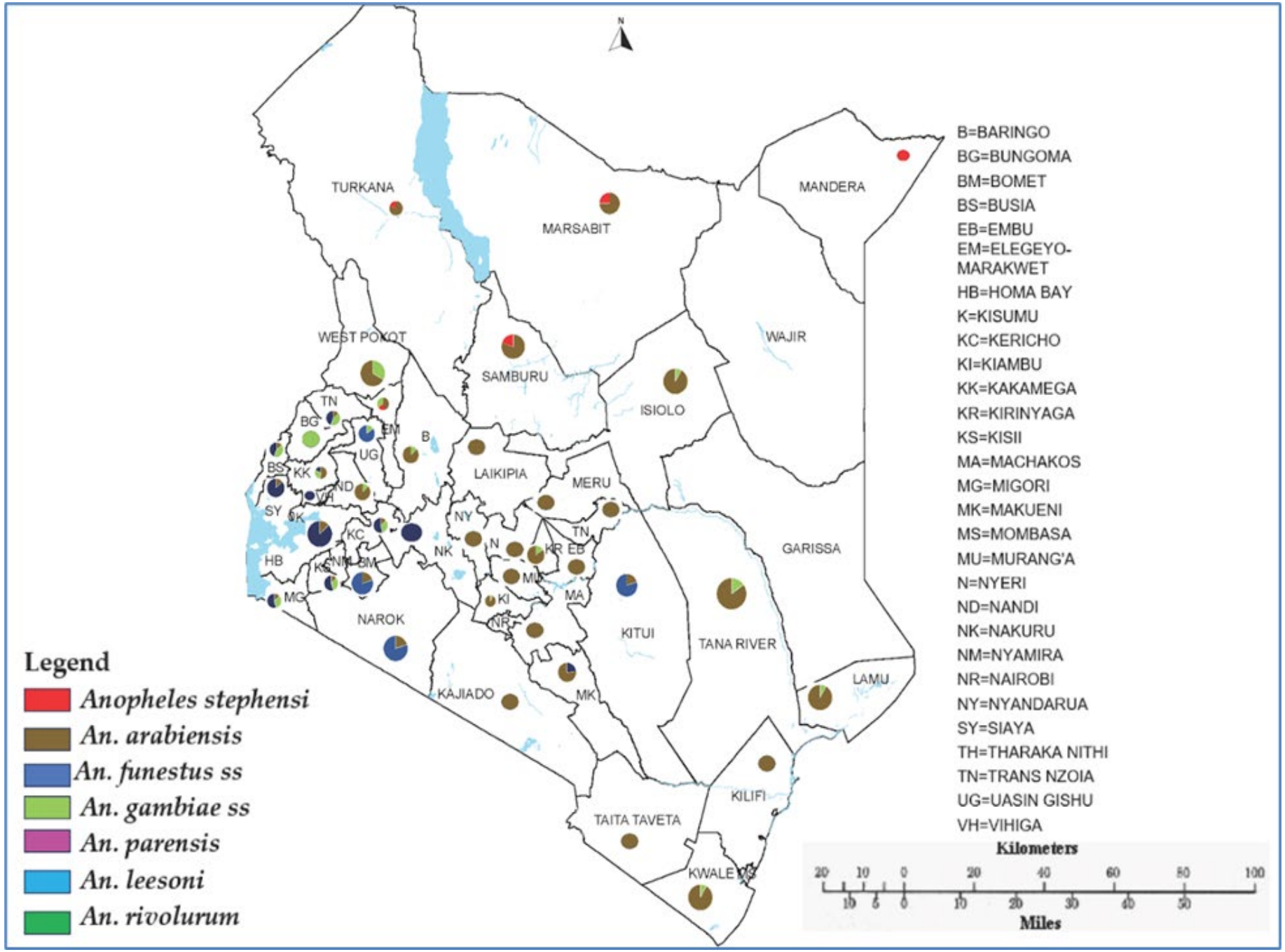
Ministry of Health

KENYA Malaria Overview_ITN Journey

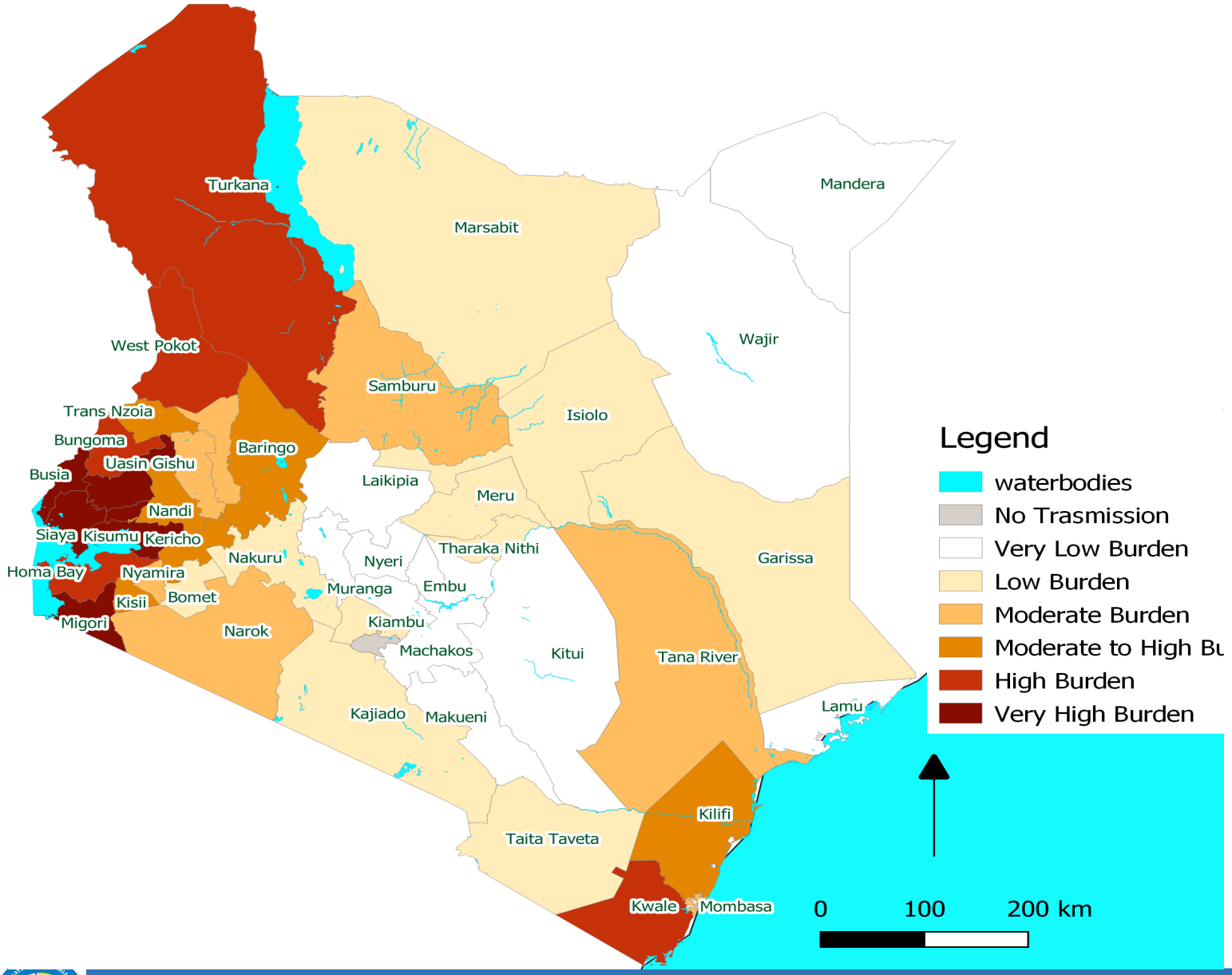
National Malaria Control Programme

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

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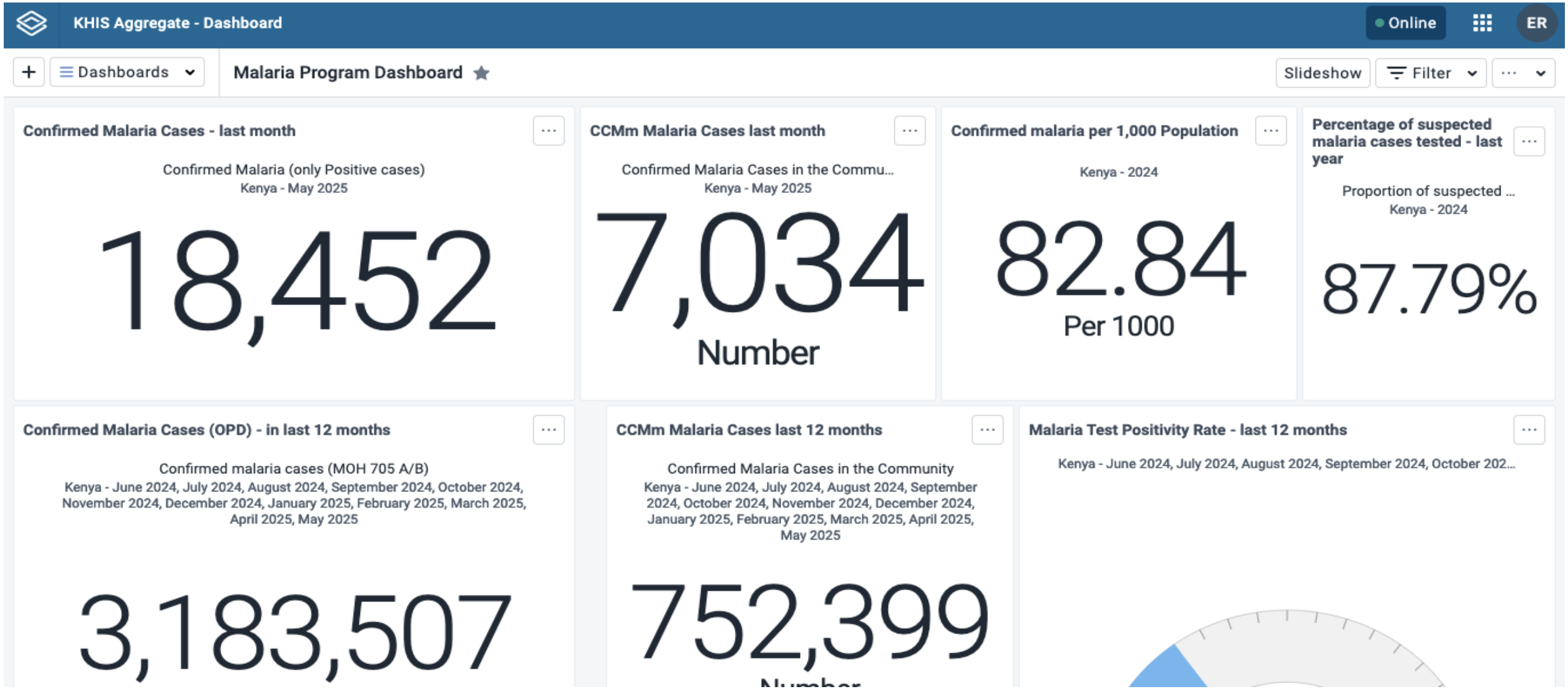
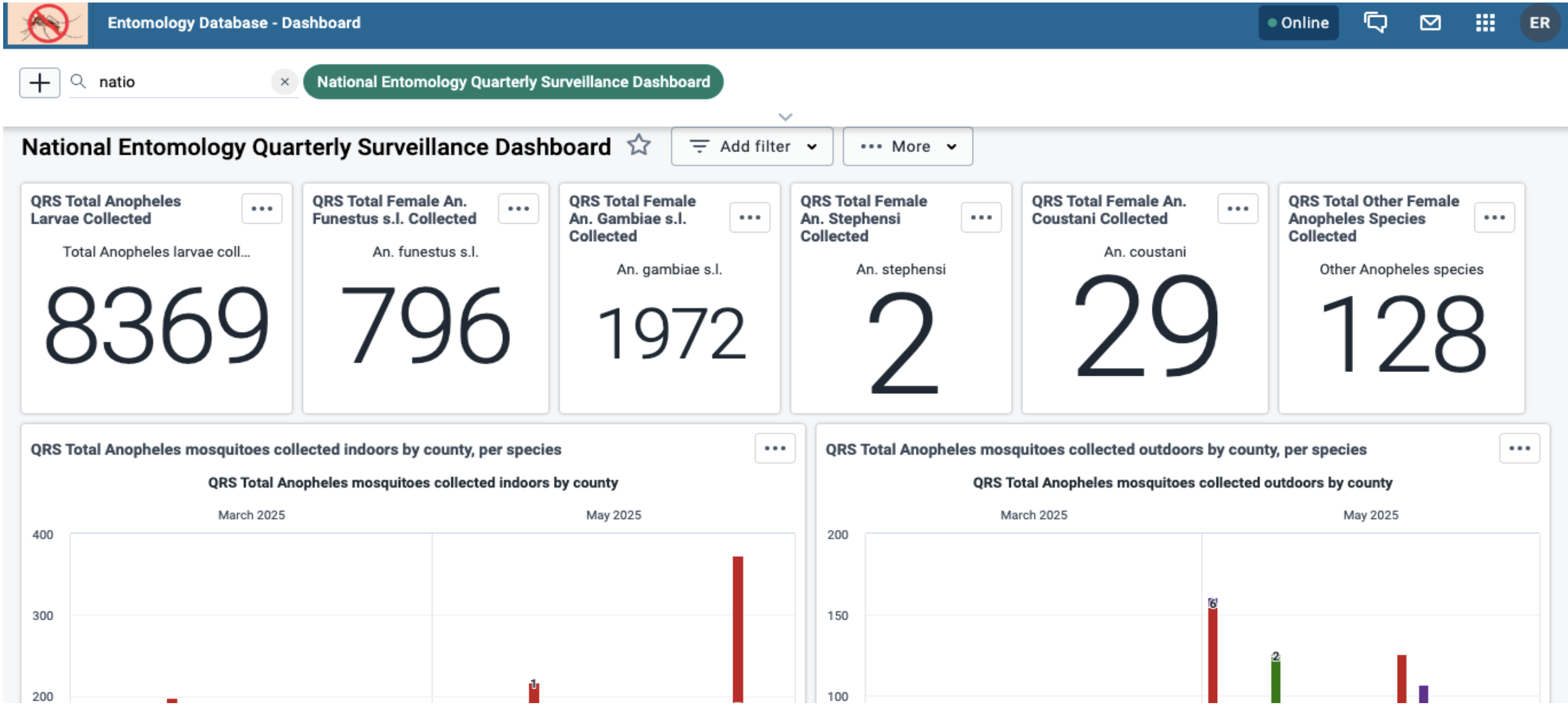
To ensure universal coverage of appropriate vector control interventions in all populations at risk of malaria

- 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



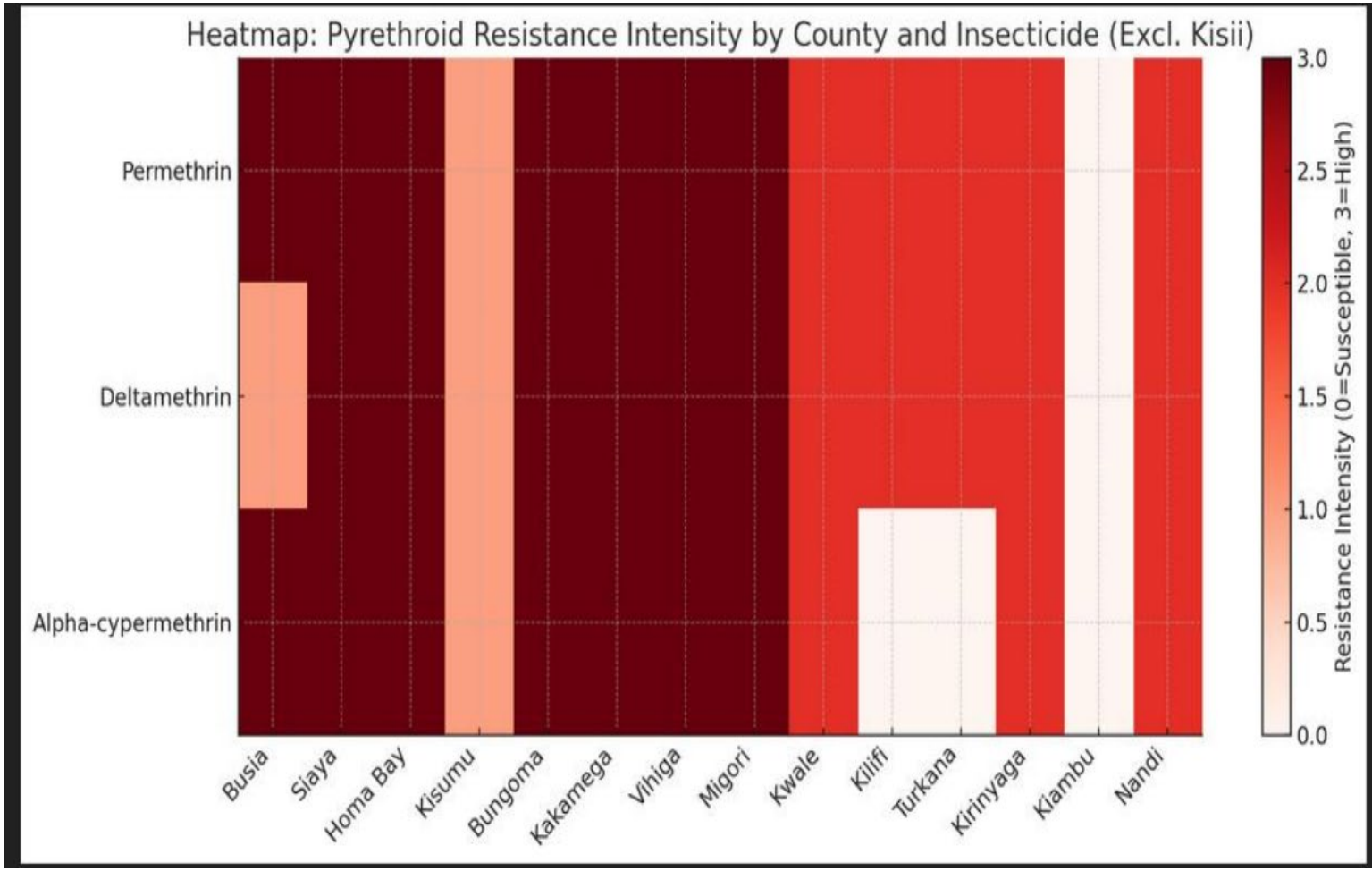
ITN Allocation Principles

- 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.



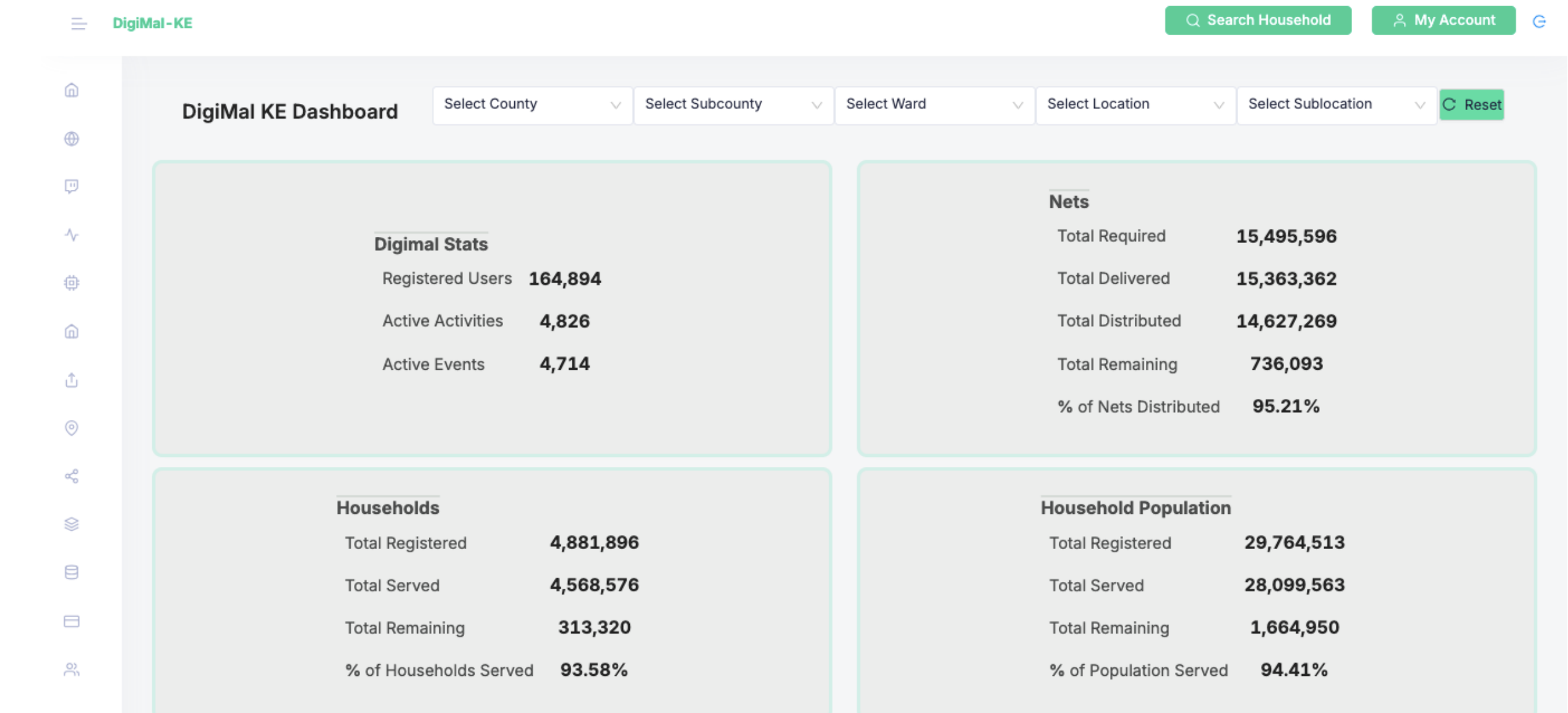
ITN Distribution Channels in Kenya

- **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

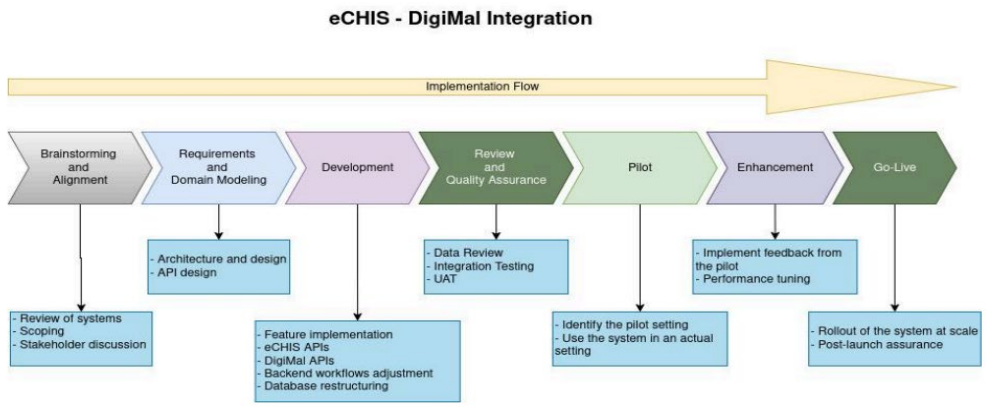
- Shift from county-level to sub-county-level stratification.
- Prioritization based on malaria burden and available resources.

Integration with Existing Systems

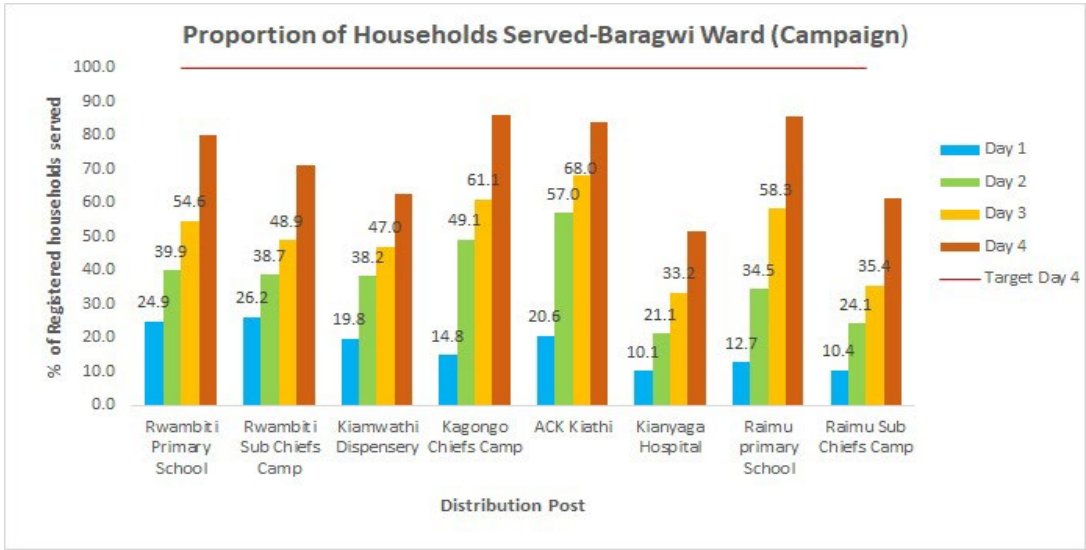
- Use of Electronic Community Health Information System (eCHIS) and DigiMal KE.
- Reliance on continuously updated household registration data
- Reduced duplication and improved efficiency.

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:

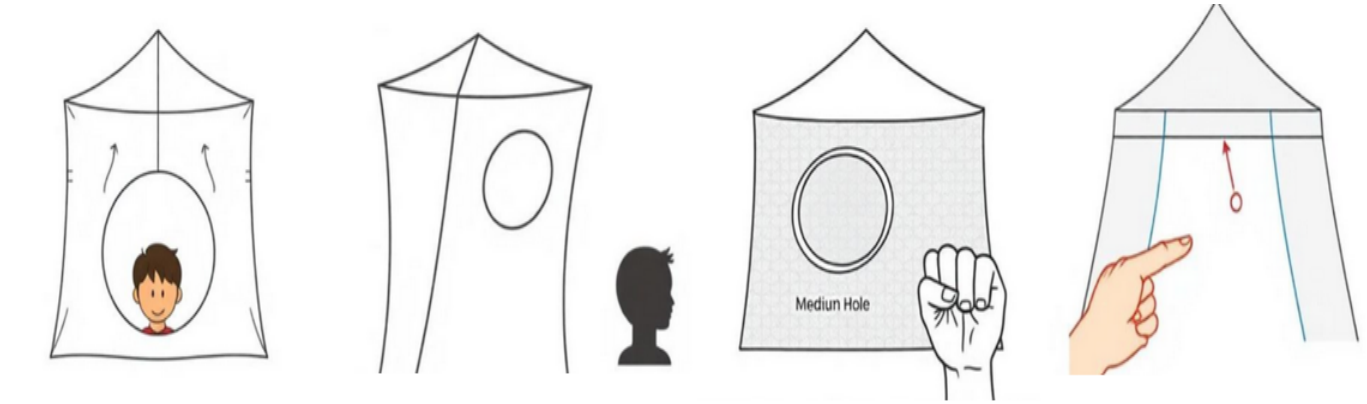
- CHPs to undertake household assessments during routine HH checks and service delivery
- System allows ITN assessment only once per month
- System allocates E-Vouchers for ITNs based on HH ITN need
- Tasks for ITN issuance are received by Community Health Assistant (CHA) at link facility
- HHs receives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