



UNTAID's market approach to public health & key findings from vector control landscape 2013

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Presentation outline

- UNITAID's market based approach
- Landscapes – purpose and uses, scope
- Malaria Vector Control Commodities Landscape
 - R&D pipeline
 - Key market trends: LLINs, IRS, insecticides
 - Challenges
 - Market shortcomings & potential intervention areas

UNITAID Goal: why UNITAID works through markets

UNITAID aims to promote “healthy”, dynamic market conditions whereby manufacturers have **incentives to invest and innovate**, while at the same time supply **quality** public health products at **affordable prices** and in **acceptable formulations** that enable the maximum number of people to access them.

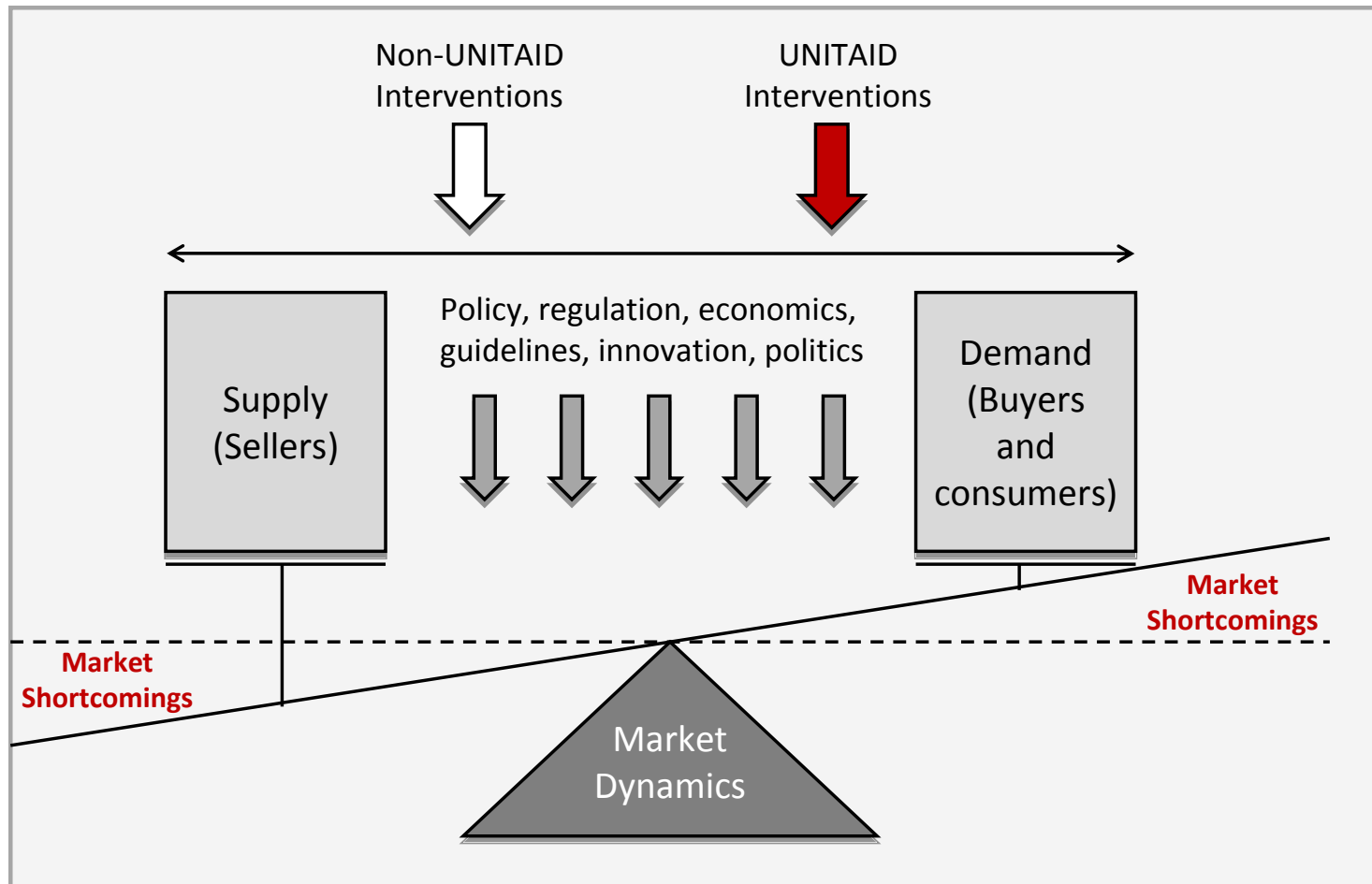
How UNITAID intervenes

UNITAID's role depends upon the particular circumstances in a given market:

- **Market catalyst:** identify and facilitate adoption and uptake of new and/or superior public health products;
- **Market creator:** provide incentives for manufacturers to produce otherwise unattractive products with low demand that yield little profit but substantial public health benefit to those in need; and
- **Market “fixer”:** address severe market inefficiencies (e.g. grossly inaccurate demand forecasts and excessive transaction costs) that contribute to low access to quality-assured public health products.

UNITAID is one of several market players

Coordination is critical: Global Fund, PEPFAR, PMI, USAID, PDPs, BMGF, TB, WHO, Stop TB, UNAIDS, RBM, GDF, national governments, etc.



UNITAID Market Effects Framework



Market Shortcomings: Price; Availability; Quality; Acceptability; Delivery

Reasons for Market Shortcomings:

- Absence of market
- Lack of external grant funds when commercial incentives are insufficient
- Unbalanced market structure (e.g., monopsony / oligopsony)
- Structural & capacity issues along the supply chain
- Information asymmetries
- Barriers to entry & exit

UNITAID intervention in malaria prevention:

Accelerating Scale-up of LLINs

- Implemented by UNICEF in 8 countries in SSA in 2009/10
- Total funding USD100 million
- Goals: increase access to LLINs and reduce global market price of quality LLINs
- 20M WHOPEs-recommended LLINs delivered
- Price reductions between 2.5% (small LLINs) and 17.3% (conical LLINs)
- During implementation period, 3 new LLINs obtained WHOPEs recommendations

UNITAID interventions in ACT market

Plant & harvest crops



Processing: extraction & purification



Produce APIs - artemisinin & derivatives



Co-formulate APIs into a final product



Sell & deliver to purchaser



Loans to extractors, market intelligence

Demand forecasting

ACT Scale up in Global Fund Round 6; AMFm

UNITAID Landscape Reports

Identify issues & market opportunities in each segment

1. **Disease:** public health problem and access issues, future directions & guidelines for diagnosis & treatment
2. **Technology:** comparison (pros and cons) of products currently on the market and products in the pipeline
3. **Market:** overview of market dynamic trends (past & future), market shortcomings and their reasons, global positioning of key stakeholders

Forward-looking to proactively and strategically address tomorrow's challenges and opportunities...today

Landscapes feed into Forum, which informs market-based work of UNITAID and others



UNITAID vector control landscape 2013

**Developed by BCG in
consultation with UNITAID
Secretariat**

**Quantitative & qualitative
methods:**

- Desk research
- Analysis of existing market data
- Key informant and expert interviews
- External peer review

**Data collection: January –
March 2013**



Scope

Approach

Description

Insecticide treated nets (ITN, LLIN/LN)*



Disable and/or kill mosquitoes coming into **contact** with insecticide on the netting material and act as a **physical barrier**. **Long Lasting** nets incorporate the insecticide within the fabric, **avoiding reimpregnation**

Indoor residual spraying (IRS)



Application of **long-acting chemical insecticides on the walls and roofs** of all houses and domestic animal shelters in a given area, targeting resting vectors

Space spraying



Dispersion into the air of a diluted insecticide in the form of hundreds of tiny droplets, effective while airborne when vectors come across them

Larviciding



Reduces vector population growth by identifying **breeding sites** and acting on them with **insecticides** or **biological tools** to **eliminate mosquito larvae**

Consumer products



Products in the form of coils, vaporizing mats and aerosols that incorporate an insecticide or repellent. **Effectiveness for vector control has not demonstrated**, but **used for nuisance abatement**

Environmental management



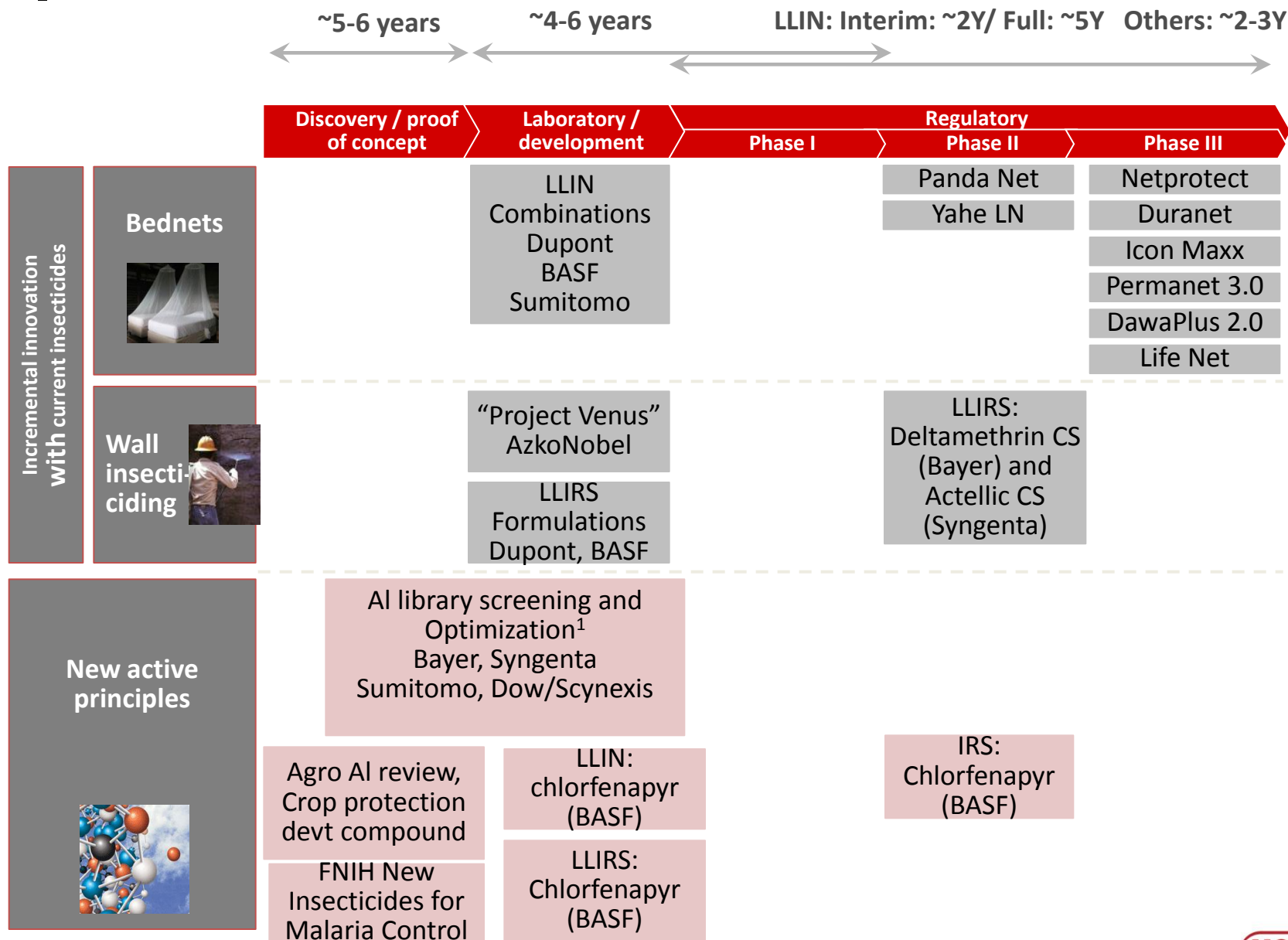
Modification or manipulation of **environmental factors** to reduce **vector breeding**. Many possible interventions, mainly **dealing with water accumulation**: flushing, crop drying, exposure to sun, drainage, shading, adding salt, etc.

Durable activated residual textiles (DART)



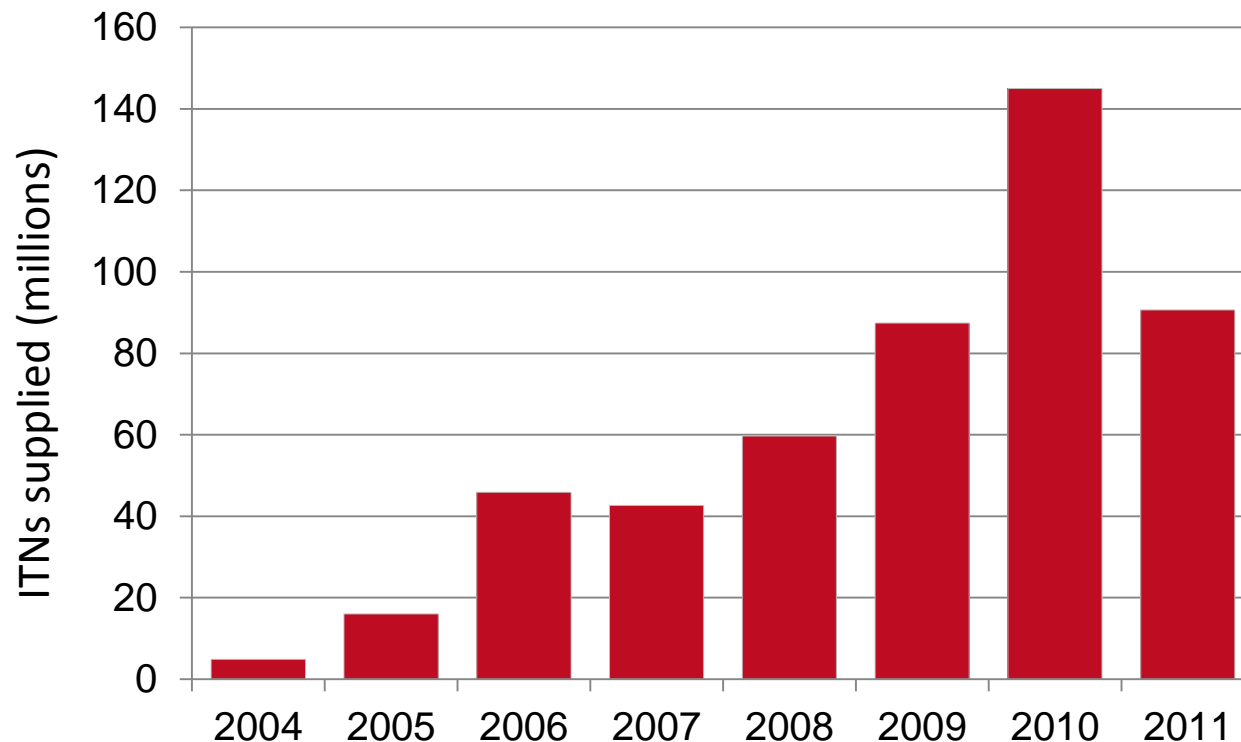
A durable alternative to IRS, DART is a **lining installed on the walls of a house**. The vector is killed when it comes into contact with the insecticide on the surface.

Pipeline



Key market findings LLINs (1): Significant market growth, increased suppliers

LLIN deliveries, SS Africa



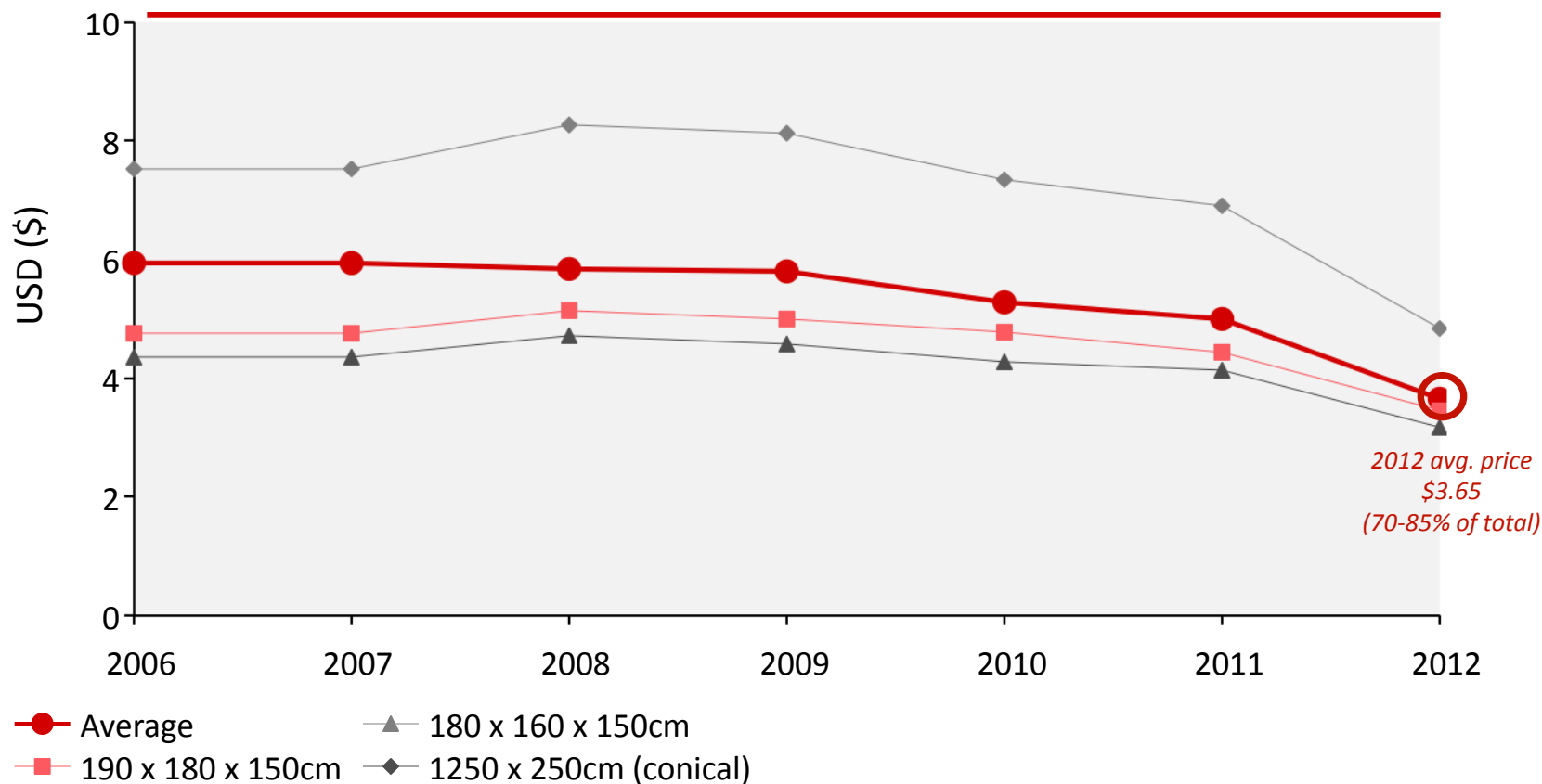
**2002: 1
WHOPES-
approved
supplier**



**2012: 10
WHOPES-
approved
suppliers**

Key market findings LLINs (2): decreasing price

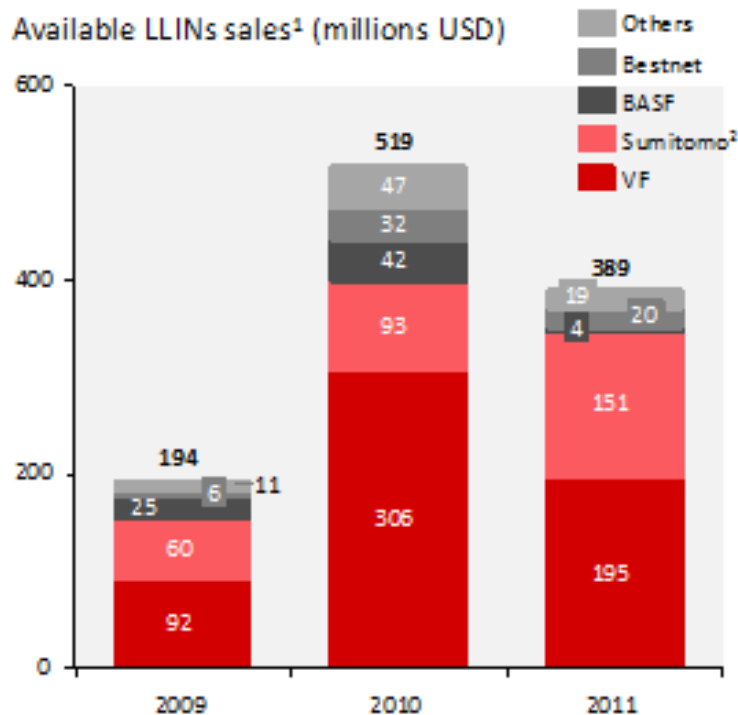
Average prices of LLINs procured by UNICEF, 2006 - 2012



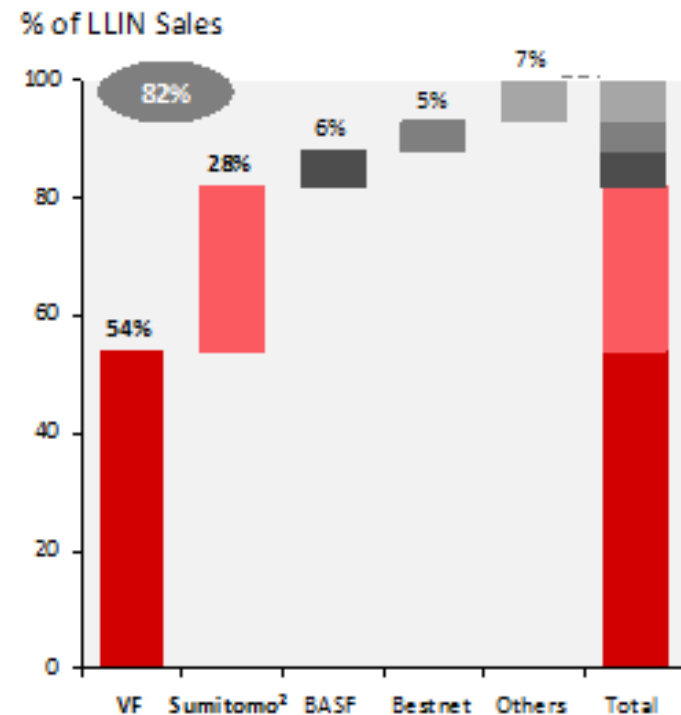
Notes: Prices indicated above are the suppliers' tendered fixed unit base prices established on long-term agreements: discounts and surcharges are not included in the prices as there are no standard discount/surcharge structures. Individual suppliers offer different discounts (e.g. early payment discounts, staircase pricing, cumulative discounts). UNICEF supplies ~27% of the total bednets annually. Sources: World Malaria Report 2011, WHO; LLIN Price Transparency Report, UNICEF, 2012.

Key market findings LLINs (3): concentrated funding and supply – supply security?

USAID and GF purchases by manufacturer



Highlight two primary suppliers control 82% of the value 2009 – 2011



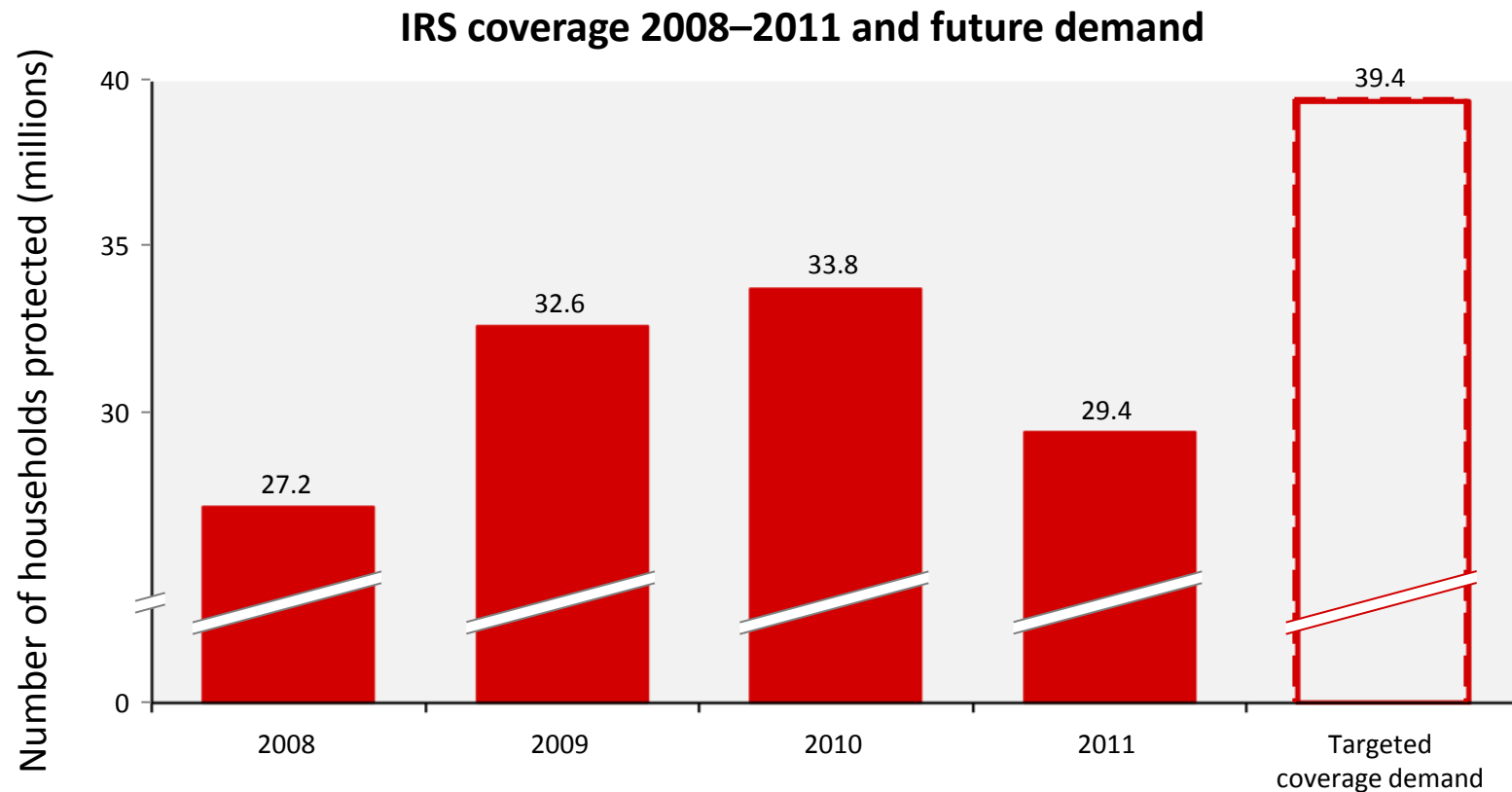
¹ Includes USAID Deliver Project sales (approximately 10% of total LLINs delivered) and GFATM transactions reported to its Price and Quality Reporting Tool.

² Sumitomo includes A to Z.

VF = Vestergaard Frandsen

Sources: USAID; GFATM.

Key market findings, IRS (1): some growth but less than for LLINs



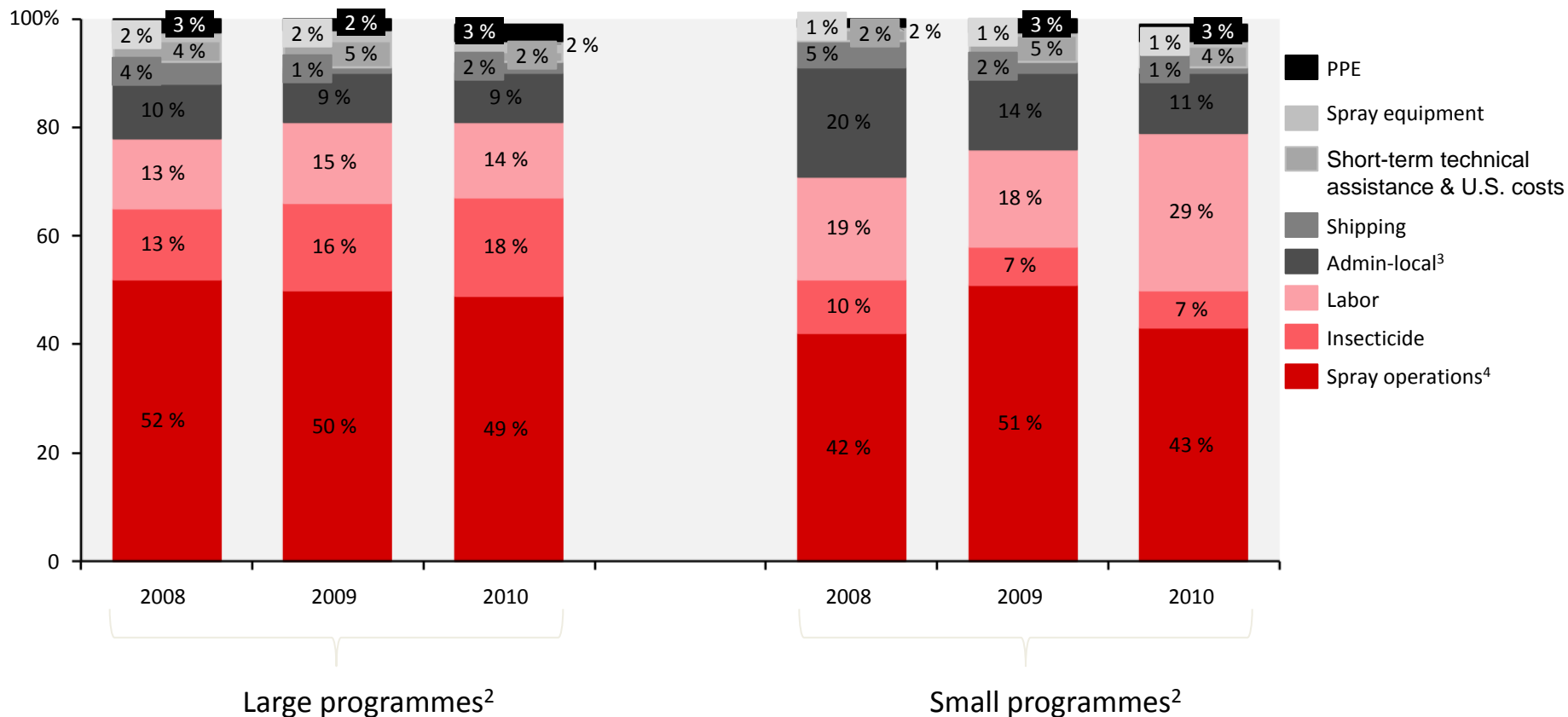
Note: These demand figures represent the number of households protected in a year, not the number sprayed. The number sprayed would be 2 times these estimates.

Source: WHO Malaria Report 2011 and 2012, Annex 4, BCG Analysis

Key market findings, IRS (2): cost a barrier

Breakdown of IRS costs for large and small programmes

Comparison of average proportion spent on each cost category for the 12 PMI countries¹

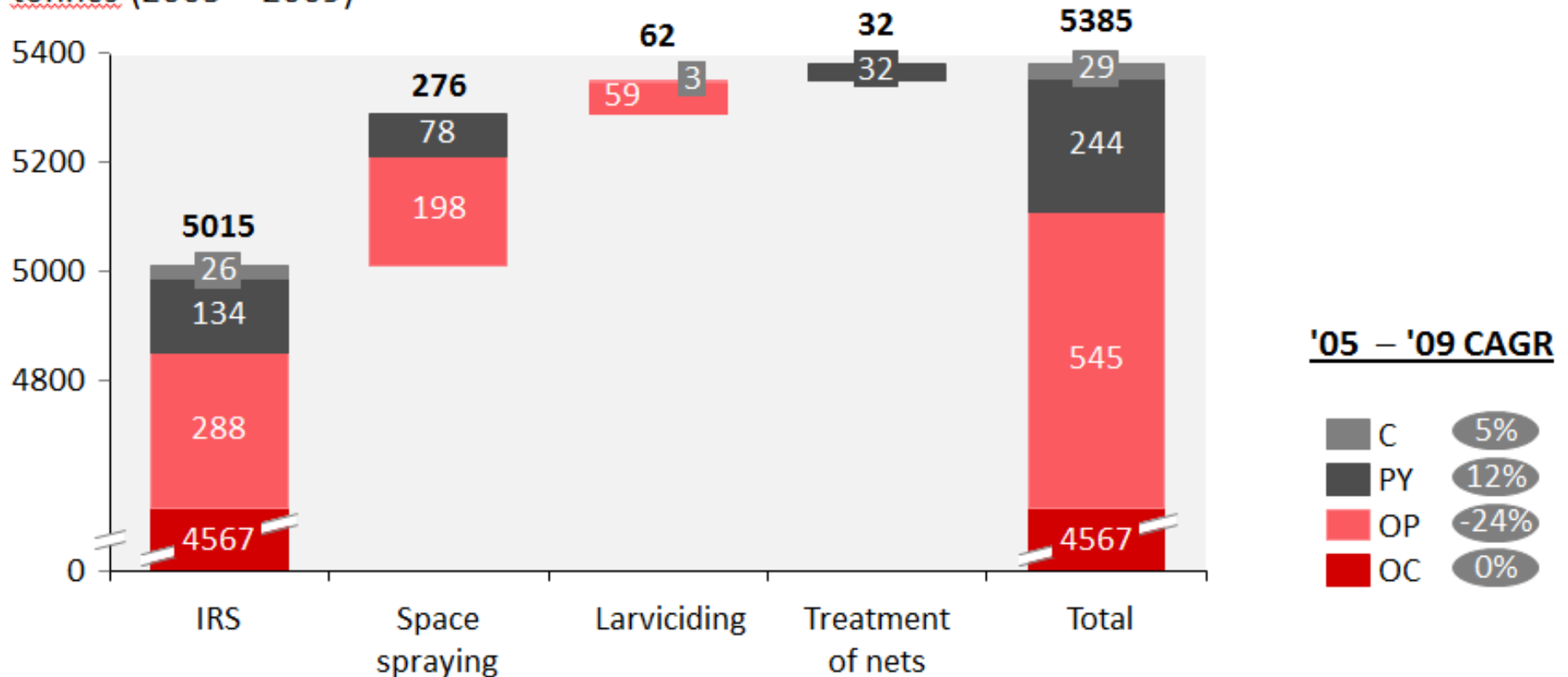


Notes: 1. Weighted averages, based on number of structures sprayed in each country. 12 PMI countries are Ethiopia, Mozambique, Madagascar, Ghana, Rwanda, Senegal, Benin, Angola, Mali, Malawi, Liberia, and Burkina Faso. 2. Large programs are those that sprayed 150,000 or more structures in 2010 and small programs are those that sprayed fewer than 150,000 structures in 2010. 3. Admin-local includes office leases, utilities, and maintenance, and management travel and transportation. 4. Spray operations include activities such as planning and logistics, training, information, education, and communication, warehousing, transportation, and monitoring and evaluation. Source: USAID IRS Economic Analysis

Key market findings, insecticides (1): IRS largest volumes, has driven PY growth

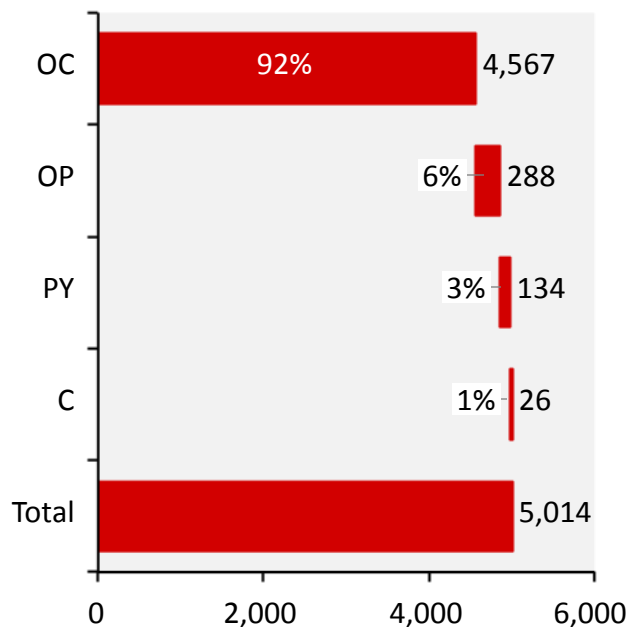
Insecticide volumes by intervention

Average yearly insecticide tonnes (2005 – 2009)



Key market findings, insecticides (2): OC highest volumes, PY highest area sprayed

While DDT most used in terms of volume...

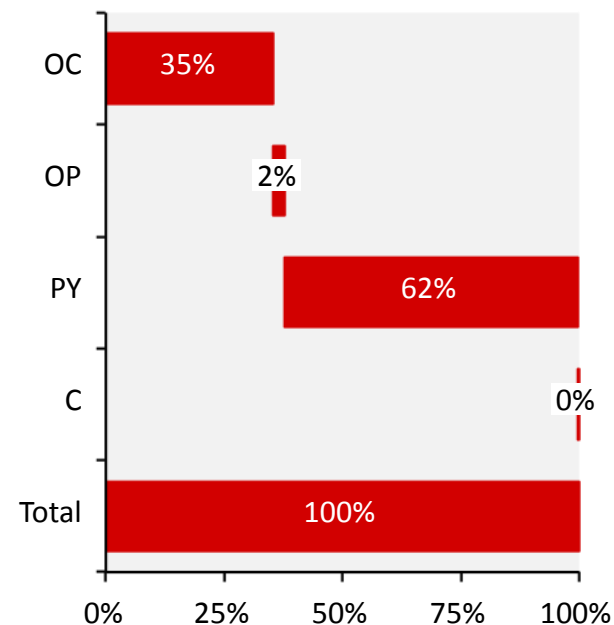


2005 – 2009 yearly average of insecticide used (tonnes)

... PY, with relatively low dosages...

X 0.025gAI/sqm for PY
1.5gAI/sqm for others **=**

...are the most used in terms of sprayed area



2005 – 2009 yearly average of estimated sprayed surface

Note: The estimation assumes that the active ingredient percentage of weight in the formulated insecticide is similar for the different insecticides

Source: Fifth Edition of the Global Insecticide Use for Vector-Borne Disease Control

Market shortcomings

Availability:

- Innovative LLN and IRS products face difficulties reaching the market in a timely fashion
- Manufacturers hesitant to invest in R&D for new paradigms, particularly to address resistance and durability concerns

Quality:

- Some LLINs may not be meeting minimum durability standards

Affordability:

- Unclear sources of funding to close the coverage gaps
- Difficulty shifting to consumer driven market
- Cost-effectiveness data not taken into account in purchasing decisions for LLINs and IRS

Market shortcomings (2)

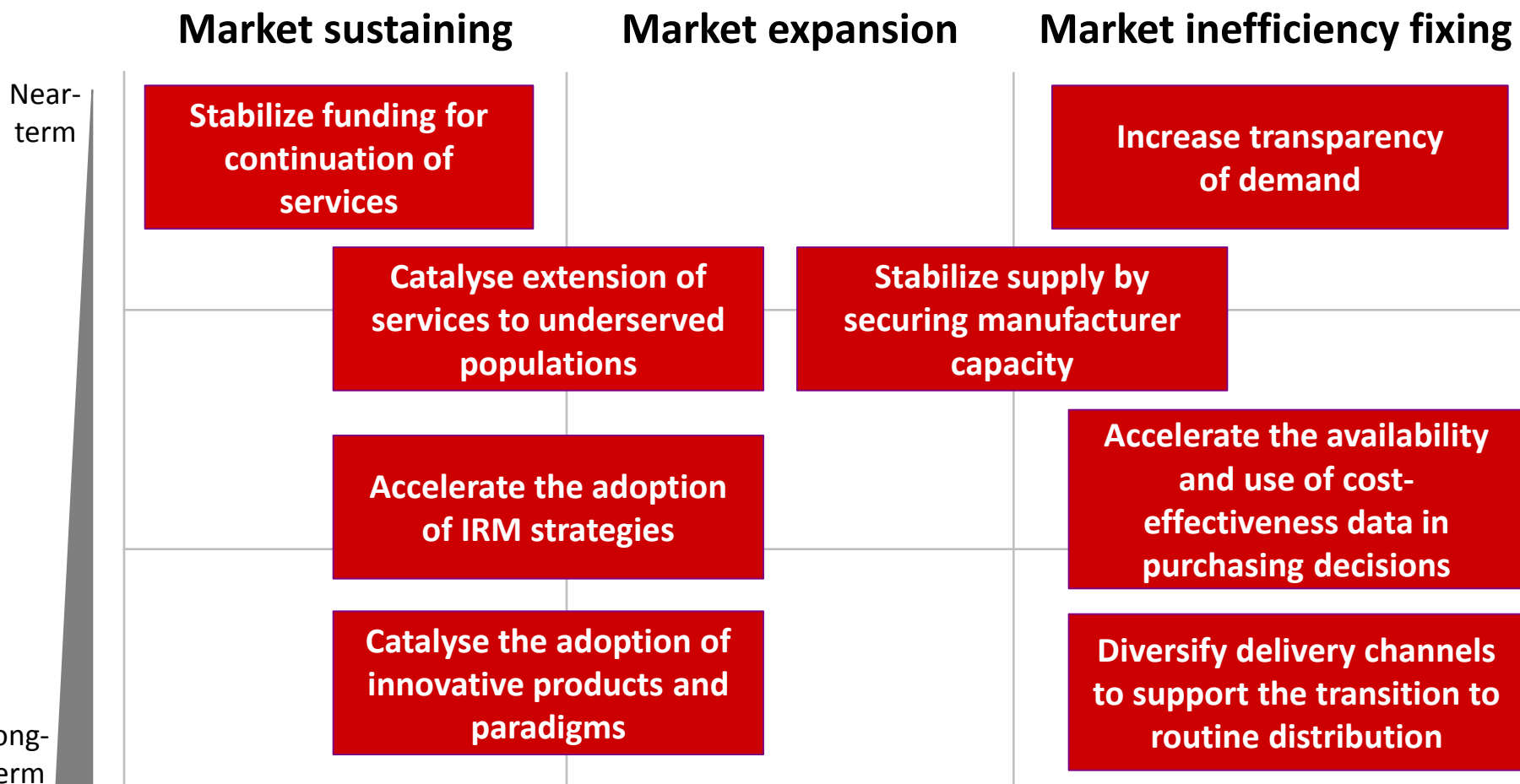
Delivery:

- Uncertainty about true demand and countries/districts requiring replacements
- Difficulty for manufacturers to plan ahead for future capacity needs
- Mass distribution systems may be less efficient/sustainable than routine channels

Acceptability:

- Limited uptake of IRS, IRM products and recommendations

8 potential market interventions identified



Next steps

- Vector control landscape 2014 is being initiated
 - broader stakeholder consultation
 - deeper dive on insecticides market
- Malaria Market Forum to discuss findings
 - Late 2014 (TBC)

Thank you

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