

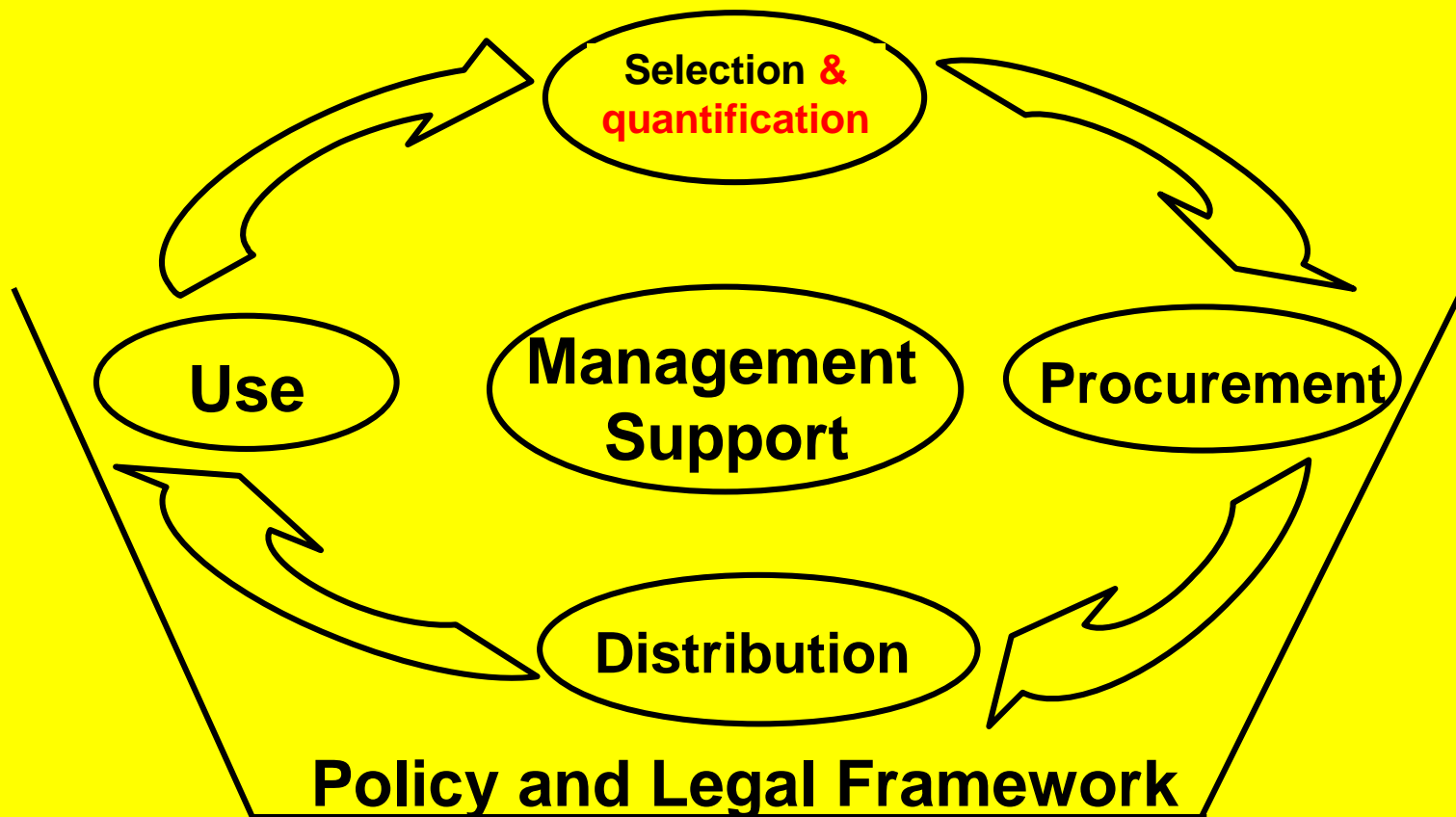
QUANTIFICATION

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Drug Supply Management Cycle

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INTRODUCTION

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- *Drug quantification* is the process of determining the amount of selected drug products required.
- The objective of quantification is to determine the right amount of drug products required.
- Carrying out the **routine activities** of quantification is the responsibility of the pharmacy section of an institution.
 - However, certain activities, such as preparation of standard treatment schedules, budget reconciliation etc, which requires the agreement of other health professionals, need to be done by DTC.

INTRODUCTION.....

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Importance of drug quantification

- To prepare and justify a drug budget.
- To plan for new & expanding program.
- To optimize drug budgets & cost effective treatment approaches.
- To calculate emergent needs for disaster relief & epidemics,
- To resupply an existing supply network that has become depleted of products
- To compare current drug consumption with public health priorities & usage in other health systems.
- To prevent shortage, surpluses, inequity of supplies

INTRODUCTION.....

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Poor quantification problems

- Frequent shortage of drugs
- Excess stock due to overestimation
- Inappropriate and ineffective prescribing
 - ↳ Prescribers shorten course of treatments to stretch the inefficient supply (in extreme cases to the point of ineffectiveness)
 - ↳ Substitute with inappropriate alternative drugs

INTRODUCTION.....

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- ◆ **Factors which requires special consideration in quantification of drugs**
- ◆ Catchments Population of the Health institution
- ◆ Disease prevalence/burden of the community,
Seasonal variation
- ◆ Delivery (Lead time: Time lag b/n placing orders & receiving) – Poor road/Vehicle, Work load of Procurement officers, In availability of needed drugs.
- ◆ Staff involved in this activity.

Methods of quantification

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- There are **four** methods of quantification
 - i. Consumption method
 - ii. Morbidity method
 - iii. Adjusted consumption method
 - iv. Service-Level projection of budget requirements

Methods of quantification.....

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- There is no single method best available
- Each method has its own advantage and disadvantage
- The method used should be chosen according to:
 - ↳ the purpose for which the results are to be used.
 - ↳ actual and potential availability of data.
 - ↳ the organization of the drug supply system

Quantification methods and steps...

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I. Consumption method

- ☞ A list is prepared of all drugs eligible for procurement
- ☞ Uses records of past consumption of individual drugs (adjusted for **stock outs** and **projected changes** in drug utilization)

Consumption method is useful when :

- Historical data on drug consumption exists. (Accurate consumption data are available or easily obtainable)
- Drug supply at facility has been consistent (stock out for not more than **3 months**).
- Stock management is reasonably good.
- There is low level of wastage and loss through expiry, damage and theft.

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Consumption method.....

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Sources of information

- ✦ Stock records and reports from regional or district warehouses
- ✦ Stock records and distribution reports from a central distribution point
- ✦ Suppliers invoice
- ✦ Dispensing records from health facilities

Consumption method.....

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Steps in quantification using consumption method

Step 1. Prepare a List of Drugs to be Quantified

- ☞ Should be sorted into the order that will facilitate data collection.

Step 2. Determine the period of time to be reviewed for consumption

- ☞ simplest and practical one is 12 months-if a full year useful data are available.
- ☞ Ensures the morbidity variations of all seasons.
- ☞ Improves the reliability of the data

Steps....

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Step 3. Enter consumption data for each drug and determine:

- ▣ the total quantity used during the review period in basic units (BUs)
- ▣ the number of days in the review period in which the drug was out of stock
- ▣ the lead time for the last procurement (or Average from last several procurements)

Steps....

Step 4. Calculate the Adjusted average monthly consumption

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□ $C_A = C_T / R_M - (D_{os} / 30.5)$ (preferred). (1)

CA = CT ÷ (Rm – Mos) (alternative)

Where:

C_A = Average monthly consumption, adjusted for stock outs

C_T = Total consumption during the review period, in basic units

R_M = Review period in **month**

D_{os} = Number of days an item was out of stock during the review period

□ Mos = Estimated number of months an item was out of stock during the review period

Steps....

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Step 5. Calculate projected average monthly consumption for expected changes in consumption pattern.

- if use is expected to increase for eg. by 5 percent in the coming year, adjusting the average monthly consumption by 5 percent would be reasonable.

Steps....

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Step 6. Calculate the safety(buffer) stock needed for each drug

□ $SS = C_A \times LT \dots\dots\dots (2)$

Where:

SS = Safety Stock

C_A = Average monthly consumption

LT = Average Lead Time

Steps....

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Step 7. Calculate the quantity of each drug required in the next procurement period.

$$\square Q_0 = C_A \times (LT + PP) + SS - (S_i + S_o) \dots \dots \dots (3)$$

Where:

Q_0 = Quantity to order before adjustment for losses or program change

PP = Procurement period

S_i = Stock now in inventory, in BU

S_o = Stock now on order, in BU

Steps....

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Step 8. Adjust for Losses

Step 9. Compile Decentralized Quantification (if applicable)

Step 10. Estimate Costs for Each Drug and Total Costs

- In order to estimate procurement costs, multiply the quantities estimated for each medicine by the most accurate prediction of the expected next purchase price.

Step 11. Compare Total costs with Budget and Make Adjustments: either obtaining more funds or reduce the No / Qty of drugs using VEN and / or ABC Analysis.

Steps....

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Example:

- In a certain hospital, the total consumption of ampicillin 250 mg capsule for six months review period was 89,000 capsules. The drug was out of stock for thirty four days in the six months period. The utilization of the ampicillin 250 mg capsule is expected to change by 5% in the coming year. Moreover a 10% losses per year is expected, calculate the total purchase quantity. the lead time is three months and the procurement period is 6 months. The hospital has in the store 81,000 ampicillin capsules and has already ordered 58,000 ampicillin capsules. Calculate the quantity of ampicillin to be ordered.

Answer:

- $C_A = C_T / R_M - (D_{os} / 30.5)$
- $CA = 89,000 \div [6 - (34 \div 30.5)] = 89,000 \div 4.8852 = 18,218.$
- $PCA = 0.05 \times 18,218 = 911$

If use is expected to increase by 5% in the coming year, C_A would raise the expected monthly need by 911 capsules, bringing the total to 19,129 capsules.

- $SS = C_A \times LT = 19,129 \times 3 \text{ months} = 57,387.$
- $Q_0 = C_A \times (LT + PP) + SS - (S_i + S_o)$
- $QO = 19,129 \times (3 + 6) + 57,387 - (81,000 + 58,000) = 90,548$

Answer.....

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- 10% losses $\rightarrow 10\% \times 90,548 = 9,055$
- $90,548 + 9,055$
- Total purchase quantity = 99,603, or 100 box of 1,000 capsules.
 \rightarrow 100 box of 1000 capsules

Advantages of Consumption Method

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- ⊕ Does not require detailed morbidity data or standard treatment protocol.
- ⊕ Requires less detailed calculations.
- ⊕ Useful for facilities in which their health problems are numerous and drug treatments are complex.
- ⊕ Identifies stock management problems and encourages improvements.
- ⊕ Reliable if consumption is well-recorded and stable.

Disadvantages of Consumption method

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- ⊕ Does not encourage good morbidity recording
- ⊕ Unreliable if there had been long stock-outs (over 3 months) and high drug wastage or losses.
- ⊕ Doesn't address appropriateness & may not correspond to priorities and needs
- ⊕ Does not provide a detailed and systematic basis for reviewing drug use by improving prescribing patterns. (May perpetuate irrational Drug use)
- ⊕ May be difficult to obtain reliable drug consumption data especially in new or rapidly changing services

Morbidity method.....

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II. Morbidity method

- ❑ Estimates the need for specific drugs based on:
 - ✎ The expected number of attendances in HFs,
 - ✎ The incidence of common diseases, and
 - ✎ Standard treatment patterns for diseases considered.
- This method uses **morbidity data** and **average standard treatment schedule** to calculate the amounts of drug products required.

Morbidity method

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- ❑ Morbidity method is more appropriate when:
 - Available consumption data are incomplete or unreliable
 - Prescribing patterns are not cost-effective
 - The budget is unlikely to be sufficient to meet estimated requirements
 - The health facility or services concerned are expanding rapidly
- ❖ Quality and reliability of morbidity data are very important.
 - If data are incomplete, then the drug estimate may be dangerously inadequate or inappropriate.

Steps in quantification using morbidity method:

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Estimating quantities of drugs required using morbidity method includes the following steps:

Step 1. Specify the list of Problems:

List the major specific health problems encountered.

- ☞ If an existing information system reports on diseases, those disease codes should be used; if no coding system exists, the International Classification of Diseases (ICD) system can be used.

Step 2. Establish the list of medicines to be quantified

Steps in quantification using morbidity method.....

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Step 3: Prepare average standard treatment schedules

- Average standard treatment schedule is the average quantity of drug per course of treatment.
- Average treatment schedules are valid if they represent the average treatment which shall actually be used clinically.
- The average treatment schedule to be prepared should include the following information:

Steps in quantifn using morbidity method....

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- The name of the health problem and severity of the disease
- The patient's age, sex
- The generic name, strength, dosage form of each drug to be used for the treatment
- The average dose, number of doses per day, number of days these doses are to be given(duration).
- The total average quantity of each drug used for a standard course of treatment.

Steps in quantifn using morbidity method.....

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- Establish standard or average treatments.

$$Q_E = D_{CU} \times N_D \times L_D$$

Where:

Q_E = quantity needed for each treatment episode in each standard treatment regimen

D_{CU} = Basic Unit per Dose

N_D = Number of doses per Day

L_D = Length of Treatment per Dose

- Metronidazole 250 mg capsule adult dose *Amoebiasis*.

☞ 3 caps x 3 x 5 = 45 caps

Steps in quantifn using morbidity method.....

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Diagnosis	Drug	Dose	No. of doses per day	No. of days	Amount per course of treatment
<i>Amoebiasis</i> ■ Adult	Metronidazole 250 mg capsule	3 caps	3	5	45 caps
	Metronidazole 250 mg capsule	1 cap	2	3	6 caps
	Or				
	Metronidazole 125 mg/5 ml suspension	Or 10 ml			Or 60 ml

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Steps in quantifn using morbidity method.....

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Step 4. Calculate(*Estimate*) the number of treatment episodes for each health problem

$$ET = NC \times F$$

Where:

ET= treatment episodes*

NC = expected total number of episodes

F = frequency of health problems

- ***A *treatment episode* is a patient contact for which a standard course of drug treatment is required.**

Steps in quantifn using morbidity method.....

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- **Step 5.** calculate the quantity of medicine needed for each health problem.

a) Calculate the total quantity of each drug for each health problem

$$QT = ET \times QE \times PT$$

Where:

- Q_T = Quantity of drugs needed
- E_T = Number of treatment episodes
- Q_E = Quantity of drugs for each treatment episode, BU
- P_T = Percentage of cases that are treated with that specific regimen

Steps in quantifn using morbidity method.....

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- Example: if the number of treatment episodes for amebiasis treated annually by a given health center was 1000, of which 60% were adults and all cases were treated with metronidazole oral preparation, the quantity of metronidazole can be calculated as;

Steps in quantifn using morbidity method.....

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Diagnosis	No. of treatment episodes	Quantity per average standard treatment	Total quantity of the drug
Amebiasis Adults	$0.6 \times 1000 = 600$	Metronidazole 250 mg capsule 3x3x5 = 45 capsules	$45 \times 600 = 27000$ capsules
Children	$0.4 \times 1000 = 400$	Metronidazole 250 mg capsule 1x2x3 = 6 capsules	$6 \times 400 = 2400$ capsules
Total			29400 capsules

Steps in quantifn using morbidity method.....

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b) Calculate the total quantity of each drug

- When a drug is indicated for the treatment of more than one disease, add the quantities required for each one to obtain the total quantity of the drug.

Steps in quantifn using morbidity method.....

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- **Step 6.** combine the estimates for each medicine from the various health interventions into a master procurement list.
- **Step 7.** Adjust quantities to cover other health problems.

Steps in quantifn using morbidity method.....

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Step 8. Adjust for filling the pipeline and current stock out position.

- If applicable make adjustments for stock on hand, stock on order, and lead time.

Step 9. Adjust quantities for expected losses

Step 10. Estimate costs for each drug and total costs.

Step 11. Compare total costs with budget and make adjustments.

Adjusted Consumption Method.

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- When Neither Consumption nor morbidity Methods are Feasible, the best option is extrapolating from consumption data from another region or health system.
- Uses known data on disease incidence, drug consumption or utilization , and/or expenditures from one system 'standard' to estimate the drug needs in a similar or expanded system 'target'.

Adjusted Consumption Method.....

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- Can be
- *population based*, defining drug use per 1,000 population or
- *service based*, and defining drug use per specified patient case/inpatient admission or rural health center.
- Both methods can be used to quantify different products at the same time.

Adjusted Consumption Method.....

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Steps in the Quantification:

Step 1. Select the standard system for comparison and extrapolation.

The standard facilities should:

- Closely resemble the region or country for which the estimate is made in terms of **geography and climate, morbidity patterns, prescribing practices and drug supply status.**
- Have an **adequate and uninterrupted drug supply, fairly rational prescribing practices, complete & accurate records.**

Adjusted Consumption Method.....

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Step 2. Develop the Drug List

Step 3. Establish the time period to be covered in the review

Step 4. Review records from the standard system to compile contact or population data.

Step 5. Establish denominator for extrapolation:

- the denominator used to extrapolate consumption could either be thousands of patient contacts or thousands of inhabitants in the region

Adjusted Consumption Method.....

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- **Step 6.** Determine the consumption rate in the standard system: the adjusted annual consumption divided by either number of thousands of contacts or inhabitants
- **Step 7.** Extrapolate the standard system's consumption rate (SCR) to the target system:
 - SCR (for each drug) x estimated number of thousands of contacts or inhabitants for the target facility.
- **Step 8.** Adjust for expected losses
- **Step 9.** Estimate costs for each drug and total costs and make adjustment against the available budget.

IV. Service–Level Projection of Budget Requirements

- Used to estimate financial requirements for drug procurement based on costs per patient treated.
- Uses the average drug procurement cost per attendance or bed-day in different types of health facilities in a standard system to project drug costs in a similar types of facilities in target systems.
- This method does not estimate quantities of individual drugs.

Service–Level Projection.....

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- Steps in quantification:
 - ▣ Establish the categories of facilities and determine the number in each category (Standard).
 - ▣ Determine the patient contact denominator for each type of facility and compile or estimate the average number of patient contacts of each type at each category of facility.
 - ▣ Calculate the average cost per contact: average cost per attendance and/ or bed day could be derived by dividing the total drug purchases for the facility or facilities in class by the attendance or bed days.
 - ▣ Calculate the total projected drug costs

Comparison of the different Quantification Methods:

Method	Uses	Requirement	Limitations
Consumption	<ul style="list-style-type: none"> ✓ First choice for procurement and future consumption forecasts, given reliable data 	<ul style="list-style-type: none"> ✓ Reliable inventory records, ✓ Records of supplier lead time, ✓ Projected drug costs 	<ul style="list-style-type: none"> ✓ Must have accurate consumption data ✓ can perpetuate irrational use
Morbidity	<ul style="list-style-type: none"> ✓ Estimating need in new programs or disaster assistance, ✓ Comparing use with theoretical needs, ✓ Developing and justifying budgets 	<ul style="list-style-type: none"> ✓ Data on population and patient attendance; ✓ Actual or projected incidence of health problems; ✓ Standard treatment; ✓ Projected drug costs 	<ul style="list-style-type: none"> ✓ Morbidity data not available for all diseases; ✓ Standard treatments may not really be used
Adjusted consumption	<ul style="list-style-type: none"> ✓ Procurement forecasting when other methods unreliable; ✓ comparing use with other supply system 	<ul style="list-style-type: none"> ✓ Comparison area or system with good per capita data on consumption, patient attendance, service levels and morbidity; ✓ Number of local health facilities by category; ✓ Estimation of local user population broken down by age 	<ul style="list-style-type: none"> ✓ Questionable comparability of patient populations, morbidity and treatment practices .
Service Level projection of budget requirements	Estimating budget needs (eg when the health facility is new hence there is no reliable drug consumption and morbidity data)	<ul style="list-style-type: none"> ✓ Utilization by service levels and facility type; ✓ Average drug cost per attendance 	<ul style="list-style-type: none"> ✓ Variable facility use, attendance, treatment patterns, supply system efficiency

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Monitoring and evaluation of the methods of quantification

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- Each method of quantification should be monitored and evaluated against its objectives using appropriate indicators.

- Sample indicators:
 - ☞ Use of appropriate method of quantification
 - ☞ Availability of overstock of drugs
 - ☞ Occurrence of shortage of drugs
 - ☞ Availability of consumption/or morbidity data

Techniques for analyzing costs

VEN Analysis

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- The VEN system categorizes pharmaceuticals by their relative public health value.
- It is useful in setting purchasing priorities, determining safety stock levels and pharmaceutical sales prices, and directing staff activities.
- VEN analysis is a system of setting priorities,
- Method of classifying pharmaceuticals by their clinical importance/ their health impact into Vital (V), Essential (E) or Less essential (N)
- A method used to prioritize medicines for **purchase** and **stock**.
- Unique to the disease patterns of a specific area
- Important in ABC Analysis of pharmaceutical consumption

VEN Analysis.....

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- The VEN system sets priorities for selection, procurement, and use according to the potential health impact of individual medicines.
- VEN assigns each pharmaceutical product on the formulary or essential medicines list to one of the following three categories—

Criteria for Vitals (V):

- Potentially life-saving - without which it **is impossible to alive the patient / patient may die / disabled** due to lack of this drug/reagent
- Crucial to provide basic health services - without which it is **impossible** to deliver the service
- It is mandatory to be available 24 hours of a day, 7 days of a week and 12 months of a year
- Are **top priority** pharmaceuticals (to be adjusted last and least in reconciling requirement with available budget/fund during purchase).

Criteria for Essentials (E)

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- Effective against **less severe** but **significant illness, not vital**; it is between **Vital** and **Less Essential**.
- Life-saving, without which patient may be in **difficulty / problem** / may be substituted.
- Essential to the service without which it is **difficult** to give service.
- It is mandatory at least once a day, or at least once in a week, or at least once in a month or once in a quarter of the year, **but not as highly mandatory as vitals**.
- 2nd priority pharmaceuticals.

Criteria for Less Essentials (N)

- Effective for **minor illnesses** and have **low therapeutic advantage**.
- **Important to patients**; however, **patients will not die in the absence of these pharmaceuticals**
- Necessary to give the health service ; however , **health service delivery will not stop by absence of these pharmaceuticals**
- **Last priority pharmaceuticals** (to be adjusted 1st and most in reconciling requirement and budget/fund).

Applications of VEN analysis

- The major uses of VEN analysis are
 - assigning priorities for medicine selection, procurement, and use in a supply system;
 - guiding inventory management activities; and
 - determining appropriate medicine prices.

VEN Criteria summary

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Characteristic of Drug or Target Condition	(V) Vital	(E) Essential	(N) Nonessential
Occurrence of target Condition			
Persons affected (% of population)	Over 5%	1 – 5%	Less than 1%
Persons treated (number per day at Average health center)	Over 5%	1 – 5%	Less than 1%
Severity of target condition			
Life-threatening	Yes	Occasionally	Rarely
Disabling	Yes	Occasionally	Rarely
Therapeutic effect of drug			
Prevents serious disease	Yes	No	No
Cures serious disease	Yes	Yes	No
Treats minor, self-limited symptoms and conditions	No	Possibly	Yes

Conducting VEN Analysis

Purpose: for proper budget utilization

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- *Step 1.* Classify all medicine on the facilities medicines list as V, E, or N.
 - *Step 2.* Analyze the “N” items.
 - ➔ Where possible, reduce quantities to purchase or eliminate them.
 - *Step 3.* Identify and limit therapeutic duplications.
- ✚ If the list of V and E items (or V items in a VN system) contains more than one medicine with a similar therapeutic effect, some tendering by therapeutic subcategory may be possible.

Conducting VEN Analysis.....

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- If certain medicines are usually purchased in more than one strength, it may be possible to limit such duplication and reduce total quantities for the medicines in question.
- *Step 4.* Reconsider proposed purchase quantities.
- *Step 5.* Find additional fund if needed or possible.

VEN Applications for DTC

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- Identifies high-priority medicines for procurement
- Utilize VEN category in interpreting ABC analysis data
- Identifies low-priority medicines that the DTC should analyze carefully for deletion from the drug purchase order.
 - **Efficient budget utilization**

ABC Analysis

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- Method for determining and comparing pharmaceutical **consumption** and **costs** within the health facility.
- is a powerful tool by which items are compared according to their annual usage,
- allowing the planner to prioritize the management of class A items (**10-20% of items** that account for **70-80% of funds spent**) in selection and procurement decisions.

ABC Analysis.....

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- “Separating the vital few from the trivial many”- *Pareto principle*.
- Tool for identifying many medicine use problems.
- Utilizes computer and appropriate software to run analysis.

ABC Analysis: A, B, and C Medicines.....

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Category	Percentage of Budget	Percentage of Medicines Ordered
A medicines	70–80%	10–20%
B medicines	15–20%	10–20%
C medicines	5–10%	60–80%

ABC Analysis: A, B, and C Medicines.....

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- *A medicines*—High percentage of funds spent on large-volume or high-cost items.
 - Greatest potential for savings.
 - Greatest potential for identifying expensive medicines that are overused.
- *B medicines*—Moderate cost and moderate number of items; important items.
- *C medicines*—Small amount of funds spent on the majority of the inventory.

Sources of Data for ABC Analysis

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- Purchase records (periodical, annual)
 - Model 19, purchase invoice, stock card, PFSA sales invoice and bin card.

- Consumption records (periodical, annual)
 - Model 22, stock card, bin card, dispensing records.

ABC ANALYSIS SHOWS THAT DRUGS ARE NOT CREATED EQUAL!

A FEW DRUGS CONSUME THE MAJORITY OF FUNDS.



ALL THESE FUNDS...

A ITEMS

ARE SPENT ON



HIGH VOLUME
HIGH UNIT COST



HIGHEST POTENTIAL FOR SAVINGS

I KNOW MY PRIORITIES.



B ITEMS

THESE FUNDS...

ARE SPENT ON



A LARGER NUMBER OF DRUG ITEMS



SOME ADDITIONAL SAVINGS POSSIBLE



C ITEMS

A SMALL FRACTION OF FUNDS...

ARE SPENT ON



THE MAJORITY OF INVENTORY



HIGH MANAGEMENT INPUT REQUIRED FOR PRACTICALLY NO COST REDUCTION

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Comparison table for each class of drugs

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S/N	Class “A” items (High consumption value)	Class “B” items (Moderate consumption value)	Class “C” items (Low consumption value)
1	Very strict control	Moderate control	Loose control
2	No or very low safety stock	Low safety stock	High safety stock
3	Maximum follow-up and expediting	Periodic follow-up	Follow-up and expediting in exceptional cases
4	Rigorous value analysis	Moderate value analysis	Low value analysis
5	Carefully handled	Can be handled by middle management	Can be fully delegated
6	Frequent ordering or weekly delivery	Once in three months	Bulk ordering once in 6 months
7	Weekly control statements	Monthly control reports	Quarterly control reports
8	Accurate forecasts in material planning	Estimates based on past date on present	Rough estimate for planning

Applications of ABC Analysis for a DTC

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- Measures the degree to which actual consumption reflects public health needs and morbidity
- Reduces inventory levels and costs by arranging for more frequent purchase or delivery of smaller quantities of class A items
- Seeks major cost reductions by finding lower prices on class A items
- Reduces inventory of items that have limited use in the system, but costs the system large amounts of money
- Provides information for choosing the most cost-effective alternatives and finding opportunities for therapeutic substitution
- Gathers information for pharmacoeconomic analysis

Steps in ABC analysis

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Step 1

- Take note that ABC analysis will be advantageous if the analysis is done on not less than three years consumption data.

Step 2

- List all items (drug, medical supplies, lab. reagents) purchased during the year at which the analysis being done and enter the unit cost and quantity for each item in the list (data source:- PFSA sales invoice, receiving models and bin card.....)

Step 3

- Crosscheck the price of each items purchased that is found in model 19 (at pharmacy) does exactly correlate with that of the finance section file.

Step 4

- Add items that might be purchased through petty cash, and money paid for loading and unloading from the drug budget.

Step 5

- Calculate the total value of consumption (consumed quantities) for each item (*$Total\ value = Consumed\ quantities \times unit\ price$*).

Step 6

- Sort the list in alphabetic order.

Step 7

- Aggregate drugs, (of the *same active ingredient, same dosage form and same strength* but with *different unit of measure* and *packing size*), purchased at *different times* with *different price* to *one*. After doing so for every item purchased,

Step 8

- Sort the list in descending order by total value.

Step 9

- Calculate the percentage of total value for each aggregated item (*Percentage = Total value of each item divided by the total budget spent for procurement during the analysis period multiplied by 100*).
 - This value tells us the amount of each items that took from total budget.

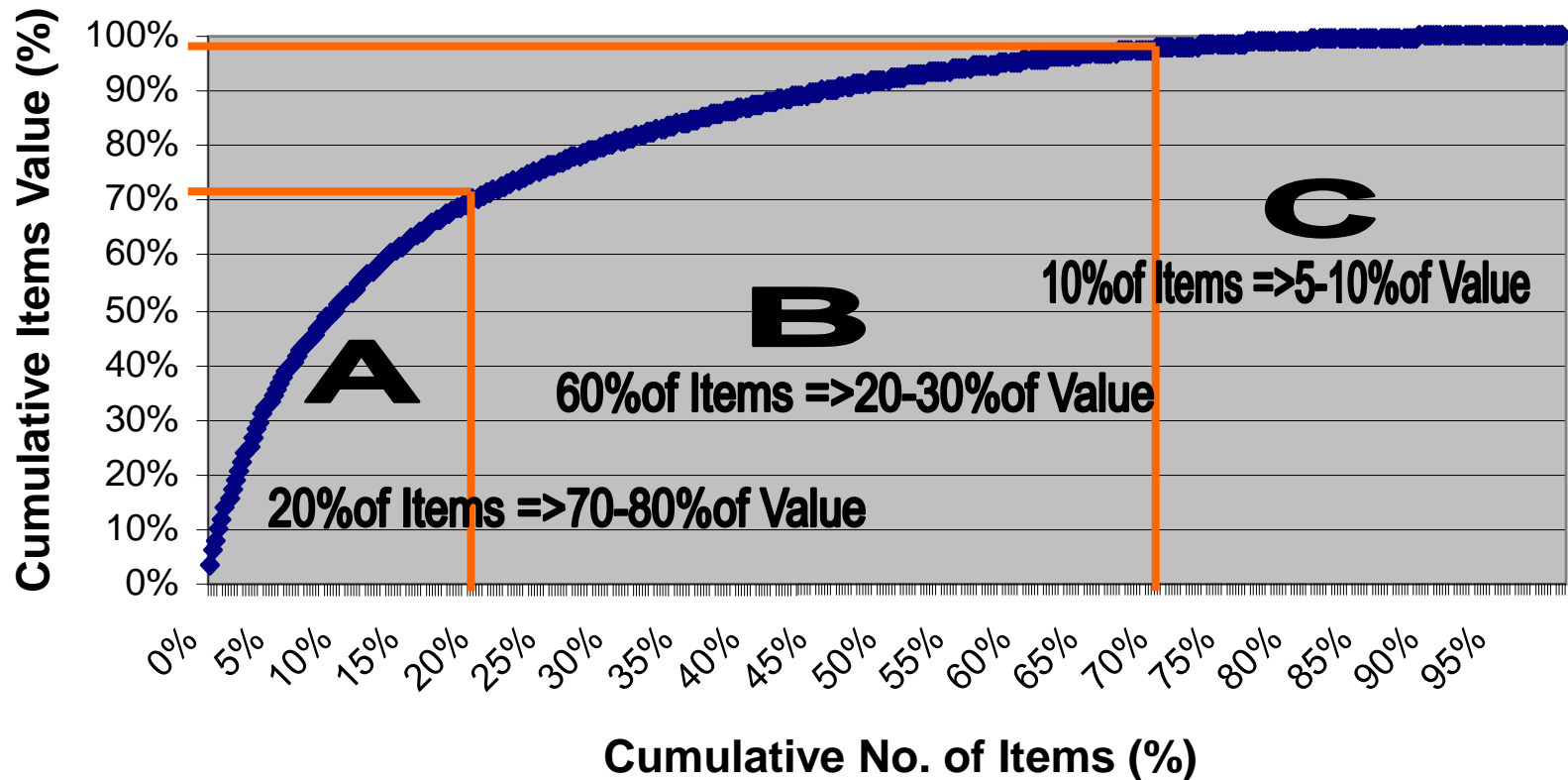
Step 10

- Calculate the cumulative percentage of total value for each item

Step 11

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- Choose cutoff points for A (70-80%), B (15-20%), and C (5-10%) class medicines based on the drug category table.



Step 12. Compare ABC and VEN analysis results

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- Analyse A class drugs
 - Are there N drugs in this category
 - are the pharmaceuticals in this category really important
- What about B class drugs?
- Is there inappropriate budget utilization/consumption
- Evaluate each class critically and forward recommendations

Interventions for A class drugs

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- Are they in a good condition in the stock: perform stock analysis for selected A class drugs,
- Transfer, sale, or return and give recommendation for the next quantification;
 - If they are over stock in the stock analysis;
- Are all procured drugs emanated from the facility drug list? If not consider to revise the drug list.
- Give recommendation for selection;
 - If they are not drug of choice for any one of **the ten top disease** in the catchment area
- Perform DUE for selected class A drugs which are not treatment of choice to treat at least one of the top ten disease.

Thank You!!!