

Measuring Access to Essential Medicines in Kenya Using the Standardized WHO Level II Health Facility & Household Surveys

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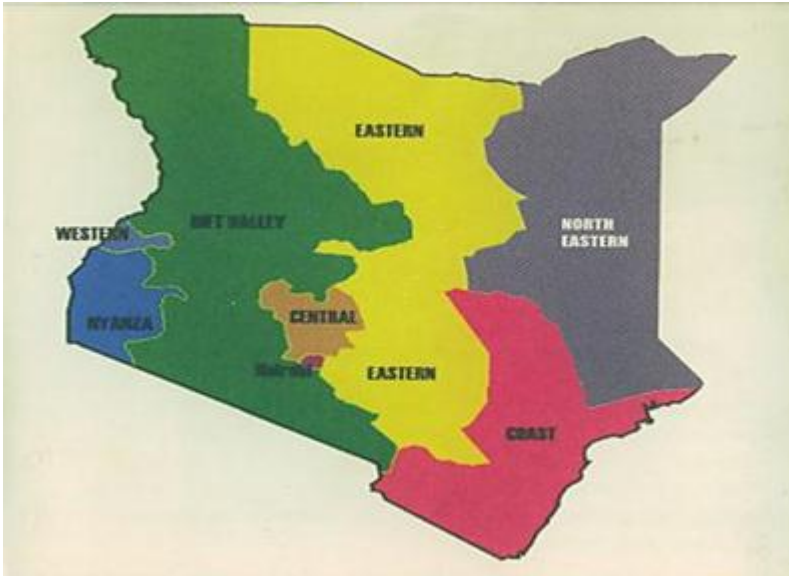


Government of Kenya
Ministry of Medical Services



Background & Setting

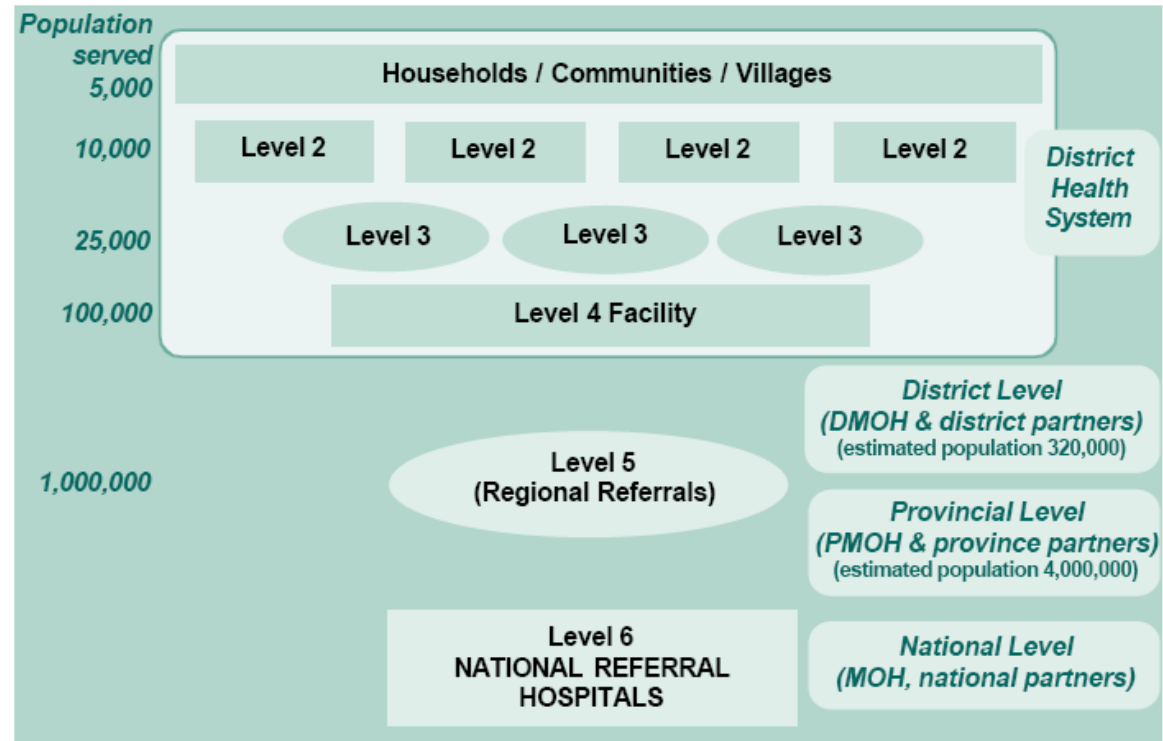
Administrative Map of Kenya



Selected Development Indicators

Indicator	Value (2008)
Total population	37.2 million
Life expectancy at birth	52.1
Under-5 mortality rate per 1000	92
Total expenditure on health as % of GDP	4.6
Human Development Index Rank, out of 177 countries	148
Adult (15+) literacy rate	61.5

Health Sector Pyramid – Kenya



Source: Norms and Standards for Health Service Delivery, MOH, 2006

Main Healthcare providers in Kenya (all levels):

- **Public:** Government-owned (GoK)
 - Subsidized or 'free' healthcare & medicines
- **FBHS (Faith-based Health Services)**
 - 'not-for profit' pricing of healthcare & medicines
- **Private** - full cost recovery for services & medicines

Study Aims and Design (Overall)

Overall Objective

- Generate systematic data on access to Essential Medicines in Kenya
- Data obtained simultaneously from two perspectives:-
 - The national healthcare system (Public, FBHS & Private providers)
 - Households

Survey Period: September-October 2008

Coverage: 6 of 8 provinces (including the 'Capital' province - Nairobi)

Methodology: Standardised WHO Health Facility & Household Surveys

- Suitably adapted for local use in Kenya
- by a Multi-stakeholder survey advisory committee (public, private, FBHS, CS)
- Synchronized with ongoing Quarterly Monitoring of Medicines Prices & Availability (MMePA)

Data collection:

- 26 data collectors + 2 supervisors (pharmacists or pharmaceutical technologists)
- Structured data collection forms

Methods - Overview

Health Facility Survey

Health facilities surveyed: (36 per Province)

- 6 Public Facilities (largest public hospital (1) + primary hospital (1) + health center (1) + dispensaries (3))
- 6 FBHS Facilities (as for public facilities)
- 6 private pharmacies (registered)

Warehouses surveyed

- The 2 central warehouses supplying the public & FBHS facilities (i.e. KEMSA & MEDS)

Medicines surveyed:

- Basic medicines: 15 EM (common conditions)
- Broader list: 36 medicines (For a broader range of conditions - monitored Quarterly (MMePA List))

Data Entry & Analysis

- Data entered & analysed using automated Workbooks in *MS Excel*[®]
 - A separate workbook was used for the pricing data

Household Survey

Sampling of HH (purposive sampling)

- 6 reference public health facilities
 - 30 HH per facility - located 5, 10 and >10km from reference facility (10 for each distance)

Study population:

- 1,069 HHs surveyed (5,955 individuals)
- HHs Stratified into 5 self-selected Socio-Economic Status (SES) bands
 - A = lowest SES band (poorest HHs): <US\$ 14.8/person/month
 - E = Highest band (wealthiest HH): > US\$ 64.0/person/month

Household characteristics:

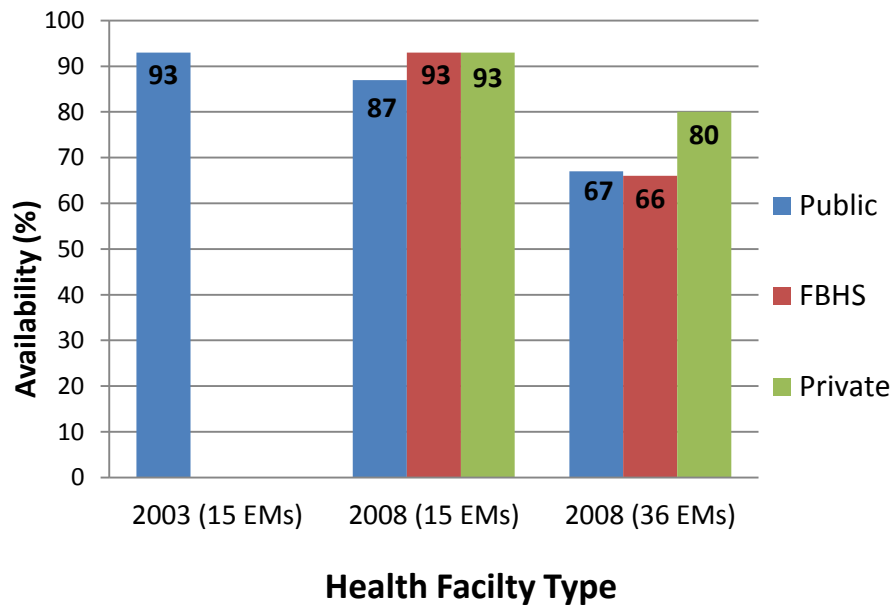
- 61% placed themselves in lower SES groups
- Median HH size = 5 (range 5-6)
- HHs with a member earning money = 72-99%
- HHs with children <5years = 58-34%
 - Population mix was similar to other recent national surveys

Data Entry & Analysis:

- Data entry using EpiData; analysed using Epi-info v3.4.3

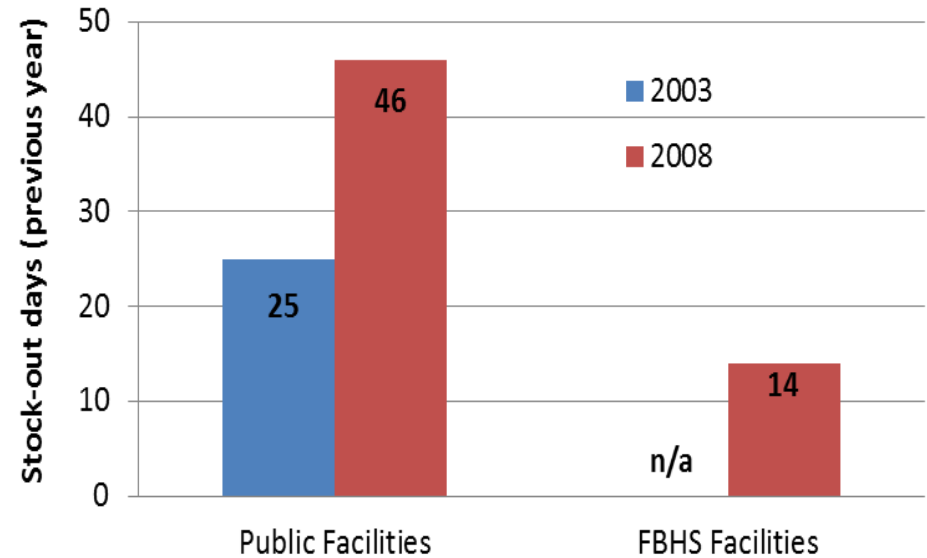
HF Results 1: Availability

Median availability of EMs



- Basic EM were over 80% available in all HF types; BUT
- A broader list of 36 medicines was less available in public & FBHS HFs (~66%)

Stock-out days of Basic EMs



- Basic EMs were out of stock in public HFs for 46 days; and were sometimes critical >90 days
- Central warehouses (public & FBHS) did not experience stock-outs of basic medicines

- Comparison of public sector findings: 2003 (baseline) and 2008
- Overall availability had reduced slightly; and Stock-outs had worsened
 - *Could be related to post-election events in 2008*

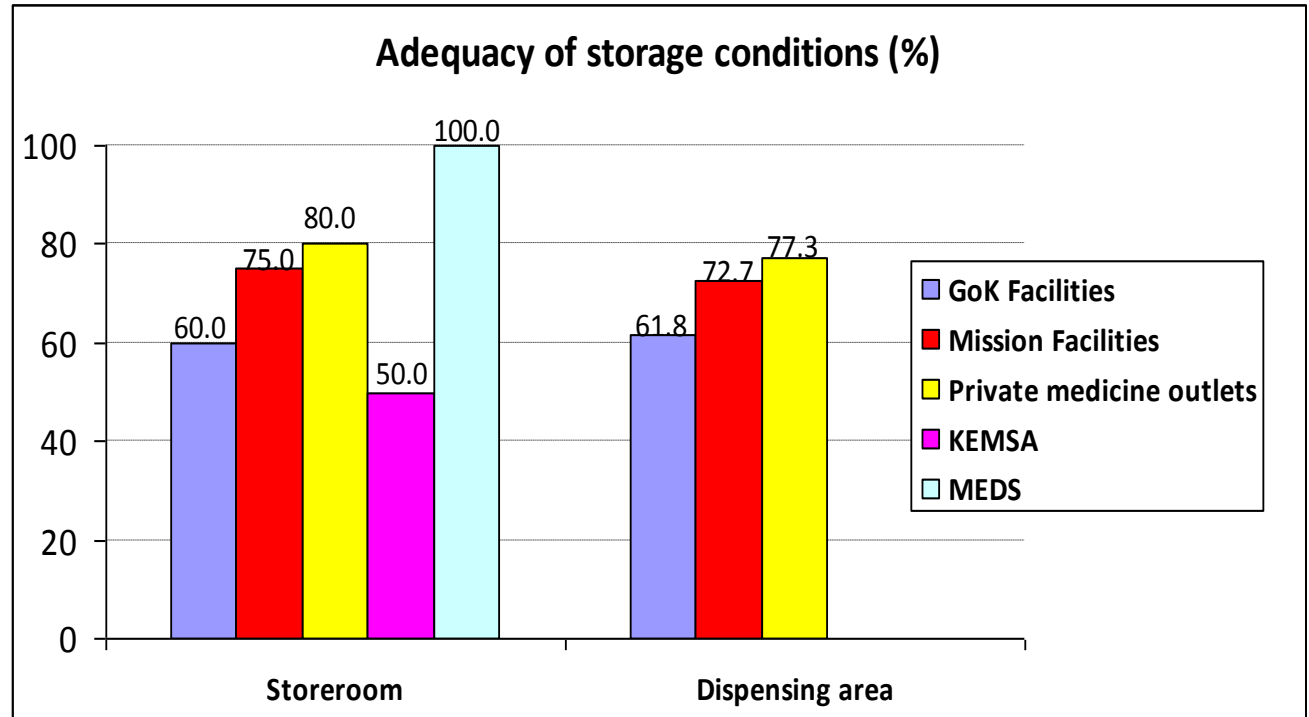
HF Results 2: Records & Storage

Adequacy of Stock Records

Facility Type	National Median
Public facilities	77
FBHS facilities	83
Central Public Warehouse (KEMSA)	100
Central FBHS Warehouse (MEDS)	100

- Both the public and FBHS warehouses (KEMSA & MEDS) had adequate stock records for all medicines surveyed
- Adequacy of stock records had declined in public health facilities compared to the 2003 baseline survey (93%)

Adequacy of medicines storage conditions



- The central FBHS warehouse (MEDS) complied with 100% of the criteria for adequacy of medicines storage
- Medicines storage conditions were inadequate in the central public warehouse (KEMSA) and in all other facility types

HF Results 3: Pricing & Affordability

Median Procurement Price Ratios (compared with IRPs): public & FBHS sectors				
Central Agency	Originator brand Median MPR (n=1 for each sector)	Lowest price generics		
		MPR	Min	Max
Public (n=21)	3.39	0.44	0.13	0.84
FBHS (n=32)	2.48	0.61	0.19	1.33

Public & FBHS procurement agencies in Kenya are:

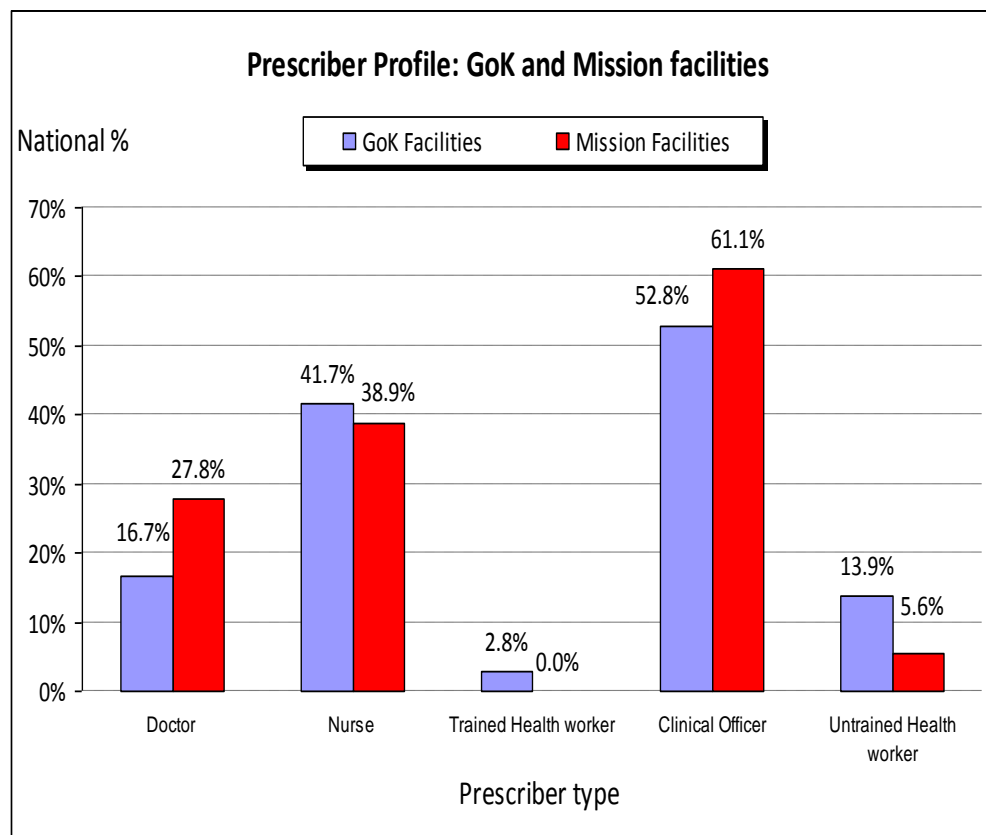
- ❖ Almost exclusively procuring generic products
- ❖ Obtaining price-efficiency in medicines procurement
- ❖ The public sector obtains comparatively lower prices

* International Reference Price (from MSH)

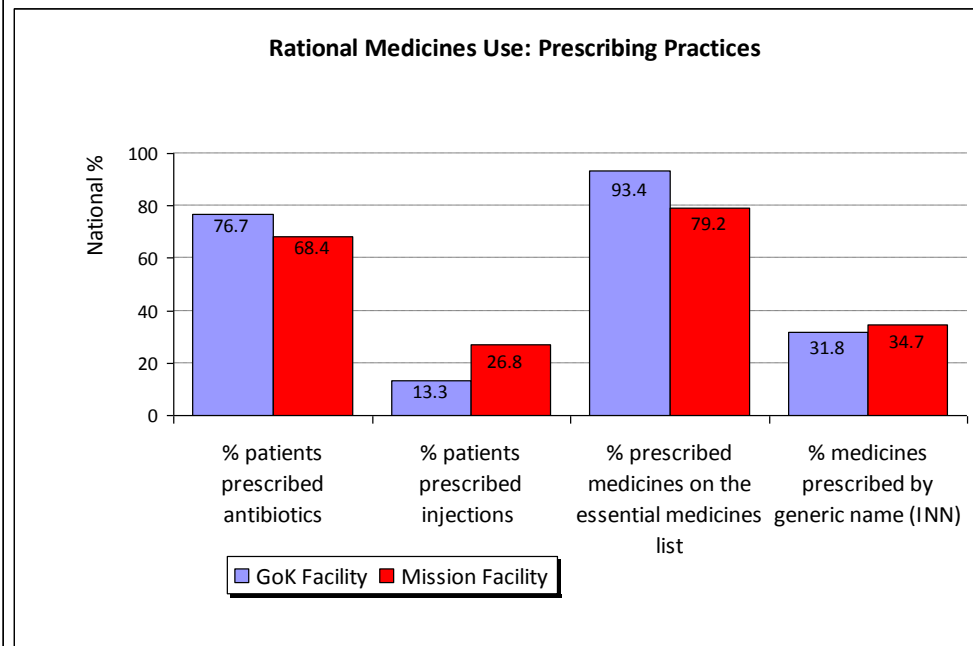
Medicines issued free of charge:- (public, FBHS & private facilities)			
Health Facility Type	Overall Availability	Median prevalence of available medicines which were:	
		Issued for free	Priced
Public	67%	89%	11%
FBHS	66%	16%	85%
Private	81%	0%	100%

- ❖ Government policies on issuance of selected medicines for free (in public & FBHS facilities) are largely being implemented
- ❖ The price barrier that people may face when accessing medicines is significantly lower in the public sector
- ❖ The FBHS providers also play a limited role in lowering the price barrier for essential medicines

Results 5: Medicines Prescribing



- The most frequent prescriber was the clinical officer, followed by the nurse
- The medical doctor was present in less than 1/3 of Public & FBHS HFs, and
 - Was actually found prescribing in even fewer of them
- Untrained personnel were found dispensing in Public & FBHS HFs and (more frequently in public facilities)

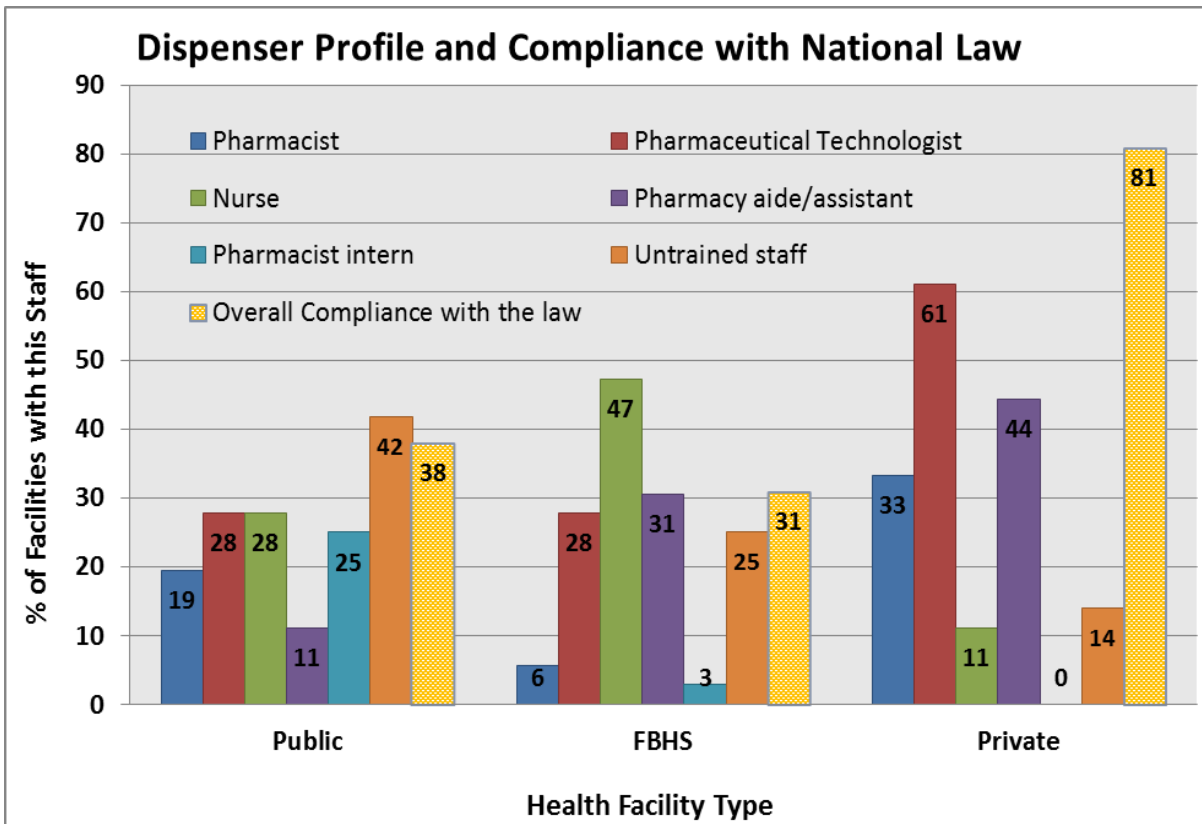


RUM indicators are mixed in all HF types:- some adherence to STGs; BUT

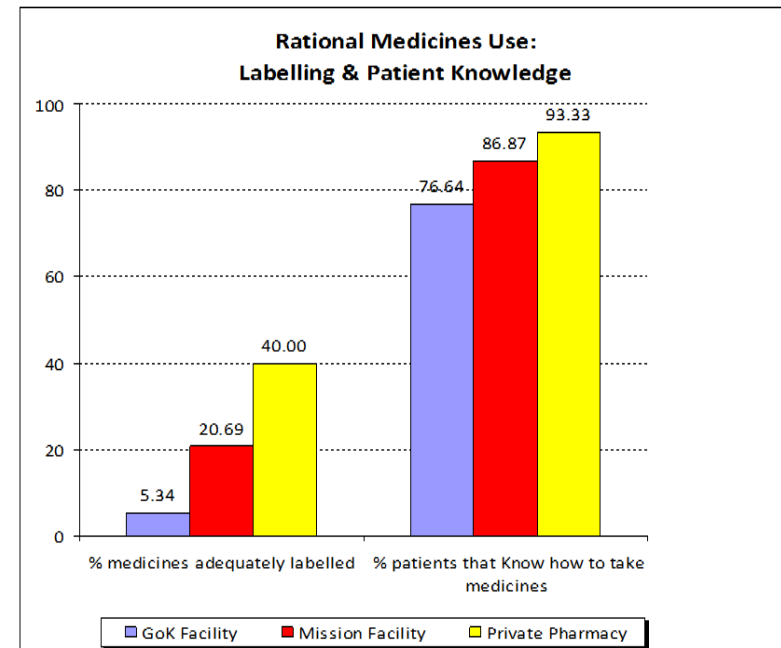
- Antibiotic prescribing is high and prescribing by generic name is low

No comprehensive and evidence-based strategy for promoting RUM in Kenya (yet ICIUM 2007 guidance exists!)

HF Results 6: Medicines Dispensing



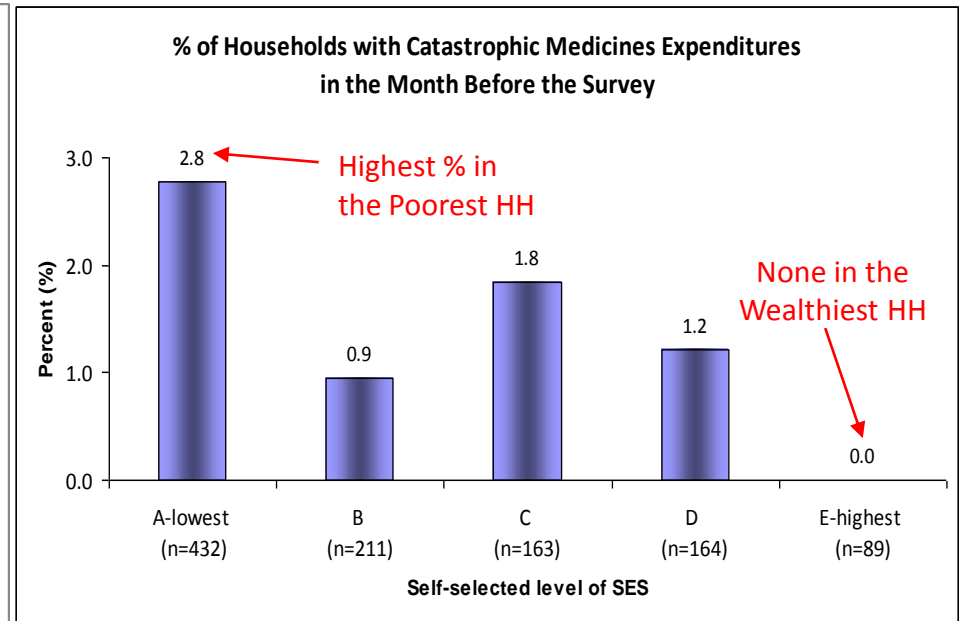
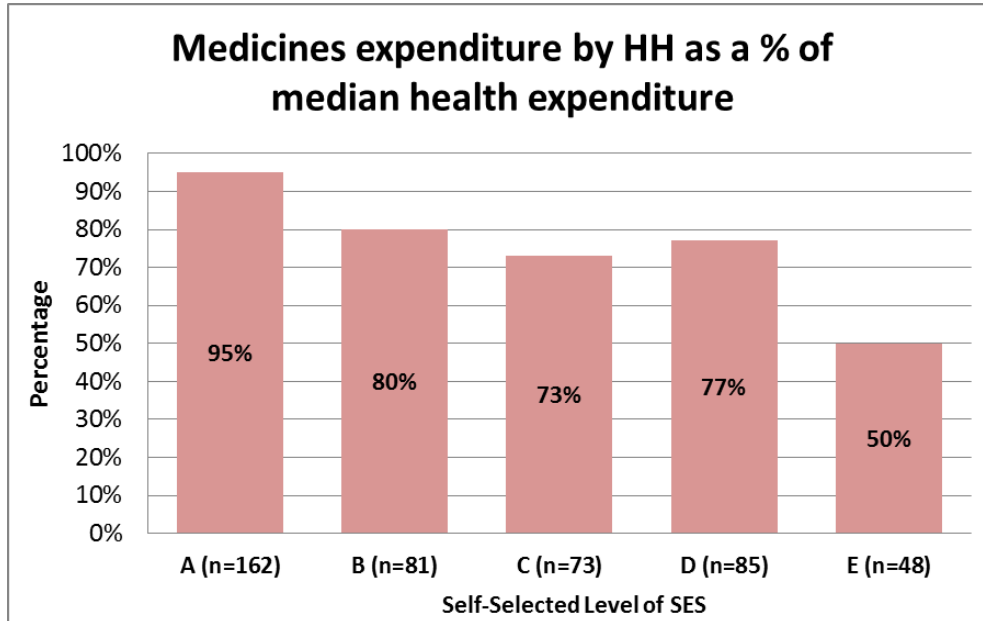
- Overall compliance with the law (i.e. dispensing by legally qualified personnel) :-
 - Only 38% and 31% of public & FBHS facilities respectively
 - 81% of the private dispensing outlets (all registered)
- Most frequent dispenser found in:-
 - Public Facilities - Untrained staff (42%)
 - FBHS Facilities – Nurses (47%)
 - Private Pharmacies: Pharmaceutical Technologist (61%)



- Labeling of medicines was inadequate (<50%) in all HF types
- Critically low (5%) in public facilities

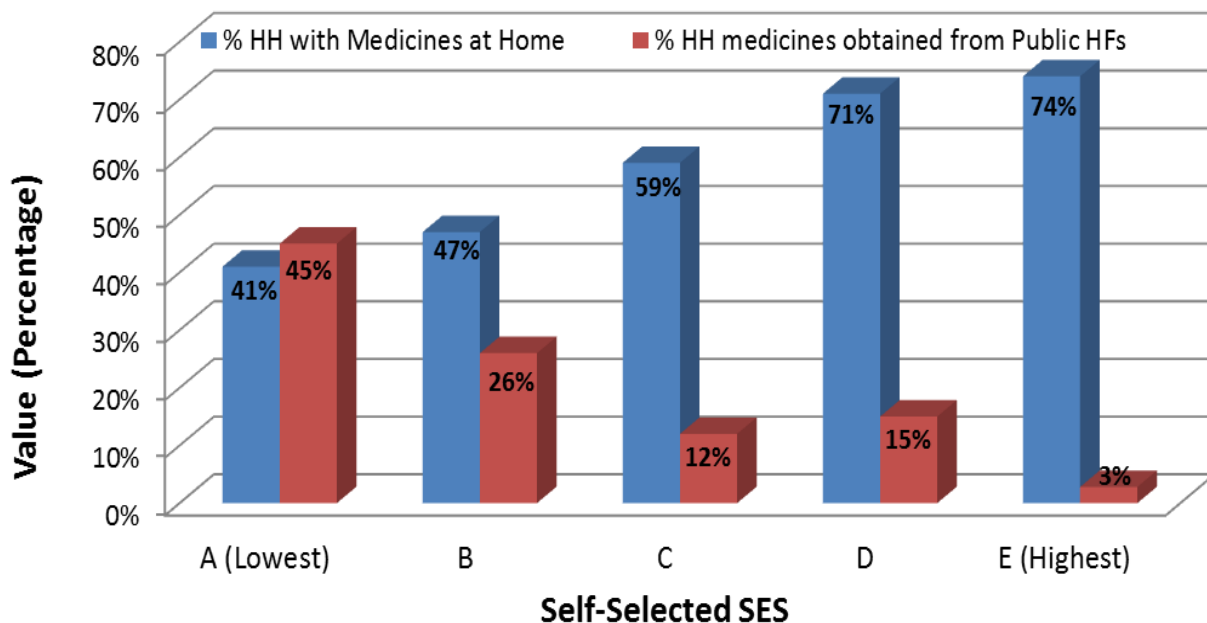
- Critical shortage of pharmaceutical personnel is negatively affecting use of medicines across the board:-
- *Stock records, availability, stock-outs, storage & handling, dispensing, etc.*
 - *...everyone's business!*

Household Medicines Expenditure by SES



- Nearly all (95%) of health expenditure for the poorest HH was spent on medicines
- The poorest HH experienced the heaviest burden of medicines-related catastrophic expenditures
- The wealthiest HHs did not experience any catastrophic expenditures related to medicines

Medicines at Home and their Sources - by SES

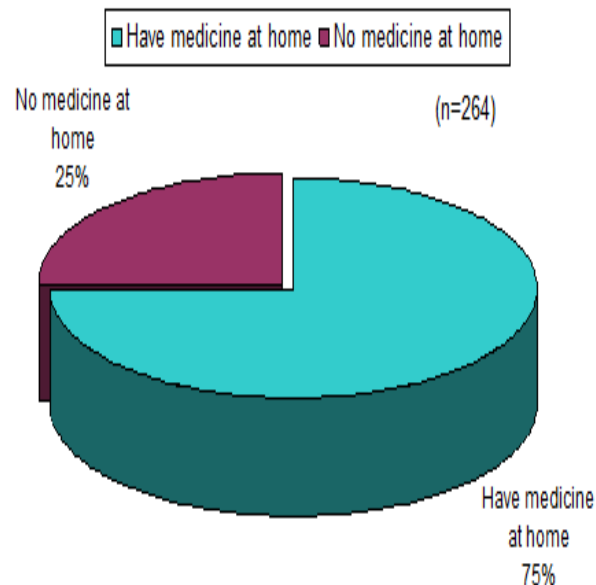


❖ % of HHs with medicines at home dramatically increased with increasing SES level

❖ % of HH medicines obtained from public facilities dramatically decreased with increasing SES level

- Nearly half of medicines in poorest HHs came from a public facility
- Only 3% of medicines in wealthiest HHs came from public facilities

HH with Medicines at Home for Chronic Illnesses



❖ 75% of HHs reporting a chronic illness had medicines at home for the illness

❖ The majority of HH members (75%) with a chronic illness were advised how to take medicines, and took them as prescribed

Summary - Highlights

- Basic EMs are available (>80%) in all HF types; BUT a broader list is less available
 - Frequent, sometimes critical stock-outs occurred in public facilities
- Centralized procurement is price-efficient; almost exclusively generics
- Public sector findings indicate:-
 - 1) low or no price barriers to accessing EMs; 2) critically deficient medicines storage infrastructure
 - 3) critical shortage of pharmaceutical personnel; 4) stagnation or deterioration (compared to 2003)
- Performance on RUM is mixed in all HF types (reflects lack of clear strategy)
- Regulatory requirements are not effectively enforced in public & FBHS facilities
- Most HH were happy with location of nearest Public HF, BUT NOT medicines availability
- The Poorest Households:-
 - Heavily rely on public facilities as a source of medicines; BUT
 - Travel for longer to access public (subsidized) health services
 - Experience the greatest catastrophic expenditure on medicines

KEY LESSON

- National level M&E on medicines is resource-intensive (skills, finances, time)
 - Standardized tools (e.g. WHO Survey Tools) are not widely understood by Govt & stakeholders

Selected Key Policy Implications

For Government:-

- ❖ Institutionalize & integrate standardized **M&E of pharmaceutical services** within the health sector coordination framework - to inform policies & strategies for improving access to EM
- ❖ Use of generics is widespread among public & FBHS providers (hence low price barriers)
 - ❖ A **coordinated strategy** is required to promote the use of generic products, as a means of sustaining affordability of EMs (e.g. generic substitution, robust quality-assurance, etc.)
- ❖ Deploy **qualified personnel** to Public & FBHS HFs to safeguard patient safety & medicines use
- ❖ Required: - a **comprehensive strategy to promote RUM** (informed mostly by ICIUM evidence!)
- ❖ In the on-going elaboration of health financing policies, ensure:-
 - ❖ Expansion of **medicines coverage** – grounded on principles of the Essential Medicines Concept
 - ❖ In-built or concurrent mechanisms to demonstrate effects on access to medicines

For Development Partners in Health – Kenya (DPHK)

- ❖ The HF & HH Surveys provide useful evidence in programming for technical support
- ❖ Invest in coordinated pharmaceutical sector M&E - in the context on the ‘3-ones’ (ONE Sector Strategy; ONE Implementation Plan and ONE M&E Framework)
- ❖ The critical shortage of pharmaceutical HR undermines ANY support on medicines
 - ❖ Prioritize investment in pharmaceutical HR - in the context of the *HR for Health Strategic Plan*