MARKET INTELLIGENCE REPORT – MALAWI

FEBRUARY 2025

make medicines affordable
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COMMUNITY HEALTHY RIGHTS ADVOCACY

KELIN
Reclaiming Rights, Rebuilding Lives

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Abbreviations

3TC:	Lamivudine
ABC:	Abacavir
ART:	Anti-Retroviral Therapy
ARVs:	Anti-Retroviral Drugs
AZT:	Zidovudine
CaCx:	Cervical Cancer
CMST:	Central Medical Stores Trust
DTG:	Dolutegravir
DHA:	Directorate of HIV, STI, and Viral Hepatitis
EFV:	Efavirenz
Hep C:	Hepatitis C
IP:	Intellectual Property
LMICs:	Low- and Middle-Income Countries
MoH:	Ministry of Health
MRA:	Malawi Revenue Authority
MSF:	Médecins Sans Frontières
NTLEP:	National Tuberculosis Leprosy Elimination Programme
NVP:	Niverapine
PEPFAR:	U.S. President's Emergency Plan for AIDS Relief
PMRA:	Pharmacy and Medicines Regulatory Authority
RH:	Rifampicin and soniazid
RHZE:	Rifampicin, Isoniazid, Pyrazinamide and Ethambutol
TB:	Tuberculosis
TDF:	Tenofovir Disoproxil Fumarate
TRIPS:	Trade Related Aspects of Intellectual Property Rights
UNDP:	United Nations Development Programme
UNITAID:	United Nations International Drug Purchase Facility

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Every effort has been made to verify the accuracy of the information contained in this report. All information was believed to be correct as of December 2024. Nevertheless, KELIN cannot accept responsibility for the consequences of its use for other purposes or in other contexts.

Disclaimer

The findings and recommendations in this report do not necessarily represent the views of the organizations involved or their respective management teams

EXECUTIVE SUMMARY

Introduction: In order to increase equitable access to affordable and appropriately formulated medicines, biologics, vaccines, and diagnostics for people in LMICs, there is a need to strengthen procurement processes. This assessment aimed to identify priority commodities for TB, HIV, Cervical Cancer and STIs in Malawi, by reviewing the procurement processes, quantities, and costs of health products in the context of Malawi's health system, to offer a critical analysis of the key commodities that should be prioritized for advocacy and resource allocation.

Methodology: This was a quantitative desk-based review. A purposive sampling technique targeted key government institution involved in importing and regulating TB, HIV, Hepatitis C and Cervical Cancer commodities in Malawi. Data was collected through reviews of procurement records, followed by rigorous cleaning and validation. A priority scoring system was applied, with results visually represented using a bubble chart to aid in decision-making and identify high-priority commodities for intervention.

Findings: The study collected data on health commodities for TB and HIV, revealing procurement patterns and funding mechanisms for 2023. Key findings include heavy reliance on international donors like the Global Fund, PEPFAR, and the World Bank, with minimal government funding. Procurement is streamlined through independent agencies and health commodities are exempted from import charges, enhancing the supply chain. For TB, Rifampicin/Isoniazid was the most imported product, while GeneXpert Cartridges emerged as the most expensive. For HIV, the combination drug TDF/3TC/DTG was the most imported and costly, underscoring its central role in HIV treatment. Assessment challenges included delays in accessing data, incomplete datasets, and data inconsistencies across institutions. Identified advocacy priorities include optimizing data systems through centralized platforms and standardized templates, reducing costs through local manufacturing and pooled procurement strategies, and expanding the Essential Drug List (EDL) with evidence-based additions. These efforts aim to enhance sustainable, equitable access to essential medicines in Malawi.

Conclusion: This study underscores the critical role of international donors in Malawi's health commodity supply for TB and HIV, highlighting the need for sustainable financing strategies. Furthermore, while streamlined procurement and import tax exemptions have supported supply chains, persistent challenges in data systems limit planning and accountability. These call for transformative actions, including modernizing data systems, investing in local manufacturing, and revising the Essential Drug List to align with emerging needs. These measures offer a roadmap to a more resilient and equitable health system, ensuring long-term access to life-saving medicines.

1.0 BACKGROUND

Efficient procurement of health commodities is a cornerstone of equitable healthcare delivery, particularly in low- and middle-income countries (LMICs) like Malawi. In Malawi, where the health system heavily relies on international funding and imports, the effective procurement of essential medicines and diagnostics is vital for addressing the country's public health priorities. Diseases such as tuberculosis (TB), HIV, cervical cancer, and hepatitis C impose significant health and economic burdens, necessitating robust procurement systems that cater to national and community-level needs.

Market intelligence analysis provides actionable insights into the procurement ecosystem by gathering, analyzing, and interpreting data on the procurement landscape to identify trends, prioritize resources, and enhance decision-making. The effective application of market intelligence analysis plays a pivotal role in optimizing procurement processes, ensuring that critical health commodities are available, accessible, and affordable. This helps policymakers and stakeholders identify high-impact commodities that should be prioritized based on their cost-effectiveness, procurement frequency, and alignment with national health strategies. Furthermore, this analytical approach enables stakeholders to negotiate better pricing, streamline procurement channels, and advocate for resource allocation toward high-priority products.

Malawi's procurement system for diseases such as tuberculosis (TB), HIV, cervical cancer, and hepatitis C has seen significant support from international donors, including the Global Fund, PEPFAR, and the World Bank. However, systemic challenges undermine procurement efficiency and sustainability, highlighting the need for comprehensive market intelligence to inform decision-making and ensure the availability of life-saving health commodities.

To optimize the procurement of essential medicines in Malawi, therefore, a market intelligence analysis is critical. By providing a detailed understanding of the market dynamics, such an analysis enhances decision-making, ensuring cost-effective procurement and prioritization of high-impact products.

2.0 OBJECTIVES

The main objective of this assessment was to analyze the procurement of treatment products for HIV, TB, Cervical Cancer and Hepatitis to inform advocacy for in Malawi. Specific objectives included:

- To evaluate quantities and costs of treatment products for HIV, TB, Cervical Cancer and Hepatitis in 2023 in Malawi.
- To estimate quantities and costs of treatment products for HIV, TB, Cervical Cancer and Hepatitis for 2024 in Malawi.
- To understand procurement processes for HIV, TB, Cervical Cancer and Hepatitis in Malawi, including main actors and regulations.
- To identify key gaps and challenges in the procurement process to inform targeted advocacy for optimal procurement processes in Malawi.

3.0 METHODOLOGY

Study Design

This study utilized a rigorous desk-based quantitative review to identify and prioritize essential health commodities for Tuberculosis (TB), HIV, Hepatitis C, and cervical cancer (CaCx) in Malawi.

Sampling Strategy

A purposive sampling technique was employed to target specific stakeholders and data repositories critical for the analysis. This approach ensured that the study captured a comprehensive and representative dataset reflecting the national procurement landscape. Key government institutions collectively provided a holistic view of government health commodity imports and their financial implications for 2023, which included:

- National Tuberculosis Leprosy Elimination Programme (NTLEP): Provided insights into TB commodity needs and utilization patterns.
- Directorate of HIV, STI, and Viral Hepatitis (DHA): Provided insights into HIV, Cervical Cancer and Hepatitis C commodity needs and utilization patterns.
- Malawi Revenue Authority (MRA): Contributed importation data, highlighting the scope of international procurement.
- Central Medical Stores Trust (CMST): Offered detailed records on commodity distribution and stock management.

Data Collection

Data were collected through systematic reviews of institutional reports, procurement records, and import documentation. An extraction form was developed to standardize data collection. The form underwent iterative testing and refinement to ensure it captured all relevant variables, including commodity type, quantity, and cost.

Data Cleaning and Validation

To ensure the accuracy and reliability of the dataset, two investigators independently reviewed and cleaned the data. This process included cross-checking entries for inconsistencies and resolving discrepancies through consensus. The dual-investigator approach minimized errors and strengthened the integrity of the data.

Following data analysis, a validation workshop was held with various key stakeholders from the NTLEP, DHA, CMST, Pharmacy, Medicines and Regulatory Authority (PMRA), media and civil society. This workshop was aimed at discussing the findings of the assessment and fill any gaps that may have not been filled during the desk review.

Data Analysis

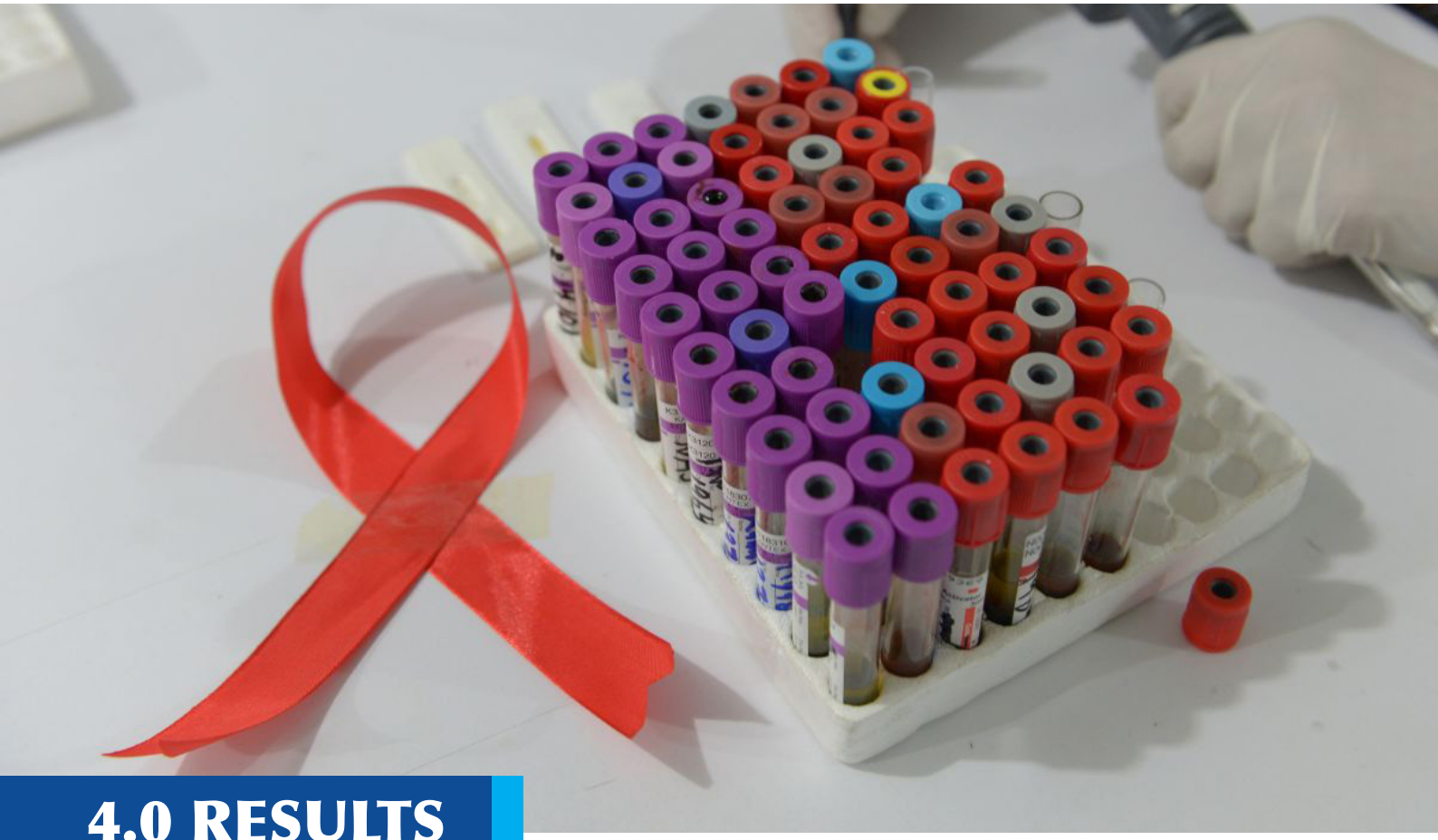
The analysis focused on summarizing the data using tabular formats and applying a priority scoring system. The scoring system was calculated by multiplying the quantities of commodities by their respective costs, providing a weighted ranking of the analysed products.

To enhance interpretability, the results were visually represented using a bubble chart. This chart illustrated the relative importance of each commodity by mapping their weighted scores against key financial and procurement indicators. The visual approach facilitated the identification of high-priority commodities, enabling policymakers to make informed decisions.

Ethical Considerations

Following requirements by some institutions, the study secured a waiver from the National Health Sciences Research Ethics Committee (NHSRC) and obtained formal approval from the Ministry of Health. These measures ensured adherence to ethical research practices, particularly regarding the confidentiality and responsible use of institutional data.

In addition to institutional approvals, the research team adhered to strict data protection protocols, safeguarding sensitive information throughout the study. This commitment to ethical integrity ensured the trust and cooperation of participating stakeholders while facilitating timely access to essential data.



4.0 RESULTS

Data Collection Outcomes

The study successfully collected data on health commodities for Tuberculosis (TB) and HIV. These datasets provided critical insights into the procurement patterns and financial implications for these two priority areas. However, data collection efforts were limited for Hepatitis C (Hep C) and Cervical Cancer (CaCx). The DHA indicated that no imports or recorded procurement of Hep C or CaCx drugs were made in 2023. This suggests either low prioritization of these conditions within the procurement framework or alternative supply mechanisms that were not captured by the study.

Procurement of TB And HIV Commodities

The supply of TB and HIV commodities is driven by major international pharmaceutical companies such as Novartis, Catalent, Sandoz, Macleods Pharmaceuticals Ltd, Otsuka Pharmaceutical Co., Abbott Rapid Dx International Ltd, Micro Labs Ltd, Lupin, Mylan, and Viatris. Funding for these commodities predominantly comes from international donors, including the Global Fund for TB and HIV commodities, the World Bank for TB commodities, and PEPFAR for HIV commodities, with minimal contributions from the government. Donors often engage independent procurement agencies to streamline the acquisition process, while the exemption from import charges facilitates the smooth importation of essential medicines, further strengthening the supply chain.

The Global Fund plays a pivotal role in the procurement of TB commodities through funding mechanisms such as the New Funding Model 3 and the COVID-19 Response Mechanism. These initiatives ensure the availability of critical supplies for the prevention, diagnosis, and treatment of diseases. Complementing these efforts, the World Bank has significantly contributed by procuring critical equipment, including Mobile Diagnostic Units (MDUs), and funding the construction of MDU isolation wards. These investments have bolstered health infrastructure, enhanced emergency response capabilities, and ensured the uninterrupted delivery of essential health services, including during the COVID-19 pandemic.

TB

Data for TB was analyzed from the repossitories of the NTLEP, CMST, and MRA. A total of 34 TB commodities were analyzed, revealing a landscape dominated by essential combination drugs and diagnostic tools.

Overview of TB Commodities

Table 1 below summarizes the findings of TB commodities that were assessed.

Table 1. *Overview of TB Commodities*

Number of Commodities Analyzed	34
Most Imported Commodity	Rifampicin 150mg / Isoniazid 75mg (5,082,569 Tablets)
Least Imported Commodity	Phenol crystals, solid 99% 500g (150 Bottles)
Highest Costed Commodity (Total)	GeneXpert Cartridge MTB/RIF, Ultra CE (USD 1,382, 230)
Lowest Costed Commodity (Total)	Rifapentine (USD 178)
Highest Weighted Commodity	RH 150/75

Importation Quantities for TB Commodities

The first level of analysis for TB commodities was on quantities imported in 2023. A simple ranking was conducted to determine the most imported to the least imported commodity.

Table 2 below shows Import Quantities for top 10 TB commodities by the Malawi government in 2023.

Table 2. *Importation Quantities for TB Commodities*

Rank	Commodity	Quantity
1	RH 150/75	5,082,569[1]
2	RHZE 150/75/400/275	4,620,000
3	Sputum Container With Screcap 80ml 100 Bx	878,000
4	Isoniazid 100 Mg	625,746
5	Pyridoxine Hci 50mg (Vitamin B6)	405,100
6	Rifampicin 75mg+INH 50mg Dispersible	389,844
7	Ethambutol 100mg Tablets	332,700
8	Rifampicin 75mg+INH 50mg+Pyrazinamide	158,172
9	Genexpert Cartridge MTB/Rif, Ultra CE	138,500
10	Levofloxacin 250mg	108,300

[1]Red means extrapolated quantity

Rifampicin 150mg/Isoniazid 75mg emerged as the most imported product with 5,082,569 tablets, underscoring its foundational role in TB treatment. On the other hand, Phenol crystals, solid 99% 500g recorded the lowest import volume at just 150 bottles.

Importation Costs for TB Commodities

Following quantitative ranking, we conducted a cost-minimization analysis, where commodities were ranked according to how much they costed on importation. The results of this are partly illustrated in table 3 below.

Table 3. *Importation Costs for TB Commodities*

Weight	Commodity	Unit Cost (USD)[2]	Cost (USD)
1	Genexpert Cartridge MTB/Rif, Ultra Ce	42.25	1,382,230.00
2	Isoniazid/Rifapentine 300/300	12.03	399,368.89
3	Genexpert Cartridge MTB-Xdr	19.80	316,800.00
4	RH 150/75	17.97	262,372.51
5	RHZE 150/75/400/275	3.58	238,493.75
6	Determine TB Lam, Tests	47.16	190,140.75
7	Levofloxacin 100mg	3.21	152,521.74
8	Clofazimine 100mg Tablets	0.41	134,751.00
9	Cycloserine 125mg Tablets	21.75	116,904.77
10	Pretomanid 200mg	5.29	84,711.61

From a financial perspective, GeneXpert Cartridge MTB/RIF, Ultra CE claimed the highest expenditure, with a total cost of USD 1,382,230. This reflects the heavy reliance on advanced diagnostic tools for TB detection and treatment monitoring. Conversely, Rifapentine, at USD 178, represented the least financial burden for the government among all the TB commodities.

Weighting TB Commodities

In order to rank commodities by considering both quantity and cost, a factor of multiplication was used, in which the total cost of each commodity was multiplied by the total quantity. Weighting quantity and cost of the analysed commodities illustrated a complex procurement dynamic, as shown in table 4 below.

[2]Commodities showed inconsistent unit costs depending on time of procurement, supplier and institution providing data, while some products lacked explicitly recorded unit costs. This required extrapolation from total costs and quantities.

Table 4. *Weighted Ranking for TB Commodities*

Rank	Commodity	Weighted Score (Quantity X Cost)
1	RH 150/75	1,333,526,447,116.94
2	RHZE 150/75/400/275	1,101,841,125,000.00
3	Genexpert Cartridge MTB/Rif, Ultra CE	191,438,855,000.00
4	Sputum Container With Screwcap 80ml 100 Bx	64,368,814,000.00
5	Isoniazid 100 Mg	35,044,487,357.43
6	Ethambutol 100mg Tablets	22,193,202,645.00
7	Isoniazid/Rifapentine 300/300	18,877,368,692.52
8	Determine TB Lam, Tests	9,031,685,625.00
9	Rifampicin 75mg+INH 50mg Dispersible	8,594,013,519.00
10	Genexpert Cartridge MTB-XDR	5,068,800,000.00

RH 150/75 topped the Weighed list with an astronomical score of 1,333 trillion, followed closely by RHZE 150/75/400/275 at 1,102 trillion. These scores highlight their indispensable role in the national TB treatment strategy. The lowest priority score, however, was Ethambutol 400mg, at only 1,118,208.00.

The Bubble Chart: A Visual Balance of Cost and Quantity

The bubble chart employed in this study provides a multidimensional view of the priority health commodities by integrating three critical parameters: cost, quantity, and the resulting weighted score. The position of each bubble on the plane represents the relationship between the quantity imported (x-axis) and the total cost (y-axis) for each commodity. Commodities in the right upper quadrant are both heavily used and financially significant, making them strategic priorities for procurement and cost-reduction efforts. Lower right quadrant commodities, however, are frequently used commodities that are affordable, indicating operational significance but less financial strain. Upper left quadrant commodities are niche but costly, often including specialized items such as diagnostic tools or treatments for complex cases. Lastly, lower left commodities are low-priority commodities, both due to limited use and minimal financial impact.

Further to the position of a commodity, the size of a bubble corresponds to the weighed score – a composite measure derived by multiplying the total imported quantity by its cost. This metric offers a deeper understanding of the commodity's significance in both financial and logistical terms. The dual analysis of the position and size of a bubble, therefore, helps stakeholders understand the dual dimensions of scale of usage and financial investment, guiding decisions about which commodities require advocacy for cost reduction, improved accessibility, or enhanced procurement efficiency.

Figure 1 below is a buble chart for TB commodities imported in 2023 by the Malawi government. The chart offers a comprehensive visual representation of the interplay between cost and quantity.

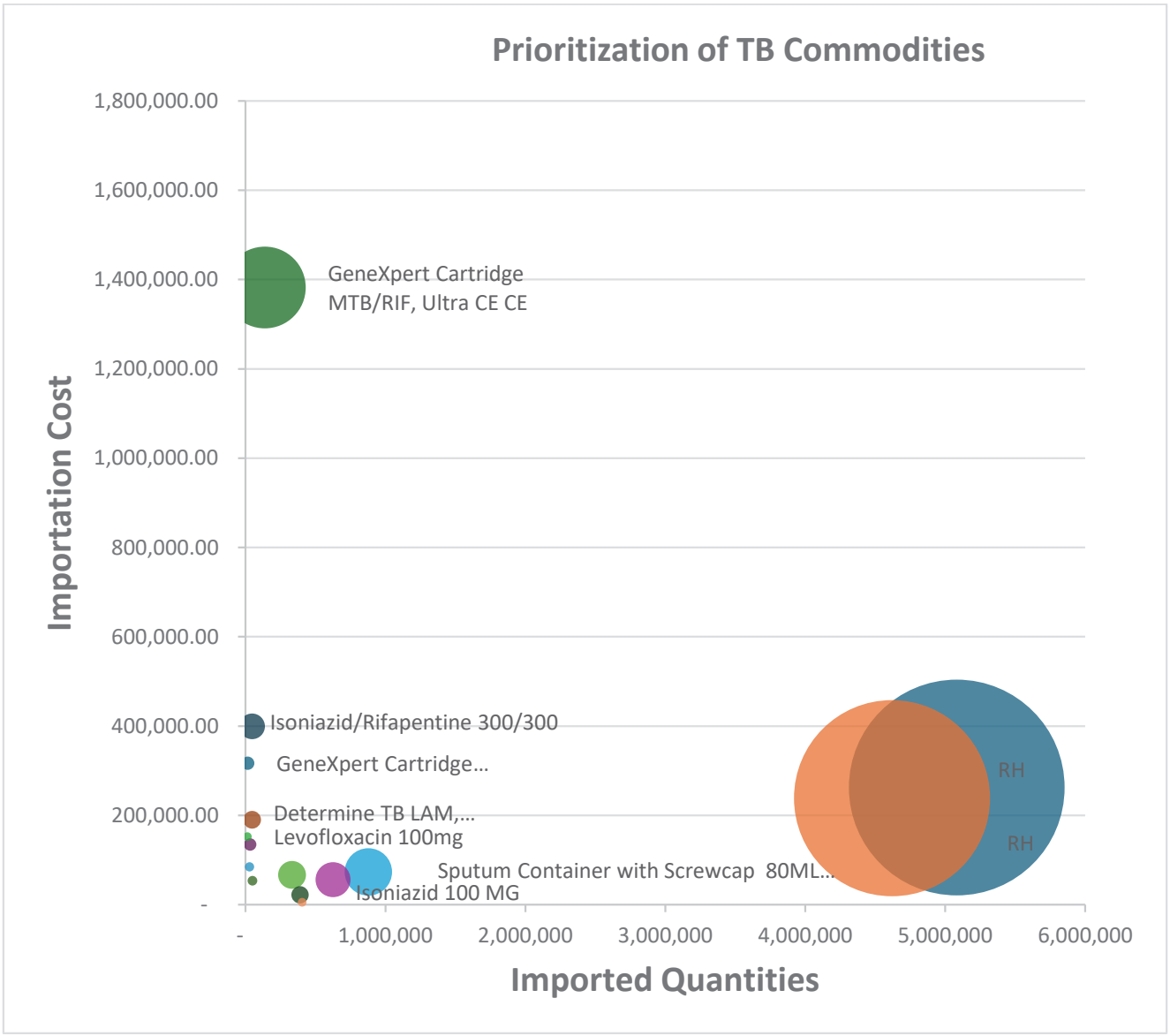


Figure 1. *Bubble Chart for TB Commodities*

RH 150/75

As the most imported TB drug (5,082,569 units) with a weighted score exceeding 1.3 trillion, RH 150/75 is essential for first-line TB treatment. Its high volume reflects widespread usage, making it a cornerstone of Malawi's TB control strategy. Even though the regimen costs significantly lower than GeneXpert Cartridge MTB/RIF, Ultra CE, the dominant weighted score illustrates its significance in TB control in Malawi, making it a top priority among all commodities.

RHZE 150/75/400/275

RHZE 150/75/400/275 combination drug ranks second in weighted score (1.1 trillion), falling slightly below RH 150/75. Its comprehensive formulation is crucial for the intensive phase of TB treatment. The high procurement volume (4,620,000 units) highlights its indispensability, necessitating efforts to lower costs and secure supply chains.

GeneXpert Cartridge MTB/RIF, Ultra CE

The GeneXpert Cartridge MTB/RIF, Ultra CE, despite its relatively small import volume of 138,500 units, ranks third in priority due to its high cost (USD 1.38 million). Its essential role in TB diagnosis and drug resistance monitoring makes it a key focus for cost-reduction advocacy. The significant cost burden highlights the critical nature of diagnostic tools despite their lower volume compared to therapeutic drugs.

HIV

HIV data was only available at the DHA, Hepatitis C and STIs. We analysed a total of 30 commodities, revealing a huge gap between the top priority commodity and the rest of the commodities.

Overview of HIV Commodities

Table 5 below summarizes the findings of HIV commodities that were assessed.

Table 5. *Overview of HIV Commodities*

Number of Commodities Analyzed	30
Most Imported Commodity	Dolutegravir + Lamivudine +Tenofovir Disoproxil fumarate (TDF+3TC+DTG), - 50mg + 300mg+ 300mg (3,943,784 Units)
Least Imported Commodity	Efavirenz 600mg (264 Units)
Highest Costed Commodity (Total)	Dolutegravir + Lamivudine +Tenofovir Disoproxil fumarate (TDF+3TC+DTG), - 50mg + 300mg+ 300mg (USD 35649589.51)
Lowest Costed Commodity (Total)	Efavirenz 600mg (USD 653.92)
Highest Weighted Commodity	Dolutegravir + Lamivudine +Tenofovir Disoproxil Fumarate (TDF+3TC+DTG),

For HIV, out of the 30 commodities scrutinized, Dolutegravir + Lamivudine + Tenofovir Disoproxil Fumarate (TDF+3TC+DTG) dominated in both quantity and cost. This combination drug accounted for 3,943,784 units and a staggering USD 35,649,589 in costs, showcasing its centrality to Malawi's HIV management protocols. Conversely, Efavirenz 600mg ranked lowest in both import quantity (264 units) and total cost (USD 653.92), signaling a shift in therapeutic preference and reduced reliance on older regimens. Tables 4 and 5 below show the ranking of top 15 HIV commodities in terms of quantities and costs.

Importation Quantities for HIV Commodities

The initial analysis for HIV commodities focused on the quantities imported in 2023. A ranking was performed to determine the most to least imported commodities. Table 6 below displays the import quantities for the top 15 HIV commodities by the Malawi government in 2023

Table 6. *Importation Quantities for HIV Commodities*

Rank	Commodity	Quantity
1	Dolutegravir + Lamivudine +Tenofovir Disoproxil Fumarate (TDF+3TC+DTG), - 50mg + 300mg+ 300mg	3,943,784
2	Dolutegravir (DTG) - 50mg	278,218
3	Abacavir + Lamivudine Dispersible Tabs (ABC + 3TC) - 120mg+60mg	208,974
4	Sulfamethoxazole/Trimethoprim (Co-Trimoxazole) - 120mg	114,505
5	Abacavir + Lamivudine (ABC+ 3TC) - 600mg + 300mg	113,847
6	Lamivudine+Zidovudine (3TC+ZDV) - 150mg+300mg	100,149
7	Dolutegravir 10mg	100,003
8	Sulfamethoxazole/Trimethoprim (Co-Trimoxazole) - 800mg +160mg	30,000
9	HIV 1/2 - Determine HIV Combo - 100 Tests	28,945
10	Lamivudine+Nevirapine+Zidovudine Dispersible Tabs (3TC+ZDV+NVP) - 30mg + 50mg + 60mg	26,168

Importation Costs for HIV Commodities

After the quantitative ranking, a cost-minimization analysis was conducted, where commodities were ranked based on their importation costs. The results are partially presented in Table 7 below.

Table 7. *Importation Costs for HIV Commodities*

Rank	Commodity	Unit Cost (USD)	Cost (USD)
1	Dolutegravir + Lamivudine +Tenofovir Disoproxil Fumarate (TDF+3TC+DTG), - 50mg + 300mg+ 300mg	9.04	35649589.51
2	HIV 1/2 - Determine HIV Combo Kit - 100 Tests	80.00	2315600.00
3	HIV 1+2 - Oraquick HIV Self Test - 50 Tests	100.00	1746000.00
4	Determine-Hepatitis B Test Kits	90.00	1080000.00
5	Syphilis Determine Test Kits	90.00	1080000.00
6	Abacavir + Lamivudine (ABC+ 3TC) - 600mg + 300mg	7.69	875483.43
7	Sulfamethoxazole/Trimethoprim (Co-Trimoxazole) - 800mg +160mg	20.90	627000.00
8	Sulfamethoxazole/Trimethoprim (Co-Trimoxazole) - 120mg	5.40	618327.00
9	Abacavir + Lamivudine Dispersible Tabs (ABC + 3TC) - 120mg+60mg	2.95	616473.30
10	Lamivudine+Zidovudine (3TC+ZDV) - 150mg+300mg	5.55	555826.95

Weighing of HIV Commodities

Weighting of HIV commodities showed overwhelming dominance of one commodity, as illustrated in table 8 below.

Table 8. *Weighted Scoring for HIV Commodities*

Rank	Commodity	Weighted score (Quantity X Cost)
1	Dolutegravir + Lamivudine +Tenofovir Disoproxil Fumarate (TDF+3TC+DTG)	140,594,280,716,106.00
2	Abacavir + Lamivudine Dispersible Tabs (ABC + 3TC)	128,826,891,394.20
3	Abacavir + Lamivudine (ABC+ 3TC)	99,671,162,055.21
4	Dolutegravir (DTG)	96,756,569,405.00
5	Sulfamethoxazole/Trimethoprim (Co-Trimoxazole)	70,801,533,135.00
6	HIV 1/2 - Determine HIV Combo Kit	67,025,042,000.00
7	Lamivudine+Zidovudine (3TC+ZDV)	55,665,513,215.55
8	Dolutegravir	42,702,562,038.43
9	HIV 1+2 - Oraquick HIV Self Test	30,485,160,000.00
10	Sulfamethoxazole/Trimethoprim (Co-Trimoxazole)	18,810,000,000.00

The weighted scoring for HIV commodities reveals a significant dominance of Dolutegravir + Lamivudine + Tenofovir Disoproxil Fumarate (TDF/3TC/DTG), which far exceeds the others in terms of weighted score (140,594,280,716,106.00). This indicates that the combination of these three drugs plays a central role in the HIV treatment regimen and has a substantial impact on both quantity and cost. However, this may also highlight a need for careful resource allocation, as the overwhelming dominance of a single commodity could indicate vulnerability in case of supply disruptions or cost escalations. Diversification of priority commodities could help mitigate such risks while ensuring consistent access to critical HIV treatment and diagnostic tools.

Bubble Chart for HIV Commodities

To illustrate weighted scoring of commodities clearer, a bubble chart was plotted, as shown in figure 2 below. The HIV bubble chart provides a distinct perspective on priority commodities in the context of HIV management. Like the TB chart, it maps cost against quantity, offering insights into the financial and operational significance of each product.

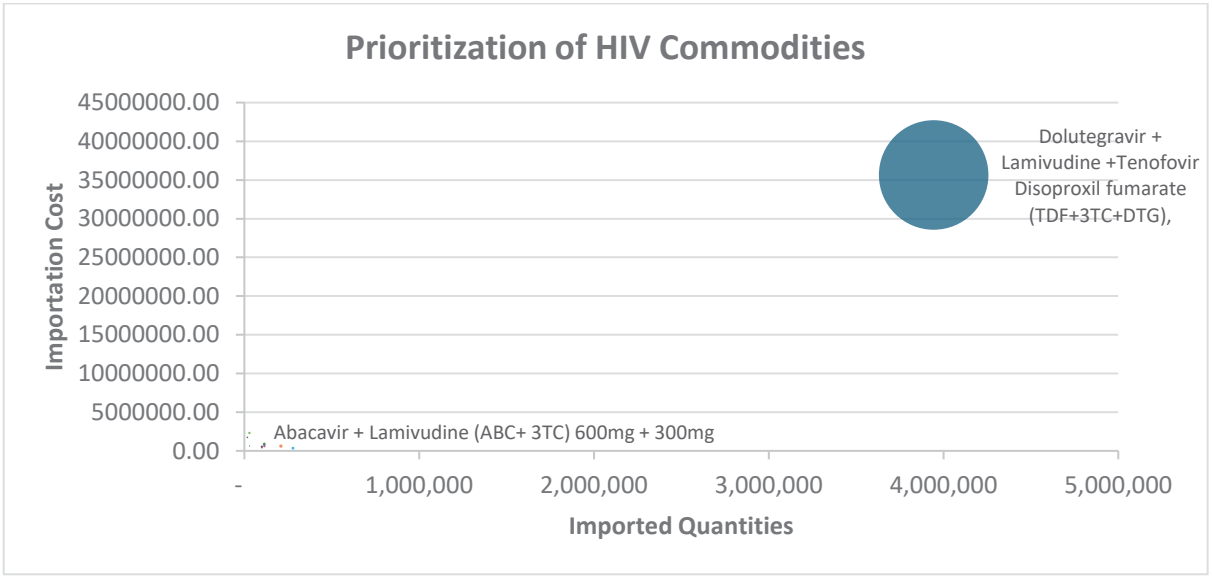


Figure 2. *Bubble Chart for HIV Commodities*

The dominance of TDF/3TC/DTG is clear in the Bubble chart, due to its perfect positioning in the upper right quadrant of the chart, and the size of its bubble. Due to this overwhelming dominance, we enhanced clarity by plotting a second bubble without the regimen, to allow visualization of the other commodities. The second illustration is in figure 3 below.

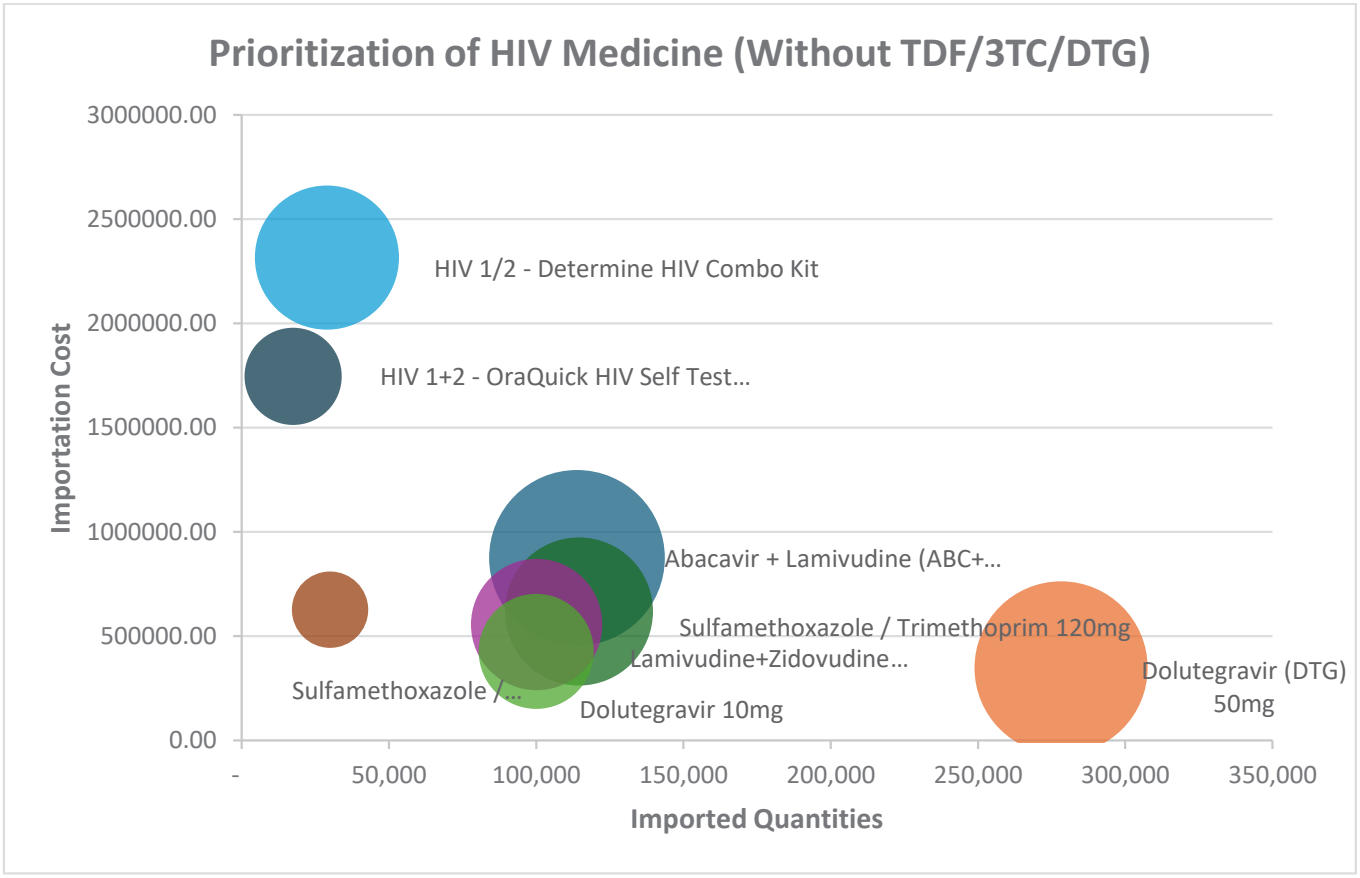


Figure 3. *Standardized Bubble Chart for HIV Commodities*

The position and size of the bubble for Dolutegravir + Lamivudine + Tenofovir Disoproxil Fumarate (TDF+3TC+DTG) stands out, indicating its status as the most widely used and financially significant commodity. With 3,943,784 units imported at a cost of over USD 35 million, it serves as the backbone of Malawi's first-line HIV treatment regimen, and its high weighted score (140 trillion) justifies placing it at the forefront of cost-reduction advocacy initiatives.

A similar observation was made on Dolutegravir, which, in its various formulations, stands out as a cornerstone of Malawi's HIV treatment regimen. The 50mg formulation, a primary component of first-line treatment, and the 10mg dosage, likely tailored for pediatric or special populations, together demonstrate the versatility and widespread reliance on this drug. Their individual weighted scores are substantial, and if treated as a unified entity, their combined weighted score would be over 146 million, far exceeding their individual contributions and making the drug third on the soring. Advocacy efforts, therefore, must focus on securing affordable and sustainable access to Dolutegravir in all its formulations, given its pivotal role in achieving national HIV treatment goals and improving patient outcomes across demographics.

Challenges Encountered

While the study yielded valuable insights, several challenges impeded data collection and analysis:

i. Delayed Access to Data
In some government departments, we experienced delays in accessing data. These bottlenecks hindered timely analysis and data quality checks and limited the scope of the study.

ii. Incomplete Datasets
The study faced significant gaps in data completeness. This was due to some institutions only focusing on one component, like cost, and some failing to fill all the required information for the components they collect data on. Furthermore, we did not get reliable data for Hepatitis C and cervical cancer commodities. These commodities were reportedly not imported in 2023 by the Ministry of Health, even though MRA recorded some imports. The MRA data, however, was incomplete and not well described. These gaps severely limited a comprehensive assessment across all targeted disease areas.

iii. Data Inconsistencies Across Partners
Discrepancies were noted between data provided by different agencies. This required additional cleaning and reconciliation, potentially impacting the reliability of some findings. The main stated reason for the inconsistencies was lag time between ordering and delivery of commodities, where NTLEP and DHA reported data on orders placed in 2023, while MRA and CMST reported data on commodities received in 2023. Due to incompleteness of data, such as the lack of serial numbers, it was hard to determine which commodities from CSMT and MRA corresponded with the commodities reported by DHA and NTLEP.

iv. Absence of Forecast Data
There was a lack of predictive procurement data, which impeded forward-looking analysis. Understanding future demand trends would be essential for strategic advocacy and supply chain planning.

v. Lack of Supplementary Qualitative Insights
Due to time constraints, interviews with key informants could not be conducted. This would have enriched the quantitative findings with contextual insights, such as procurement challenges or policy barriers. Interviews would also have provided an opportunity to fill in missing data and explain discrepancies in data repositories.

5.0 KEY ADVOCACY AREAS

Following the findings of the study and discussions during the validation workshop, the following were identified as key advocacy areas:

i. Data Optimization

Effective advocacy for data optimization involves ensuring that data is not only accurate but also accessible and usable for decision-making. Optimizing supply chain data for pharmaceutical commodities in Malawi, therefore, would require a multi-pronged approach that would include:

- Establishment of a single, centralized data platform accessible to all stakeholders. Such a repository would consolidate real-time data from various sources, improving accessibility, transparency and decision-making efficiency.
- Adoption of standardized templates that would ensure consistency across data collection and reporting practices. This would facilitate easier data comparison and trend analysis.
- Working towards structured, periodic follow-ups through digital tools or designated oversight roles to ensure compliance with reporting timelines and submission completeness.
- Creation of clear, standardized protocols for data access to prevent bureaucratic bottlenecks and ensure timely sharing of critical information. This may include inter-agency agreements that define data ownership, privacy, and sharing terms, fostering trust and collaboration.

ii. Garnering Support for Cost Reduction

Cost reduction strategies should focus on aligning economic realities with healthcare priorities, emphasizing sustainable approaches to lower costs without compromising quality. Some ways to effectively attain cost reduction would include:

- Feasibility studies to identify cost-effective options between local and regional manufacturing of pharmaceuticals and medical supplies. These studies should consider factors such as production costs, economies of scale, quality control, and regulatory requirements.
- Mobilizing stakeholders, including policymakers, local manufacturers, and regional economic blocs, to explore and establish mutually beneficial manufacturing partnerships. Such partnerships would highlight the potential economic benefits of local manufacturing, such as job creation, reduced dependency on imports, and quicker response times in emergencies.
- Promote pooled procurement strategies that enable economies of scale, particularly for high-cost medicines and medical supplies. This would include engaging with corporate

procurement entities to adopt transparent and competitive bidding processes that drive down costs, and encouraging governments to negotiate long-term contracts with suppliers to secure price stability and better terms.

iii. Adoption of Effective Medicines on Essential Drug Lists

Expanding the essential drug list (EDL) to include effective medicines can have a transformative impact on public health outcomes. Advocacy in this area requires evidence-based and collaborative efforts, which include:

- Targeting rigorous clinical and economic evaluations to demonstrate the efficacy, safety, and cost-effectiveness of medicines proposed for inclusion on the EDL
- Partnering with research institutions and healthcare providers to generate local evidence that aligns with the specific health challenges faced by target populations.
- Building coalitions of stakeholders, including healthcare professionals, patient advocacy groups, and policymakers, to lobby for the inclusion of key medicines on the EDL.
- Developing compelling advocacy briefs and presentations that highlight the public health and economic benefits of adopting these medicines.
- Working with donor agencies and development partners to secure funding for initial procurements and pilot programs to demonstrate the impact of new additions to the EDL.

6.0 CONCLUSION

In conclusion, this market intelligence study provides critical insights into the procurement and prioritization of health commodities for TB, HIV, Hepatitis C, and Cervical Cancer in Malawi, highlighting key products that should be prioritized for intervention. The findings underscore the importance of securing cost-effective and sustainable access to essential commodities, particularly RH 150/75, RHZE 150/75/400/275 and Genexpert Cartridge MTB/Rif, Ultra CE for TB, and TDF/3TC/DTG, ABC/3TC and Dolutegravir for HIV. Furthermore, improving data-sharing mechanisms, enhancing procurement efficiency, and addressing data gaps will be instrumental in ensuring that Malawi's health system can more effectively address the treatment needs of these priority diseases. Continued advocacy for cost reduction, improved supply chains, and robust data systems will be pivotal in achieving equitable access to these life-saving health products.

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