Considerations for the deployment of different ITN types

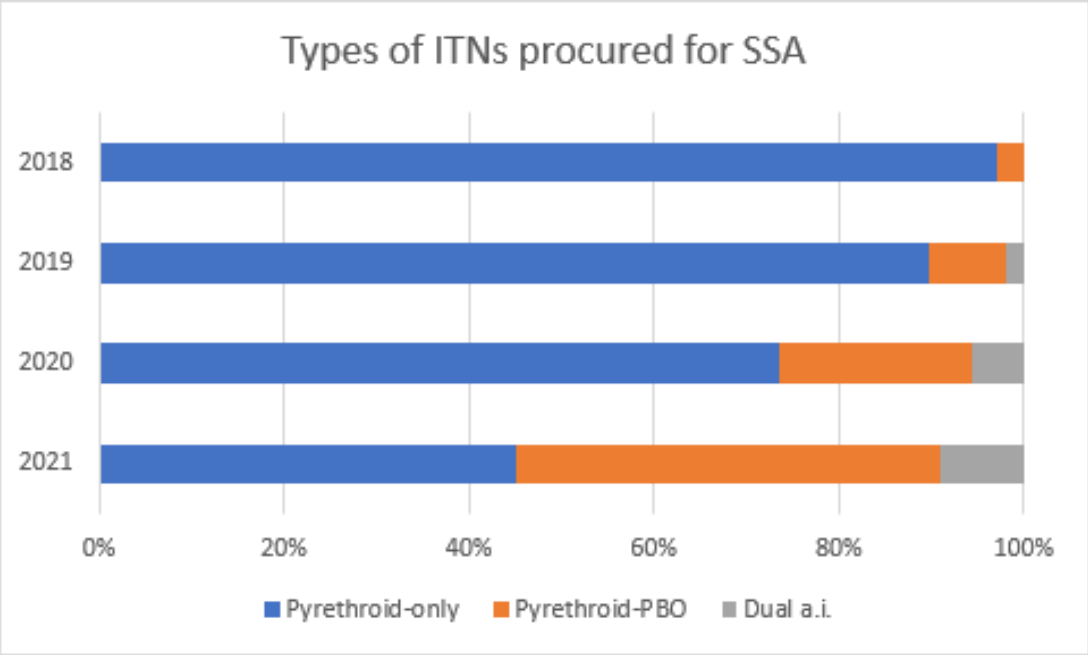
The Global Fund, U.S. President's Malaria Initiative, Against Malaria Foundation

AMP Partners Meeting 2022
29 March 2022

Outline

1. Overview of recent financing of ITN types
2. Financers' updates
   - TGF – Htin Kyaw Thu
   - PMI – Lilia Gerberg
   - AMF – Julian Austin
3. DRC Example
4. Considerations
5. Questions

1. Overview of financing by ITN type



- Since 2018, the proportion of shipments of new types of nets has been increasing relative to pyrethroid-only nets across financiers
- In 2021, of the 205+M nets shipped, 94M were PBOs and almost 19M were dual a.i.
- We expect this trend to continue

John Milliner AMP Net Mapping Data downloaded 21 March 2022: https://allianceformalariaprevention.com/working-groups/net-mapping/

2. Financer update: The Global Fund

Pyrethroid-only ITNs

- Areas/countries where no pyrethroid-resistance has been detected or is the only affordable product to ensure target population coverage

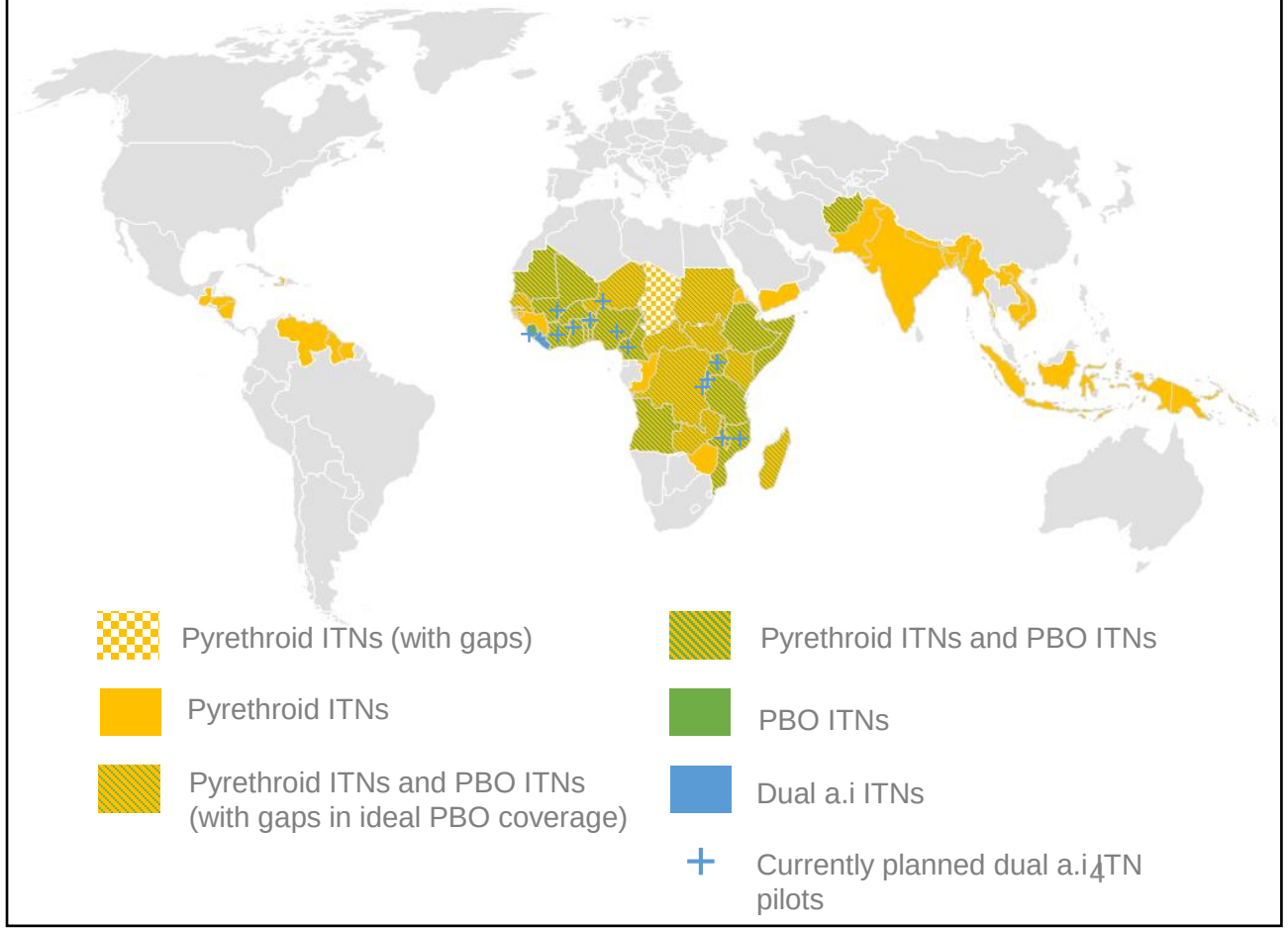
Pyrethroid-PBO ITNs

- Supported where countries have entomological data demonstrating alignment with WHO considerations

Dual ai nets

- Currently only supported for grants receiving top up funding (New Nets Project / Net Transition Initiative)
- Support is limited based on production capacity and NNP/NTI budgets
- Targeted towards countries with higher transmission and demonstrated pyrethroid resistance
  - NMC/EP leads decision on where in country the products are targeted – most prioritize the higher transmission areas and take operational considerations into account
- Once WHO policy recommendation is in place, full product costs will be covered by country grants.

Financing plans under current grants (note ITN can change following reprogramming etc.)



2. Financer update: The Global Fund

- Strong support for ensuring as many as possible ‘more effective’ ITNs can be procured for pyrethroid resistant areas whilst maintaining programmes’ coverage targets
- Strong recommendation is that countries maintain coverage with the more effective tool in successive campaigns in same areas (i.e., not switching back to previous tools)
- If not covered by other financing, entomological monitoring should be included in Global Fund grants
- Generally, co-deployment of ITNs (any type) and IRS not recommended, but exceptions (+)
- In line with WHO guidance: preferential selection of ITN by type of pyrethroid is not supported
- Procurement policy:
  - WHO pre-qualified products
  - A range of ‘standard’ sizes
  - White, blue or green
  - With or without hooks and strings
- Requests for certain fabric, or for sizes or shapes outside of the standard range, need to be supported by data showing impact of the characteristic in question on differential net use or durability

2. Donor update: PMI

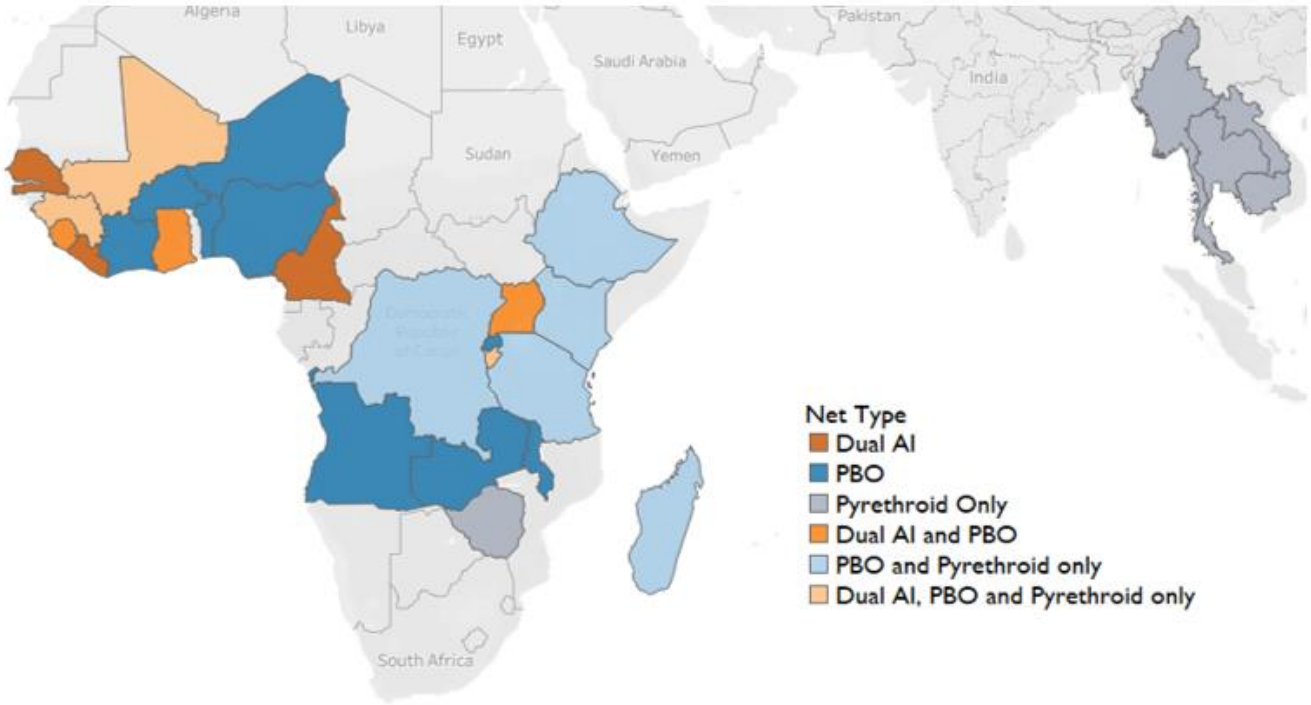
PMI procurement policy

- Requires that ITN products be on WHO PQ list of Prequalified Vector Control Products
- PMI reserves the right to apply additional criteria
- Policy is consistent with 2021 WHO MPAG recommendations on non-inferiority evaluations of vector control tools

ITN selection

- Pyrethroid-only ITNs and PBO: similar to GF (ento data)
- Dual a.i. nets
  - Countries can procure as data and funding allows
  - Availability limited by production capacity and lead time
  - NNP structure that allows co-pay to be available to PMI until the end of CY 2022; NTI only supports Global Fund grants, thus, will not be a co-pay for PMI starting in CY 2023

PMI active and planned procurements (FY21/22)



2. Donor update: PMI

- PMI prioritizes entomological monitoring as a core investment
  - Supports mosquito surveillance in 252 sites and insecticide resistance monitoring in 262 sites
- Insecticide resistance monitoring data guides selection of optimal ITN products
- PMI supports transition to new types of ITNs, where supported by insecticide resistance monitoring data, as funding allows, and in coordination with national programs and other partners
  - In FY 2021, PMI delivered more than 44 million new types of nets to 15 partner countries, accounting for approximately 94% of total nets delivered by PMI
- Once countries transition, should be prepared to sustain shift to new types of nets
- Co-deployment of IRS with new types of ITNs not currently recommended
  - Limited evidence of additive impact, resource limitations, potential antagonistic effect between pirimiphos-methyl and PBO synergist
- PMI will procure ITNs with a specified pyrethroid
  - If the country's susceptibility testing data show a difference in anopheline mortality between the pyrethroids
- PMI supporting ongoing durability monitoring and initiating streamlined protocol to focus on insecticidal content of new types of nets (e.g., Liberia, Malawi, Nigeria, Senegal)

2. Financer update: AMF

AMF approach for net selection

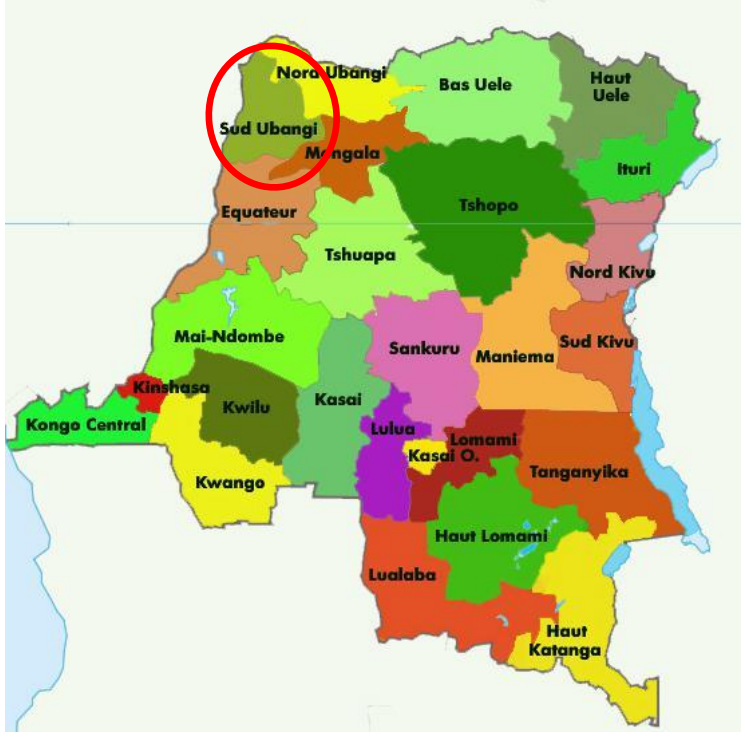
1. Discussions with country
2. Analysis of malaria information
3. Analysis of net tendering information
4. Cost effectiveness estimates
5. Discussions with country and co-funding partners

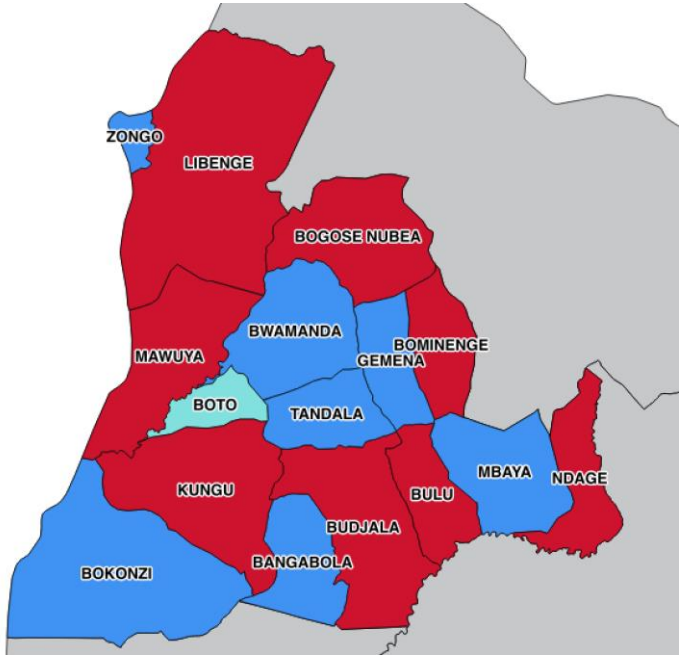
2. Financer update: AMF

- Try to follow the data, willing to invest additional funds where justified
- Keen to foster innovation to help achieve a varied range of products on the market so that nets can be targeted
- Future research such as more entomology and alternative / less expensive monitoring (e.g. using ANC data) would support decision making

3. Country Example – DRC, Sud Ubangi

- Very high malaria incidence, mortality, and prevalence
- NMCP, with support from AMF and the Global Fund, distributed standard and PBO ITNs in Sud Ubangi province in May 2020
- *Institut National de Recherche Biomedicale* (INRB)/PMI VectorLink and Liverpool School of Tropical Medicine (LSTM) collaborating on a study to monitor ento and epi impact and net durability
- For 2022/23 campaign, resistance data and net information showed that PBO or dual a.i. cost effective, decision taken for 50% PBO nets, 50% dual a.i.





<u>2020 distribution</u>
50% standard
50% PBO

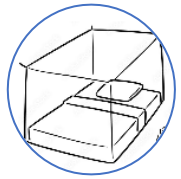
Monitoring in place

3. Country Example – DRC Best Practices

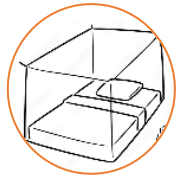
- Partnership at national and provincial levels
- PNLP led the partnership discussions
- Data collection and collaboration
  - PMI supports ento monitoring; shares with NMCP, AMF, TGF to inform decision-making
  - Resistance data increasingly showing high resistance to pyrethroids; PBO effectiveness varies per province
- Cost effectiveness estimates suggest PBO or dual a.i. nets effective in high burden high resistance areas
- Frequent discussions to coordinate types of nets and timing
  - Production capacity and lead time a factor
- Procurement plans:
  - AMF: Continue to follow the data and select province by province: on recent orders, high proportion PBO/dual a.i.
  - PMI: 2020 and prior: all standard nets; 2021: 1.14M dual a.i. (Nord Ubangi); 2022: 3M PBOs (various provinces)
  - GF: 100% PBO ITNs for 2022 campaign and routine nets; distribution costs for TGF and AMF financed nets in 21-23

4. Considerations around ITN selection

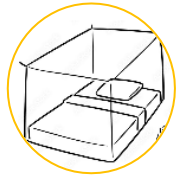
Diverse ITN products



Pyrethroid-only



Pyrethroid-PBO



Dual AI

Diverse IRS products

Chemoprevention, vaccine, newer tools

- Increasing options at different price points:
  - Important to understand relative cost-effectiveness both within vector control and beyond; some evaluation work planned, more likely needed
  - Challenging to extrapolate cost-effectiveness results to diverse settings
  - Current similarity of pyrethroid-PBO and dual a.i. price points
- Durability questions:
  - Differences in physical and chemical durability may affect coverage and relative cost-effectiveness
- Prioritizing within a limited budget:
  - How best to balance coverage with cost and the choice of the most effective tool
  - Programmes continue to prioritize coverage of all target population with at least one tool before ‘upgrading’ as many as possible; some changes in ‘target population’
- Targeting withing country of multiple products and via multiple channels
  - HBHI modelling support; targeting to highest burden areas; importance of operational considerations

5. Questions?