lost."*

> *"Easy to see which households have been served."*

WHAT FIELD OBSERVATION SHOWED

Connectivity
Data syncing was the most common challenge

Workflow
Form logic issues, slow GPS, no record editing

Devices
Old or faulty phones; short battery life

Adoption
Digital literacy gaps; new CHPs under-trained

WHAT IMPROVEMENTS TARGETED

- Device whitelisting with Safaricom; county data bundles
- System iterations: form fixes, faster GPS capture, editing
- Device replacement for old and faulty phones
- Targeted supervision, refresher training and mentorship

Connectivity, devices and system stability were the main barriers to real-time data

Each challenge CHPs reported has an MOH-owned response under way

CHALLENGE	WHAT CHPs REPORTED (2025 SURVEYS)	MOH RESPONSE
Connectivity & syncing	**54%** of NTD scale-up CHPs had slow syncing **32%** of SMC CHPs	• Re-evaluate and finalize Safaricom device whitelisting • Formal county commitments to CHP data bundles
Devices & battery	**54%** of NTD CHPs ended the day at ≤20% battery	• Device replacement and upgrade strategy (MOH ICT, counties, partners) • Device management policy and tools
App & server stability	**59%** of NTD CHPs had the app freeze or crash **2 mo.** longest server outage	• Structured app testing before every campaign • Server capacity monitoring and incident response
Use & training	**12–20%** felt training was insufficient **<5%** of NTD records had GPS	• Targeted support for CHPs with limited digital literacy • Explain why GPS matters; stop it being switched off

Core components and training were reused across programmes, making each new deployment faster

Build once, reuse many times: each campaign only adds its own specific pieces

WHAT WAS REUSED

Household & person registration
Same module across NTD, SMC and ITN campaigns

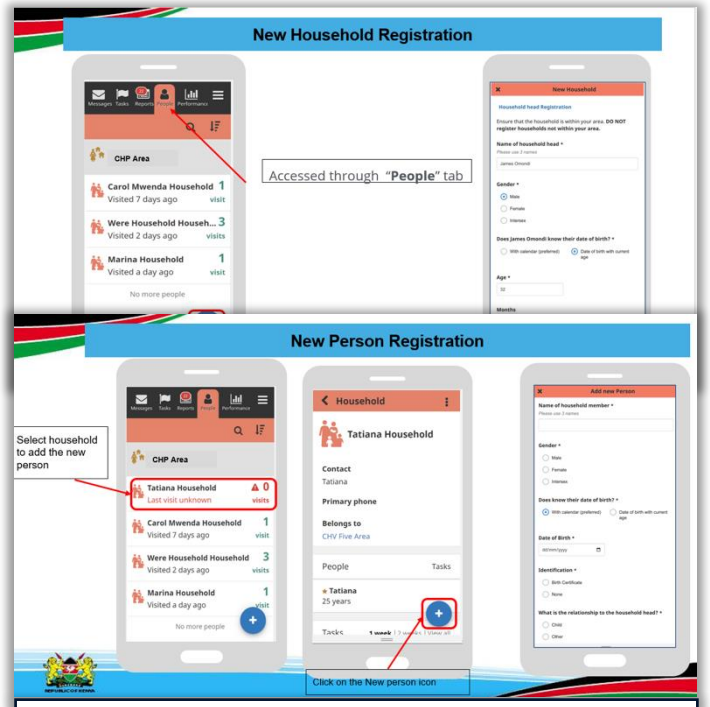
Superset dashboard architecture
One design, adapted per campaign

Training materials
In the MOH Virtual e-Learning Academy and partner training packages

LESSON

Bring other programmes into design, dashboard and training planning early, even before their campaign is in scope, so components are built for reuse from the start

REUSED COMPONENTS IN eCHIS



Household & person registration



Superset dashboards

Why it matters: each new campaign reused the registration, dashboard and training foundations, so it needed less design, build and training effort.

FINDINGS:

Data quality & use

eCHIS proved it can improve data quality and use practices that enable real-time campaign adjustments to improve coverage

Goal: better data quality and data-use routines that let managers adjust campaigns in real time to improve coverage

HOW FAR HAS KENYA COME?

Fewer transcription errors

Documented in NTD campaigns

Real-time dashboards

Superset tracks coverage and commodities

Data-directed supervision

Coverage gaps found during NTD and SMC campaigns

Geospatial mapping

CHU catchment areas mapped to administrative boundaries

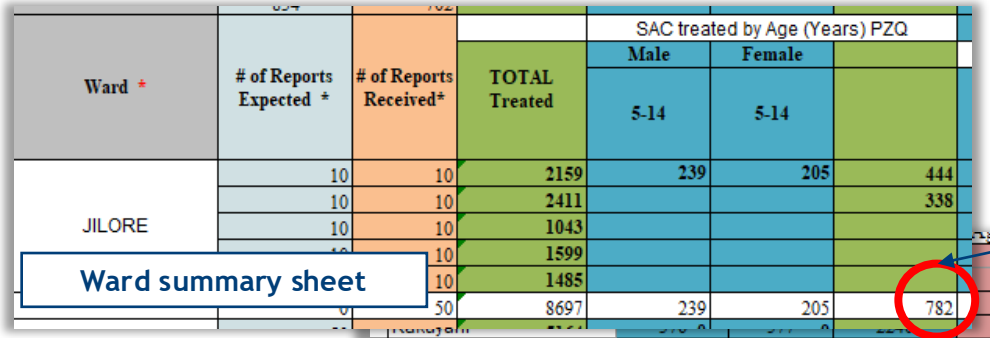
KEY LESSONS

1. Quality gains depend on connectivity and system performance; technical issues create new data problems
2. Set data review routines and decision owners before launch so dashboards drive action
3. Build a data-use culture early: managers practise with dashboards and clear SOPs

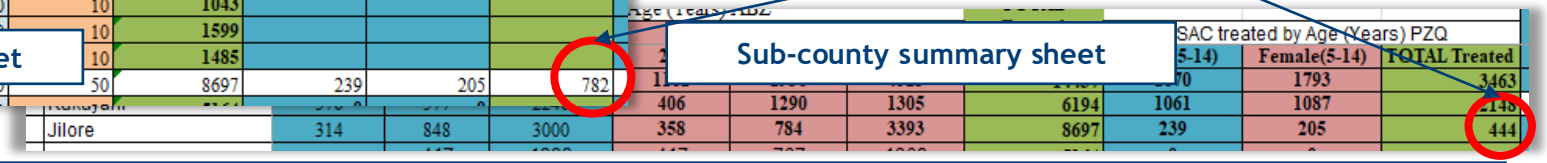
WHERE NEXT

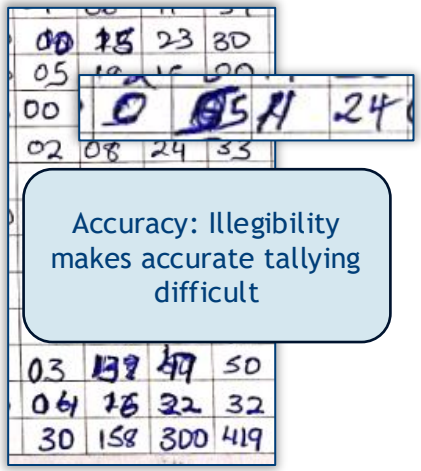
- Fix system performance and connectivity for truly real-time data
- Improve dashboards so eCHIS data is easy to see and use
- SOPs for data use: how often to review, and who decides

The paper baseline: errors in campaign data that eCHIS is designed to remove

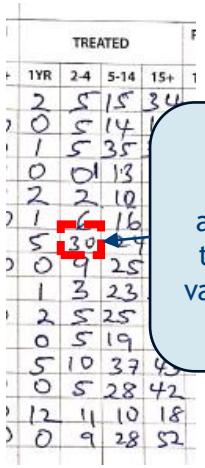


Accuracy: Lack of validation formulas in paper forms leads to tallying and calculation errors





Accuracy: Illegibility makes accurate tallying difficult



Accuracy: No automated checks to flag anomalous values for follow-up



Timeliness: Multi-day delays from CHP to CHA to SCHRIO (where data is digitized) prevent real-time campaign data use

ALSO SEEN ON PAPER

- Missing CHA assignments block supervisory follow-up
- No way to see which CHPs failed to submit
- Inconsistent tablet accountability data
- Totals that don't match across sources, so coverage can't be confirmed

Ward 1 STH treated:
166,988 in household summary
vs 137,401 in CHP reports

Source: Malindi Sub-County routine deworming reports (NTD, non-eCHIS areas)

eCHIS removes common paper errors and shows supervisors exactly where problems are

Data quality of Rabai SCH/STH campaign summary: Summary paper-based reporting done at CHU level						
	Number of CHUs with all reports	STH total to age group concordance	SCH total to age group concordance	STH total treated to ABZ concordance	SCH overall total matches weekly summary total	STH total matches weekly summary total
Week 1	76%	93%	76%	79%	n/a	n/a
Week 2	76%	83%	79%	76%	n/a	n/a
Week 3	69%	100%	93%	83%	n/a	n/a
Week 4	72%	100%	83%	97%	n/a	n/a
Total	n/a	n/a			No	No

Formula error triggered incorrect totals

No visibility which CHP is struggling

SUPERSET (Digitized) VIEW

chu_name	chp_area_name	target_pop	treated_pop	coverage(%)	1 - 4 yrs meb	5 - 14 yrs meb	15+ yrs meb	1 -4 yrs alb	5 - 14 yrs alb	15+ yrs alb
Bondora Community Health Unit	CHP name Area	374	49	13.1	0	0	0	5	6	38
Bondora Community Health Unit	CHP name Area	348	158	45.4	0					90
Boyani Health Community Health Unit	CHP name Area	638	227	35.58	0					134
Boyani Health C	CHP name Area	548	258	47.08	0		0	45	42	171
Boyani Health C	CHP name Area	453	188	41.5	0	0	0	21	59	108
Boyani Health C	CHP name Area	436	137	31.42	0	0	0	13	38	86
Boyani Health C	CHP name Area	431	207	48.03	0	0	1	23	31	152
Boyani Health Community Health Unit	CHP name Area	378	121	32.01	0	0	0	17	21	83
Boyani Health Community Health Unit	CHP name Area	372	61	16.4	0	0	0	9	20	32

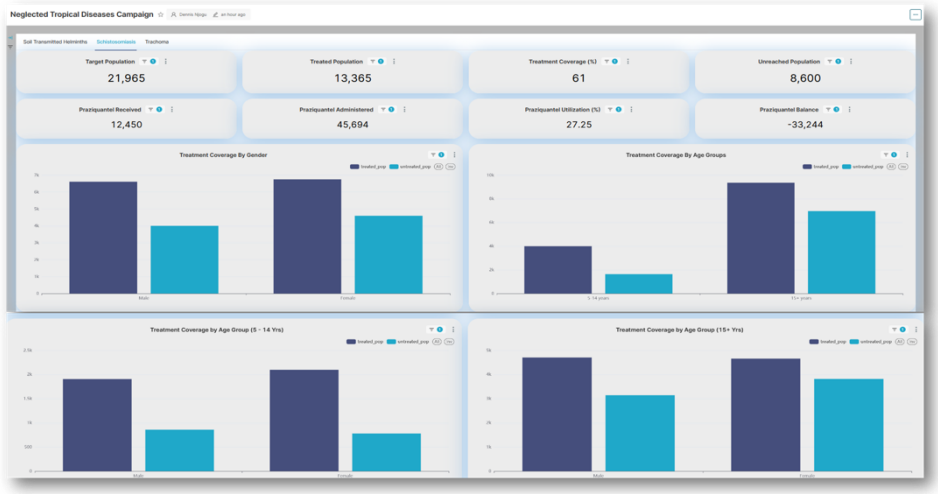
Data available at CHP level to detect where issues are occurring

Automatic totals of age disaggregation – no sum errors

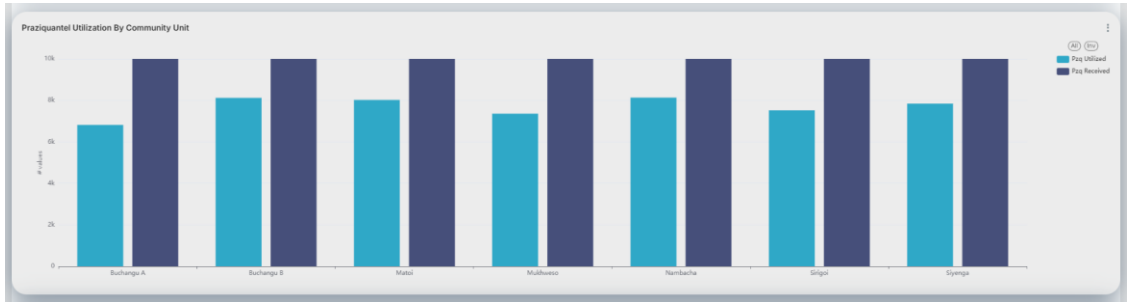
Real-time dashboards gave supervisors CHP-level visibility for the first time

Coverage, commodities and tablet accountability visible down to each CHP

Campaign dashboard: coverage by age and sex, targets vs treated



Tablet accountability: praziquantel received vs used, by community unit



CHP performance tracker: coverage per CHP, flagged for follow up

CHP Performance Tracker

Search 56 records...

county_name	sub_county_name	chu_name	chp_area_name	target_pop	treated_pop	coverage(%)	5 -14 yrs prazi	15+ yrs prazi
Bungoma	Bumula	Kabula B Community Health Unit	Fatuma Zaidi Area	791	523	66.12	170	353
Bungoma	Bumula	Watoya B Community Health Unit	Susan Wabwile Area	778	384	49.36	125	259
Bungoma	Bumula	Watoya B Community Health Unit	Simon Simiyu Area	720	260	36.11	85	175
Bungoma	Bumula	Kabula B Community Health Unit	Phylis Waraba Area	619	442	71.41	134	308
Bungoma	Bumula	Kabula B Community Health Unit	Stella Barasa Area	593	461	77.74	142	319
Bungoma	Bumula	Kabula B Community Health Unit	Dorcus Makokha Area	587	326	55.54	92	234

Dashboards in use: what CHAs reviewed (2025 NTD, n=249)

64%
CHP performance

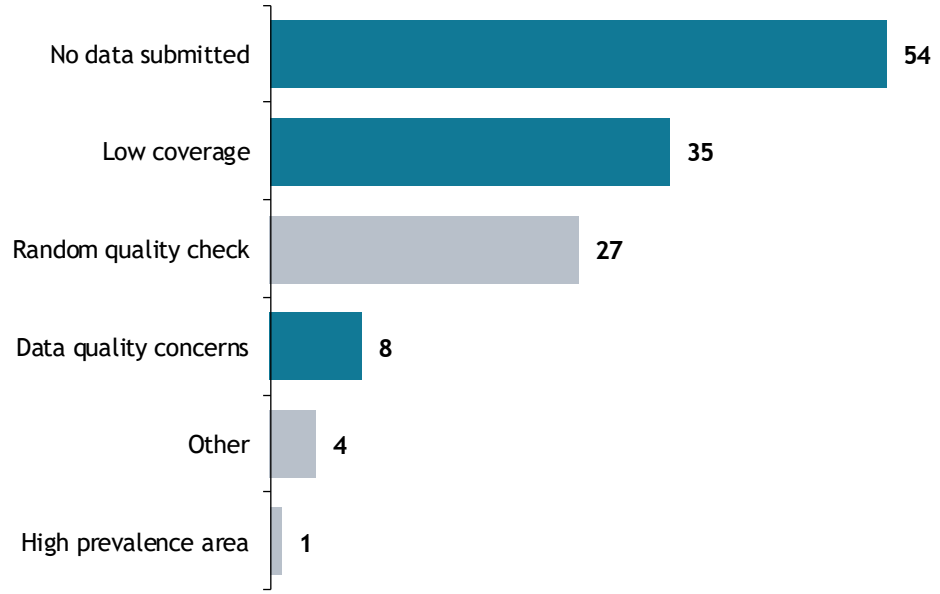
Population numbers	47%
Commodity use	45%
Treatment coverage	42%
Medication declines	26%

Lesson: dashboards must stay up during campaigns and be simple, with clear guidance, so supervisors can act on granular data

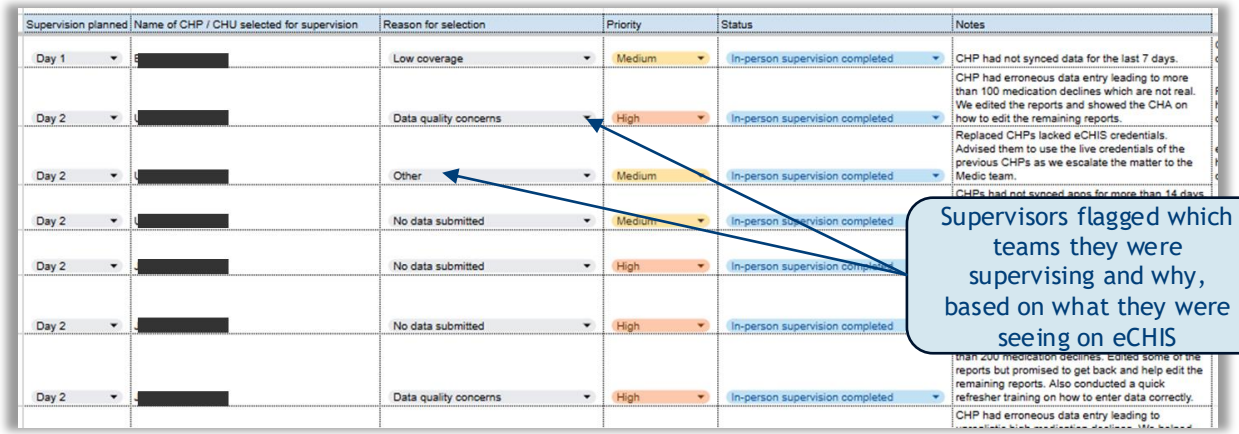
Supervisors used eCHIS data to decide where to go, instead of ad hoc visits

A new tracker linked every supervisory visit to an eCHIS indicator (2025 NTD, Lake and Coast regions)

Why supervisors chose a CHP (SCH/STH 2025, visits)



The supervision tracker: each visit logged with its eCHIS reason



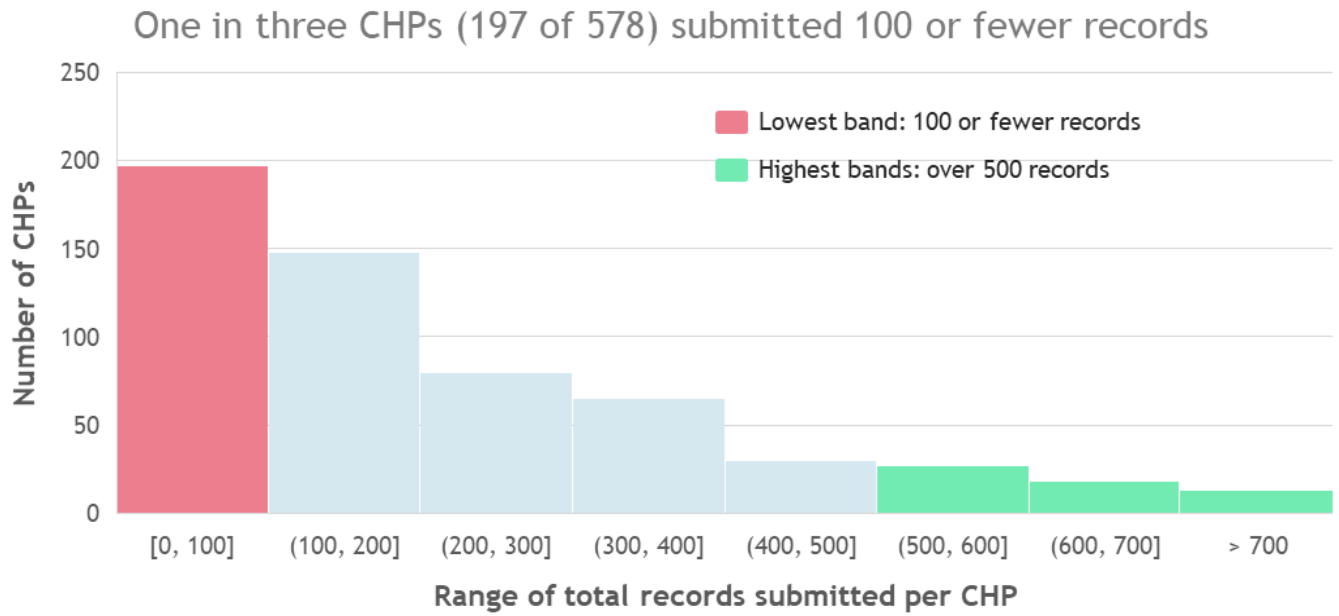
76% of visits were triggered by eCHIS data (no submissions, low coverage, data quality), not chosen at random

Lesson: data alone isn't enough; agree who acts on each data trigger, and how fast, before the campaign starts

Using eCHIS to capture delivery information allows supervisors to view data at the CHP level, facilitating targeted support

Aggregated digital data entry often reflects median performance, which means granular performance issues cannot be diagnosed

Number of CHPs by total records submitted (SMC Turkana 2025, 578 CHPs)



Every CHP has a target
Households to visit, based on catchment size

Aggregates hide the extremes
Median performance disguises CHPs well below or above target

Low performers risk gaps
Too few records may mean children missed; only CHP-level data shows why

High performers mask gaps
Roll-ups hide uncovered areas, as paper did; eCHIS keeps each CHP visible

Lesson: eCHIS changes the model of supervision; CHP-level data triggers more granular data use, which can improve coverage

FINDINGS:

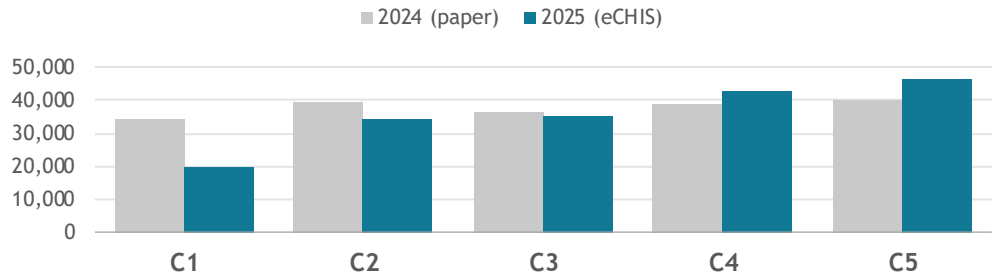
Coverage & operational improvements

Digitization shows promise for coverage, but mixed early results also highlight where both eCHIS and broader campaign delivery need improvement

A survey-based baseline would show what "true" coverage was before digitization; without one, comparisons to paper are hard to interpret

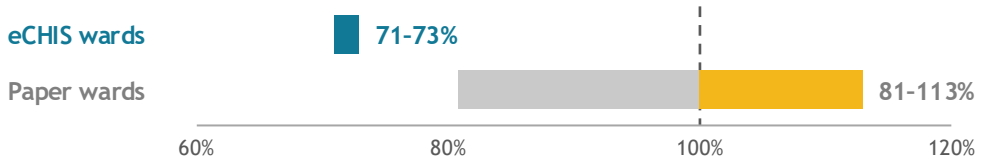
SMC, Turkana 2025

Children recorded as treated per cycle. Implementation challenges in cycle 1 gave way to high coverage in cycles 4 and 5.



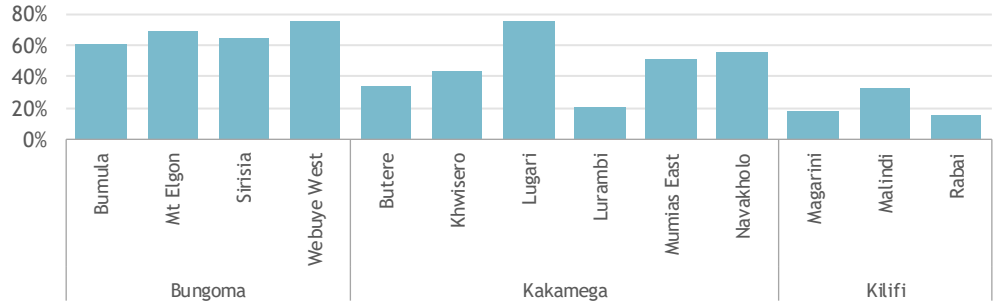
NTD, Kakamega 2024

eCHIS wards reached 71–73%, compared with 81–113% in paper wards. Paper coverage above 100% (amber) points to denominator problems.



NTD scale-up 2025

STH coverage by sub-county, using the model of delivering via CHP primary health care visits. Coverage varied widely, hypothesized to be due to uneven uptake between counties.



WHAT'S CAUSING MIXED RESULTS?

1. Implementation challenges

In SMC cycles 1–2 and NTD campaigns, technical issues and connectivity prevented full uptake, which impeded coverage

2. Data quality issues

Paper-based data may overestimate coverage; without survey-based coverage we don't know "true" coverage

3. Emerging data use

A key link in the theory of change for how more complete, timelier data improves coverage

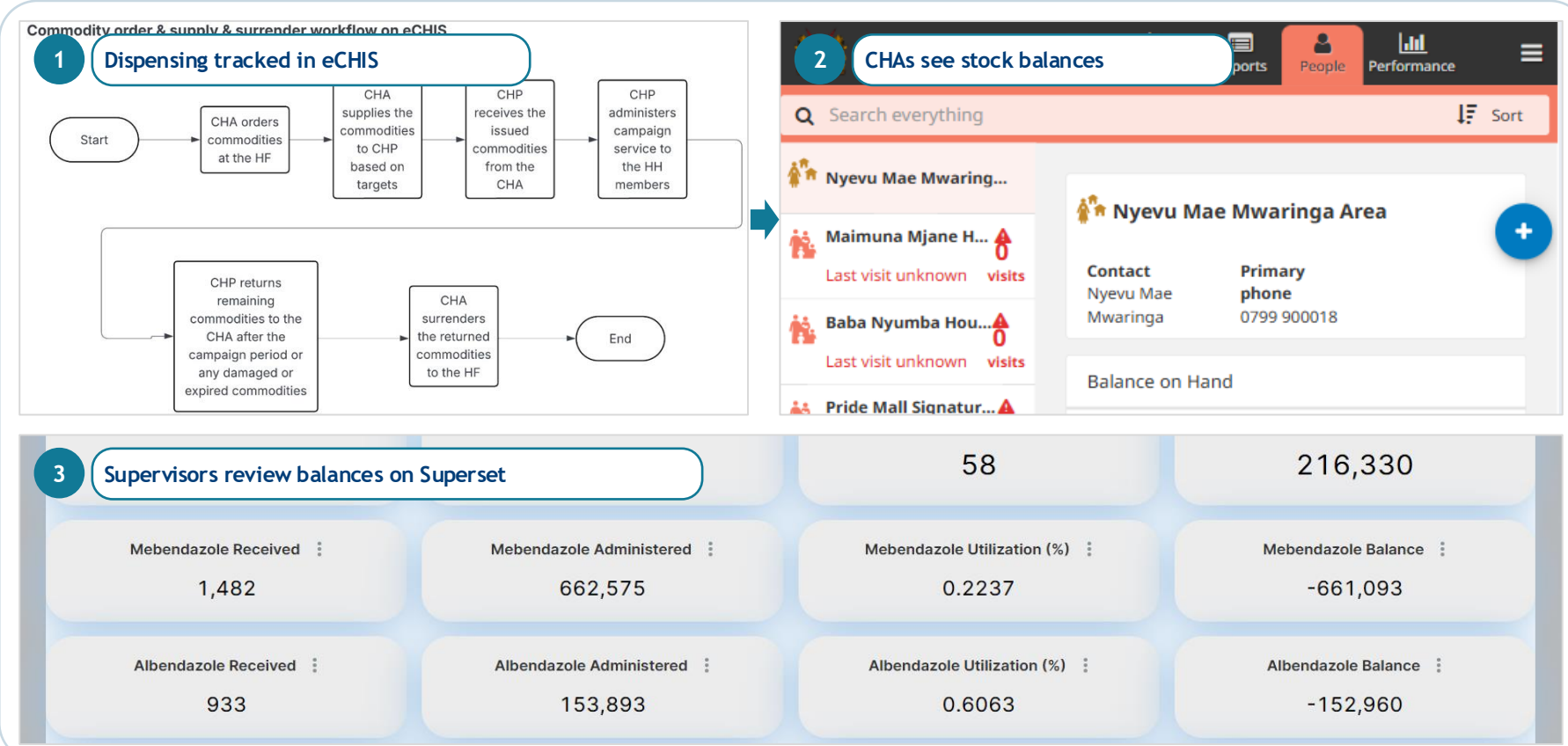
4. Denominator issues

Coverage above 100% and reported population discrepancies make "true" coverage hard to calculate

eCHIS gives MOH visibility of last-mile stock that paper never had

Better recording and use of this data will allow improved allocation, movement, and less wastage

COMMODITY VISIBILITY, FROM CHP TO SUPERVISOR



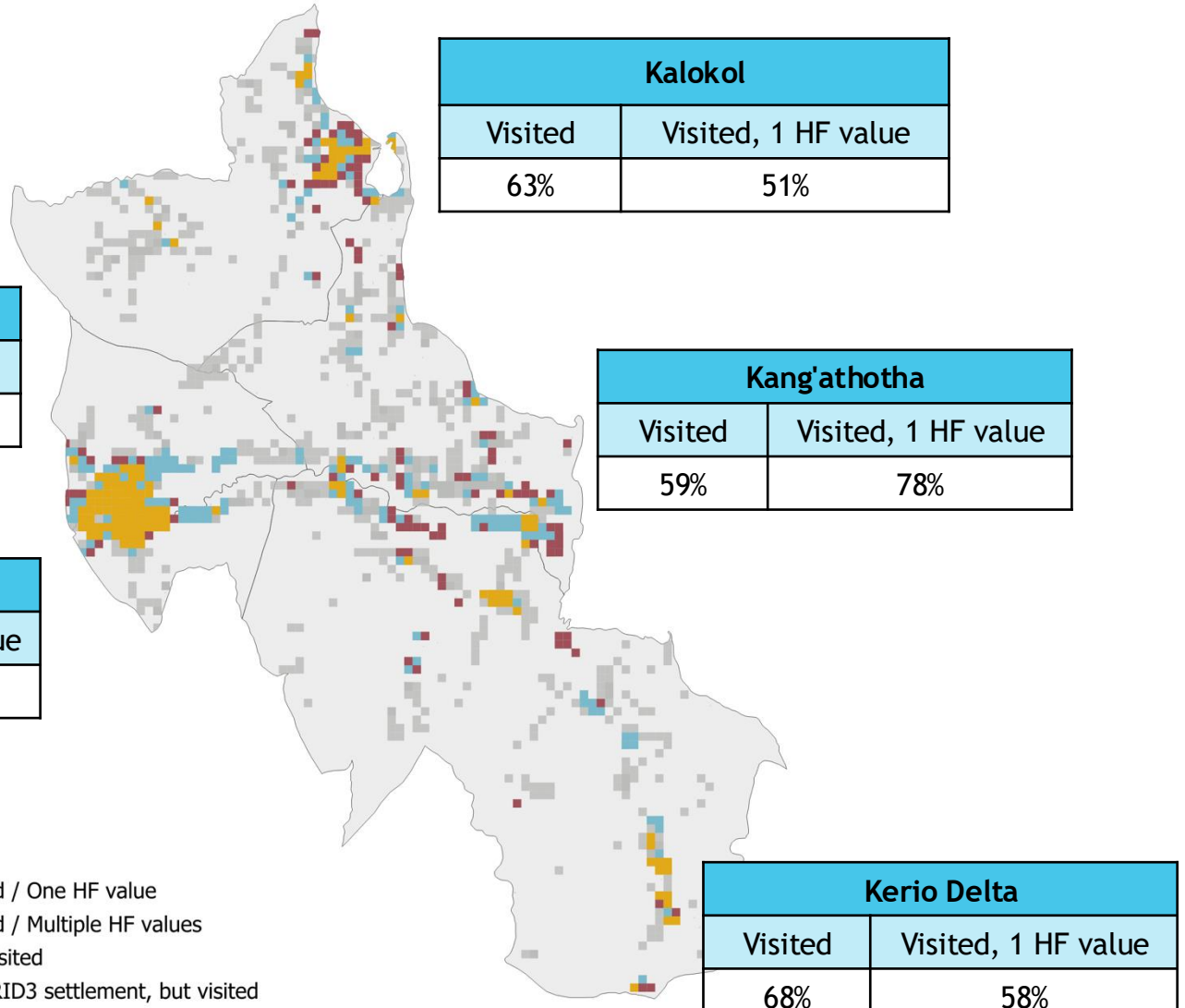
What eCHIS adds

- Stock tracked at the last mile
- CHA-level balances in real time
- Supervisor view of received vs administered

Make it compulsory

Require recording of receipt and return before service delivery. If it's optional, old ways of working win and stock won't get recorded.

Granular coverage estimates are only as reliable as the shared understanding of catchment boundaries between planners and campaign workers on the ground



Kalokol	
Visited	Visited, 1 HF value
63%	51%

Kanamkemer	
Visited	Visited, 1 HF value
93%	29%

Kang'athotha	
Visited	Visited, 1 HF value
59%	78%

Lodwar Township	
Visited	Visited, 1 HF value
86%	55%

Kerio Delta	
Visited	Visited, 1 HF value
68%	58%

- The map shows Turkana Central divided into GRID3 settlement grid squares, color-coded by whether each settlement was visited during the SMC campaign and whether visits within each grid square were consistently attributed to a single health facility catchment area.
- Grid squares visited with all records attributed to one health facility are shown in blue, those with records attributed to multiple health facilities in yellow, unvisited settlements in red, and visited areas without a GRID3 settlement match in grey.
- The gap between 'visited with a single health facility value' across sub-counties, ranging from 29% in Kanamkemer to 78% in Kang'athotha, reflects inconsistent understanding among campaign workers of which health facility catchment area they are operating in. Without that consistent attribution, it becomes difficult to roll up coverage to the health facility level.

Kenya is making tangible progress toward a shared, dynamic population denominator registry that lives in eCHIS

Counties with sustained eCHIS use are closing in on KNBS estimates, and campaigns nudge registration upward

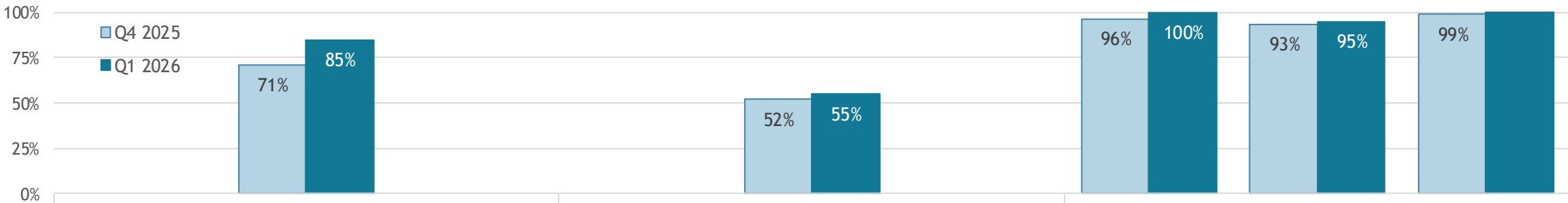
WHERE KENYA IS

- Kenya has adopted the eCHIS registry as the shared source of population denominator data
- The registry is not yet complete in many counties; community health and campaigns are strengthening it by registering missing households and curating the registry
- MOH reviews progress regularly, and each campaign pushes registration up

WHAT THE GRAPH SHOWS

- Some counties are closing in on the KNBS estimate, suggesting very extensive registration: proof of concept
- Counties well below the estimate need more registration, or the KNBS estimate may be off; either way, validating against the registry matters
- Registration rose in every county; campaigns nudge it up toward a more accurate denominator than PHC registration alone

eCHIS household registration as a share of KNBS household estimate, selected counties (Q4 2025 vs. Q1 2026)



Use of eCHIS for multiple campaigns drove registration growth, with remaining gap potentially reflecting continued need for registration and/or uncertainty in KNBS estimates

Use of eCHIS campaign module surfaced an ongoing registration shortfall, with remaining gap likely reflecting a combination of under-registration and uncertainty in KNBS estimates that requires further investigation

Continued use of eCHIS across routine and campaign work maintains a living registry, with ongoing adjustments reflecting real population change rather than convergence toward a static official estimate

Digital data is revealing coverage and denominator gaps that paper reporting hid

Lower coverage in eCHIS may be reality that paper missed, or data-capture gaps; telling them apart takes time

WHAT THE PILOTS SHOWED

71–73%
eCHIS wards

NTD, Kakamega 2024
vs 81–113% in paper wards; paper above 100% points to denominator problems

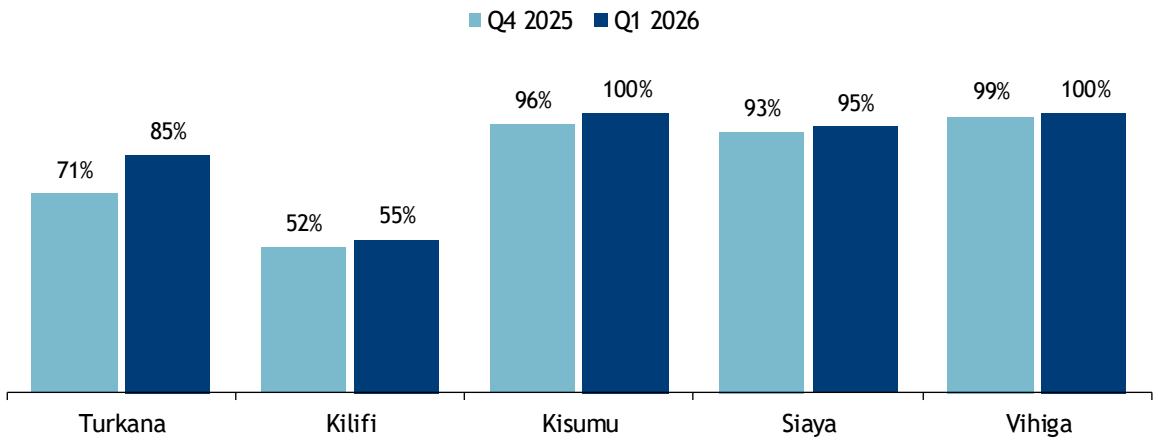
Rounds 3–5
strong coverage

SMC, Turkana 2025
comparable to the previous year's paper results

Gaps
paper vs eCHIS

NTD scale-up 2025
coverage also varied in non-eCHIS wards: denominators and targeting matter

TOWARD ONE SHARED DENOMINATOR



eCHIS household registration as a share of KNBS estimate. MOH adopted the registry as the shared denominator, and each campaign adds households (>5% rise last quarter)

Lesson: digital data alone doesn't raise coverage; it needs supervision and a data-use culture to act on what it reveals

KEY TERMS

- NTD — Neglected Tropical Diseases
- SMC — Seasonal Malaria Chemoprevention
- KNBS — Kenya National Bureau of Statistics
- eCHIS — Electronic Community Health Information System

What Kenya’s experience means going forward

WHAT DROVE SUCCESS

- A government-owned eCHIS platform and trained CHP workforce already in place
- MOH-led governance with real decision-making authority
- Co-designed, field-tested modules reused across programmes

WHAT HELD US BACK

- Server outages and app instability
- Connectivity, device and battery gaps
- Leadership turnover at national and county levels

GOING FORWARD: THREE PRIORITIES

01

Build for reuse

Design every new campaign on the existing eCHIS platform and CHP workforce

02

Fund the foundations first

Size and fund servers, devices and data bundles before campaigns, not after problems appear

03

Protect MOH governance

Sustain the ICD Secretariat’s mandate and position-based roles to scale without partner dependency

The bottom line: build on what already exists, fund the foundations first, and keep government in the lead.

CONTENTS

BACKGROUND AND FRAMING

KANO (NIGERIA)

- Country overview
- Results: *Governance and Capacity* | *Strength of digitization*
- Impact: *Data quality* | *Data Use* | *Coverage* | *Resource requirements*

DRC

- Country overview
- Results: *Governance and Capacity* | *Strength of digitization*
- Impact: *Data quality* | *Data Use* | *Coverage* | *Resource requirements*

BENIN

- Country overview
- Results: *Governance and Capacity* | *Strength of digitization*
- Impact: *Data quality* | *Data Use* | *Coverage* | *Resource requirements*

KENYA

- Country overview
- Results: *Governance and Capacity* | *Strength of digitization*
- Impact: *Data quality* | *Data Use* | *Coverage*

REFLECTIONS

COMMUNITY AND RESOURCES

This investment built the proof of concept necessary to pinpoint what works in practice to integrate and digitize campaigns at scale

Theory of change

Digitization can serve as a real **catalyst to improve health campaign coverage and outcomes when paired with deliberate investments** in governance, local technical capacity, cross-program coordination, and data use structures and processes



**Coordinated governance and institutional capacity underpin successful integration*
***Integrated digitization reduces cost of identifying and closing coverage gaps*

Theory in practice

What are the **conditions that must be in place for digitization to not only work but sustain** beyond external support? What aspects should be considered core to a **replicable framework** for success?

- True ownership & governance
- Systems built around campaign workflows and enabling infra
- A data use culture that is routine and enables action
- Cross-country learning & global resources

Well-planned institutional governance & ownership facilitated smoother, faster implementation and is better positioned to hold long term

Conditions for success:

True governance & ownership

Breaking from vertical, siloed digitization is an uphill battle

- Secure senior-level champions who can establish cross-cutting authority through formal mandate
- Link to existing strategic initiatives where momentum exists

Embedding coordination in existing structures accelerates progress

- Embed coordination in bodies that already make decisions rather than creating new structures
- Fund the coordination work: meetings, documentation, follow-through

Government needs operational infrastructure to manage day-to-day implementation

- Assess what your cross-cutting body can currently handle (devices, hosting, technical support) and build a clear roadmap to build capacity
- Put operational structures in place: device management protocols, vendor contracts, technical SOPs

Exemplar: Benchmarks for governance maturity in Benin

Co-creating an operational plan and budget for IDHC at outset and course correcting to account for challenges to stability over time is the model approach for durable governance & ownership.

Benin embedded governance through ministerial decree and maintained success through leadership turnovers after redefining roles by position. **A dedicated transition year and progressive withdrawal of external consultants** leaves behind an independently operating, 22-person MoH IT team.

Countries that avoided designing *around* technology and built capacity through repeated use saw stronger adoption

Conditions for success:

Systems built around campaign workflows and enabling infrastructure

Planning for contextual challenges are as critical to rollout success

When implementation struggled, root causes tended to involve factors outside of the selected tool: connectivity, digital literacy, device availability, etc.

Capacity compounds through repetition, not training events

Genuine operational independence is built through repeated implementation cycles on the same platform under real campaign conditions.

Integrated functions require process change and sustained advocacy beyond digital solution

- Expect reluctance to move to shared population denominators even when technically available.
- Routine system integration requires understanding both how and what you'll use the data for to drive advocacy for regular uploads.

Exemplar: Platform scalability in Nigeria

Document DIGIT's multi-modality adaptation as a replicable model. Prioritize development of an admin console to enable government-led campaign setup and reduce ongoing vendor dependency.

DIGIT HCM demonstrated the value of investing in a platform, evolving from a single-disease SMC tool into a multi-modality platform managing co-delivery of NTDs, SMC, and immunization campaigns across household-based, school-based, fixed-post, and integrated delivery models.

Informed in-campaign adjustments rely on both data capabilities made possible by digitization *and* structures that define course of action

Conditions for success:

A data use culture that is routine and enables action

Data use requires structures and processes, in addition to dashboards.

•Design dashboards before campaigns start, from clear operational questions
•Establish who reviews data, when, and what actions they can take before launching.

Ensure data review is not only valued but enabled through strong practices

Discretionary, vague data review will hinder routine, informed decision-making. Successful institutionalization relies on defining data review frequency, roles, procedures, and expectations for accountability.

Prepare stakeholders for the paper → digital transition to reveal gaps

Lower reported coverage after digitization is common, often due to undetected issues from the paper-based era (e.g., inaccurate denominators), not actual declines. Flagging this artifact in advance helps prevent loss of confidence in the transition.

Exemplar: Individual-level targeting in Kenya

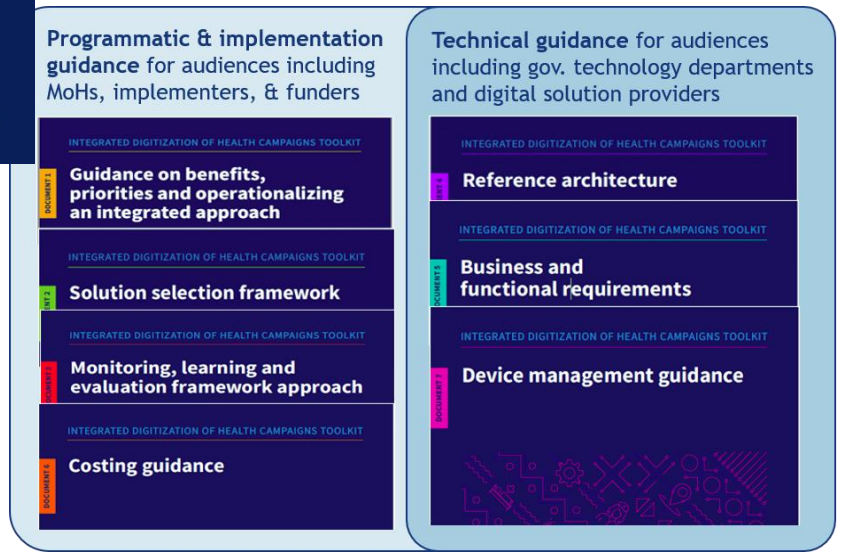
Together, data availability and data review allow digital systems to actively drive accountability, accuracy, and coverage improvements.

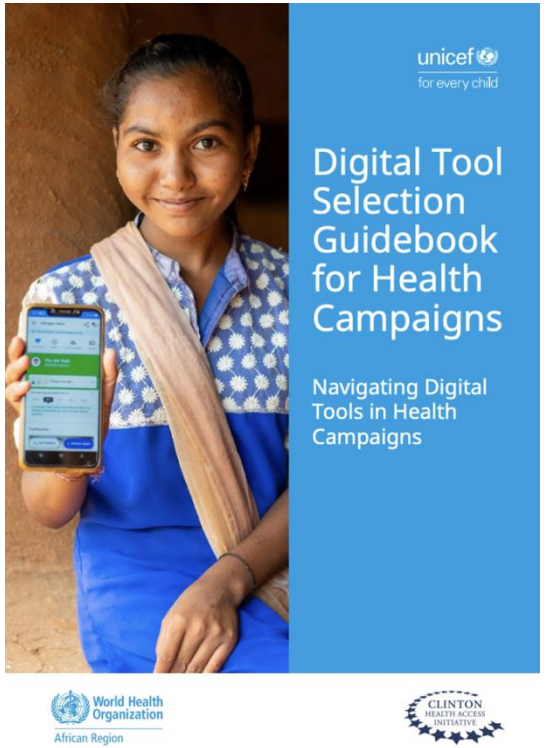
In Kenya, data review SOPs triggered follow up in near real-time (e.g., during the 2025 NTD campaign, 80% of supervisory visits were due to system flags rather than routine check ins). eCHIS revealed and remediated previous denominator and counting issues and generated lists of missing-dose children for follow up using individual-level data.

Integrated digitization of health campaigns toolkit is available to provide campaign-specific digital guidance to the community



Integrated Digitization of Health Campaigns Toolkit (World Health Organization Regional Office for Africa (WHO AFRO), UNICEF & Clinton Health Access Initiative, 2025) – a collection of complementary technical and operational documents designed to support the integrated digitization of health campaigns, in which two or more digital health solutions are partially or fully connected.





Digital Tool Selection Guidebook for Health Campaigns (UNICEF, CHAI & WHO AFRO, 2025)

A complementary document to the toolkit above highlights use cases for digitization across all phases of the campaign life cycle, compares digital tools and their different functionalities, and offers practical guidance on how digital solutions can enhance campaign effectiveness and align with broader health system strengthening goals.