



Sealing Corruption Loopholes in Kenya's Health Procurement Systems

Policy Brief Two: April 24th 2016

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ACKNOWLEDGEMENTS

This policy brief is launched to coincide with World Malaria Day, April 25th as a contribution to eradicating procurement based corruption and lowering the costs of essential medicines to millions of Kenyans. We hope it will contribute to the sealing some of the loopholes that continue to keep the constitutional promises of the right to healthcare elusive for us all.

The policy brief is published in the public interest by the Society for International Development (SID), Transparency International-Kenya (TI-Kenya) and the Kenya Ethical and Legal Issues Network (KELIN). While asserting our full responsibility for the analysis and conclusions contained in this policy brief, SID, TI-Kenya and KELIN acknowledge the inputs of Samuel Kimeu, Sheila Masinde, Elijah Ambasa, Allan Maleche, Sandra Ochola, Irüngũ Houghton, Joan Njagi, Orwa Michael, Ali Hersi, Morris Maina, Mathias Kinyoda and Banice Mburu.

We are grateful for the insights and advice of National and County Government executives, health and procurement officers, anti-corruption campaigners, PBO health experts. We hope this publication supports their patriotic efforts to bring integrity to this area of governance.

We dedicate it to the late Alex Madaga and all others who continue to suffer or die as a result of our inability to deliver on the constitutional promise of the right to health.

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ACRONYMS AND ABBREVIATIONS

EACC	Ethics & Anti-Corruption Commission	MPI	Market Price Index
ERP	External Reference Pricing	MPR	Median Price Ratio
FY	Financial Year	MSA	Mombasa
KDP	Kenya Dialogues Project	MSH	Management Science for Health
KELIN	Kenya Legal and Ethical Issues Network on HIV & AIDs	PBO(s)	Public Benefit Organisation(s)
KEMSA	Kenya Medical Supplies Agency	PPOA	Public Procurement Oversight Authority
KSHS	Kenya Shillings	SID	Society for International Development
KSM	Kisumu	T.I Kenya	Transparency International Kenya
NBO	Nairobi	UNSPSC	United Nations Standard Products & Services Code
MOH	Ministry of Health	W.H.O.	World Health Organisation

Key words: Medicine, Pricing, PPOA, Ministry of Health, Devolution, Health Care, Corruption, Kenya

Fellow Kenyans, on securing the public procurement from corruption and cutting wastage in government, I am also directing that with immediate effect no public goods and supplies will be procured at prices above the prevailing market price by any public agency at the national and county level. The Public Procurement Oversight Authority shall henceforth widely publish its periodical price reference list for goods and services. I am also directing the PPOA to forward to my office a compliance report on this directive, once every quarter, for action in accordance with article 226(5) of the Constitution.

I am also announcing that every Accounting Officer shall be held responsible for ensuring that all payments for goods and services are paid for in a timely manner as prescribed in the supply contract.

The Ethics and Anti-Corruption Commission, The Criminal Investigation Department and the Asset Recovery Agency, which we are operationalising immediately, will institute proceedings to recover monies from companies that through collusion with public officials supplied above price reference lists.

**H.E. Uhuru Kenyatta: National call to action against corruption,
State House, Nairobi, 23rd November, 2015¹**

In most cases I cannot afford these drugs. A bottle of insulin used to cost Sh400 but the price has gone up to Sh500. I am supposed to inject myself in the morning and in the evening.

Grace Minayo, patient ²

There is a corner nicknamed Ocampo where patients who fail to go for medicine are detained for hours despite the fact that they do not have money to consistently pay for the drugs. I know it's dangerous to default once you have started treatment, but what do I do if I don't have the money?

Elizabeth Akinyi, patient ³

The Public Procurement System in Kenya has evolved from a crude system with no regulations to an orderly legally regulated procurement system.

The Public Procurement Oversight Authority Welcome Page <http://www.ppoa.go.ke>.

Malaria drugs like Metakelfin, antibiotics such as Amoxicillin and Azithromycin, painkillers like Diclofenac and Paracetamol and emergency contraceptives like Postinor-2 are the most counterfeited drugs.

Dr. Niko Gichana, Medical Doctor ⁴

As a matter of fact, until yesterday, I wouldn't have known how much a biro costs because they don't bring their price lists to me. The minister never sees them, you're never asked and you are never consulted on those matters.

Anne Waiguru, Former Cabinet Secretary, Ministry for Devolution and Planning, November 5, 2015. ⁵

EXECUTIVE SUMMARY

As we mark World Malaria Day on April 25th, 2016, 25 million Kenyans continue to be threatened by a mosquito smaller than out fingernail. One in five Kenyans occupying our hospital beds and three in ten Kenyans visiting our health facilities are wrestling with the effects of malaria. Kenya loses 170 million working days to the disease annually.⁶

This year's global theme is "Ending malaria for good". Globally, smart investments and strong partnerships between Governments, not for profit organisations and the private sector have reduced malaria mortality by 60% with 6.2 million lives saved by the year 2000. On the eve of World Malaria Day 2016, three public interest organisations namely the Society for International Development (SID), Transparency International-Kenya (TI-Kenya) and the Kenya Legal and Ethical Issues Network on HIV and AIDs (KELIN) can reveal that the Public Procurement Oversight Authority has violated the law and maintained a Market Prices Index with highly inflated pricing standards for medical equipment and essential medicines.

There are three broad findings:

The Public Procurement Oversight Authority (PPOA) is currently sanctioning procurement inefficiencies at national and county levels. The Market Price Index (MPI), the primary mechanism and standard for all Government procurement is not informed by fair market prices.

While this finding has massive implications for all Government procurement, we choose to focus on the health sector. We find that the MPI price standards that are in plain public sight are considerably higher than the price standards offered by Kenya Medical Supplies Agency (KEMSA), Mission for Essential Drugs and Supplies (MEDS) and the Management Sciences for Health (MSH). We estimate that MPI prices are on average 30-300% higher than market prices.

Secondly, although roughly 60% of County Government expenditure is going through KEMSA, the MPI remains a major reference for health based procurement. The MPI currently does not mirror transport, storage or regional demand differences. Exorbitant regional price discrepancies have therefore been devolved away from Nairobi to Mombasa and Kisumu.

The MPI currently legally permits procurement officers and other public officials to procure goods above the fair, equitable, transparent, competitive and cost-effective prices contrary to the Public Procurement and Asset Disposal Act (2015). We can only deduce that this system facilitates a significant leakage of funds on a week-by-week basis. It is not far-fetched to conclude that hundreds of thousands of routine purchases are occurring at significantly inflated prices.

This policy brief is a contribution to the fight against corruption, lowering the costs of delivering universal health-care for all and the realisation of the right to the highest attainable standard of health.

We welcome public dialogue and official clarification on any aspects of this policy brief. Keeping the public procurement system and cycle opaque only serves to keep Government expenditure hostage to cartels of corruption.

We estimate that the overhaul of the Market Price Index could free up 30% of procurement based costs in the health sector. This would be a substantive freeing up of Government resources for the expansion of health-care for all.

KEY RECOMMENDATIONS

Following these findings, we call on the following agencies to take the following actions;

1. The Ministry of Health and the Public Procurement Oversight Authority to publicly respond to these findings and demonstrate to Kenyans that their taxes are not being used towards fraudulent ends;
2. The Office of the President to undertake a review of its Ministries and Parastatals with a view to surcharging Public Procurement Officers and other Officials who may have facilitated significant losses through the purchase of inflated goods and services;
3. The Public Procurement Oversight Authority to overhaul the Market Prices Index and publish the names and backgrounds of the anonymous "renowned researchers engaged by PPOA", selection process and period engaged to produce the Market Prices Index;

4. The Ministry of Health to institute its own review in the implications of the MPI and publish the findings to develop and implement a medicines pricing policy that increases the level of transparency, regulation and uniformity in the pricing of medicines;
5. National, County Governments, Kenyatta National Hospital, Moi Teaching and Referral Hospital and all Level 5 hospitals must publish all health-related procurement contracts for 2015 on their websites and in the media for public scrutiny as a matter of the public's right to information;
6. The Ethics and Anti-Corruption Commission, Directorate of Criminal Investigations and the Asset Recovery Agency to review and institute proceedings should it be the case that the MPI has been used to inflate price procurement and further undertake to recover monies from companies that through collusion with public officials supplied above price reference lists;
7. The Office of the Auditor General to pay special attention to the loophole that the Market Prices Index has created for financial inefficiencies, fraud and theft;
8. Kenyan associations of patients, medical doctors and nurses and citizens acting to realise the right to health to undertake localised reviews and action to bring health prices and equipment down.

POLICY CONTEXT AND LEGAL FRAMEWORK FOR THE RIGHT TO HEALTH, PROCUREMENT TRANSPARENCY, OVERSIGHT AND VALUE FOR MONEY

Kenyan's voted for a constitution that enshrines the basic right to health and healthcare. The Constitution states; 43. (1) Every person has the right (a) to the highest attainable standard of health, which includes the right to health care services, including reproductive health care. The Health Bill recently adopted by Parliament reaffirms this basic and inalienable right. The realisation of the right to health rests on how the National Government and 47 County Governments manage our limited public health financing. While complemented by NGO and private for profit providers, the public health care system remains the major provider of health services. It accounts for 58% of health facilities, 52% of hospital beds and 70% of health personnel. Health based public procurement is vital to this system.

Despite increases in national and county expenditure, Kenya still allocates insufficient funding to the right to health. In April 2001, Heads of States under the auspices of the African Union declared their commitment to allocate at least 15% of their annual budget to improve the health sector⁷. In the Financial Year 2014/15, the Ministry of Health budget was capped at Kshs. 47.4 billion. This constitutes 4 percent of the national budget compared to 3.4 percent in FY 2013/14.⁸

In the same period, County Government health sector budgets increased from 13% to 22% of total counties budget. As can be expected, not all County Governments spend uniformly on health. In FY 2013/14, 22 counties allocated at least 15 percent of their budget to health. This increased positively to 38 counties in FY 2014/15.

Table 1: Health Budget Allocations FY 2014/15

FY 2013/14 - 2014/15	
Development expenditure	25%
Recurrent expenditure	75%
- Personal salaries and emoluments	69%
- Operations and maintenance	13%
- Medical drugs	8%

Source: International Budget Partnership-Kenya Summary of the Health Sector Analysis (May 2015)⁹

The devolution of health services to the counties was done in the recognition that this would improve health and well-being for all, including an end to the epidemics of HIV/AIDS, Tuberculosis, Malaria as well as non-communicable diseases. The expansion of safe and effective vaccines and medicines for all is central to this constitutional promise as much as the new adopted Sustainable Development Goal 3: Good health and well-being.

Our national policy and management of Kenyan's access to essential medicines is set out in our Pharmaceutical Policy.¹⁰ The Ministry of Health Kenya Essential Drugs List sets out the importance of ensuring essential medicines are costed at the lowest price to ensure universal access as much as possible.¹¹ This covenant with the nation is currently directly threatened by corruption and graft.

The Ministry of Health (previously the Ministry of Medical Services) has had adverse audit reports in all of the last three audits performed by the Office of

Auditor General (2011/2012, 2012/2013 and 2013/2014).

According to the National Ethics and Corruption 2015 Survey, The Ministry of Health is the Ministry that is second most prone to corruption (14.3%) after the Ministry of Interior and Coordination (40.4%).

At the County Government level, the Departments of Health (29.1%) top the list followed by Land and Physical Planning (14.3%) and Public Service Board (13.5%).¹²

Simply put, according to Government oversight institutions, the Ministry of Health is at the top of the list of the most corrupt public institutions in Kenya. This persistent record is official evidence of the deep malaise that afflicts this sector and calls for concerted review and action.

In 2015, a range of institutions including the executive, the opposition, public interest organisations and citizens have drawn public attention to several ethical procurement risks. They have included concerns about exaggerated prices, favouring of suppliers and contractors, the use of vague specifications and terms of references that are designed to make post contract negotiations inevitable, poor planning leading to urgent emergency purchases, splitting of tenders into smaller lots to circumvent specific procurement accountability and the unjustifiable use of alternative procurement methods.

The impact of these vulnerabilities has been to undermine development, increase the costs of poor quality goods, works and services, halt projects, the loss of public confidence in public procurement and withdrawal of overseas development assistance.

As the President stated in his November 2015 Call to National Action speech, corruption in public procurement is at the very source of the denial of services to Kenyans and the erosion of the national values and principles enshrined in Chapter 6. Four months after this speech, we publicly expose for the very first time, Government sanctioned pricing standards and a regime that legally and practically facilitates corruption in health procurement across our public hospitals and clinics.

Article 227.1 of the Constitution of Kenya mandates that when a State organ or any other public entity contracts for goods or services, it shall do so in accordance with a system that is fair, equitable, transparent, competitive and cost-effective.

Taken with the Presidential directive of November 23 2015, the following findings of this policy brief give sufficient grounds for action to be taken. These findings also inform a raging debate within the Senate and nationally, where County Governments should source their medicine from.¹³

OFFICIALLY SANCTIONED PROCUREMENT FRAUD: THE MARKET PRICE INDEX MODEL

The significant inefficiencies in the medical procurement supply chain in Kenya have been the subject of considerable research and activity. The Government of Kenya has pursued a reform agenda for the procurement and distribution of drugs and other medical supplies as a major priority since the early 1990s.

The establishment of the Kenya Medical Supplies Agency (KEMSA) in February 2000, was envisioned to simplify and rationalize the procurement, distribution and availability of medical supplies in Kenya. KEMSA's capacity to achieve full acceptance and operational success has been hampered by inadequate and unpredictable funding and with-holding of a major portion of the procurement of medical supplies from KEMSA. Although agreements have been reached to transfer all medical commodities procurement activities and funding to KEMSA, in practice the Ministry of Health continues to maintain control of a large portion of the annual medical supplies procurement contracts.¹⁴ Kenya's largest referral facilities namely Kenyatta National Hospital and the Moi Teaching & Referral Hospital autonomously manage their own procurement.

The Public Procurement and Asset Disposal Act (2015) governs all procurement in all state organs and public entities in Kenya. It states that standard goods, services and works with known market prices shall be procured at the prevailing real market price (3). Article 54(3) provides that "The Authority shall issue a quarterly Market Price Index as reference guide to assist accounting officers make informed price decisions."

It further provides that Public officials involved in transactions in which standard goods, services and works are procured at unreasonably inflated prices shall, in addition to any other sanctions prescribed in this Act or the regulations, be required to pay the

procuring entity for the loss resulting from their actions (4).¹⁵

The Market Price Index is hosted publicly on the website of the Public Procurement Oversight Authority.¹⁶ The website states that with its existence, the Public Procurement System in Kenya has evolved from a crude system with no regulations to an orderly legally regulated procurement system. The MPI sets standards for all Government purchases of goods and services. This not only includes health, but also infrastructure, agriculture, construction and other sectors. All purchases in conformity with the MPI cannot therefore be sanctioned or punished. The quality and accuracy of the MPI is therefore a critical cornerstone of eradicating fraud, corruption and the threat of the public purse.

Given the importance of the MPI and the PPOA, we have attempted to establish the accuracy of the MPI compared to other local and international market prices. Given the pro forma incongruities in the MPI pricing of medicines, we have sought to investigate the potential real causes for its inaccuracies, inconsistencies and variabilities. Lastly, we have attempted to establish the impact of the MPI on the public health care system, millions of Kenyan patients and corruption cartels.

At time of publication, the last available MPI on the website is dated June 2015 (see screenshot below).

The Public Procurement and Asset Disposal Act of 2015, 54(3) requires that the Authority shall issue a quarterly Market Price Index. The law has been buttressed by a Presidential Directive in November 2015, requiring the Public Procurement Oversight Authority to issue quarterly MPI¹⁷.

At present, there is no evidence that the PPOA have followed the law or heeded the Presidential Directive. They have consecutively missed updating the Index in September 2015, December 2015 and March 2016.

Curiously, the PPOA does not mention the authors of the MPI. The website merely states that the MPI is developed by “renowned researchers engaged by PPOA”. Given the sensitivity of the Index, it would seem important that the Index would be accompanied by a detailed methodological note and schedule of engagement. This deviates from the principles of open governance, transparency and infringes the right to public information as spelled out in the Constitution. Understanding that this Index is the single most comprehensive standard for all Government procurement, it is completely incomprehensible that the source of the Index be hidden from the public eye.

Thirdly and perhaps this explains the second point above, the MPI has major and unexplainable fluctuations in the cost of essential medicines and equipment. Analysing the MPI, we find that there are unexplainable major equipment and medicine price differences.¹⁸

Figure 1: Screenshot of the PPOA Website as AT 21ST April 2016¹⁹



Source: Public Procurement Oversight Authority website

Table 2: MPI Equipment Pricing

No	Item	Purpose	UNSPC	Ksh. Cost in Nairobi	Ksh. Cost in Mombasa	Ksh. Cost in Kisumu
1	Delivery Bed	Used for gynaecology & obstetrics childbirth & gynaecologic surgery	421918.08	39,357	49,000	114,500
2	Examination Couch	Used to support patients during medical examinations	421920.07	1,766	1,500	
3	Examination lamp	Used for examining teeth	421826.01	11,500	14,000	17,817
4	Dental Chair:	Used for examining teeth	421517.01	789,000		420,000
5	Dental Extraction Forceps	Used for extracting teeth	421516.23	925		1,750
6	Dental Autoclave A-Type	Sterilizes and sanitises medical instruments	422815.08	53,000		180,000
7	Dental ultrasonic scaler	Used for dental cleaning	421516.36	335,700		83,520
8	Automatic Hematology Analyzer	Used to measure different chemicals in blood samples	411158.15	94,000	135,000	536,300
9	Surgical diathermy:	Used in neurosurgery and eye surgery.	421418.06	34,333	352,000	
10	Goenimeter 15cm	Used to measure joint movements and angles.	421827.01	1,100	3,900	
11	Goenimeter 20cm	Used to measure joint movements and angles.		98,500		
12	Goenimeter 30cm	Used to measure joint movements and angles.		2,750		
13	Colorimeter	Used to measure intensity & colour differences in blood and other liquids	411153.18	253,333	350,000	122,500
14	Incubator Laboratory (Gravity assist)	Intended to controlling temperatures, humidity for laboratories	411045.11	145,000		612,000
15	Pulse Oximeter	Used to measure record pulses	421818.01	22,600	12,000	33,500

Source: PPOA Market Price Index (June 2015)

Table 3: Comparison of Medicine Prices

No	Medicine	Purpose	UNSPSC Number	Ksh Cost in Nairobi		Ksh Cost in Mombasa		Ksh Cost in Kisumu		KEMSA (October 2013)	
				Original	Generic	Original	Generic	Original	Generic	Order Unit Size	Price
1	Acetazolamide	Used to treat epilepsy +	511415.01	2,261	1,580	2,269	1,170		3,220		
2	Amoxicillin	Anti-biotic */typhoid +	511015.11	845	369		1,756		1,495	1000s	1,295
3	Amoxicillin / clavulanic acid Oral Suspension	Anti-biotic *	511015.11	406	203	602	250	241	221	100ml	184
4	Bupivacaine Heavy Sp. Injection	Pain reliever	511429.05	856	851			1,867	1,123	amp	47
5	Ceftriaxone injection ,i.m/i.v	Anti-biotic/ Pneumonia+	511015.51	348	49	500	82	183	59	vial	42
6	Ciproflaxin 250mg 10s	Anti-biotic /typhoid+	511015.42	631	75	2,026		975	50	100s	198
7	Diclofenac Sodium 50mg 100s	Pain reliever	511421.04	350	49	1,500	33		71	1000s	237
8	Erythromycin 250mg Tablet 100s	Anti-biotic /soft tissue infections	511015.7	372	38		368		480	1000	2,595
9	Magnesium Sulphate injection 50%	Treats low levels of magnesium in blood	511716.06	600	551			1,100	750	amp	190
10	Omeprazole Capsule 20mg 100s	Treats ulcers	511719.09	233	134	630	187		157	1000s	1,200
11	Salbutamol oral 2mg/5ml Vial	Treats asthma	51,161,508	129	19	216	67	54	40	100ml	15.50
12	Haloperidol 5mg Table 100s	Treats schizophrenia	511417.02	345	146		383		370	1000s	1,280

* Denotes on the Government of Kenya Ministry of Health Essential Drugs List 2010

Source: PPOA Market Price Index (June 2015)

Analysis of the Market Prices Index reveals significant variation between equipment prices in Nairobi, Mombasa and Kisumu. In the sampling under review, the costs in Kisumu or Mombasa can be up to 500% higher, despite the fact that most of this equipment was imported through Mombasa. In some of the same items with a slightly different nomenclature had variations in price of up to 10 times.

HOW THE MARKET PRICES INDEX COMPARE'S TO OTHER NATIONAL AND INTERNATIONAL STANDARDS

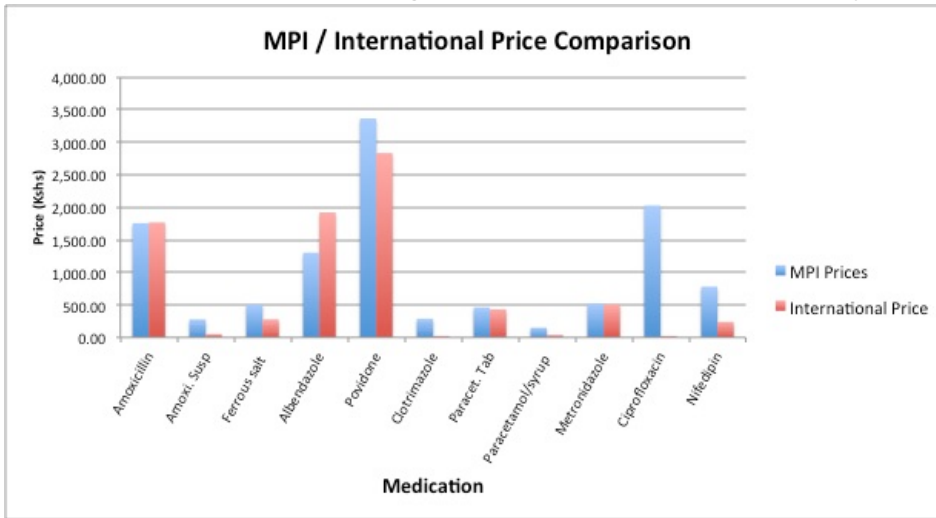
A survey conducted by Health Action International Africa in collaboration with W.H.O. in 2004 found that the purchase prices of medicines by patients in Kenya to be 1.99 and 3.33 times of the international reference prices in public and private sectors respectively. Kenyans pay up to 17 times the internationally-recommended prices for some branded medicines and up to three times for their generic forms.²⁰

We revisit this comparison using the June 2015 Market Price Index. The following patent and generic medicine prices are part of a standardized core group selected from the 2010 Essential Medicines List for Kenya. We have used the Management Sciences for Health International Drug Price Indicator Guide which pulls together information from recent price lists of large, non-profit generic medicine suppliers and thus reflects the prices governments could be expected to pay for medicines (see Appendix on Methodology for more details).

Table 4: PPOA Market Price Index/International Base Price Comparison

	Basic Core Medications	Units	NBO	MSA	KSM	Median Price Ratio				
						MSH	MPI	NBO	MSA	KSM
1	Amoxicillin caps. 250mg	1000	845	1,756	1,495	1766.4	0.994	0.478	0.994	0.846
2	Amoxicillin susp 125mg/5ml	100	149	277	69	51.84	5.343	2.874	5.343	1.331
3	Ferrous salt tabs (w/folic acid)	1000	320	240	508	278.4	1.825	1.149	0.862	1.825
4	Albendazole 400mg tablets	1000	1,302	1,198	1,300	1920	0.678	0.678	0.624	0.677
5	Povidone iodine 10% (5L)	5000	2,086	1,651	3,363	2832	1.188	0.737	0.583	1.188
6	Clotrimazole Cr. 1% (20gm)	20	126	288	37	24	12	5.25	12	1.542
7	Paracetamol tablets 500mg	1000	462	383	362	432	1.069	1.069	0.887	0.838
8	Paracetamol susp. 120mg/5ml	100	44	150	43	40.32	3.72	1.091	3.72	1.066
9	Metronidazole tablets 200mg	1000	474	523	370	508.8	1.028	0.932	1.028	0.727
10	Ciprofloxacin tabs 250mg	10	631	2,026	975	20.448	99.081	30.859	99.081	47.682
11	Nifedipine retard tabs 20mg	100	780	388	260	240	3.25	3.25	1.617	1.083
						Average	11.834	4.397	11.522	5.346
(l)7-11						Minimum	0.678	0.478	0.583	0.677
(l)7-11						Maximum	99.081	30.859	99.081	47.682

Figure 2: MPI/International Price Comparison



Source: PPOA Market Price Index (June 2015) and MSH International Drug Price Indicator (2014 Edition)

We average that using the Market Basket proxy for health care services, it could cost National and County Governments using the MPI on average;

- **4.3** times and in the worst case **31** times more the international cost for medicines in Nairobi;
- **11.5** times and in the worst case **99** times the international cost for medicines in Mombasa;
- **5.3** times and in the worst case **47** times the international cost for medicines in Kisumu

On average nationally, for every procurement based on the Market Prices Index the Government of Kenya pays more than **11.8** times the international price for medicines and equipment.

THE MARKET PRICES INDEX IS INEFFICIENT, BUT IS IT BEING USED TO MANIPULATE TO INFLATE PRICES?

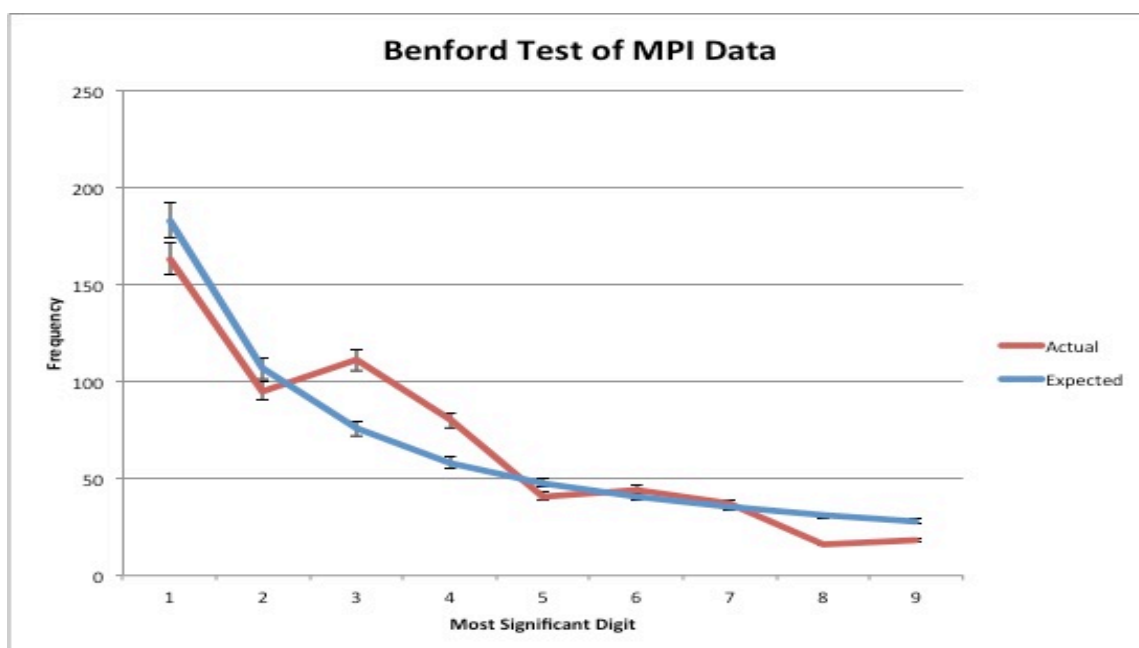
A further methodological issue arises when analysis suggests that the health drug pricing variations on the Market Prices Index appear manipulated. Applying the Benford fraud test indicates that the Market Prices Index is almost certainly based on fabricated numbers. A Benford test is an analysis of the frequency with which the first digits in a data set occur. Benford's law or algorithm has been used to detect possible fraud in socio-economic data, elections and criminal cases in several jurisdictions including North America. It assumes that made up figures will probably have a uniform way of distributing numbers.²¹

The Benford test was conducted on the cost of all 605 listed original and generic medicines in Mombasa, Kisumu and Nairobi in the MPI. Pricing, payment and financial (refer to figure 4 and the source data in figure 3) reveals that the correspondence between the actual data and the expected distribution (as given by the Chi-square value of 0.00003%) is so small, that one must conclude that the medical pricing data is fraudulently manufactured and not collected in the field.

Figure 3: Frequency Distribution of Lead Digits
TOTAL COUNT = 605

Digit	Actual Count	Expected Count	Benford	Actual
1	163	182.11	30.1%	26.94%
2	95	106.48	17.6%	15.70%
3	111	75.625	12.5%	18.35%
4	80	58.69	9.7%	13.22%
5	41	47.795	7.9%	6.78%
6	44	40.535	6.7%	7.27%
7	37	35.09	5.8%	6.12%
8	16	30.855	5.1%	2.64%
9	18	27.83	5.6%	2.98%

Figure 4: Plot against expected distribution



IMPACT OF THE RIGHT TO HEALTH AND THE COST OF HEALTH-CARE

It is not disputable that for Kenya to meet universal health coverage and the right to health, more financing is required. However, the quality of health expenditure and the integrity of our public procurement system is critical. A saving of 10-30% from the FY 2015/2016 budget of Kshs. 59 billion shillings would make a huge difference.

Besides malaria, Kenyans continue to be stalked by both communicable and non-communicable diseases, child and maternal deaths. Every year for instance, we lose 27,000 Kenyans and detect 39,000 new cases of cancer. Half of these patients require radiotherapy as part of their treatment. Keeping the costs of essential medicines and equipment as low as possible and shielding them from the cartels of corruption is an act of national patriotism. For to allow corruption cartels to play with profit margins is to resign millions to unnecessary death and suffering. The cost of corruption, simply put is death.

METHODOLOGICAL NOTE

Objectives

There were three objectives for this policy brief namely;

1. Establish the accuracy of the MPI: With reference to the health sector, establish the accuracy of the MPI pricing compared to market prices.
2. Analyse the MPI: Given the pro forma incongruities in the MPI pricing of medicaments, investigate potential real world causes for the inaccuracies, inconsistencies and variabilities therein.
3. Impact Assessment: Establish both a theoretical and real-world impact of the MPI on the public health care system.

Methodology

We have undertaken the research with the intention of;

1. Analysing the Market Price Index (MPI) to establish the distribution and value of prices recommended
2. Compare the MPI with other recommended national and international price standards
3. Reviewing public medical purchases for conformity with the Market Price Index

The Market Basket Approach estimates the relative cost of basic health care in different parts of Kenya as proxies for the average Median Price Ratio for medicines. The market basket is based on a fixed-weight index. It answers the question of how much more or less it would cost at a different place to purchase the same mix of goods and services that was purchased in a base location.

We have then made the assumption that a patient would have access to goods priced at the MSH median price. As such, it measures “pure” price differences only.

The Median Price Ratio (MPR) is based on World Health Organization/Health Action International survey methodology. The MPR is the ratio of the Market Price Index price divided by an international reference price converted into Kenya Shillings.

The international reference prices used for this survey were taken from the International Drug Price Indicator Guide of 2014 drawn up by Management Sciences for Health (MSH). The reference price serves as an external standard for evaluating local prices.

The International Drug Price Indicator Guide of 2014 drawn up by Management Sciences for Health (MSH) pulls together information from recent price lists of large, non-profit generic medicine suppliers and thus reflects the prices governments could be expected to pay for medicines. This method is a hybrid of a widely used system of medicine price review called External Reference Pricing (ERP). As the International Drug Price Indicator Guide is calculated in dollars, we have used an exchange rate of Kshs96 to convert to Kenyan shillings. An MPR of 1 means the MPI price is equivalent to the reference price and an MPR of 2 means the MPI price is twice the reference price.

The selection of medicines in this study are part of a standardized core group selected from the Essential Medicines List for Kenya 2010. It should be noted that this list is on the verge of been refreshed in May 2016. The core group was selected based on the burden of disease, availability of standard formulations, importance and the frequency of their use in treating important common health problems in Kenya. Both patented and generic medical drugs were analysed. Selecting a different set of medical drugs would affect the price differentials but not alter the general conclusions we draw on the Market Prices Index.

Likewise, comparing health price standards across MPI, KEMSA, MEDS and the International Drug Price Indicator is fraught with challenges of missing figures and miscalculated average prices. We have attempted to avoid these and welcome further analysis.

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END NOTES

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The Society for International Development (SID) is an international network of individuals and organizations founded in 1957 to foster democratic participation in the development process. The Kenya Dialogues Project (KDP) was established in 2013 to create a public covenant and leadership around three central promises of the Constitution of Kenya. Public Participation, Integrity and Equality enshrine the constitutional vision of a democratic, just, equitable and economically prosperous Kenya. We support knowledge, dialogue and action towards active citizenship and responsive governance.

<http://dialogues.sidint.net> | Twitter: @SIDKDP

Kenya Legal and Ethical Issues Network on HIV and AIDs (KELIN) was established to advocate for a rights-based approach to HIV-related strategies and programmes at the national and county level in 2001. Through a variety of training programmes, advocacy campaigns, and litigation on matters relating to HIV law and the rights of people living with and affected by HIV, KELIN has affected the lives of millions. Their new strategic plan (2015-19) expands its initial HIV related rights focus to include sexual & reproductive health, women, land and property, key and affected populations. <http://www.kelinkenya.org> | Twitter: @KELINKenya

Transparency International - Kenya is a not-for-profit organization founded in 1999 with the aim of developing a transparent and corruption free society through good governance and social justice initiatives. TI-Kenya is one of the autonomous chapters of the global Transparency International movement that are all bound by a common vision of a corruption-free world.

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