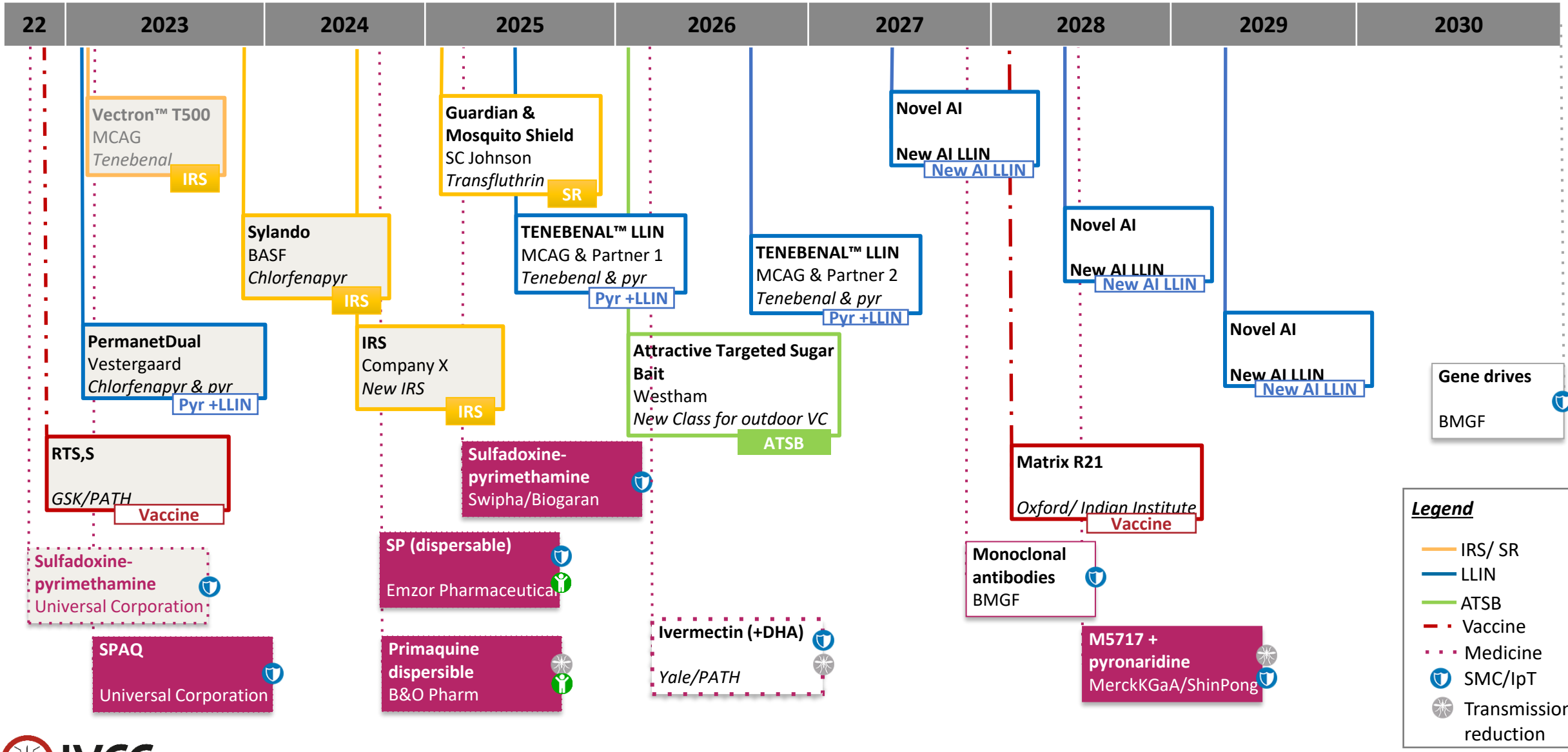
New vector control products: Market outlook and pipeline

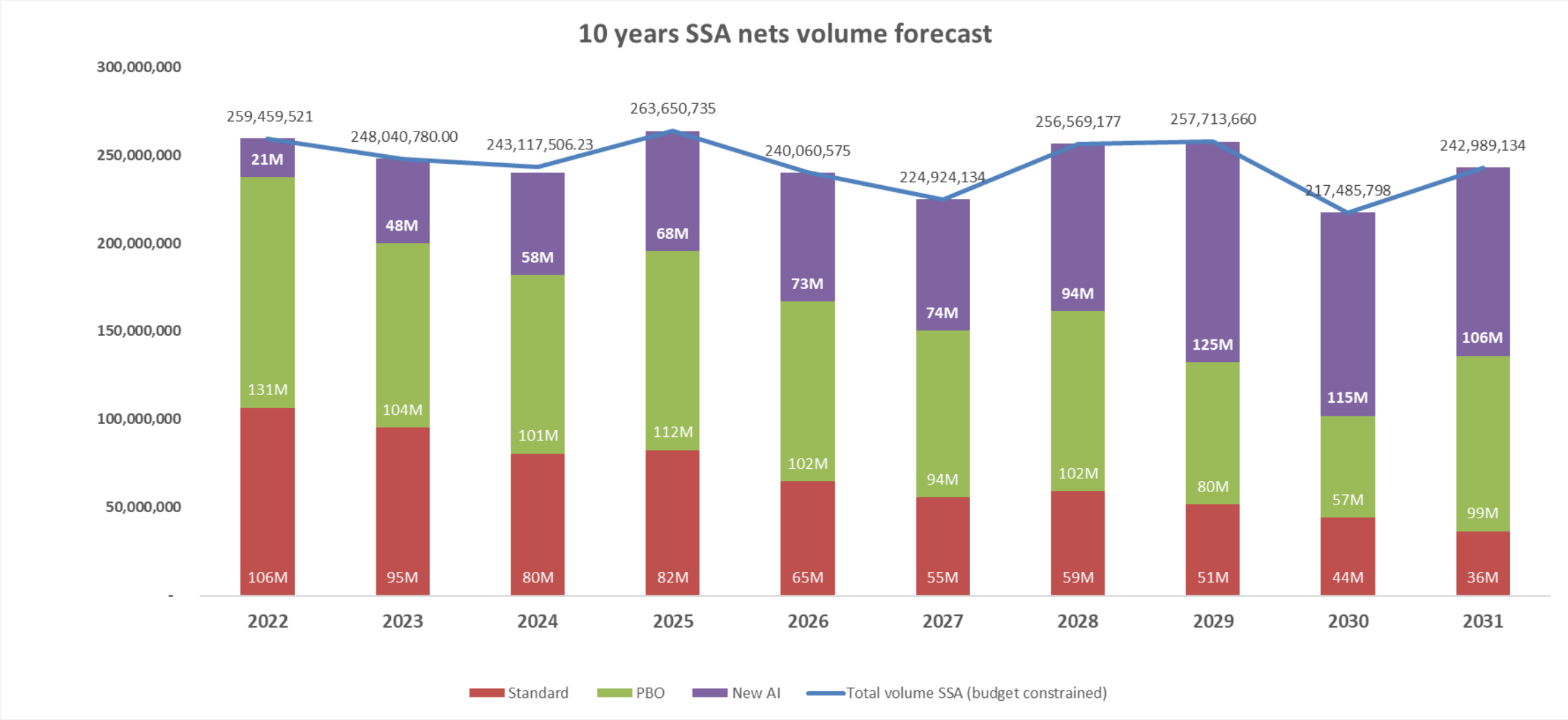
Ioana Ursu | May, 8-9, 2023| AMP Partner Meeting, Nairobi

Future uptake of Dual AI nets – "*New AI*" LLINs will be next in an expanding toolbox for malaria prevention



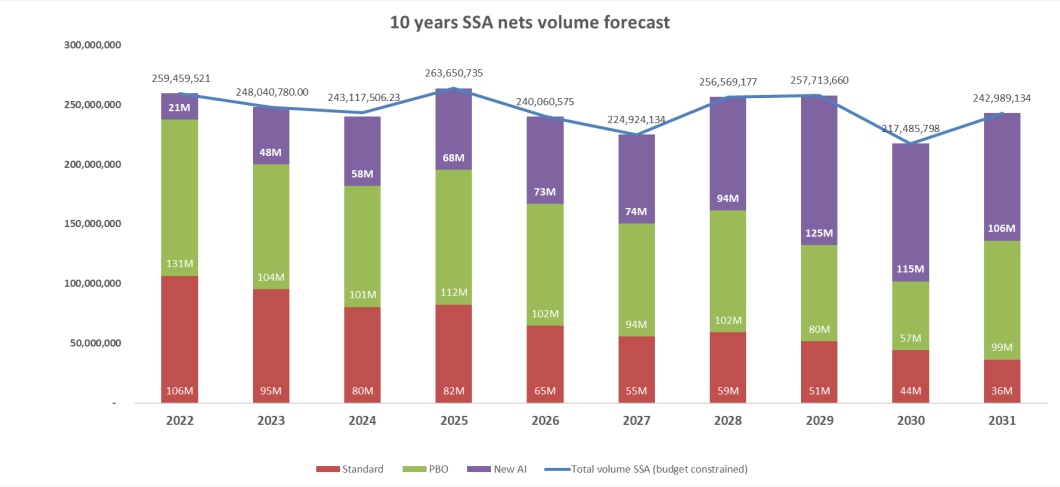
Launch dates assuming 12 months from PQ submission to listing.

10-Year Forecast for SSA net volumes within current budget constraints and anticipated resistance rates



Source: CHAI Global Malaria Commodities Forecasting

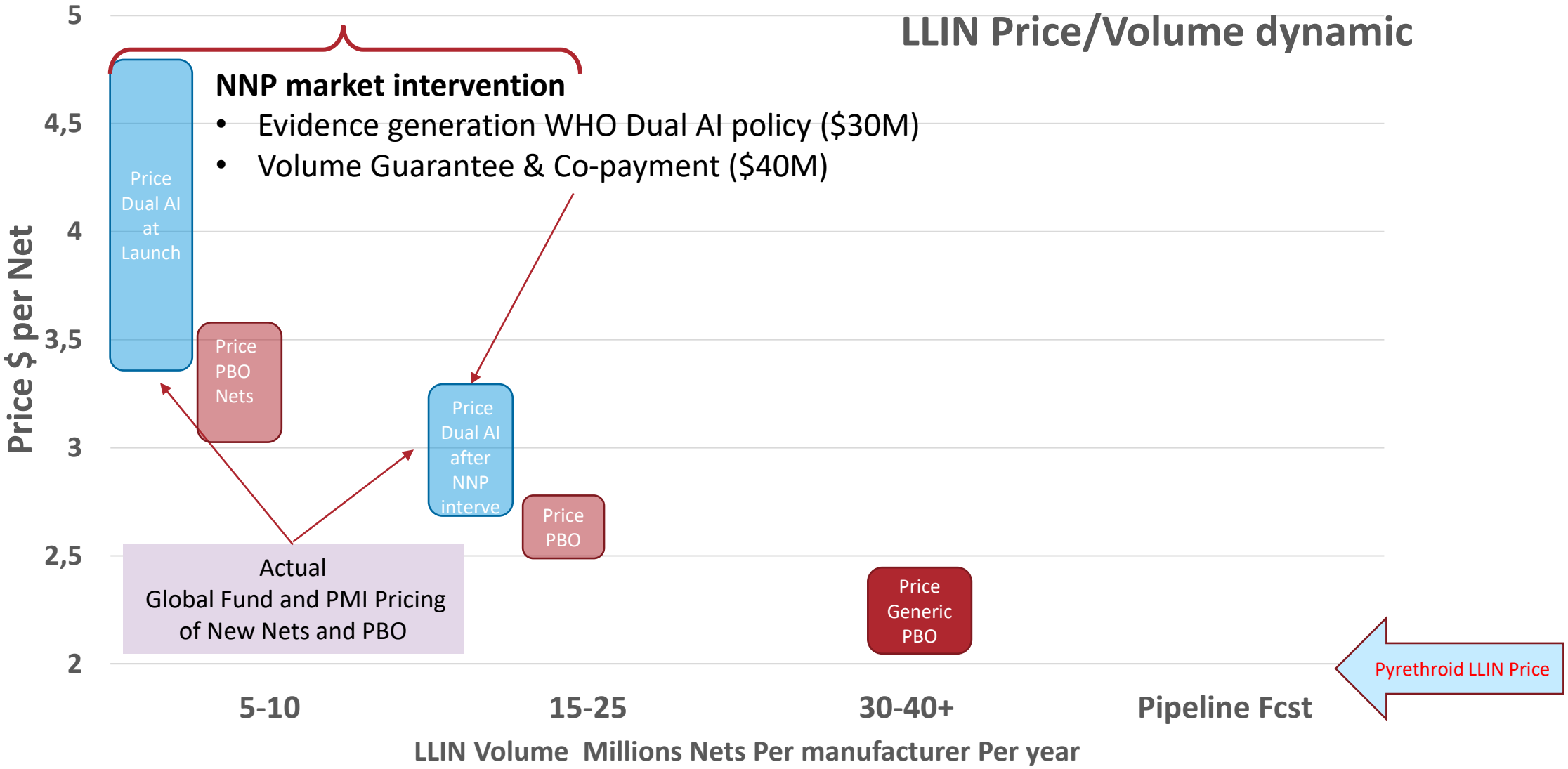
Key take-aways and trends



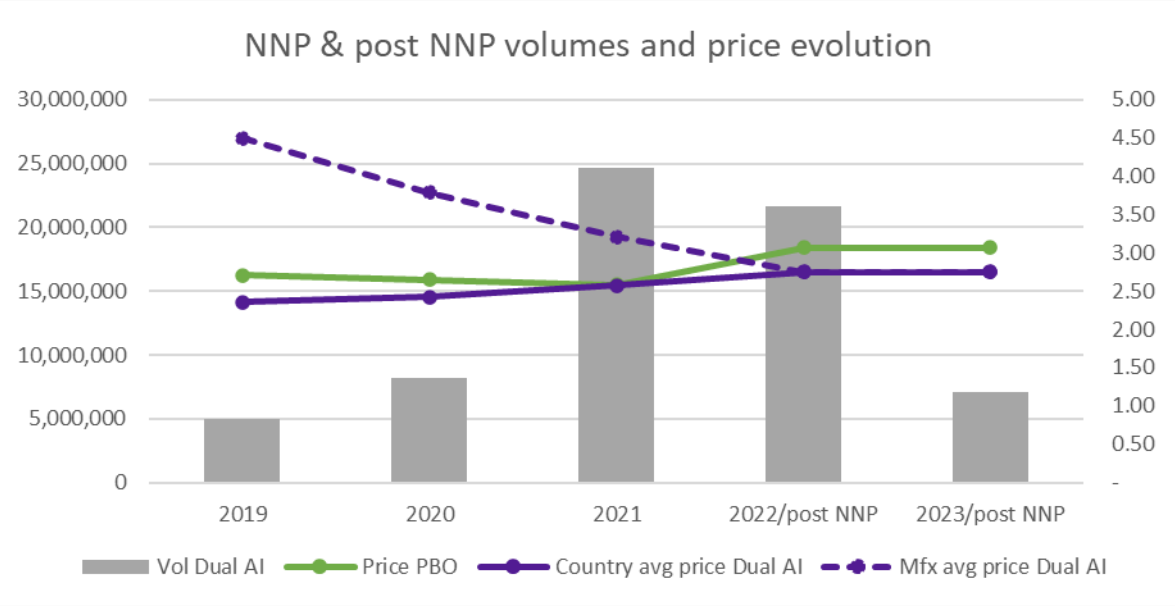
- The ITN market size in Sub-Saharan Africa has consistently surpassed the 200-220M avg. ITNs/year
  - The expected new average is 240—260M ITNs/year
- 2022 SSA ITN budget impact estimated at $610 million
  - Annual budget estimated at $580 million over the coming 3 years if prices remain at current levels

- 2022 procurements of PBO and New/Dual AI nets confirm resistance to pyrethroids is now present in more than half of Sub-Saharan Africa area (60% of procurement volumes)
- Price difference between “cheapest PBO” ($2.20) and New AI ITNs ($2.8) may keep the PBO nets dominant in the market for another 5-7 years, though durability/price dynamic need to play-out
  - More expensive PBO nets closer to $2.80 price mark, the same as Dual-AI nets
  - Given the durability issues and potential loss of protective effect of the PBO synergist, we anticipate dramatic drop in demand for PBO nets by the end of the decade, if not earlier
- By 2028 latest, a new AI/ non-chlorfenapyr ITN likely needed to rotate in areas with high deployment of Dual-AI nets or to replace PBO nets, to avoid increasing/new rates of resistance
  - This would indicate a need for a new-AI LLIN to be developed and prequalified by WHO by end of 2025 to ensure the required scale/ volumes can be reached by 2028

New nets expected to require considerable (financial) support to reach scale; even at scale, non-standard nets are not likely to maintain $2 price point



NNP market intervention

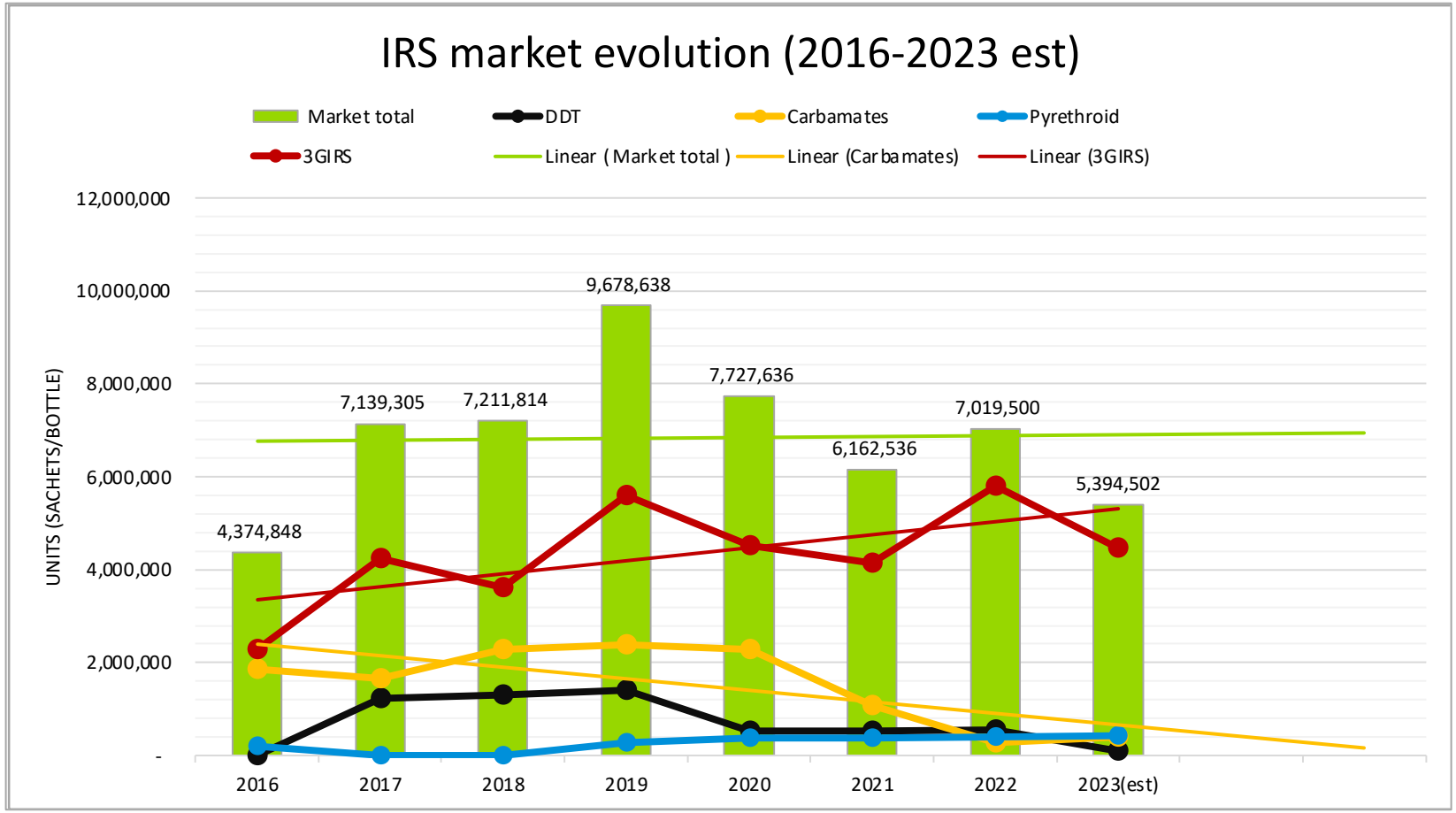


- NNP market shaping intervention sought to catalyse increased country uptake of Dual-AI nets and scaled up manufacturing capacity to meet growing demand, as well as the generation of evidence to inform country decision-making and to support a WHO policy recommendation
  - **Demand** – Provide co-payment to accelerate reduction in price to countries
  - **Supply** – A volume guarantee and accurate forecasting of annual demand gave manufacturers confidence to invest in scaling up production capacity
  - **Price** – Agreement on progressive price reductions as demand increased, with a target price similar to PBO nets could be sustained

- **Manufacturing partners: BASF & DCT**
- **Funding partners: The Global Fund/Unitaid (co-payments); MedAccess/Gates Foundation (*volume guarantee and some start-up costs – non-NNP*)**
  - Approximately 40 million USD funded directly in the form of co-payments over 3 years to help scale the production capacity from 5 million nets per year to over 25 million nets per year; BASF have since committed to aim and reach 50 million IG2 nets in production capacity by end of 2023
  - Additional funding to the TGF & PMI country programmatic country funds
- **Evidence generation: The Global Fund/Unitaid; Gates Foundation (RCT top up funding - non-NNP); Wellcome Trust (TZ RCT non-NNP)**
- **Evidence generation partners: LSTM, LSHTM, PATH, Imperial College, Tulane**
  - In-country evidence partners: CREC, CNFRP, RBC/University of Rwanda, PNCM/INS Mozambique/Tropical Health, NIMR/Tropical Health
- **Implementation partners: PSI, AMP**
- **Coordinator: IVCC**

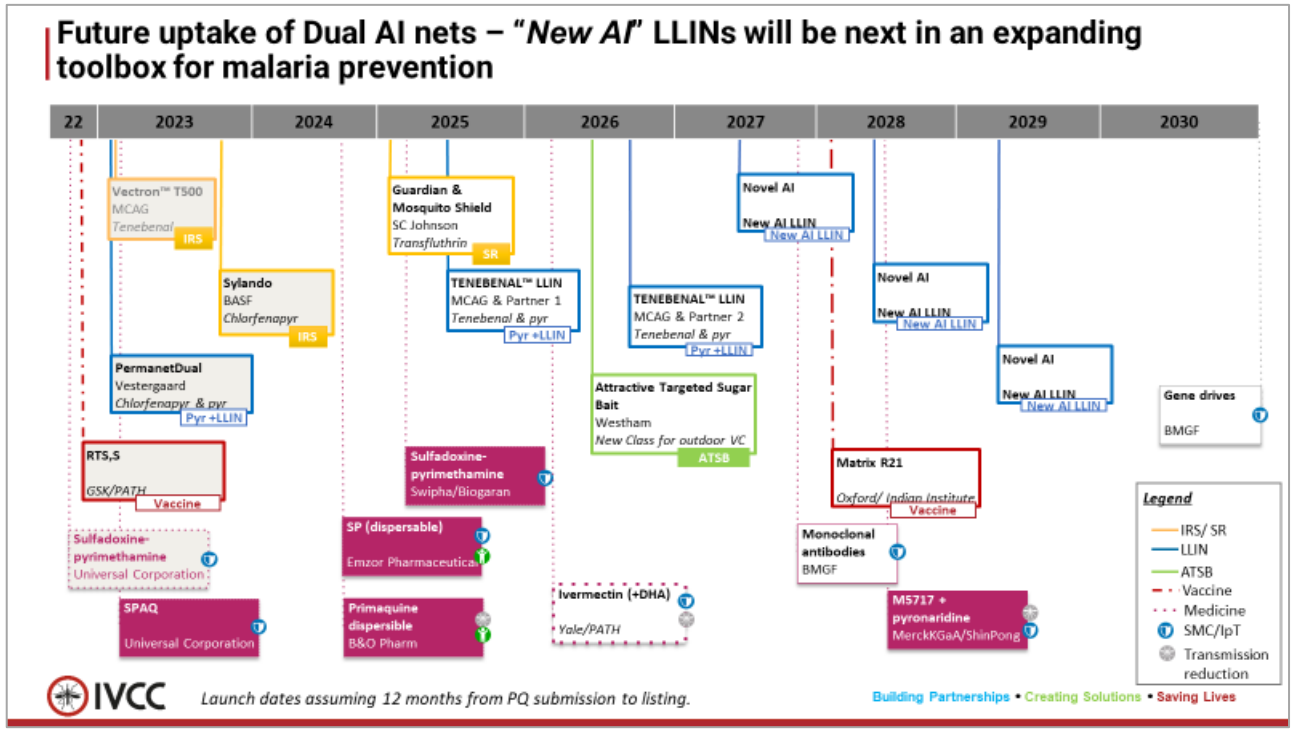
Early signs of budget pressure

- As NNP/NTI funding for Dual AI nets came to an end, the increasing rates of resistance in parallel to increasing commodity prices are increasingly putting pressure on country vector-control budgets



Source: IVCC Market Insight Data

Conclusions



- The toolbox is expanding at fast pace, getting us closer than ever to a potential *"malaria-free world"*
- The last stretch is likely to be more costly
- None of the new-AI nets are likely able to sustain a $2/net price point even as demande increases
  - Is Universal net Coverage still feasible?
  - Do ITNs remain the most cost-effective solution and how might that vary in different settings (e.g., level of transmission, net use patterns, etc.)?

- Potential acceleration of resistance likely requires changes in implementation (different nets and coverage rates in different parts of a country; rotation etc.) and potentially different combination of tools
- Challenge of relatively low durability of PBO nets that could necessitate modified and costlier approaches (i.e., biennial campaigns, supplemental IRS, etc.)
- Country data on net performance, durability, usage patterns and costs will all impact future decisions on net type and deployment in different settings, as well as choice of other vector control/malaria prevention interventions

Thank you for your attention!

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