Progress Towards Malaria Elimination in Rwanda

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Kigali, 24th September 2024

Extended Malaria NSP 2020-2027

Rwanda Biomedical Centre

Healthy People, Wealthy Nation

Goal

By 2027, reduce malaria morbidity and mortality by at least 90% of the 2019 levels

Strategic Objectives

1. By 2027, at least **90%** of population at risk will be effectively protected with preventive interventions;
2. All suspected malaria cases are promptly tested and treated in line with the national guidelines;
3. By 2027, strengthen surveillance and reporting in order to provide complete, timely and accurate information for appropriate decision making at all levels;
4. Strengthen coordination, collaboration, procurement & supply management and effective program management at all levels;
5. By 2027, **85%** of the population at risk will have correct and consistent practices and behaviors towards malaria control interventions

Key Malaria Control Interventions

1 👉 **Malaria Prevention with LLINs**

2 👉 **Indoor Residual Spraying (IRS)**

3 👉 **Malaria Case Management (CHWs and HFs)**

4 👉 **SBCC**

5 👉 **Surveillance-M&E**

6 👉 **Other Tools**

Malaria Control Interventions Deployment (2020-2024)

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IRS and LLINs Deployment Plan, 2022-2024

Prevention Core Interventions
- PBO Nets
- Standard Nets
- Routine Standard Nets+IRS
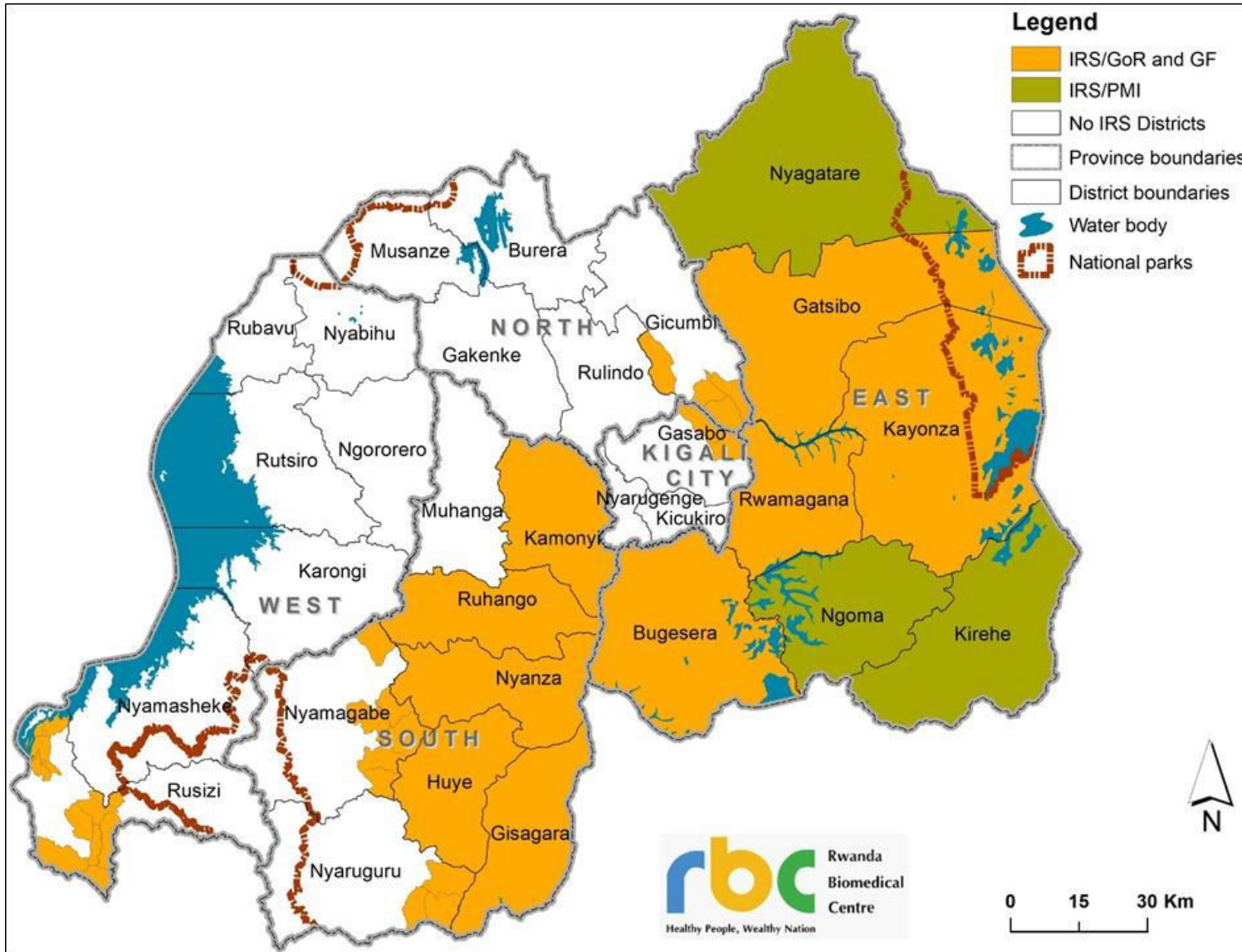
PY Resistance
- Confirmed resistance
- Suspicion
- Susceptible
- Rice cultivation
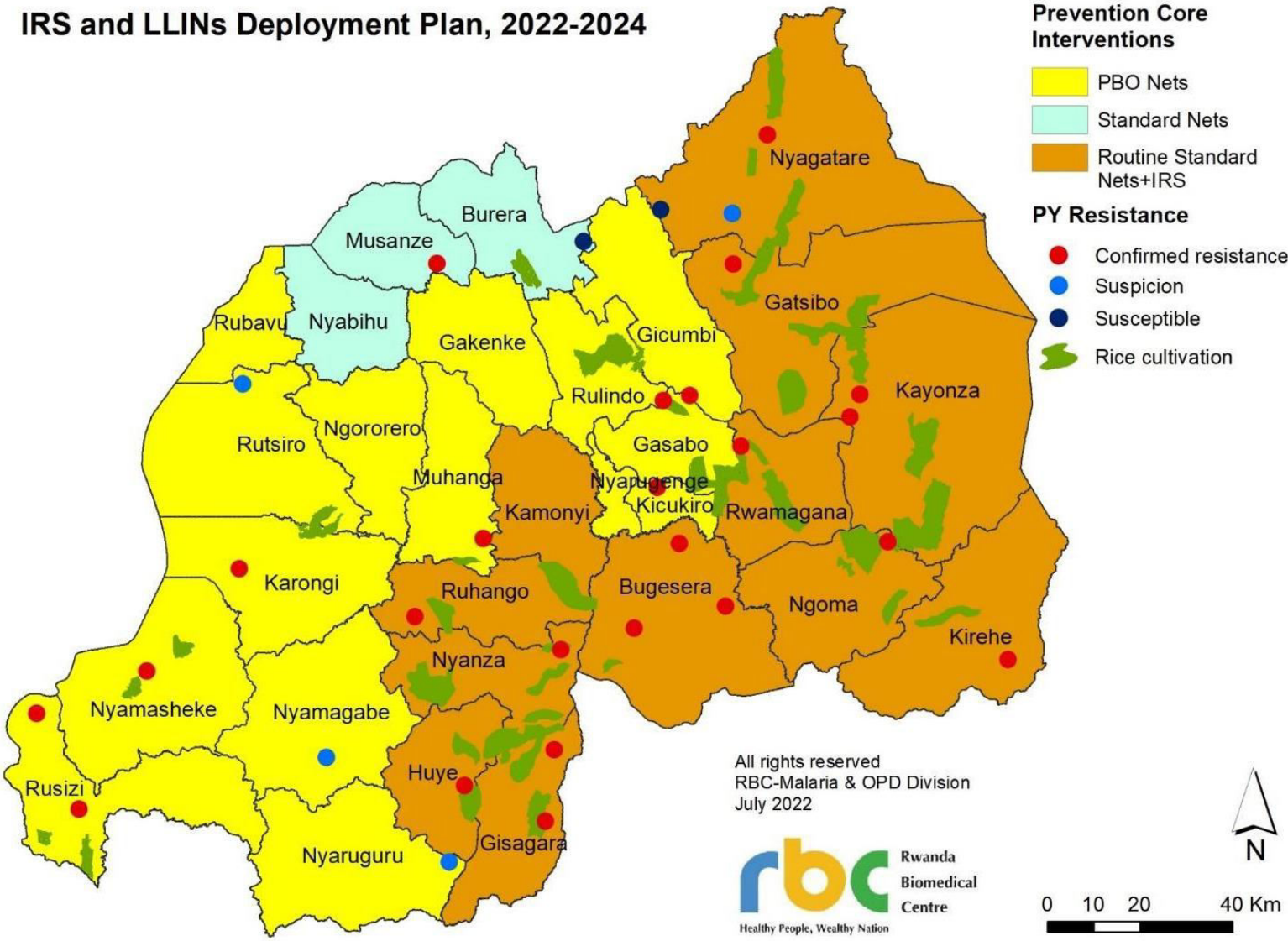
Deployment Principles

- Malaria Incidence
- Mosquito Resistance
- Interventions in Block for more impact
- 12 Districts+15 Sectors with IRS
- Mass Distribution of ITNs in 2023

IRS Deployment

- **3 Districts by GOR**
- **6 Districts by GF**
- **3 Districts by PMI**
- **15 Sectors (Focal IRS) with C19**

CSO Support to SBC

Five (5) CSOs to Support SBC in the General Population

Two (2) CSOs to Support HRG

Legend:
- RDO
- SFH
- Caritas Rwanda
- RICH
- Pro-Femmes/Twese Hamwe

Innovative Approaches-LSM

LSM with Hand Application

LSM with Support from CSO

- CSOs to Support Innovations for Malaria Control

- Community Engagement for IVM Targeting Mosquito Breeding Sites in the Community

Drone-Based LSM

Use of Community Scorecards
Targeted Interventions

Period: Mar 1, 2024 - Mar 31, 2024

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Monthly Malaria Incidence (Per 1000)_National Average

3.1

Malaria Scorecard
Priority Indicators, Province: West

District	Sector	(1) Coverage (%) of LLINs in ANC	(2) Coverage (%) of LLINS IN EPI	(3) Monthly Malaria Incidence (Per 1000)	(4) Proportion of suspected Malaria cases that receive parasitological test at Community level	(5) Severe Malaria Referred to Higher level	(6) HBM (Tests)	(7) Proportion of HBM
Karongi District	Bwishyura	100%	100%	1.4	100.0%	0	5.9%	50%
	Gashari	100%	100%	0.8	100.0%	0	7.4%	61%
	Gishyita	90%	100%	7.9	100.7%	0	18.1%	44%
	Gitesi	100%	100%	0.6	100.0%	0	14.2%	89%
	Mubuga	100%	100%	6.3	100.0%	0	25.6%	78%
	Murambi	100%	100%	2.1	93.8%	0	9.5%	61%
	Murundi	100%	100%	1.1	100.0%	0	23.5%	84%
	Mutuntu	100%	100%	1.8	98.9%	0	45.3%	94%
	Rubengera	100%	100%	1.8	100.0%	1	15.6%	84%
	Rugabano	100%	100%	0.3	100.0%	0	2.1%	22%
	Ruganda	100%	100%	0.1	100.0%	0	2.8%	100%
	Rwankuba	100%	92%	0.3	100.0%	0	1.3%	40%
	Twumba	100%	109%	0.6	100.0%	0	6.3%	61%

- **CSOs Use Malaria Scorecards to Improve Services Use**

- **Use of Scorecards for Accountability**

- **Use of Scorecards to Target Interventions**

Key Trends with Sustained Malaria Control Interventions

2016-2024
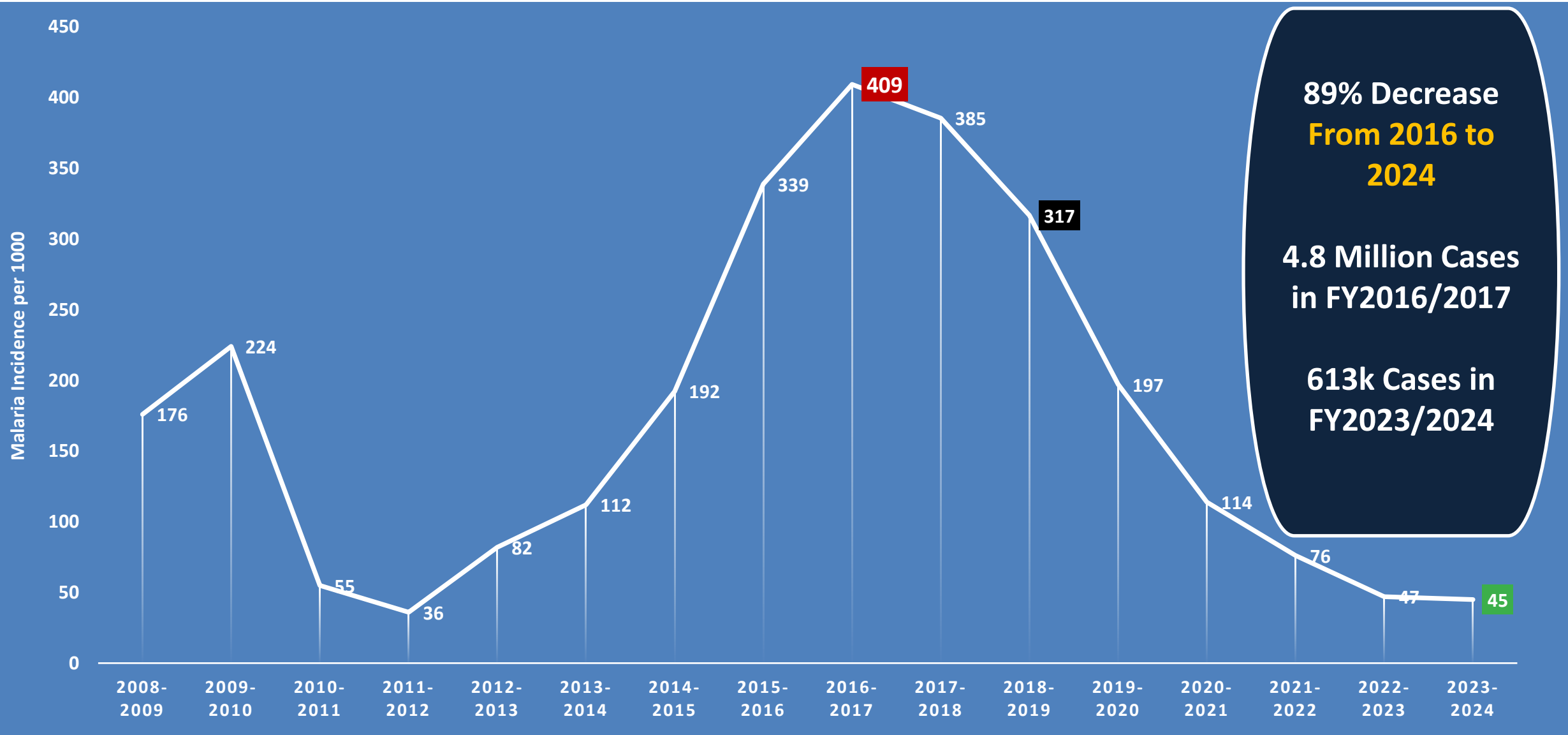
Malaria Incidence per 1,000 per District 2016-2024

Malaria Incidence in Rwanda
July 2023- June 2024
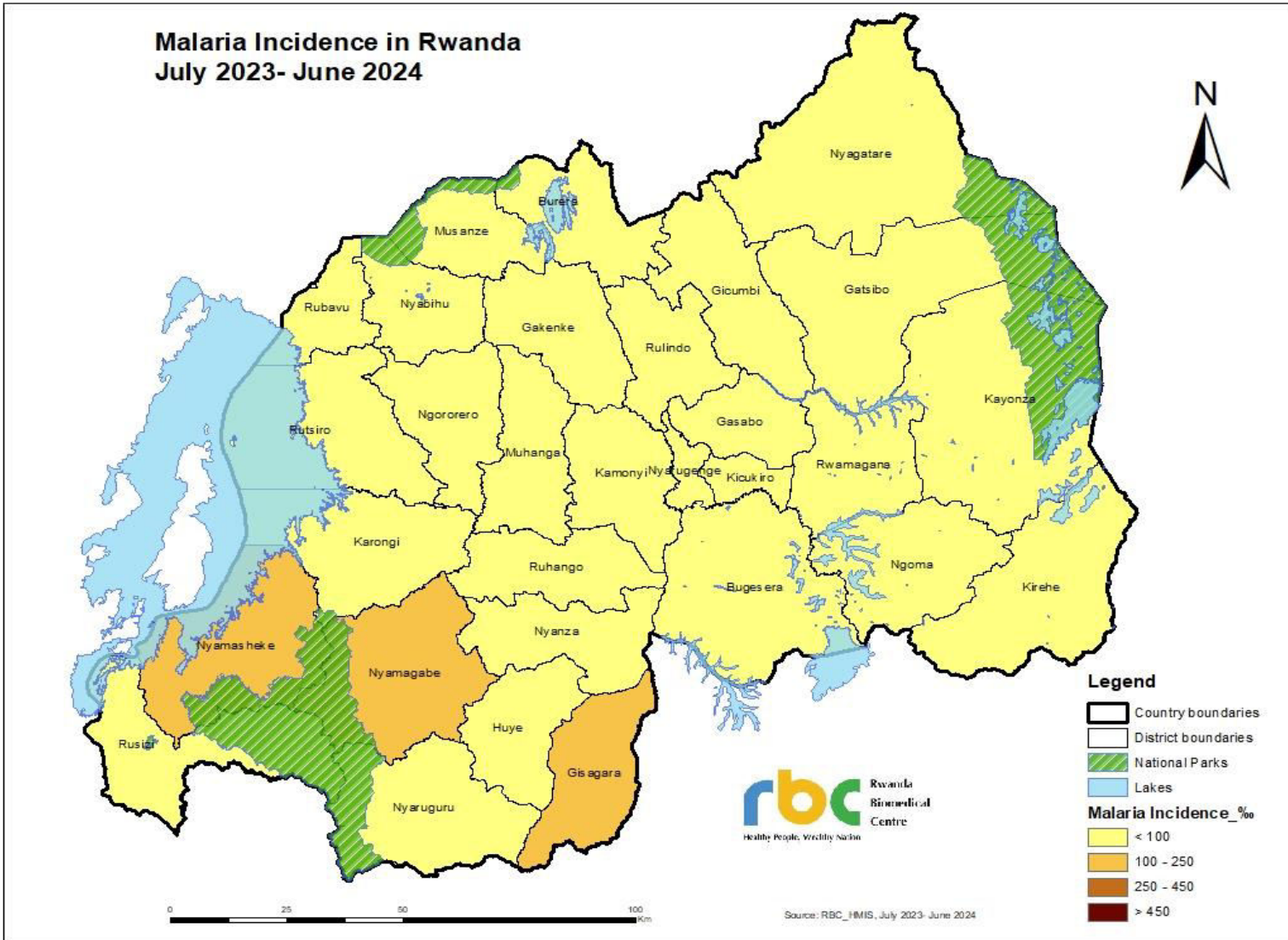
27 Districts reached API <100 per 1,000 (Pre-elimination) vs 3 Districts in 26

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Malaria Incidence in Rwanda, July 2023-June 2024

Incidence per Sector (/1000)
- < 100
- 100 - 250
- 250 - 450
- > 450

- Districts
- Sectors
- National park
- Water body

Data Source:
Malaria Data: RHMIS,
Ministry of Health

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RBC - Malaria & OPD Division
August 2024

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0 20 40 80 Km

N

In FY23/24, 363 of 416 Sectors (87%) Reached API <100 per 1,000

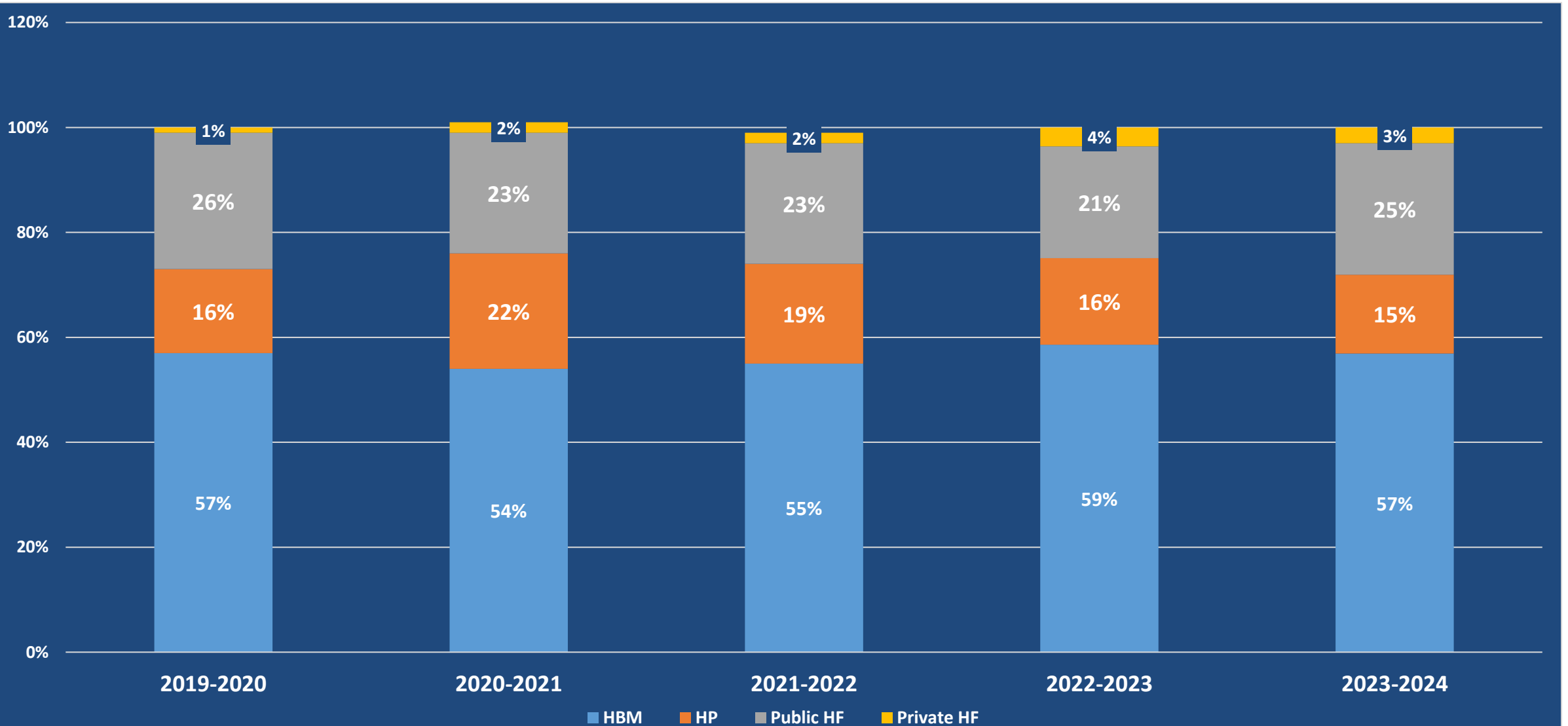Malaria Incidence per 1,000 by District FY2023-2024
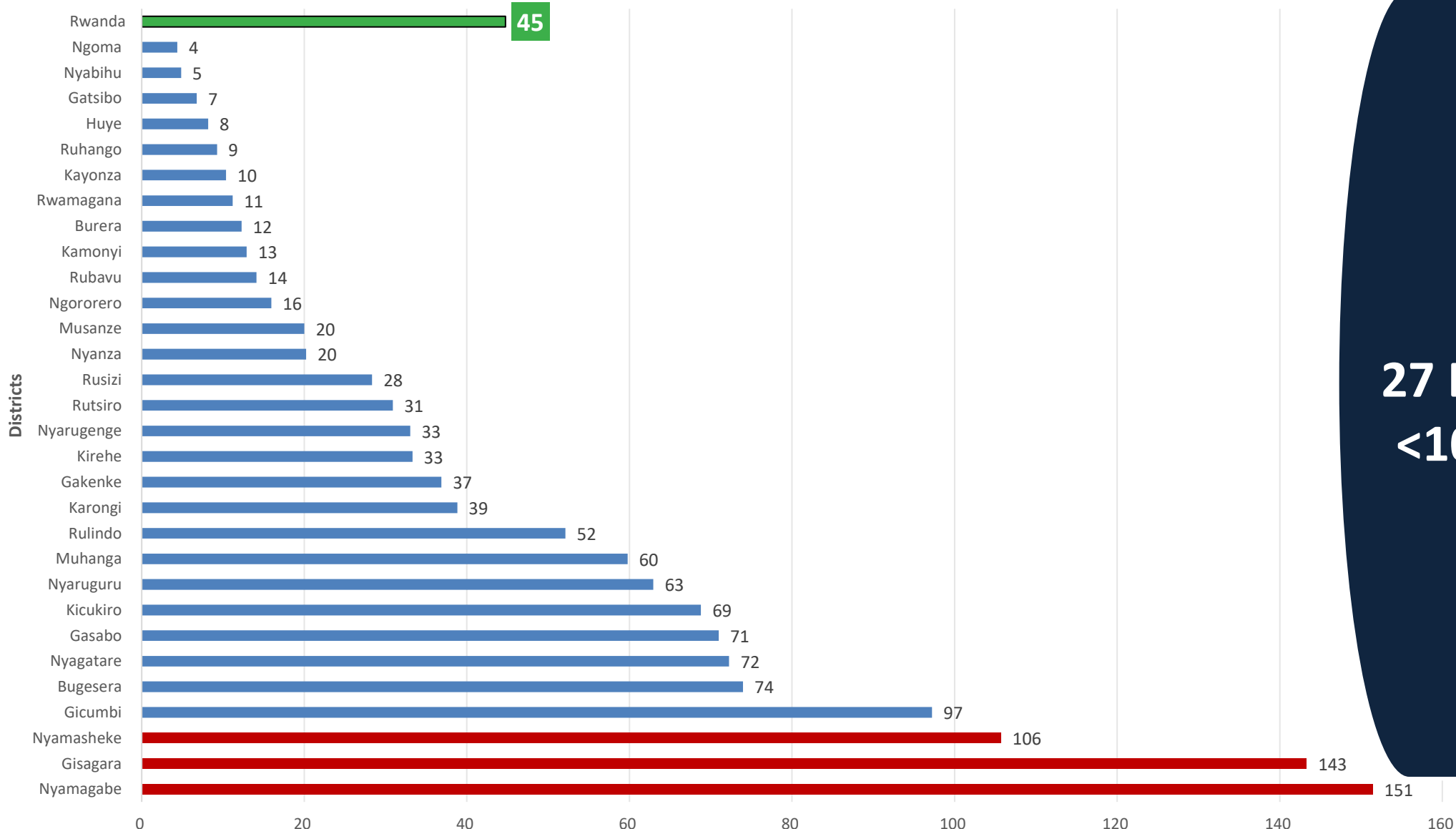
Proportion of Malaria HBM, 2014-2024
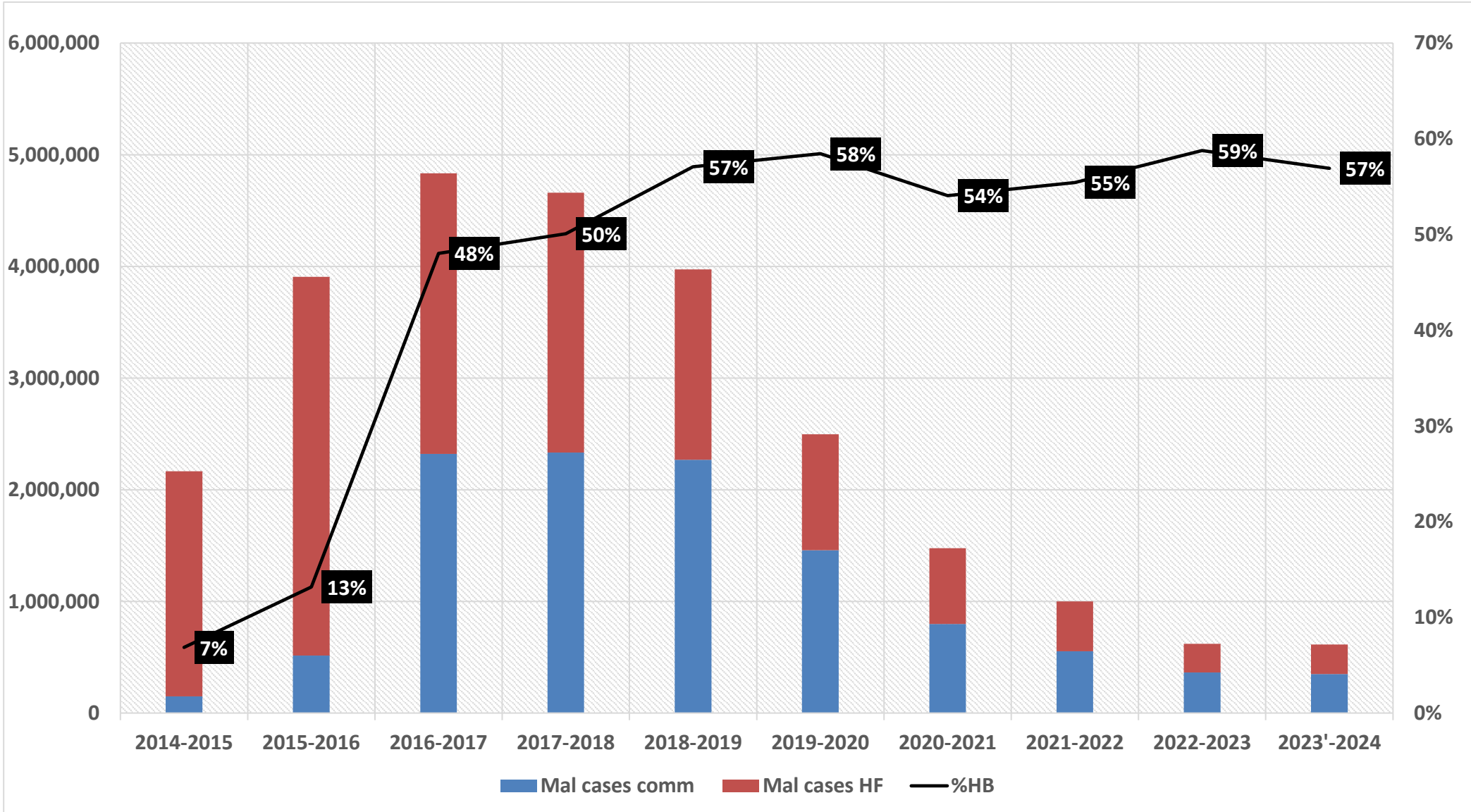
4.8 Million Cases in FY2016/2017

620k Cases in FY23/24

613k Cases in FY23/24
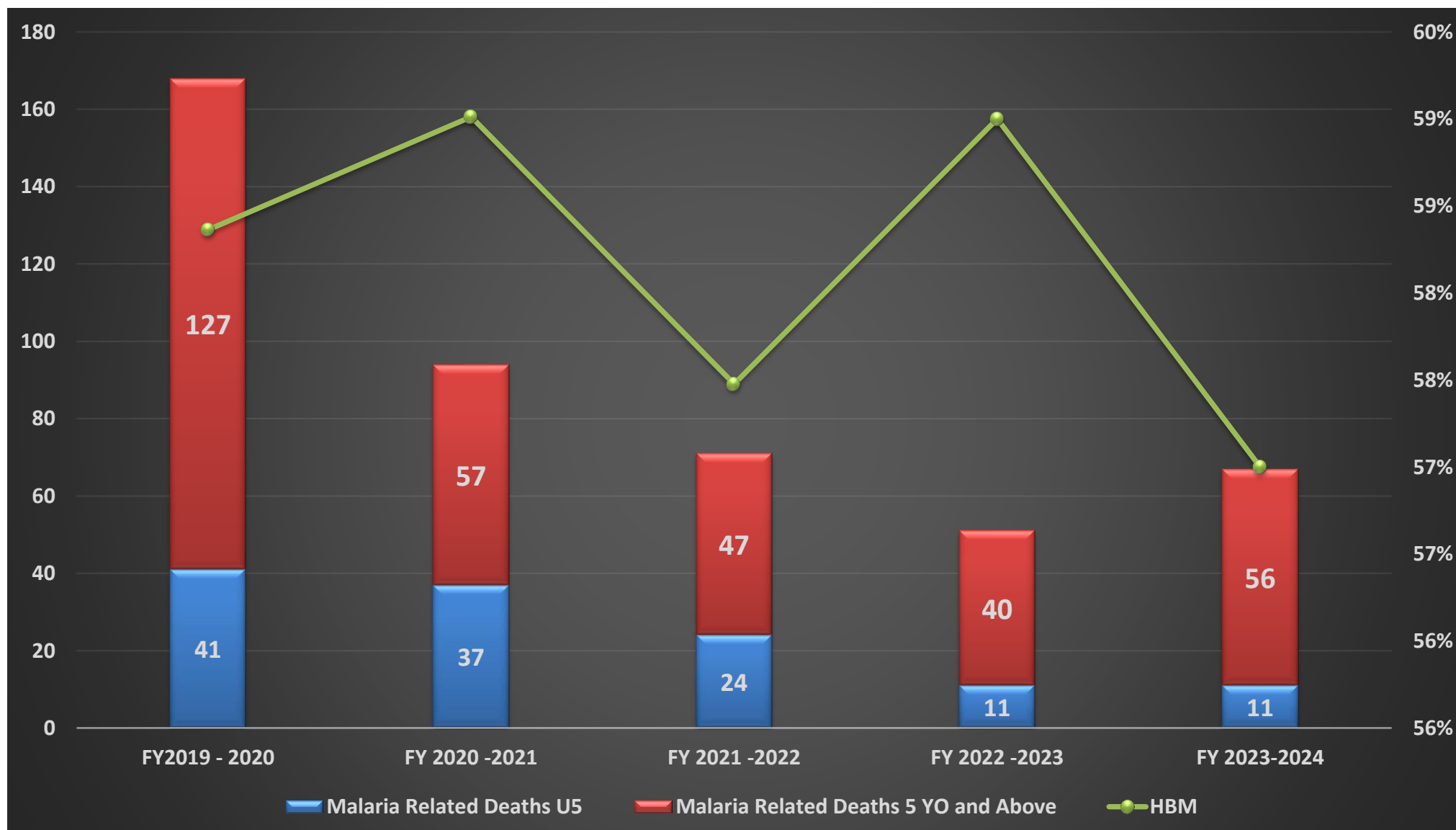
Proportion of Service Provision per Level 2019-2024

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Year	HBM	HP	Public HF	Private HF
2019-2020	57%	16%	26%	1%
2020-2021	54%	22%	23%	2%
2021-2022	55%	19%	23%	2%
2022-2023	59%	16%	21%	4%
2023-2024	57%	15%	25%	3%

Legend: HBM, HP, Public HF, Private HF

Impact of HBM-A on Severe Malaria Cases and Deaths, 2014-2024

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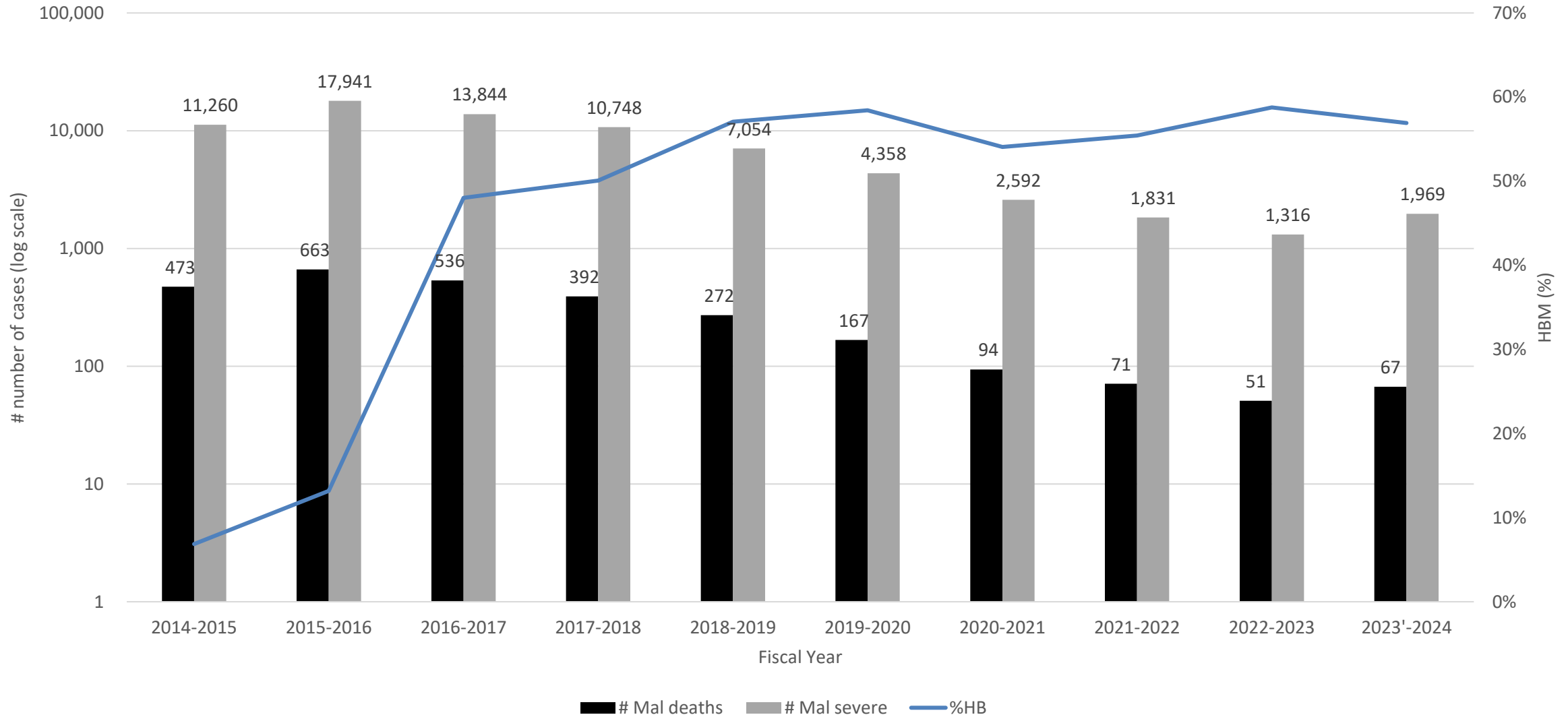
Malaria Related Deaths by Age Groups 2019-2024

Distribution of Severe Malaria Cases Referred at Hospital, July 2023-June 2024
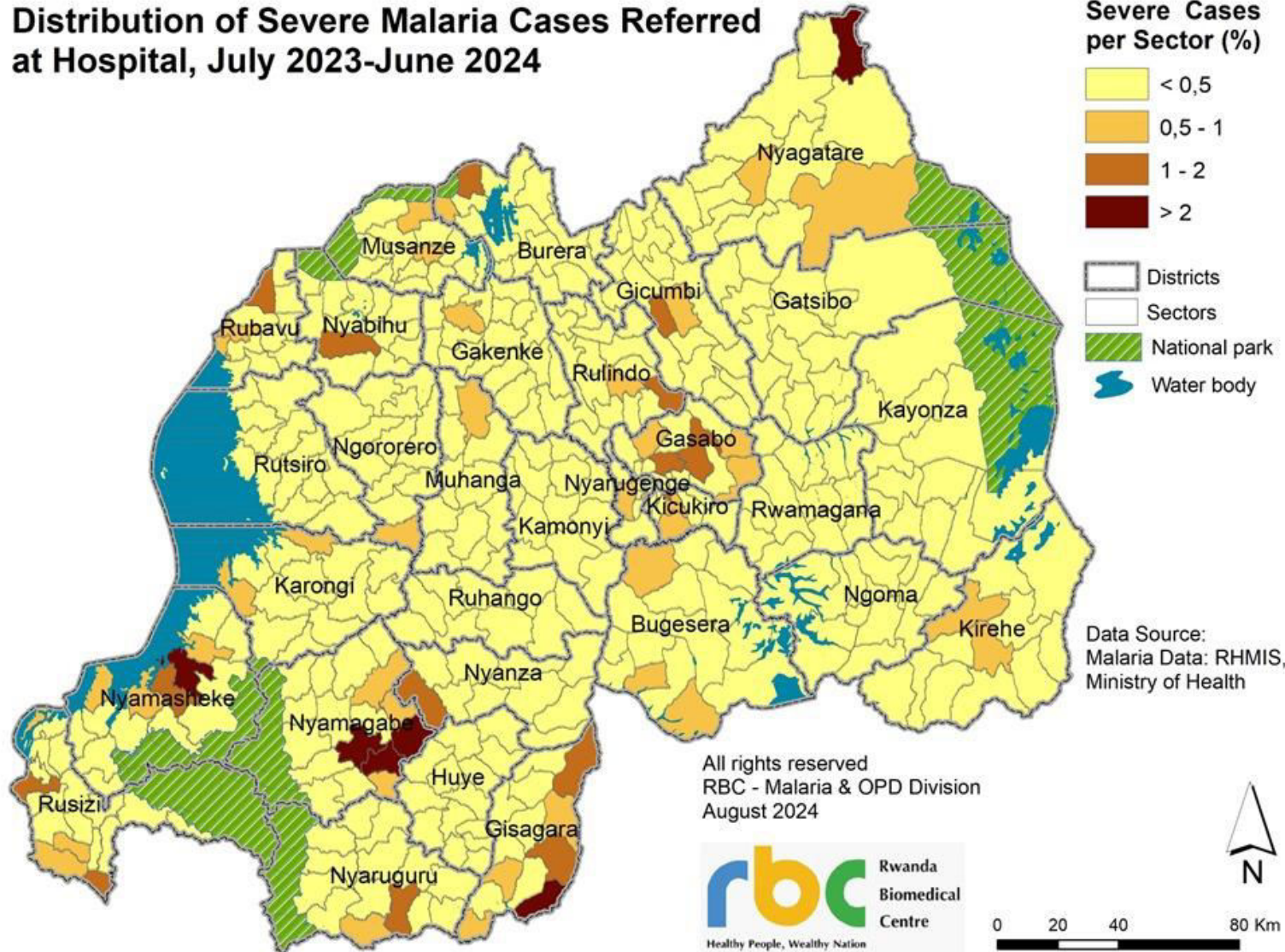
Need for Severe Case Investigations at Household Level in FY2024-25

Moving More Granular Towards Malaria Elimination
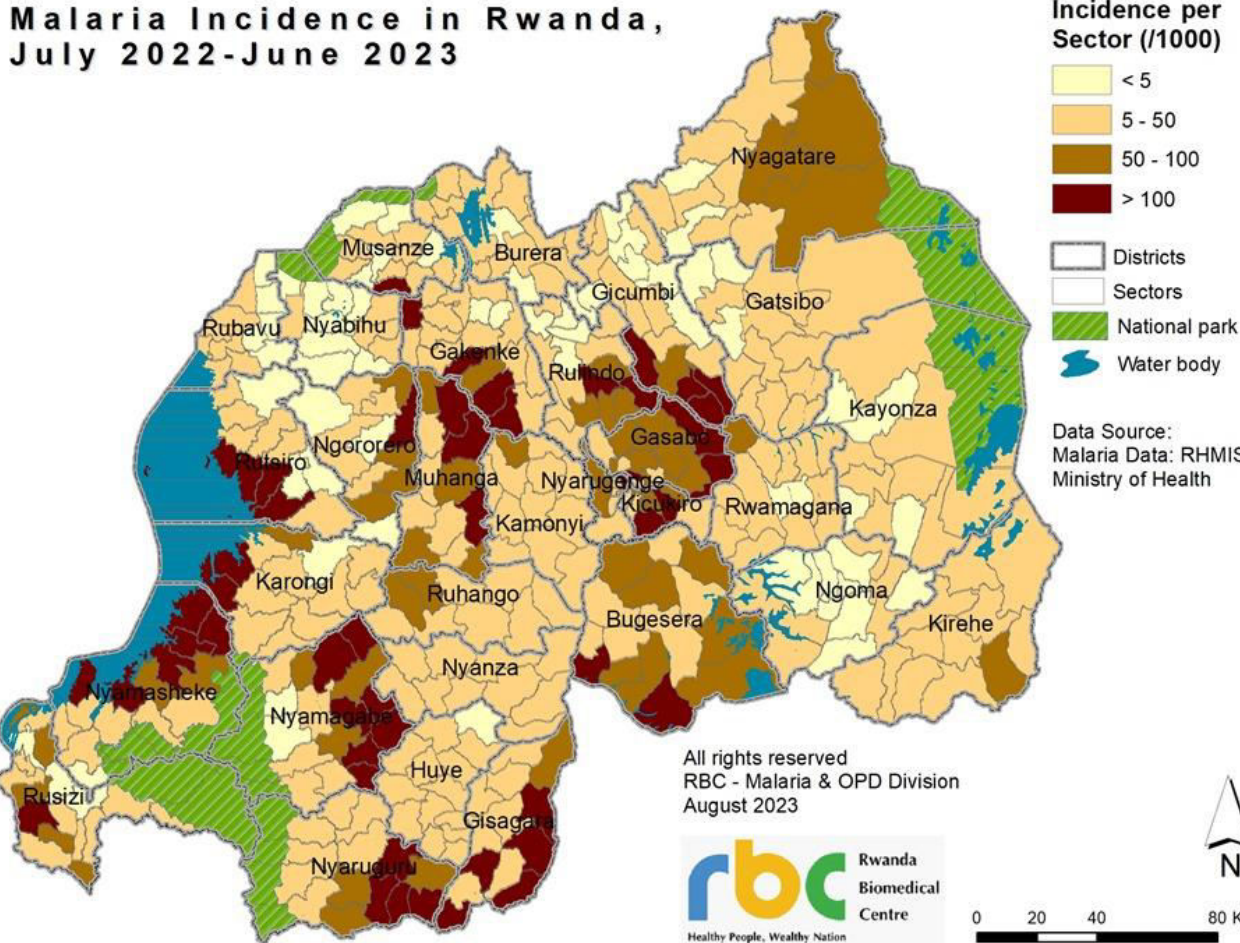
Malaria Incidence per 1,000 per Sector
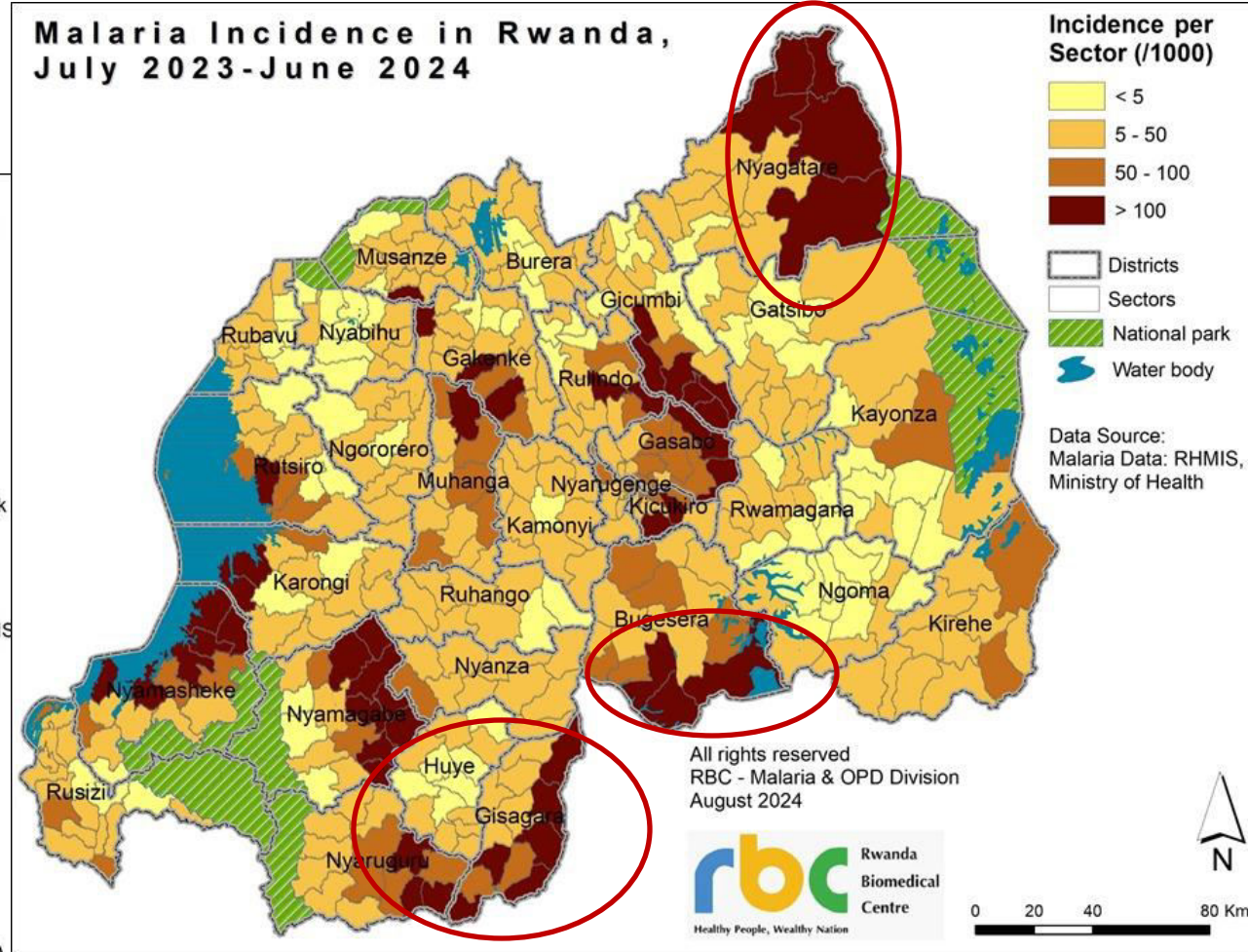## More Granular Data

Malaria Incidence in Rwanda, July 2022-June 2023

Incidence per Sector (/1000)
- < 5
- 5 - 50
- 50 - 100
- > 100

Districts
Sectors
National park
Water body

Data Source: Malaria Data: RHMIS, Ministry of Health

Malaria Incidence in Rwanda, July 2023-June 2024

Incidence per Sector (/1000)
- < 5
- 5 - 50
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- > 100

Districts
Sectors
National park
Water body

Data Source: Malaria Data: RHMIS, Ministry of Health

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Zone at High Risk of Malaria in Gisagara District April-June 2024

Cells at High Risk

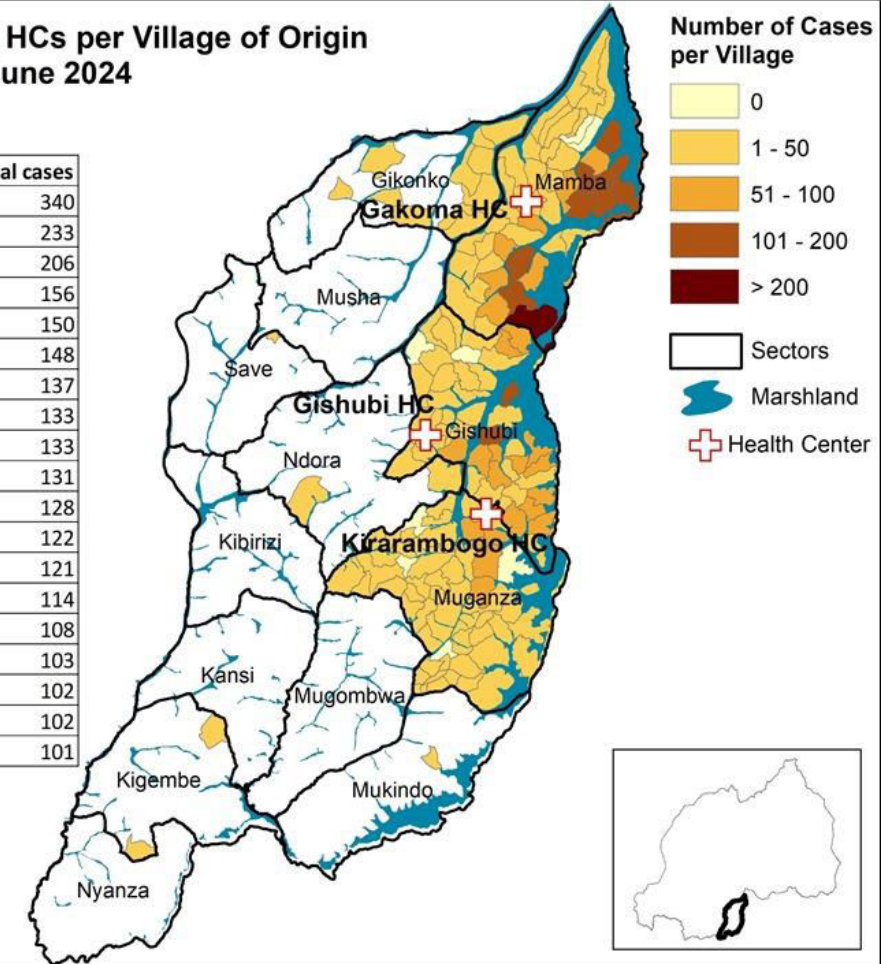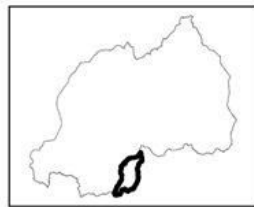| Sector	Cell
Gishubi	Nyabitare
	Nyakibungo
	Nyeranzi
Mamba	Kabumbwe
	Muyaga
	Ramba
Muganza	Rwamiko

High Risk Zone
Major Marshland
Sectors

Malaria Cases at Assessed HCs per Village of Origin in Gisagara District, April-June 2024

Villages with > 100 Cases

Sector	Cell	Villages	Total cases
Mamba	Muyaga	Shyembe	340
Gishubi	Nyakibungo	Rebero	233
Mamba	Muyaga	Kibumba	206
Mamba	Kabumbwe	Gahararo	156
Mamba	Kabumbwe	Kirwa	150
Mamba	Muyaga	Ruhamagariro	148
Gishubi	Nyabitare	Rwinkwavu	137
Mamba	Kabumbwe	Nunga	133
Gishubi	Nyabitare	Mutobo	133
Gishubi	Nyabitare	Hemba	131
Gishubi	Nyakibungo	Nkunamo	128
Gishubi	Nyakibungo	Gicaca	122
Mamba	Kabumbwe	Muhabura	121
Mamba	Kabumbwe	Kabuga	114
Gishubi	Nyabitare	Ndaro	108
Gishubi	Nyabitare	Mwiba	103
Gishubi	Nyeranzi	Rwegura	102
Gikonko	Gikonko	Rugarama	102
Mamba	Kabumbwe	Buye	101

Number of Cases per Village

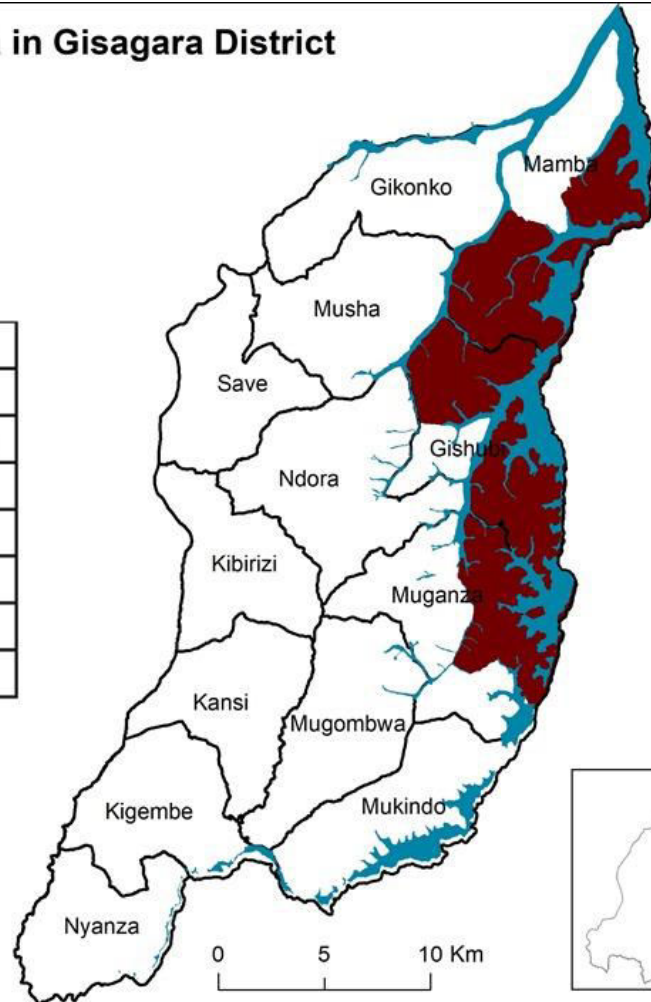|	
	0
	1 - 50
	51 - 100
	101 - 200
	> 200

Sectors
Marshland
Health Center

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Zone at High Risk of Malaria in Gisagara District April-June 2024

Cells at High Risk

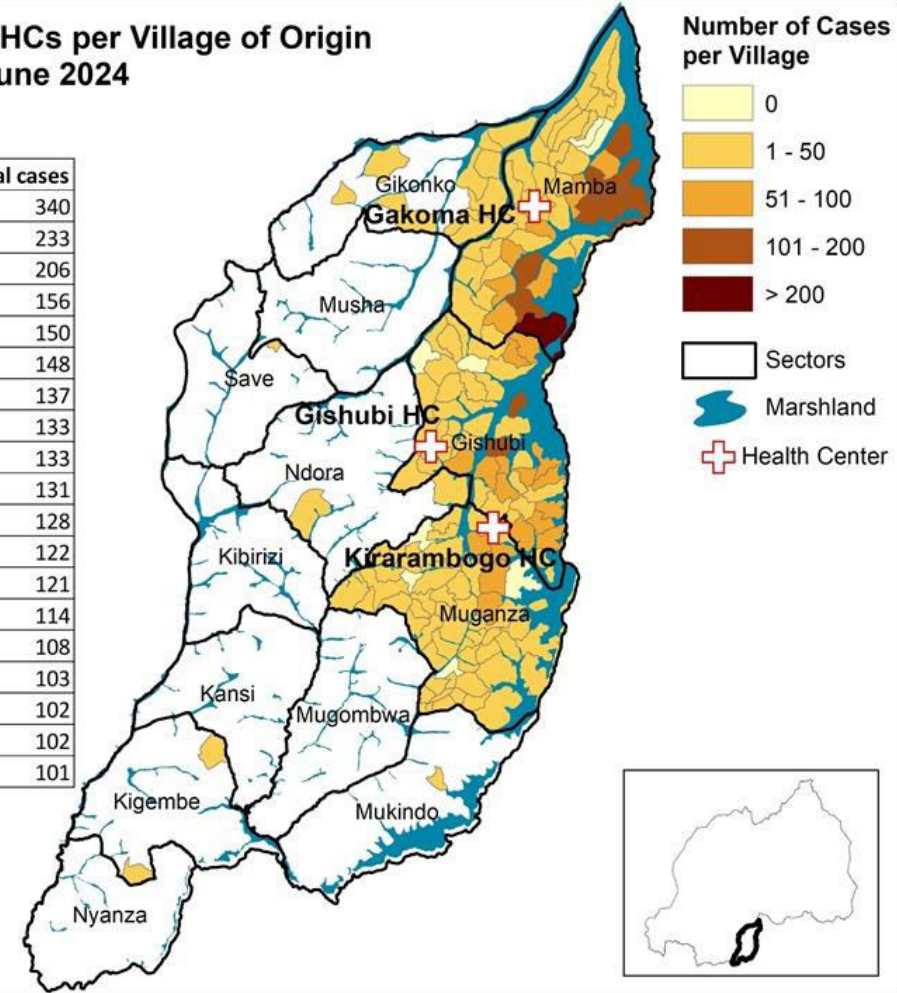| Sector	Cell
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	Nyakibungo
	Nyeranzi
Mamba	Kabumbwe
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	Ramba
Muganza	Rwamiko

- High Risk Zone
- Major Marshland
- Sectors

0 5 10 Km

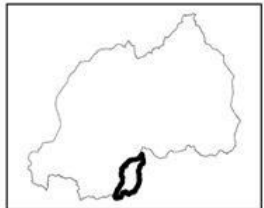### Malaria Cases at Assessed HCs per Village of Origin in Gisagara District, April-June 2024

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Number of Cases per Village
- 0
- 1 - 50
- 51 - 100
- 101 - 200
- > 200
- Sectors
- Marshland
- Health Center

Moving to Digital......

With C-EMR
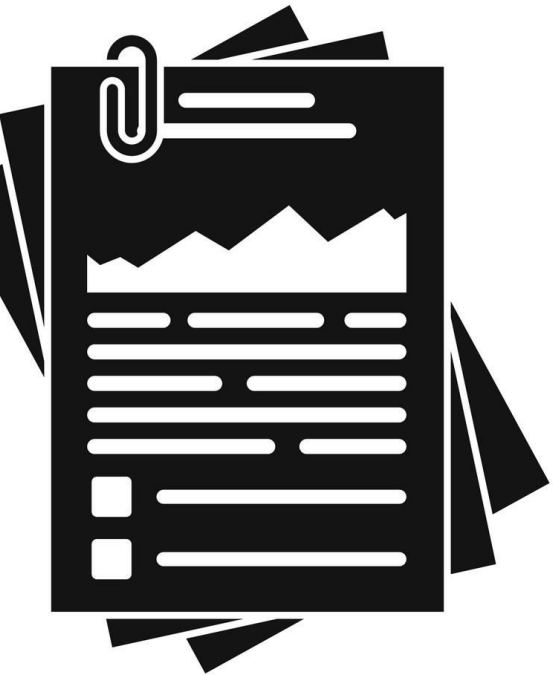
Ongoing Initiatives with C-EMR

- Shifting from Paperwork to digital (reduce the CHW's Workload)

- Daily Malaria Case Notification at Village and Household Level

- Malaria Risk Factor Assessment (Individual and Environmental)

- Reactive Case Detection

- Tailored and Timely Response

- CHWs are being trained

- Procurement of Smart Phones

- Full-scale Deployment starting 2025

Challenges

- Sustainability of key interventions (IRS) with High Risk of Malaria Resurge

- Gaps in Data Use at the Decentralization Level

- Paper-based work with delayed response

- Malaria Hot spots in both IRS and Non-IRS Districts

- Emerging Anti-malaria Drug Resistance (AL)

- Change in mosquito species and biting behavior (Outdoor biting)

- Some High-Risk Groups with unmet needs (Repellents for FSW and other people with night activities)

- Gaps in Functional and Active cross-border collaboration

THANK YOU

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Q&A