

# Setting Priorities Fairly: Sustainable policies for effective resource allocation in Africa Introduction to HTA

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# Objectives of the pre-conference workshops

1. Provide an introduction to Health Technical Assessment (HTA) in preparation for the discussions during the main conference
2. Gain insights into the potential building blocks for institutionalising sustainable and locally relevant HTA mechanisms for priority setting
3. Facilitate interactions between key regional stakeholders

# Structure of the Day

1. Introduction to Health Technology Assessment (HTA)
2. Case studies of HTA implementation across the World
3. Methods used in HTA
4. iDSI's HTA 'tool kit' and the building blocks of institutionalisation
5. Current situation of HTA in Sub-Saharan Africa and its use in priority setting
6. Understanding data needs for HTA in Sub-Saharan Africa
7. Exercise on Data Sources

# Presentation overview

1. Understanding the fundamental economic problem and its application to health: Why the need for HTA?
2. What is HTA?
3. Value of HTA: Experiences from across the world
4. Lessons learned from implementing HTA
5. Limitations of HTA

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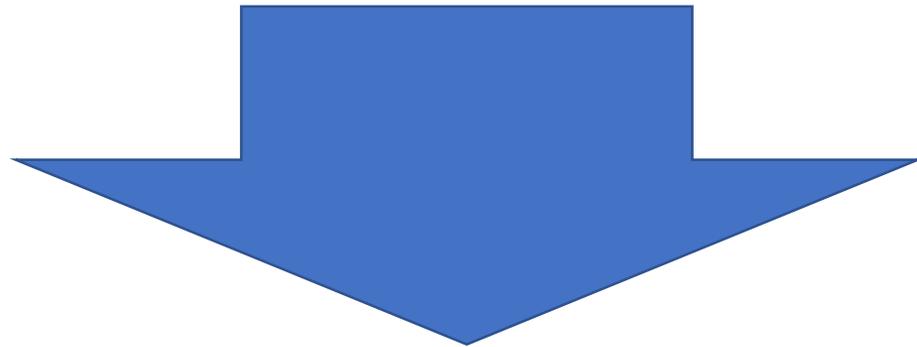
1. Understanding the fundamental economic problem and its application to health: Why the need for HTA?
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# What is the fundamental economic Problem...?

## Scarcity:

Unlimited Wants...

...Limited Means



Choices need to be made

Healthcare, as with any market, is no exception to this fundamental problem!

**Kenneth J Arrow..**

The article that launched a thousand studies..



# THE AMERICAN ECONOMIC REVIEW

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VOLUME LIII

DECEMBER 1963

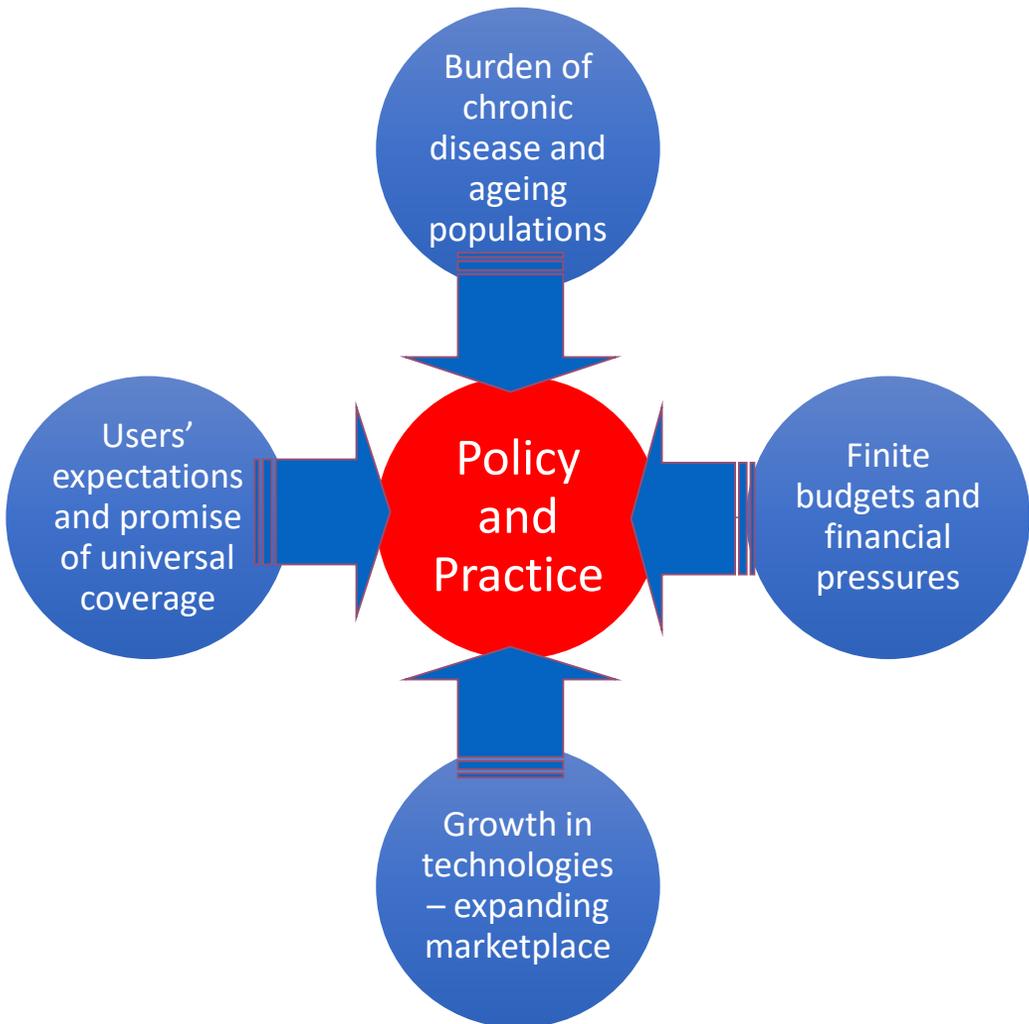
NUMBER 5

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UNCERTAINTY AND THE WELFARE  
ECONOMICS OF MEDICAL CARE

*By* KENNETH J. ARROW\*

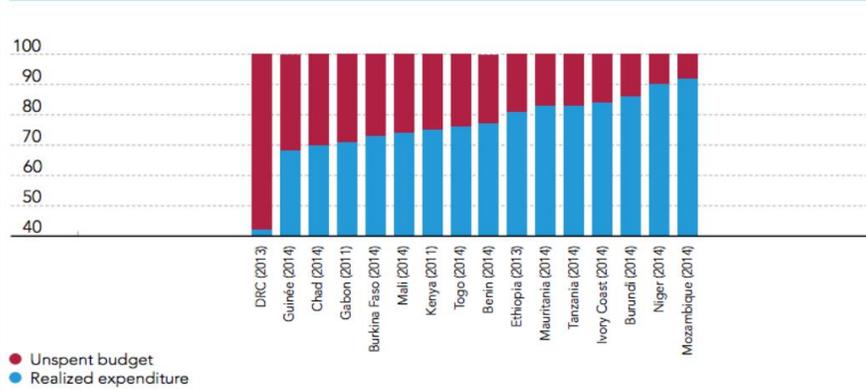
# The Need for Priority Setting: Health systems everywhere are under pressure...



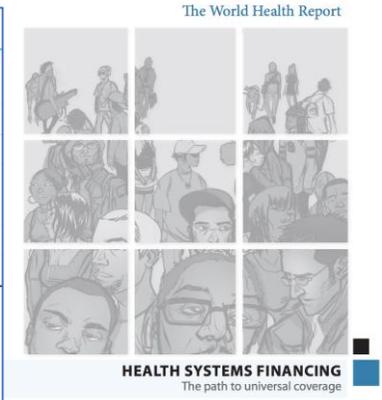
Status quo, unfair and unsustainable: Between 20-40% of the ~\$8 trillion spent annually on healthcare is wasted

Source: <http://www.who.int/whr/2010/en/>

Figure 5: Share of health budget spent and unspent, % of total sector allocations



Source: authors' estimates, from Ministry of Finance (Benin, Burkina Faso, Burundi, Chad, Guinea, Ivory Coast, Mali, Mauritania, Niger, Senegal, Tanzania, and Togo), BOOST (Ethiopia, Kenya, and Mozambique), and World Bank (DRC, and Gabon) data.



Healthcare budgets often underspent

# LMIC health systems are a crowded space of priorities and voices....

Palliative Care: A Public Health Priority in Developing Countries

Reproductive cancers: high burden of disease, low level of priority



**Asthma management in general practice**

A chronic disease health priority

**It's time to make PrEP available to all who need it**

**Bill and Melinda Gates to pay off Nigeria's \$76 million polio debt**

**USAID & Partners Announce \$6 Billion to Fight NTDs**

Where Have All the Donors Gone? Scarce Donor Funding for Non-Communicable Diseases

*Center for Global Development Working Paper No. 228*

**Good Ventures Awards \$6.4 Million to Results for Development to Scale Up Access to Childhood Pneumonia Treatment in Tanzania**

.....competing priorities often result in ad hoc resource allocation (implicit rationing)



Health Technology Assessment is a way to help maximize health gain, and make resource allocation decisions more transparent and explicit

“**Every pound can only be spent once.** If we spend it unwisely... then we risk harming other people whose care will be adversely affected...

It is vital that priority setting is an **evidence-informed, procedurally fair process** that defines what will be covered through universal health coverage.”

Prof David Haslam, Chair of NICE, addressing the 25<sup>th</sup> World Health Assembly, Geneva, 2014

*World Health Assembly resolution on Health Intervention and Technology Assessment in Support of UHC*



World Health  
Organization

SIXTY-SEVENTH WORLD HEALTH ASSEMBLY  
Provisional agenda item 15.7

A67/33  
14 March 2014

**Health intervention and technology assessment in support of universal health coverage**

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# Health Technology Assessment (HTA): Systematically evaluating the *impact* of a health technology

## What is a health technology?

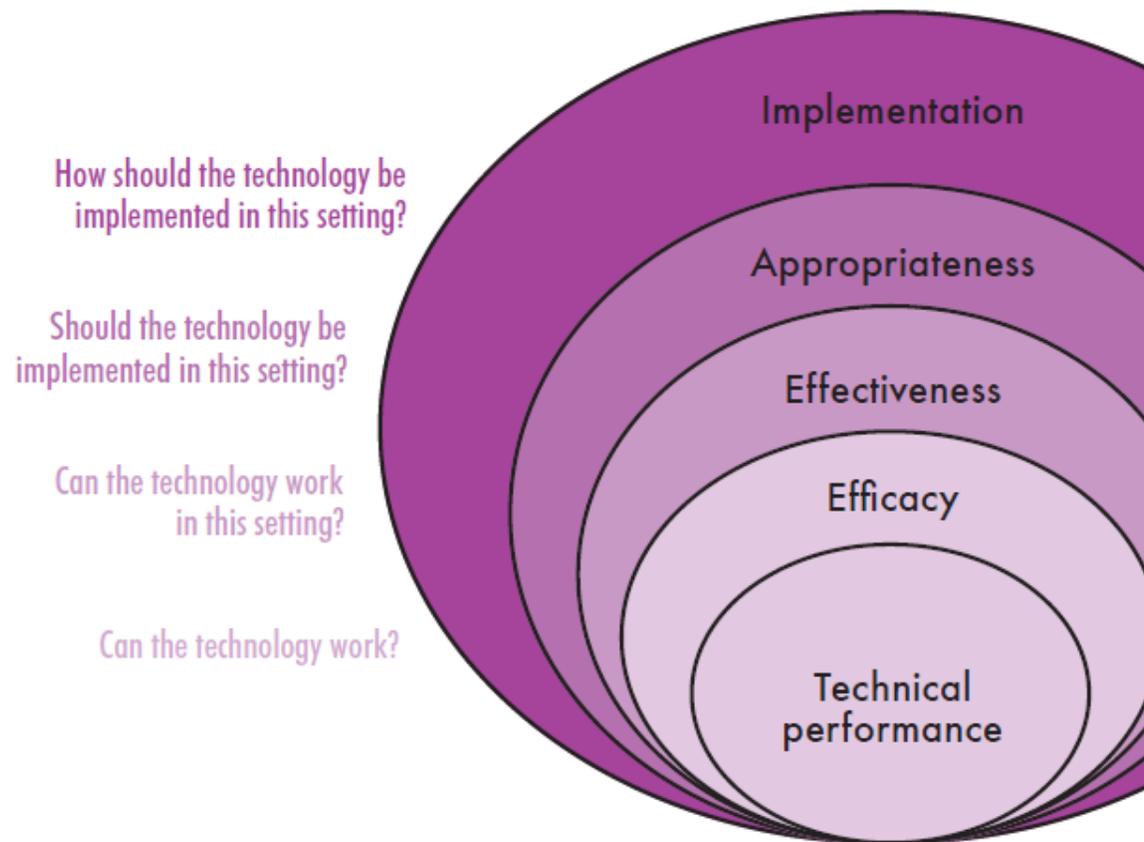
A health technology is **any intervention** that may be used to **promote health, to prevent, diagnose or treat acute or chronic disease**, or for rehabilitation and palliative care.

(Definition adopted at IDSI HTA meeting March 2015, Johannesburg, SA)

## What is Health Technology Assessment?

HTA is the **systematic evaluation** of properties, effects and/or impacts of **health technologies and interventions**. It covers both the direct, intended consequences of technologies and interventions and their indirect, unintended consequences (WHO)

# The regulation-Assessment continuum

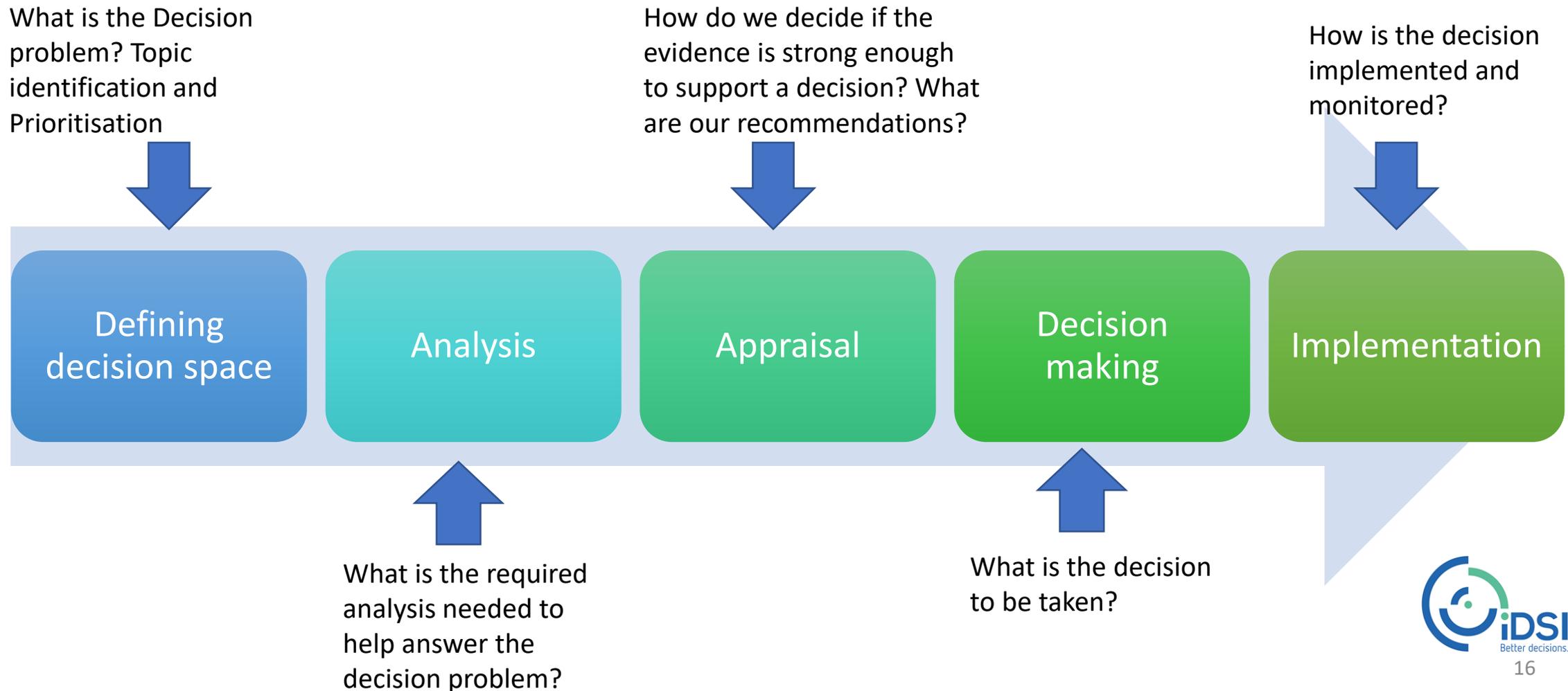


Characteristics	Health technology regulation	Health technology assessment
<b>Perspective</b>	Safety and efficacy	Efficacy, effectiveness and appropriateness
<b>Requirement</b>	Mandatory	Recommendation on complex technologies
<b>Role</b>	Prevent harm	Maximize clinical and cost effectiveness



Dimensions of HTA

# 5 Step-HTA process



# Value for money and Health Tech Assessment matters for development partners...

## Washington Post Interview with Bill Gates: May 17 2013



- **Ezra Klein: How do you make [...] decisions about what is and isn't worth paying for?**
- **Bill Gates: The way that this is talked about is, what's a year of life worth? They call it a disability-adjusted life year (DALY). When you're running a poor country health-care system, you can't treat a year of life as being worth more than, say, \$200, \$300 or else you'll bankrupt your health system immediately.**
- **EK: We're very uncomfortable putting a value on human life. The way I see our [US] health system is we've chosen to pay a huge premium in order to avoid these questions.**
- **BG. Yes, someone in the society has to deal with the reality that there are finite resources and we're making trade-offs, and be explicit about that.**

[https://www.washingtonpost.com/news/wonk/wp/2013/05/17/bill-gates-death-is-something-we-really-understand-extremely-well/?noredirect=on&utm\\_term=.f2853cb7eee5](https://www.washingtonpost.com/news/wonk/wp/2013/05/17/bill-gates-death-is-something-we-really-understand-extremely-well/?noredirect=on&utm_term=.f2853cb7eee5)

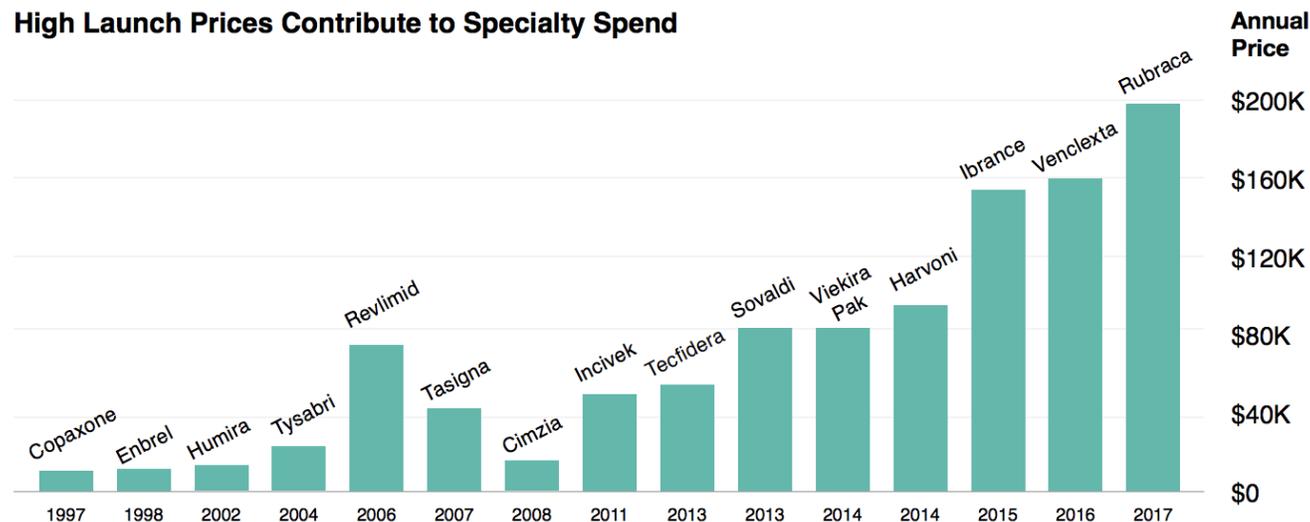
# Systematic assessment of value makes markets work better: Evidence from Indonesia



“The current government system of JKN does not link the **clinical and economic assessment of drugs for price negotiation and tariff setting**, which can lead to cost-effective drugs not being available to providers at an affordable rate (or conversely, the reimbursement rate not accounting for the market price of this drug)... The price-quantity negotiation process should... reflect the HTAs/Economic Assessment results more broadly beyond certain high-price but low-volume top-up drugs, reflecting the affordability and cost-effectiveness thresholds that Indonesia wants to set...”

# And in the USA...

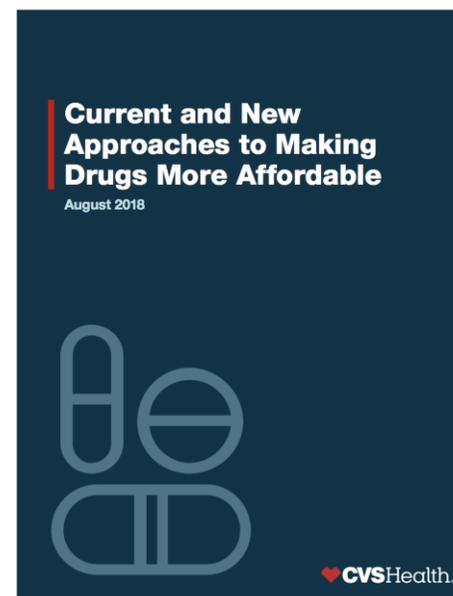
## High Launch Prices Contribute to Specialty Spend



**~\$145K** average annual price of the last three approved oral oncology drugs

Sources: CVS Specialty analysis of Medispan data. Annual drug costs based on average wholesale price (AWP) accessed December 2017. CVS Specialty Analytics. Drug launch cost based on wholesale acquisition cost (WAC) launch pricing accessed Spring 2018.

“CVS Caremark is initiating a program that allows clients to exclude any drug launched at a price of greater than \$100,000 per QALY from their plan. The QALY ratio is determined based on publicly available analyses from the Institute for Clinical and Economic Review (ICER), an organization skilled in the development of comparative effectiveness analyses. Medications deemed “breakthrough” therapies by the U.S. Food and Drug Administration will be excluded from this program, which will focus on expensive, “me-too” medications that are not cost effective, helping put pressure on manufacturers to reduce launch prices to a reasonable level.”



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# What is already known: Evidence from the UK

“10 studies analysed provided a **potential net-benefit of £3.0 billion** based on a value of £20,000 per QALY, and **£5.0bn** based on a value of £30,000 per QALY. The **cost of the HTA Programme since 1993 was £317m**, with the estimated overall cost of the HTA Programme £367m. We conclude that **12 per cent of the calculated potential net benefit** would cover the total cost of the HTA Programme from 1993 to 2012.”

**Assumption:** HTA findings are fully implemented in the NHS



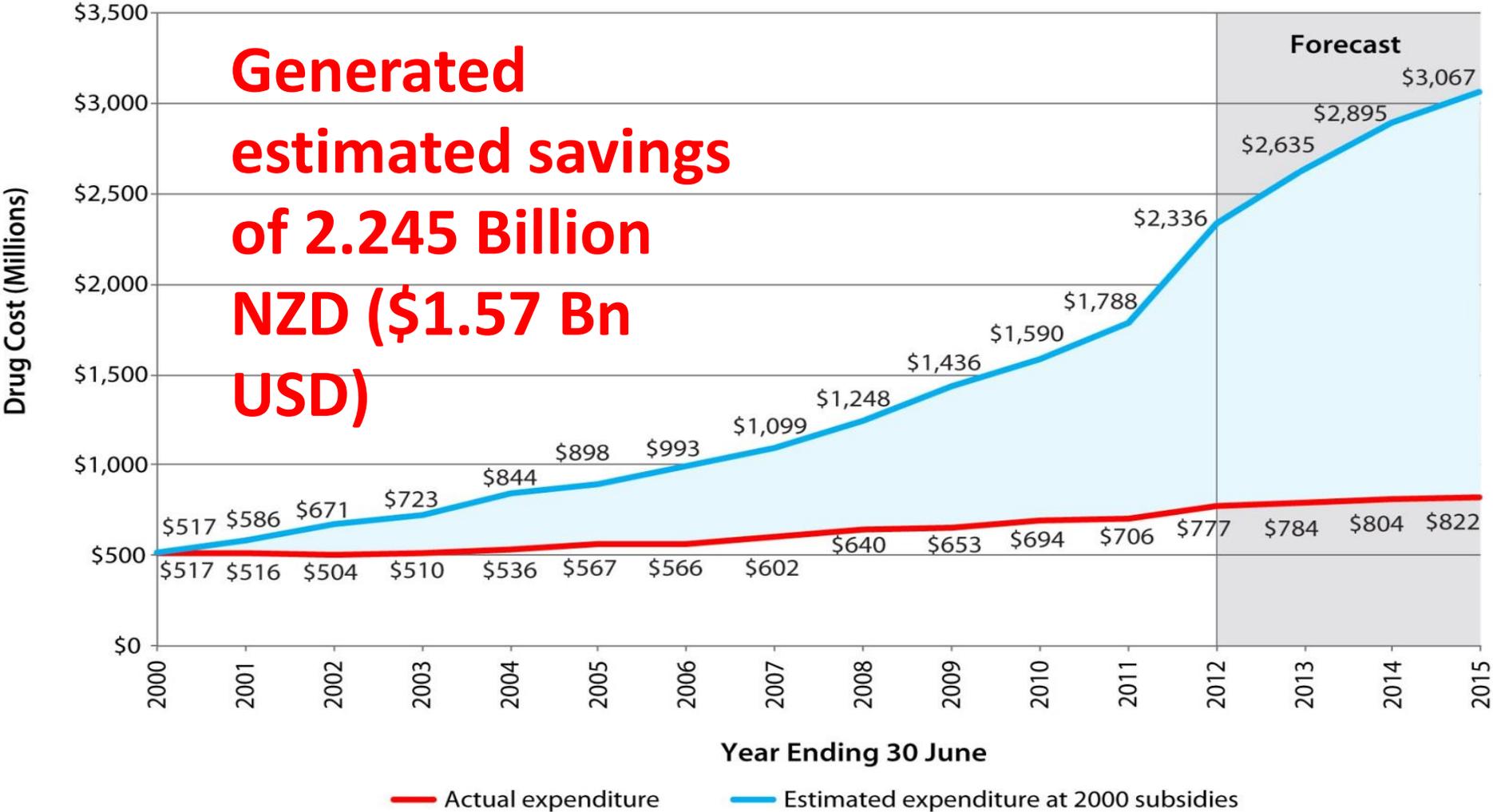
Returns on research  
funded under the NIHR  
Health Technology  
Assessment (HTA)  
Programme

Economic analysis and case studies

Susan Guthrie, Marco Hafner, Teresa Bienkowska-Gibbs, Steven Wooding



# Return on investment of a HTA entity: PHARMAC's Long-term impact in New Zealand



# HTA in Thailand: Saving more than just money

Annual cost of HITAP: 37m Thai baht (0.007% of THE in 2010)

	Description	Impact	
Prevention of cervical cancer (2007)	<ul style="list-style-type: none"> <li>Assessed possibility of universal coverage of the HPV vaccine using cost-effectiveness analysis</li> <li>Compared multiple scenarios to conclude that the most cost-effective strategy would be improving screening accessibility rather than universal vaccination</li> </ul>	<ul style="list-style-type: none"> <li><b>Health gains:</b> 1500 averted new cases and 750 female deaths per year</li> <li><b>Cost savings:</b> 6 million international dollars, approximating 0.02% of the total health expenditure budget in 2007</li> </ul>	<p>Cost savings from the cervical cancer screening assessment alone more than covered HITAP's operating costs (0.01% of THE budget in 2007)</p>
New drug regimen in PMTCT of HIV (2010)	<ul style="list-style-type: none"> <li>Assessed value-for-money of three-ARV regimen vs. current AZT monotherapy and single dose of nevirapine</li> <li>Solved social debate regarding feasibility and value for money of a new drug regimen in PMCT of HIV</li> </ul>	<ul style="list-style-type: none"> <li><b>Health gains:</b> 101 paediatric HIV infections averted annually</li> <li><b>Cost savings:</b> 2.6 million USD over a lifetime</li> </ul>	

Source: First Step Program Evaluation Report 2010; Praditsitthikorn N et al. 2011; HITAP Case Study 12March2011 (unpublished); PMTCT in Asia Manuscript 2011 (Unpublished)

# Quantifying benefits: secondary prevention

**Uniquely building HTA and health economics applied capacity for the long term**



In **Ghana**, an iDSI cost-effectiveness review of hypertension drugs has equipped the government with greater negotiating powers.

A 10% price reduction, to be in line with UK generics pricing, could save over US\$5.6m – enough to treat untreated patients 4x over.

The government has now endorsed an HTA strategy to ensure long-term sustainability of the insurance fund.

# Quantifying benefits: reducing waste

**Uniquely building HTA and health economics applied capacity for the long term**



In **Vietnam**, introducing iDSI rapid HTA criteria will reduce wasteful spending in hospitals and ensure only effective medicines are available – saving 20% from the social security budget, enough to fund over 1m PHC visits.

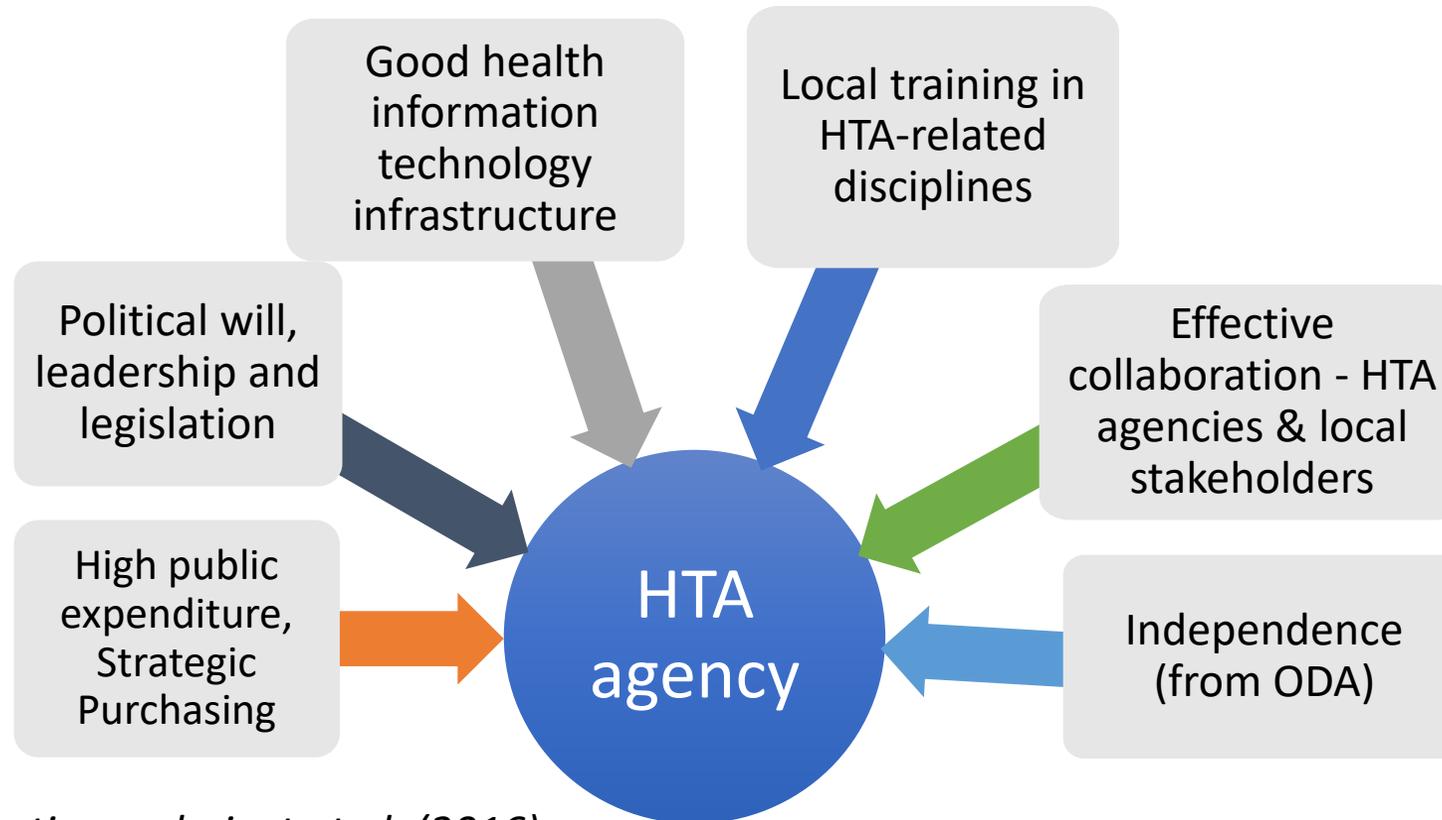
The government is now introducing similar criteria to their PHC benefits package.

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# Experience from HTA: General Lessons Learned

Evidence points to 6 contextual factors that frequently exist where HTA capacity has been developed



Source: Chootipongchaivat et al. (2016)

# Experience from HTA: General Lessons Learned

Principles	Examples of how bodies can adhere to these principles
<b>Independence</b>	Maintain arm's length from government, payers, industry, professional and patient groups; Strong and enforced conflict of interest policies
<b>Transparency</b>	Meetings open to the public (although this can be restricted to discussions of the evidence); All material germane to decisions placed online; Evaluation and decision criteria, and rationale for individual decisions made public
<b>Consultation</b>	Wide and genuine consultation with stakeholders; Willingness to remake decision in light of new evidence
<b>Scientific basis</b>	Strong, scientific methods and reliance on critically appraised evidence and information
<b>Timeliness</b>	Decisions made and published in reasonable timeframe
<b>Consistency</b>	The same technical and process rules applied consistently within any given priority-setting channel
<b>Regular review</b>	Regular updating of decisions and of methods, with review dates specified in final reports
<b>Contestability</b>	The decision-making process may be challenged, through legal avenues (process issues) or non-judicial appeal mechanisms (technical issues)

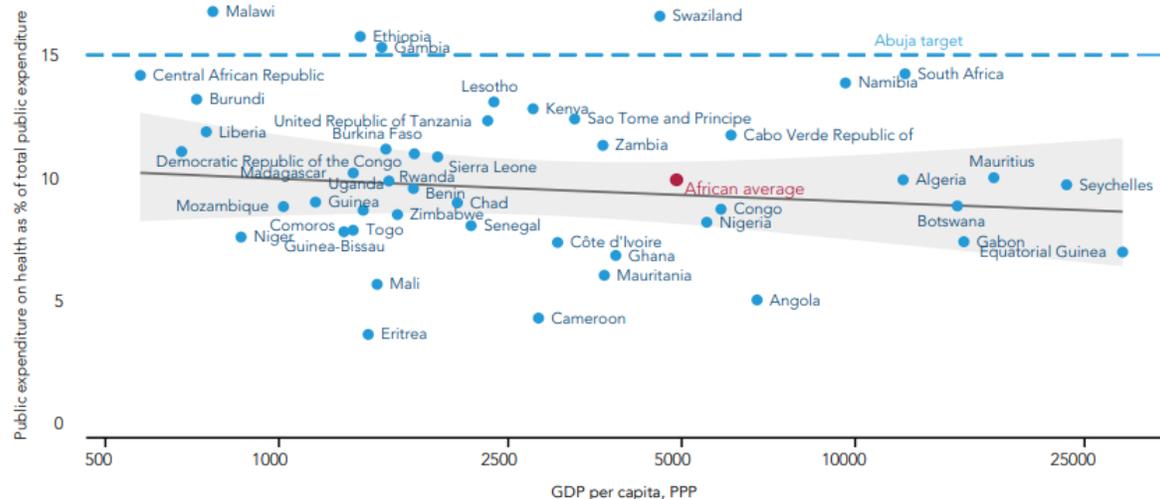
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# HTA won't answer everything (1/2)

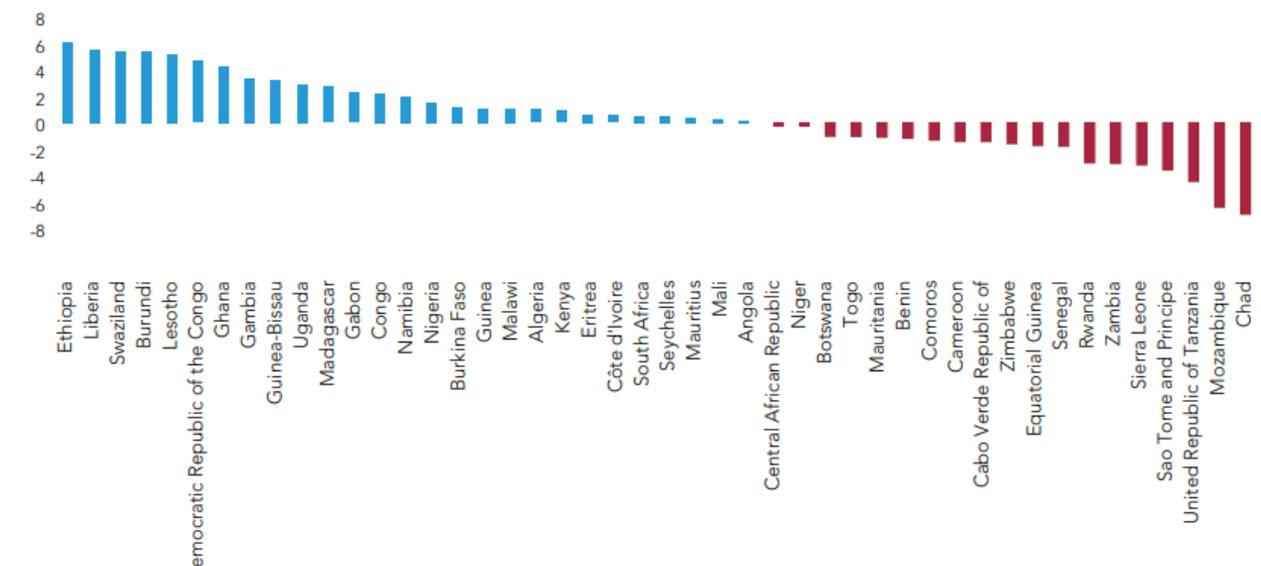
Chronic underfunding of government budgets to health still occurs in many health systems – HTA won't solve these issues

Figure 2: Government health prioritization and GDP per capita, 2014



Source: Global Health Expenditure Database, WHO, 2016

Figure 1: Change in government health prioritization, % point change of median values 2000-06 and 2007-14



# HTA won't answer everything (2/2)

**Data** – Meaningful economic analysis requires some degree of modelling to inform HTA processes - suffer from the constraints with every model – Accuracy of the results are highly dependent on a model structure which is relevant to the local context and the limitations of the data

**Buy-in from policy makers** - Has to be a political buy-in to actually use and implement the results of a HTA process in a meaningful way to be a success

**Determining the cost-effectiveness of an intervention**- especially for complex interventions is **context specific** and requires some understanding of a **threshold signalling the willingness to pay** of a health system

**Supply side constraints** – Health Economists are rare – and therefore limits the capacity to conduct HTA, especially in SSA

## Improving the quality and efficiency of healthcare services in Ghana through HTA



International Decision Support Initiative, Imperial College London.  
Southampton Health Technology Assessments Centre, University of Southampton.



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this report provides a golden opportunity  
ystem, with an aim to inform future  
fing the importance of Health Intervention  
crucial for Ghana to take full control over  
. This is duly in accordance with resolution  
alth Assembly in May 2014.

ons, and supporters of these efforts,  
:work to provide support to enable full

**Kalipso Chalkidou MD, PhD**  
Health and Development Group, Imperial College

ector of the Global Health and Development Group at the  
novation, Imperial College London, helping governments  
tal capacity for improving the value for money of their  
interested in how local information, local expertise and local  
ic and legitimate healthcare resource allocation decisions whilst  
She has been involved in the Chinese rural health reform  
form projects in the USA, India, Colombia, Turkey and the  
e World Bank, FAHC, DFID, BMGF and the Inter-American  
national governments. Between 2008 and 2016 she founded  
a non-profit group within the UK's National Institute for  
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**Joanne Lord BSc, MSc, PhD**  
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nable for the overall management and strategic direction  
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National Institute for Health Research (NIHR) Health  
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), and the Department of Health (Scientific Advisor in the  
1989-1992).

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Health Economist, Global Health and Development Group, Imperial  
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Mohamed Gad is a Medical doctor, and currently a Health Economist in Global Health  
Development Group at Imperial College London. Mohamed has previously worked as  
a NICE International Associate, in leading research work that studies the needs and the  
steps required towards developing capacity building for Health Technology Assessment (HTA) in  
healthcare systems for developing Evidence-Based Policy Making capabilities.

Final report: Cost-effective care for managing hypertension in Ghana,  
May 2017

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# Thank you!

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