Data Use for Vector Control Deployment: A Global Perspective

RBM 17th VCWG Annual Meeting
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OUTLINE

- **PMI Policy and Technical Guidance**
- **Country Examples**
- **Challenges**
- **Best Practices**

PMI GUIDANCE - VECTOR CONTROL

- Evidence-informed deployment of traditional and new vector control tools
- Universal coverage with at least one effective vector control intervention deployed according to data
  - Selection of intervention should be based on insecticide resistance and vector bionomics data, plus community acceptance, cost, and national strategy and policies
- May entail sub-national stratification of interventions

ENTOMOLOGICAL MONITORING

262
INSECTICIDE
RESISTANCE

252
MOSQUITO
BEHAVIOR

- Insecticide resistance monitoring - product selection & rotation
- Mosquito behavior monitoring - biting times & location
- Longitudinal ento monitoring - stratification
- Spray quality and residual efficacy - quality & duration of IRS
- Durability monitoring - performance of ITNs in field
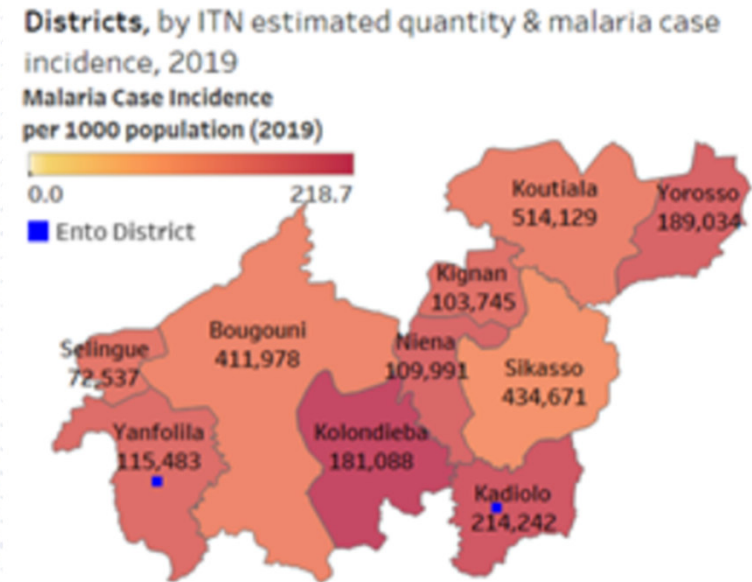
PRODUCT SELECTION

- PMI supports transition to new types of ITNs where supported by insecticide resistance monitoring data
- In FY21, 94% of the ITNs delivered by PMI were PBO/dual AI
- PMI supports sub-national rotation between insecticides for IRS to slow resistance
- Co-deployment of IRS with new types of ITNs not currently recommended

PMI GUIDANCE - SM&E

"Although malaria transmission intensity (e.g., incidence) should form the foundation of stratification, as transmission decreases, tailoring should incorporate ecological, entomological, and SBC data in order to determine the appropriate package of malaria interventions and tailor malaria prevention activities to specific settings."

MALI: ITN PRIORITIZATION

- In 2020, IG2s distributed in Sikasso Region
- NMCP prioritized districts to receive these nets using incidence and prevalence data, entomological monitoring sites, and projected number of ITNs required at the district level
- Conducting an evaluation of the impact of IG2 ITNs; use data to help inform the potential expansion to additional districts and regions

Districts, by ITN estimated quantity & malaria case incidence, 2019

Malaria Case Incidence per 1000 population (2019)

0.0 — 218.7

■ Ento District

Koutiala 514,129

Yorosso 189,034

Kignan 103,745

Selingue 72,537

Bougouni 411,978

Niena 109,991

Sikasso 434,671

Yanfolila 115,483

Kolondieba 181,088

Kadiolo 214,242

ZAMBIA: IRS INSECTICIDE SELECTION

IRS Products
- DDT
- Fludora Fusion
- SumiShield
- No IRS
- ▲ Product Change Recommended
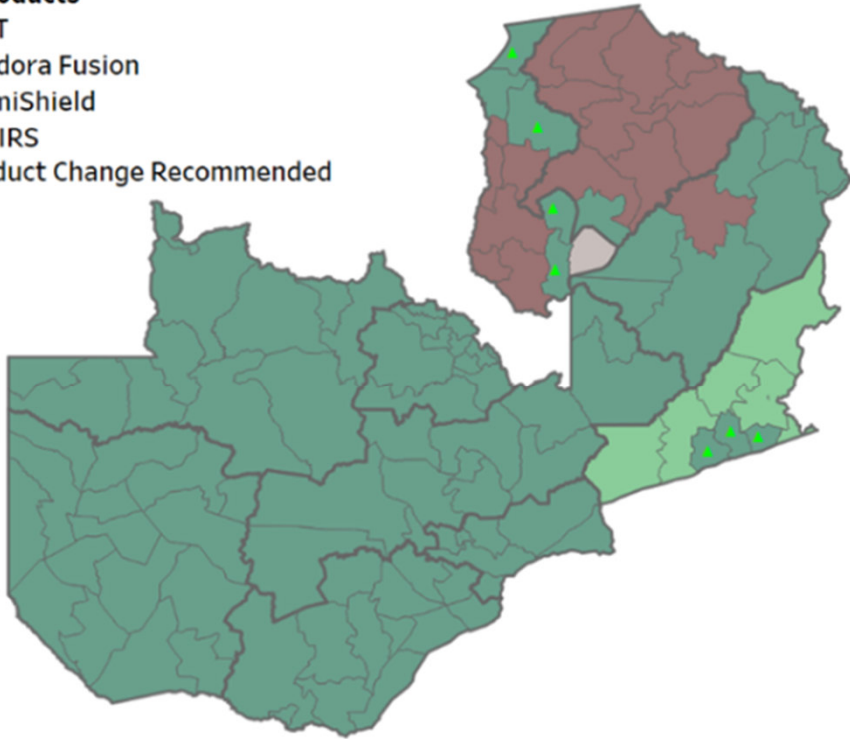
2020 Recommended Insecticide Choice

Used data showing which insecticides were effective in each district and which mosquitoes were resistant by location, species, and insecticide to decide which districts should switch insecticides

CHALLENGES

- Prioritizing within limited budgets
- Using entomological and DM data for product selection
- Timing of ento data vis-a-vis procurement lead times
- Coordination amongst partners
- Awaiting WHO policy guidance; taking decisions in interim
- Logistical considerations for sub-national targeting of multiple products and via multiple channels

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Way Forward

- Continue to support data collection, analysis, sharing and collaboration
- Foster partnerships at national and provincial/district levels
- Further cost effectiveness study to inform deployment in high burden high resistance areas
- Ensure clarity on parameters, models

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