



NATIONAL MALARIA CONTROL PROGRAM



Value Chain Analysis for, LLIN, and IRS Chemicals for Uganda

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Background & Scope – Value Chain

What is it?

- “Value chain” refers to all the activities and services that bring a product (or a service) from conception to end use in a particular industry - from input supply to production, processing, wholesale and finally retail.
- It is called so because value is being added to the product or service at each step.

Scope - Malaria Commodities

- Mosquito Bed Nets /Long Lasting Insecticide treated Nets (LLINs)
- Indoor Residual Spray

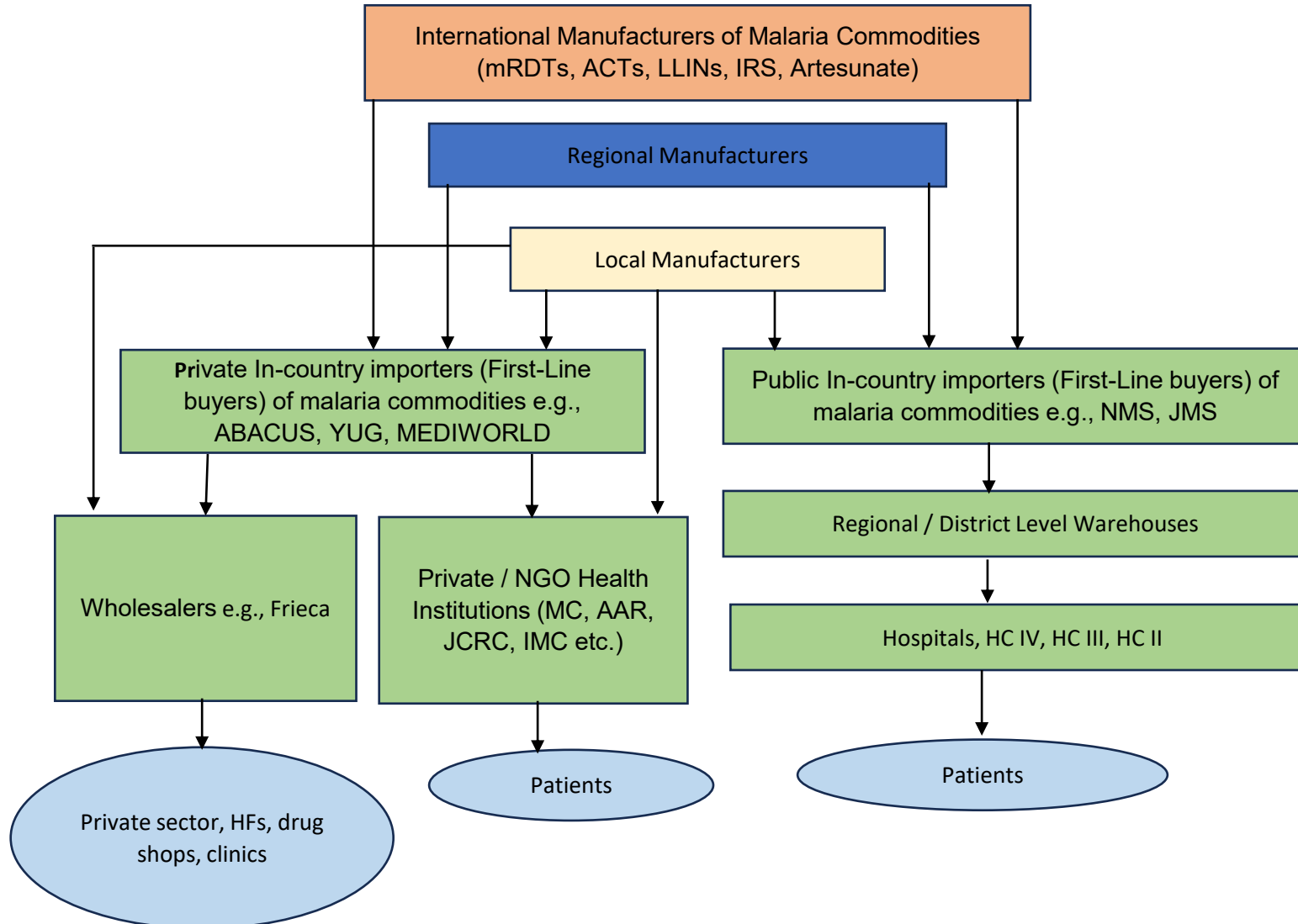
Objectives

To understand and analyze partners in the market chain dealing in the sale of malaria commodities from manufacturers to the final buyer and the relationships among them.

Specific objectives of the Value Chain Study

- 1) To conduct a thorough VCA of malaria commodities in Uganda to come up with costs/ figures on the incremental values at each level of the supply chain;
- 2) To understand the coordination between partners in the malaria commodities' production, distribution and use;
- 3) To describe the value chain and main actors in the malaria commodities supply chain and market in Uganda;
- 4) To understand the dynamics and opportunities available in the malaria commodities market;
- 5) To identify the regulatory and policy environment factors influencing malaria commodities market share and distribution in Uganda;
- 6) To identify the malaria commodities marketing constraints and areas of differentiation;

Actors in the value chain of malaria commodities



Selected VCA Findings



Regulations - LLINs

Existing Policies on Mosquito nets

- WHO Global Malaria Programme (GMP) Global Technical Strategy for Malaria (2016-2030) updated 2021
- WHO Guidelines for Malaria (2021) updated in June 2022
- 2008 Global Malaria Action Plan (GMAP) strategy
- WHO new malaria reduction project in Uganda, April 2022
- 2021-2025 Malaria Reduction Strategic Plan for Uganda
- Uganda National Malaria Control Policy

Identified Gaps

- Mosquito nets disguised as treated but without any brand/ labels exist on the market
- No clear disposal of treated net materials after use, with some of the treated materials re-used for other purposes e.g sieving juice
- Various untreated nets are sold on the market than treated nets by dealers, who claim that consumers prefer untreated nets and that the policy environment for treated nets is not favourable
- No designated importers, manufacturers and distributors treated nets. These are sold by pharmacies, shops, supermarkets, companies, vendors/hawkers among others



LLINs In-country Manufacturers, Importers and Wholesalers

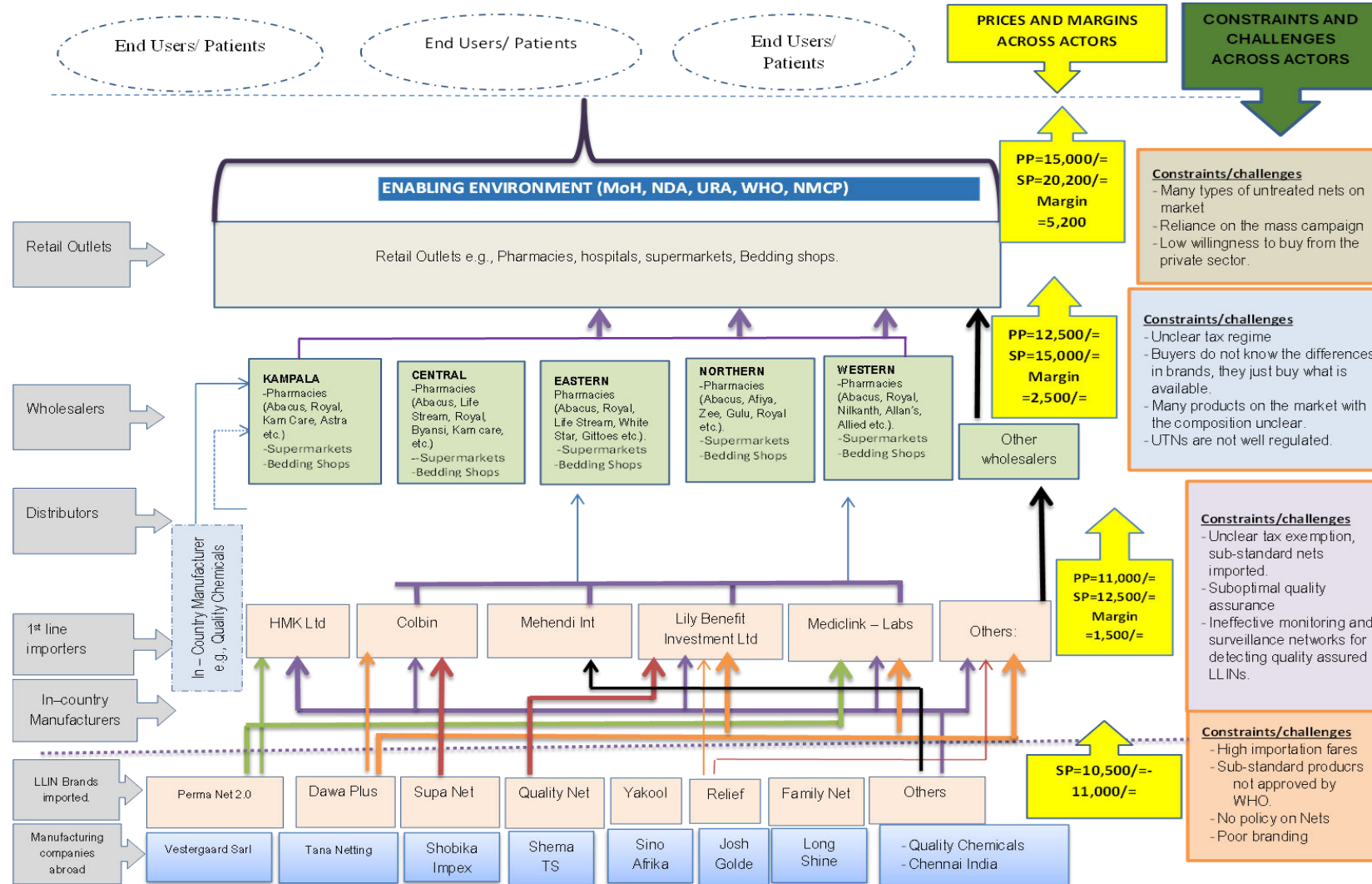
Table 4: Summary Description of key Value Chain in LLIN supply Chain

Sno.	Position of Actor	Function in the chain/ Value added along the chain	Name of Actor(s)	Market
1	In-Country Manufacturer	<ul style="list-style-type: none"> - Import raw materials and manufacturer LLINs of different sizes, shape/design and colour. - Sales to direct to retailers (supermarkets) and implementing partners. 	<ul style="list-style-type: none"> - Blue Line Co. Limited - Shema T.S Uganda Limited - Josh Golden General Supplies 	<ul style="list-style-type: none"> - From VCA data obtained, in LLINs manufactured in country account for less than 5% of the total mosquito/bed made available on the market.
2	1 st - line importers	<ul style="list-style-type: none"> - Import both LLINs and Untreated Nets (UTN) which they distribute to wholesalers and retailers in appropriate quantities. - Engage social marketing strategies as a way of moving stocks and taking services closer to the people in peri urban and rural areas. - Majorly, they bring in UTNs and less quantities of LLINs. 	<p>Leading importers of LLINs were:</p> <ul style="list-style-type: none"> - Quality Chemicals - SINO Africa Medical Services - Vesta Guard Saril. - Long Shine Suppliers SMC Ltd. <p>Other importers, importing both LLINs & UTNs:</p> <ul style="list-style-type: none"> - Amazing Traders - Hong Ren Internationals - Lily benefits Investments Limited. - Colbin Company Limited - HMK Mayende Limited - Chewusi Company Limited. - Mehandi International Limited - Shinelong Uganda. - Daju Limited 	<ul style="list-style-type: none"> - In the last two years, over 9 million were imported by private sector actors (excluding those imported by Ministry of Health and Implementing Partners - IP). - Of the LLINs imported by private actors, China, Vietnam, Dubai, and India account for over 70%. - Three LLIN brands were common among importers include Perma 2.0, Family Saver Net and Dawa Plus 2.0. - Imported LLINs came in various sizes ranging from 3x6, 4x6, 5x6 to 6x6. - Majority of the LLINs were white in colour and of both oval and rectangular shapes. - In addition, there were other importers bringing in the country UTN. - UTNs also were available in different colours and sizes (ranging from a baby coat to 9x9). - Common brands among UTN included Vital, Comfort and Shinelong. - Major actors in UTN market niche were Nyoma Trading Company and Daju Beddings Limited accounting for over 78% of UTNs imported in the country.

LLINs In-country Manufacturers, Importers and Wholesalers

Sno.	Position of Actor	Function in the chain/ Value added along the chain	Name of Actor(s)	Market
3	Wholesalers	<ul style="list-style-type: none"> - Importers of LLINs and UTNs also doubled as wholesalers. - Distributed LLINs through retail outlets more especially Supermarkets. 	<ul style="list-style-type: none"> - Quality Chemicals - SINO Africa Medical Services - Amazing Traders - Hong Ren Internationals - Lily benefits Investments Limited. - Colbin Company Limited - HMK Mayende Limited - Chewusi Company Limited. - Mehandi International Limited 	<ul style="list-style-type: none"> - The LLIN & UTN wholesalers are in Kampala and Wakiso none was found in the districts visited during this study.

Mapping of LLINs value chain





Governing Guidance - IRS

Existing policies

- WHO Global Malaria Programme (GMP) as a Global Technical Strategy for Malaria (2016-2030)
- WHO Guidelines for Malaria (2021) updated in June 2022
- Current policy frameworks apply to both public and private sector; not user friendly and not tailored to the needs of the private sector.
- The licensing processes for spray operating companies- the licensing is currently authorized by the Ministry of Gender and Labor where they are given a certificate of incorporation, requirements include the company resolutions and the constitution governing your company. Annual license renewal is given at the subcounty.

Identified Policy Gaps

- The multi sectoral nature poses limited knowledge of the recommended quality IRS insecticides, where to access them. There is limited access to quality spray chemicals, yet the demand is high.
- The same insecticides used for pest control are used for mosquito vector control.
- There is no Public Health Pesticides Board to register PH Pesticides
- Limited implementation of the available policies in the private sector





Regulations - IRS

Existing policies on IRS chemicals

- Current policies; 2021-2025 Malaria Reduction Strategic Plan for Uganda; Uganda National Malaria Control Policy MoH (2014). Uganda Malaria Reduction Strategic Plan (UMRSP) 2014-2020

Identified Gaps

- Limited surveillance in private sector to inform IRS activities
- No policy for price regulation
- Lack of Public Health Pesticides Act
- Limited tracking and monitoring of the companies registered by URSB to undertake fumigation.
- NDA is currently not registering public health pesticides
- Lack of Public Health Pesticides Board to register imported PH Pesticides – limits importation
- Pesticides and equipment are not tax exempted but zero rated making them very expensive
- At regional level, Fumigators in private practice have no or limited connection with Local Government.
- There is no effective monitoring and supervision system – utilised VCOs at district
- Lack of clear strategies to inform capacity building
- KCCA has not initiated licencing of fumigation companies due to limited budget



IRS In-country Manufacturers, Importers and Wholesalers

Table 5: Summary Description of key Value Chain in the IRS supply Chain

Sno.	Position of Actor	Function in the chain/ Value added along the chain	Name of Actor(s)	Market
1	In-Country Manufacturer	<ul style="list-style-type: none"> - From data obtained during VCA study, there was no presence of in country manufacturer of IRS. 	<ul style="list-style-type: none"> - No actor interviewed. 	<ul style="list-style-type: none"> - No data obtained.
2	1 st line importers	<ul style="list-style-type: none"> - Import IRS in bulk and distribute to wholesalers, retailers and in some instances to final consumers. - Import chemicals and repackage in small quantities. 	Major importers include: <ul style="list-style-type: none"> - Quality Chemicals - Bukoola Chemical Industries - Nsanja Agro Chemical Industries - Trust Chemicals 	<ul style="list-style-type: none"> - All IRS chemicals found on the market were imported from Europe and Asia. - India tops the list followed by China, Germany, and Switzerland. - Most common IRS chemicals on market were, Fludora Fusion, Tagros Revival 100cs, Tagro D Fence, Dudu Cyper 5%, Incon 10 WP Insecticide. - In addition to the above there were insecticides commonly used in homes such as Kill it, and Doom.
3	Wholesalers	<ul style="list-style-type: none"> - 1st line importers also doubled as wholesalers. - They were selling in varying quantities to retailers and consumers from their own outlets. 	Major wholesalers. <ul style="list-style-type: none"> - Quality Chemicals - Bukoola Chemical Industries - Nsanja Agro Chemical Industries - Trust Chemicals 	<ul style="list-style-type: none"> - The market is dominated by 1st line importers. - No clear cut on chemicals meant for IRS and those for agricultural purposes. - Information from importers interviewed, shows container village traders as other major players in IRS chemical market.



Supply Chain System Ct'd

- **IRS chemicals and equipment**

IRS chemicals on the market	Average Retail Price	Min	Max
IRS Chemicals	32,517	1,000	192,500
Spray Equipment	96,789	4,000	750,000

Various brands on the Market:

- Fast moving; Solo, followed by Lava, Ramida, Dudu Cypher, DD force, Cyper lacer and Supa Dichlorvos
- Banned products exist on the market - re-branded and re-packaged and re-shelved – Container village
- Quality Chemicals, Bukoola Chemical Industries, Nsanja Agro-Chemical Industries and Osho Chemicals, Nkooba Fumigators Association and Trust Chemicals

Key Challenges identified:

- Mostly imported and re-packaged
- Limited number of chemicals recommended for IRS solutions
- More service providers at National than sub national
- Cleaning and Agro chemical companies also offer fumigation services, yet with limited skills to deliver
- Limited licencing / registration of sprayers
- Fumigation companies are not known, and their service are not affordable, yet demand exist mostly at central





Supply Chain System

- Quantities imported and financial value in the last 3 years

Sum of Quantity Imported	Year			
Brand category	2020	2021	2022	Grand Total
Mosquito Nets	2,081,982	2,654,440	1,931,541	6,667,963
IRS Chemicals	62,770	1,027	2,695	66,492
Grand Total	2,144,752	2,655,467	1,934,236	6,734,455
Sum of Financial Value	Year			
Brand Category	2020	2021	2022	Grand Total
Mosquito Nets	23,413,113,556	29,901,406,791	26,083,254,939	79,397,775,286
IRS Chemicals	251,027,337	2,320,524	4,613,821	257,961,682
Grand Total	23,664,140,893	29,903,727,315	26,087,868,760	79,655,736,968

Data Source: URA data





Conclusion

- Private sector is a critical stakeholder in the supply chain but has not been adequately integrated in existing policy framework
- There is need for favourable public private partnership coupled with adequate private sector engagement across all value players, to achieve a malaria free Uganda.
- In addition, although VC policies exist, there is still limited implementation, monitoring, supervision and quality control for the various conduct of the private sector regarding vector control. Various products exist on the market that do not meet the quality standards.
- There is need to review the Malaria Private Sector Vector Control Strategy to suite the current private sector context and ensure its implementation, monitoring and Evaluation.





Recommendations

Improving the policy environment in the private sector:

- Review, analyse, cost, implement and monitor the private sector strategy, to recognise the private sector as a major stakeholder in the UMRSP implementation
- Policy alignment to ensure regulation and prevent resistance
- Create awareness of the available and new government policies
- Re-define the roles and responsibilities across synergies and key stakeholders
- Develop and implement strict guidelines to regulate the conduct of container village, fumigators and cleaning companies offering spray services





Recommendations

Promoting demand, access, and utilisation of VC products in the supply chain include:

- Streamlining supply chain of vector control interventions
- Create awareness to increase access and uptake of the recommended vector control interventions made available through the private sector
- Promote districts' support in forming and gathering private sector sprayers into associations to ease future partnerships and collaborations
- Conduct further study to understand why the increased consumer demand for untreated mosquito nets and limited investment in treated mosquito nets by private sector supply chain players
- Conduct a comprehensive private sector commodity value chain analysis and maintain an updated database of the products on the market





Recommendations

The technical and capacity building recommendations include:

- MoH to engage, train, orient, retrain and build capacity of the private sector players on a bi-annual basis especially those offering spray/fumigation services in the language they appreciate
- MoH NMCD to realign and/or develop private sector training materials since the available materials were designed for application in the public sector
- Conduct a need assessment
- Create a private sector coordination mechanism at National and sub-national level



