Annual Partners Meeting & Campaign Digitalization Meeting

26-27 FEB 2026

amp | The Alliance for Malaria Prevention

Meeting will begin shortly – la réunion va bientôt commencer - A reunião começará em breve

amp | The Alliance for Malaria Prevention

Measurement in the context of reduced funding

Subnational variation in use, access and retention: implications for subnational tailoring

Andrew Glover

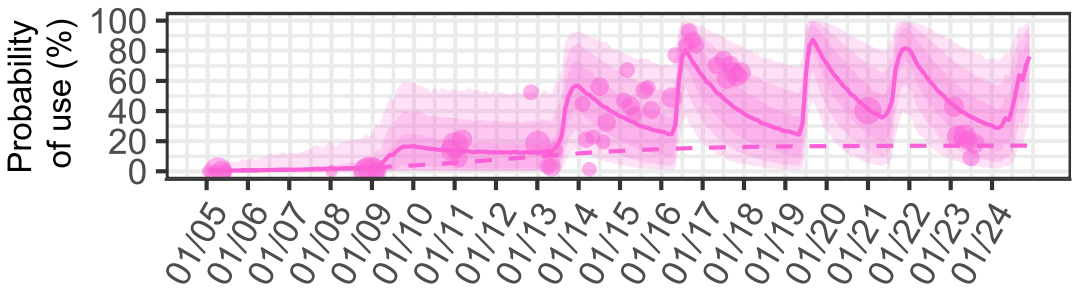
MRC Centre for Global Infectious Disease Analysis, School of Public Health, Imperial College London, London UK

a.glover18@imperial.ac.uk

Methods

- Modelled estimates of historical ITN retention, use, access and contribution by channel fitted to DHS data.
- Conducted at a subnational scale for: Burkina Faso, Ghana, Malawi, Mali, Mozambique, Senegal
- Case estimates generated for different distribution strategies with transmission dynamics models (*malariasimulation*)
- Impact on ITN effectiveness and implications for subnational tailoring (SNT) assessed
- Work ongoing extending this to cost-effectiveness

Example: historical use in Thies, Senegal



Research Questions

- **What** ITN interventions should be (de)prioritised?
  - Continuous distribution (CD) or campaigns + CD?
  - Pyrethroid-only, -PBO; -chlorfenapyr(CFP)?
- **Where** should ITN interventions be (de)prioritised?
  - Short retention times?
  - Low use (given access)?
  - High transmission intensity?

Key findings

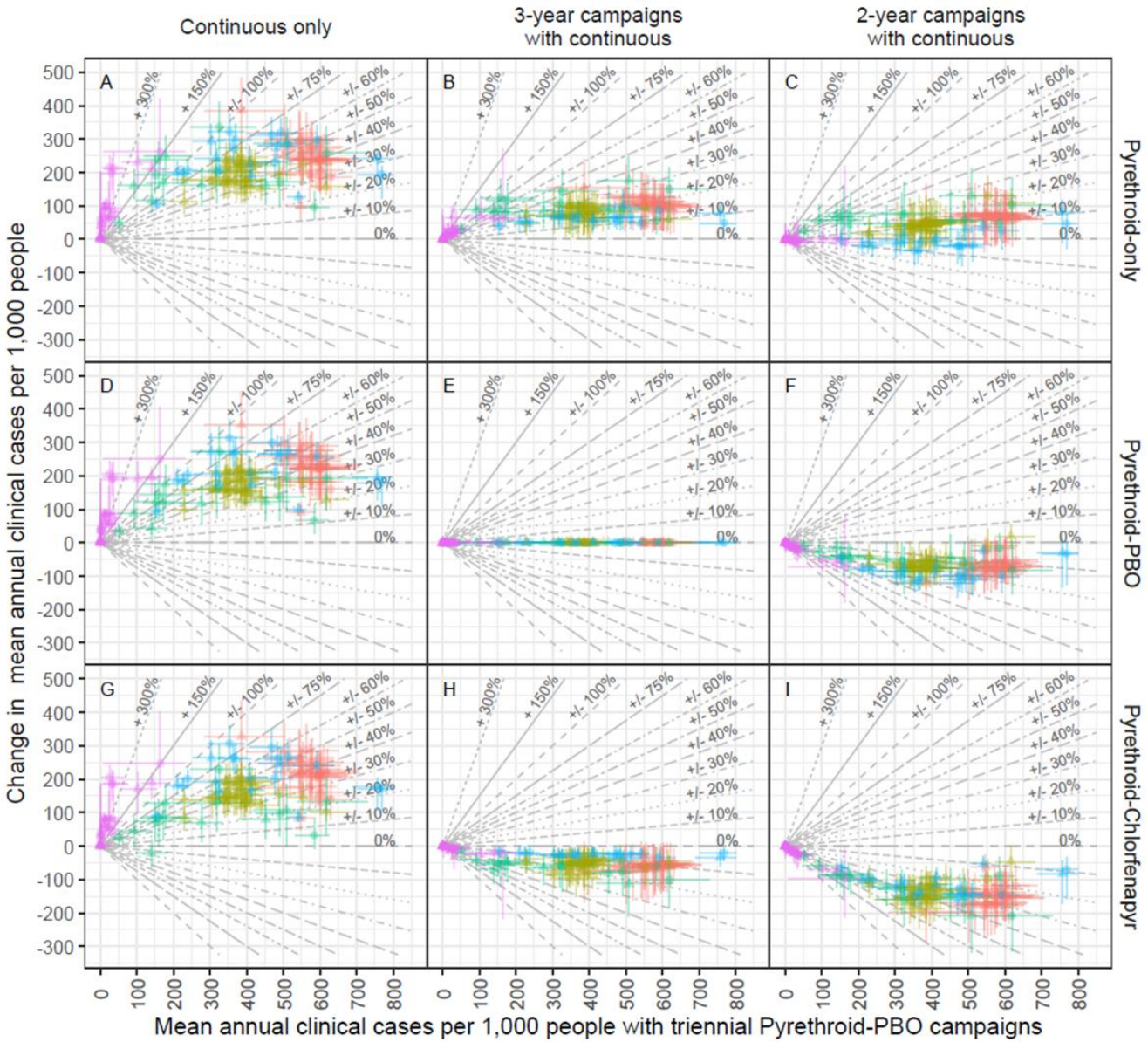
The impact of subnational differences in use, access and retention on ITN **effectiveness**

Transmission intensity is a good predictor of impact

MRC Centre for Global Infectious Disease Analysis

IMPERIAL

- **Moderate and high transmission settings** benefit most from:
  - more frequent distribution (F)
  - more effective pyr-CFP nets (H)
- Moderate and high transmission settings likely to see **greatest resurgence from**:
  - ceasing mass campaigns (D)
  - less effective pyr-only nets (B)
- Distributing **fewer, more effective** ITNs can **avert more** cases (H vs C)

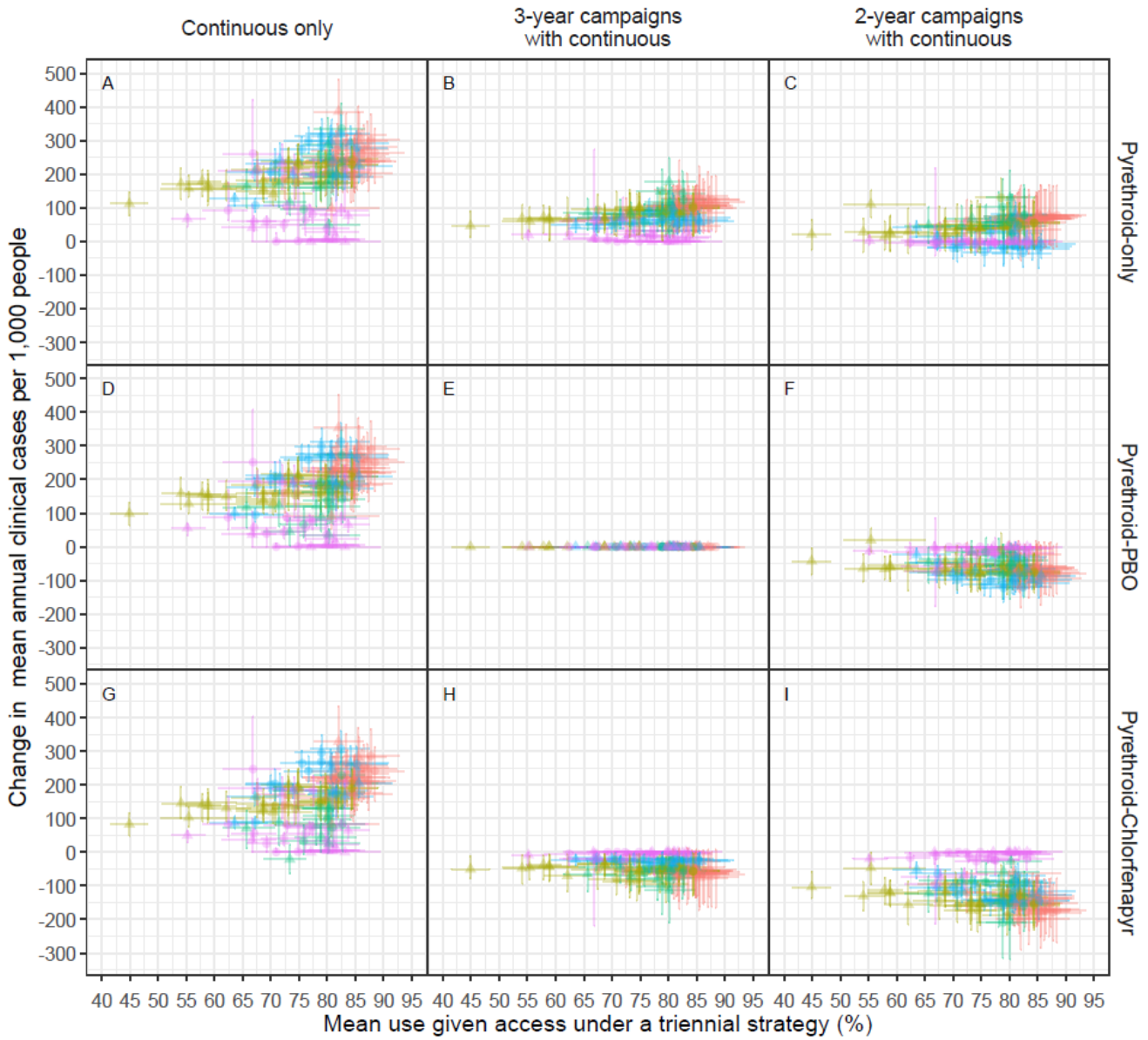


Transmission intensity is still the best predictor of impact

MRC Centre for Global Infectious Disease Analysis

IMPERIAL

- Regions with **higher use given access**, retention, and access broadly projected to:
  - benefit more from pyr-CFP nets (H)
  - have greater increases in cases with pyrethroid-only nets (B)
- Areas of high use given access also likely to:
  - benefit more from 2-yr campaigns (F)
  - Have greater increases in cases following campaign deprioritisation (B)



Current work

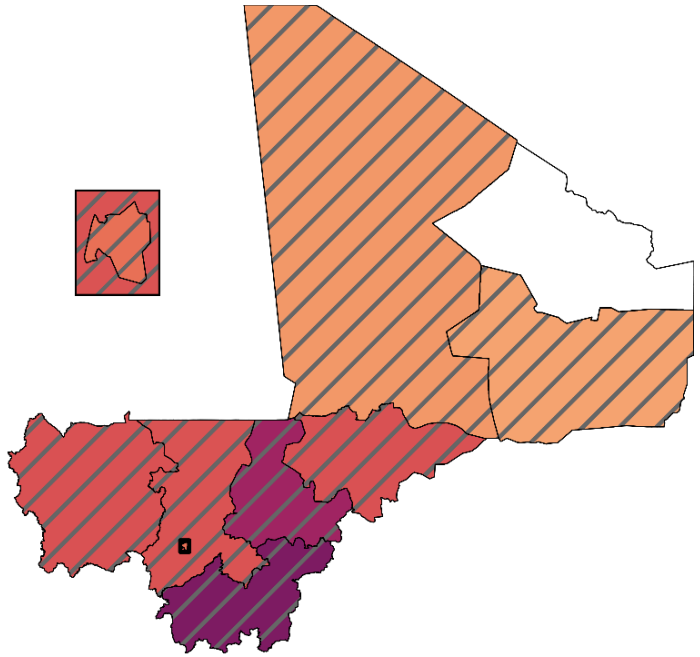
The impact of subnational differences in use, access and retention on ITN **cost-effectiveness**

Subnational tailoring (SNT) vs status quo

MRC Centre for Global Infectious Disease Analysis

IMPERIAL

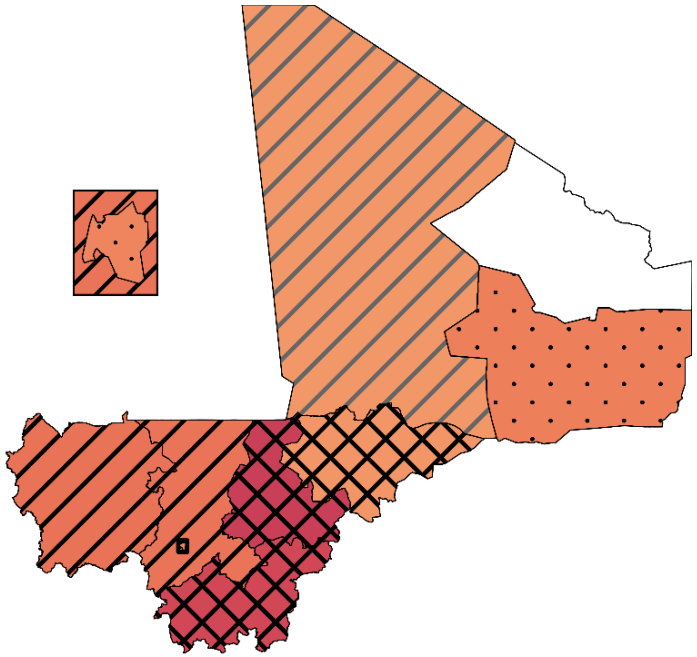
Mali Pyr-PBO 3-year strategy



Annual clinical cases (per 1,000)

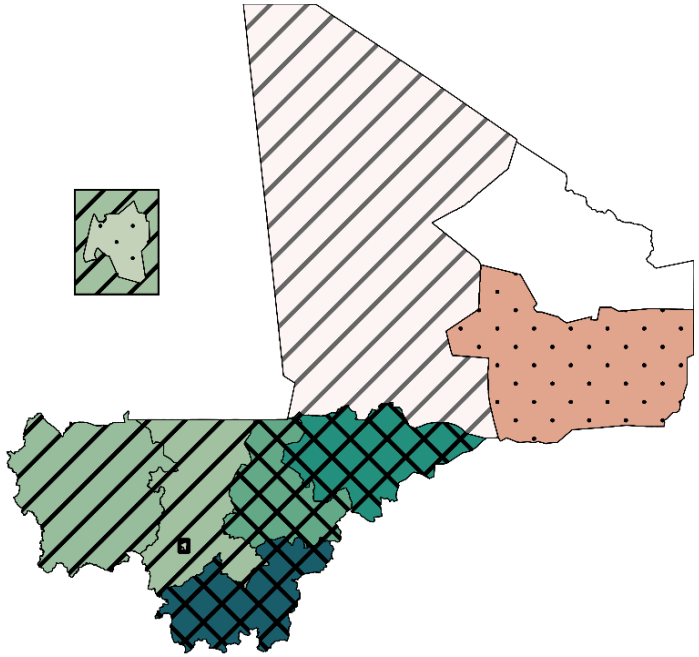
0 100 200 300 400

Optimised strategy



Pyr-CFP continuous
Pyr-CFP 3-year
Pyr-CFP 2-year
Pyr-PBO 3-year

Additional cases averted



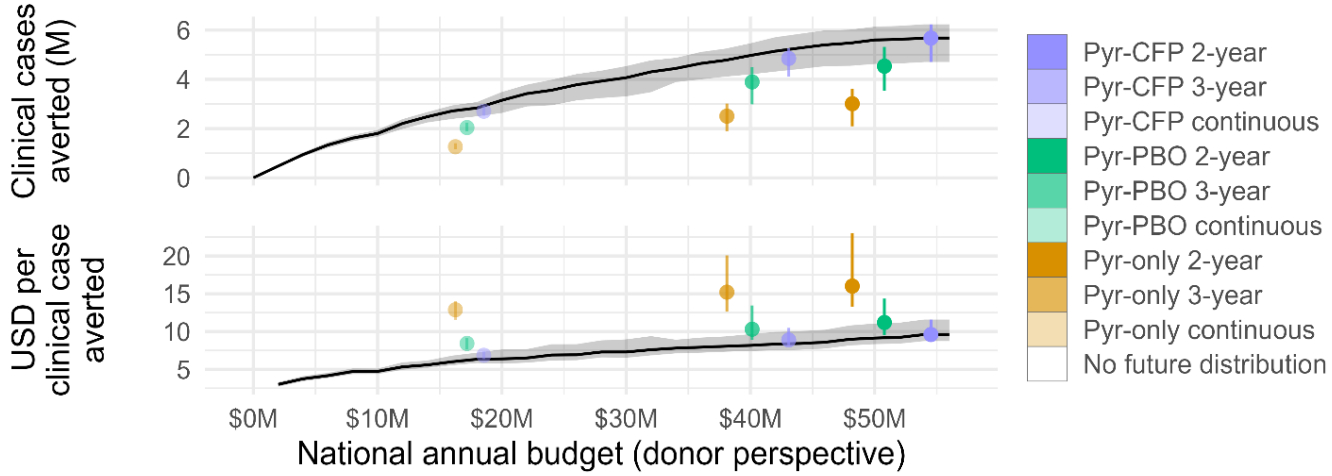
Additional annual clinical cases averted (per 1,000)

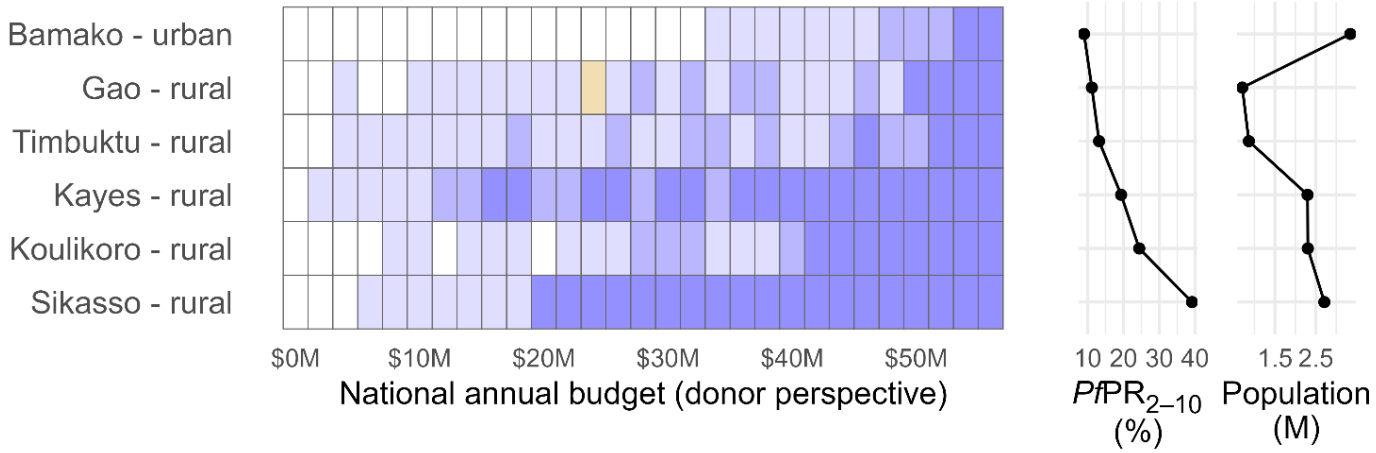
-150 -100 -50 0 50 100 150

Prioritising pyr-CFP everywhere and deprioritising campaigns in lower transmission settings may be more cost-effective

Distribution options

3-yr campaigns + continuous; 2-yr campaigns + continuous; continuous



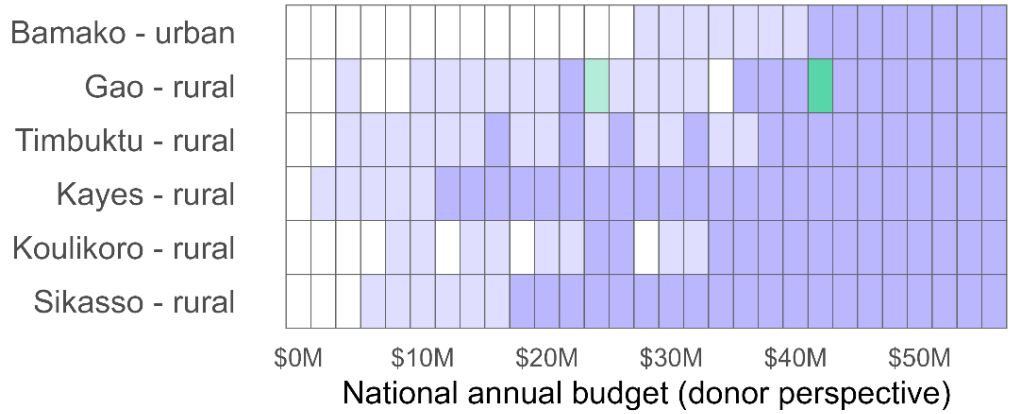


For optimal strategies:

- Pyrethroid-chlorfenapyr prioritised
- High transmission settings prioritised

Distribution options

3-yr campaigns + continuous; continuous only



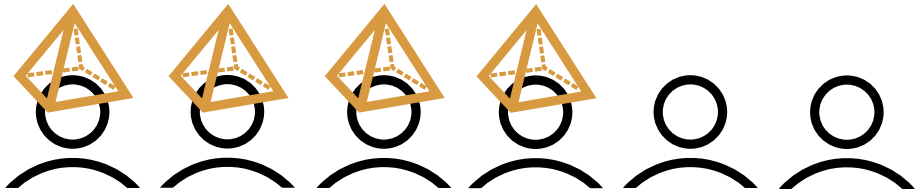
MRC Centre for Global Infectious Disease Analysis

IMPERIAL

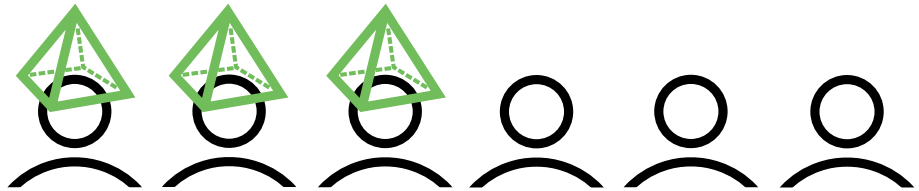
Group activity

Achieving more with less

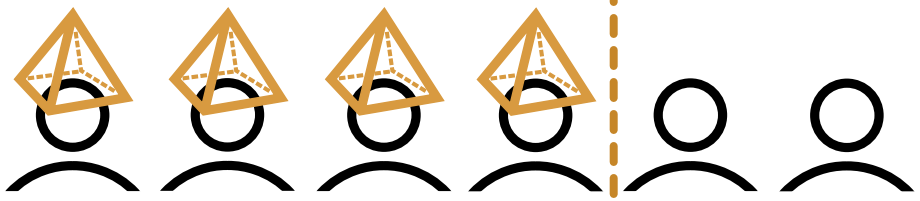
Orange team

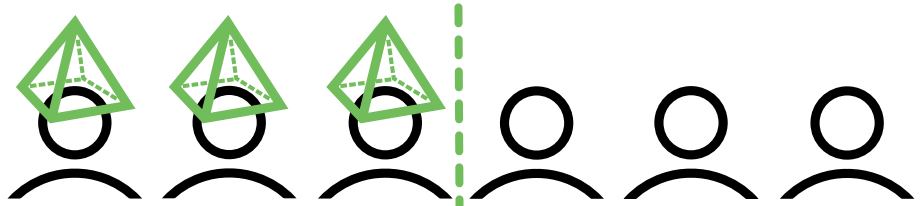


Green team



- Both teams are in regions with high transmission and pyrethroid resistance
- Randomly select people to use the ITNs distributed to your table
- There aren’t enough for universal coverage (**66%** vs **50%** use)
- We are going to model how many weekly infections there will be in six month’s time





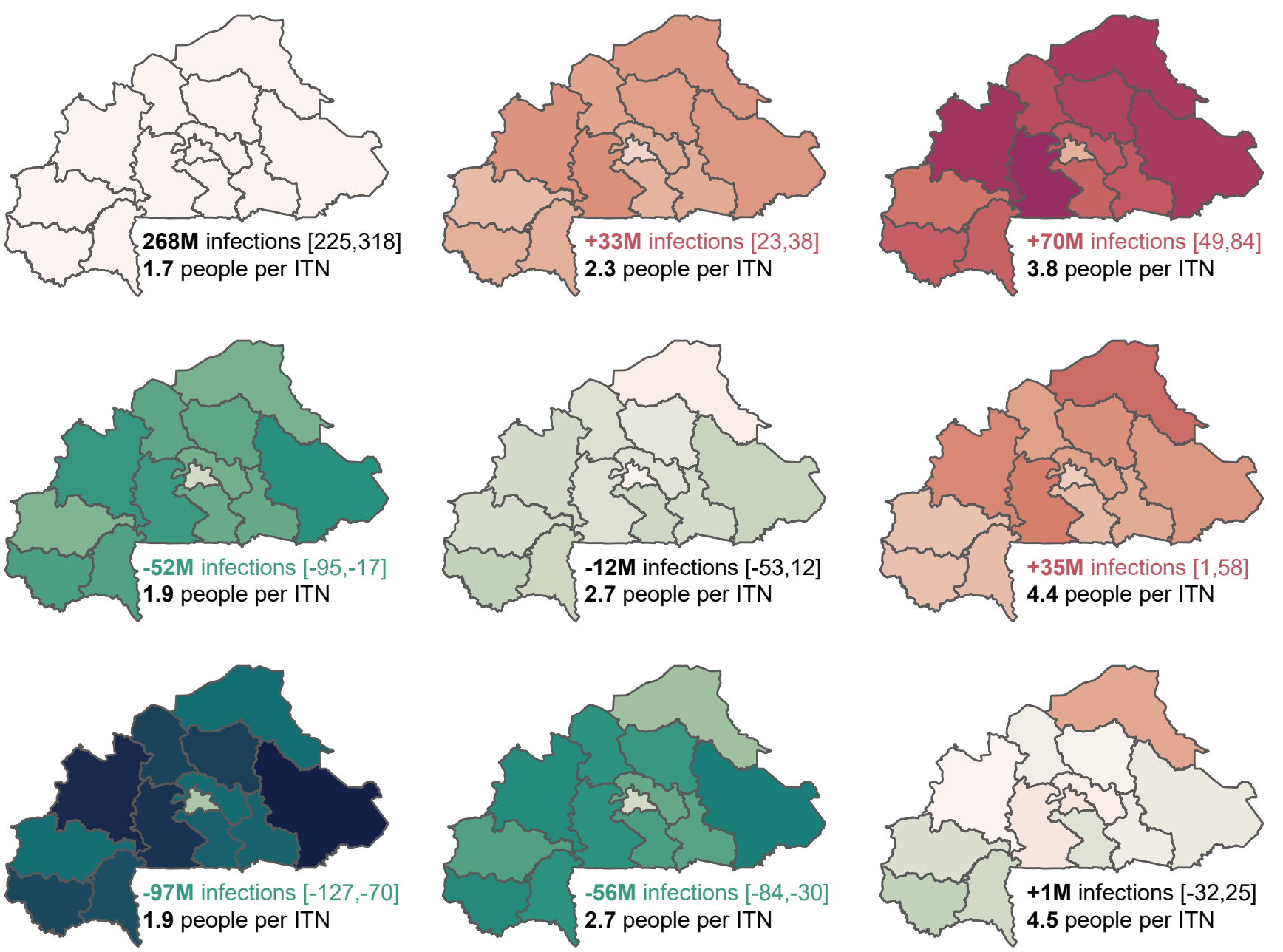
	Orange team		Green team	
Stand up if your birthday is between: (of any month)	**1st – 8th**	**1st – 13th**	**1st – 5th**	**1st – 8th**
Probability of being born then:	**26%**	**43%**	**16%**	**26%**
Probability of being infected per week:	**25%**	**42%**	**16%**	**25%**
	(Pyrethroid-only ITNs)		**(Pyrethroid-chlorfenapyr ITNs)**	

Change to budget:

- Simple economic mode (linear cost function; procurement and distribution costs only)
- Budget reductions achieved by **reduced coverage campaigns**

Additional annual infections averted per capita*

*vs 3-yr pyrethroid-only under current budgets



Summary

MRC Centre for Global Infectious Disease Analysis

IMPERIAL

- **Moderate and high transmission intensity** regions: increased benefit from more campaigns and pyr-CFP nets
- Nets are more impactful in regions where they are more likely to be used, and used for longer
- **Prioritise pyrethroid-Chlofenapyr** for optimal cost-effectiveness
- New distribution strategies may help achieve more with less:
    - Under 5 campaigns
    - Reduced coverage campaigns (e.g. distributing 1 net : 3 people)

Fewer, better nets can avert more cases

Acknowledgements

- eLife preprint co-authors:
  H Koenker (PATH); EHA Niang (L'UCAD);
  K Kolaczinski (The Global Fund); TS Churcher (Imperial)
- Ongoing cost-effectiveness analysis (LSHTM):
  D. Bath; C. Pitt

Funded by

THE GLOBAL FUND

Glover AC et al. (2025). *Subnational tailoring of ITN distributions to maximise malaria control.* eLife. doi.org/10.7554/eLife.108745

amp | The Alliance for Malaria Prevention

Discussion - Questions & Answers

Discussion - Questions et réponses

Discussão – Perguntas e respostas

SMC ALLIANCE AND ALLIANCE FOR MALARIA PREVENTION (AMP) ANNUAL MEETINGS

Nigeria - Development of ITN Continuous Distribution Guidelines and Channel Selection Guidance & Tools

Process, Lessons & Recommendations

Presented by
National Malaria Elimination Program (NMEP)
Nigeria

February 2026

Outline

- Background and Rationale
- Nigeria's ITN delivery landscape
- Need for channel selection
- Guiding framework informing the process of channel selection
- What's working
- Key challenges & opportunities
- Recommendations
- Conclusions and Key takeaways

Background and Rationale

Introduction

Nigeria's ITN delivery strategy has historically relied on periodic nationwide campaign cycles complemented by routine channel distribution. However, emerging epidemiological shifts, financial and demographic realities now require a more adaptive, data and context-driven sub-national channel optimization.

The Status Quo

- Triennial mass campaigns remain the primary ITN delivery platform
- Routine distribution (ANC, EPI) functions as secondary channels
- ITNs last between 2 – 2½ years on average, meaning protection gaps re-emerge before the next campaign
- Limited structured framework for sub-national specific channel selection

Emerging realities

- Shrinking funding or uncertain funding envelopes (GC7, only 70% of ITN needs met)
- Increasing urbanization & heterogeneity (urban vs rural, high- vs low-burden settings)
- Changing epidemiology & resistance patterns
- Growing commercial & private sector presence
- Global policy shift (WHO 2024 good practice: from "universal" to "optimal" coverage through explicit prioritization)

Nigeria's ITN delivery landscape

Nigeria delivers ITNs through multiple channels, combining public sector platforms with private and market-based approaches. However, performance and reliance vary significantly across states.

🧩 Major ITN channels

- 🎯 Mass campaigns – Nationwide or state-wide triennial distribution
- 🤰 ANC distribution – Routine ITN provision to pregnant women
- 💉 EPI distribution – ITNs provided through immunization services
- 🎒 School-based distribution (where applicable)
- 🛒 Commercial / Private market – Pharmacies, PPMVs, retail outlets
- 📣 Social marketing – Subsidized nets through structured private-sector engagement

🔎 Key observations

- 🔁 Heavy reliance on campaign cycles for rapid scale-up (Push approach)
- ⚙️ Routine channels under-optimized in several states despite strong ANC/EPI platforms
- 💼 Private sector potential under-leveraged, particularly in urban and peri-urban settings

📊 Implication

Nigeria has a multi-channel system in theory, but in practice remains campaign-dependent, highlighting the need for deliberate channel mix optimization as well as updated operational guidelines for ITN CD.

Why updated ITN CD guidelines and channel selection tools needed

❓ The strategic question

📍 How do we move from uniform national planning to data- and context-driven channel mix optimization at sub-national level?

📍 What is the optimal channel mix for each state or ward, given its burden, systems capacity, and resource envelope?

🔄 Nigeria-specific momentum

✅ Integration of ITN & SMC campaigns

✅ NMEP piloting mixed-channel approaches (e.g., Osun 2026)

✅ Development of sub-national reprioritization and channel selection tools

🔑 Key message

One-size-fits-all is no longer viable.
There is a need to transition from fixed triennial campaigns toward context-sensitive, evidence-based channel selection to maximize impact under constrained resources.

Guiding framework informing the process of channel selection

🧭 **Core Principle:** Sub-National Tailoring (SNT)

❓ **Where and for whom should we prioritize? How should we deliver ITNs in this specific context?**

✅ **Targeted & Tailored Approach (TTA)** serves as a strategic approach to optimize ITN delivery sub-nationally, operationalized through:

- 📈 Risk stratification – prioritize areas based on malaria burden and transmission patterns
- 🌆 Urban–rural differentiation – tailor delivery based on local epidemiology and system capacity
- 🤱🏾 Mapping of vulnerable populations – identify high-risk groups to guide channel mix

✅ **ITN channel selection** is an operational process that determines the most appropriate mix of ITN delivery channels for each sub-national context.

💡 **These decisions are data-driven.**

🎯 **Goal**

- 📍 Optimize impact under constrained resources
- 📍 Prioritize high-burden / high-need areas
- 📍 Improve equity
- 📍 Reduce leakage and inefficiencies

What's working

- 🛠️ Continuous distribution guidelines and tools are being updated/adapted (support from AMP)
- 🌍 Guidance for ITN channel selection is being developed (support from AMP & Tropical Health global)
- ✅ Leveraging NMEP's continuous distribution assessments
- 📊 Integration with digital and routine data platforms

Urban reprioritization support tools

- 🖥️ MPIO – Malaria Program Intervention & Optimization (Excel-based)
- 🤖 ChatMRPT – Malaria Reprioritization Tool (AI enhanced tool)
- 🌐 Shinny App – Wed-based Application

Key data inputs

- 🦟 Malaria burden (prevalence, incidence)
- 🛏️ ITN access/use gaps (DHS/MIS + routine)
- 🏥 Routine channel performance (ANC/EPI, school enrollment)
- 🏙️ Urban/rural stratification + population density
- 💰 Resource envelope (available nets)

Outputs/decision support

- 🎯 Targeted ITN distribution for mass campaigns, continuous distribution
- ✅ Recommended channel mix per sub-national unit (wards & LGAs)
- 🛠️ Prioritization of wards/LGAs based on impact and equity

📌 These key data inputs provide the evidence base for data-driven, sub-nationally tailored channel selection, helping the NMEP target the right populations, in the right places, using the most effective delivery channels, within available resources.

What's working

Process timeline & Key steps	
Period	**Milestone**
2024 – Early 2025	Desk review & stakeholder consultations (NMEP, partners, states) to identify routine channel gaps
Mid - 2025 - Early 2026	• Review and Update of existing CD guidelines • Draft guidance for channel selection
Early 2026	Standardizing indicators for malaria risk ranking of wards and urban reprioritization tools (MPIO tool, Shiny App & ChatMRPT)
Q1 2026	• Finalization of Updates to existing CD guidelines & tools • Alignment with the National Malaria Strategic Plan (2026-2030)
Q1 – Mid 2026	Pilot assessments & tool testing in Osun State (mixed-channel ITN distribution)
2026 onward	Roll-out in priority states (urban micro-stratification, high-gap LGAs)

Key challenges and opportunities

Key challenges

- ⚠️ Mindset shift beyond triennial campaigns – traditional planning mindset limits innovation
- ⚠️ Funding earmarks limiting flexibility – constrains ability to adjust channel mix per state
- ⚠️ Routine channels underperform – low ANC/EPI attendance/reporting in some areas
- ⚠️ Data gaps – boundary mismatches, poor routine reporting

Emerging opportunities

- ✅ Osun State pilot shows promise – mixed-channel approach
- ✅ Integrated ITN/SMC campaign approach – efficiency gains in resource use and coverage
- ✅ NMEP and partner early engagement to improve stakeholder buy-in – start Q1 2026 onward to reduce resistance at state level
- ✅ Linked digital campaign tools enhance real-time monitoring

Recommendations

1 Institutionalize channel selection

📌 Embed channel selection in NMSP & Annual Operational Plans (AOPs)
📌 Require state-level justification for channel mix decisions
📌 Finalize & disseminate updated ITN CD guidelines and channel selection tools (2026) → train state teams

2 Strengthen Data Systems

📌 Improve routine reporting quality (HMIS/DHIS2 integration)
📌 Institutionalize ITN durability monitoring
📌 Track commercial market share for total market planning

3 Build Sub-National Capacity

📌 Provide training on channel optimization
📌 Use simplified decision-support tools
📌 Leverage Osun State pilot → expand Osun State mixed-channel approach + urban micro-stratification to other states

4 Strengthen prioritization and national leadership

📌 Institutionalize sub-national tailoring → embed in NMSP 2026-2030 & AOPs
📌 Advocate for increased domestic resources → states to fund microplanning from GC8 and beyond
📌 Monitor & iterate → annual review of channel performance & equity metrics

Conclusion and Key takeaways

Key takeaways

✅ This process positions Nigeria to:

- Shift from universal coverage to targeted campaigns
- Prioritize high-burden LGAs
- Optimize impact per dollar
- Better align channels to epidemiology & need
- Use data for prioritization and to arrive at a consensus despite difficult trade-offs
- Strengthen sustainability

Conclusion

✅ The future of ITN distribution in Nigeria is not about replacing mass campaigns, it is about optimizing and balancing all delivery channels including mass campaigns based on data, context, and sustainability.

Key partners and stakeholders

THE GLOBAL FUND

World Health Organization

CLINTON HEALTH ACCESS INITIATIVE

amp

Faith knows no bounds / CRS

SFH Society for Family Health ...Creating Change, Enhancing Lives

msh Management Sciences for Health

malaria consortium disease control, better health

TROPICAL HEALTH

State SMEPs

Thank you for your time and attention!

NATIONAL MALARIA ELIMINATION PROGRAM

Joint Annual Meetings of the SMC Alliance and the Alliance for Malaria Prevention

Zambia: Tailoring and prioritization of ITN distribution channels 2026

February 24 – 27, 2026

Presenter: Ketty Ndhlovu Sichalwe

Presentation outline

- Introduction – Zambia context
- Strategic alignment (NMESP 2022-2026)
- Progress from ITN tailoring and prioritization
- Expected outcomes from prioritization
- Key takeaways

Introduction- Zambia context

- Malaria in Zambia is both a health and economic problem
- Heterogeneous malaria transmission across the country
- Declining burden in several provinces and districts
- Need to maximize impact per ITN distributed
- Alignment with elimination-phase programming in selected districts

Strategic alignment (NMESP 2022-2026)

- NMESP 2022–2026 prioritizes stratification and efficiency
- Vector control intervention packages targeted according to four epidemiologic strata (very low, low, moderate & high)
- ITNs are the primary vector control intervention complemented by the other strategic interventions under vector control (IRS, LSM, Entomological surveillance)
- **Mass campaigns:** priority given to high burden areas (epidemiologic moderate to high, incidence >50 cases/1000/year)

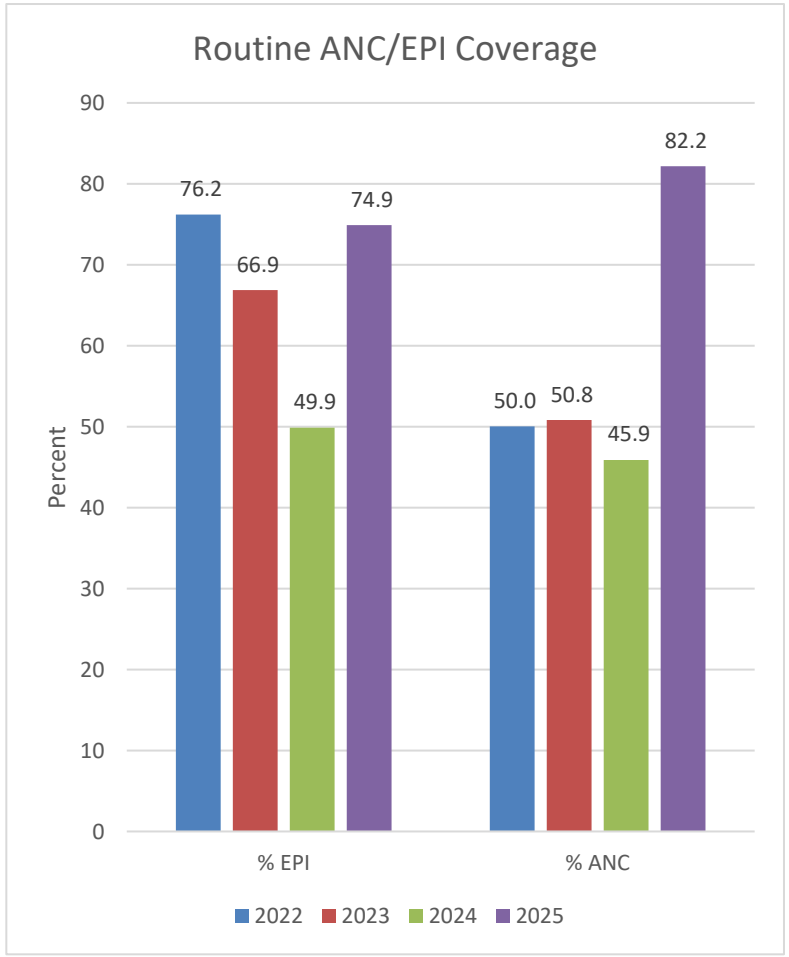
Strategic alignment (NMESP 2022-2026)

- **Routine distribution maintained nationwide**
  - ANC clinics: provision of ITNs to pregnant women during first ANC attendance.
  - EPI clinics: provision of ITNs to children at their 9 months well-child visits.
- **School-based distribution**: plan to scale up in moderate to high transmission areas.
- **Community distribution**. Pilot and scale-up community distributions to reach full population. Prioritize rural areas in moderate to high transmission areas.
- Low-burden areas managed through surveillance-led responses

Summary of the stratified approach to VC interventions

Level of Transmission	*Intervention →*	ITNs (PBO, NextGen)		IRS		LSM	Entomol Surveill.
		Mass ITN campaign	Continuous Distribution	Targeted IRS campaigns	Responsive IRS		
	Operational Stratific. Level →	District	District	District	HFCA	HFCA	N/A
High Malaria Transmission >500/1000/yr	4	√	√	√	--	--	√
Moderate Malaria Transmission >200 <500	3	√	√	√	--	--	√
Low malaria transmission <200 >50	2	√	√	√	--	--	√
Very Low Transmission <50 >0	1	All except Lusaka District	√	--	√	Selected urban	√
No malaria, maintenance of malaria-free zone	0	All except Lusaka District	√	--	√	Selected urban	√

Routine ANC and EPI distribution: 2022-2025



- Q4 2024 over 2.1m nets were delivered countrywide.
- The drop in 2024 is attributed to protracted procurements.
- (key steps taken include, early initiation and frontloading of funds)

2026 operationalization of the ITN programme

Tailoring & prioritization of ITN Chanels - 2026

- ITN channels prioritized in 2026 include
- Routine distribution nationwide
  - ANC clinics: provision of ITNs to pregnant women during first ANC attendance.
  - EPI clinics: provision of ITNs to children at their 9 months well-child visits.
- Mass campaign in high burden areas – levels 2-4

Routine ANC and EPI Quantification 2026

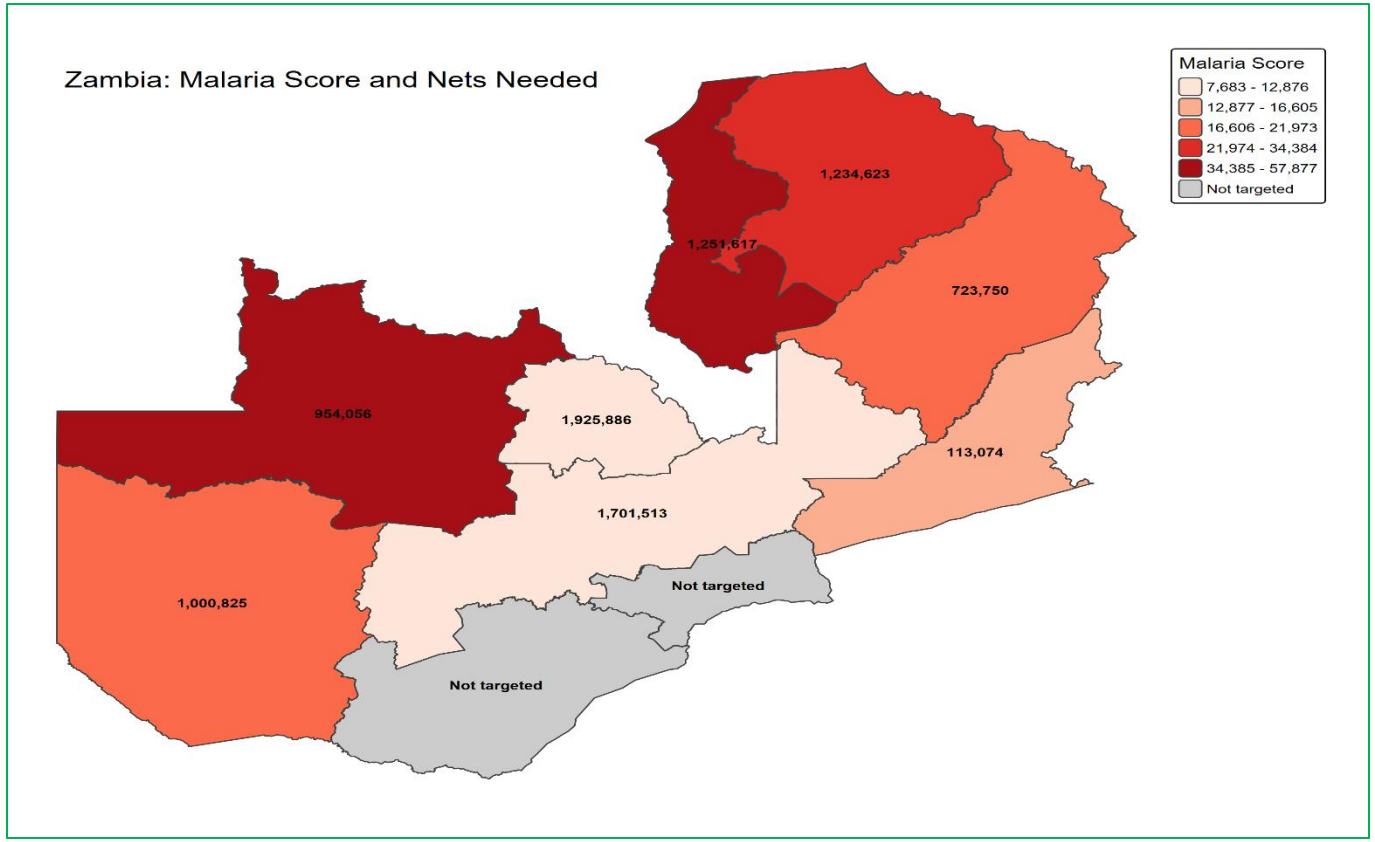
#	Data element	2026
A	Population	22,511,445
B	Expected pregnancies - 4.47%*A	1,006,262
C	Expected Live Births - 4.32%*A	972,494
D	**Total Needs for Routine ITN Distribution - B+C**	**1,978,756**

Note: no funding gap for routine ANC and EPI

Prioritization - Progress in 2026 mass campaign

- Full coverage in the 7 high-burden provinces and 1 district in 1 province(81/116 districts)
- Prioritization informed by surveillance and stratification data
- **Key funders:** Global Fund, Against Malaria Foundation, Department of State
- **Distribution timeline:** September – October 2026
- **Net type:** Dual AI and PBO

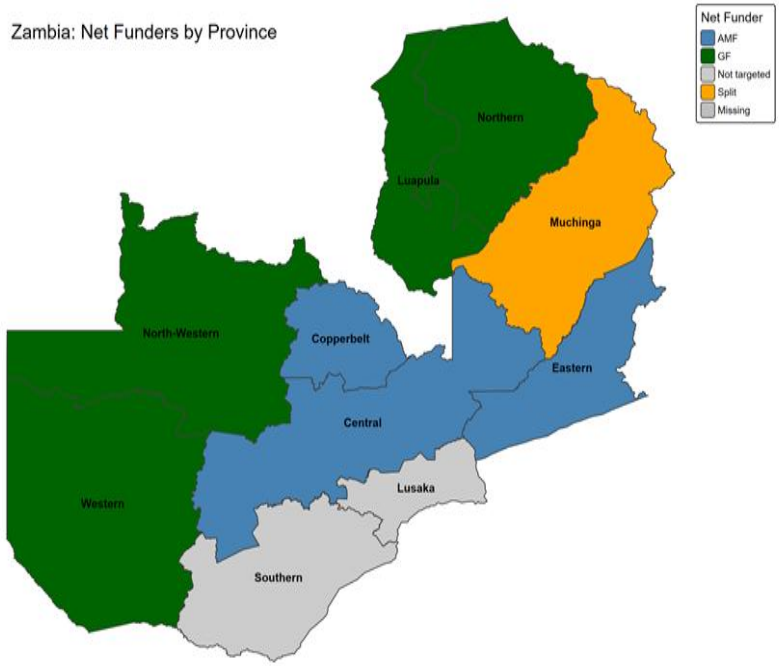
Zambia: Malaria Score



- Based on incidence for all ages and prevalence in under 5s

Prioritization - Progress in 2026 mass campaign

Province	Malaria score	Net Need	Funder of nets
North-Western	57,877	954,056	GF
Luapula	39,886	1,251,617	GF
Northern	26,133	1,234,623	GF
Western	20,934	1,000,825	GF
Muchinga	17,320	723,750	Split
Eastern	13,752	113,074	AMF
Copperbelt	12,294	1,925,886	AMF
Central	7,683	1,701,513	AMF



Note: For Eastern province, only Chama district is targeted for ITN distribution

Mass Distribution Campaign Quantification 2026

2026 ITN Mass campaign Gap Analysis		
Item description	**Initial**	**After prioritization**
2026 estimated pop.	23,335,296	16,029,618
Total ITN need	12,964,053	8,905,343.46
Financial need		
Procurement	$ 33,187,976.57	$ 24,419,622.68
PSM	$ 7,301,354.85	$ 6,127,905.04
Operational cost	$ 9,723,040.01	$ 4,396,647.84
Total	**$ 50,212,371.43**	**$ 34,944,175.56**

Key drivers in cost reduction

- Prioritization
- Digitalization-no paper-based registers
- Campaign distribution strategy from door-to door to fixed point distribution
- Integrated training approach virtual versus physical

Resource sustainability & domestic mobilisation

Prioritization reflects optimization within available resources. In Zambia,

- Domestic financing supports routine procurement and last-mile delivery
- External financing critical for mass campaigns
- Commercial sector engagement under exploration for urban settings

Expected Epidemiological Impact

- Higher coverage in high-transmission strata
- Improved impact per ITN distributed
- Reduced malaria incidence in prioritized districts
- Sustained protection of pregnant women and children

Key take-home messages

- ITN strategy reflects stratification and resource realism
  - Mass campaigns remain essential for restoring universal coverage (high burden areas)
  - Routine platforms targeting vulnerable groups
  - Surveillance-driven deployment accelerates elimination trajectory
  - Protection is being concentrated where it yields highest epidemiological return within confirmed resources

Acknowledgements

- Ministry of Health
- The Global Fund
- Against Malaria Foundation
- Path
- PMI Evolve
- Churches Health Association of Zambia
- Alliance for Malaria Prevention

Thank You For Your Attention

amp | The Alliance for Malaria Prevention

Discussion - Questions & Answers

Discussion - Questions et réponses

Discussão – Perguntas e respostas

RÉUNIONS ANNUELLES CONJOINTES DE L'ALLIANCE SMC ET DE L'ALLIANCE POUR LA PRÉVENTION DU PALUDISME

CAMPAGNE MII 2024 EN COTE D'IVOIRE:

LECONS APPRISES, PERSPECTIVES POST-EVALUATION LOGISTIQUE ET OPTIMISATION DES CAMPAGNES FUTURES

FEVRIER 2026

KAMPALA, Speke Resort Munyonyo

Présenté par :
KOFFI Amani Serge

I. APERCU DES FONDAMENTAUX DE LA CAMPAGNE MII 2024

II. QUELQUES RESULTATS

III. DEFIS DANS LA MISE EN OEUVRE

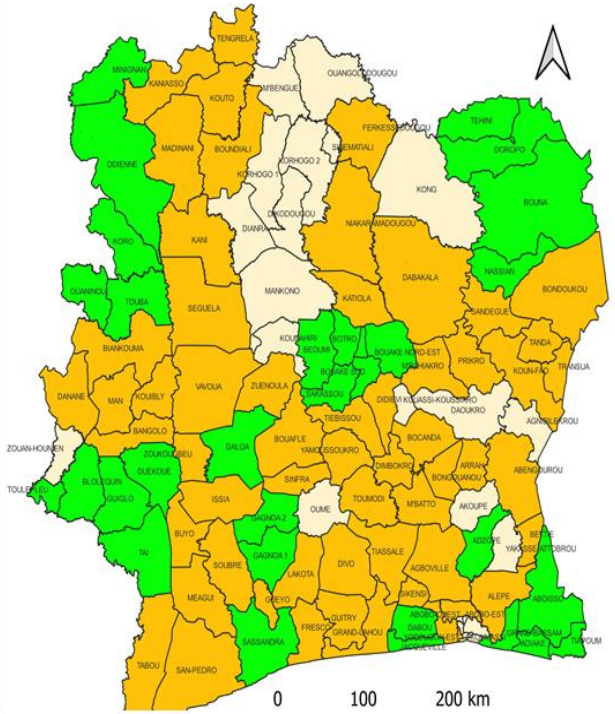
IV. EVALUATION LOGISTIQUE DE LA CAMPAGNE 2024

V. PRINCIPAUX CONSTATS PENDANT L'EVALUATION

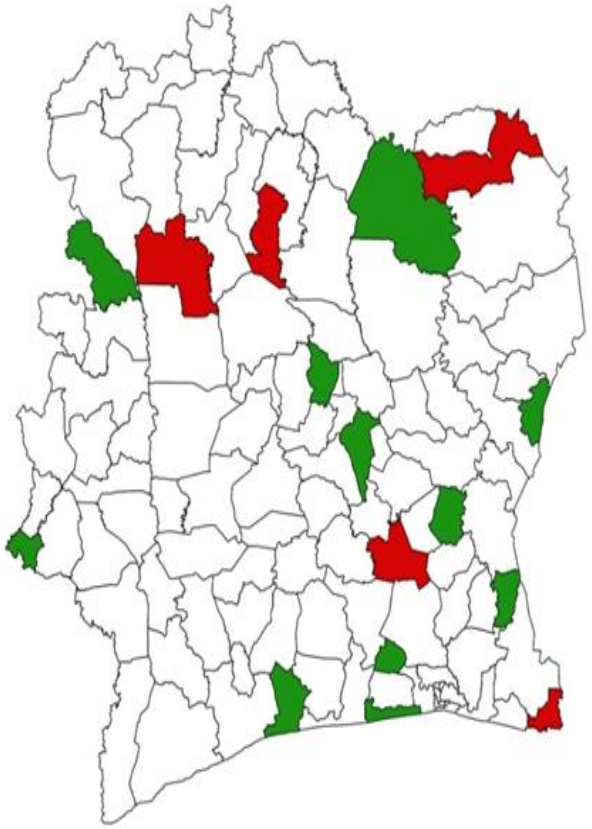
VI. PRINCIPALES RECOMMANDATIONS

VII. PERSPECTIVES POUR LES FUTURES CAMPAGNES

FONDAMENTAUX CAMPAGNE MII 2024



Stratification entomologique 2023 par type de MII



Districts digitalisés en 2024

- Une campagne organisée dans 101 districts sanitaires représentant **90% des districts sanitaires du pays**.
- **Une campagne de type stratifiée** avec utilisation des insecticides standards et de nouvelle génération (24 DS Standards, 32 DS IG2 et 58 DS PBO).
- **Une campagne digitalisée** avec 16 DS à digitalisation complète et 85 DS à digitalisation partielle..
- Stratégie de distribution inscrite dans le PAO : 1 MII pour deux (02) personnes.
- **Distribution Communautaire** dans 5 gros villages.

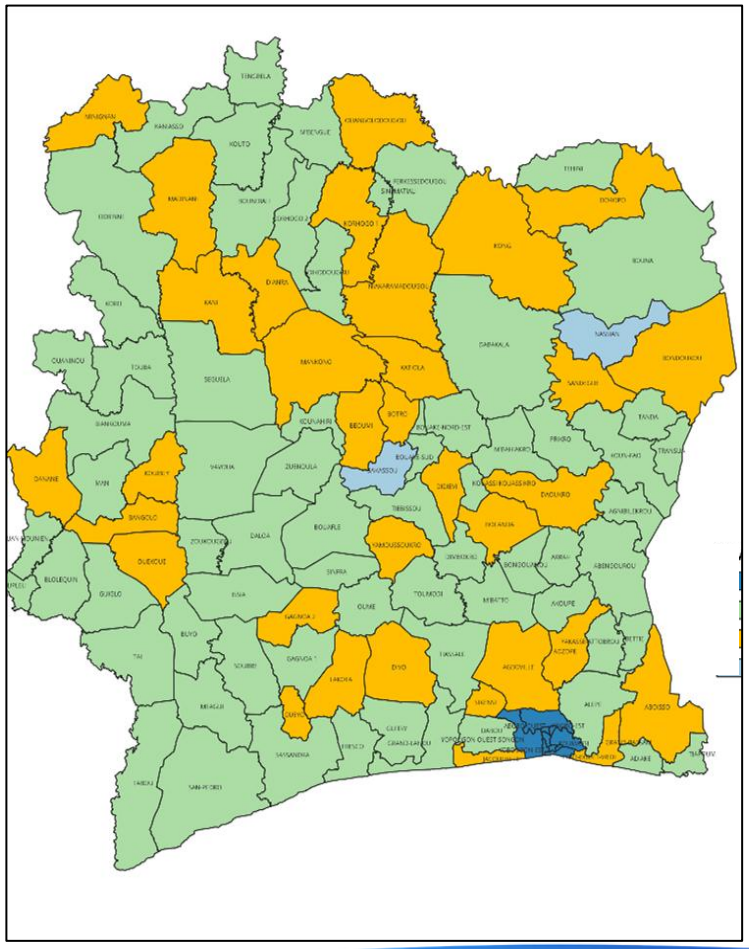
QUELQUES RESULTATS DE LA CAMPAGNE MII 2024

➢ DENOMBREMENT DES MENAGES ET DISTRIBUTION DES MILDA

- Population dénombrée : **29 388 098 contre 24 762 803 planifié soit un taux d'atteinte de 118%**

- MII distribuées **14 216 184** contre **14 836 166** (disponibles) soit une performance de couverture de **96%** dans les ménages et dans la population.

- **81,3 % de taux d'utilisation** selon l'enquête post-campagne 2025, dépassant la cible de l'OMS qui est **80%.**



DEFIS LOGISTIQUES DANS LA MISE EN ŒUVRE DE LA CDM MII 2024

MII non positionnées à temps dans les DS et étaient en quantité insuffisante au démarrage de la distribution.

Confiscation des MII au port d'Abidjan

- Quantité planifiée inférieure aux besoins pour le dénombrement ;
- Lenteur et insuffisance dans le processus de reproduction des outils

Analyse des résultats de l'évaluation des capacités de stockage dans les districts, a ressorti un besoin de réhabilitation de 170 espaces de stockage et l'acquisition de 115 nouveaux conteneurs pour la campagne 2024.

L'EVALUATION LOGISTIQUE (1/2)

➢ **Objectifs de l'évaluation**

- **Examiner la documentation de la campagne précédente** (macro plans, micro plans, plans logistiques, y compris la formation et la supervision, la logistique inverse, la gestion des déchets, etc.) ainsi que les rapports existants;
- **Identifier les points clés à discuter** sur la chaine d'approvisionnement notamment l'achat, le transport, le stockage et la distribution des MII;
- **Collecter les informations** au niveau infra national;
- **Proposer de recommandations**.

L'EVALUATION LOGISTIQUE (2/2)

➢ Méthodologie

- **Choix des districts sanitaires basé sur une approche raisonnée** combinant plusieurs critères (la *performance de distribution*, les *enjeux logistiques observés*, la *représentativité géographique*);

- **Collecte des données s'est appuyée sur une approche qualitative descriptive**, reposant sur la réalisation d'**entretiens individuels** approfondis auprès d'**informateurs clés** directement impliqués dans la planification et la mise en œuvre de la chaîne d'approvisionnement des campagnes de distribution de MII;

- **Présentation des résultats** réalisée de manière structurée, combinant des analyses descriptives et interprétatives, afin de mettre en évidence les forces, les faiblesses et les axes d'amélioration du système logistique évalué.

PRINCIPAUX CONSTATS DE L'EVALUATION

➢ Difficultés majeures dans la mise en œuvre

- Coordination logistique perfectible entre niveaux ;
- Infrastructures de stockage inadéquates au niveau des districts et formations sanitaires ;
- Retard dans la sélection des transporteurs;
- Sélection et gestion des transporteurs sans l'implication active de l'ECD;
- Sous-traitance non maîtrisée par les transporteurs ;

- Retards dans le pré positionnement des MII et des outils ;
- Rupture des cahiers de dénombrement ;
- Compétences logistiques insuffisantes de certains gestionnaires de stock ;
- Absence de procédure écrite pour le retour des MII restantes.
- Absence de plan de gestion des déchets.

PRINCIPALES RECOMMANDATIONS (1/5)

Rubriques	Recommandations
Coordination & Gouvernance	▪ Elaborer les TDR, lancer et publier les appels d'offres pour le recrutement d'un partenaire /prestataire du volet logistique de la campagne 2027, en veillant à : ▪ La définition claire des rôles et responsabilités ; ▪ L'intégration d'indicateurs de performance ; ▪ L'obligation de transfert structuré de compétences vers la coordination du PNLP pour les futures campagnes.
	▪ Mettre en place un dispositif de suivi des prestataires logistiques, incluant l'analyse régulière des rapports d'avancement, l'anticipation et la gestion proactive des risques logistiques
	▪ Durant les étapes préparatoires de la campagne : ▪ Faire le suivi des commandes et anticiper les risques (retards, contraintes portuaires, stockage, etc.) ; ▪ Analyser les rapports de l'évaluation des entrepôts, y compris le suivi des travaux de mise aux normes nécessaires.

PRINCIPALES RECOMMANDATIONS (2/5)

Rubriques	Recommandations
Macro-planification & Quantification	**Sous le leadership du PNLP :** ▪ Renforcer le cadre fonctionnel du groupe technique de quantification des MII en clarifiant et formalisant ses rôles, responsabilités et modalités de fonctionnement à travers des termes de référence validés par le PNLP ▪ Instituer la triangulation systématique des données (RGPH, microplanification, données de la CDM précédente et données locales, données de la CPS et autres programmes santé, etc.) afin d'avoir des données de population proches de la réalité et limiter au maximum les erreurs dans les estimations ; ▪ Développer les procédures opérationnelles standard (POS) associées.
	▪ Élaborer et mettre à jour régulièrement le plan d'analyse et de mitigation des risques de la CDM, avec adaptation aux contextes locaux à partager avec les principaux acteurs ; ▪ Institutionnaliser le partage systématique des documents stratégiques de la campagne à tous les niveaux, en utilisant l'ensemble des canaux disponibles et en s'assurant de leur bonne compréhension et appropriation par les équipes décentralisées.

PRINCIPALES RECOMMANDATIONS (3/5)

Rubriques	Recommandations
Chronogramme	**Sous le leadership du PNLP** : ▪ Élaborer un chronogramme détaillé multi-étapes avec des jalons critiques ; ▪ Partager le chronogramme à tous les niveaux et assurer un suivi régulier de sa mise en œuvre.
Microplanification	▪ **Sous le leadership du PNLP et du groupe technique** : ▪ S'assurer que la microplanification est finalisée et validée afin de configurer le système digitalisé de la chaine logistique avant le démarrage du dénombrement des ménages et remise des coupons. ▪ Ajuster les stocks à partir des données validées du dénombrement avant le démarrage effectif de la distribution.

PRINCIPALES RECOMMANDATIONS (4/5)

Rubriques	Recommandations
Logistique (Transport, Stockage, Suivi)	Sous la responsabilité du PNLP et le sous-comité logistique : ▪ **Entreposage** ▪ Organiser des missions d'évaluation et de vérification des capacités de stockage des MII avec l'appui des ECD et en utilisant, lorsque possible, des outils digitalisés pour collecter et analyser les données. ▪ Privilégier le stockage des MII dans des entrepôts conformes aux normes recommandées par l'OMS et l'AMP (capacité d'entreposage suffisante, protection adéquate contre la chaleur, l'humidité, les nuisibles, etc.). ▪ Assurer la réhabilitation complète des entrepôts nécessitant des travaux de mise en état avant la campagne.
	▪ **Transport** ▪ Mettre en place un plan de gestion des risques de transport (retards, itinéraires, carburant, sous-traitance).
	▪ **Outils** ▪ Mettre en place une planification intégrée et anticipée des outils sous le leadership du PNLP, avec validation conjointe **(au moins trois mois avant l'arrivée de MII),** plan de ravitaillement partagé et suivi rigoureux des quantités et des délais afin d'assurer leur disponibilité en temps opportun.

PRINCIPALES RECOMMANDATIONS (5/5)

Rubriques	Recommandations
Logistique inverse	▪ Formaliser les procédures écrites (POS) pour le retour et l'inventaire final des MII restantes.
Formation	**Sous la responsabilité du sous-comité logistique :** ▪ Mettre l'accent sur les méthodes participatives avec des exercices pratiques de remplissage des outils et des jeux de rôles au cours des formations; ▪ Former spécifiquement les gestionnaires de stocks avant l'arrivée des MII (au moins une semaine); ▪ Assurer un suivi post-formation et une formation continue sur la traçabilité et la digitalisation de la chaine logistique de la CDM.
Gestion des déchets	**Sous la responsabilité du sous-comité logistique** : ▪ Élaborer et mettre en œuvre un plan de gestion des déchets de la campagne (collecte, transport, stockage et élimination sécurisée) avec des responsabilités clairement définies et en conformité avec les normes sanitaires et environnementales du pays et les directives de l'OMS.

PERSPECTIVES POUR LA CAMPAGNE MII 2027

- Pour la macroplanification de campagne 2027, faire une triangulation des populations du **dénombrement précédent**, de la **DC PEV,** et de **l'ANSat** afin d'avoir des données de population justes ;
- Pour les prochaines campagnes, le PNLP procédera au recrutement d'un prestataire logistique pour une période de trois (03) ans, les aspects du cahier de charge ont été formulé et intégré dans le plan logistique en cours de finalisation ;
- La procédure sur la logistique inverse sera rédigée et prise en compte dans les futurs plans logistique de la campagne ;
- Former spécifiquement les gestionnaires de stocks avant l'arrivée des MII (au moins une semaine avant le démarrage de la distribution);
- Prévoir des espaces de stockage plus adaptés.

MERCI DE VOTRE AIMABLE ATTENTION

GOVERNMENT OF SIERRA LEONE

Ministry of Health

National Malaria Control Programme

Optimizing ITN Distribution Channels

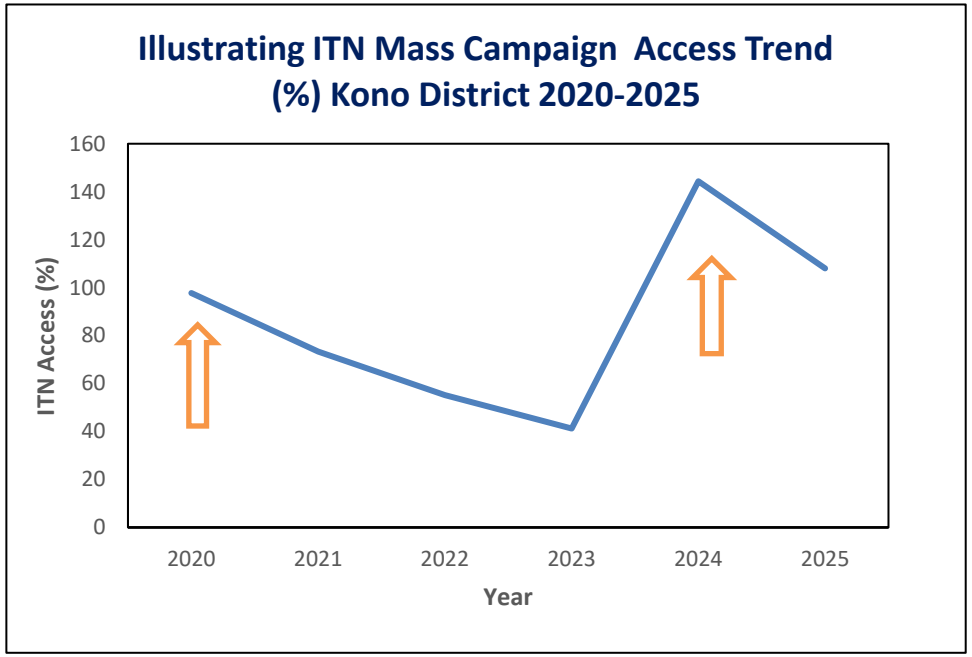
Evidence from Pilot and Scale-Up of School-Based Distribution in Sierra Leone

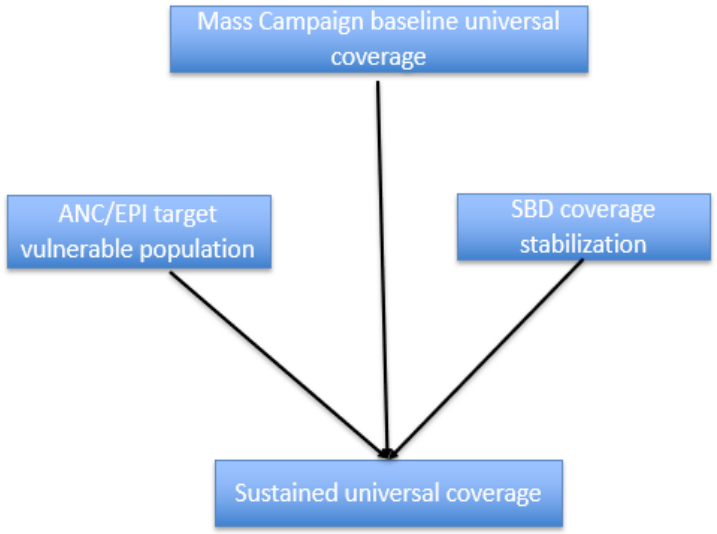
Dr Abdul Mac Falama - Program Manager National Malaria Control MoH

Mr Capri Lonko Koroma - Program Manager ICT Directorate of Planning Policy and Information MoH

Mr Mohamed Sillah Kanu - Executive Officer Informatics Consultancy Firm

Why Optimize Distribution Channels?

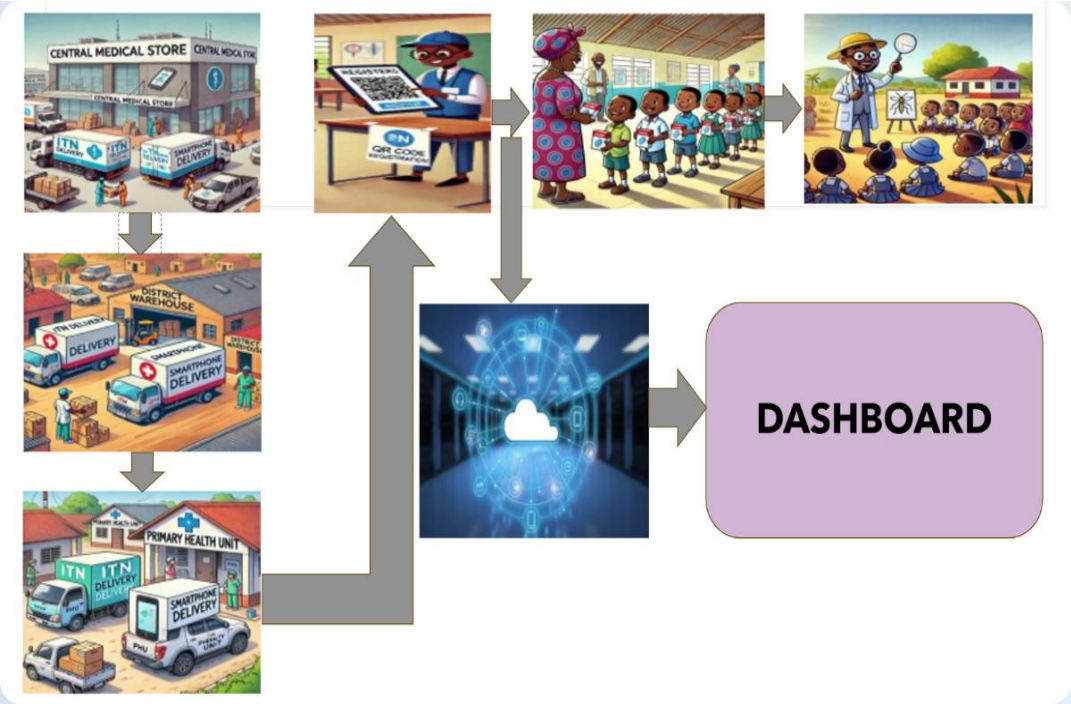


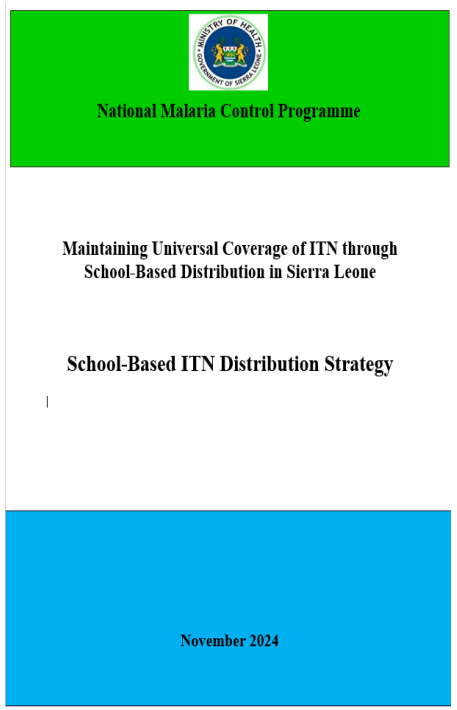


- Mass campaign **(2020 & 2024)** is the primary channel to establish universal coverage; coverage and durability declines between cycle,
- Routine ANC/EPI reach limited populations
- Continuous distribution; School based distribution (SBD) is required to sustain coverage and to reach wider population

Universal coverage is achieved not by replacing campaigns, but by stabilizing them through complementary distribution channels

School Based ITN Distribution Strategy





Criteria for selection of distribution channel: Large population, epidemiologic important, existing infrastructure, cost effective and scalable

School-Based ITN Distribution: High enrolment rates, regular contact with children, platform for health education direct household reach through pupils and has proven effectiveness in many countries

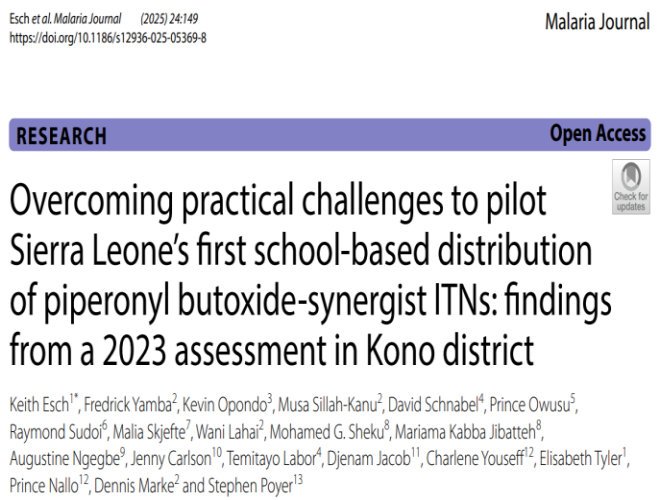
Criteria for targeting SBD: ITN Access, Burden, vector control intervention

SBD Pilot Implementation- Kono District

- Implemented March–April 2023
- 531 schools
- Classes 1, 3, and 5 targeted
- 88,605 pupils reached
- PBO ITNs distributed
- Social behaviour change campaign conducted
- Coverage achieved: **96.8% of target pupils**
- Demonstrated operational feasibility

Post Distribution Evaluation of Kono Pilot

- Survey 920 households' comparison two arms: Households with eligible children (intervention) vs non eligible children (control)
- Significant impact on household net ownership, population ITN access and ITN use between intervention and control households



Esch et al. Malaria Journal (2025) 24:149
https://doi.org/10.1186/s12936-025-05369-8

Malaria Journal

RESEARCH Open Access

Overcoming practical challenges to pilot Sierra Leone's first school-based distribution of piperonyl butoxide-synergist ITNs: findings from a 2023 assessment in Kono district

Keith Esch[1*], Fredrick Yamba[2], Kevin Opondo[3], Musa Sillah-Kanu[2], David Schnabel[4], Prince Owusu[5], Raymond Sudoi[6], Malia Skjefte[7], Wani Lahai[2], Mohamed G. Sheku[8], Mariama Kabba Jibatteh[8], Augustine Ngegbe[9], Jenny Carlson[10], Temitayo Labor[4], Djenam Jacob[11], Charlene Youseff[12], Elisabeth Tyler[1], Prince Nallo[12], Dennis Marke[2] and Stephen Poyer[13]

Key Findings

Indicators	Intervention	Control	P-value
Household owns at least one ITN	**93%**	**69%**	***<0.001***
Household owns at least one ITN per two people	**42%**	**24%**	***<0.001***
Population ITN access	**69%**	**46%**	***<0.001***
ITN use (previous night)	**71%**	**49%**	***<0.001***

Expansion of SBD — Bo and Bombali Districts 2025

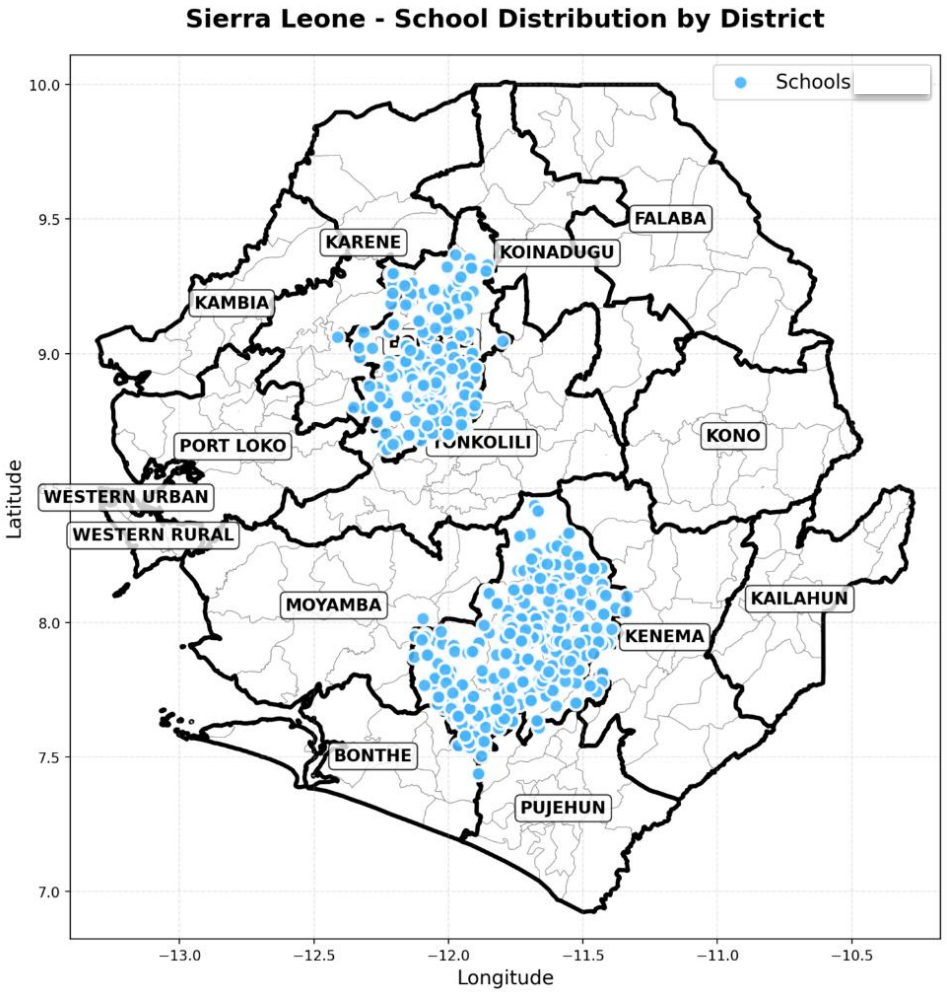
- Implemented May-June 2025
- 1173 schools
- Classes 1,2, 3, 4 and 5 targeted

- 1,161 schools reached

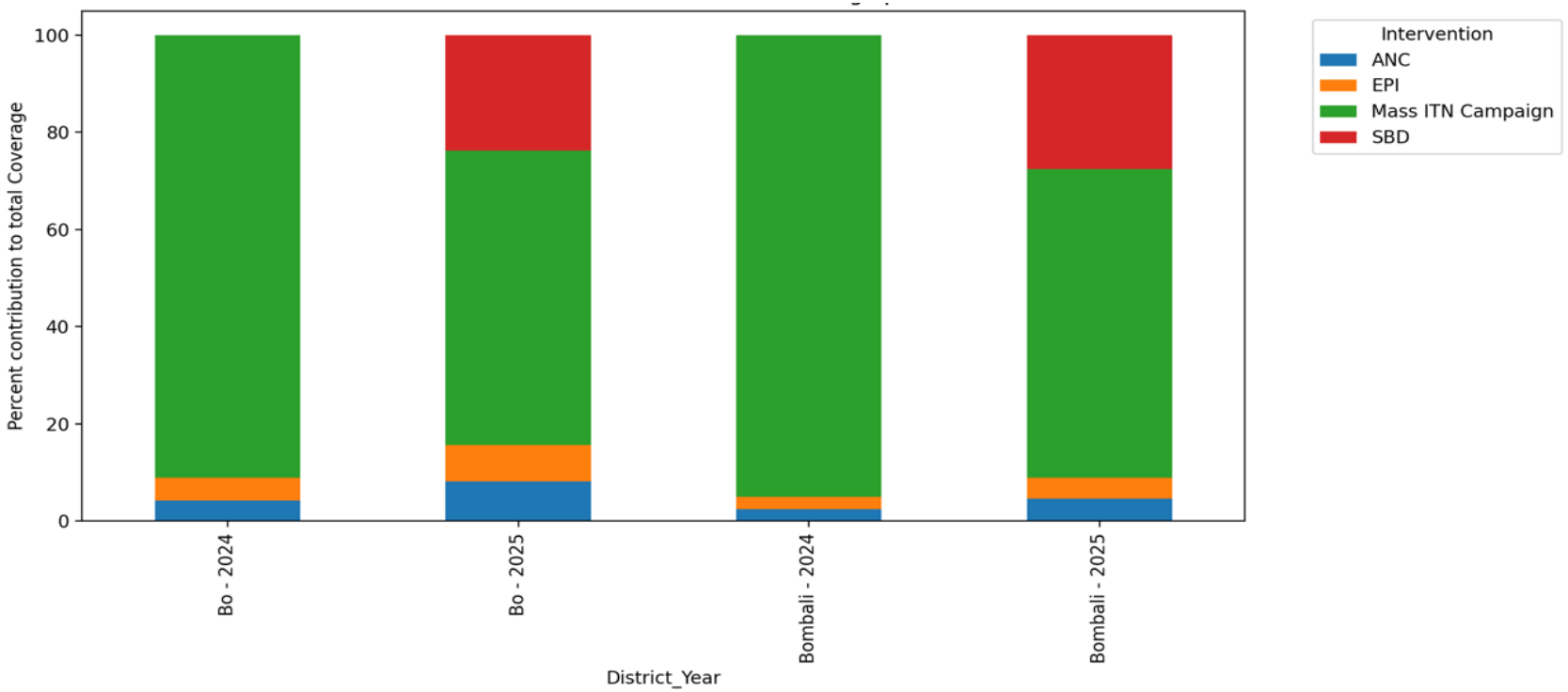
- 225,330 ITNs distributed

- 93% student coverage

- Nearly half a million people protected



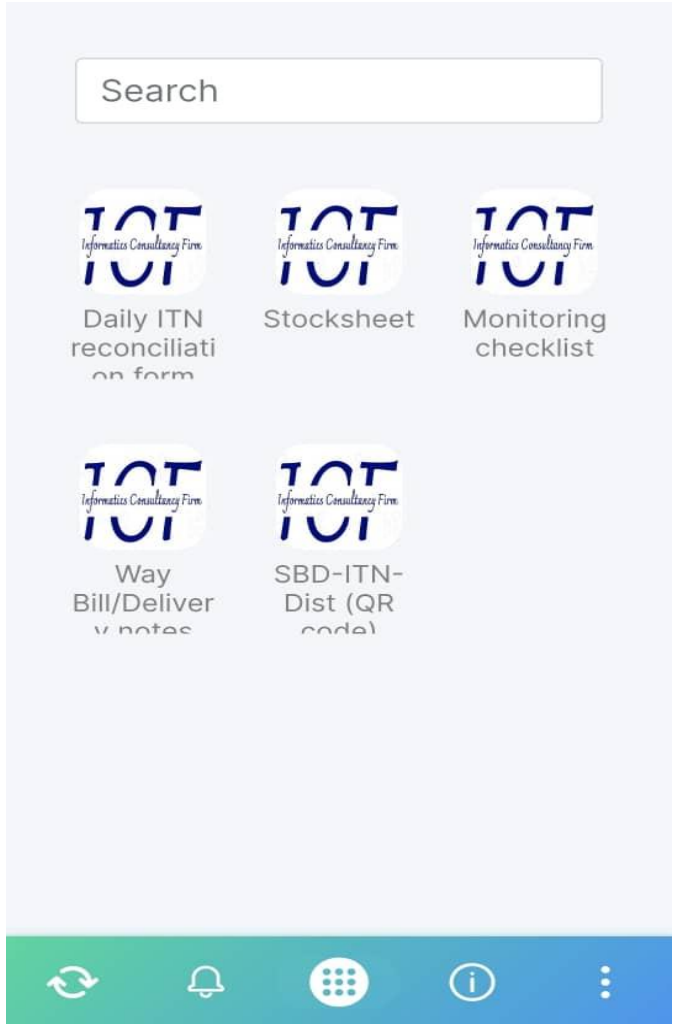
Intervention Contribution to ITN Access



- Mass ITN Campaign is the dominant contributor to ITN access in every District-
- Routine health service channels (ANC and EPI) provide smaller but meaningful steady contributions
- School-based distribution (SBD) provides an intermediate contribution that supplements the gap left by routine channels

Operational and Coordination Mechanisms Enabling SBD

- Partner coordination-led by NMCP
- Education-health sector collaboration: both involved in microplanning
- Use of Digital monitoring tools:
  - Mobile data collection tools
  - QR-coded school registration
  - Real-time monitoring dashboard
  - GPS tracking of distribution
- Integrated behaviour change communication : ITN use and care messaging



Key Implementation Factors Identified During Pilot and Scale-Up

- Strong coordination essential
- Minimum 12 weeks planning required
- Validate school enrolment early
- Align distribution with school calendar
- Digital monitoring strengthens programme management
- Targeted SBCC
- RE-channelling leftover nets to ANC/EPI
- Waste management and recycling systems

Reliable SBD requires structured coordination and monitoring mechanisms to maintain coverage gains

Recommendations for Future SBD

- Incorporate and adopt SBD as part of continuous distribution
- Integrate monitoring into national systems
- Strengthen financing and logistics
- Maintain good collaboration between Health and education sector
- Enhance communication strategies
- Conduct long-term impact evaluation

Conclusion

- Multi-channel delivery is required for universal coverage
- SBD is an effective continuous distribution channel
- SBD stabilizes coverage between campaigns, Improves household ownership and ITN access
- Supports replacement of damaged nets
- Essential for sustaining malaria prevention gains

Tenki Tenki

ACKNOWLEGDEMENT

The Alliance for
Malaria Prevention

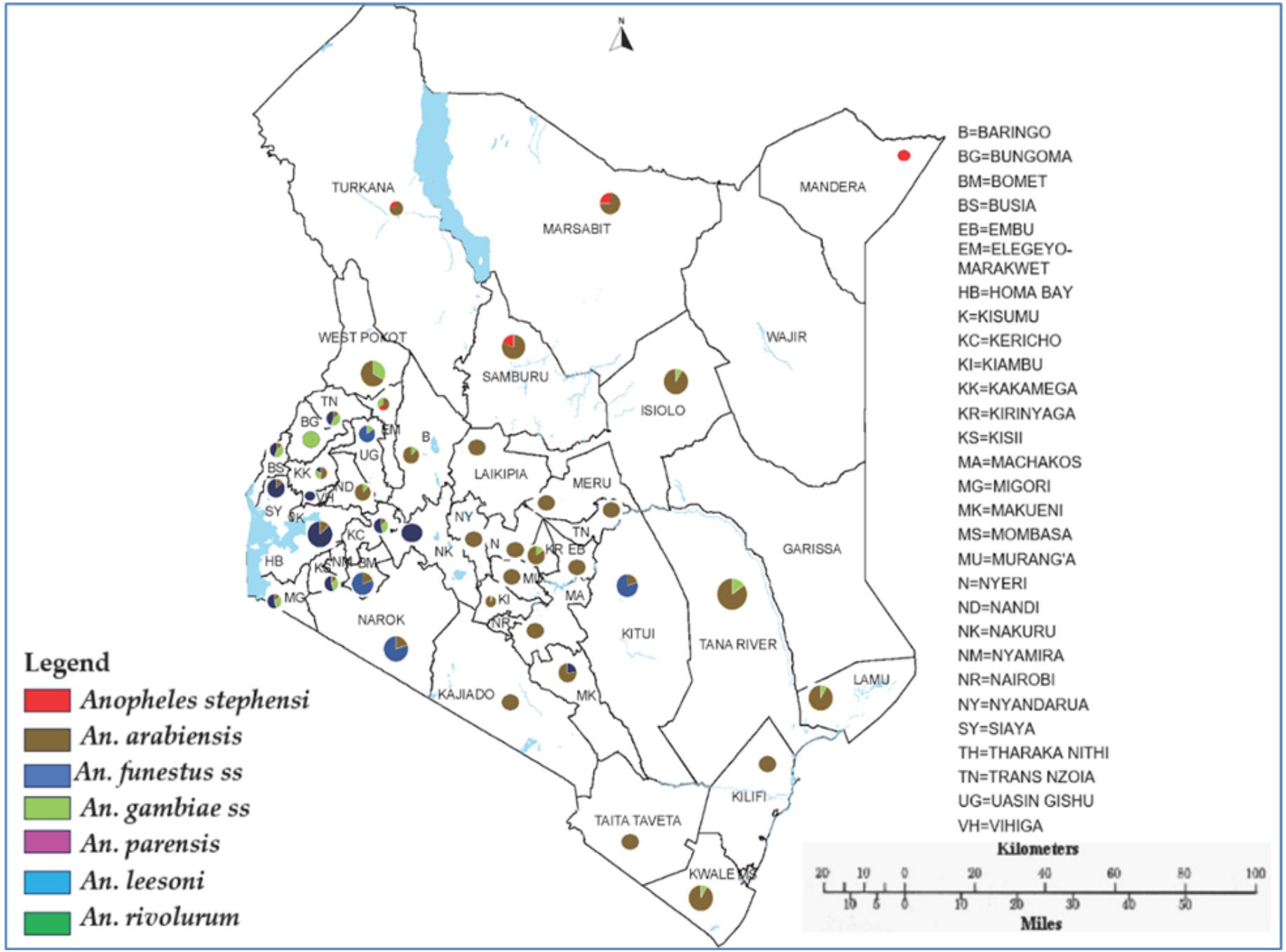
Ministry of Health

KENYA Malaria Overview_ITN Journey

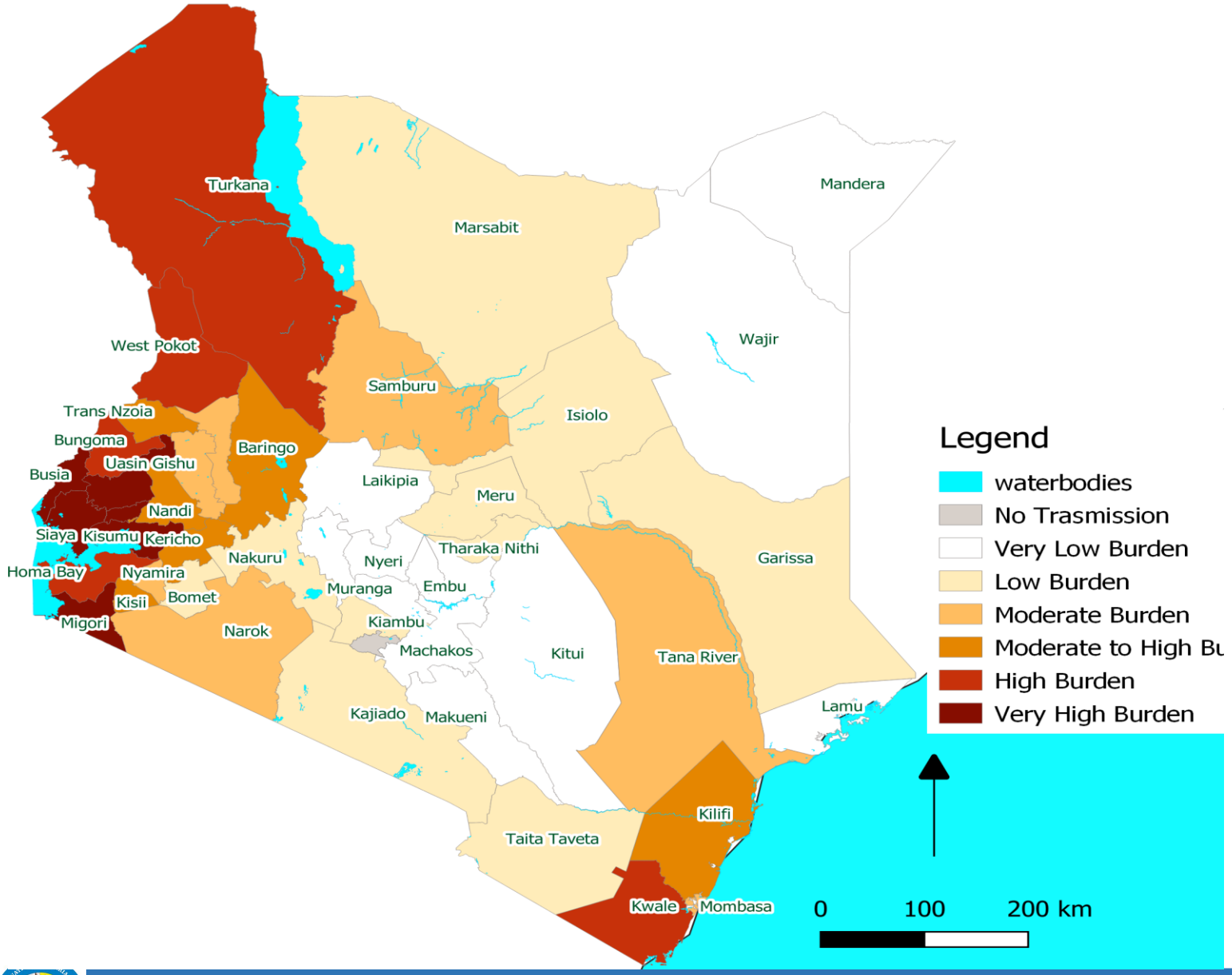
National Malaria Control Programme

EDITH RAMAITA

The Vector map



Malaria Stratification Map, 2024



COUNTY	Stratum Name
Busia	Very High Burden
Kakamega	
Kisumu	
Migori	
Siaya	
Vihiga	
Bungoma	High Burden
Homa Bay	
Kwale	
Turkana	
West Pokot	
Baringo	Moderate to High Burden
Kericho	
Kilifi	
Kisii	
Nandi	
Trans Nzoia	
Elgeyo Marakwet	Moderate Burden
Mombasa	
Narok	
Nyamira	
Samburu	
Tana River	
Uasin Gishu	
Bomet	Low Burden
Garissa	
Isiolo	
Kajiado	
Kiambu	
Marsabit	
Meru	
Nakuru	
Taita Taveta	
Tharaka Nithi	
Embu	Very Low Burden
Kirinyaga	
Kitui	
Laikipia	
Lamu	
Machakos	
Makueni	
Mandera	
Muranga	
Nyandarua	
Nyeri	
Wajir	
Nairobi	No Transmission

Malaria Interventions mix for control

Malaria Burden	CM	IPTp	ITNs	IRS	LSM	Surveillance	EPR	SBC	MVIP	SMC*	PDMC*
Very High Burden	X	X	X	X	X	X		X	X		X
High Burden	X	X	X	X	X	X		X	X	X	X
Moderate to High Burden	X		X	X		X	X	X		X	
Moderate Burden	X		X*[1]			X	X	X		X	
Low Burden	X					X	X	X		X	
Very Low Burden	X					X		X			
No Transmission	X					X		X			

The Objectives of the Kenya Malaria Strategy 2023 – 2027

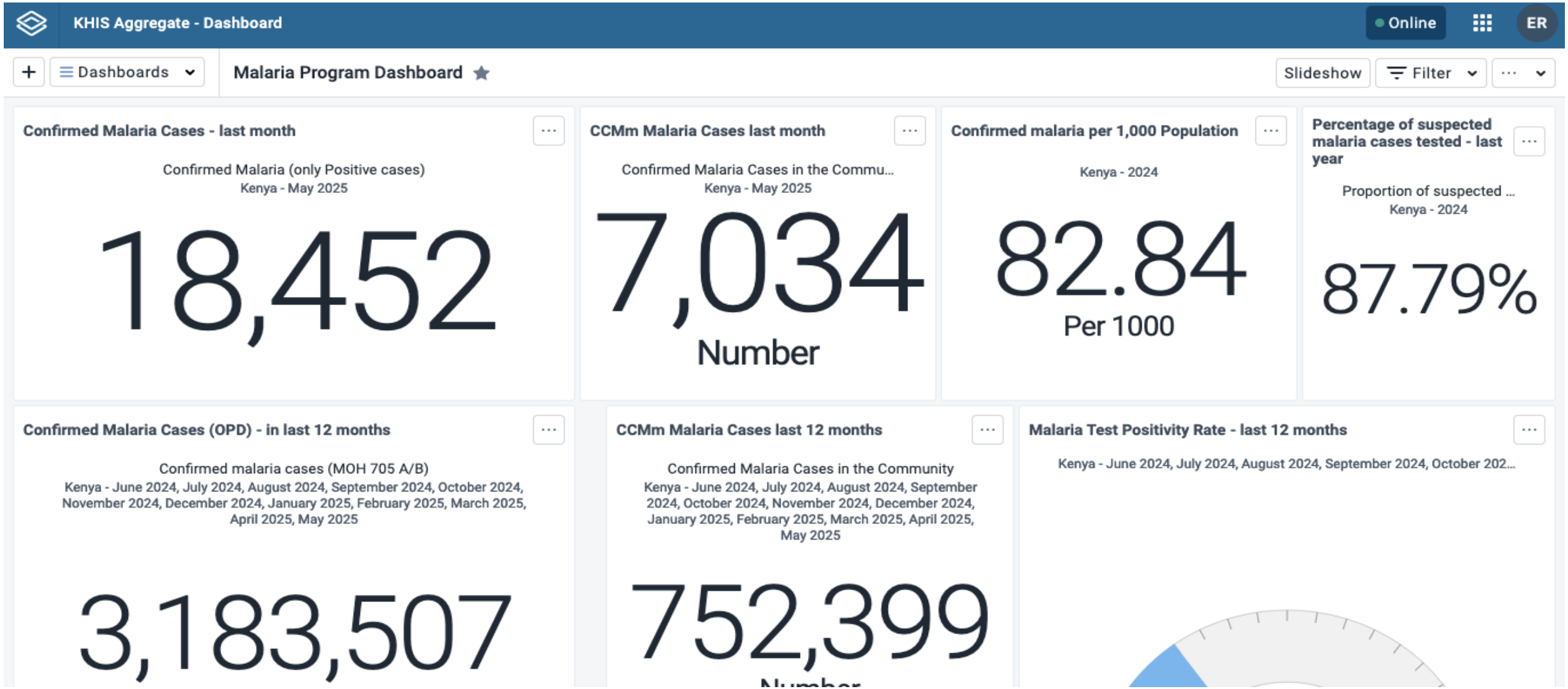
1. To ensure universal coverage of appropriate vector control interventions in all populations at risk of malaria
2. To ensure optimum coverage of malaria chemopreventio n interventions and vaccines in eligible populations
3. To ensure malaria cases are managed according to the national diagnosis, treatment and prevention guidelines
4. Optimal utilization of malaria interventions
5. To strengthen malaria surveillance, and generate evidence for decision making
6. . To interrupt indigenous malaria transmission in four targeted counties by 2027/2028
7. To strengthen leadership, management, governance, sustainable financing and commodity security for effective malaria programming at all levels

1

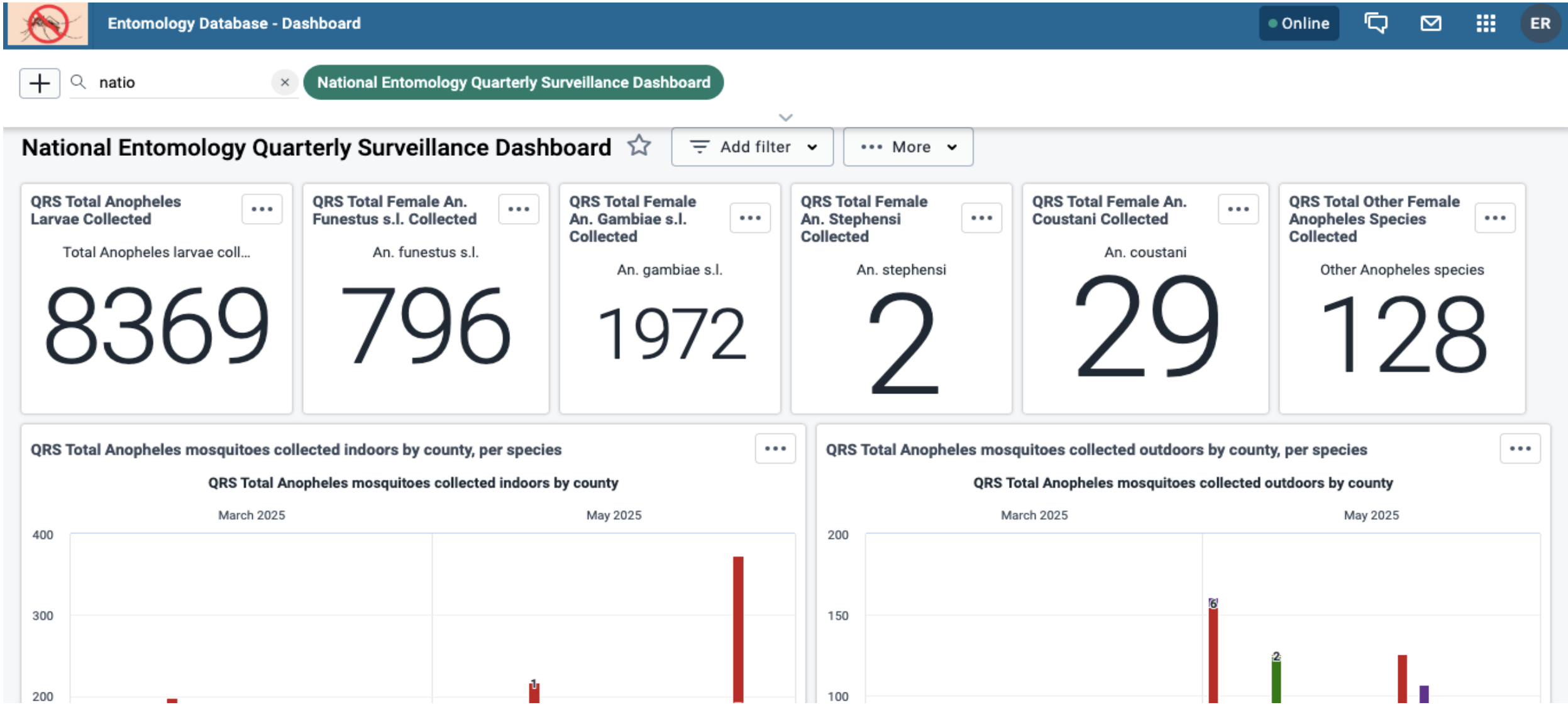
To ensure universal coverage of appropriate vector control interventions in all populations at risk of malaria

- LLIN distribution in target areas
- Indoor Residual Spraying
- Larval Source Management
- Adopt new appropriate Vector Control interventions and technologies
- Review and update Vector Control guidelines
- Strengthen Vector Surveillance for generation of vector bionomics and Insecticide resistance profiles
- Optimize entomological data capture and use in decision-making
- Strengthen the generation of data on the efficacy and effectiveness of vector control tools and technologies

Malaria Data for decision making_Kenya Health Information System (KHIS)



Malaria Data for decision making_Entomology Dashboard



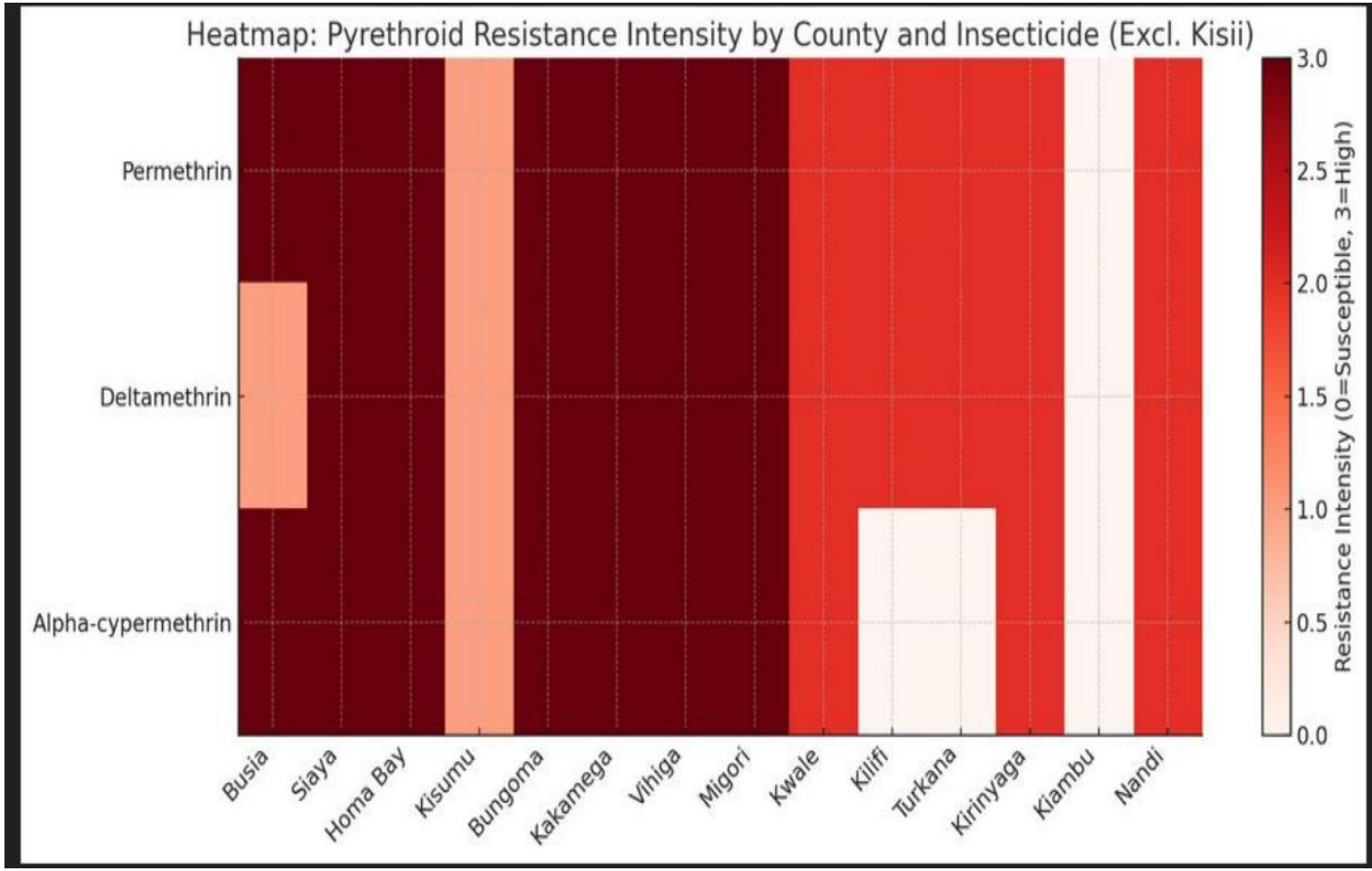
ITN Allocation Principles

- Allocation based on malaria risk stratification.
- Prioritization of high and very high burden areas.
- Sub-county ranking using epidemiological indicators
- Integration of resistance data to inform ITN product selection.

		Burden rate.					
County	SubCounty	Yr 2021	Yr 2022	Yr 2023	Yr 2024	July 2024 - June 2025	Av. Burden Rate
Siaya	Alego Usonga	247.56	293.41	283.06	227.2	253.98	261.04
Siaya	Gem	200.89	258.95	277.79	204.15	237.06	235.77
Busia	Teso North	198.01	256.69	298.35	172.1	175.04	220.04
Turkana	Turkana West	134.6	117.87	183.23	303.05	320.95	211.94
Siaya	Ugunja	188.72	234.58	235.85	181.68	196.89	207.54
Siaya	Ugenya	157.06	212.25	251.96	194.77	216.27	206.46
Siaya	Rarieda	187.1	197.85	194.06	197.47	189.66	193.23
Migori	Kuria West	160.06	240.06	254.82	159.77	145.28	192.00
Busia	Butula	166.8	238.46	309.96	133.33	109.29	191.57
Kisumu	Seme	168.03	192.42	228.9	190.15	168.83	189.67
Kakamega	Khwisero	249.21	185.39	222.47	156.59	119.7	186.67
Busia	Matayos	177.3	198.42	238.19	148.11	118.27	176.06
Siaya	Bondo	168.16	188.07	176.46	153.96	155.07	168.34
Migori	Nyatike	144.98	219.25	207.9	134.3	109.61	163.21
Busia	Nambale	188.69	197.26	241.91	105.39	80.24	162.70
Busia	Bunyala	134.26	208.43	257.29	132.36	76.34	161.74
Busia	Samia	162.29	226.77	232.72	108.01	72.91	160.54

Data-Driven ITN Selection

- Widespread pyrethroid resistance detected, with multiple resistance mechanisms.
- Dual Active Ingredient (Dual AI) ITNs recommended in affected areas.
- Integration of ITNs with IRS in selected locations for enhanced impact.



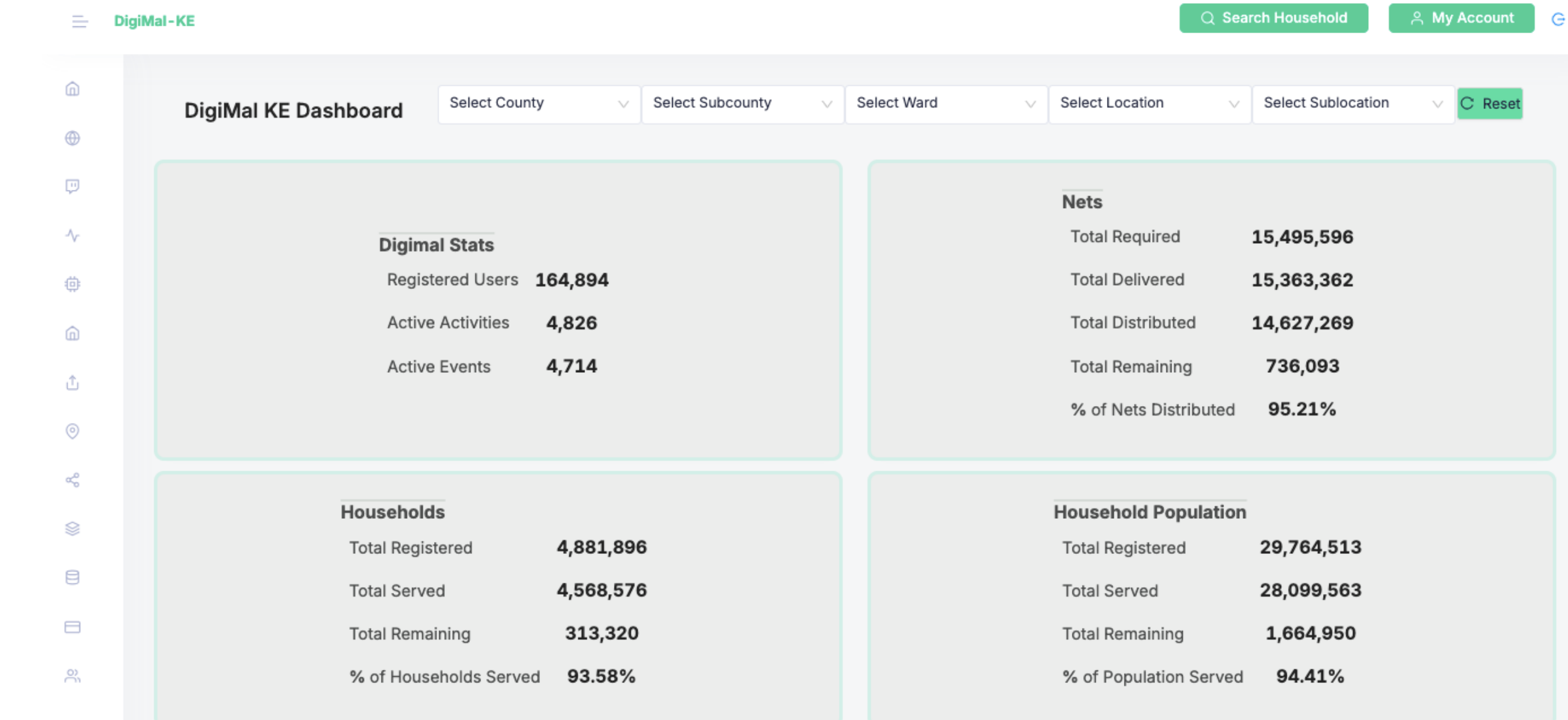
ITN Distribution Channels in Kenya

- **Mass Campaigns**
  - Conducted every three years.
  - Fixed distribution points.
  - Target: All households in selected areas.
- **Routine**
  - **ITN Distribution in Maternal Child Health Care (MCH) Clinics**
    - ITNs issued during Antenatal Care and child immunization visits.
    - Target: Pregnant women and children under one year.
  - **Community Continuous Net Distribution (CCND)- Piloted**
    - Household-level assessment by **Community Health Promoters (CHPs).**
    - Replacement or referral facilitated through Community Health Assistants (CHAs).
    - Targets pregnant women and Children under 1 year
- **Commercial Sector**
  - ITNs available for purchase through private outlets.

ITN Country Historical Overview

Year	Population Targeted	Nets Distributed	Campaign Methodology
2006	Children 9 months to 5 years nationwide	3.4 million	Phase 1 — combined with measles vaccine
			Phase 2 — standalone
2011–2012	All at risk of malaria in 80 districts in Lake and Coast endemic and epidemic-prone zones	10.6 million	Phased campaign
2014–2015	All at risk of malaria in 23 counties in malaria endemic and epidemic-prone zones	13.1 million	Phased campaign
2017–2018	All at risk of malaria in 23 counties in malaria endemic and epidemic-prone zones	15.1 million	Phased campaign
2020–2021	All at risk of malaria in 27 counties in malaria endemic and epidemic-prone zones	16.2 million	Blocked campaign
2023–2024	All at risk of malaria in 28 counties (implemented in 24 counties)	14.6 million	Phased campaign- **Digitized**

2023/2024 End to End Digitized Mass Net Campaign



Strategic Adjustments Due to Resource Constraints

2026/2027 Mass Campaign Adaptations

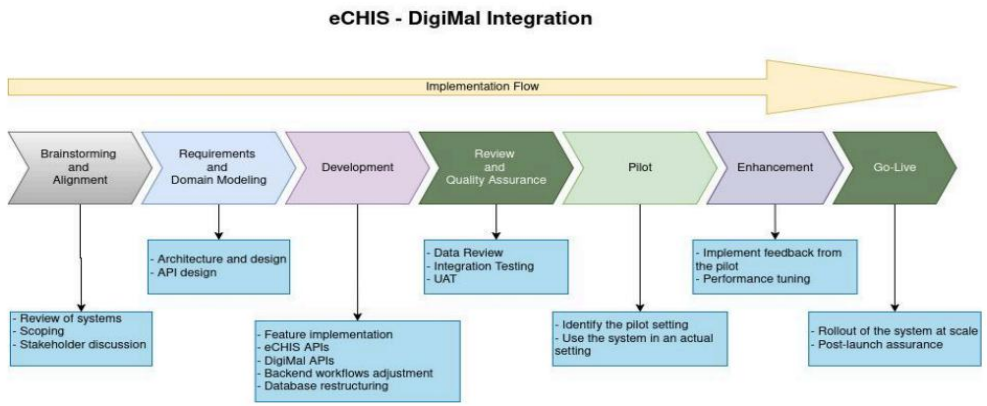
- Shift from county-level to sub-county-level stratification.
- Prioritization based on malaria burden and available resources.

Integration with Existing Systems

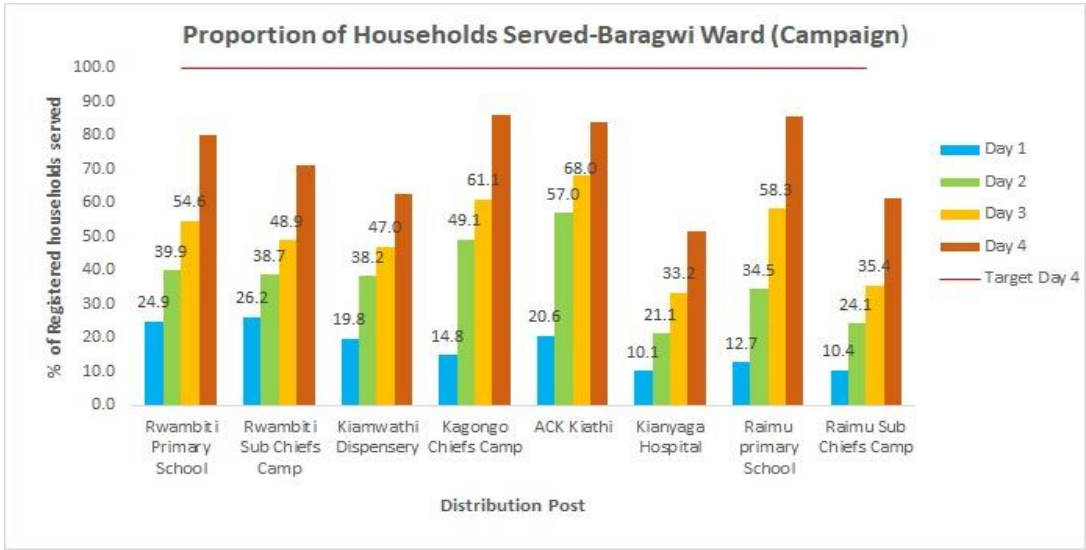
- Use of Electronic Community Health Information System (eCHIS) and DigiMal KE.
- Reliance on continuously updated household registration data
- Reduced duplication and improved efficiency.

Key Challenges

- Incomplete eCHIS coverage in some areas.
- Variability in household data completeness.



Implementation Roadmap showing the key activities.



Strategic Adjustments Due to Resource Constraints : Routine ITN distribution

2 Scenarios in Consideration:

- Continuous distribution between mass campaigns vs
- Full continuous distribution: Through MCH (ANC&EPI) & CCND

Justification for Continuous Distribution:

- Reduce high cost of Mass Campaigns
- Maintain ITN coverage all year round
- Sustainability through leveraging of existing health systems
- Increase ITN use and care at HH level through SBC by CHPs

Community Continuous Net Distribution (CCND) Workflow

Integrating CCND within the existing health information system eCHIS

Design within eCHIS:

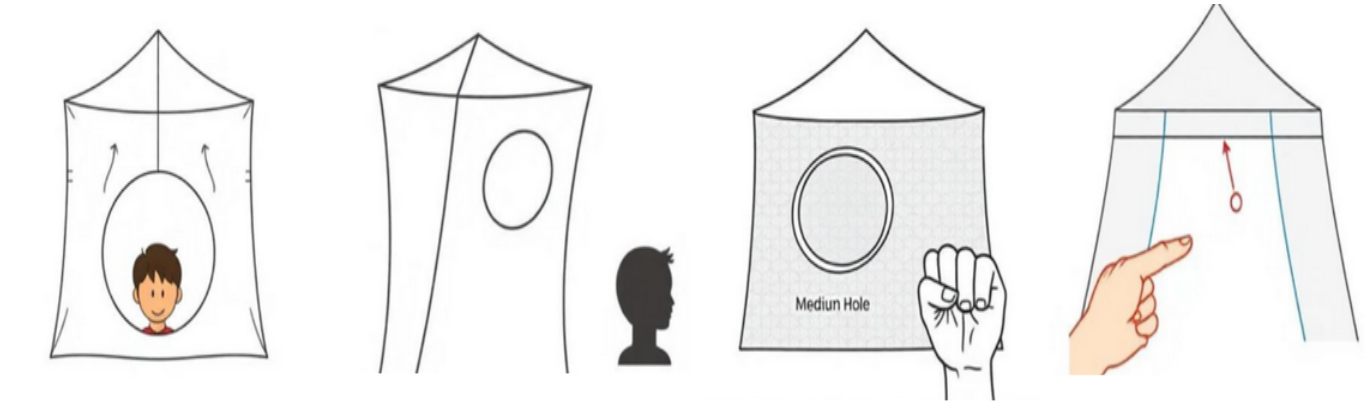
- CHPs to undertake household assessments during routine HH checks and service delivery
- System allows ITN assessment only once per month
- System allocates E-Vouchers for ITNs based on HH ITN need
- Tasks for ITN issuance are received by Community Health Assistant (CHA) at link facility
- HHs receives system generated messages for ITN collection at link health facility
- ITN issuance at Link facility
- ITN receipt message to HH member

CCND: Household Assessment

- CHP confirms HH size and updates HH members
- Determine number of ITNs available-Physical count
- Identify any pregnant woman or under one in the household
  - Check the MCH booklet and confirm if ITNs were issued
  - Check for RECEIVED ITN, FREE NET stamp ON ANC and CWC sections- shows ITN were issued
  - If not issued use the eCHIS-Pregnancy Registration & Screening or Pregnancy Home Services; Immunization Services.
  - Refer the child or pregnant to MCH at health facility for ITNs and other services

CCND: ITN Condition Assessment

- All holes counted by size and recorded in eCHIS.
- Proportionate Hole Index (PHI) automatically calculated to determine ITN condition
  - PHI 0–64: Good condition
  - PHI 65–642: Serviceable/repairable
  - PHI ≥ 643: Unserviceable (replacement required)



NB: Complete all size 4 holes on ALL sides before going to size 3 and so on

NB: Record size 4 on eCHIS after completion before proceeding to counting and recording size 3 and so on

E-Voucher Generation and ITN Issuance

- E-vouchers generated automatically for:
  - Insufficient ITNs based on household size (1 ITN per 2 people).
  - Nets with PHI ≥ 643.
- System excludes MCH-issued ITNs to avoid duplication.
- E-voucher triggers:
  - Task notification to CHA.
- SMS notification to household member

ITN Issuance and Commodity Management

- ITNs supplied to and tracked at the link facility.
- CHA orders ITNs through eCHIS.
- Household members verified using national ID.
- Pregnant women and children under one served via MCH clinics.
- System sends confirmation message upon ITN receipt.

Community Education

- CHPs provide household-level education on:
  - Proper ITN use and care.
  - Repair of serviceable nets.
  - Importance of timely replacement.


Malaria Free KENYA
Case Mgmt
Vector Control
MIP
SBC
Elimination
SMEOR
Prog Mgmt

amp | The Alliance for Malaria Prevention

SMC Alliance

Discussion - Questions & Answers

Discussion - Questions et réponses

Discussão – Perguntas e respostas

Optimizing ITN Channel Delivery: Decision tool to support strengthening ITN routine distribution

AMP, February 2026

Sophia Kaufman

CLINTON HEALTH ACCESS INITIATIVE

To optimize routine ITN channel delivery with limited resources, current routine systems should be evaluated to prioritize areas for improvement based on what would have the greatest impact on net access and use among target populations

Problem Statement

Malaria programs use routine delivery systems to get nets to those most at risk of dying from malaria — pregnant women and young children. As global funding shrinks and health budgets tighten, these systems become even more critical. Yet, coverage gaps persist in routine distribution. With fewer resources, smarter use of this channel is no longer optional — it is essential to reducing malaria deaths.

Assess Current Routine Distribution System Performance

To address these challenges, countries need structured ways to examine their LLIN distribution channels — identifying where the system is working, where there are gaps, and where targeted action will have the greatest impact.

Identify Specific Challenges

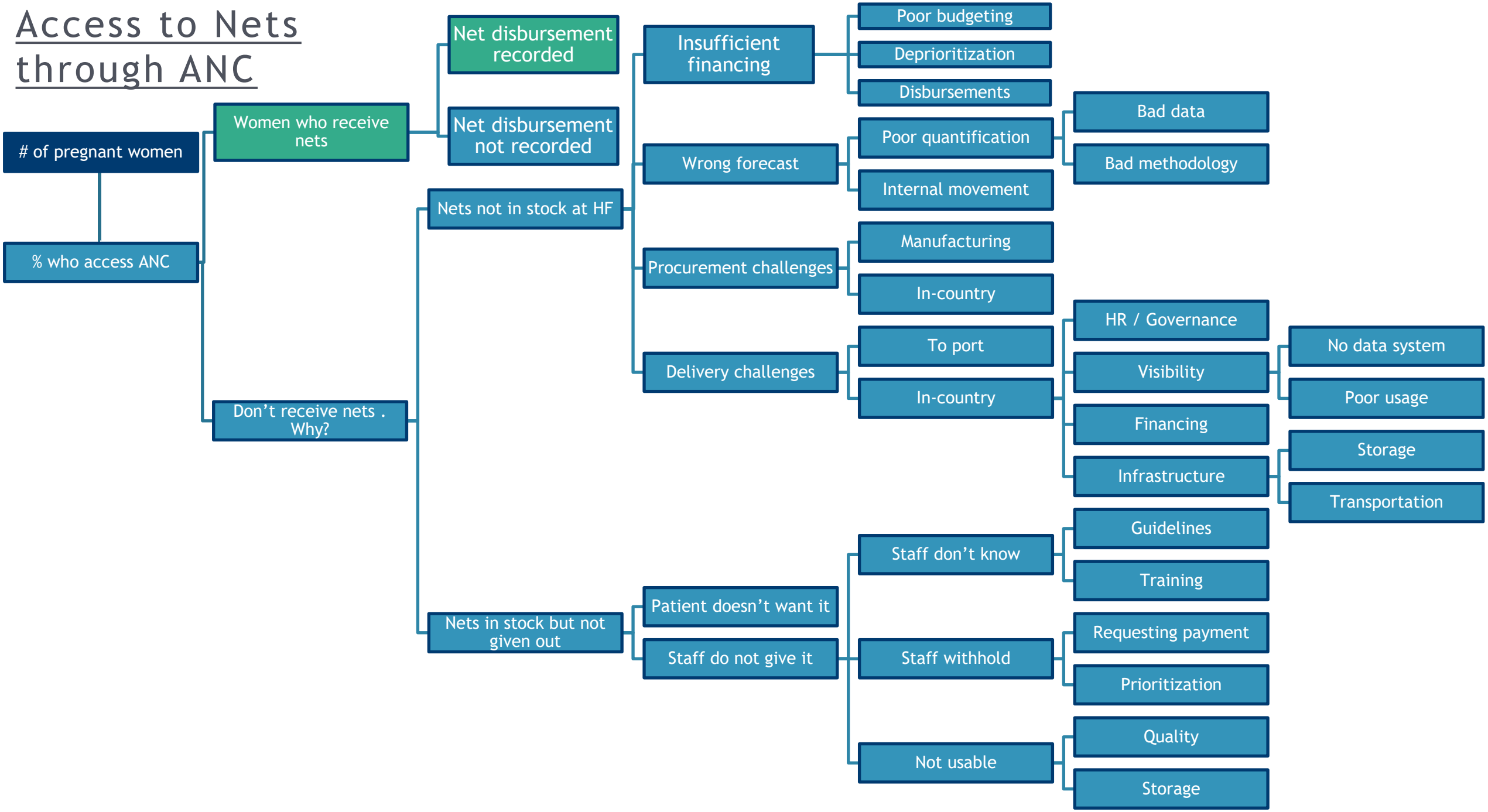
A key part of this is root cause analysis: understanding *why* certain coverage gaps exist.

Measure the Impact of Corrective Actions

CHAI teams have been supporting countries with examining their LLIN distribution systems to pinpoint the specific barriers

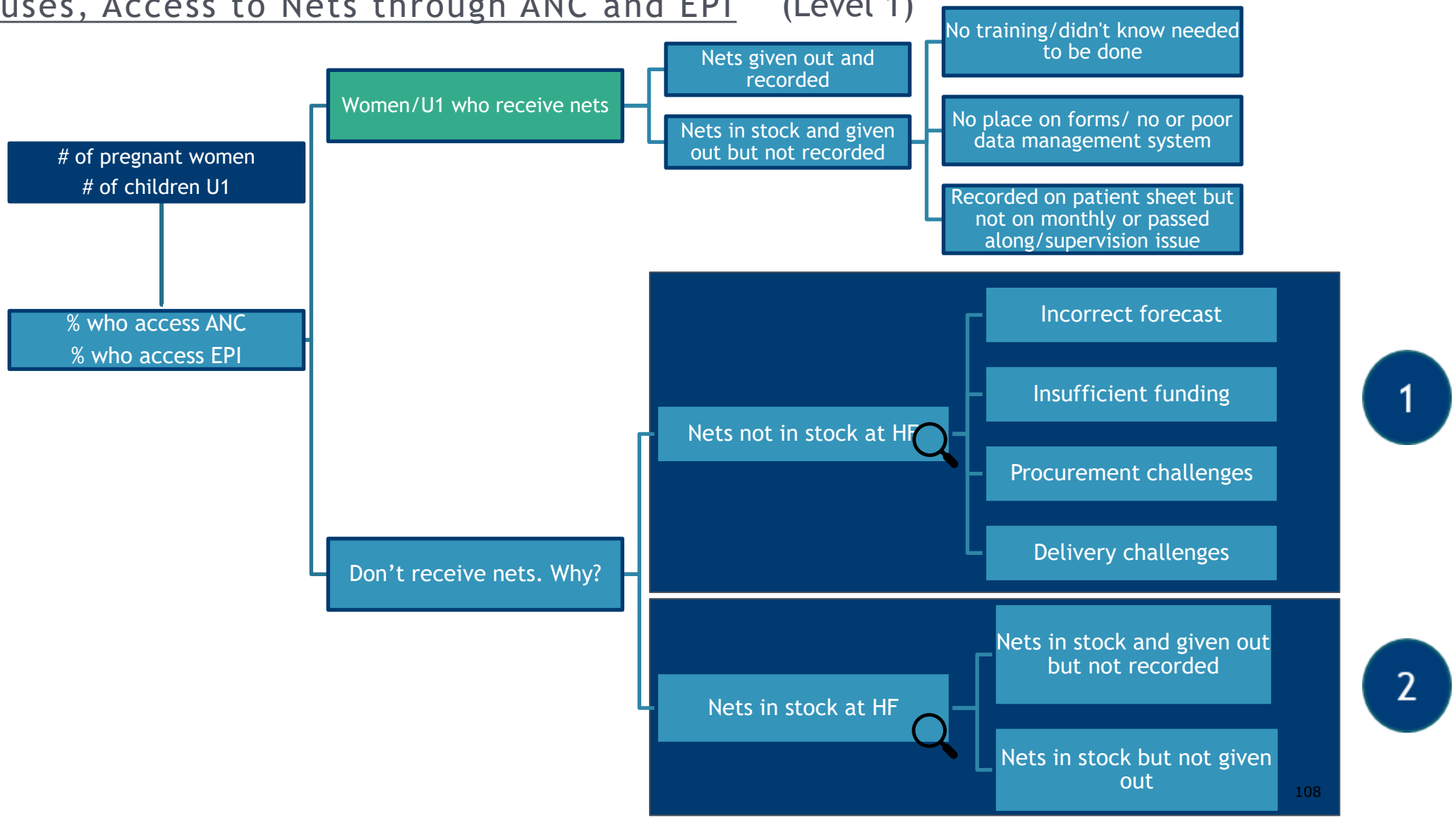
This **decision tree tool** was created as a practical visual to help **National Malaria Control Programs and their partners** have a clear, systematic way to understand system weaknesses and which gaps to **prioritize investment in resolving** to maximize impact with limited resources.

Access to Nets through ANC



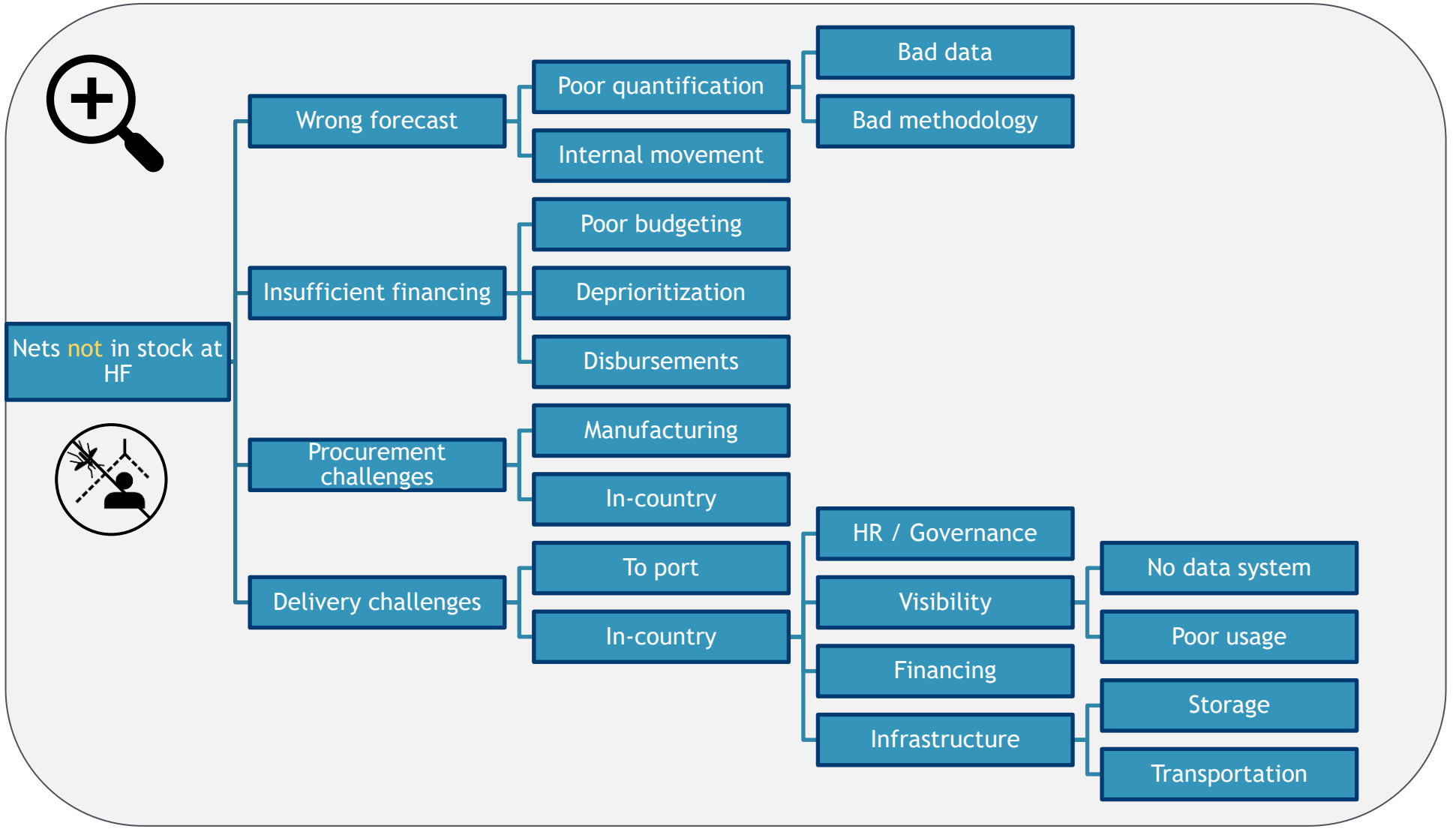
This decision tree helps programs identify the routine ITN channel challenges and their root causes (1/3)

Root Causes, Access to Nets through ANC and EPI (Level 1)



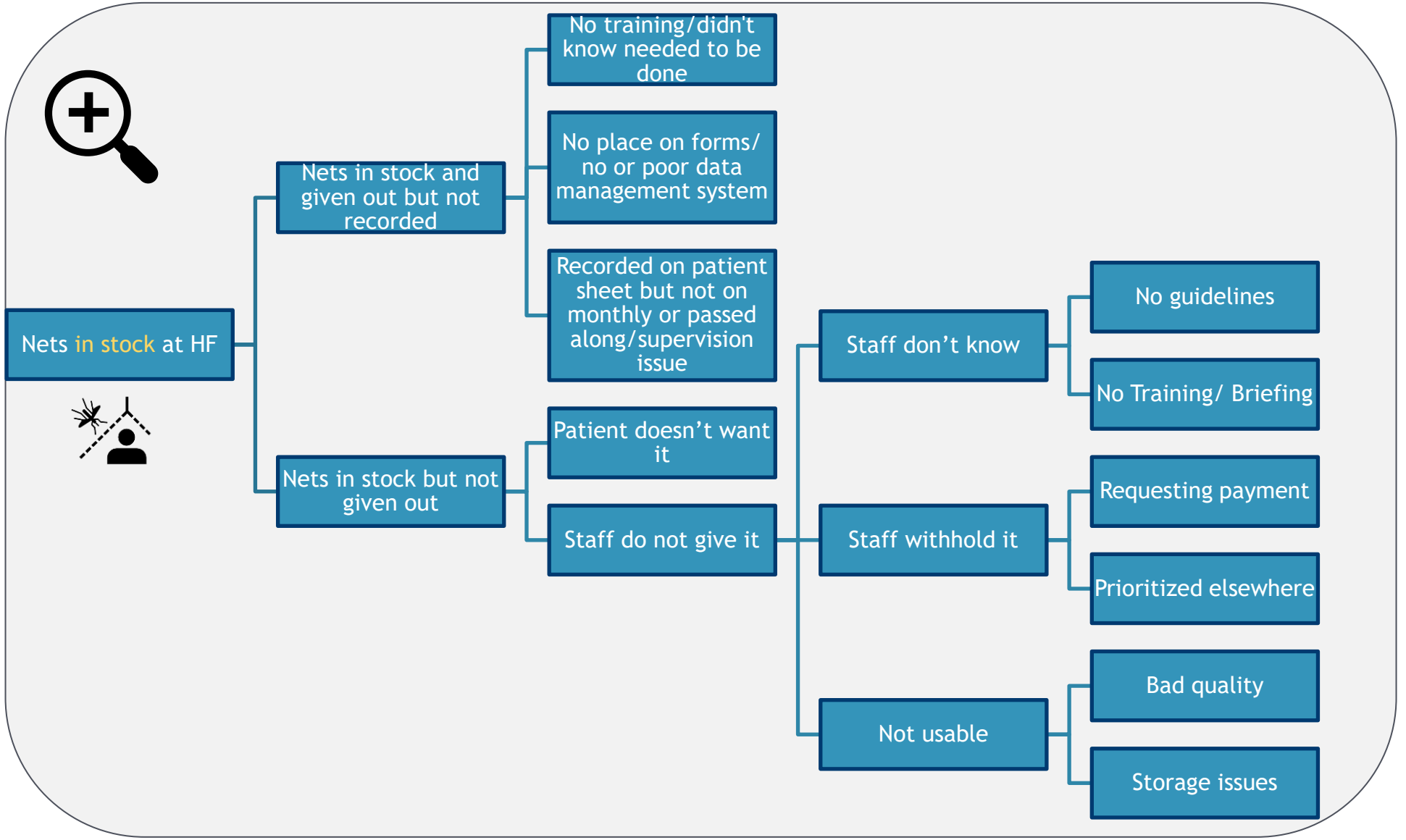
This decision tree helps programs identify the routine ITN channel challenges and their root causes (2/3)

Root Causes, Nets not in stock, ANC and EPI (Level 2)

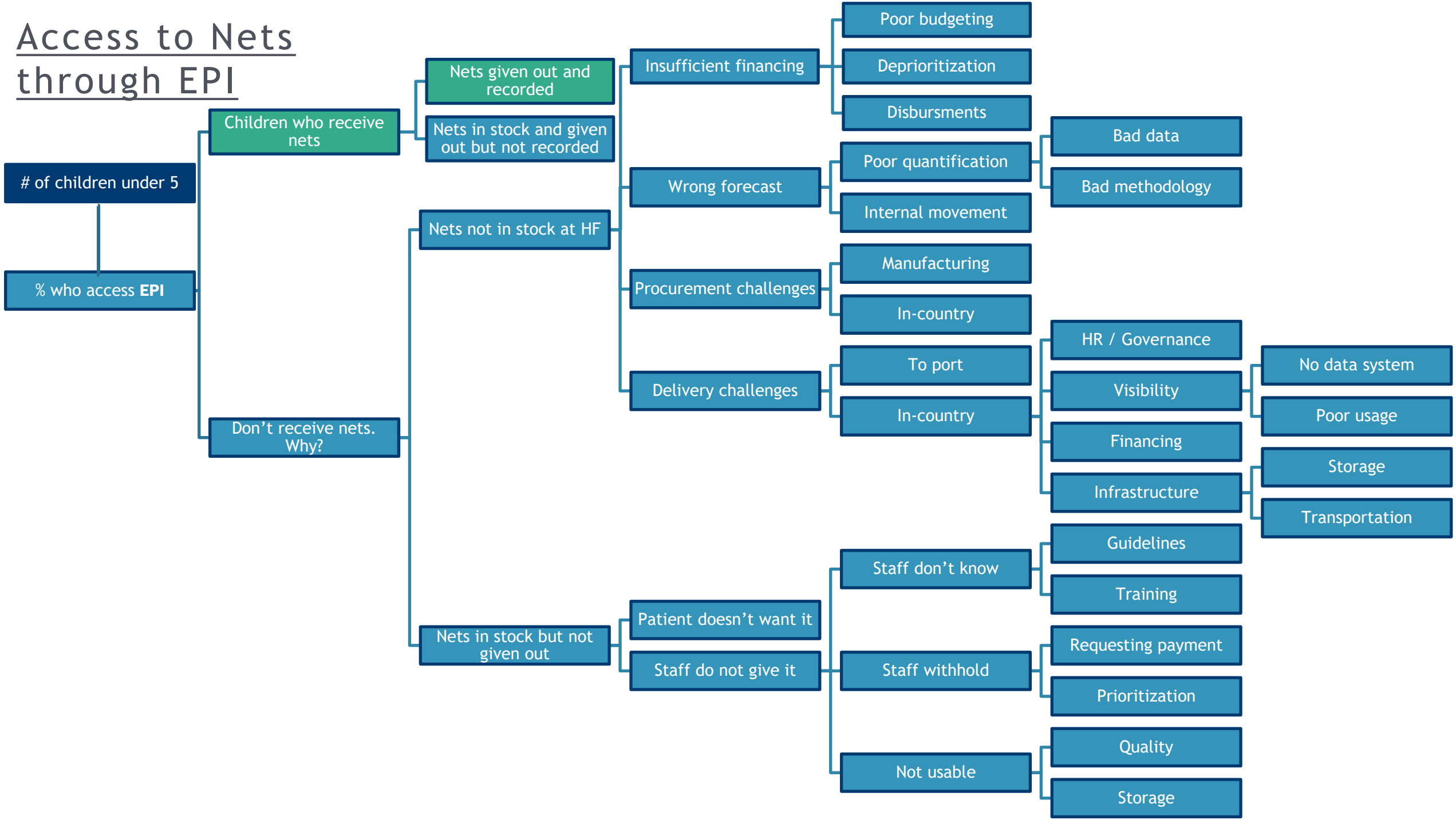


This decision tree helps programs identify the routine ITN channel challenges and their root causes (3/3)

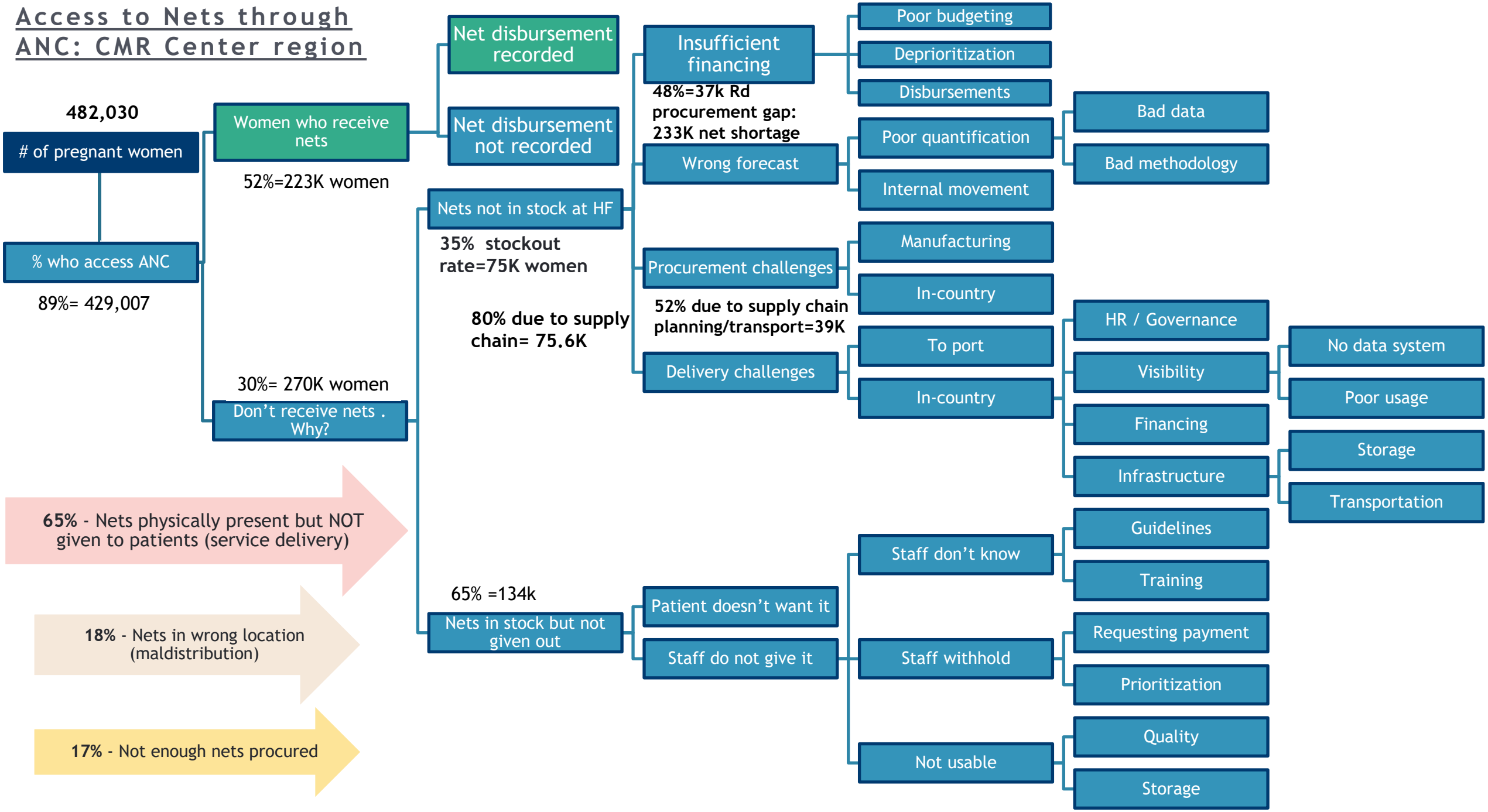
Root Causes, Nets not in stock, ANC and EPI (Level 2)



Access to Nets through EPI



Access to Nets through ANC: CMR Center region



We anticipate this could help countries identify which gaps in routine systems matter most to strengthen with limited funding

A few considerations and tips…

- These trees look at gaps in *access* through the routine system. It is also important to **look at *use*** after people receive access
- These trees could/should be **replicated at subnational levels** to capture heterogeneity in system performance within the country
- Try to quantify each node as best as possible, particularly to the left side of the tree. However, **don't let data gaps stall progress on thinking through the tree** – estimates could still be useful, and working to improve understanding of those data gaps can be an objective for routine system strengthening
- **Iterate**! Monitor the impact of improvements to the system, and see how much further access results

Thank you for your attention

Ideas and feedback welcome! Please reach out to: skaufman@clintonhealthaccess.org

Evaluation of the Routine distribution system and key next steps for strengthening the channel

Dr. Dominique BOMBA

Head of the Malaria Prevention Department

NMCP-Cameroon

PNLP
PROGRAMME NATIONAL DE LUTTE CONTRE LE PALUDISME

PLAN

- ***Routine challenges***
  - ***Supply chain challenges***
  - ***Facility-Level Practices & Quantification challenges***
  - ***Monitoring and evaluation challenges***

Mechanisms for Routine distribution of LLINs in Cameroon

Distribution of LLINs to **pregnant women** during antenatal care;

Distribution of LLINs to **children under one** year of age through immunization services;

Distribution of LLINs to **primary school** children;

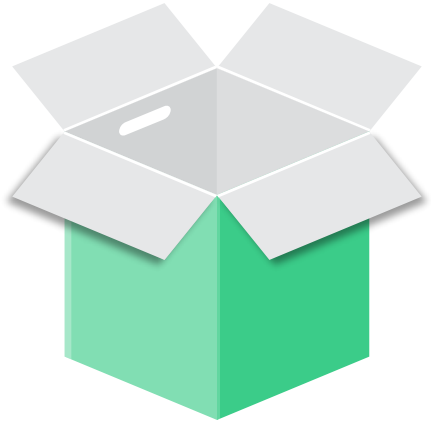
Distribution of LLINs to **residents of public and private facilities** for children in distress;

Distribution of LLINs through **social marketing**.

Source of supply for routine LLINs in Cameroon

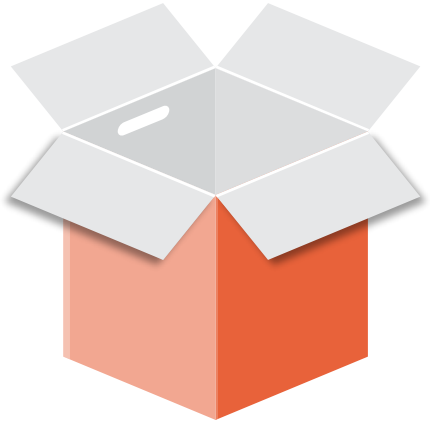
Global Fund

Aligned with the three-year grant, but often funded for only two years.



PMI

Far North and North regions .



State

rarely available due to lengthy procurement procedures.

UNICEF and Others

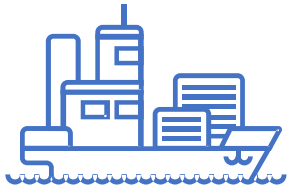
One-off distribution, usually in response to crises and disasters .

Supply Chain Challenges

Routine MILDA Supply Chain

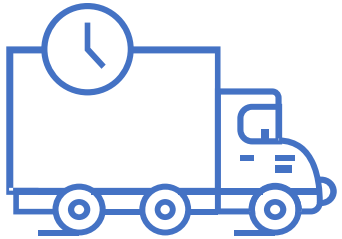
Production

Arrival at the seaport of Douala



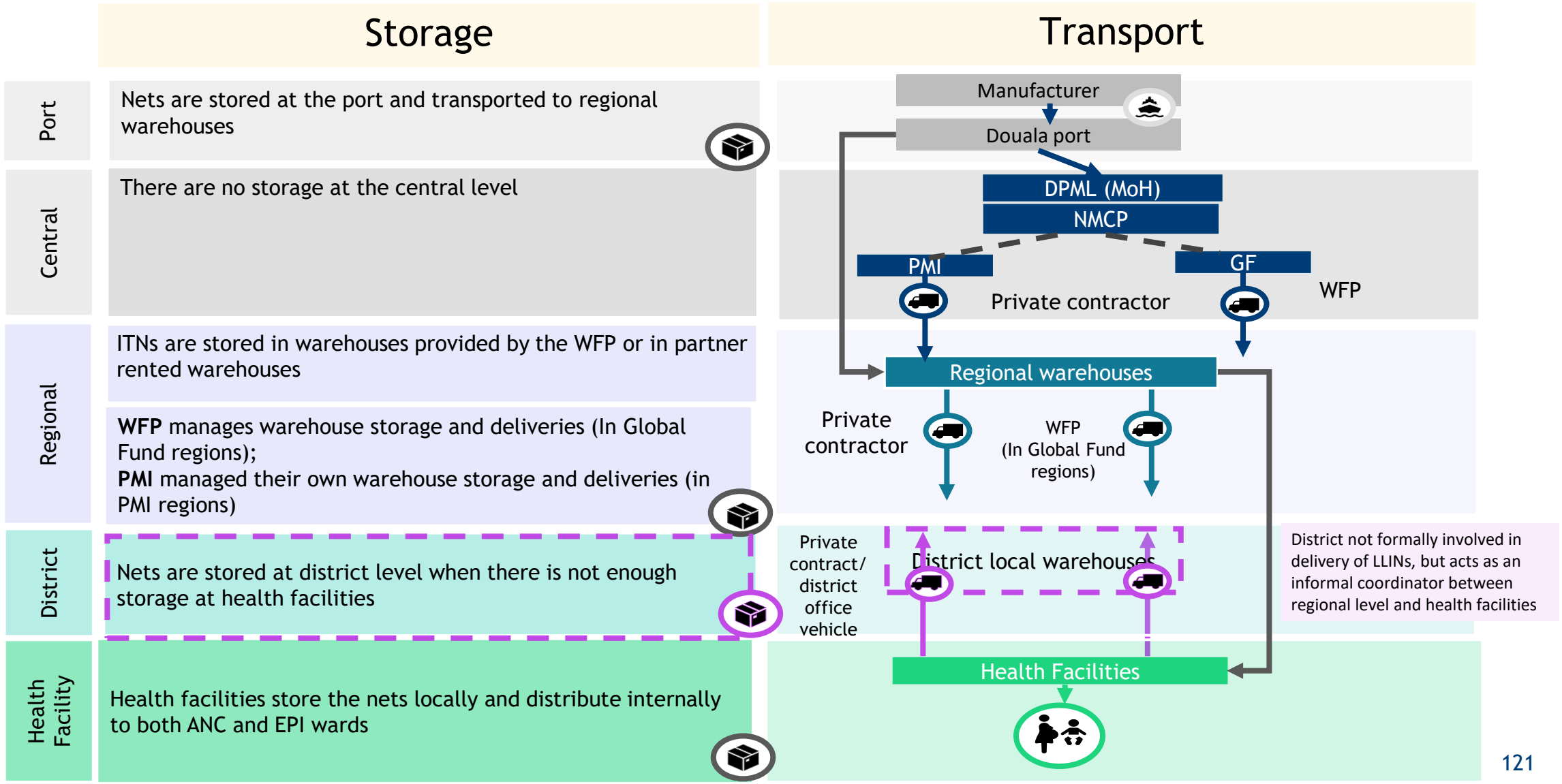
Transport from the Douala seaport to the regional warehouse and storage.

Transport from the region to the HCF (PAM)



Distribution to beneficiaries

Landscaping of supply, storage and transport systems (1)

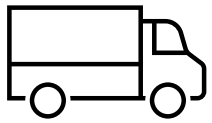


Supply chain and transportation constraints, combined with limited distribution funding, affect stock availability

Supply Chain: Transport

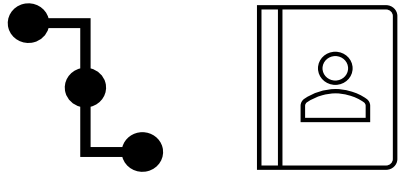
- Transport from district warehouse to facilities is not donor-funded; facilities or districts pay.
- Transport is informal and inconsistent, with no clear responsibility assigned.
- Last-mile transport is unfunded

- **Rainy season inaccessibility** in some regions
- PMI withdrawal left gaps, slowing redistribution in North and Far North

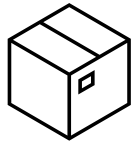


Financing and Procurement

- Funding, payments, and budgets are not clearly reported at facility or district levels.
- Procurement is handled nationally, but transport and distribution costs are often unfunded, creating a major bottleneck.



Storage conditions



Supply Chain: Storage

- Nets rationed or smaller quantities of LLINs picked up due to limited storage
- ANC/EPI nets often stored/mixed together → confusion and risk of missing a target group
- **District involvement varies** across settings and storage exists only in some locations

Limited net storage can lead to improvisation and mixing with other commodities

LLINs are stored in multipurpose rooms that also serve as patient areas

Office net storage in a facility in Centre region

Nets being stored at a district office storage room

LLINs are stored together with other items or in areas that offer limited protection, which may not fully align with guidelines

Regional storage facility at a regional delegation's office

Several facilities, however, demonstrated strong compliance, with LLINs properly packaged and stored according to national standards.

Credits: *CHAI staff field photos*

Facility-Level Practices & Quantification

Weak respect for the distribution strategy

System Structure & Management of Routine Distribution

- Supply and demand don't always match.
  - Sometimes due to population changes (e.g., IDPs) or estimation challenges.
  - Estimates can be less accurate in areas with displacement or high fertility.
- Redistribution of stock is limited.
  - No formal system to move surplus to facilities with shortages.
  - Transport and multiple approval steps can delay redeployments.

Net Distribution Practice

Facility approaches to distribution vary

- Some follow strict 1st ANC visit policies, even for transfers.
- Distribution often depends on daily intake, which can cause shortages if population shifts occur.
- Guidelines and practices are interpreted differently across facilities and regions, including requesting nets and reporting shortages.

126

Quantification system

Quantification

The system is **a centralised, push-based system** with regional coordination

DHIS2 data are used to evaluate the monthly consumption of health facilities

Replenishment

Requests by facility staff made to the district→ district sends the request to the region
→ redeployment requires regional level validation and sign off

National stock exists, but redeployment, transport & quantification bottlenecks create ruptures

Stockouts

Frequent, particularly in insecure or hard-to-reach areas

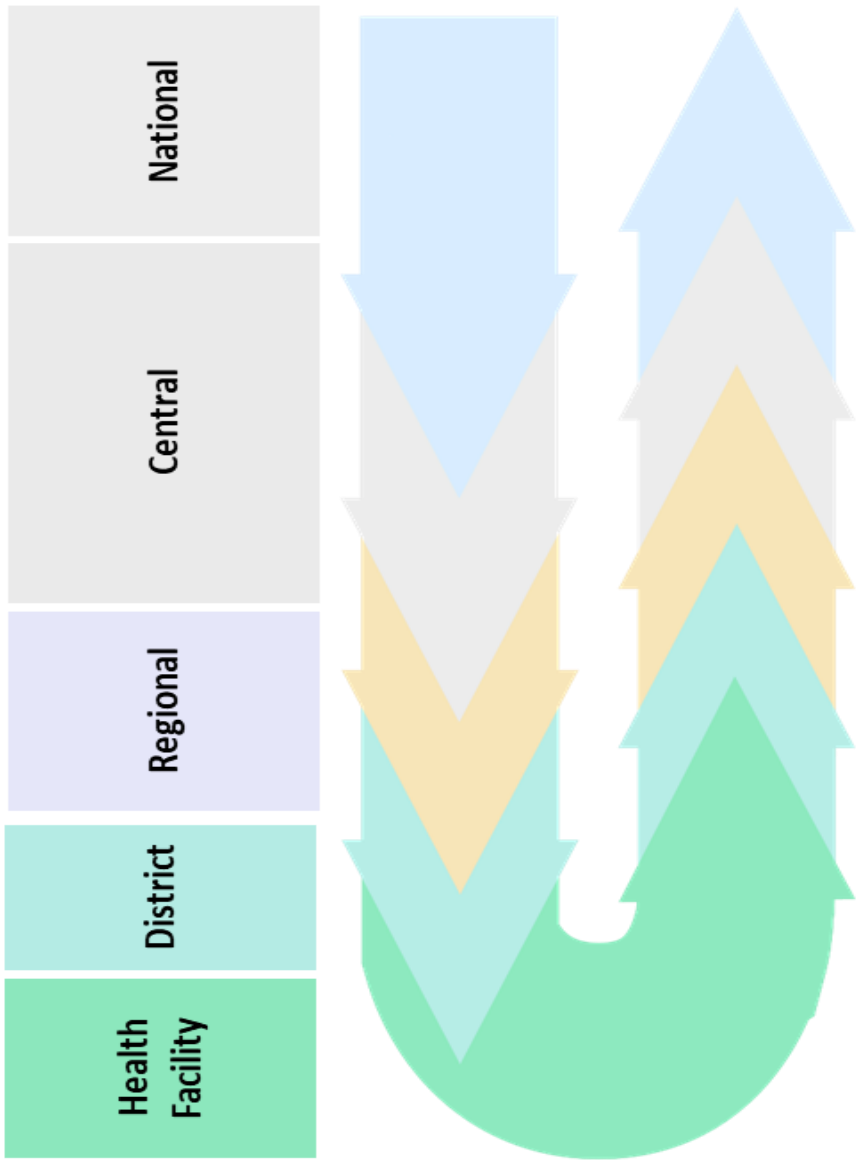
Frequent in the Far North and North regions since PMI withdrawal

Stockouts were linked to

1. **Allocations below expressed need**
2. **Delays in authorization for redeployment**
3. **Transport costs that facilities & districts could not cover**
4. **Insecurities and road conditions limiting deliveries.**

Data Systems, Management, and Reporting

Data Flow



Share data and analysis reports with partners, GF, and ICN dashboard

Central PNLP
GTC PNLP- National Malaria Technical Group

- National data consolidation and analysis
- Production of dashboards, bulletins, and scorecards
- Consolidate facility data
- Perform initial data validation
- Enter data into the PNLP's DHIS2

Submit report to central PNLP by 15th of the month

GTRL- regional technical malaria working group
10 regional malaria focal units

Analyze district data
Consolidate regional reports

Send to Regional level by 10th of the month

Feedback goes to FOSA

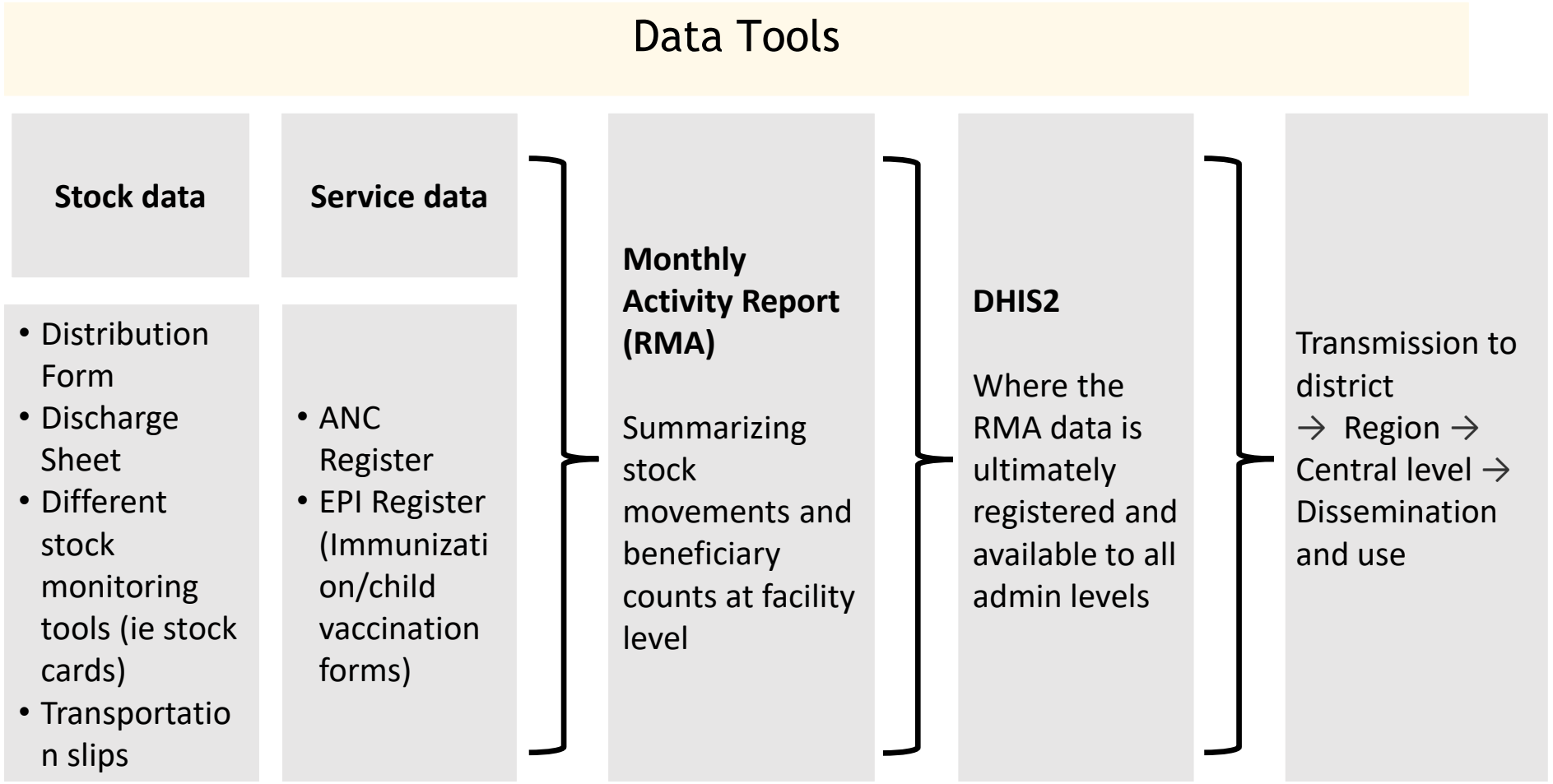
FOSA- health facilities

Transmit to the District by 5th of the next month

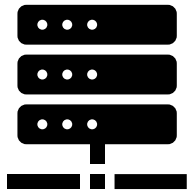
ASC- Community Health Workers

Aggregate RMA /FOSA forms
Input data into DHIS2

Multiple types of paper forms are in use for routine distribution



Enhancing guideline adherence and regular data review to improve data quality



Data Management

- EPI registers often lack LLIN columns. when harmonized register is not used, making child distribution hard to track
- Paper-to-DHIS2 data entry causes discrepancies
- Staff turnover, poor connectivity, and limited data training cause errors and delays
- Reporting practices and data completeness vary widely across facilities

Training and Supervision

- Low proportion of staff trained in EPI distribution (this situation is exacerbated by staff turnover)
- **Training sessions are often integrated** and do not contain specific training on RD
- Irregular supervision, due to funding constraints

Recommendations were workshopped and iterated upon with regional, central and subnational partners

Supply Chain, Storage, Transport	•Create or expand on a **planning distribution tool** for LLIN distribution after procurement in country •Finance **district warehouses** or support smaller **storage upgrades at facility level** •Provide funding **for last-mile transport** to HFs. •Establish a dedicated, funded line for net redeployment within the annual operational plan
Training	•Develop national **guidance on catch-up eligibility** (children >9 months, women post-delivery), increase relevant training + add simple SOP/flyer or manual in HF to improve routine distribution •**Strengthen supportive supervision** to improve feedback loops btw national ↔ district ↔ facility levels •**Increase training** especially for EPI distribution and on data management •Develop E-learning modules for LLIN management, integrated into national digital training •Introduce regular review meetings for adjusting allocations based on data trends
Data Management	•Invest in user-friendly, **digitized tools** for stock and distribution tracking, DHIS2 enhancements •Simplifying paper stock cards; reducing duplicative forms •**Add LLIN columns to EPI registers** to standardize reporting and streamline stock-card system •Support hybrid **quantification models** combining DHIS2 consumption, service data, and local facility input
Community Initiatives	•Pilot **CHW RD policy for small catch-up** stocks for hard-to-reach areas/emergencies at regional level •Finance mobile/ outreach clinics in insecure/remote areas. •Leverage CHWs' census and referral data for better quantification of ITN needs +increased CHW training •**Ensure performance-based incentives** (ie: airtime or transport stipends)

Thank you for your kind attention!

amp | The Alliance for Malaria Prevention

Meeting will begin shortly – la réunion va bientôt commencer - A reunião começará em breve