



Cutting waste *en route* to Universal Healthcare Coverage

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* <http://www.who.in/>

<http://www.oecd.org/health/tackling-wasteful-spending-on-health-720264266414-en.htm> about one fifth of resources wasted (Jan 2017)



“ US\$ 26.2 billion will be required for the HIV response in 2020 ”

sustainable

Between 20-40%
annually

FT Health: Combating Malaria

According to the Global Fund to fight tuberculosis, HIV and malaria, the \$2.5bn a year received from governments and other donors that it spends on malaria “is less than half the amount required to maintain the gains against this disease”. Its **\$2.5bn spent is wasted.***

Every year 100 million people live in poverty and 150 million people die because of out-of-pocket expenditure on health services. Over 1/3 of spending is OOP.

Globally, two thirds (38 million) of 56 million deaths each year are still not registered.

More than 18 million additional health workers will be needed by 2030 to meet the health workforce requirements of the Sustainable Development Goals and UHC targets, with gaps concentrated in low- and lower-middle-income countries.

Waste costs lives

Making the trade offs of investment decisions explicit is a necessary condition for holding those making such decisions accountable. Generating better evidence of comparative clinical and cost effectiveness is a positive externality of such a system.

What's the problem? Coverage of wasteful technologies and services diverts valuable resources away from worth while investment

Colombia

- Avastin paid for for all indications (incl FDA unlicensed ones)
- Regional variation in immunisation with parts of the country with <50% coverage

Kyrgyzstan

- >50% of insulin budget goes to analogues
- Switching to human insulin can double the number of patients on treatment

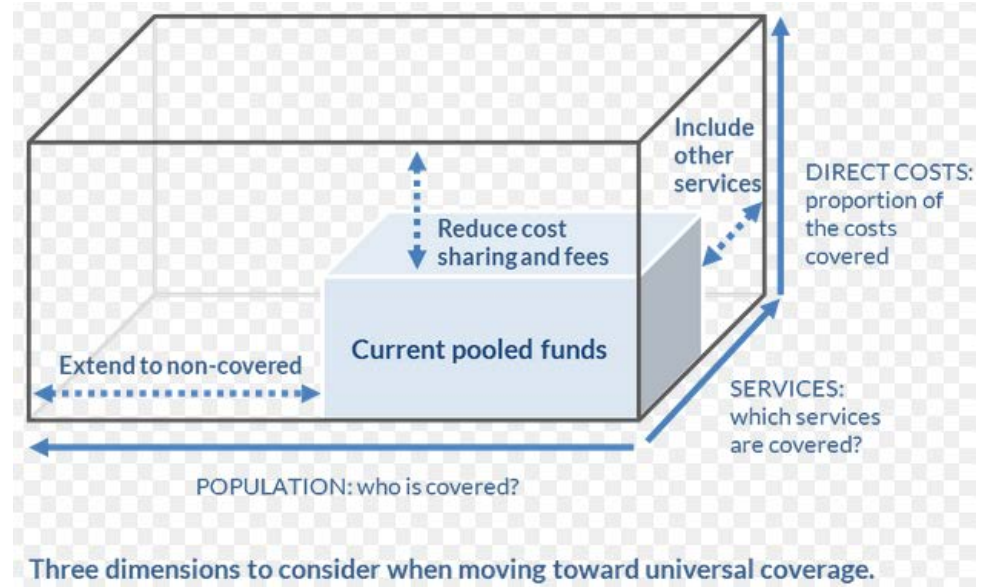
HIV

- 40-50% of eligible patients NOT on treatment in Africa
- 2nd and 3rd line ART for <5% of patients, consumes one fifth of the total ART budget

UK

- Cancer Drugs Fund has spent over £1bn on non-cost effective drugs
- >14,400 QALYs lost across the NHS due to displacement of other needed, cost-effective care

The UHC cube:
what about
things that have
to be left out?



OUT!

A “waste” typology

Managing entry of new expensive technologies through population/indication targeting and price negotiations

Disinvesting away from obsolete or harmful technologies

Effective regulation and functional healthcare system

Effective generic competition and substitution

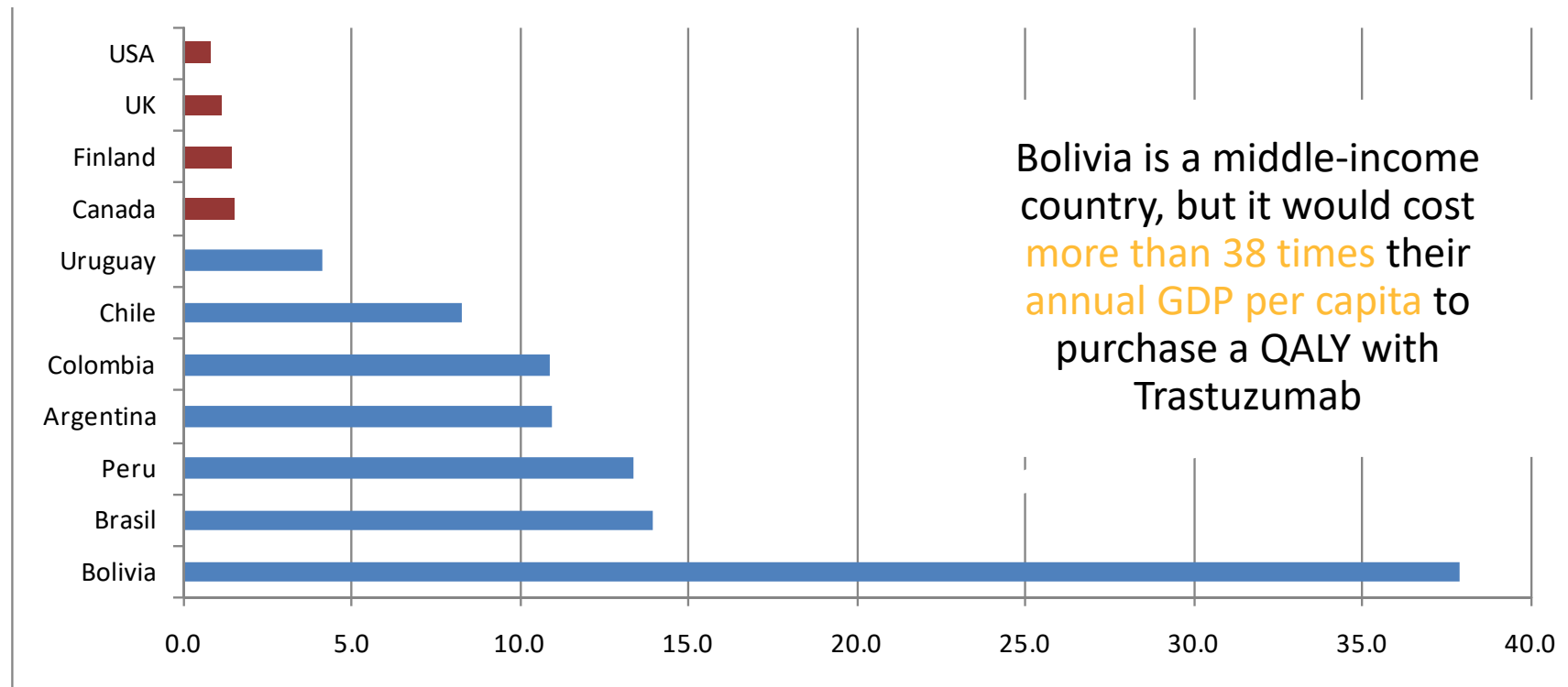
Cost-effective procurement

Cost effective global (and local) norms!

Managing entry of new expensive technologies through population/indication targeting and price negotiations

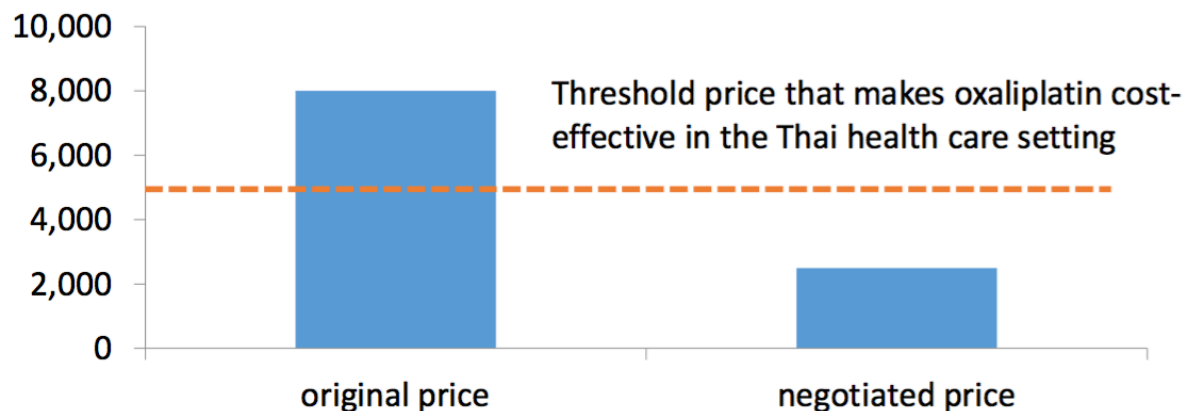
Data and evidence -- whereas efficacy is global, cost-effectiveness and affordability (and budgets!) are local

Cost-utility of Trastuzumab expressed as number of GDP per QALY



Managing entry of new expensive technologies through population/indication targeting and price negotiations

Threshold analysis for price of oxaliplatin



Use of HITA information in price negotiation

Medicine	Original price (THB)	Reduced price (THB)	Potential saving (THB per year)
Tenofovir	43	12	375 million
Pegylate interferon alpha-2a (180 mcg)	9,241	3,150	600 million
Oxaliplatin (injection 50 mg/25 ml)	8,000	2,500	152 million

From 2010- 2014

Using Purchasing price in 2009 as basic price

Item	Saving (Bht)
ARV Non CL	5328.59 million Bht (177.61 million USD)
ARV CL	10165.19 million Bht (353.84 million USD)
J2 and Clopidogrel	6830.37 million Bht (227.68million USD)
Flu vaccine	266.47 million Bht (8.88 million USD)



Journal of Evidence, Training and Quality in Health Care

Volume 108, Issue 7, 2014, pages 397-404

What is the contribution of health-related evaluations to decision-making in healthcare? Experiences from 7 selected countries



main emphasis

The use of economic evaluation for the pharmaceutical industry in Thailand

Cost-benefit assessments as an instrument for establishing the list of medicines to be reimbursed in Thailand

Yot Teerawattananon ¹, Nattha tritasavitol ¹, Netnapis Suchonwanich ², Pritaporn Kingkaew ¹

Saved 768.01 million USD in 5 yrs

Managing entry of new expensive technologies through population/indication targeting and price negotiations



CNHDRC: How much should TDF cost?

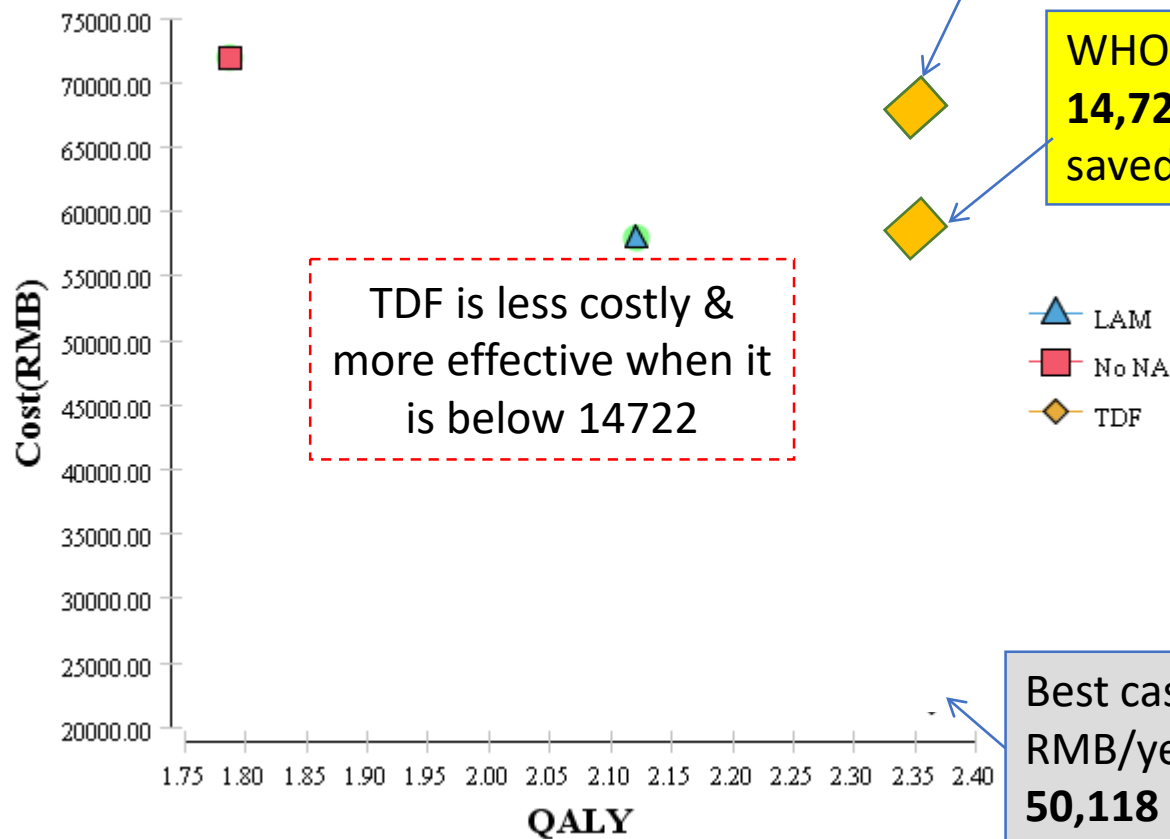


China:

- 93 million people carry HBsAg
- 20 million are active CHB patients ,>50 % of them are HBeAg+
- 7 million are in need of treatment urgently

Base case list price (TDF 16,680 RMB/year), cost saved/person : 6,275 RMB

WHO 1 GDP pc threshold (TDF 14,722 RMB/year), cost saved/person : 13,976 RMB



TDF is less costly & more effective when it is below 14722

Best case @ ARV price (TDF 1,800 RMB/year), cost saved/person : 50,118 RMB

CEA plane(in 5 year)

Disinvesting away from obsolete or harmful technologies

Revision of a 17,000 item Benefits Package

Step 1: Guidelines & Literature Review

Process: Review of selected guidelines and systematic reviews of systematic reviews and meta-analysis of studies

Outcome: List of medical indications with and without clinical and economic evidence to support the use

Step 2: Matching indications

Process: Analysis of hospital data for matching patients with and without known medical indications identified from the review (Step 1)

Outcome: The percentage of patients with medical indications where prescriptions of medicines/medical devices deemed inappropriate based on the review.

Step 3: Clinical Expert Review

Process: Clinical expert review of anonymised patient records with medical indications i.e. principal diagnosis, co-morbidity and complications where prescription of medicines/medical devices deemed inappropriate by the review.

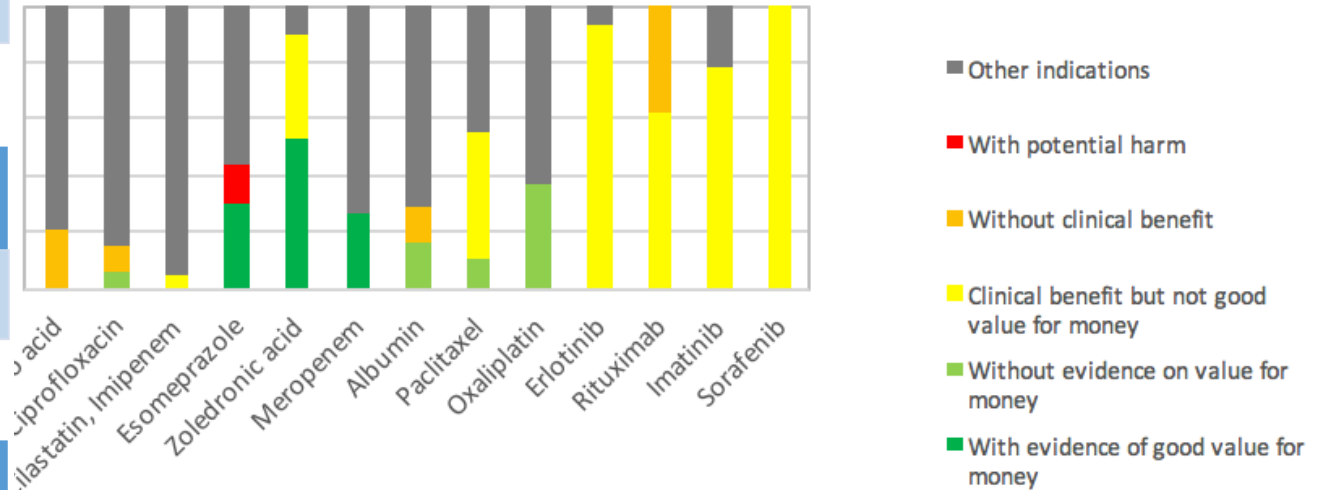
Outcome: Percentage of patients with medical indications where prescription of medicines/medical device deemed inappropriate by the review but deemed appropriate by clinicians

Step 4: Developing list of indications

Process: Analysis of medical indications not identified by the review but recommended by clinical experts

Outcome: Policy recommendation: To fine tune medical indications to include in Basic Health Service Package (BHSP)

Figure 2: Results of Expert Review of Patient Records



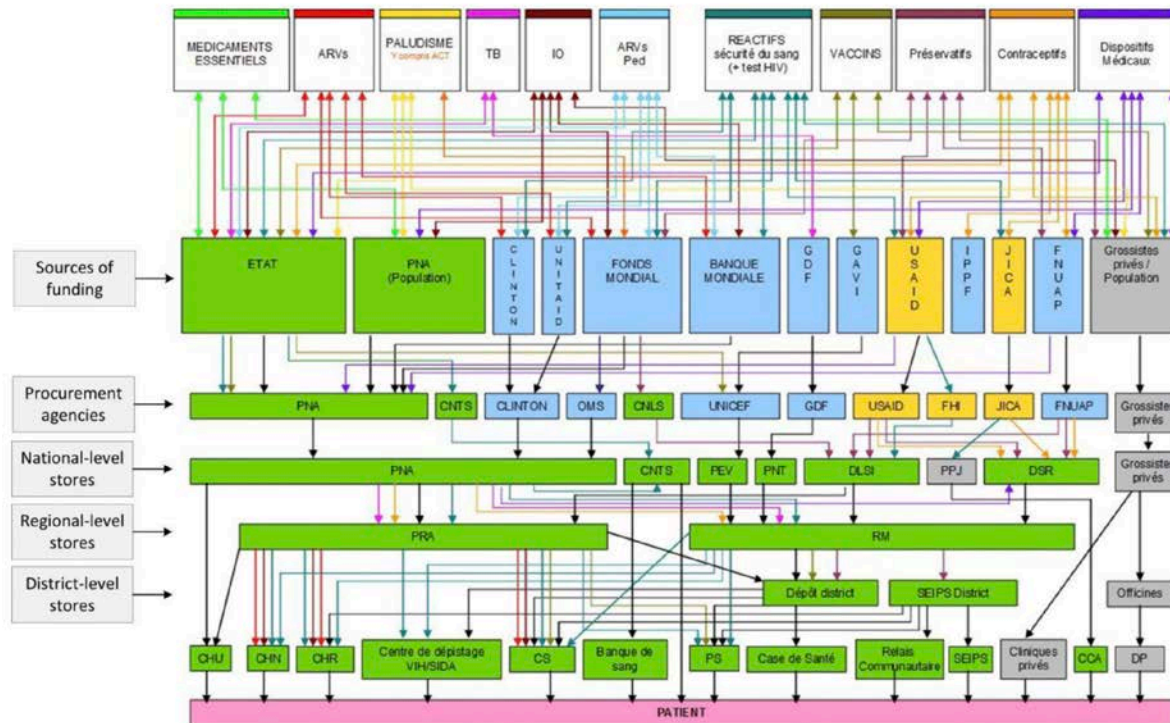
Medicines

Safety	Clinical efficacy/ effectiveness	Cost-effectiveness	Color
✓	✓	✓	Dark Green
✓	✓	unknown	Light Green
✓	✓	*	Yellow
✓	Unknown, *		Orange
*			Red

✓ = there is a supportive evidence
 * = there is no supportive evidence
 unknown = no data

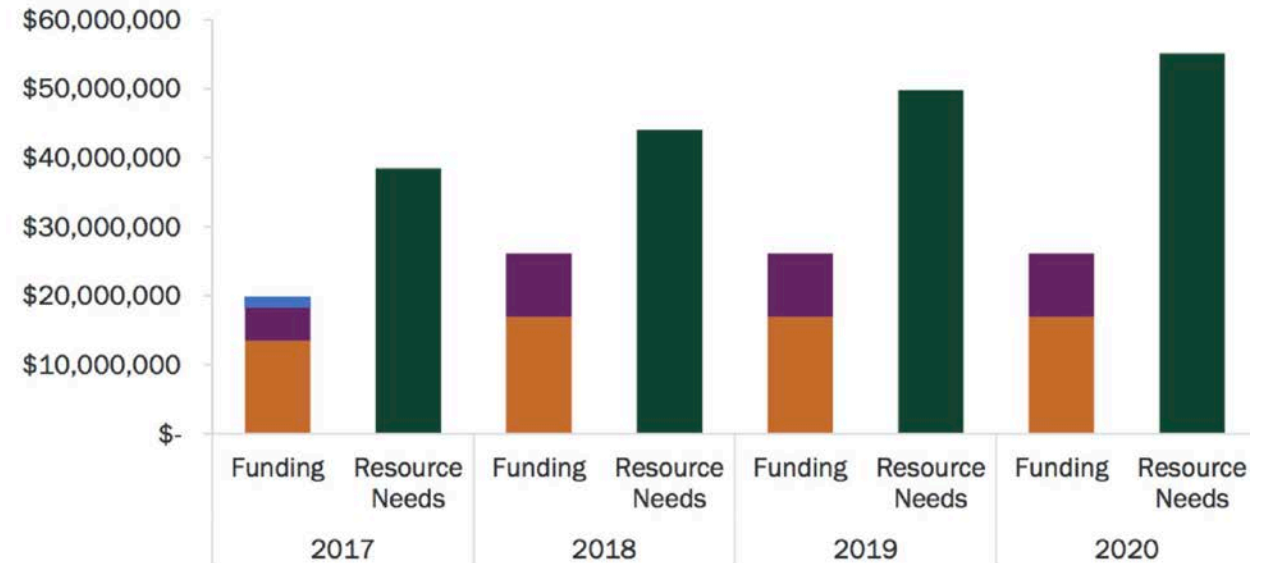
Money and institution gap: transition in doubt and real risk of regression

Duplicate and fragmented health supply chains in Senegal



Senegal: 65% spending OOP – 35% NGOs/donors (head of pharmacy, Senegal Central Medical Store)

Figure 18: GFATM and PEPFAR Supply Plan versus Resource Needs

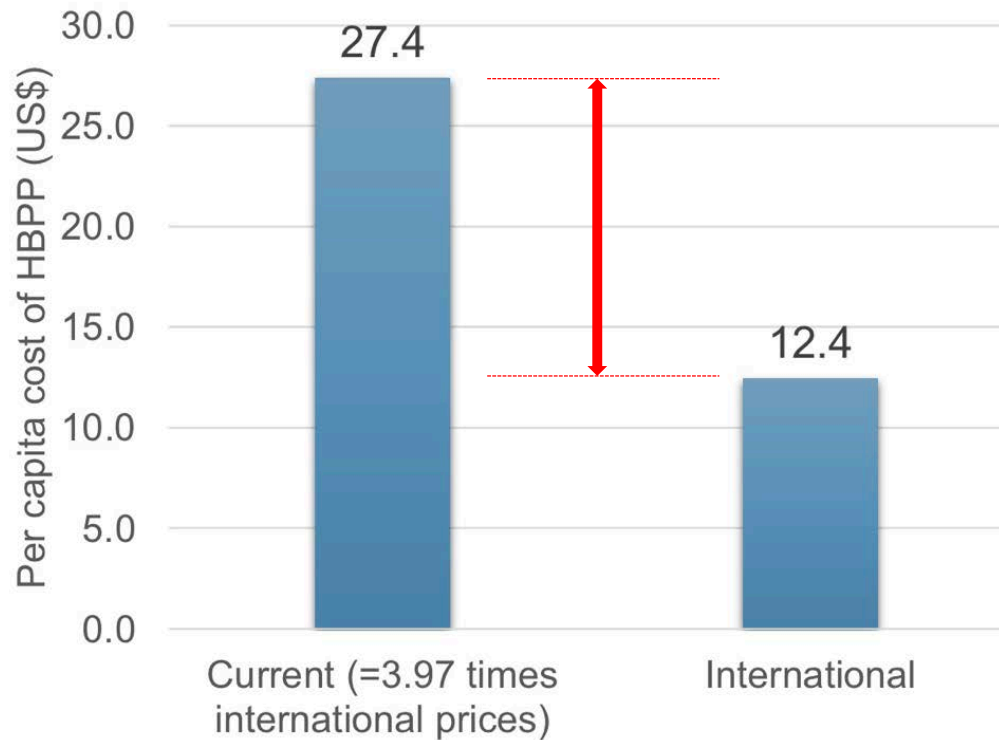


Ghana: by 2020, Ghana will need twice the GFATM+PEPFAR \$ commitment to meet the WHO 90-90-90 target, for commodities alone (HP+ 2017). The country is already disinvesting away from older vaccines (anecdotal).

Effective generic competition and substitution

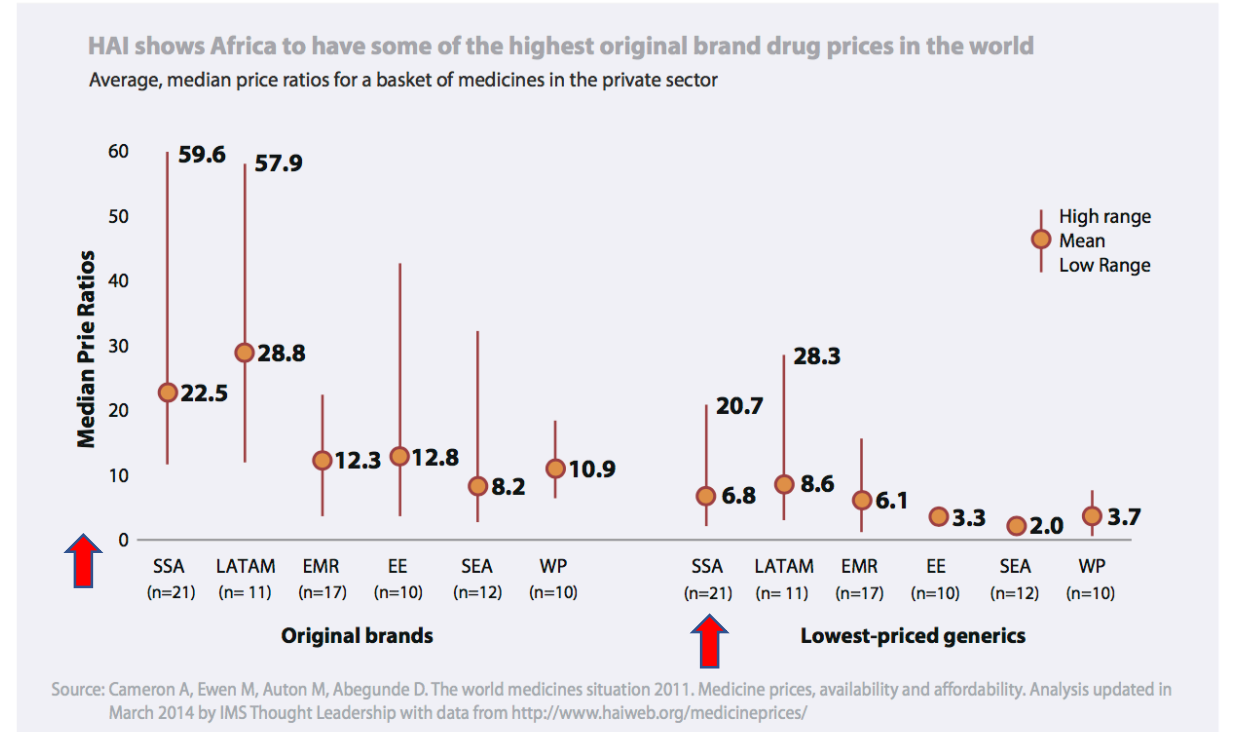
Some of the world's poorest countries have some of the world's highest drug prices

Republic of Congo: Annual cost of HBP per citizen as a function of the price of medicines



Source: World Bank (2017). Ricardo Bitran, CGD Nov 2017

FIGURE 1: AFRICA HAS SOME OF THE HIGHEST ORIGINAL BRAND PRICES RELATIVE TO OTHER LOW INCOME REGIONS



REFERENCES:

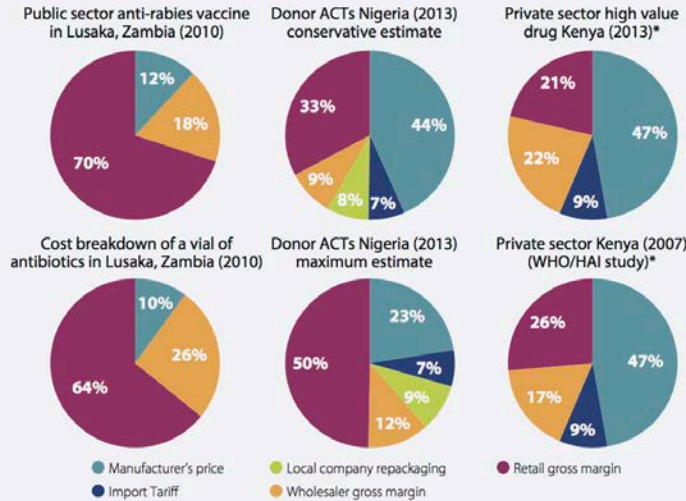
¹¹ Cameron A, Ewen M, Auton M, Abegunde D. The world medicines situation 2011. Medicine prices, availability and affordability. [http://www.who.int/medicines/areas/policy/world_medicines_situation/WMS_ch6_wPricing_v6.pdf]. 2011;.

Table 16. PHC Unit resource costs (USD) for 100% and 50% coverage MSH EHBP Northern Syria, 2017

Break-down of Total Costs	100% Coverage	50% Coverage
Salaries (Technical Staff)	92,934	58,536
<i>Technical Salaries as % of total</i>	<i>14.9%</i>	<i>16.8%</i>
Salaries (Admin and Support Staff)	37,086	33,264
<i>Admin Salaries as % of Total</i>	<i>5.9%</i>	<i>9.5%</i>
Drugs, supplies and lab tests	474,432	237,216
<i>Drugs, medical supplies, and tests as % of total</i>	<i>76.0%</i>	<i>68.0%</i>
Other Operating Costs	19,800	19,800
<i>Other Operating costs as % of total</i>	<i>3.2%</i>	<i>5.7%</i>
Regional and Central Level support costs	0	0
<i>Regional/central support costs as % of total</i>	<i>0.0%</i>	<i>0.0%</i>

TO PAT AND VOLUMES

Looking at cost breakdown rarely is MSP over 50% of the price to patient



Source: Differential Pricing for Pharmaceuticals; HAI / WHO; a major multinational NGO; a private distributor *Hypothetical and not including sub-distribution

FIGURE 2: EFFICIENT DISTRIBUTION REQUIRES CONSOLIDATION AND COMPETITION

thepharmaletter

*Up to date news for the Pharmaceutical and Biotechnology industries

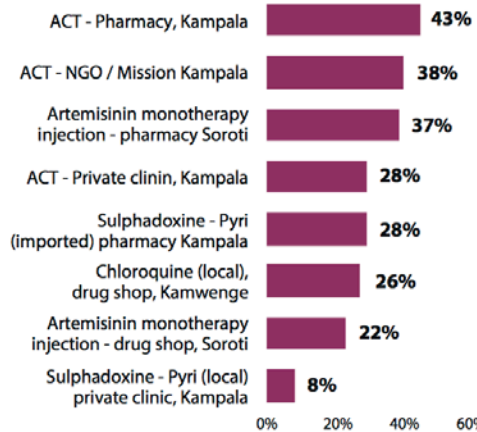
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Australia's PBAC makes world-first biosimilar drug substitution decision



FIGURE 6: DIFFERENTIAL PRICING ALONE MAY NOT BE ENOUGH TO LOWER PRICES SUFFICIENT AS FOUND BY THE AMFM



- Despite the AMFm selling ACT therapies into seven te markets at just US\$0.15, in a markets bar Ghana the price to patient significantly exceeded the US\$0.45 expected retail price.
- Single source (originator) products have the highest mark-ups and multisource (generic) products the lowe
- Credit is the main cost outside the operational cos (logistics, storage etc...)

Source: Understanding the Antimalarials Market: Uganda 2007 – an overview of the supply side

What drives prices up in Africa?

EDITOR'S PICKS MOST READ

Patent wins for Pfizer in India, where NPPA looks to be disbanded



Effective regulation and functional healthcare system

Cost of capital

Domestic industrial policies

corruption

Not just about IP - voluntary licensing of HepC drug results in limited access in SSA

Bad regulation

Forex fluctuations

Transport costs

Regressive taxes (eg VAT on essential medicines)

Snapshot

Gilead has agreements with 11 Indian companies to manufacture generic hepatitis C medicines for **101 developing countries**

There are **103 million** people living with hepatitis C in these developing countries

Gilead also offers its branded hepatitis C medicines at a **significantly reduced flat price** in these countries

Indian exports of branded generic Sofosbuvir to destination countries in number of packs - up until November 2016

Asia (Central and South)		Sub-Saharan Africa	
Myanmar	92626	Burundi	1299
Vietnam	42538	Cameroon	998
Mongolia	10412	Kenya	315
Nepal	7395	South Africa	180
Turkmenistan	2425	Ghana	46
Kyrgystan	2378		
Uzbekistan	1452		

Source: Indian export database 2014 – November 2016 – Zauba

AFRX CONSULTING

Price controls alone won't do it

- Results show that, after direct price controls were enacted, price inflation decreased almost – 43%, but real pharmaceutical expenditure almost doubled due mainly to an increase in units sold. Such disproportionate increase in units sold maybe attributable to better access to drugs due to lower prices, and/or to an increase in marketing efforts by the pharmaceutical industry to maintain profits.

Effective regulation and functional healthcare system

The screenshot shows the BMC journal interface. At the top, there is a navigation bar with the BMC logo and links for 'Explore Journals', 'Get Published', and 'About BMC'. Below this is the journal title 'Cost Effectiveness and Resource Allocation' and a secondary navigation bar with 'Home', 'About', 'Articles', and 'Submission Guidelines'. The main content area features a table of contents on the left with links for 'Abstract', 'Background', 'Study data and methods', 'Methods', 'Main results', 'Discussion', 'Conclusions', 'Declarations', and 'References'. To the right, the article title 'Higher pharmaceutical public expenditure after direct price control: improved access or induced demand? The Colombian case' is displayed in large, bold text. Below the title, the authors are listed: Sergio I. Prada, Victoria E. Soto, Tatiana S. Andia, Claudia P. Vaca, Álvaro A. Morales, Sergio R. Márquez, and Alejandro Gaviria. The article is identified as 'Research | Open Access'. At the bottom, the journal information 'Cost Effectiveness and Resource Allocation 2018 16:8' is shown, along with the DOI link 'https://doi.org/10.1186/s12962-018-0092-0', the copyright notice '© The Author(s) 2018', and the dates 'Received: 24 September 2017 | Accepted: 13 February 2018 | Published: 2 March 2018'.

Cost effective global (and local) norms!

RECOMMENDATION E.7: Antenatal care models with a minimum of eight contacts are recommended to reduce perinatal mortality and improve women’s experience of care. (Recommended)

Remarks

- The GDG stresses that the four-visit focused ANC (FANC) model does not offer women adequate contact with health-care practitioners and is no longer recommended. With the FANC model, the first ANC visit occurs before 12 weeks of pregnancy, the second around 26 weeks, the third around 32 weeks, and the fourth between 36 and 38 weeks of gestation. Thereafter, women are advised to return to ANC at 41 weeks of gestation or sooner if they experience danger signs. Each ANC visit involves specific goals aimed at improving triage and timely referral of high-risk women and includes educational components (12). However, up-to-date evidence shows that the FANC model, which was developed in the 1990s, is probably associated with more perinatal deaths than models that comprise at least eight ANC visits. Furthermore, evidence suggests that more ANC visits, irrespective of the resource setting, is probably associated with greater maternal satisfaction than less ANC visits.

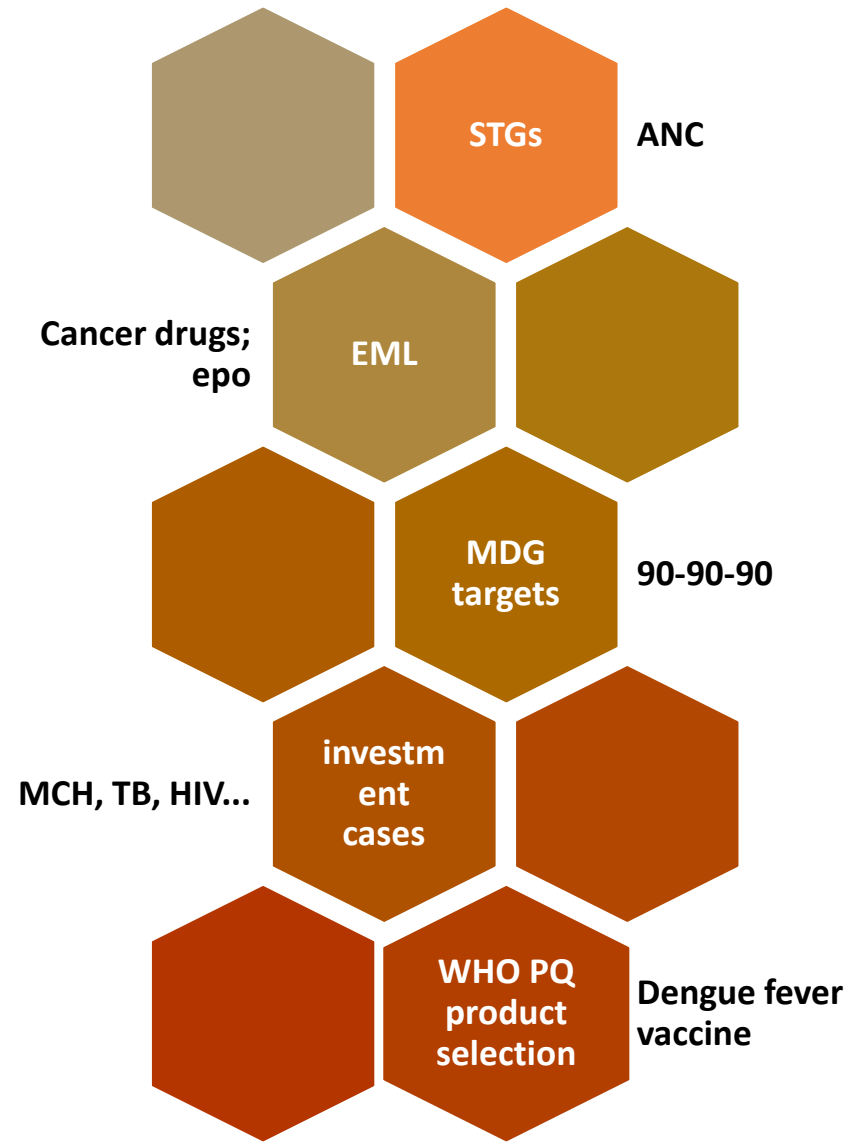


Cepheid cartridge price shoots up as company seeks to negotiate warranties country by country (StopTB)



“...we found less than 3% probability that Xpert introduction improved the cost-effectiveness of tuberculosis diagnostics.”

When norm setting ignores costs!



Get the incentives right

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Changing Physician Incentives For Cancer Care To Reward Better Patient Outcomes Instead Of Use Of More Costly Drugs

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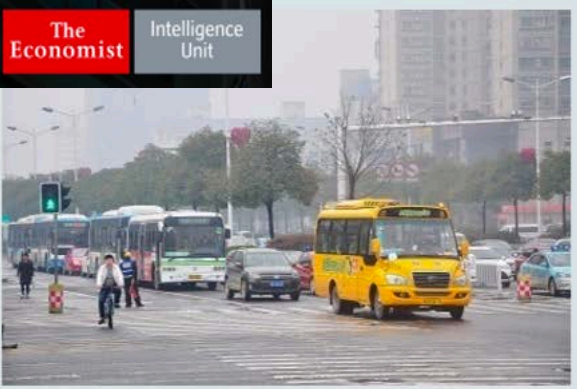
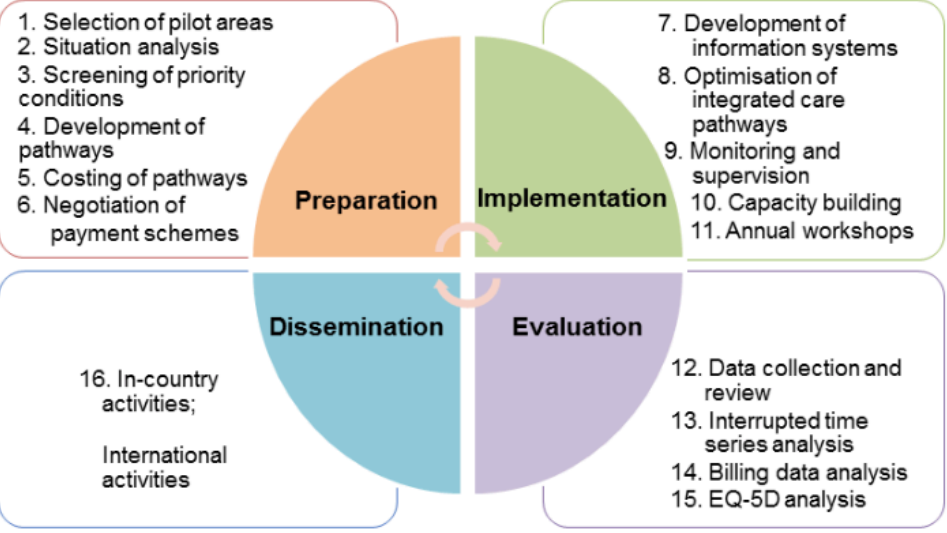
Lee N. Newcomer¹



“The use of pathways has been shown to lower the drug costs of cancer therapy. Neubauer and coauthors reported a 37 percent reduction in the drug costs for lung cancer patients using pathways developed by US Oncology, a national oncology management organization....**If pathways are not supported by a reimbursement schedule that pays a higher margin for generic and low-cost, effective brand-name drugs, then the physician could be biased to select high-cost drugs in his or her pathway.** Pathways do create an incentive for pharmaceutical firms to demonstrate that their drugs have major advantages in outcomes or costs, compared to those of competitors, so the drugs will be included in a pathway.”

A Pilot Project Using Evidence-Based Clinical Pathways And Payment Reform In China's Rural Hospitals Shows Early Success ➔ Expand

Tsung-Mei Cheng¹



China's healthcare challenges: The People's Hospital of Yiyang County in Henan Province

Since 2009, China's government has invested heavily in its healthcare system and has introduced a series of major reforms, including expanding health insurance coverage to most of the population. Experiments are underway across the vast country at all levels of system organisation, delivering better care for patients as well as reducing costs. Many of these projects are laying the foundation of value-based care.

Strengthening evidence-based policy making in support of universal healthcare

Introducing evidence-based clinical pathways for stroke and COPD in rural China

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The stakes are high

- “As nations move toward universal health coverage (UHC), the stakes on quality of care rise. The poorest people in the world can least afford poor quality health care. They do not have the resources to repair the damage when care goes wrong, their development requires a healthy workforce, and money wasted on ineffective or harmful care is money denied to other essential services. Poor quality care damages wealthy nations, too. Few high-income countries have the political will to increase tax rates, and therefore government investments reflect zero sum choices—what public health care gets, public schools and public housing lose.”



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[†] | Heath retired in January, 2010

Published: 08 January 2017



“Action expresses priorities.”

— Mahatma Gandhi



Thank you!

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