What Do We Know About Access To Cardiovascular Medicine In Southern Sub Saharan Africa

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Report

Status report on hypertension in Africa - Consultative review for the 6th Session of the African Union Conference of Ministers of Health on NCD's

Steven van de Vijver[1,2,&], Hilda Akinyi[1], Samuel Oti[1,2], Ademola Olajide[3], Charles Agyemang[4], Isabella Aboderin[1], Catherine Kyobutungi[1]

In Africa, providing medication is considered an important and cost effective way to reduce hypertension but accessibility to and cost of the treatment are very often forgotten.

Currently, African countries are 80 percent below the global average for pharmacological spending and 20 percent below the global average of behavioral risk factors for hypertension .

There is a lot of opportunity for hypertension control through improving availability of medication.

Steven van de Vijver et al.**Pan African Medical Journal. 2013; 16:38**

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The efficacy of blood pressure lowering medications is well demonstrated.

However, managing hypertension is challenging in Africa for a variety of reasons:

lack of availability of drugs,

high treatment costs,

inadequacy of health services for identification and management of CVD

Moreover, health systems in most LMICs are already stretched by the high burden of infectious diseases such as HIV, TB and malaria.

Furthermore, individuals who struggle with a broad range of day-to-day problems may discount the benefit of long-term treatment for silent and painless conditions that do not immediately jeopardize their health.

Steven van de Vijver et al.**Pan African Medical Journal. 2013; 16:38**

Baseline assessment of WHO's target for both availability and affordability of essential medicines to treat non-communicable diseases

Margaret Ewen[1]*, Marjolein Zweekhorst[2], Barbara Regeer[2], Richard Laing[3,4]

World Bank Income Group	Therapeutic group	Median % availability					
		Public sector			Private sector		
		Originator brand	Lowest priced generic	Any product	Originator brand	Lowest priced generic	Any product
Low-income countries (n = 10)	Cardiovascular	0% (n = 31)	42.9% (n = 42)	45.0%* (n = 34)	3.3% (n = 30)	68.6% (n = 41)	82.9%* (n = 33)
	Diabetes	0% (n = 14)	51.3% (n = 18)	57.4%* (n = 14)	12.1% (n = 14)	65.2% (n = 18)	69.5%* (n = 14)
	COPD	3.2% (n = 13)	25.8% (n = 17)	29.0%* (n = 13)	20.0% (n = 13)	44.0% (n = 17)	83.3%* (n = 13)
	CNS	0% (n = 20)	44.1% (n = 35)	35.7%* (n = 28)	0% (n = 20)	45.7% (n = 35)	46.4%* (n = 28)
	All medicines	0% (n = 78)	40.2% (n = 112)	43.3%* (n = 89)	3.2% (n = 77)	59.1% (n = 111)	66.7%* (n = 88)

Median percentage availability of essential medicines.

African country, Burkina Faso, Burundi, Ethiopia, Sao Tomé et Principe, Tanzania and Uganda

Ewen M, et al PLoS ONE 12(2) February 2017

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Margaret Ewen[1]*, Marjolein Zweekhorst[2], Barbara Regeer[2], Richard Laing[3,4]

World Bank Income Group	Therapeutic group	Median days' wages*			
		Public sector		Private sector	
		Originator brand	Lowest priced generic	Originator brand	Lowest priced generic
Low-income countries (n = 10)	Cardiovascular	1.9 (n = 4)	0.6 (n = 28)	2.9 (n = 11)	0.9 (n = 38)
	Diabetes	2.9 (n = 2)	0.9 (n = 9)	5.3 (n = 6)	1.1 (n = 15)
	COPD	0.9 (n = 2)	0.7 (n = 9)	2.9 (n = 8)	1.3 (n = 14)
	CNS	1.1 (n = 2)	0.4 (n = 15)	1.3 (n = 6)	1.1 (n = 28)
	All medicines	1.1 (n = 10)	0.7 (n = 61)	3.1 (n = 31)	1.0 (n = 95)

Median number of days' wages needed to purchase standard treatments,

Based on median treatment prices and the daily wage of the lowest paid unskilled government worker.
Excludes medicines supplied free-of-charge in the public sector

Ewen M, et al PLoS ONE 12(2):

Baseline assessment of WHO's target for both availability and affordability of essential medicines to treat non-communicable diseases

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World Bank Income Group	Therapeutic group	Medicines available and affordable*			
		Public sector		Private sector	
		Originator brand	Lowest priced generic	Originator brand	Lowest priced generic
Low-income countries (n = 10)	Cardiovascular	3.2% (1/31)	11.9% (5/42)	3.3% (1/30)	22.0% (9/41)
	Diabetes	0.0% (0/14)	16.7% (3/18)	7.1%(1/14)	27.8%(5/18)
	COPD	0.0% (0/13)	23.5% (4/17)	7.7%(1/13)	17.6%(3/17)
	CNS	5.0% (1/20)	14.3% (5/35)	5.0%(1/20)	11.4%(4/35)
	All medicines for all therapeutic groups	2.6% (2/78)	15.2% (17/112)	5.2%(4/77)	18.9%(21/111)

Percentage of data points where medicines were both available and affordable

*80% or greater availability and requiring 1 days' wages or less to purchase 30 days' supply or supplied free-of-charge in the public sector.

Ewen M, et al PLoS ONE 12(2):

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….shows low availability and/or poor affordability is resulting in few essential NCD medicines meeting the target in low- and middle-income countries.

In the era of Sustainable Development Goals, and as countries work to achieve Universal Health Coverage, increased commitments are needed by governments to improve the situation through the development of evidence-informed, nationally- contextualised interventions, with regular monitoring of NCD medicine availability, patient prices and affordability.

Ewen M, et al PLoS ONE 12(2):

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ABSTRACT

Objectives: We assessed the contribution of health insurance and a functioning p

In 51 low and middle income countries (LMIC), health care expenditures accounted for 13–32% of total 4-week household expenditures.

One in four poor households in low income countries incurred potentially catastrophic health care expenses and more than 40% used savings, borrowed money, or sold assets to pay for care.

Between 41% and 56% of households in LMIC spent 100% of health care expenditures on medicines.

Health insurance and a functioning public sector were both associated with better access to care and lower risk of economic burden.

Conclusion: To improve access, policy makers should improve public sector provision of care, increase health insurance coverage, and expand medicines benefit policies in health insurance systems.

A.K. Wagner et al. Health Policy *100 (2011) 151–158*

	Median availability of public facilities	Median availability of private facilities
Burkina Faso	87·1%	72·1%
Congo (Brazzaville)	21·2%	31·3%
DR Congo	55·6%	65·4%
Malawi	63·3%	55·6%
Niger	35·0%	65·8%
Rwanda	46·3%	80·0%
São Tomé and Príncipe	56·3%	22·2%
Sudan	77·1%	91·7%
Uganda	70·0%	78·0%
Tanzania	37·8%	50·0%
Zambia	74·0%	81·3%

Systematic data are scarce. Data taken from World Health Statistics 2015.[217]

***Table 7*: Median availability of selected generic medicines in public and private facilities in a selection of sub-Saharan African countries, 2007–13**

Theme: ***"Strengthening of Health Systems for Equity and Development in Africa"***

MINISTERS' MEETING
10-13 APRIL 2007

PHARMACEUTICAL MANUFACTURING PLAN FOR AFRICA

Survey on the availability of essential equipment, guidelines and medications for cardiovascular disease in primary health care facilities in nine African countries

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AIM

- To assess the availability of equipment for diagnosis of CVD at PHC level.
- To assess the availability of guidelines for management of CVD at PHC level.
- To assess the availability of medicines for CVD and diabetes at PHC level.

METHODS

- Survey coordinated and funded by the African Heart Network (a WHF affiliate).
- Survey conduced in 9 countries in Africa.
- Random selection of government heath centers at PHC level (i.e. not hospitals)
- At least 3 health centers in urban areas & 3 in smaller cities/rural areas.
- Approval obtained from appropriate health authorities in each country.
- Data collected between 2014 -2016.
- Assessment conducted in each of selected health centers by 2 survey officers who administered a structured questionnaire to 2 senior staff members in each health center
- Information on equipment, guidelines available at the health centers, based on a structured questionnaire administered to 2 senior managers of the health center.
- Information on medications based on counting all CVD medications in the dispensary.

Results 1/4: characteristics of government PHC health centers

Country	BUR	NIG	UGA	BEN	KEN	SUD	TUN	RSA	SEY
GDP/capita (Int$ in 2015)	818	1'080	2'003	2'113	3'208	4'344	11'428	13'165	26'277
Health centers (n)	6	10	8	10	6	6	5	6	6
Nurses (n)	8.3	6.3	13.8	2.0	13.0	3.2	4.0	14.0	10.5
Doctors (n)	2.5	1.3	1.3	0.2	2.8	3.8	2.2	2.8	3.5
Pharmacists (n)	2.0	1.0	0.9	0.8	1.2	2.7	1.0	0.7	3.2
Patients per day (n)	68	60	126	13	233	114	54	170	160
Patients treated for HBP per day (n)	2	4	7	2	6	23	14	62	16
Patients with diabetes treated per day (n)	1	5	2	0	3	17	14	27	6
Percent patients with DM or HBP from all patients	3.7	15.0	7.3	14.7	3.9	34.9	51.7	52.3	13.8

Results 3/4. Proportion of heath centers with basic equipment

	>66% or adequate			<33% or inadequate					
	BUR	**NIG**	**UGA**	**BEN**	**KEN**	**SUD**	**TUN**	**RSA**	**SEY**
Equipment									
Device to measure blood pressure (%)	67	100	100	100	100	100	100	100	100
Large cuff is available (%)	0	0	0	70	50	17	20	67	100
Glucometer for capillary glucose (%)	83	40	50	20	100	50	80	100	100

Results 4/4. Proportion of health centers with CVD medications

	BUR	NIG	UGA	BEN	KEN	SUD	TUN	RSA	SEY
Hypertension									
Thiazide diuretic (%)	0	0	13	20	83	67	60	100	100
Furosemide (%)	33	90	25	40	50	83	100	100	100
Aldosterone (%)	0	0	0	0	0	50	60	50	100
Beta-blocker (%)	50	0	13	0	17	83	100	100	100
Calcium channel blocker (%)	50	20	25	10	67	83	100	83	100
ACE inhibitor (%)	33	30	0	0	67	83	100	100	100
Angiotensin receptor blocker (%)	0	0	0	0	17	67	20	0	100
Aldomet (%)	17	10	0	90	83	33	80	83	100
Diabetes									
Oral antidiabetic medications (%)	0	10	50	0	100	83	100	100	100
Insulin (%)	50	20	38	0	0	83	100	67	100
Other									
Aspirin (%)	0	40	25	60	50	83	100	100	100
Cholesterol lowering medication (%)	0	10	0	0	0	83	100	100	100

CONCLUSIONS (1/3): SUMMARY

- **Basic equipment, guidelines and medications for CVD were largely inadequate at primary health care level in a majority of countries in the African region**
- **The situation was adequate in a few countries with higher GDP in the region**
- **This may suggest that adequacy in resources to address NCDs is largely dependent on a GDPO's country (sufficient resources)**
- **A big advantage of this survey is that it based on actual assessment of situation in health centers (i.e. assess if guidelines are present, counting medications in randomly selected heath centers), and not on "official reports" or "official policy" which may not adequately represent the actual situation at PHC level in countries**

Fake Medicines

Examples of falsified medicines identified in this study. Left: Falsified Clomid tablets. Note the misspelling “Citrate de clomifère” instead of “Citrate de clomifène”. Right: Falsified Azithromycin tablets. The indicated manufacturer “KIP Hamburg GmbH Germany” does not exist.

In Conclusion

- **Drugs are sometimes available**
- **When available most of the times they are not affordable**
- **When available and affordable ,you still have the chance to be medicated with fake medicines**

But Cardiovascular drugs are not drugs for the MoH

In my opinion, Cardiovascular Diseases are not a priority to the MoH just because they expect that it will not be during their mandate that the epidemics of AMI and strokes will happen