amp | The Alliance for Malaria Prevention

SMC Alliance

Meeting will begin shortly – la réunion va bientôt commencer - A reunião começará em breve

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ITN Procurement updates

For technical difficulties: Please use Zoom chat or contact the supplier at info@plbe.info

Global Malaria Commodities Forecasting

Joint Annual Meetings of the SMC Alliance for Malaria Prevention

26th February 2026

Anna Trett, CHAI

To navigate the complexities of the malaria commodities market, CHAI assembled a consortium of partners to develop short- and long-term malaria commodities forecasting

OBJECTIVES

- **Principal Objective:** Offer a consensus view of expected procurements over the forthcoming years
- **Expected Use Cases:**
  - Supply a tool that may be used for advocacy
  - Provide relevant information to manufacturers that helps with their planning process
  - Anticipate market risks

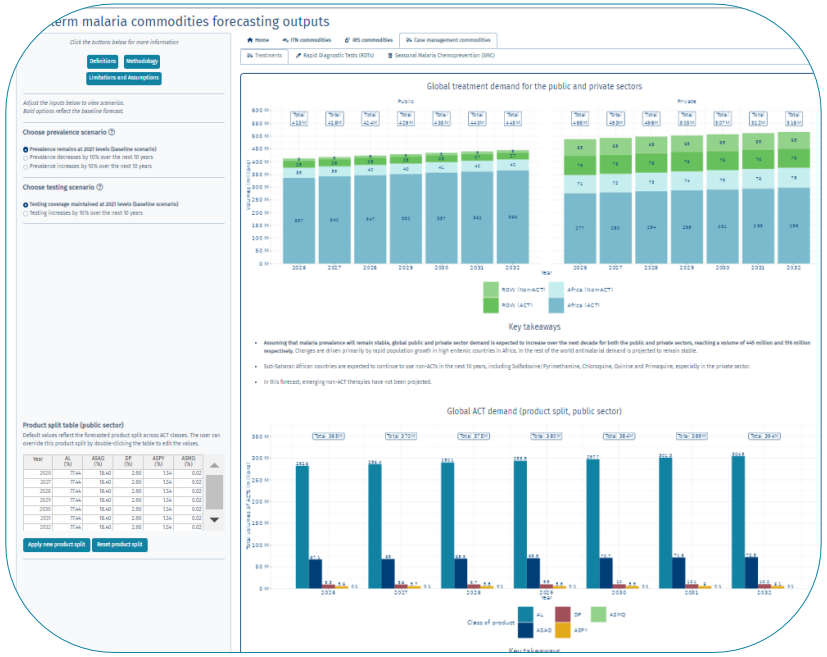
OUTPUTS

- **Procurement** forecast
- **Need and demand** forecast
- **Deep-dive analysis** on a specific commodity market

COMMODITIES

- Rapid Diagnostic Tests (RDTs)
- Treatments
- Seasonal Malaria Chemoprevention (SMC)
- Insecticide Treated Nets (ITNs)
- Indoor Residual Spraying (IRS)

DASHBOARD



CONSORTIUM

CLINTON HEALTH ACCESS INITIATIVE

IVCC

map

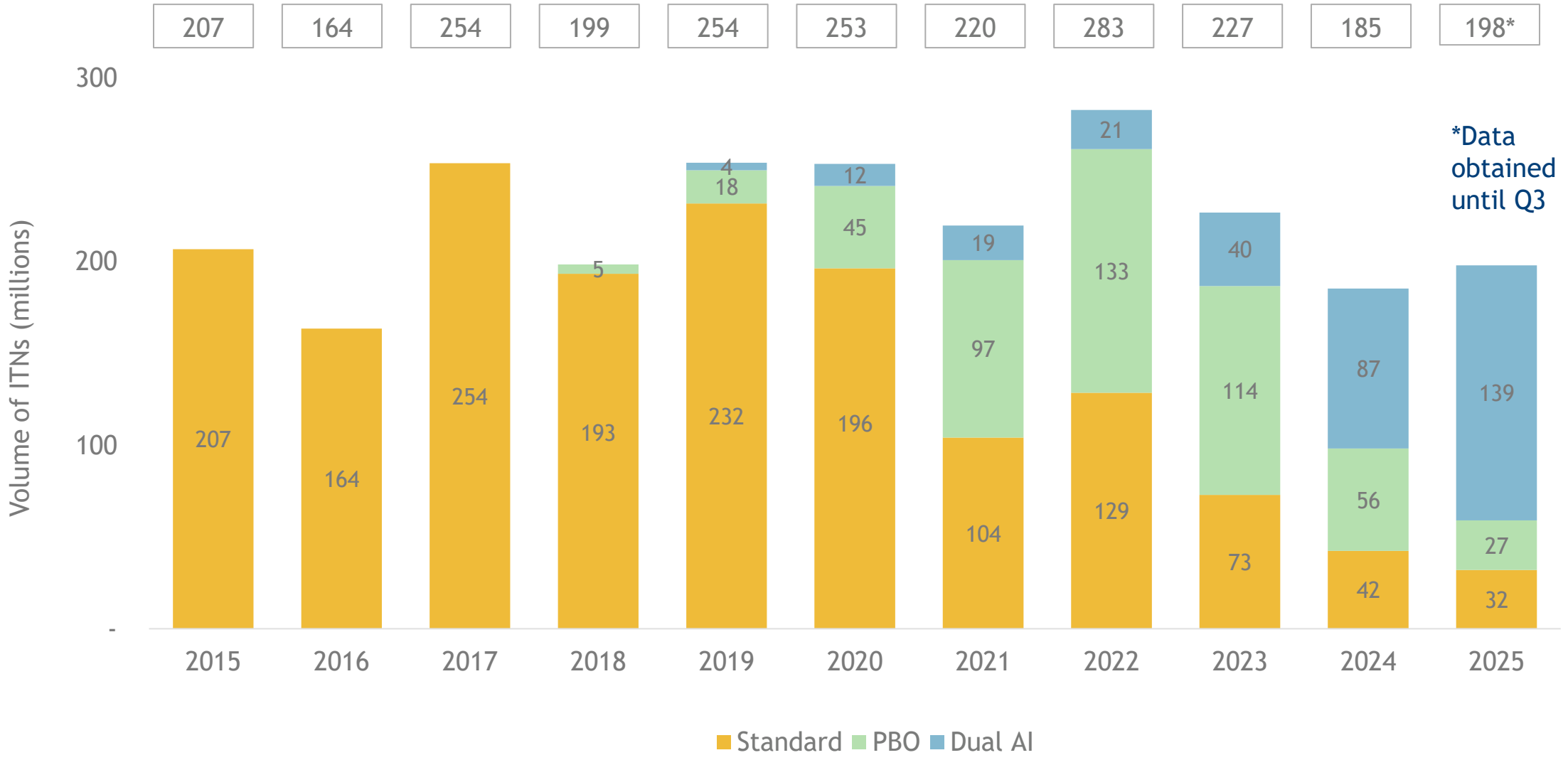
Swiss TPH

MMV Medicines for Malaria Venture

RBM Partnership To End Malaria

HISTORICAL ITN DATA

Historical trends show a shift from standard pyrethroid to PBO to Dual AI nets, amid a rising population at risk of malaria and severe funding constraints



ITN Procurement Forecast

Given increased uncertainty in the funding and commodity landscape beyond 2029, we opted for a five-year ITN forecast rather than a ten-year one

- We have adopted a five-year forecast rather than a ten-year outlook because uncertainty increases substantially beyond 2029, particularly around malaria financing.

- Over longer horizons, these uncertainties compound, reducing forecast reliability. A five-year forecast is more decision-relevant, aligning with donor replenishment cycles, national malaria strategies, procurement planning, and manufacturing timelines, and it better captures the near-term transition in ITN technologies under constrained funding.

- This approach also reflects how the forecasting project will be conducted going forward, as we will move to a rolling five-year framework after this year.

The ITN procurement forecast methodology incorporates an analysis of global malaria funding for GC8, with epidemiological modelling of reduced ITN coverage and assumptions around market-shifting trends

1. Fulfil planned ITNs for 2025-26

ITN volumes for 2025-2026 (Grant Cycle 7) reflect insight received that planned procurement of ITN volumes were fulfilled.

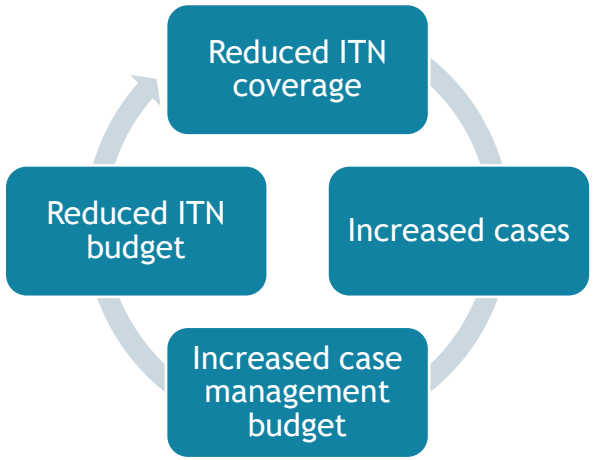
2. Develop funding scenario for GC8

Develop plausible GC8 budget, based on Global Fund contributions, USG funding levels, and AMF/GiveWell-specific funding mechanisms.
Generate country-level budgets based on historical and updated proportions to be awarded from donors.

3. Allocate reduced malaria budgets to commodities for 2027

Allocate budgets for 2027 to case management, non-intervention spend, and vector control, assuming countries respond to cuts by reducing relative spend on non-interventions to lessen impact on ITN volumes.

4. Allocate reduced annual ITN volumes into epi model



5. Reduce ITN volumes in line with increased case management budgets the following year

Utilising transmission model outputs to meet case management needs, adjust reduced ITN budgets to procure ITN volumes for 2028 and 2029.

6. Adjustments for assumed changes in ITN demand

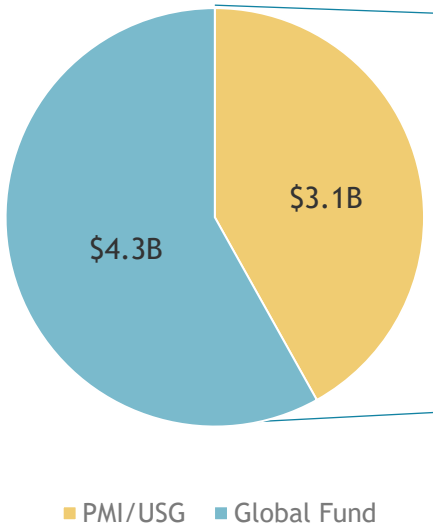
Reduce the volumes of nets distributed through mass campaigns and increase continuous distribution.
Allocate proportion of ITN budgets to spatial emanators.
Allocate volumes to new Dual AI net, with expected market entry in 2029.

We anticipate that global malaria funding allocations will decline by 38% from $7.4B in GC7 to $4.7B in GC8, comprising a 21% decline in Global Fund contributions and a 60% decline in USG/PMI commitments

Analysis on this methodology was completed and frozen on 1st December 2025

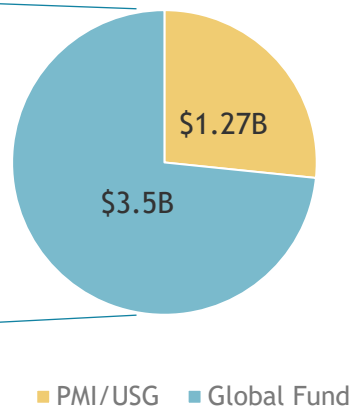
Previous total PMI + GFATM Malaria Country Pot + GFATM Catalytic Pot: **$7.4B**

Grant Cycle 7 (2024-2026) Funding Envelope: $7.4B



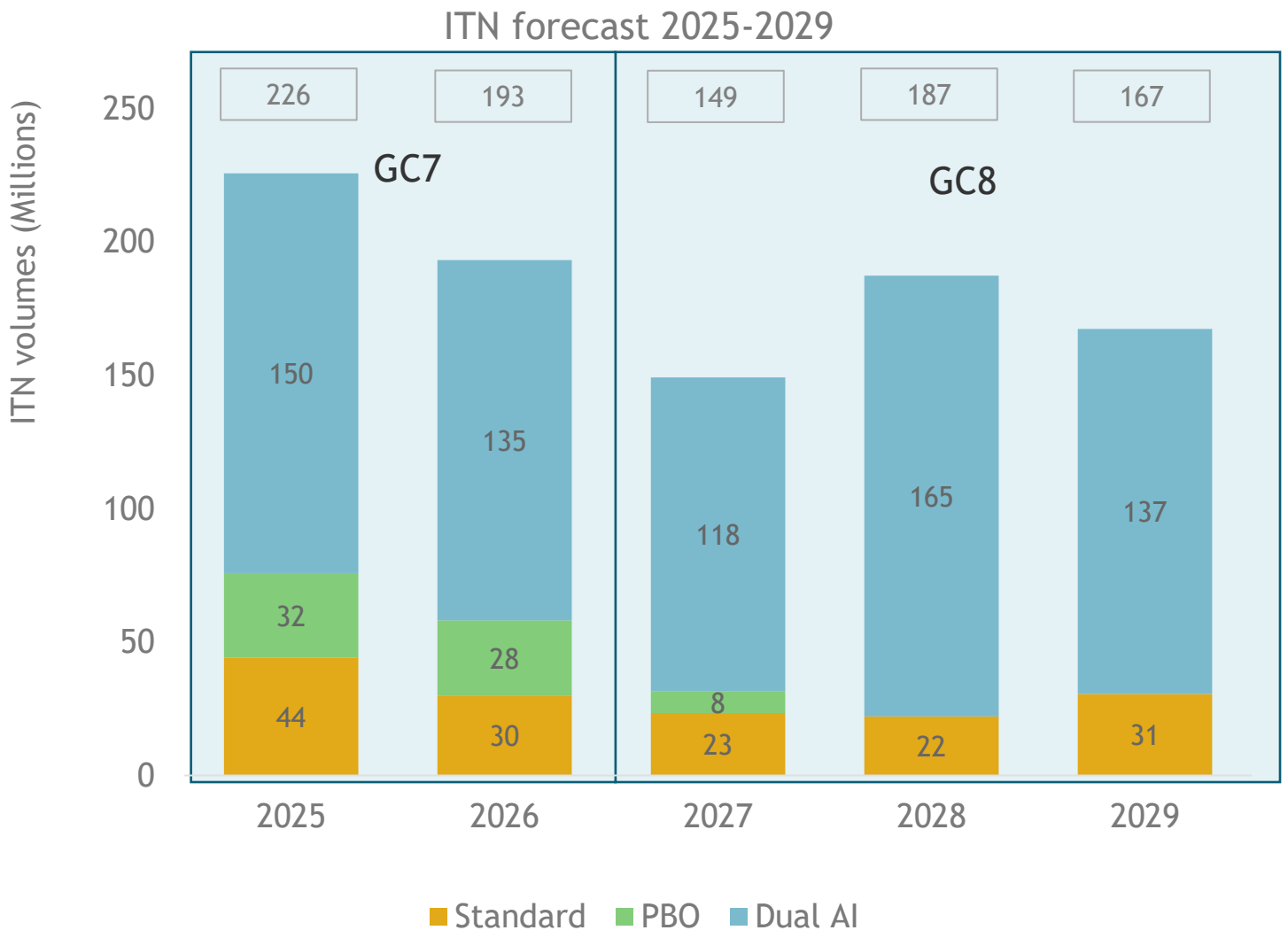
Anticipated total PMI + GFATM Malaria Country Pot + GFATM Catalytic Pot: **$4.7B**

Grant Cycle 8 (2027-2029) Funding Envelope: $4.7B



NOTE: The global malaria funding methodology does not account for changes in investment from GiveWell, AMF, or other private donors. However, AMF funding is accounted for through adjustments at the country-level. No assumptions are made regarding additional contributions from other private donors or increased domestic financing for global ITN procurement.

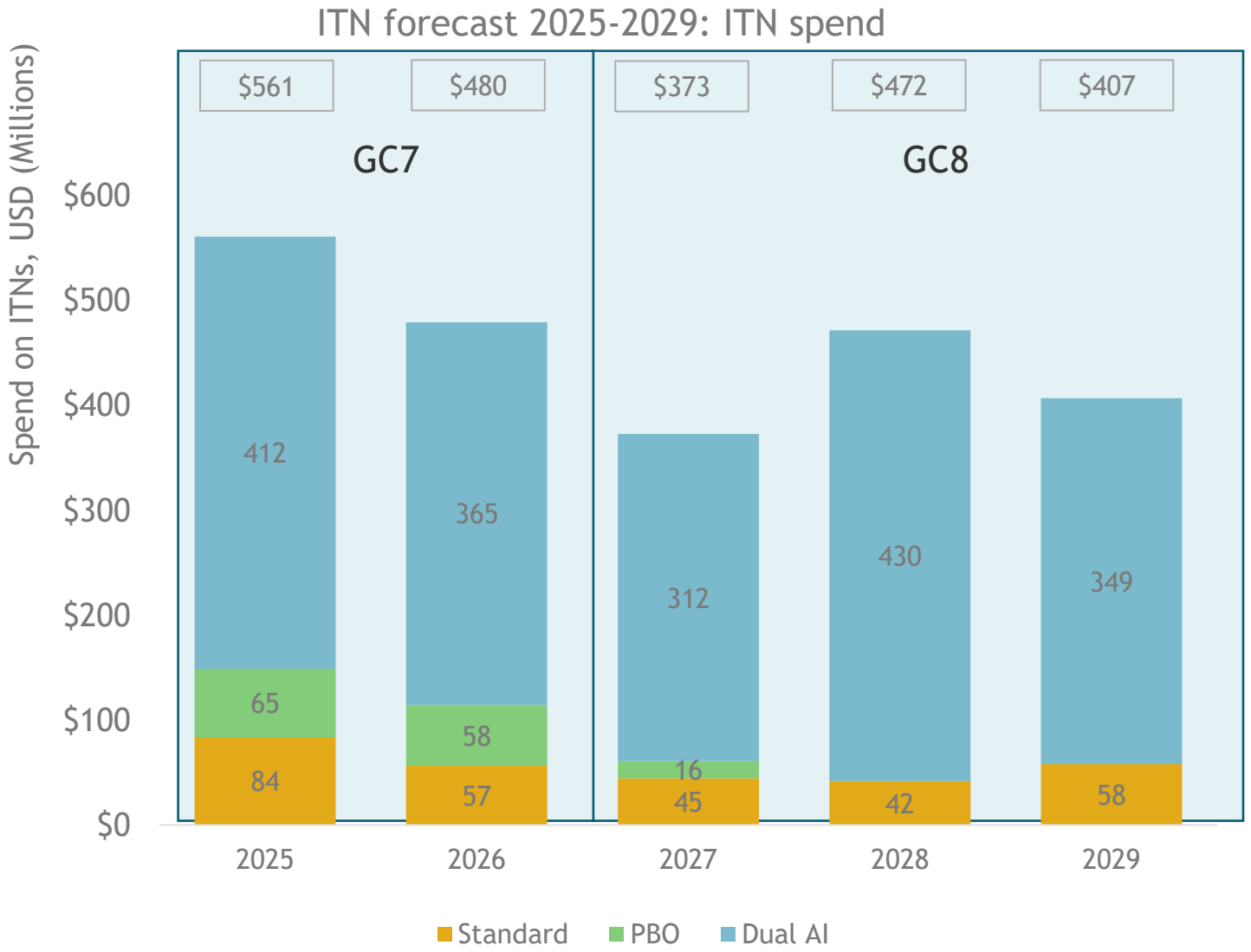
Planned procurement is maintained in 2025-2026; however, ITN volumes in GC8 decline by 16% compared with GC7. This reduction is driven by budget constraints, with impacts mitigated through reprioritization



Key takeaways

- **High campaign activity in 2025:** Several large-scale ITN mass campaigns are planned. Despite early-year disruptions due to the USG funding freeze, procurement has resumed through GHSC-PSM, enabling planned PMI deliveries.
- **Dual AI supply exceeds demand:** Manufacturing capacity for Dual AI ITNs exceeds demand in 2025–2026.
- **Decline in PBO volumes:** The PBO market continues to see large declines, due principally to a more competitive Dual AI market and widespread pyrethroid resistance in sub-Saharan Africa.
- **Stable standard ITN volumes:** Standard pyrethroid ITNs remain steady, reflecting sustained procurement in elimination settings, principally outside of SSA.
- **Low-volume year in 2027:** Low volumes in 2027 reflect a combination of budget constraints and campaign cycles.

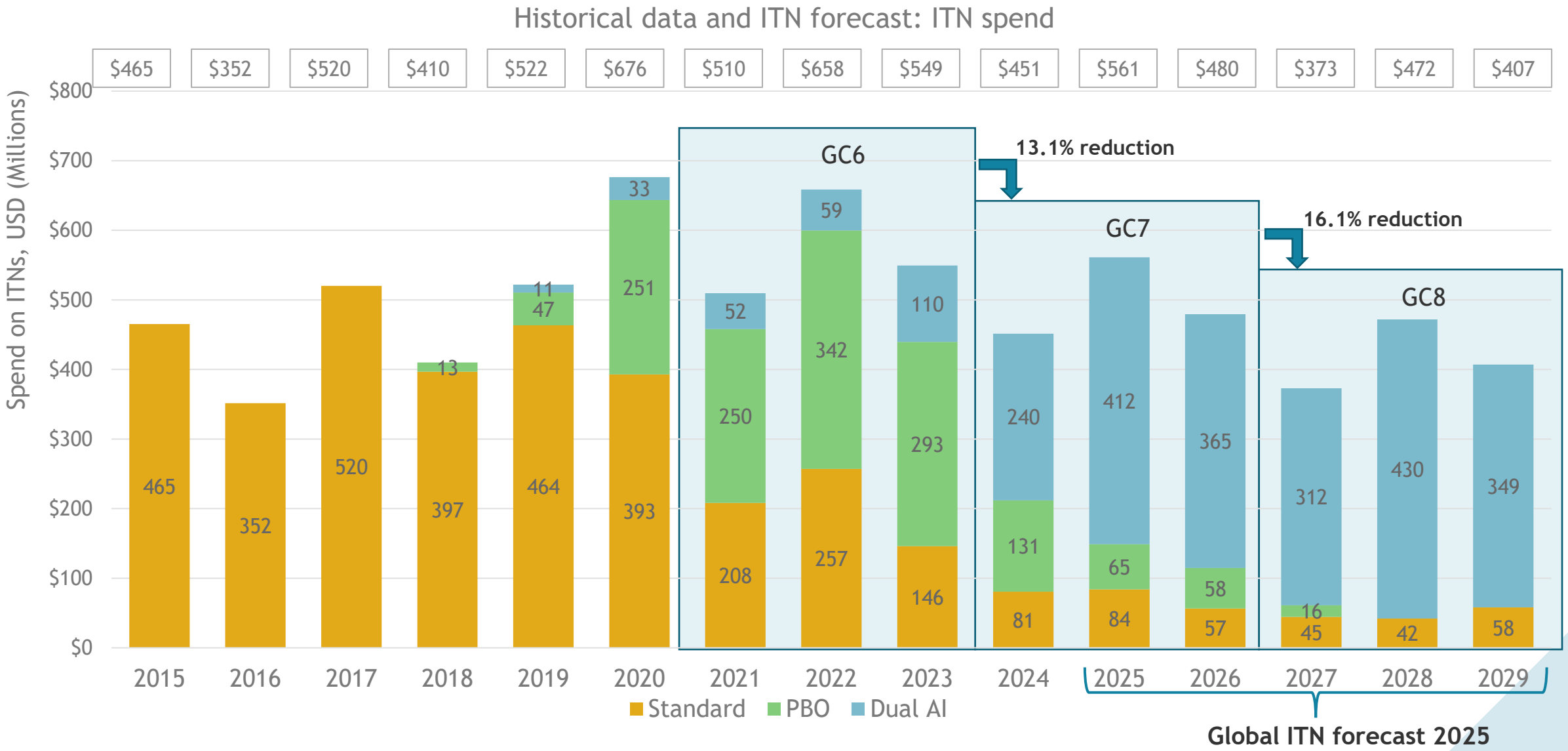
The estimated global ITN spend for GC8 falls to $1.26B (-16.1% vs GC7) driven by tighter funding and heavy prioritization globally



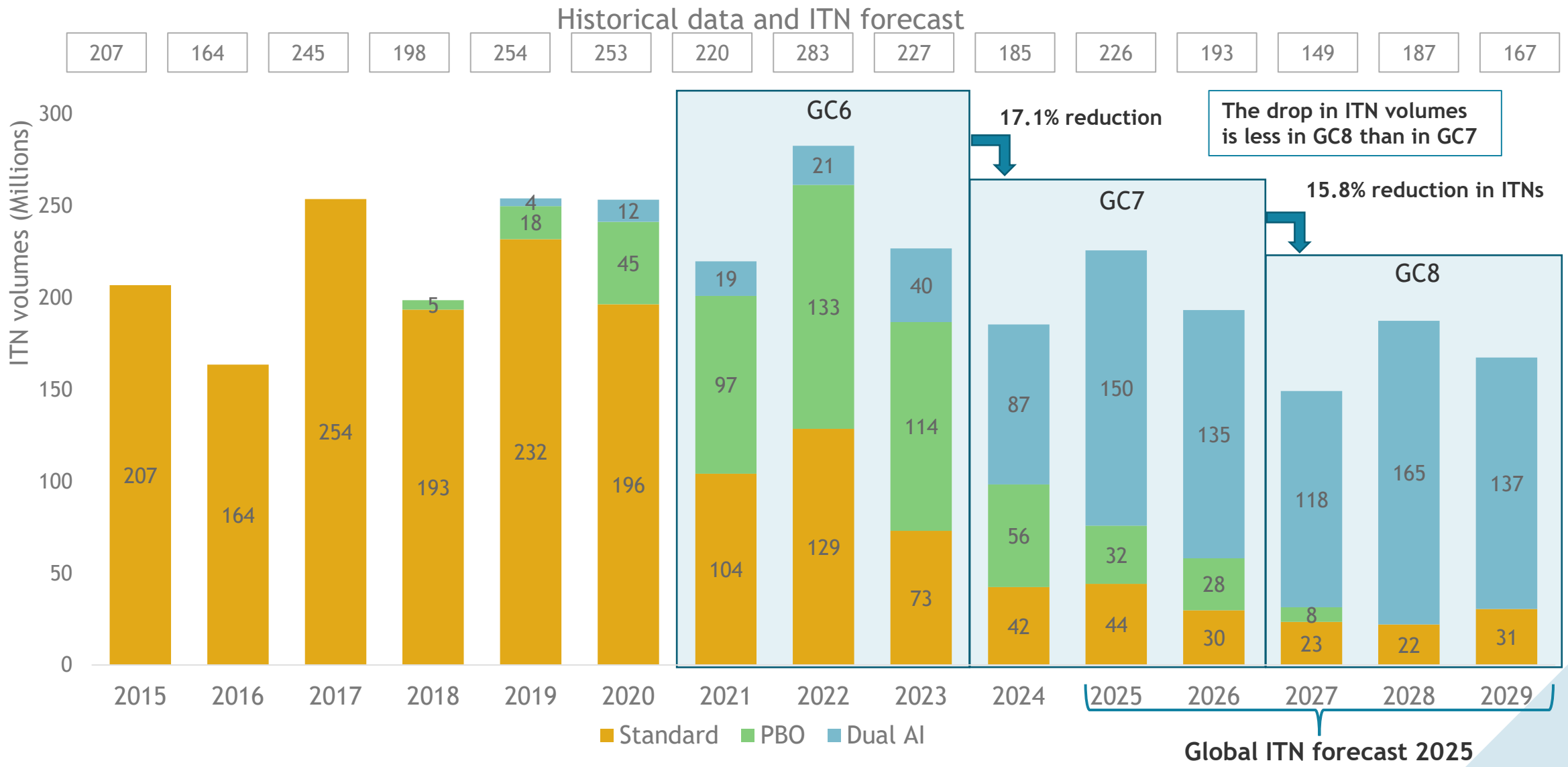
Key takeaways

- **Overall trend:** Shift toward newer, more effective ITNs, with spending driven by product mix, resistance patterns, and campaign timing.
- **Peak spending in 2025:** Driven by several high-volume mass campaigns and resumption of previously delayed procurement through PSM.
- **Dual AI ITNs:** Expenditure expected to grow as manufacturing capacity exceeds demand.
- **PBO ITNs:** Spending declines due to competition from Dual AI products and widespread pyrethroid resistance in sub-Saharan Africa.
- **Spending and ITN volumes both declined** by around 15%, despite a higher share of spending on the more expensive Dual AI ITNs. This was primarily driven by declining Dual AI ITN prices over time.

As a result of heavy prioritization, the drop in spending now mirrors that between GC7 and GC6 previously



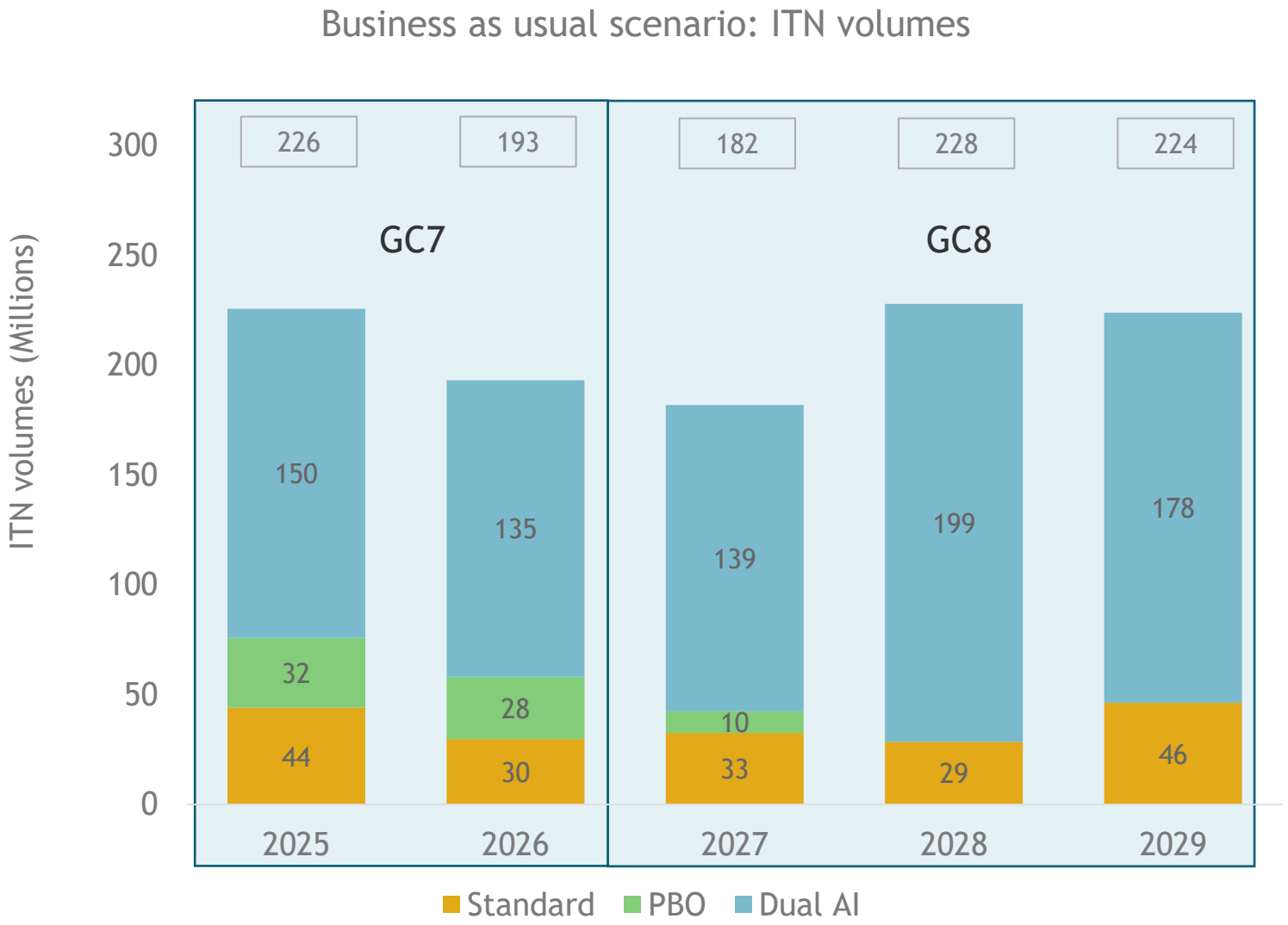
ITN volumes continue to decline across grant cycles even as the population at risk grows, expanding the protection gap amid severe funding constraints



Key takeaways

- Despite an overall decline in global ITN volumes, most high-burden countries maintain significant ITN procurement. The impact of funding constraints is mitigated by several factors:
  - Higher burden countries retain more donor funding than lower burden, and these countries are the greatest consumers of ITN volumes.
  - Countries are expected to prioritize prevention commodities—particularly ITNs— over other non-intervention expenditure areas.
  - In some high-burden settings with low ITN utilization, reductions in ITN coverage resulting from budget constraints did not lead to substantial increases in malaria incidence. As a result, case-management budgets did not increase significantly, allowing resources to continue to be allocated to vector control.
- Dual AI ITNs will dominate the global ITN market, with at least five pre-qualified nets available.
- The demand for PBO nets is expected to diminish as dual AI nets become more accessible and pyrethroid resistance continues to spread and intensify.
- Standard ITN volumes reduce overall and most notably outside of Africa, where more severe malaria funding cuts are expected. ITN volumes outside of sub-Saharan Africa are expected to reduce dramatically with large funding cuts disproportionately impacting the regions.

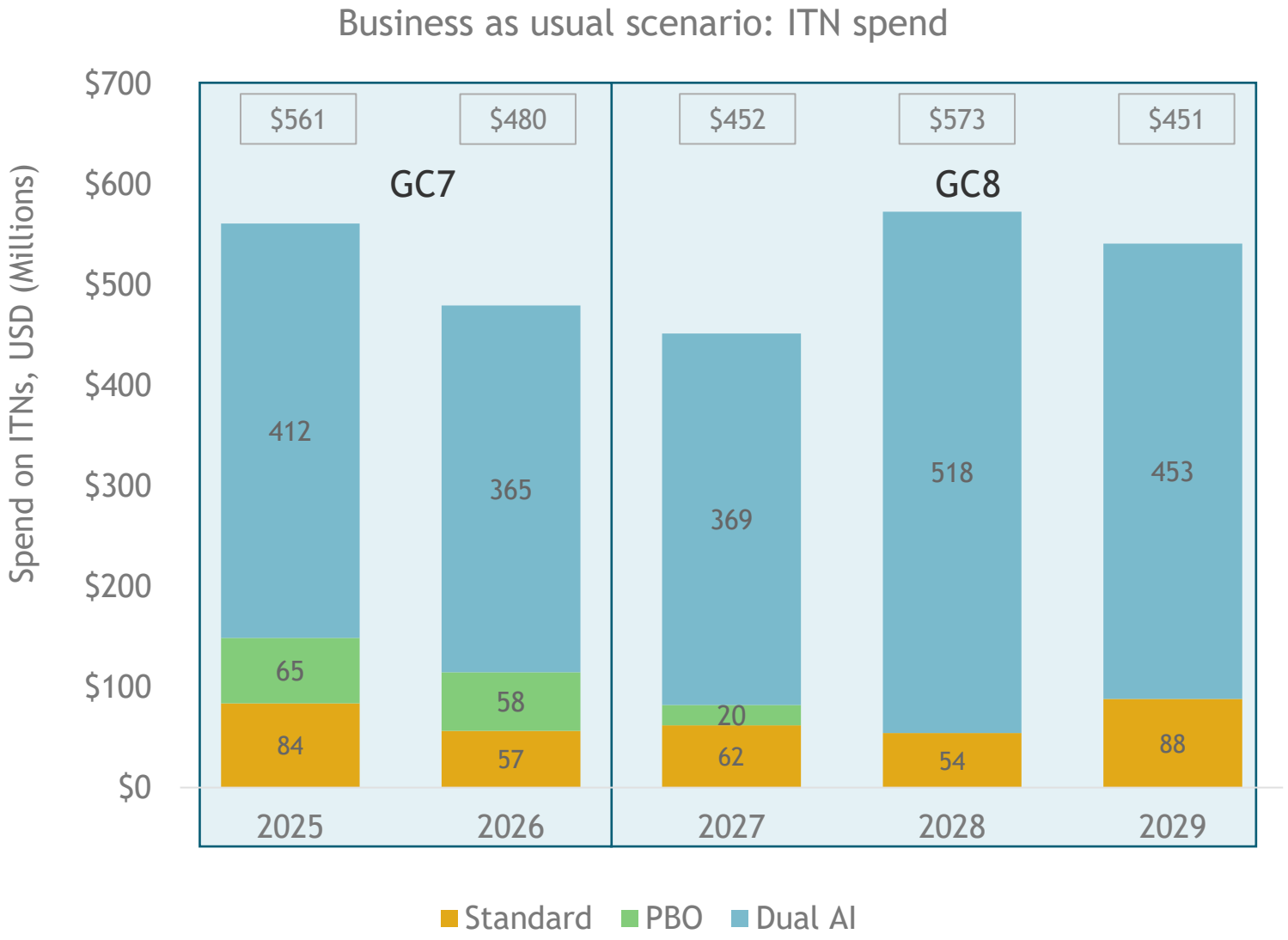
A hypothetical "business as usual" scenario was developed to illustrate the estimated ITN procurement associated with continued availability of funding, alongside population growth and anticipated demand for ITNs globally



Key takeaways

- A hypothetical scenario has been generated to illustrate the ITN volumes that could be procured if the same level of funding were to continue to be available under GC8, as in GC7.
- Should other donors choose to fill the funding gap created by forecasted reductions in the global malaria budget—equivalent to procuring 125 million ITNs—total global ITN volumes for GC8 would reach 634 million.
- The funding gap does not include the funding that had been absorbed by the country's reprioritization activities in our forecast. Additional funds would be required to finance the non-intervention activities that would have been cut within our baseline forecast. This includes important activities such as surveillance.
- No adjustments on ITN volumes have been made in this BAU scenario for: (i) the impact of spatial emanators, (ii) any shifts away from mass campaigns on the ITN market, (iii) volumes outside of sub-Saharan Africa. It is therefore assumed separate funding would be available for spatial emanators, mass campaigns would continue as they have, and volumes outside of SSA continue to be procured.

The additional budget required to fulfill the funding gap for GC8 alone amounts to $300M and would allow for a continuity of ITN volumes between GC7 and GC8 funding

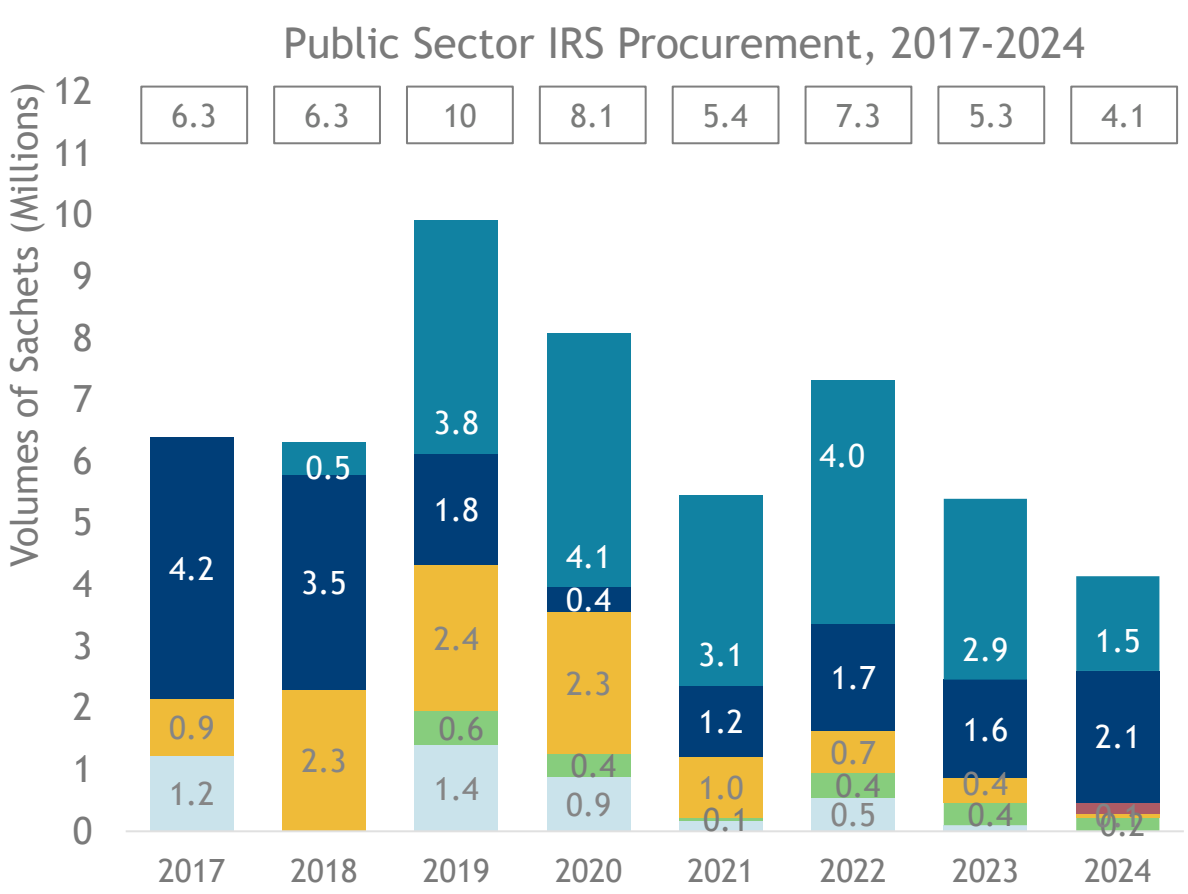


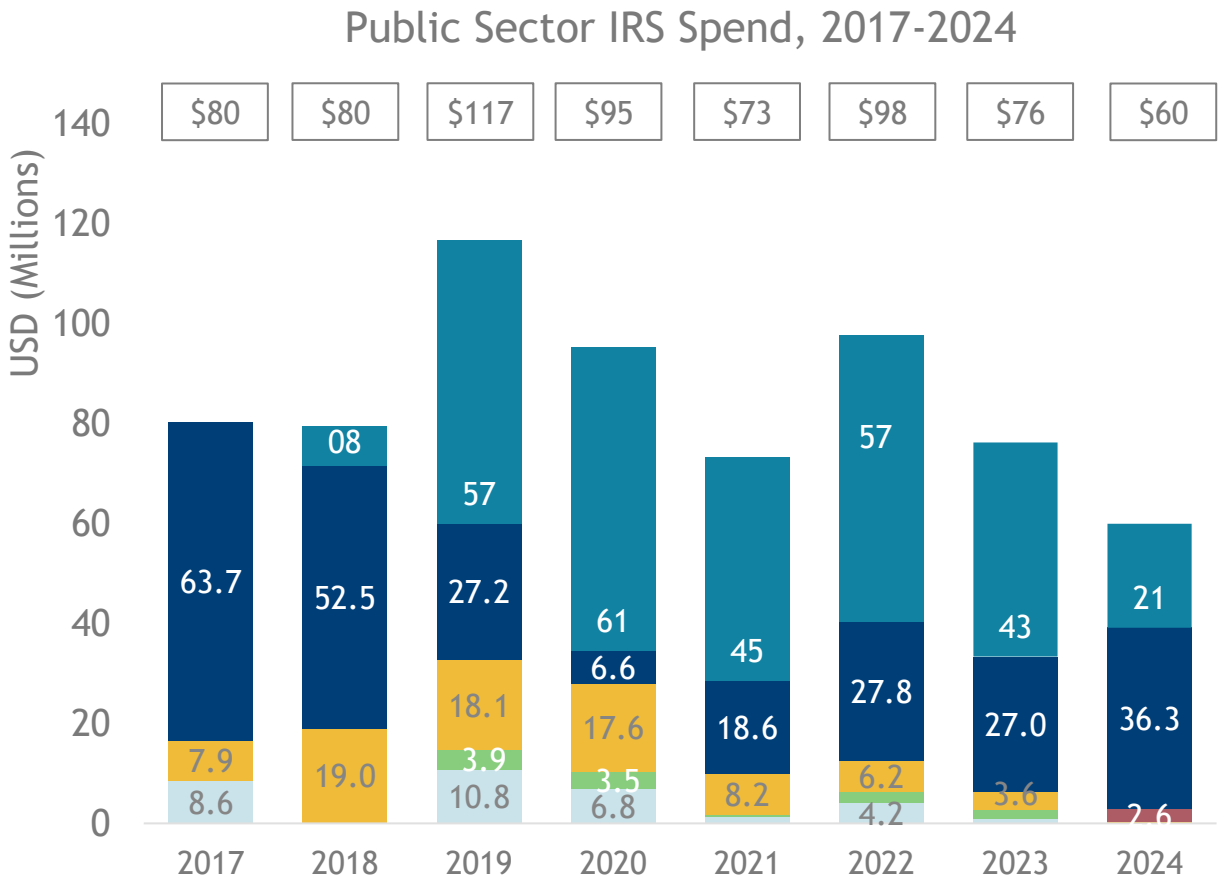
Key takeaways

- A funding scenario where current budgets increase in line with ITN demand as the population at risk increases over time.
- BAU funding would not be sufficient to cover existing coverage gaps.
- The budget required to fulfill the funding gap (for ITN procurement only)for GC8 alone would be $1.56B, which is an additional $300M.
- Any funding for IRS or spatial emanators is assumed be taken from budgets external to ITN budgets under this scenario.

IRS Procurement Forecast

Historical IRS volumes peaked in 2019 at 9.9M ($117M) and have declined since then, with the exception of a temporary increase in 2022





Organochlorines | Pyrethroids | Carbamates | Other | Organophosphate | Neonicotinoids

Data source: IVCC, Evolve, CHAI country programmes
*Data gathered from 2017 onwards and excludes India & Pakistan

Methodology and assumptions for the updated IRS procurement forecast for 2025-2027

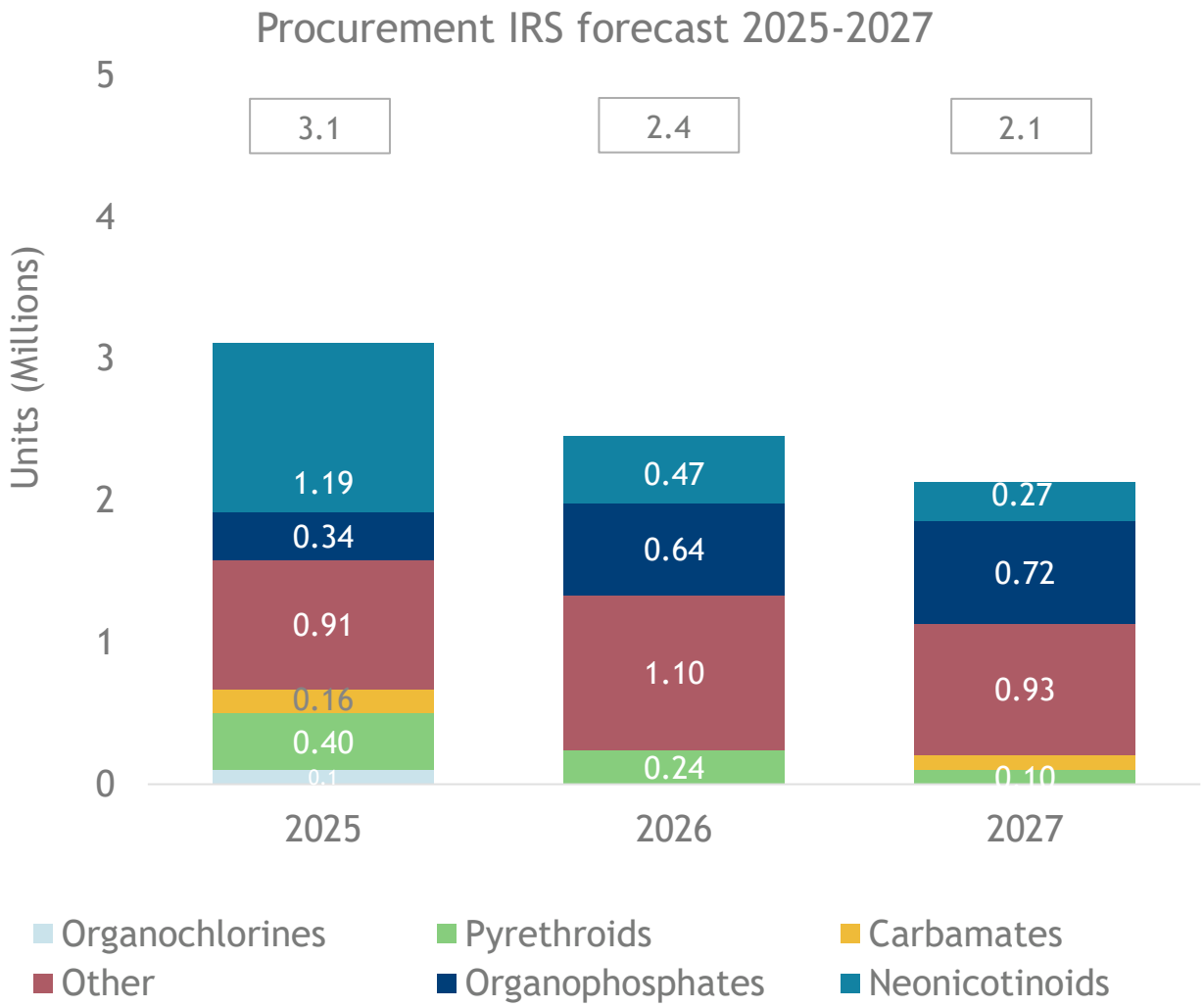
- The forecast is generated through a country-by-country assessment of historical insecticide use and known or assumed continued commitments to insecticide classes.
- Procurement data has been compiled from key partners involved in IRS programmes, which has been corroborated through partner discussions and country-specific insight.
- Data for 2027 has been generated through assumptions around continued donor commitments to insecticides for IRS and around continued domestic and private financing.
- The 'Other' class of insecticides include recently pre-qualified insecticide products: Vectron T500, Sovrenta, and Sylando.
- The neonicotinoid class of insecticides includes any product with neonicotinoid, including brands that contain a mixture of neonicotinoid and pyrethroid.
- We do not have access to data from key IRS markets such as some countries in Latin American and Asia (particularly India and Pakistan). These countries are therefore excluded from the forecast.

Insecticide class	Price per sachet/bottle
Pyrethroids	$1.69
Carbamates	$10
Organochlorines	$8.20
Organophosphates	$16
Neonicotinoids	$13
Other*	$16.50

Rational for IRS forecast

- Our procurement forecasts are based primarily on confirmed or highly likely orders. In this iteration, elevated uncertainty around Global Fund country allocations and USG MOUs under development required greater reliance on assumptions and qualitative inputs from internal and external partners. As a result, this short-term forecast carries a higher degree of uncertainty and a wider margin of error than previous iterations, while still reflecting a balanced assessment based on the best information currently available.

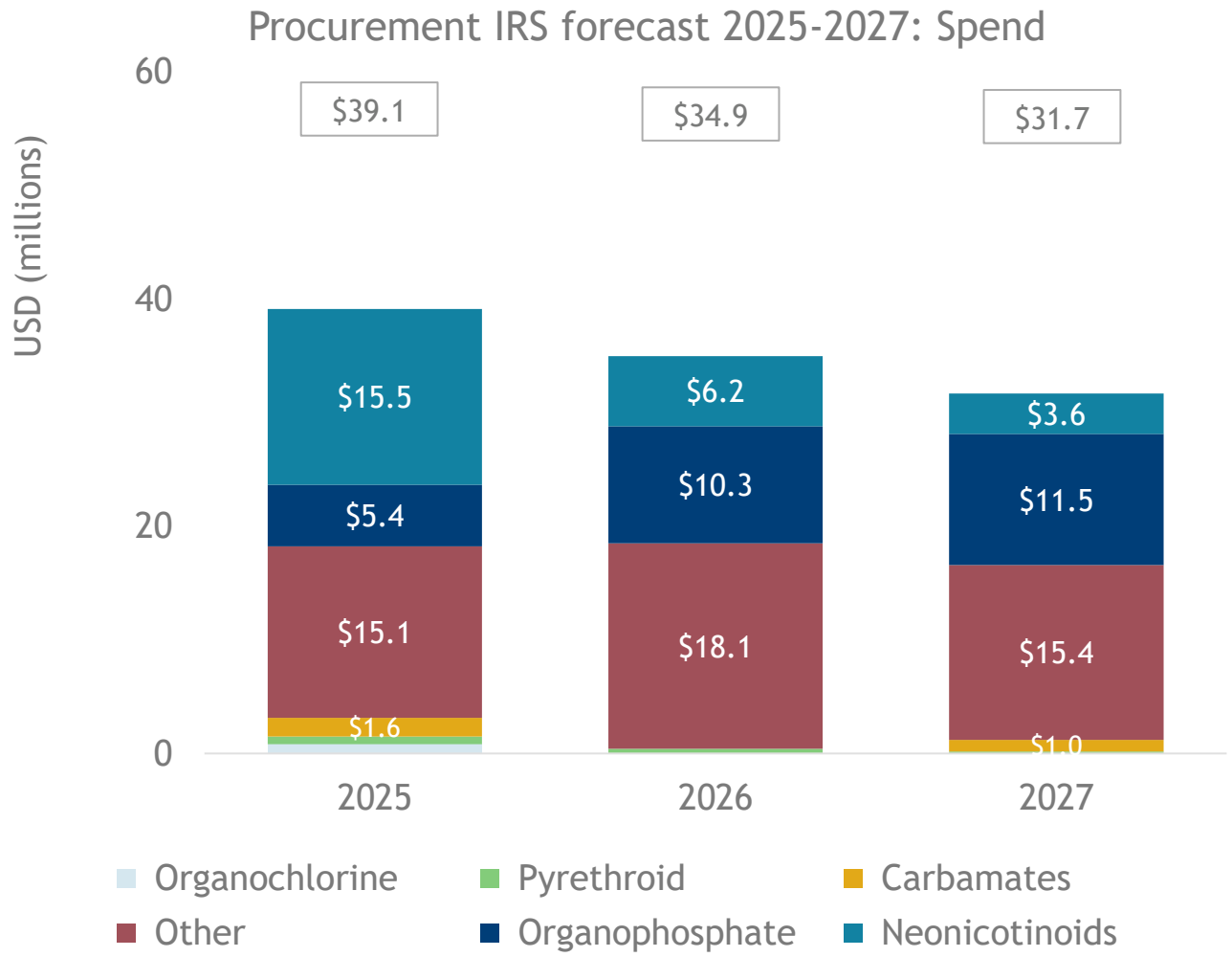
IRS volumes are anticipated to decline in GC8, and maintenance requires a mixture of continued donor commitment, alongside domestic



Key takeaways

- We have visibility on IRS data through 2026 based on planned procurement and government commitments to continue investing in IRS programmes
- The majority of global volumes for insecticides for IRS are limited to 11 countries.
- Limited donor commitments for 2027, uncertain domestic financing, and the introduction of spatial emanators reduce certainty around IRS volumes for 2027.
- Volumes for 2027 have been generated based on assumptions of continued but lower donor commitments, as well as domestic financing.

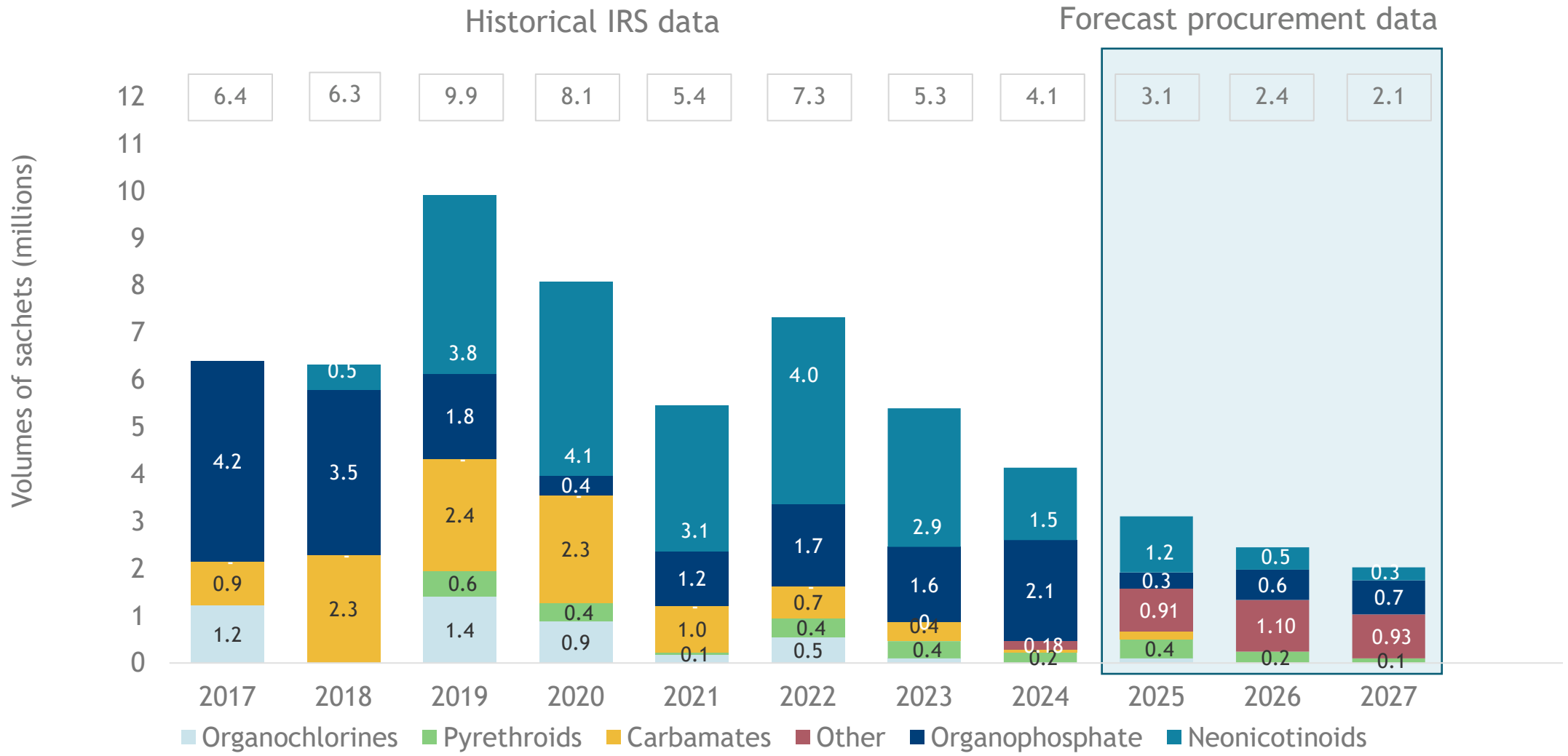
As budgets for IRS continue to reduce, the new classes of insecticide are anticipated to meet the budget demands and maintain the market in 2026



Key takeaways

- As IRS budgets have reduced between 2024-2025 ($60.7M - $39.1M), volumes have also reduced but by a lesser extent. This is due to the market entry of alternative insecticides entering at a lower price.
- In 2027, we anticipate a number of countries with long-standing IRS deployment will allocate domestic funds to mitigate donor gaps.

Forecast procurement data show a steady decline through 2027, based on assumptions of constrained GC8 budgets and continued prioritization across interventions



Data source: IVCC, Evolve, CHAI country programmes
*Data gathered from 2017 onwards and excludes India & Pakistan

Key takeaways

- Budgets and volumes trend downward over the forecast period, reflecting sustained funding pressure and prioritisation of fewer, core interventions.
- Uptake of the new insecticide classes (within the IRAC-30) group is anticipated in the short-term.
- Near-term visibility is relatively strong through 2026–2027, where plans largely reflect committed or planned procurement.
- Market trends become increasingly uncertain in 2027, as future replenishments, donor priorities, and country allocations remain undefined. Projections for 2027 should be interpreted as directional rather than predictive, indicating potential scale rather than firm demand.

Please direct any questions/comments to:
malariaforecast@clintonhealthaccess.org

The Forecasting Consortium is coordinated by

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Swiss TPH

MMV Medicines for Malaria Venture

RBM Partnership To End Malaria

Global Fund – ITN procurement and deployment guidance for GC8

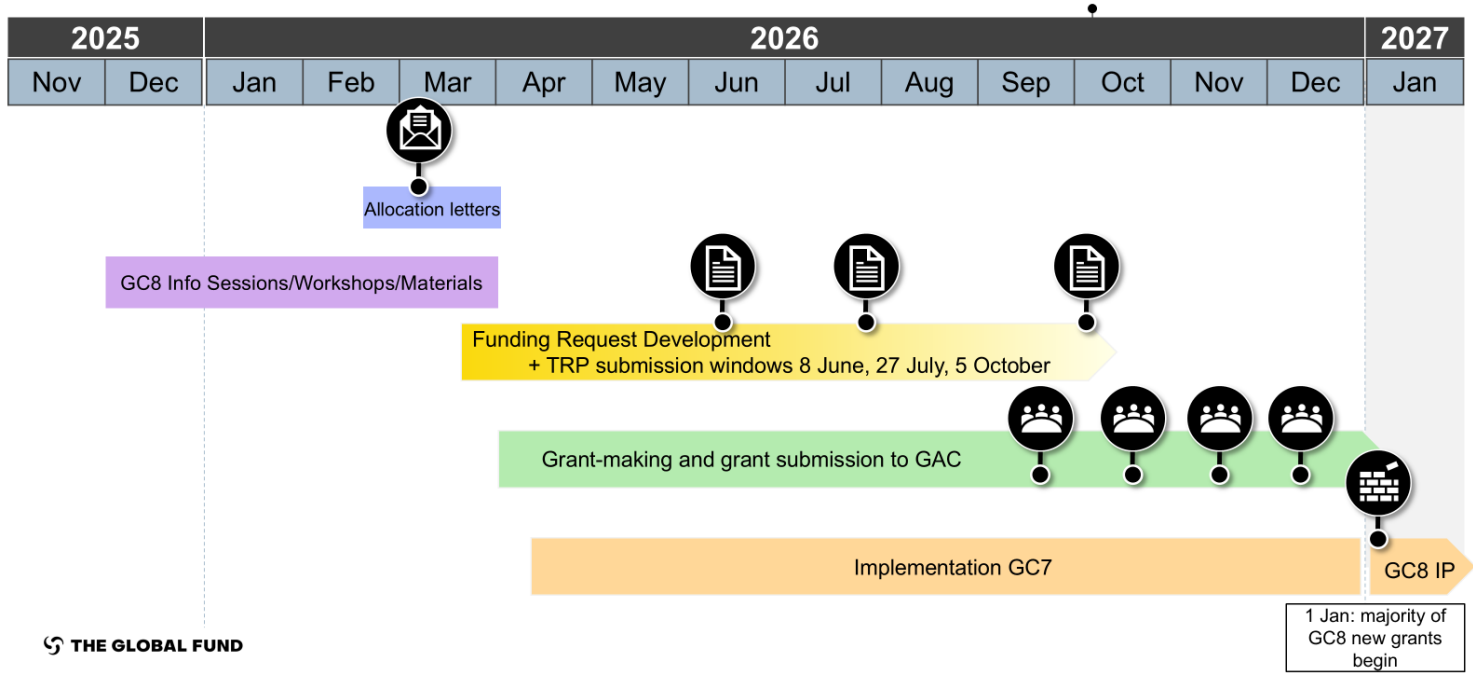
AMP annual meeting

February 2026

Grant Cycle 8 Outlook

- **Final replenishment outcome: $12.64B**
- **Similar to GC4 and GC5 (2014 – 2019)**
- **GC8 will focus in on three strategic shifts:**
  - Greater prioritization of least-resourced and highest-burden countries.
  - Defined, predictable transition timelines tailored to national contexts, disease burden and economic conditions.
  - Optimized use of all available resources through rigorous programmatic prioritization, increased co-financing, market shaping, reinforced integration into national health systems, and community systems financing.

Grant Cycle 8 Timeline: 2026



Product procurement

- **Pricing:** new reference prices will be posted in March, price decreases
- **Lead times:** 7 months from requisition placement
- **Packaging:** ITNs for mass campaigns are by default in bulk packaging, for routine in individual bags
- **Standard accessories:** 6 hooks, 6 strings - PRs can request nets without these accessories
- **Can specify:**
  - Type of ITN (Dual AI, PBO or pyrethroid only), Size (2 dimensions recommended), Colour (white or blue)
- **Cannot specify:**
  - Specific pyrethroid (regardless of ITN type), Brand, fabric type (for fabric type, evidence of differential durability or use may be considered), Bag customisation
- **Appropriate products:**
  - No pyrethroid-only ITNs in areas of pyrethroid resistance
  - Chlorphenpyr Dual AI ITNs best choice in areas of pyrethroid resistance
  - Decision process should be explained where PBO are proposed – likely only where the small price difference is important.
  - Pyriproxifen Dual AI ITNs not appropriate given current WHO recommendation cascade

ITN Deployment

Priorities for Global Fund investments in Vector control	• **Maintain existing coverage as far as possible**: cuts = more cases, deaths, case management costs. • **Do not use vaccine (or other prevention tool) deployment as a reason to pull back ITN deployment.** • **Align with international guidance and sub-nationally tailor** by operational, epi and ento context. • **ITNs remain the most cost-effective vector control option in *most* settings**; IRS needs strong rationale given costs and sustainability issues; supplementary tools must be carefully prioritised if there are gaps in core tools)
Priorities for ITNs	• **Tailor the ITN strategy:** Base on local epidemiology, vector, resistance, historic use, behaviors, equity – **Revisit the previous approach with fresh eyes:** channels, coverage targets, integration, operations • **Vary deployment strategies:** different approaches will likely be needed to maximize equitable access. • **Prioritize high-risk:** high/moderate burden areas and biologically vulnerable groups. • **Manage gaps:** if coverage drops, explain how the risk of resurgence will be tracked and mitigated. • **Targeted SBCC** where use given access is low.
Lower priority for Global Fund grants	• **Exclude major urban areas** from mass ITN campaigns, to extent possible.
Optimization, efficacy and other considerations	• **Integrate distribution**: Combine with other malaria or public sector activities for efficiency and reach where possible • **Use digital platforms:** Apply multi-purpose tools for malaria and other campaigns. • **Follow AMP guidance for resource limited settings** • **Population numbers:** consider sources carefully, avoid over inflation

Department of State/GHSD/PMI LLIN Procurement Outlook

Christie Hershey, PhD, MPH, MMSc
Public Health Advisor

Alliance for Malaria Prevention
February 26, 2026


★ ★ ★ U.S. DEPARTMENT *of* STATE ★ ★ ★

PMI's Procurement Approach

- LLINs are directly mentioned in the America First Global Health Strategy
- GHSC-PSM, as PMI's procurement service agent, is contracted by PMI to procure malaria commodities including LLINs
- Department of State is establishing our next procurement approach after the GHSC-PSM project ends
- GHSC-PSM conducted a tender in late 2025 for net procurements for 2026
    - Future tenders are TBD
- Volumes beyond 2026 are still TBD and are being determined as part of the MOU Implementation Planning that is ongoing between the USG and partner governments

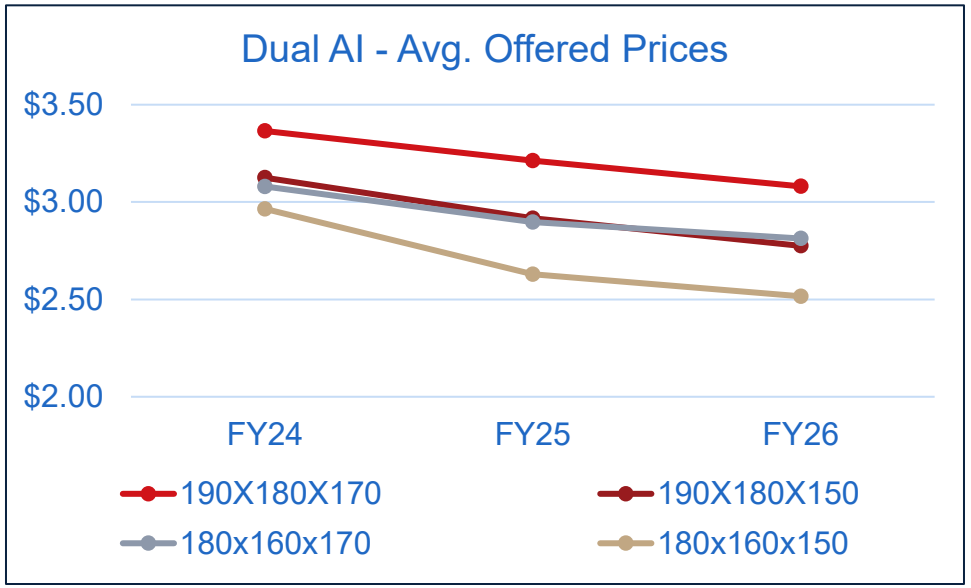
Specifications and Packaging

- PSM procures **White** LLINs in four standard sizes
  - 190x180x170 (LxWxH)
  - 190x180x150 (LxWxH)
  - 180x160x170 (LxWxH)
  - 180x160x150 (LxWxH)
- No accessories or country brand/logo customization
- Individual or Bulk Packaged LLINs are supported
- Material or Brand preferences are not considered during sourcing
- Any deviation from the above standard specs/packaging requires GHSD approval prior to procurement

Lead Time Updates

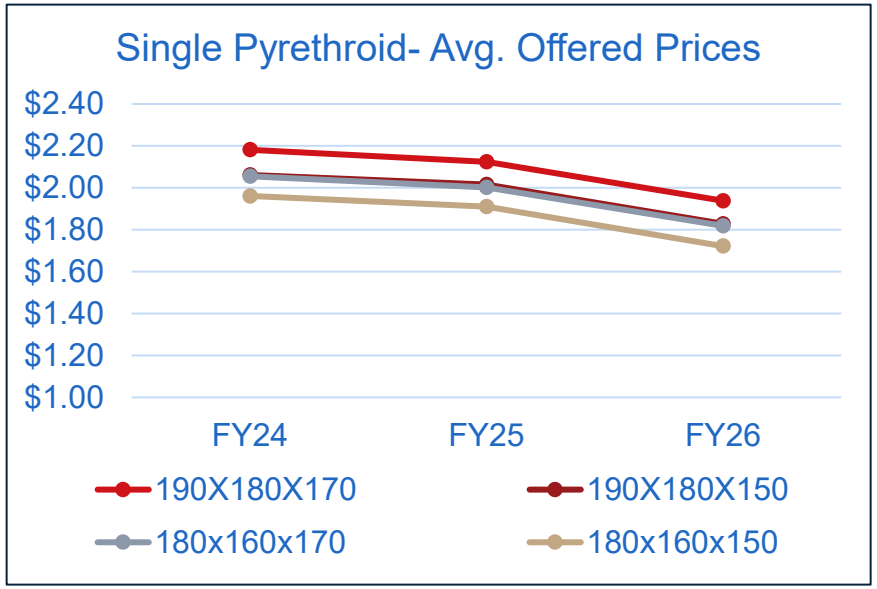
- Single Pyrethroid (Standard) Lead Time – 41 Weeks from Requisition
- PBO Lead Time – 45 Weeks from Requisition
- Chlorfenapyr Dual AI Lead Times – 58 Weeks from Requisition
- Actual lead times are subject to market availability during sourcing

Pricing Updates (from FY26 tender)



Dual AI prices are down -4% on average, from FY25-FY26

PBO prices are down -10% on average, from FY25-FY26



Single Pyrethroid prices are down -9% on average, from FY25-FY26

Procurement Decision Criteria

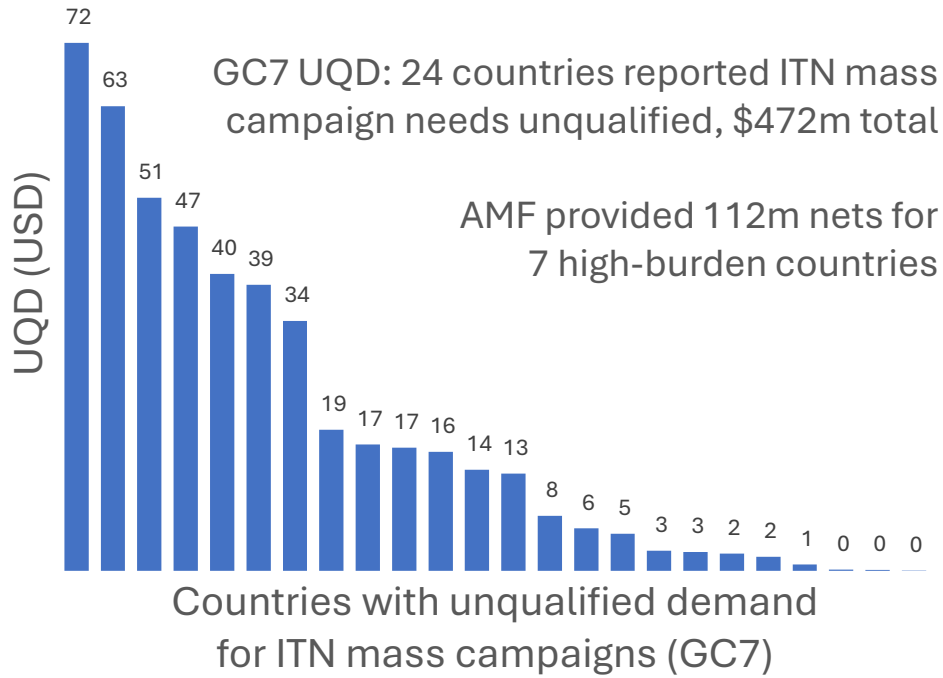
- **Eligibility Criteria**
  - Country Registration (where required)
  - WHO PQ Compliance
  - Packaging Language(s)
  - Market Health Considerations (Capacity, Supply Risk, Product Appropriateness)

- **Weighted Criteria**
  - Landed Cost
  - Supplier Performance
  - Quality Management System and Weighted RD Score Review (RD score & external validation)
  - American Economic Benefit
  - Regional Supply Chain Resilience
  - Innovation

Against Malaria Foundation (AMF) Procurement Update

AMF context: Responding to campaign gaps

Significant funding gaps expected for mass campaigns in GC8.



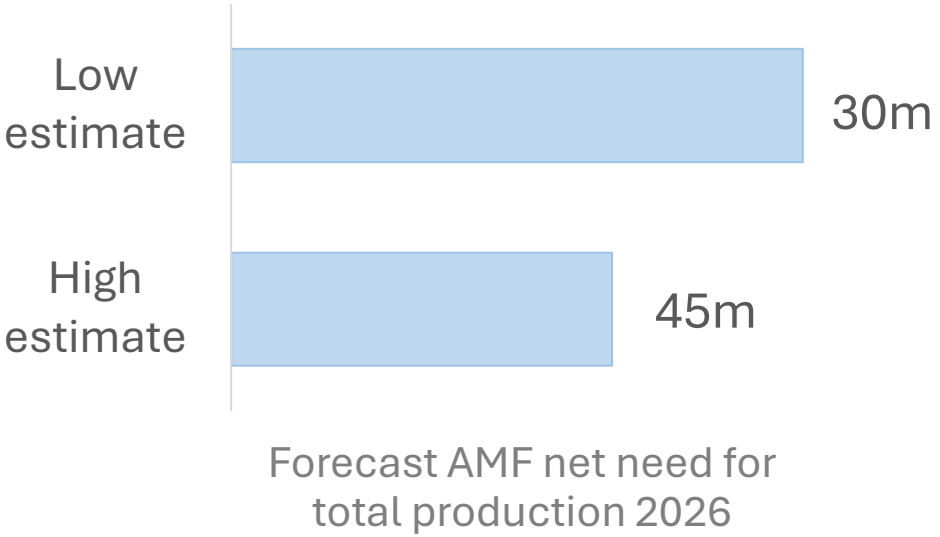
AMF works together with countries and partners to fund highest priority gaps

Aiming to deploy most cost-effective nets means funds a) go furthest, b) have highest impact/$

- Prioritising PBO and Dual AI nets according to resistance and malaria burden
- Selection process aims to review relevant evidence for discussion with countries and partners; identify appropriate nets for each regions
- Net selection process involves discussions with countries and partners

Forecast AMF net need & context

Volume 2026 expected to total 30-45m, includes committed and TBD.



Forecast AMF net need for total production 2026

Context for 2027-29:

- Filling gaps typically means funding campaigns once other commitments known, so we can be sure our funding is additive
- As GC8 outcomes become clearer, we will work with countries and partners to understand gaps and assess priorities
- Expect higher % dual AI

Next tender TBD, estimated Q4 2026

AMF net requirements & specifications

Nets for high burden countries, with increasing resistance

- Products considered eligible:
  - WHO prequalified nets only
  - PBO & Dual AI nets
  - Country registration required
- Required specifications:
  - White colour
  - 2 standard sizes
    - 190cm x 180cm x 150cm
    - 180 cm x 160cm x 150cm
  - AMF country label
  - GS1 data matrix on durable label
  - No individual packaging

AMF-supported campaigns 2022-26

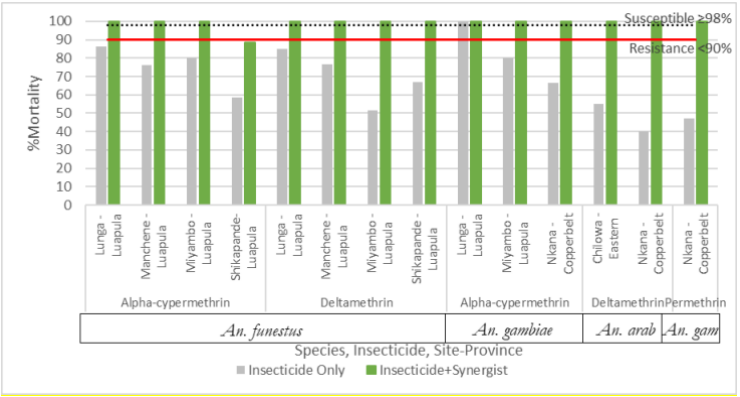
Net selection: Typical process & approach

Process:

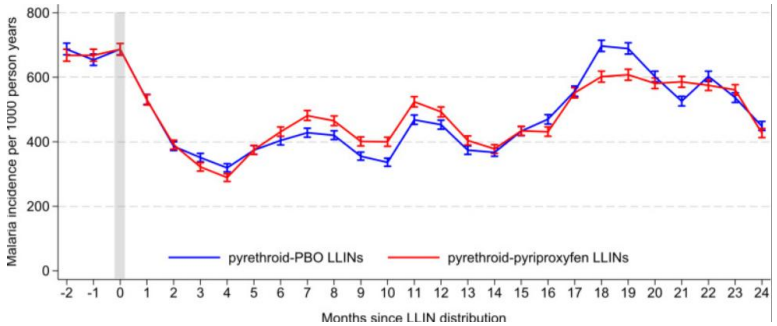
- Starts with country & co-funding partner discussions
- Available data reviewed: Entomology, malaria burden, effectiveness studies, durability monitoring, net tendering info and latest availability.
- Cost effectiveness of options estimated
- Selection agreed in country & co-funding partner discussions

Approach:

- **Follow the data**; Willing to invest additional funds where justified, e.g. chlorfenapyr dual AI in high resistance/burden areas.
- **Foster innovation** to help achieve a varied, forward-looking range of products available for deployment, including early adoption of new nets.
- **Support data generation** and research, funding nets for epi and DM studies.
- Focus on net effectiveness & durability:
  - **Physical durability** in AMF monitoring. Resistance to Damage (wRD) results required from suppliers and considered in procurement.
  - **Bioefficacy & chemical durability** reviewed from studies including from suppliers, PMI DM, academic. Piloting addition to AMF PDMs.



Example of bioassay results, PMI 2023



LLINEUP2 incidence, Gonahasa et. al. 2025

Mathias Mondy

February 26th 2026

Understanding the Resistance to Damage (RD) score and its application

Public

Why physical net durability matters

Nets are not lasting as long as expected (3 y): median field retention time is 1.64 years

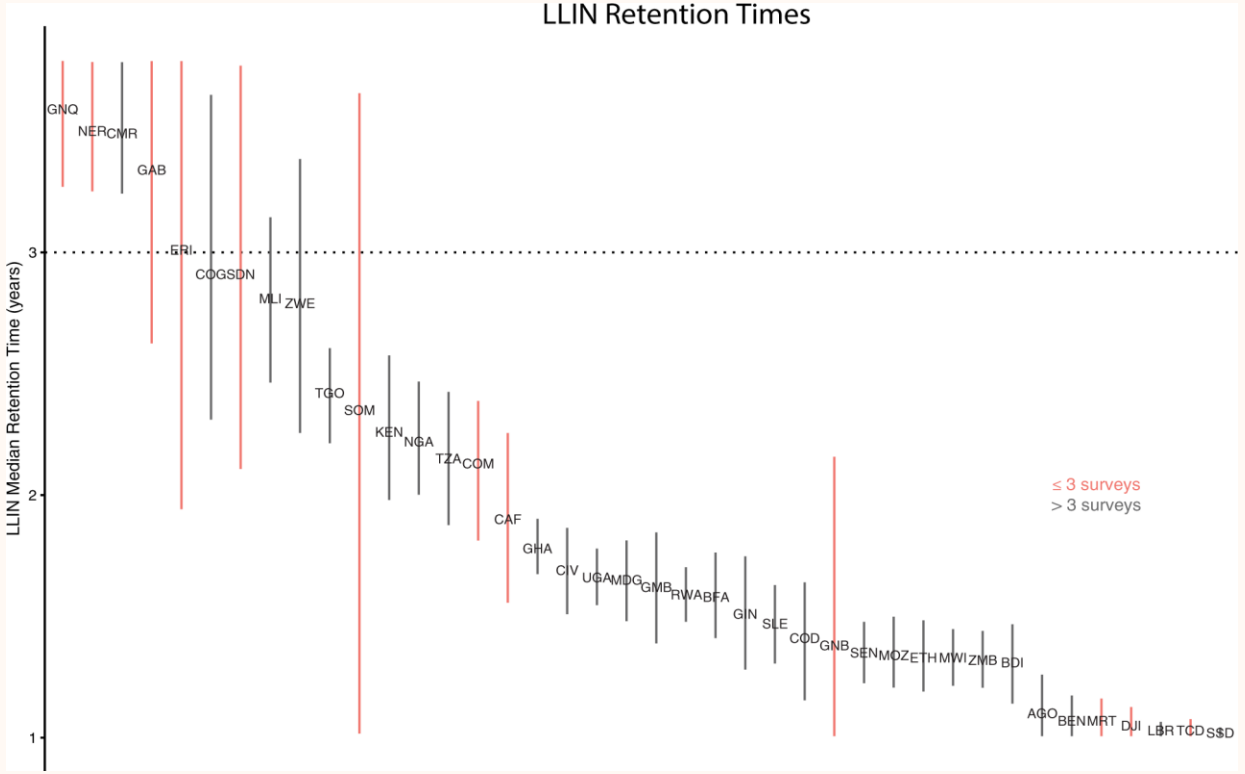
The condition of a net directly relates to operational life.

- Torn nets are discarded, creating coverage gaps.
- Damaged nets are used less consistently.

Physical durability is undervalued

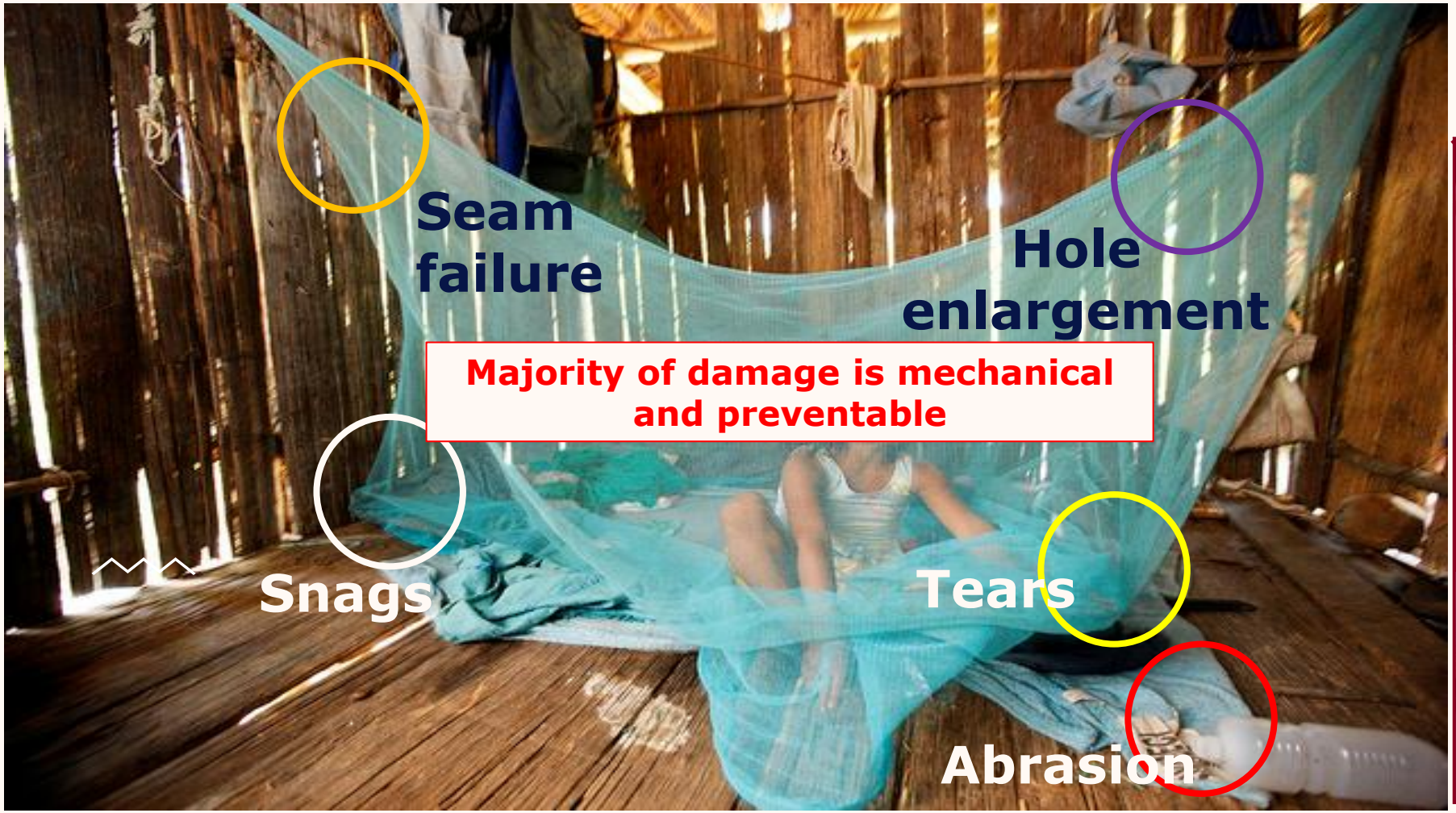
Despite routine data collection, physical performance rarely influences procurement decisions or drives innovation.

The **Resistance to Damage (RD) score** measures how physically durable a net is before it reaches the field: providing stakeholders a metric to inform procurement and deployment decisions.



Bertozzi-Villa et al., 2021

Net needs to withstand normal use

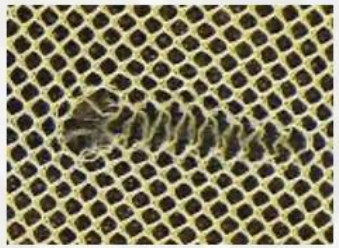


Does not need to withstand

Three textile tests that reflect mechanical damage in the field

Snags

Hole Enlargement



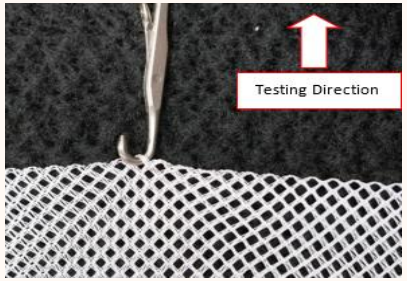
Tears

Responsible for ~63% of all ITN damage found in the field

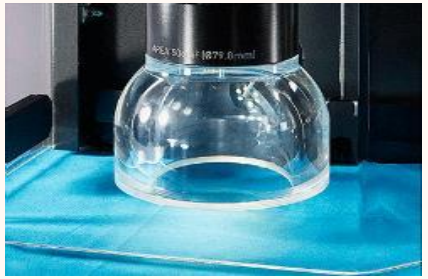
Käse et al., 2014

Tests based on adapted ISO standards, used by textile industry

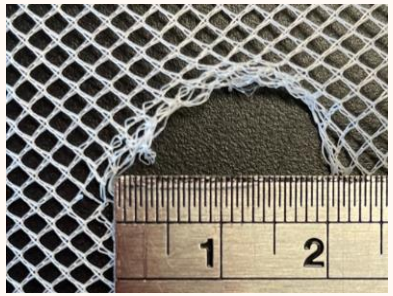
Snag strength



Bursting strength



Hole enlargement resistance



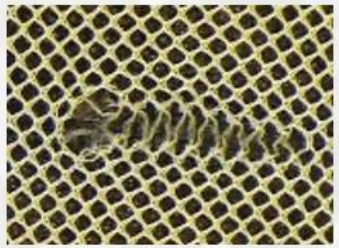
Since 2023, WHO PQ requires ITN manufacturers to submit these test results.

RD score metric summarizes output of lab tests.

Three textile tests that reflect mechanical damage in the field

Snags

Hole Enlargement

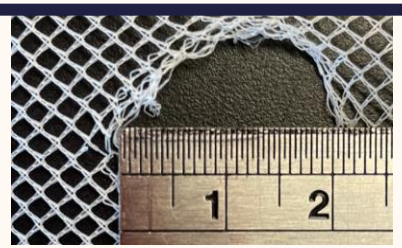


Tears

Tests based on adapted ISO standards, used by textile

The RD score presented here is a refined version of the original, with adjusted weightings and abrasion resistance testing removed due to its limited explanatory power.

Mechan et al., 2025



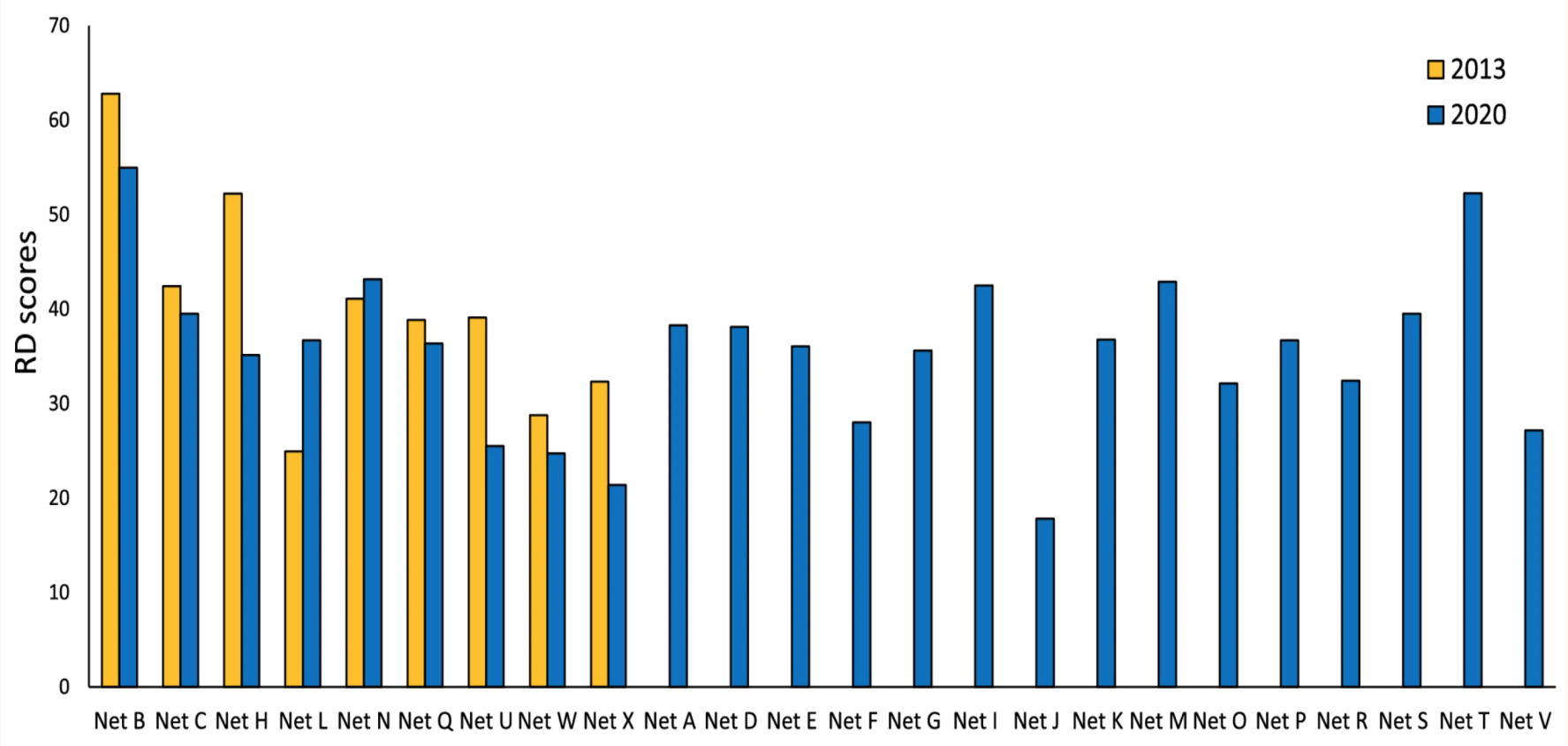
Käse et al., 2014

PQ requires ITN manufacturers to submit these test results.

RD score metric summarizes output of lab tests.

Nets were tested for lab performance (2013 and 2020)

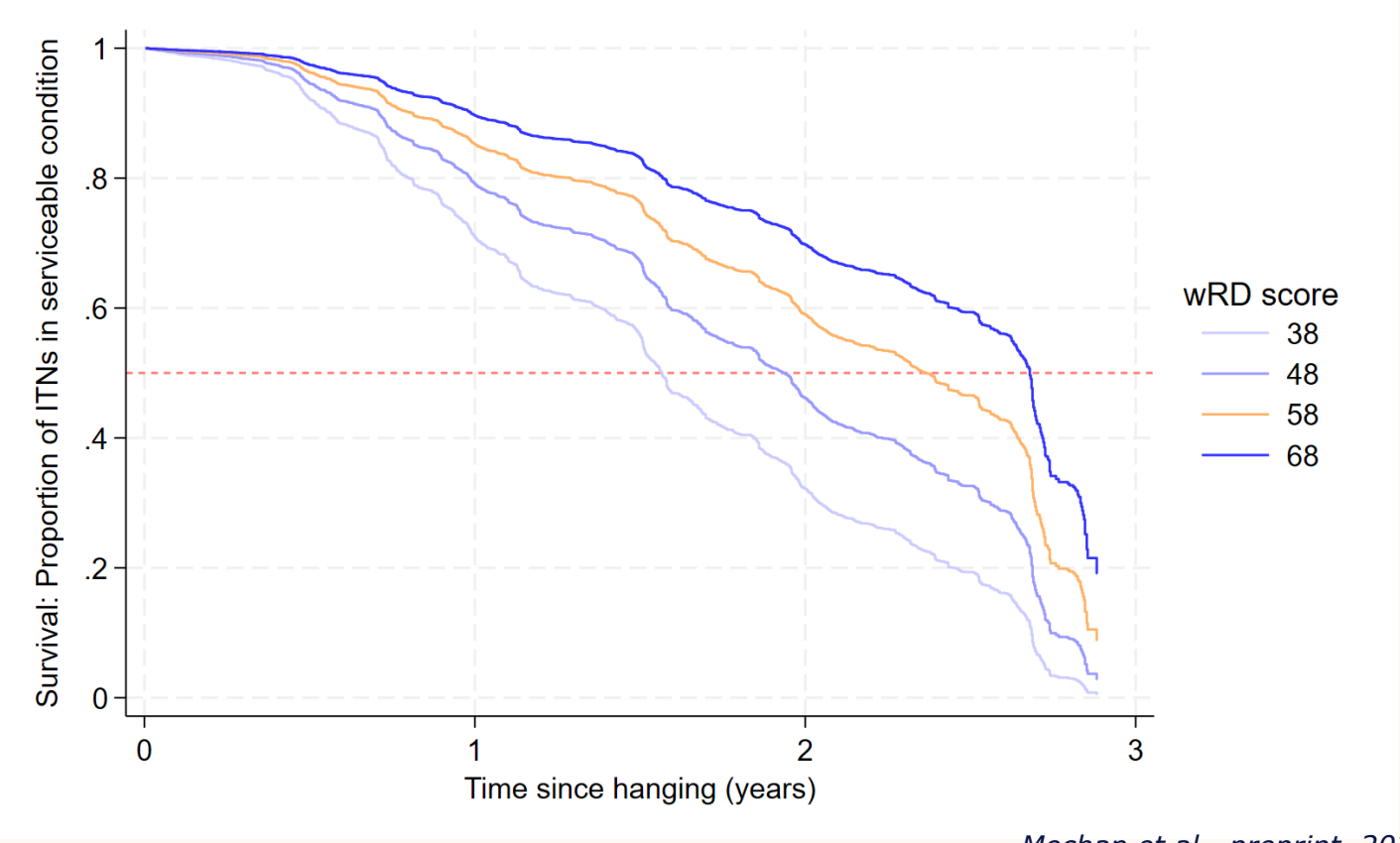
- Not all ITNs perform equally in lab testing.
- RD score outputs show no clear improvement in physical durability over time.



Original RD score calculations, *Wheldrake et al., 2024*

RD score (lab performance) of ITNs is linked to field net lifespan

Analysis conducted using data from 14 countries, 44 durability monitoring sites and 13 ITN products (17,466 observations of 9,237 hanging cohort ITNs).



Mechan et al., preprint, 2025

10-point increase in RD score is associated with a **3.5-month increase** in ITN lifespan.

Difference in lifespan across ITN product range (38-68) was **more than 13 months.**

But does this model reflect reality?

Hypothesis:

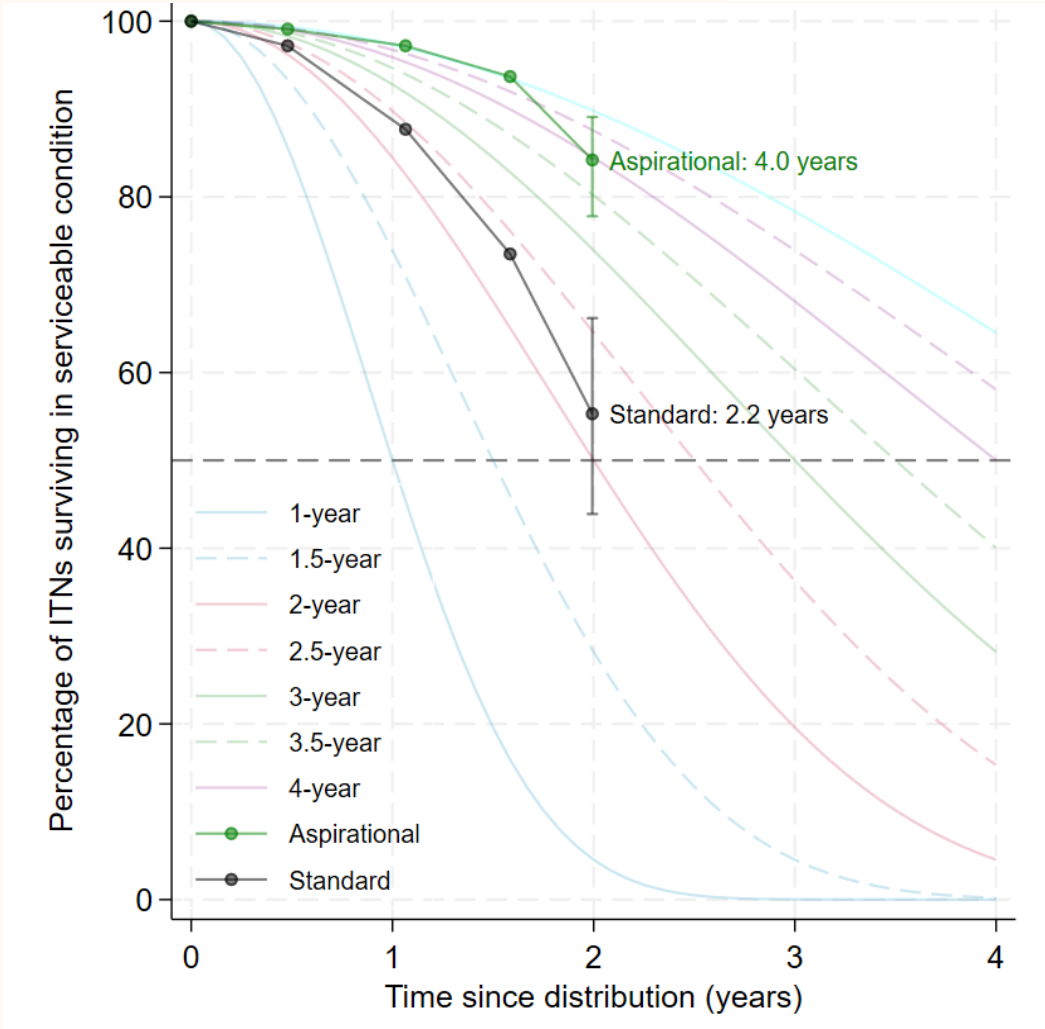
An ITN product with a high RD score (80-90) would result in median lifespan of at least 3.0-3.5 years.

Validation:

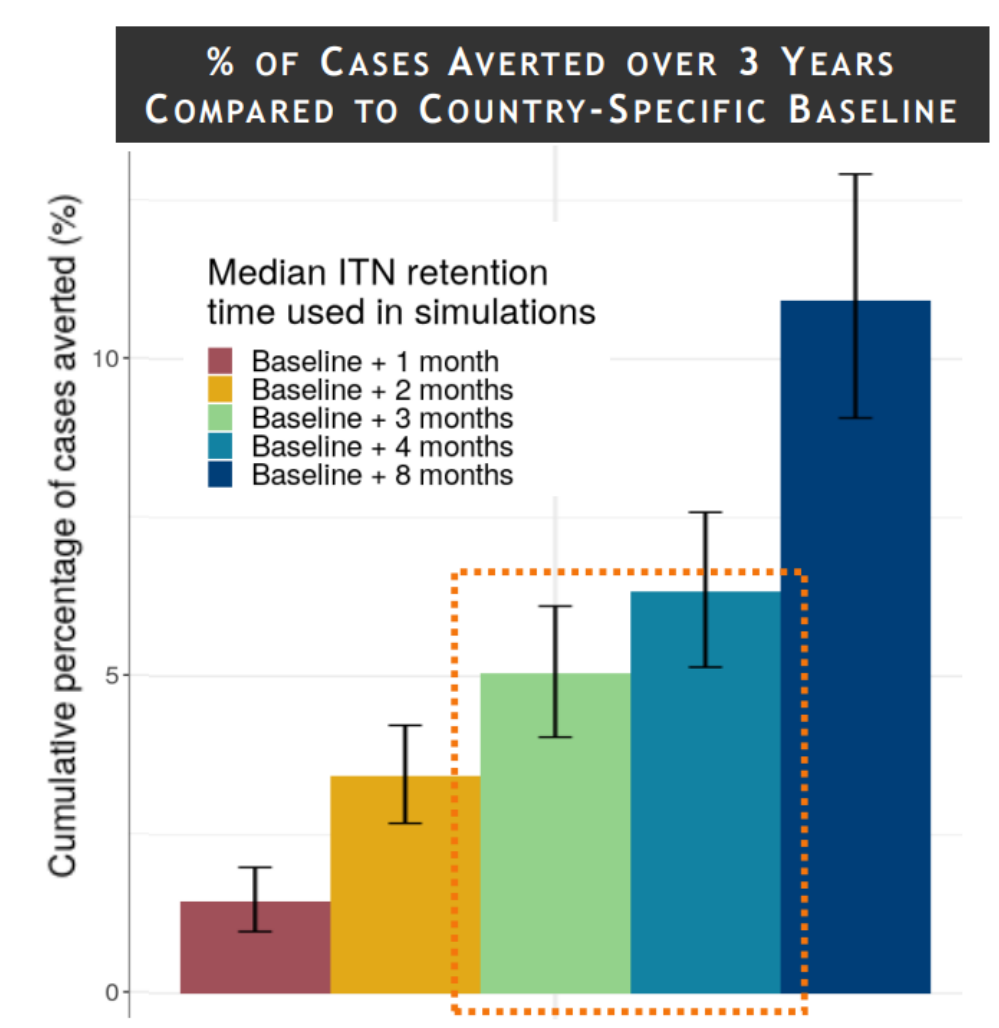
A randomised trial assessed survival of two ITNs with RD of 80 and 83, compared to ITNs with RD scores between 40-65.

Findings:

Trajectory of aspirational nets aligns with 4-year survival compared to standard net lifespan of just 2 years.



Improving net retention could yield massive health benefits



Reduce cases: A 3-to-4-month improvement in net retention (10 RD points) could reduce malaria cases by 5 to 6% in SSA over a 3-year period, compared to the baseline.

Floyd, Jessica et al., "Deriving greater value from malaria bed nets through extending net retention: A modelling study." Pre-print. August 2025.

An additional 10 RD points (4 months increase in net retention) could be worth $1.35 in "durability premium" per net

CLINTON HEALTH ACCESS INITIATIVE

BACK-OF-THE-ENVELOPE ESTIMATE, 3-YEAR PERIOD

Scenario	Total nets needed	Commodity & distribution cost*	Incremental cost vs. BAU	Durability premium per net
Business-as-usual (BAU)	506 Million	$2.02 billion	-	
Greater Volume Scenario (~equivalent epi impact as 4 additional months retention, or ~10 RD points)	677 Million	$2.7 billion	$683 Million	

Assumes a fully loaded cost of commodity and distribution at $4 per net

Additional ITN commodity and distribution cost

Environmentally, assuming a conservative 500g of plastic per net, this amounts to ~84k metric tons of plastic.

The application of the RD score

At the moment, higher RD score nets don't come at a higher price, yet they can deliver real value by keeping nets in use for longer.

→ Adoption of the RD score has already started, with donors incorporating the RD score into their procurement processes.

→ The upcoming publication of the WHO consultation meeting notes from August 2025, where the RD score was discussed, is expected to further drive uptake.

The RD score adds value by:

- **Donor procurement:** provides a clear, evidence-based metric for including physical durability into procurement decisions, resulting in longer-lasting nets for countries.
- **Country-level decision-making:** if countries move toward greater bilateral ITN purchasing, the RD score offers an additional, meaningful metric to ensure durability is part of procurement decisions.
- **Driving innovation**: IVCC is exploring net designs that offer greater physical durability, while keeping cost considerations in mind.

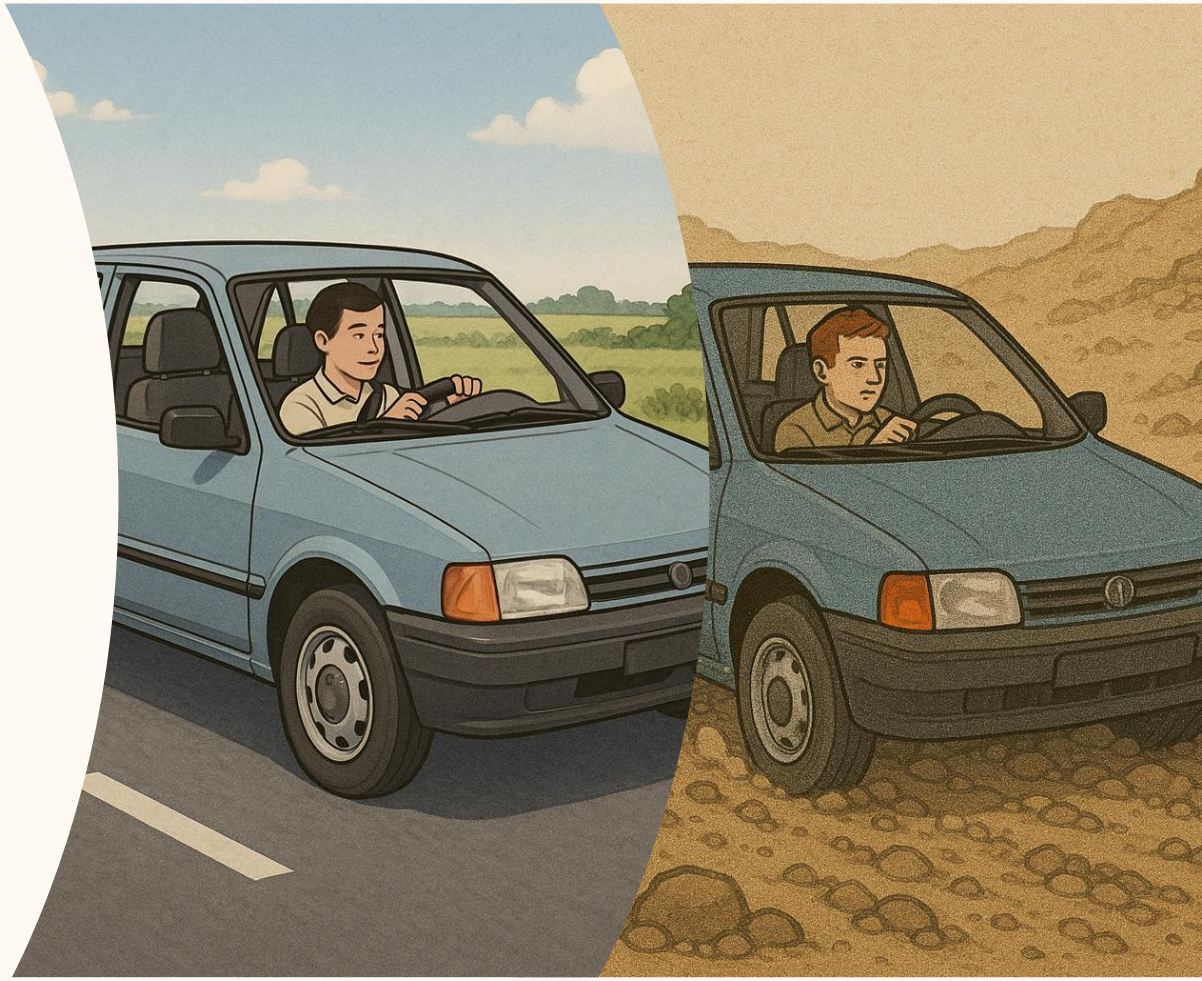
Physical durability cannot be understood in isolation

A net's lifespan is shaped by more than its physical properties. An ITN brand can perform very differently depending on:

- **Use setting**
- **Human interaction and attitudes**

Like a car → the same model, carefully driven and maintained, will far outlast one driven roughly on tough terrain without servicing.

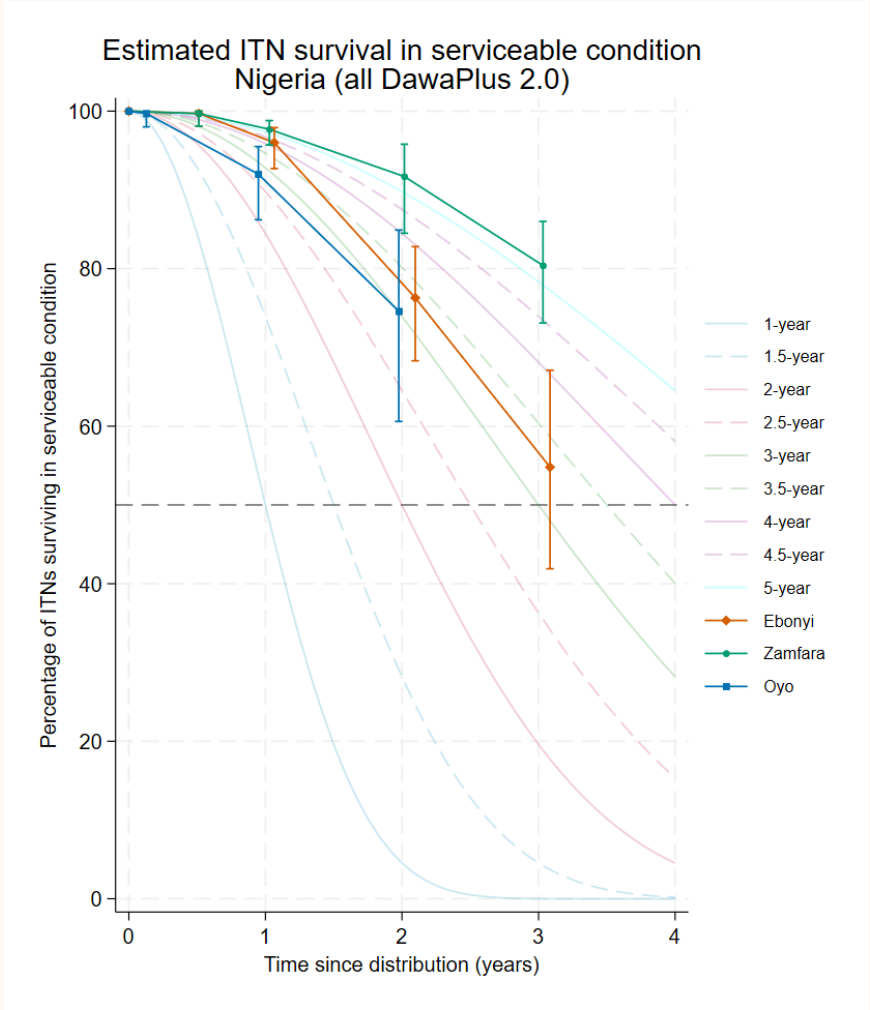
The Risk Index (RI) was developed to capture these external factors. It supplements the physical durability (RD score) by quantifying the social and environmental pressures a net faces in the household, providing a more complete picture of real-world performance.



High heterogeneity in net lifespan within and across countries that cannot be explained by physical durability alone.

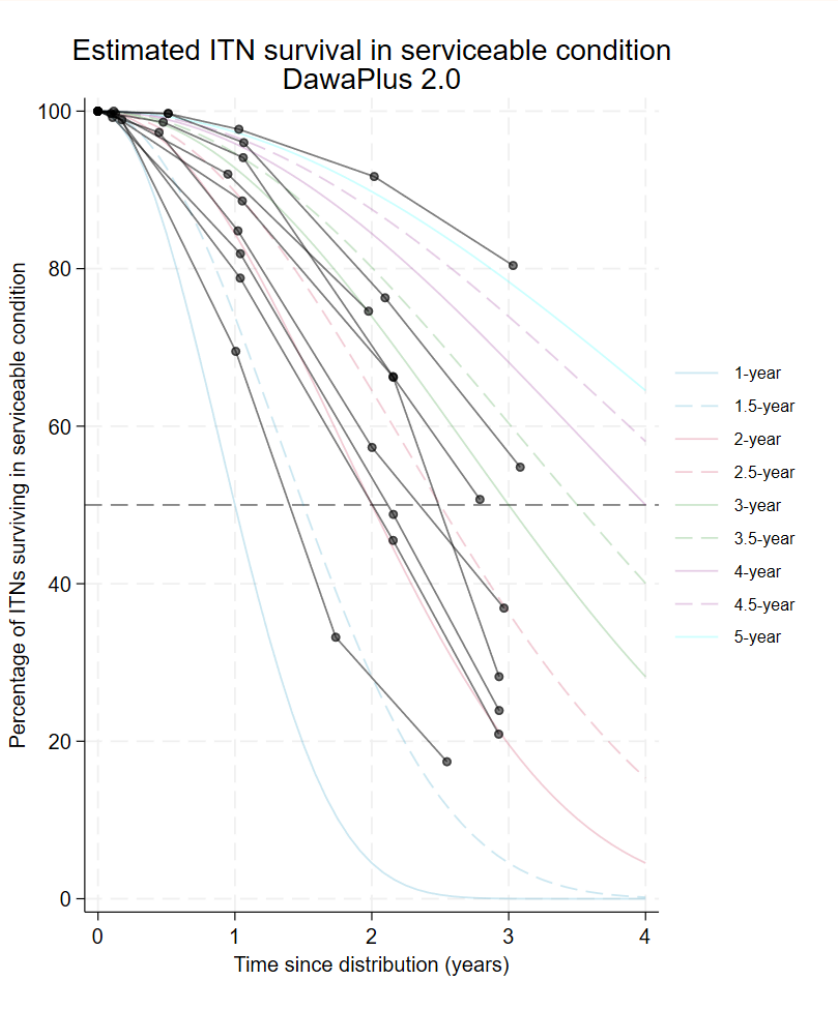
Similar variation seen for PBO and CFP ITNs.

DawaPlus 2.0 (Nigeria)



Range of median lifespans
3.2 - 5.3 years

DawaPlus 2.0 (all sites)



Range of median lifespans
1.6 years (DRC) - 5.3 years (Nigeria)

The Risk Index calculation

Storing food in sleeping room
Cooking in sleeping room
Nets dried on bushes/fences after washing
Percentage of nets that are hanging
Nets hanging loose when not in use

Having a very positive net care attitude
Recall key net messages: "Care for your net"
Recall key messages: "Repair your net"

House walls are grass/mud
Cooking using firewood
Rodents seen around house
Type of sleeping space (floor, mattress, bed)

Assessed by study site

45% Net handling

45% Net care attitudes

10% Net use environment

Durability Monitoring Risk Index (RI)

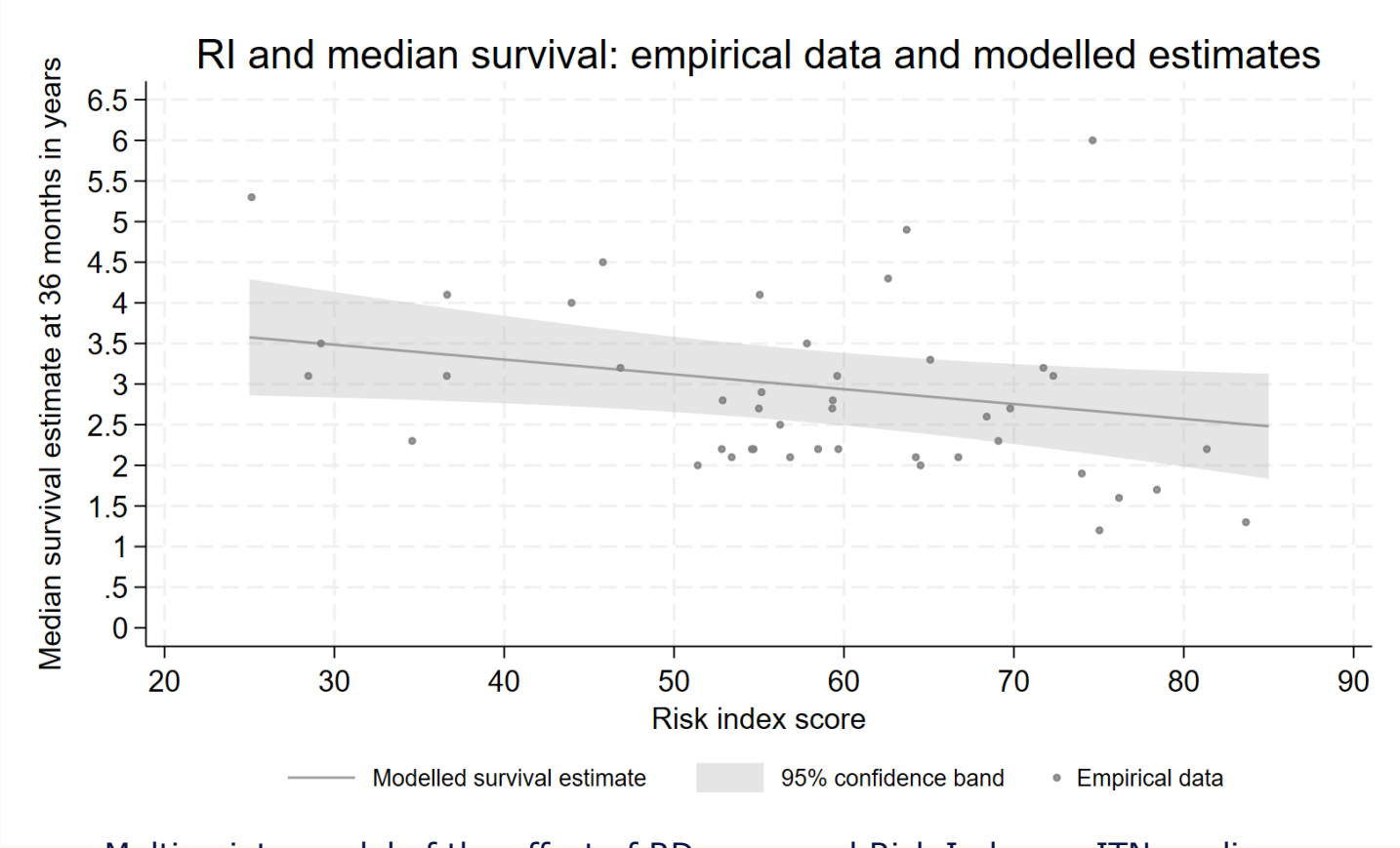
The Risk Index is associated with ITN survival in the field

Higher RI scores were associated with shorter net lifespan.

Across study sites, RI scores ranged from 25 to 85, a 60-point spread.

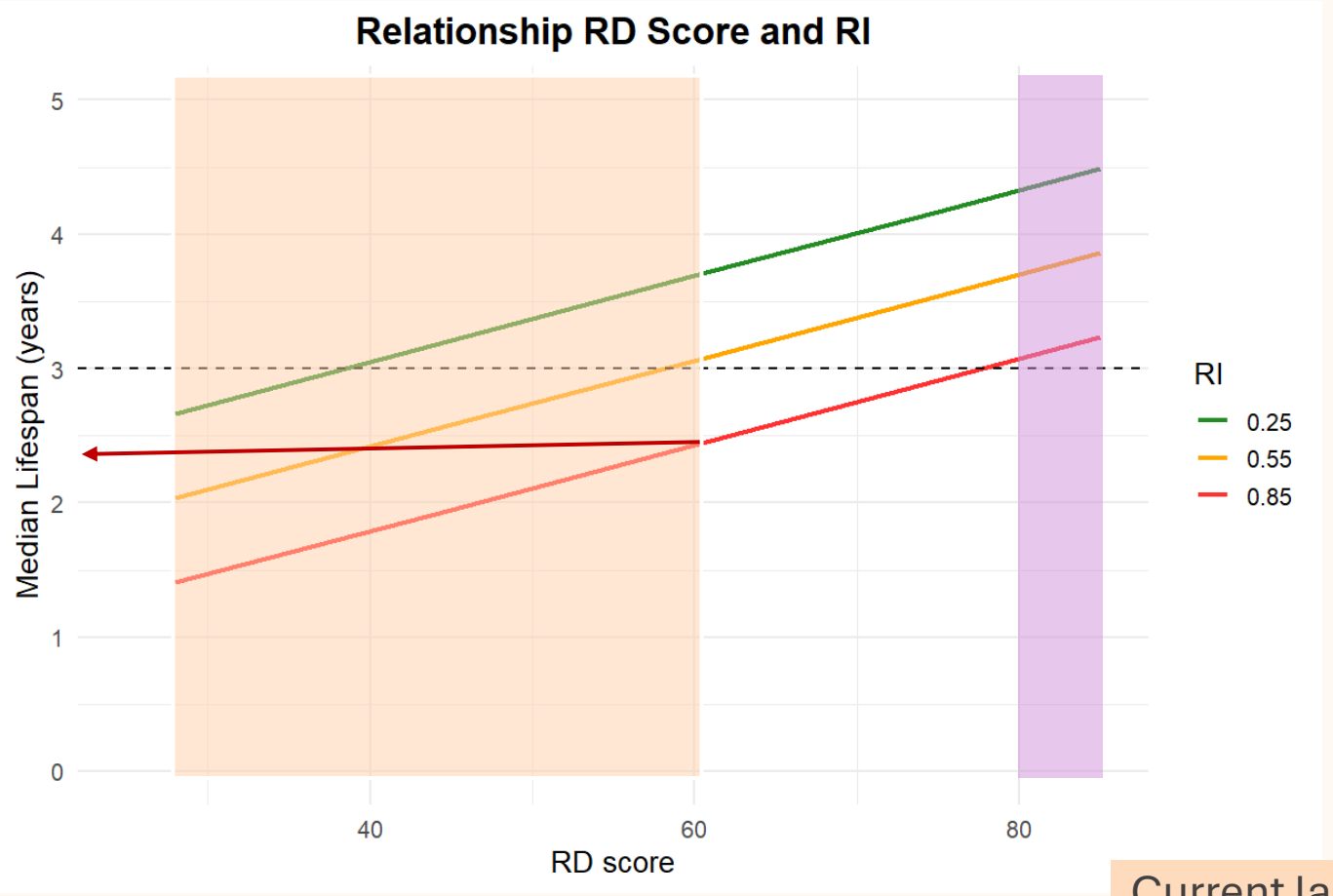
Every **10-point reduction** in RI score corresponded to a **2-month gain** in net survival, translating to a total difference in net lifespan of up to 12 months across sites.

This could be an opportunity for more targeted social behaviour change activities



Multivariate model of the effect of RD score and Risk Index on ITN median survival, using data from 44 sites. RI results are shown for the median RD value.

There is no evidence of an interaction between RI and RD scores



Multivariate model using data from 44 sites in 15 countries, same model as RD score model

Current landscape

Aspirational

This means switching to a higher RD score net has the same predicted survival gain in both low RI and high RI sites.

High-RI sites will struggle to reach 3 years lifespan in current RD range

The application for national programmes

A WHO technical consultation in August 2025 brought together the work on the RD score and Risk Index. The report is expected imminently, opening the door for broader uptake and further net innovation.

RD Score: An opportunity for procurement decisions

- Practical, evidence-based tool for donors and countries to factor physical durability into procurement decisions.

Risk Index: Potential for more targeted in-country decisions

- Match net types, distribution channels, and vector control tools to the specific social and environmental pressures (RI) of each setting.
- The RI relies on post-market surveillance. Countries should identify how to sustain these systems going forward, especially as new funding cycles and grant applications are being developed.

Our values

Partnership

We believe in the power of partnership, collaboration and teamwork.

Innovation

We embrace ideas that drive vector control innovation, deliver impact and save lives.

Respect

We value diversity and treat each other with respect.

Gates Foundation

UK International Development
Partnership | Progress | Prosperity

Australian Aid

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development and Cooperation SDC

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ITN waste and plastic management

For technical difficulties: Please use Zoom chat or contact the supplier at info@plbe.info

unicef

for every child

Reduction of plastic waste in ITNs delivery

ITNs global procurement

- More than 200,000 million ITNs annually
- More than 3 billion ITNs globally to date

unicef | for every child

Reduction of the plastic waste in ITNs procurement

Environmental and financial return achieved since 2021

735,847 KG

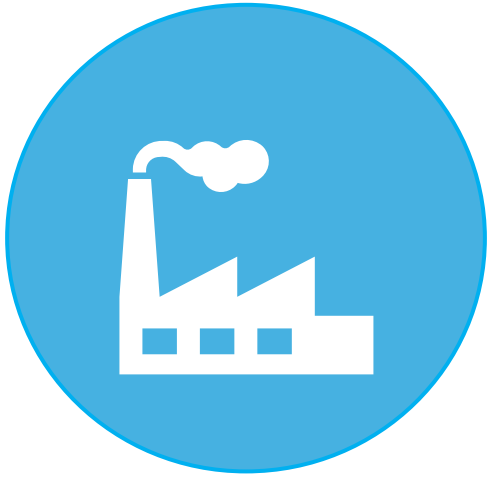
of single-use plastic avoided

$2,087,753

savings generated

1,148,722 ITNs

reprogramming opportunities



2,252 tCO_2e

emission avoided

? Data disclaimer

Data refreshes weekly.

Data last refreshed on (UTC +2:00) : 15/02/2026 07:11 AM

THE BOTTLENECK:
CURRENT DANGEROUS GOODS REGULATIONS

- Delivery of ITNs in bulk may be hampered by the current Dangerous Goods regulations.
- The challenge links to the application of UN 3077 Environmentally Hazardous Substances, Solid. N.O.S., Class 9 Miscellaneous dangerous goods and articles.

THE SOLUTION:
REVISION OF THE REGULATIONS

- ITNs have unique properties that differ from dangerous chemicals, which are subject to UN 3077.
- A sound decision on introducing special provisions for ITNs will enable efficient handling of this product in line with safety, efficiency and environmental preservation principles.

TIMELINE: SUBMISSION TO THE TRANSPORT OF DANGEROUS GOODS SUB-COMMITTEE (UNECE)

Onwards	Ratification. Work with partners to develop new packaging standard for the industry. Innovation.
Oct ‘25	WHO Advice to Manufacturer Series on PPQC applications and joint communication to manufacturers.
30 June – 4 July ‘25	Geneva. The meeting of the Sub-Committee of Experts on the Transport of Dangerous Goods. Ad-hoc working group. Adoption of the proposal with changes: general exemption of ITNs.
Apr-Jun ‘25	UNICEF engaged with UNECE country-members and steered the development of the Informal Document to support the case.
4 Apr ‘25	A formal proposal was submitted as per the submission deadline.
Mar ‘25	A workshop with the working group was organized to build the proposal. As an outcome a draft document was developed and shared with the working group.
Mar ‘25	The approach to the submission was discussed among UNICEF, TGF and AMP. A working group to develop a submission was formed: UNICEF, WHO, TGF, AMP, AMF, IVCC, industry and logistics experts.
Feb ‘25	UNECE, Sustainable Transport Division, Dangerous Goods Section confirmed the validity of the case, advised to make a joint with WHO submission, guided on the process and provided a focal point for further work.
Jan ‘25	UNICEF formally approached the UN Economic Commission for Europe (UNECE) to validate the case for a possible submission.

BRIDGING SOLUTION

DANISH MARITIME AUTHORITY

Tuesday, October 14, 2025

Exemption in accordance with the International Maritime Dangerous Goods (IMDG) Code Chapter 7.9 Exemptions, approvals and certificates section 7.9.1 Exemptions

The Danish Maritime Authority authorizes that ***insecticide-treated nets impregnated with environmentally hazardous substances, for use in public health programs***, are not subject to the IMDG Code.

This exemption is based on the draft amendments to the Recommendations on the Transport of Dangerous Goods, Model Regulations Rev.24 chapter 1.1 section 1.1.1.10 proposed by the Sub-Committee of Experts on the Transport of Dangerous Goods on its sixty-sixth session.

The recipient of the exemption shall notify other competent authorities concerned prior to any shipment covered by the exemption. A copy of the exemption shall accompany each consignment when offered to the carrier for transport together with the information that a copy of the exemption or an electronic copy thereof shall be maintained on board each ship transporting the consignment.

This exemption is valid for five years from the date of issue. However, it may be withdrawn or subject to change based on any relevant amendments to the IMDG Code.

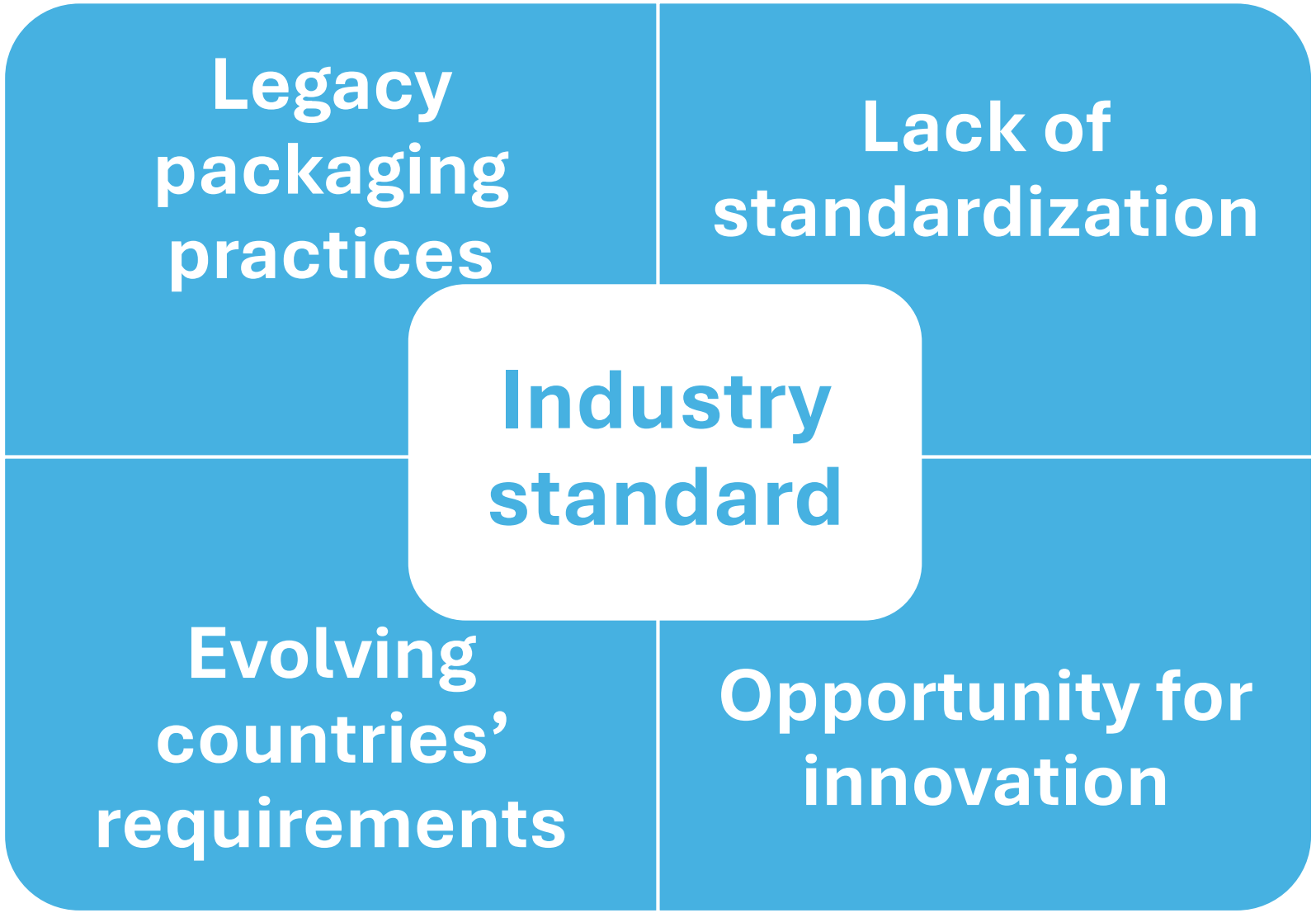
Our reference:
Case: 2025113537

DANISH MARITIME AUTHORITY
Caspar Brands Plads 9
DK-4220 Korsør
Denmark

Tel. +45 72 19 60 00
CVR-nr. 29 83 16 10
EAN-nr. 5798000023000
dma@dma.dk
www.dma.dk

MINISTRY OF INDUSTRY, BUSINESS AND FINANCIAL AFFAIRS

LOOKING FORWARD



unicef

for every child

Thank You

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Sudan: Waste management of campaign ITNs in a COE context

Sudan ITNs Mass Distribution Campaign 2025

Presenter: Hamza Sami

Introduction

- Previously, there was no well organized method for disposing of net waste. It was disposed of by:
  - Disposing of it with regular waste via garbage trucks and then to landfills.
  - Reusing it by some people who used for other purpose.
- In the 2025 campaign, from the initial planning stages, there was a focus on proper waste disposal due to the large quantity of nets.
- Separate plan developed with a budget covering all waste management process, from collection and transportation up to final disposal.
- The campaign targeted **15,654,185** nets for distribution, resulting in 313,084 empty bales, which equivalent to 658 m^3 of waste.
- To ensure proper implementation of waste management process, committees with clear roles and responsibilities were appointed to oversee all processes according to the written guidelines.

Types of waste disposed of:

- Individual net bags
- ITN packaging materials (bales and belts)
- Used PPE

Three methods used for waste management

Household level waste management for individual net bags

- Materials for packaging individual nets were biodegradable
- HHs were advised not to use them for domestic purposes and to dispose of them with regular household waste
- SBC messages targeting HHs regarding the proper handling of net bags and not reusing

Disposal via incineration

- Incinerators that used were meet WHO guidelines and were provided by the European Union
- Only two states have these incinerators

Disposal by burning and burial

- This was carried out in 10 states, by constructing pits according to WHO guidelines

Stages that waste went through from DPs to final disposal

At the distribution point:

- Daily tracking and control of the number of bales moved in each day of the distribution to each DP as well as for the number of bale materials returned to the administrative unit store.
- Cross-checking conducted in the presence of the distribution point supervisor.
- Recording was done on a specific form to ensure that all distribution points returned the correct number of bales.
- Empty bales were collected daily and placed in bags, each bag containing 30 - 50 empty bales.

Date of transaction…State……Locality……Admin. Unit……

Day of campaign distribution	No. of ITNs bales received				No. of ITNs bales materials returned			
	DP_1/ mobile DP	DP_2/ mobile DP	DP_3/ mobile DP	DP_4/ mobile DP	DP_1/ mobile DP	DP_2/ mobile DP	DP_3/ mobile DP	DP_4/ mobile DP
First								
Second								
Third								
Fourth								
Fifth								
Sixth								
Seventh								
Total								

Stages that waste went through from the DPs to final disposal

Transportation from the distribution point to the locality/state warehouse

- Transportation was usually done daily, but sometimes bags from several days were collected together depending on the situation.

The stages that waste went through from the DPs to final disposal

At the locality level:

- Empty bale bags arriving from administrative units were received using warehouse documents.
- The empty bale bags were checked by the locality warehouse keeper.
- Daily recording of the bale bags was kept in a separate log, and a daily report was submitted detailing the number received and the expected remaining quantity at distribution points.
- Empty bale bags were stored in the locality warehouse until the locality waste management committee determined the final disposal date.

At the state level:

- This level applies only to the two states that use incinerators.
- The empty bales were transported from DPs to locality and then to the state warehouse using warehouse forms.
- The quantities received were checked by the state warehouse keeper.
- Empty bags were stored until the state waste management committee determined the appropriate time for incineration.

Disposal of waste via incinerators

- Used for waste from two states: Gedarif and Kassala.

Specifications of the incinerators used:

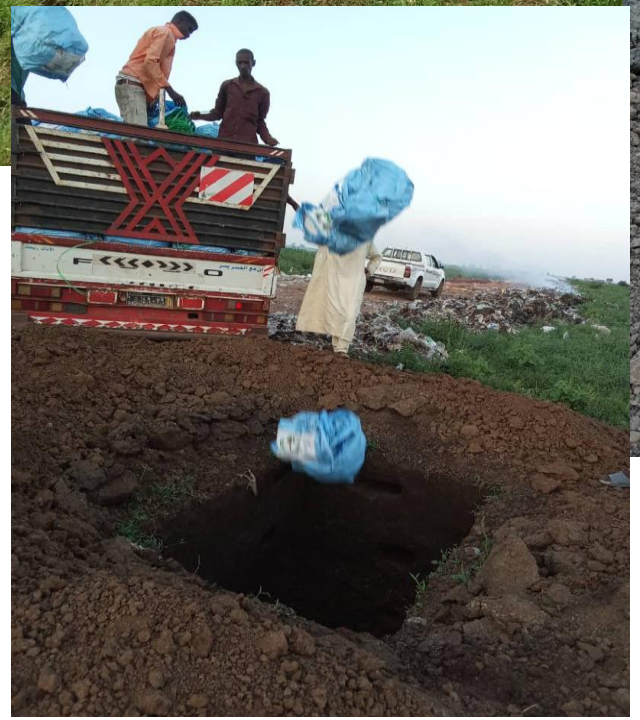
- Operating capacity: 750 kg per cycle (8 hours).
- Temperature: 500–1200°C, according to the Basel Convention
- Emissions: Zero water vapor.


TOYOTA

The burning and burial method used for waste management

This method was implemented according to WHO guidelines:

- A soil type with low permeability was selected, away from any dwellings, at a distance of at least 100 meters from wells or other domestic water inlets.
- The dimensions of the burning pit were 1 meter length, 2 meters width, and 5 meters height.
- A layer of cement and concrete was applied after the burning and burial process.



Challenges

- The lack of sufficient incinerators that meet international standards in all states
- The actual cost of waste management was higher than planned, particularly in Darfur states, due to rising material prices
- Led some states to use local incinerators even if they did not meet WHO recommendations for temperature and emissions.
- Transportation costs from distribution points to locality were also high in Darfur states

Conclusion

- This is the first time that ITNs waste management has been disposed of according to guidelines, and it is a first step in the right direction despite some challenges faced in the implementation.

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Discussion - Questions & Answers

Discussion - Questions et réponses

Discussão – Perguntas e respostas

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Panel discussion: Planning for a different context

The Alliance for
Malaria Prevention

Expanding the ownership and use of mosquito nets

What do we need to do differently?

The Alliance for
Malaria Prevention

Planning for a different context

Funding shifts are affecting how we:

- Set targets
- Define target groups
- Design operations
- Choose channels
- Allocate responsibility (national vs subnational)

The core question:

- **How do we maximize impact with limited ITN resources for vector control?**

The issue is not only funding levels. It is also how effectively we use the resources we already have.

The Alliance for
Malaria Prevention

The strategic trade-offs we must manage

- Access vs impact within an equity framework
- Campaign dominance vs channel diversification
- Rapid scale vs system strengthening
- Donor dependence vs domestic sustainability

We are no longer choosing between good and bad options —
We are choosing between competing priorities.

The Alliance for
Malaria Prevention

A strategic stress test

50% fewer nets over the next two years.

- Who gets prioritized?
- Which channels dominate?
- What stops?
- What becomes non-negotiable?

The real risk is not reduced funding — it is delayed adaptation.

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Meeting will begin shortly – la réunion va bientôt commencer - A reunião começará em breve