



Using data for the optimal selection of IRS and ITNs -

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NMCP- Ghana

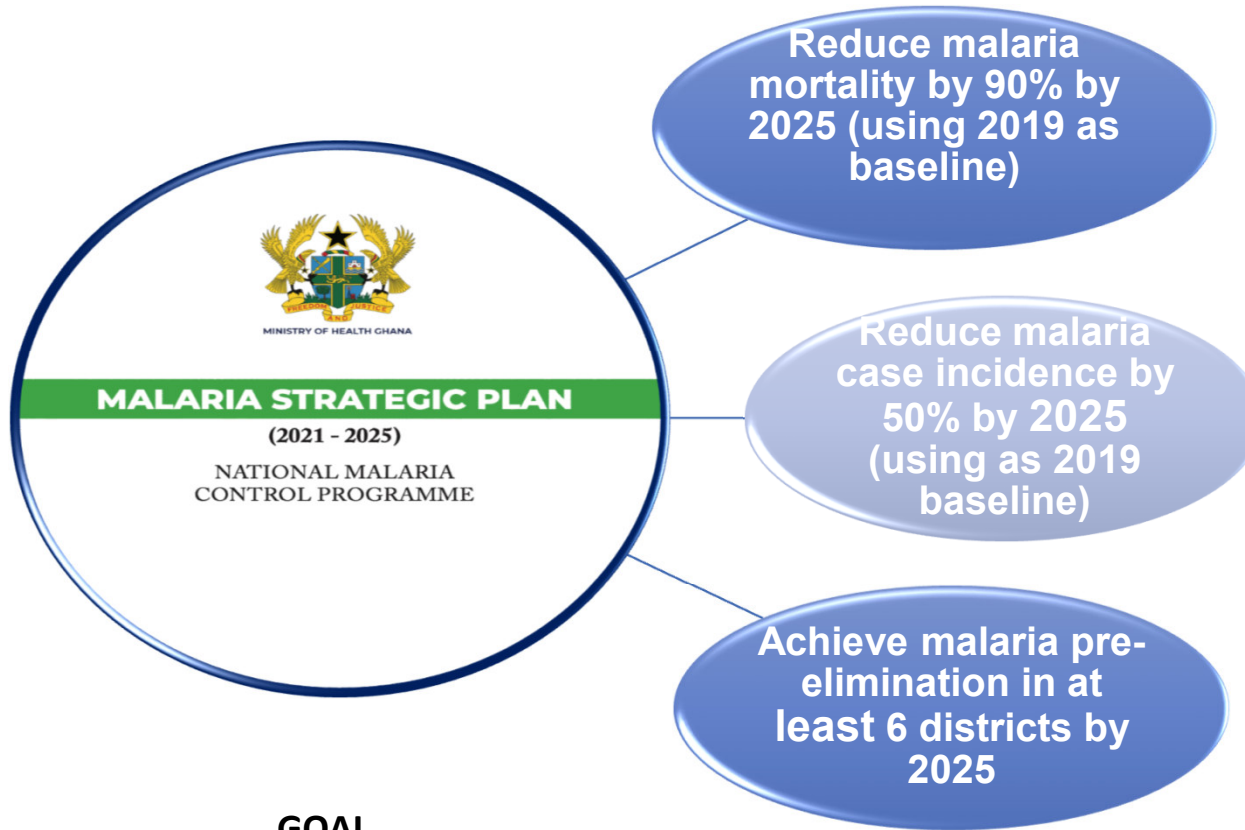
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Introduction 2/2

- In Ghana, the entire population is at risk, Ghana is one of 11 countries which contribute to 80% of the worldwide malaria burden
- Malaria is a significant cause of morbidity and mortality (2021)
 - 41.5% of OPD cases due to suspected malaria 20% of OPD cases due to confirmed malaria
 - 19.6% of all admissions is due to malaria
 - 1 % of in-patients deaths
- Ghana has recorded a declining number of malaria deaths in the past decade from 599 in 2017 to 275 in 2021



STRATEGIC PLAN 2021-2025



GOAL



STRATEGIC PLAN - Vector Control OBJECTIVE

- Protect at least 80% of the population at risk with effective malaria prevention interventions by 2025.

Vector Control Interventions in Ghana

Distribution of Long Lasting Insecticide Nets (LLINs)



Indoor Residual Spraying (IRS)



Limited Laticiding



Cross-cutting interventions

Procurement and Supply Chain

Research, Surveillance, Monitoring & Evaluation

Advocacy, Social & Behavior Communication

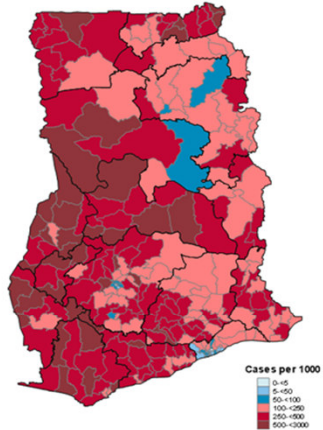
Main Data Sources

- The main guidance -- Strategic plan
 - developed using WHO guidance
 - Stakeholder input
- One of the fundamental principles of this strategic plan was the Stratification Exercise
 - Where the malaria burden across the country was stratified and interventions targeted
 - This stratification was based on relevant multiple data.
 - Census data

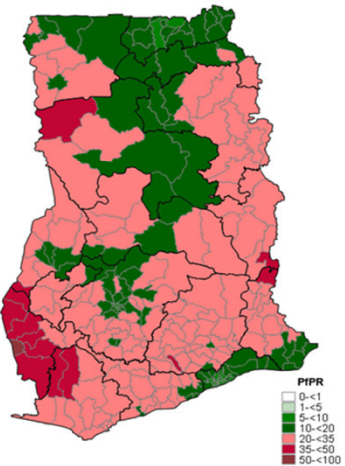
Who?	population at is at risk
Why?	transmission determinants
What?	interventions
When?	seasonality, age
Where?	place

Ghana Malaria stratification and mapping

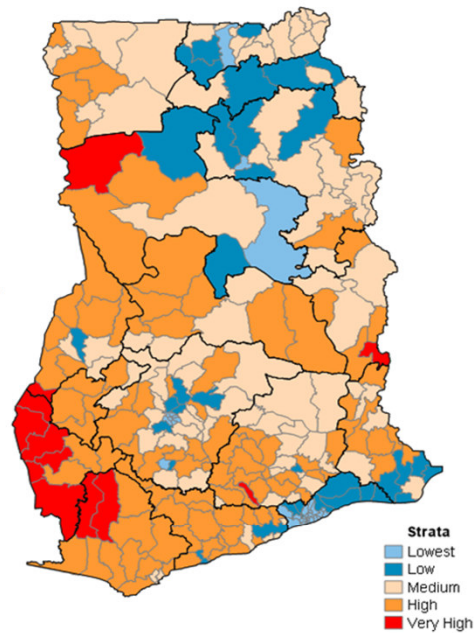
Adjusted incidence (2018)



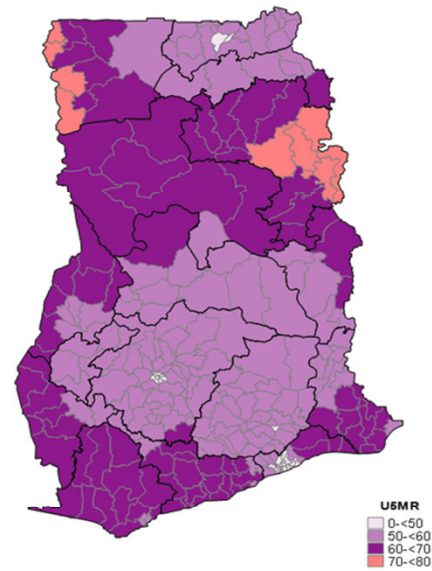
Prevalence (2018)



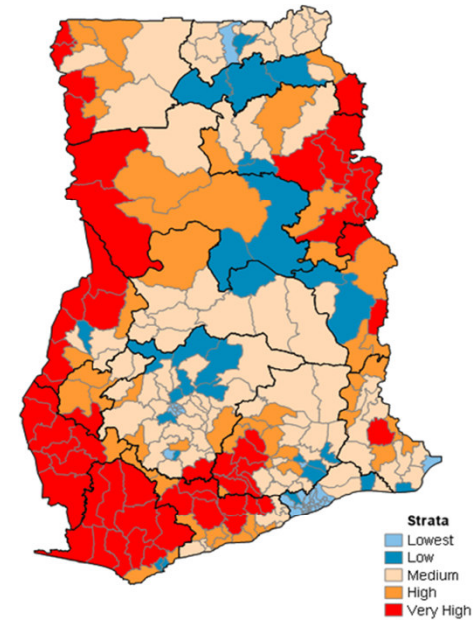
Risk strata combining incidence and prevalence



All-cause U5MR (2017)



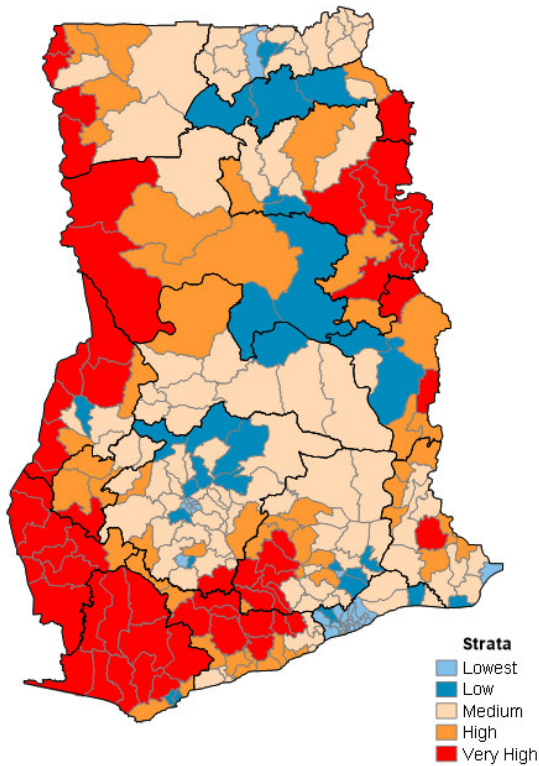
Risk strata combining incidence, prevalence and All-cause U5 mortality rate



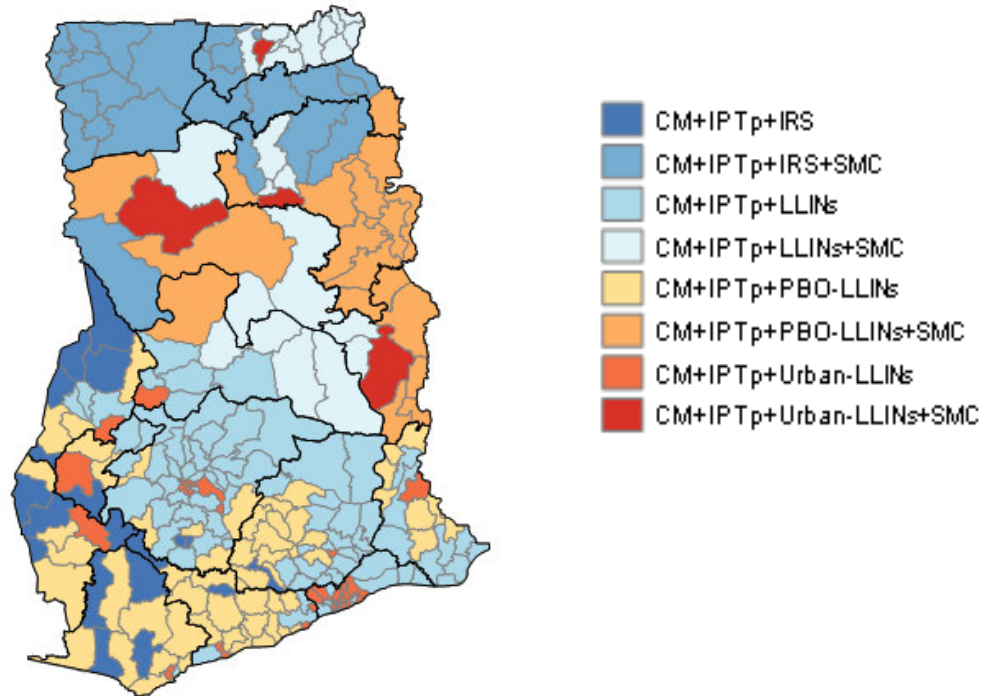
Ghana Malaria Stratification Report, 2020

Ghana Malaria stratification and mapping

Strata combining prevalence, adjusted incidence and all-cause U5MR



Intervention Mix from stratification



Indoor Residual Spraying

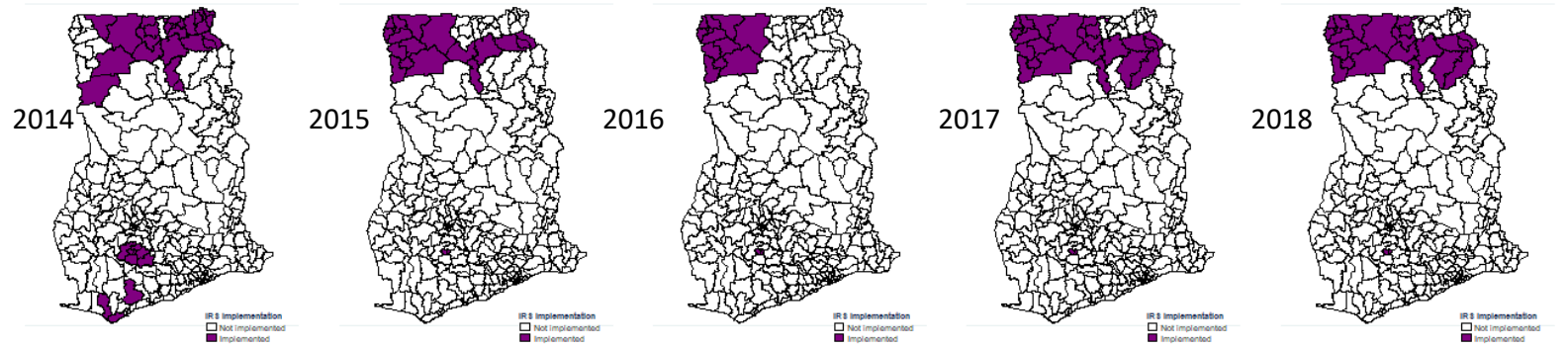
Areas for IRS

- Areas targeted for IRS in 2018
- Areas with >35% PfPR2-10 and >500 cases per 1000 adjusted incidence

Choice of insecticide

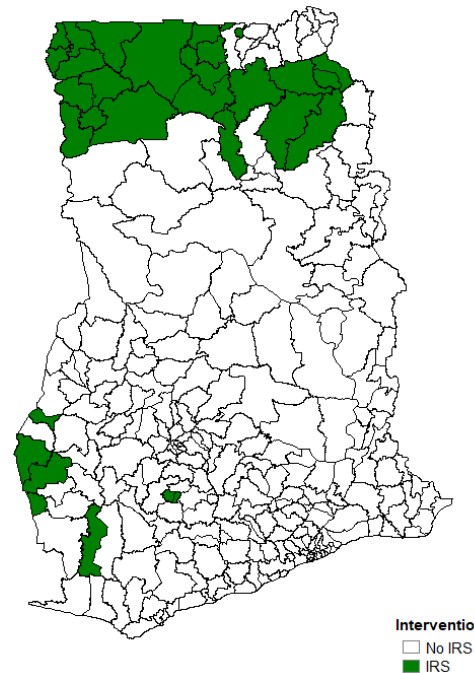
- Insecticide susceptibility test in IRS areas and sentinel sites
- Supervisory and guidance by the Malaria Vector Control Oversight Committee (MaVCOC)

STRATIFICATION FOR IRS



OPTION 1:

- Districts targeted for IRS in 2018
- Districts with **>35% PfPR2-10** and **>500 cases per 1000** adjusted incidence



Insecticide Treated Nets (ITNs)

A. Areas for ITNs

- Districts with $>1\%$ PfPR₂₋₁₀ in 2000
- Exclude districts with IRS
- Microstratification required in the capitals of all 16 regions

B. Choice of the type of net

- Districts with $>1\%$ PfPR₂₋₁₀ in 2000
- Exclude districts with IRS

Pyrethroid
Only

- Areas with **pyrethroid resistance**
- Areas with **the highest combined risks of prevalence, incidence and mortality**

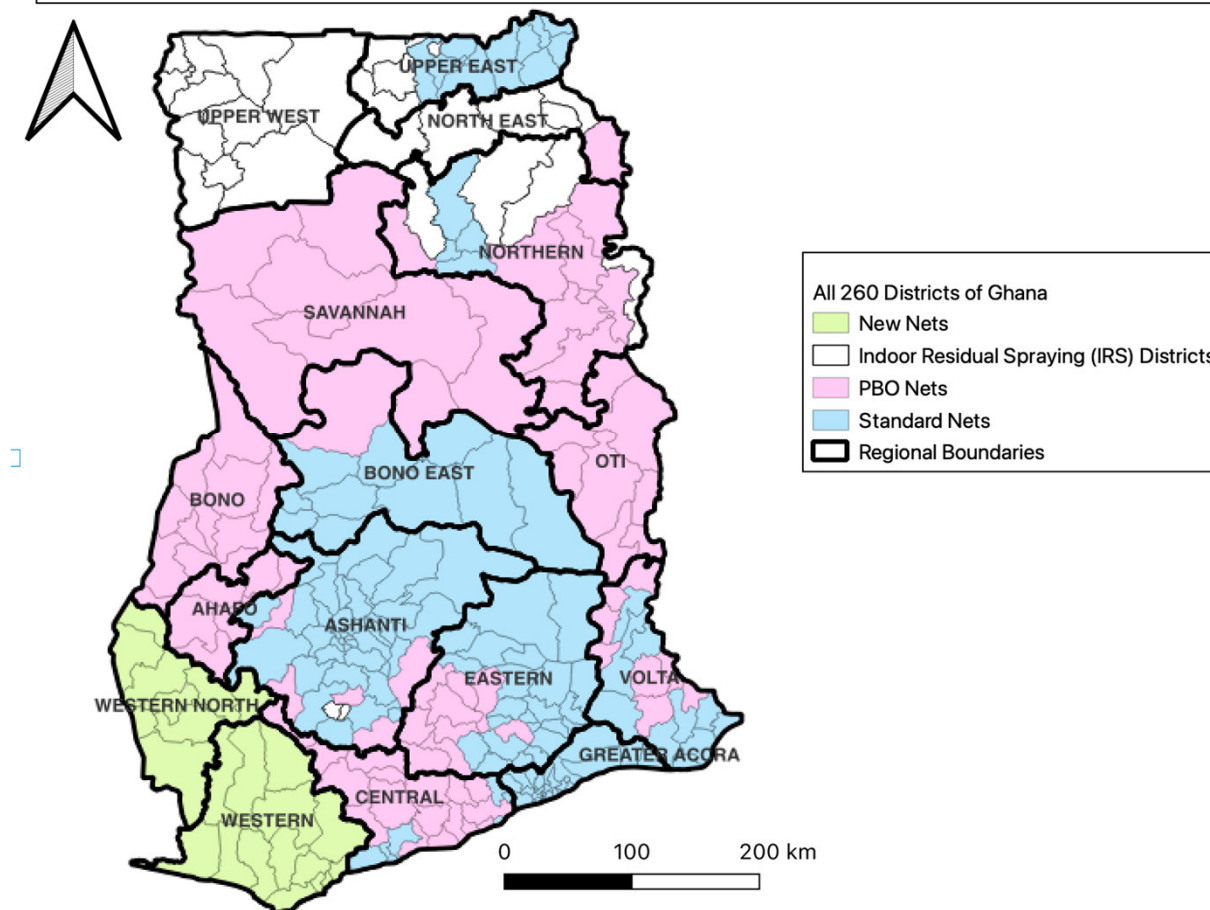
PBO Net

- Areas with pyrethroid resistance
- Areas with **the highest combined risks of prevalence, incidence and mortality**
- 18 IRS (intended) districts

New Net

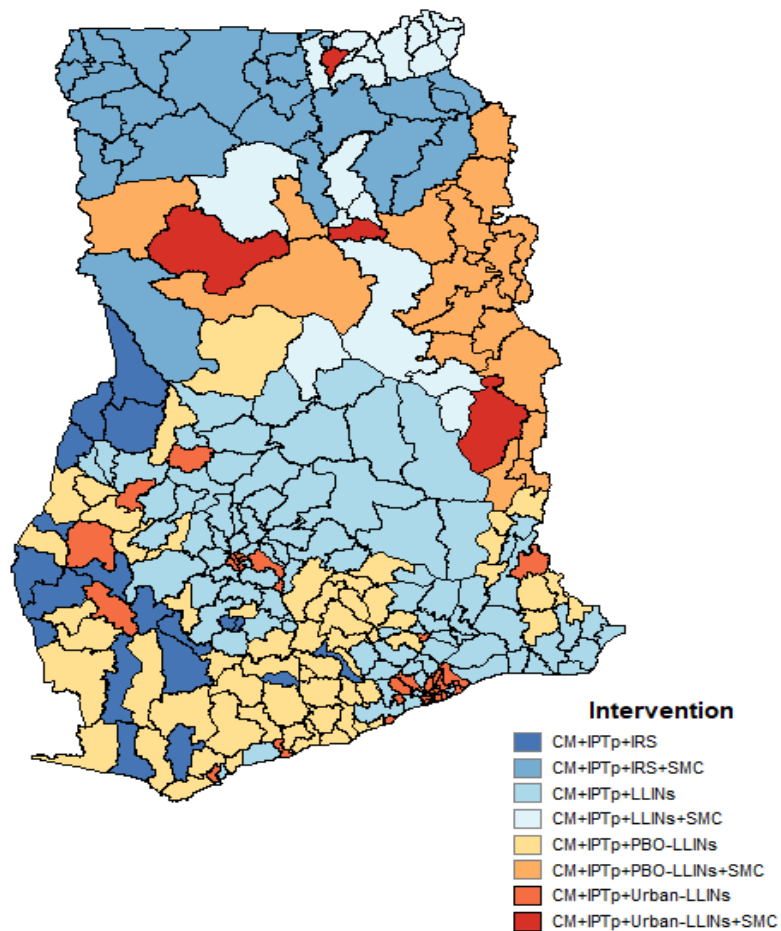
STRATIFICATION: ITN Multi-product distribution Plan

MAP OF GHANA SHOWING DISTRIBUTION OF DIFFERENT TYPES OF LLIN FOR MASS CAMPAIGN 2021



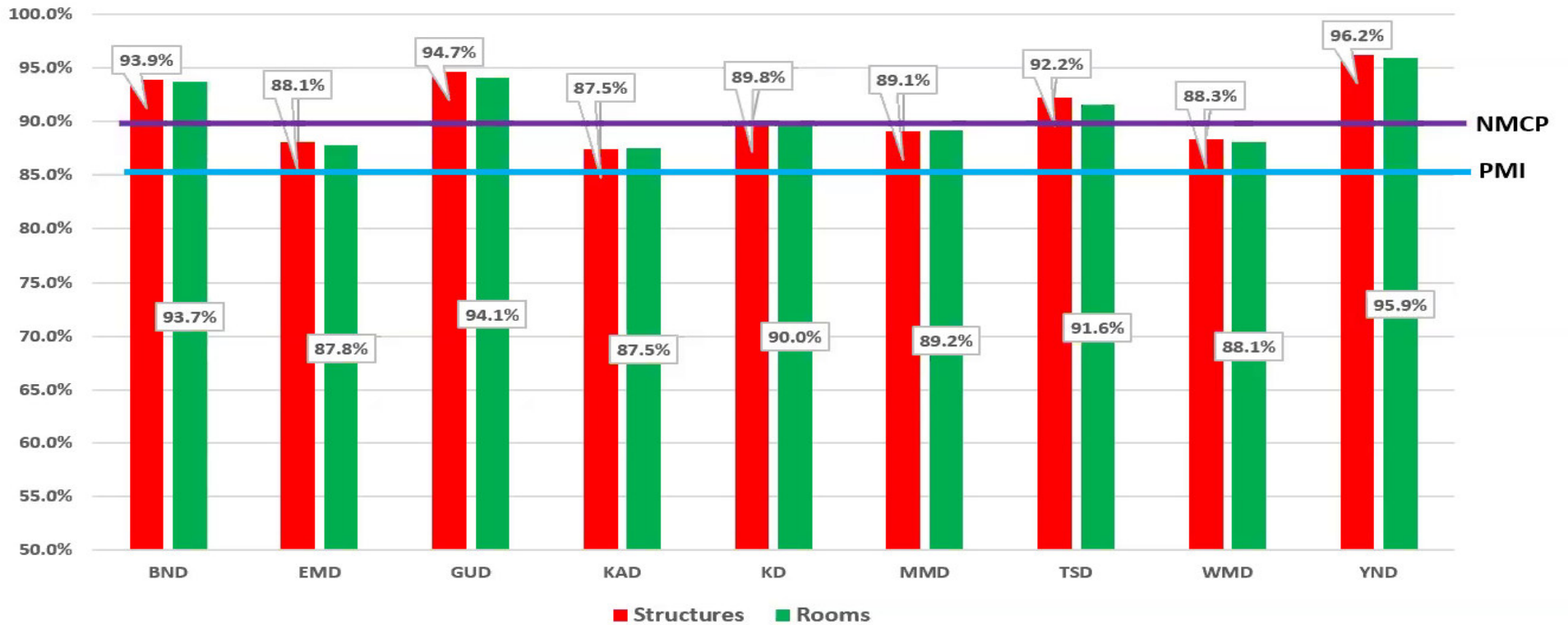
Summary

Intervention mix from 2019 stratification, Ghana, 2019



Strategic Interventions	Coverage (Scope and Scale)/Districts	
	NSP 2014-2020	NSP 2021-2025
ITN distribution; Routine	260 (Nationwide)	260 (Nationwide)
ITN distribution; Mass Campaign	235/260 (Except IRS dist)	217/260 (Except IRS dist)
IRS	25 (All dist in Upper West, Obuasi, 3 districts in Upper East and 9 dist- Northern region)	43 (All dist in Upper West, Obuasi, 3 districts in Upper East and 9 dist-Northern region, 18 additional districts)
Larva Source Management	105	105

IRS Results: Vectorlink

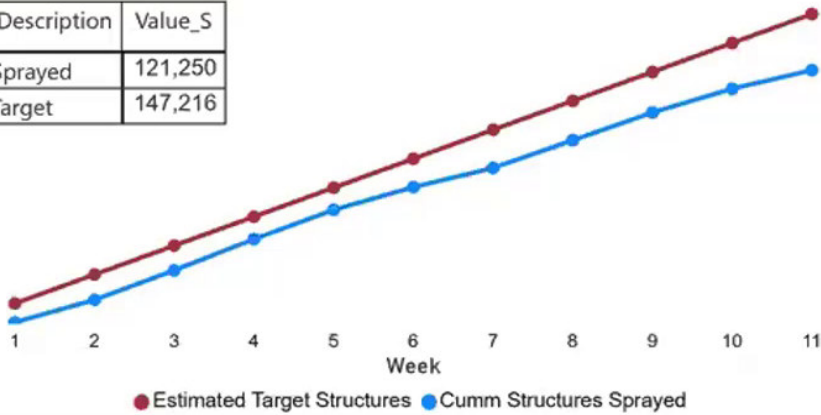


Total	Found	Sprayed	Coverage
Structures	364,469	329,838	90.50%
Rooms	382,219	344,916	90.24%

IRS Results: AGAMaI

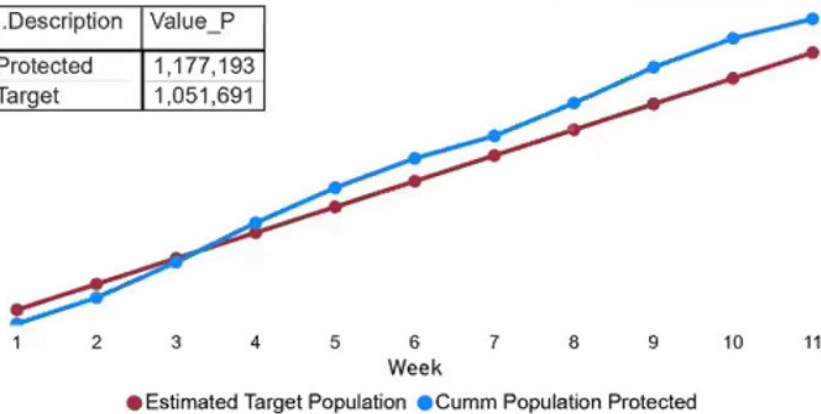
Weekly IRS Performance - Structures

.Description	Value_S
Sprayed	121,250
Target	147,216

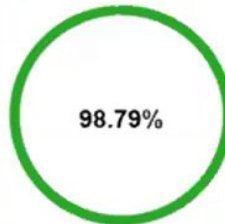


Weekly IRS Performance - Population

..Description	Value_P
Protected	1,177,193
Target	1,051,691



Room Coverage



Population Coverage



Operational Statistics

Value_8

Days Worked to Date (Maximum)	54
Days Worked to Date (Minimum)	49
Districts_Fludora Fusion	9
Districts_Sumishield 50WG	7
Rooms Mop Up Rate	34
Rooms Mopped Up to Date	42,476
Rooms per Insecticide	6
Rooms per Operator	27
Rooms Unsprayed to Date	126,668
Spray Operators	851

Program Indicators

Coverage

Percentage of Females in Pop. Protected	50.49
Percentage of Males in Pop. Protected	49.51
Percentage of Pregnant Women in Pop. Protected	3.29
Percentage of U<5 in Pop. Protected	11.54

Insecticide Information	Value
Fludora Fusion	141,314
Sumishield 50WG	67,307
Usage To Date	208,621

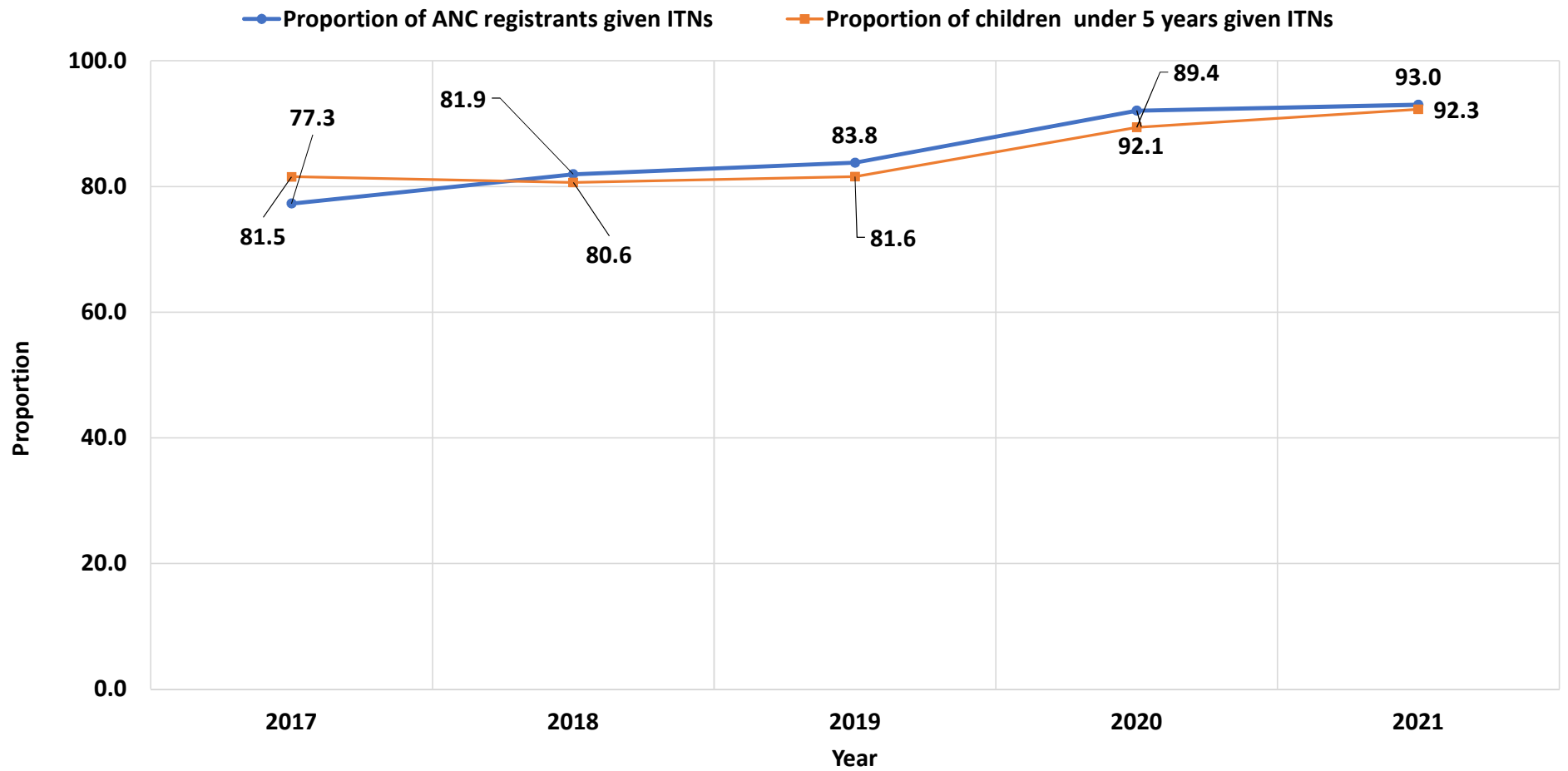
Top 3 Reasons for Unsprayed

Locked-Up	
Packing/Unpacking	
Unavailable	

2021 MASS CAMPAIGN SUMMARY RESULT

PMD REGISTRATION AND DISTRIBUTION DATA PER REGION						
REGION	REGISTERED POPULATION	NUMBER OF REGISTERED HOUSEHOLDS	ALLOCATED NETS (FROM REGISTRATION)	QTY OF NETS SUPPLIED (PCS)	DISTRIBUTED NETS	% Coverage
AHAFO	816,420	170,476	458,239	433,850	432,335	99.7
ASHANTI	6,478,890	1,377,449	3,617,710	3,069,600	2,805,345	91.4
BONO	1,339,973	296,552	756,929	695,600	682,463	98.1
BONO EAST	1,342,662	291,266	757,300	716,150	705,259	98.5
CENTRAL	3,217,711	729,556	1,817,480	1,685,000	1,612,592	95.7
EASTERN	3,026,313	736,426	1,731,809	1,618,200	1,592,595	98.4
GREATER ACCRA	5,744,504	1,301,005	3,215,214	2,749,350	2,362,723	85.9
NORTH EAST	92,476	17,173	51,137	51,150	51,022	99.7
NORTHERN	2,184,602	422,851	1,221,499	1,153,500	1,131,085	98.1
OTI	907,188	190,970	508,165	507,050	498,571	98.3
SAVANNAH	695,341	137,923	386,260	382,900	379,315	99.1
UPPER EAST	1,279,300	261,572	724,519	715,650	709,146	99.1
VOLTA	2,024,355	473,670	1,157,053	1,129,650	1,084,532	96.0
WESTERN	2,754,866	581,437	1,537,355	1,390,600	1,381,222	99.3
WESTERN NORTH	1,364,923	246,599	744,445	726,900	711,297	97.9
TOTAL	33,269,524	7,234,925	18,685,114	17,025,150	16,139,502	94.8

Proportion of ANC registrants and children under 5 years due for measles 2 given ITNs, Ghana, 2017 - 2021



Source: DHIMS2

Net4Schs National Summary

NATIONAL OVERVIEW

A statistical representation of activities performed in all regions

NUMBER OF SCHOOL ENTRIES IN COUNTRY



25,336 OF
27,377

NUMBER OF LLINs RECEIVED IN ALL REGIONS



1,168,311

NUMBER OF PUPILS SUPPLIED WITH LLINs IN ALL REGIONS



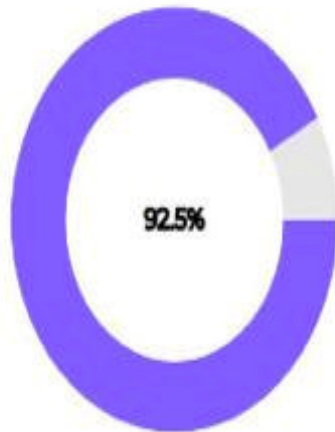
1,116,344

NUMBER OF LLINs REMAINING IN ALL REGIONS

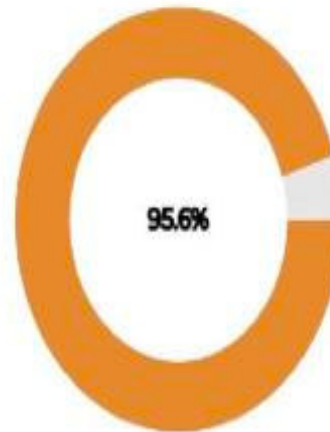


51,967

PERCENTAGE COVERAGE OF SCHOOLS IN ALL REGIONS



PERCENTAGE COVERAGE OF LLIN DISTRIBUTED IN ALL REGIONS



TOTAL NUMBER OF PUPILS SUPPLIED WITH LLINs BOYS AND GIRLS



1,116,344

Boys- 562,839 Girls- 553,505

TOTAL NUMBER OF PUPILS SUPPLIED WITH LLINs JHS2 AND P6



1,116,344

Jhs2 532,747 P6 583,597

CONCLUSION

- Early planning and partner involvement to allow for successful multiproduct campaign
- Availability of data is needed to guide the choice of intervention to ensures smooth planning and implementation
- Implementation of interventions that actually work
- A multiproduct choices and interventions are possible with commitment proper and continuous monitoring



ACKNOWLEDGEMENT

- MOH
- The Director General , GHS
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- PPME/GHS
- RDH and DHS
- All health facilities
- The Global Fund
- USAID and Presidents Malaria Initiative (PMI)
- Vectorlink Project
- WHO





Thank you