



# Essential Medicines Kits

**Combining with pull mechanisms and using data**

**Concrete example of Zambia**

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# COUNTRY BACKGROUND



- ▶ Zambia covers 752,612 Km<sup>2</sup>
- ▶ 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

- ▶ 2,233 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 .



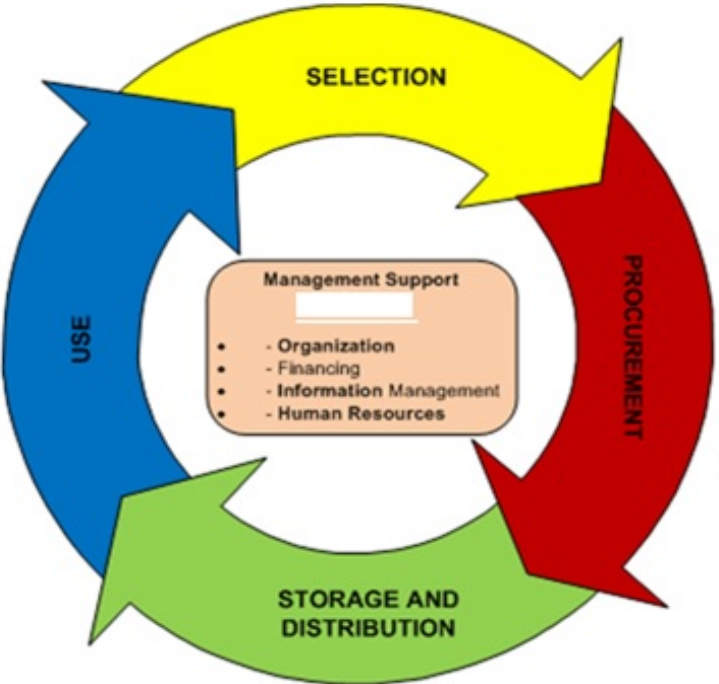
# Mission and Principles of the Zambia National Health Strategic Plan

- ▶ **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



# Supply Chain - Zambia

Zambia National Formulary Committee  
MSL Product Catalogue  
Total: 1,807 Products



10 Provinces, 110 Districts,  
130 Hospitals, 297 Urban  
Health Centers, 1117 Rural  
Health Centers, 579 Health  
Posts  
Total Facilities: 2,233  
STG in place, promotes RDU

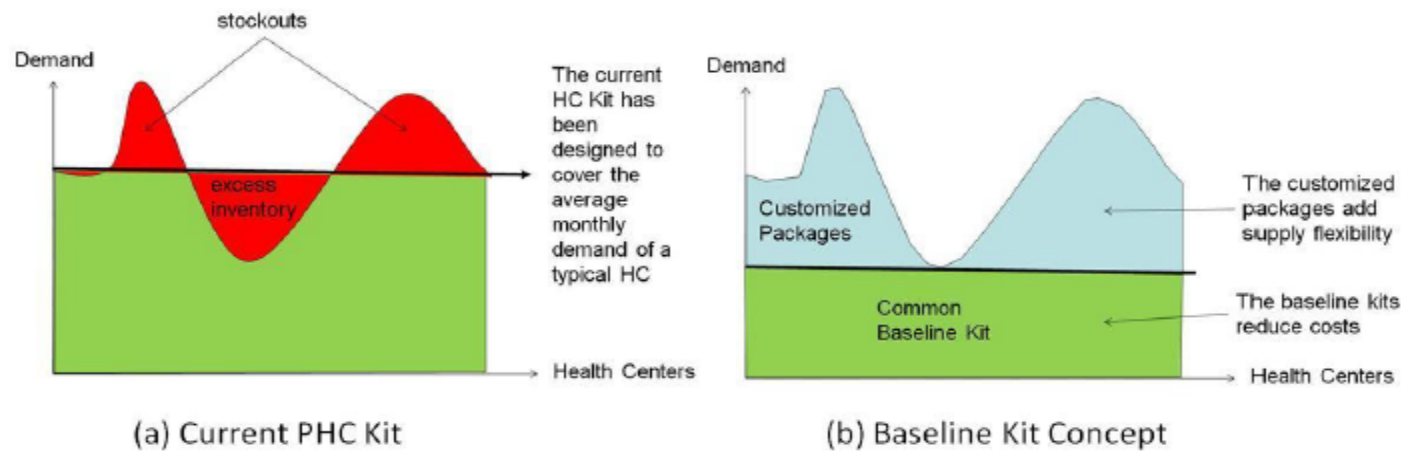
MOH the Major Purchaser  
Other Agencies  
UN Agencies  
PSM & Global Fund  
The Function of  
Procurement to move soon to MSL

Central Medical Stores - MSL  
Primary Distribution - MSL  
Secondary Distribution - Hub  
District Distribution - Last Mile

# 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).





# 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.



# Drugs transportation to the last mile

Crossing rivers without bridges

Canoe transportation



Ox cart transportation







# Challenges in transportation

Swampy road



Broken bridge





# 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 chart, 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)**

**Thank you for listening**

