



**GLOBAL
HEALTH**
SUPPLY CHAIN SUMMIT

Essential Medicines Kits



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COUNTRY BACKGROUND



- Zambia covers 752,612 Km²
- Surrounded by 8 countries
- Population 18m
- 10 provinces 108 districts
- 67% of population are poor
- 60% of population live in rural areas
- Zambia is a Lower Middle Income Country
- Average annual economic growth 6.2%



HEALTH SERVICE IN ZAMBIA

- 2,274 government health facilities all offer free medical services
- Other service providers are CHAZ (30% of population), NGOs, Private sector (small)
- High burden of disease, with by high prevalence diseases - Malaria, HIV and AIDS, STIs, and TB
- High maternal, neonatal and child morbidities and mortalities.
- Rising burden of non-communicable diseases.
- Inequities in the distribution of wealth and socio-economic infrastructure across the country, which favors the urban areas than rural.

Mission and Principles of the Zambia National Health Strategic Plan

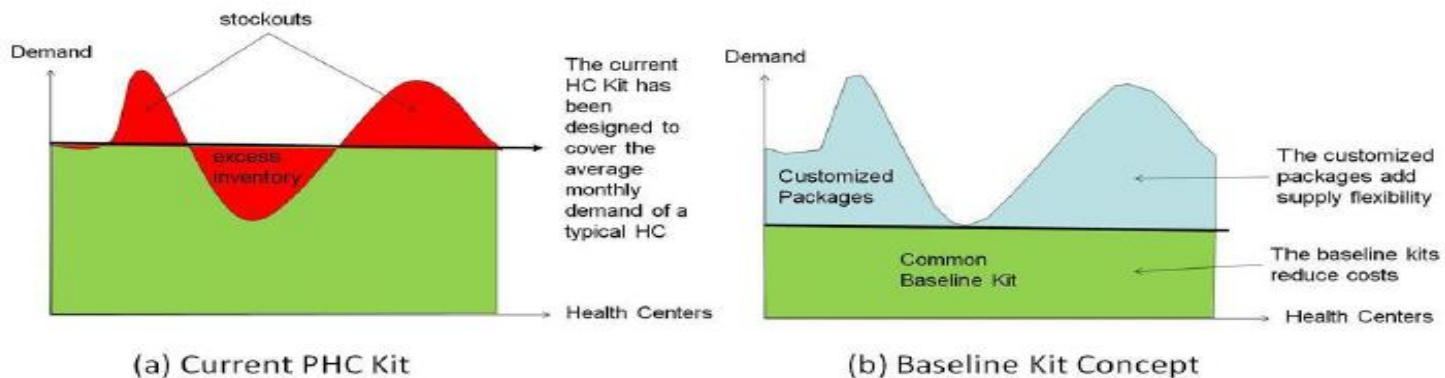


- **Mission Statement** : The main objectives of the health sector is to provide equitable access to cost effective, quality health services as close to the family as possible
- **Key Principles**
- Primary Healthcare approach
- Equity of access
- Affordability and cost- effectiveness.
- Accountability and partnerships
- Decentralization and competent health care environment

Quantifying the kit in Zambia

- The kit content is quantified as the lowest common consumption across health facilities in order to avoid expiries and related problems.
- This method was described as the “Baseline Kit Concept” in a World Bank Policy Note. It concludes that this approach successfully avoids expiries, as well as reduces costs.

Figure 6: The Existing Primary Health Center Kit (a) and the Alternative Baseline Kit Concept (b).



Source: Authors

Selection of Kit Contents

- The kit content is carefully selected from the Zambian Essential Drug list and Zambia National Formulary
- Selection is based on the top ten disease burden excluding HIV/TB/Malaria
- The kit content includes essential drugs and medical supplies
- One kit covers a catchment area of 1,000 patients
- The kit content is selected on the basis that it should provide a basic service by the health provider





Zambia Kit Procurement and Distribution

- The kits are procured by the Ministry Of Health and delivered to the Central Medical Store of Zambia, Medical Stores Limited (MSL).
- MSL is responsible for storage and distribution , sending the kits to the regional hubs.
- The regional hubs are only trans docking the kits, passing them on to smaller vehicles which reach each health facility.
- From the regional stores of MSL, the kits are distributed to the urban health centers, rural health centers and health posts. This distribution is handled by the Ministry Of Health.
- At the moment monthly distribution cycle is used.





Zambia Kit Procurement and Distribution

- The kit itself is one single box with a selection of products (Pharmaceuticals and medical supplies).
- The number of kits to be distributed is regulated depending on the catchment area of the health facility.
- The catchment area for one essential medicines kit should have a population of 1000 people.
- The urban health center with a large catchment population may therefore receive 2 – 4 or more kits depending on the population.
- The rural health center may receive between one and two kits, and the health post may receive one or half a kit.
- There is a thinking of defining a small kit directed only to the health post.



Zambia – System Support from LMIS data

- Zambia has an extensive digital Logistical Management Information System (LMIS), which collects stock and consumption data across all health facilities and hospitals in the country.
- The system is named “Hybrid eLMIS” and is accounting for both what is received via kits and via the supplementary ordering.
- LMIS is managed out of the Central Medical Store “Medical Stores Limited” in Lusaka.
- LMIS gives actual real time knowledge of the supply chain. The data collected from this system is used to supplement the supply arriving via the kits.



Zambia – The cost of securing a basic supply via kits

- The cost of securing the basic supply of essential medicines for the country is approximately 4% of the total value of products going into the country for public health purposes – when cost for HIV, TB, Malaria and Reproductive Health products is included.
- Makes it visible that for a relatively small amount of money compared to the full budget, Zambia has basic security for availability. Also in the country named “The backbone of the health system”



Using data in Zambia

- Knowledge of morbidity and mortality patterns is strongly improved due to investments in Health Management Information Systems. (Today DHIS2 alone is implemented in more than 50 countries.
- eLMIS is implemented in Zambia bringing in detailed data from health facilities and hospitals.
- Issues of control of quality, management of counterfeit drugs and ability to trace products are even more important than 20 years ago.
- The risks of counterfeit products being on the market are higher than before, while regulatory authorities remain challenged in terms of budgets and capacity.
- Essential medicines kits can be adjusted after the data and strengthens tracability and the ability to enforce quality norms.

Factors hindering access to health

- Geographical challenges and poor road infrastructure
- Poor state of transport and communication infrastructure in rural areas
- Shortages and inequitable distribution of health infrastructure and health workers
- In urban areas 99% of house holds are within 5 kilometers of a health facility compared to 50% in rural areas
- Lack of availability of essential drugs and medical supplies





Advantages of the kits in Zambia's scenario

- Simplifies the Supply Chain through the push system
- Simplified procurement process through limited bidding
- Transportation (truck , car ,bicycle, ox cart, canoe)
- Increased accountability
- Reduced wastage (health staff are restricted to approved list derived from the essential drug list
- At primary level **supports** the **referral system** to secondary and tertiary health levels
- Increased accountability



Zambia - Why the kit

- Reduced wastage (staff are restricted to approved list (EDL)
- Selected safe, effective, cost effective drugs
- Promotes Rational Drug **Use** and reduces microbial resistance (AMR/MDR)
- Assurance of kit content quality of products in countries with poor regulatory capacity(absence of national QC laboratory and QA policies)
- Secured funding for the districts with political commitment to satisfy rural commitment
- Assurance to health worker on 68 products will be received according to agreed schedule at once
- The kit covers the top 10 diseases of the country



Disadvantages of the kits in Zambia

- It is not a perfect system
- Less flexibility in the selection of essential medicines for specific health problems in different regions of the country
- Lack of flexibility in the quantities of drugs leading to stock outs or surplus of some product line
- Difficulty in monitoring expired stocks (Mixed expiry dates in one kit)
- Added cost for redistribution of surplus and need for qualified staff to redistribute
- Certain products need skilled labour force (injections in remote)



Lessons learnt Health Centre kits- ZAMBIA

- A kit is the back bone in a finically challenged environment
- Bulk Procurement of kit content gives a dialogue platform for negotiation for reduced prices
- Frame work in place .Buyer may request for specified divided deliveries
- Regular reviews of kit content contents
- Part of strategy in drug budget (budgeted under the districts)
- There are more health centers and health post than hospital which targets the poor and the vulnerable



Country's opportunities

- Opportunities for the country for local pharmaceutical growth if assembled within the country
- Provides employment and supports local pharmaceutical industry growth
- In a limited financial environment the kits have been recommended
- Zambia's project on opening the kits and distributing through the pull system did not work out and thus a hybrid system in place (push the kit and pull from full supply)
- Hybrid system can be further improved by using LMIS data to ongoing adapt kits to needs.