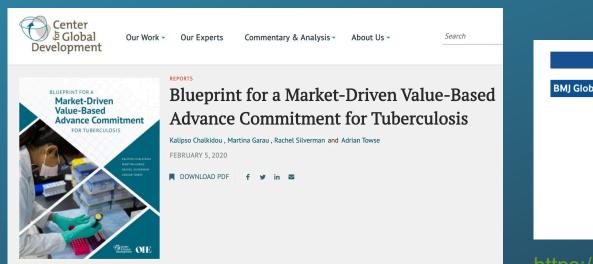
Additional slides

Based on <u>MVAC</u>



Commentary

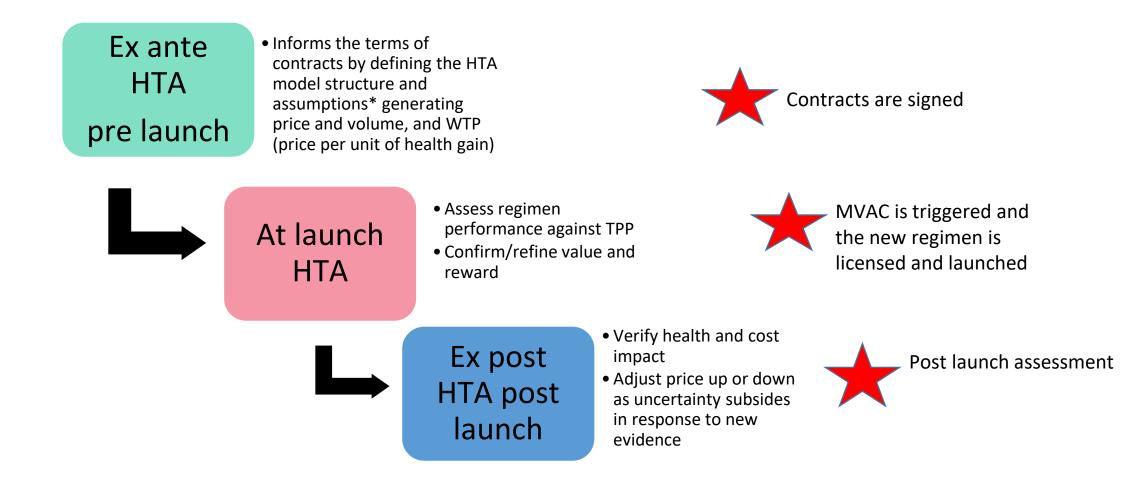
BMJ Global Health Market-driven, value-based, advance commitment (MVAC): accelerating the development of a pathbreaking universal drug regimen to end TB

Kalipso Chalkidou,^{1,2} Adrian Towse,³ Rachel Silverman,¹ Martina Garau,³ Ganesh Ramakrishnan¹

https://gh.bmj.com/content/bmjgh/5/4/e002061.full.pdf

https://www.cgdev.org/publication/blueprint-marketdriven-value-based-advance-commitment-tuberculosis

Benefit-Based Commitment through HTA

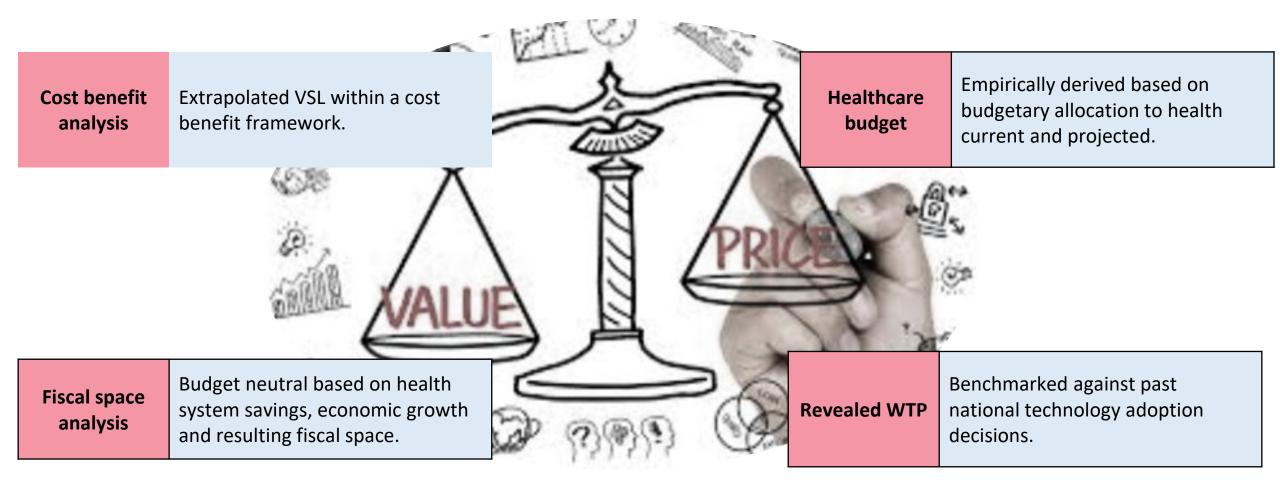






Ability to

From arbitrary price-setting to a realistic value-based price grounded in country budgets







How a Value Commitment Can Be Set and Adapted Over Time: A "Commitment Pool" Tied to Product Efficacy

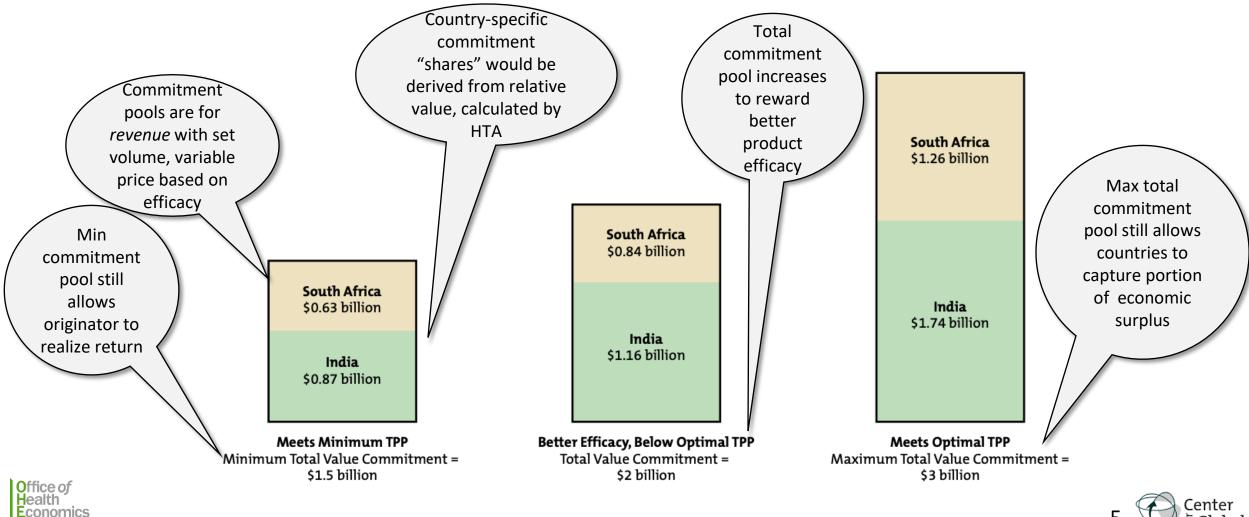
Step 1: **First movers assess value**: One or more high-burden countries would need to take a leadership role as "first movers"—for example, UK, Norway, Thailand, India and South Africa. Ex-ante HTA for those countries would give several important pieces of information:

- <u>The total value-based market</u>: HTA would provide an upper bound for value-based commitments.
- <u>Relative value by country</u>: HTA would show how the total value proposition of a vaccine varies across countries.
- <u>Relative value by product profile</u>: HTA would show how the total value proposition of a vaccine varies vis-à-vis specific product characteristics.





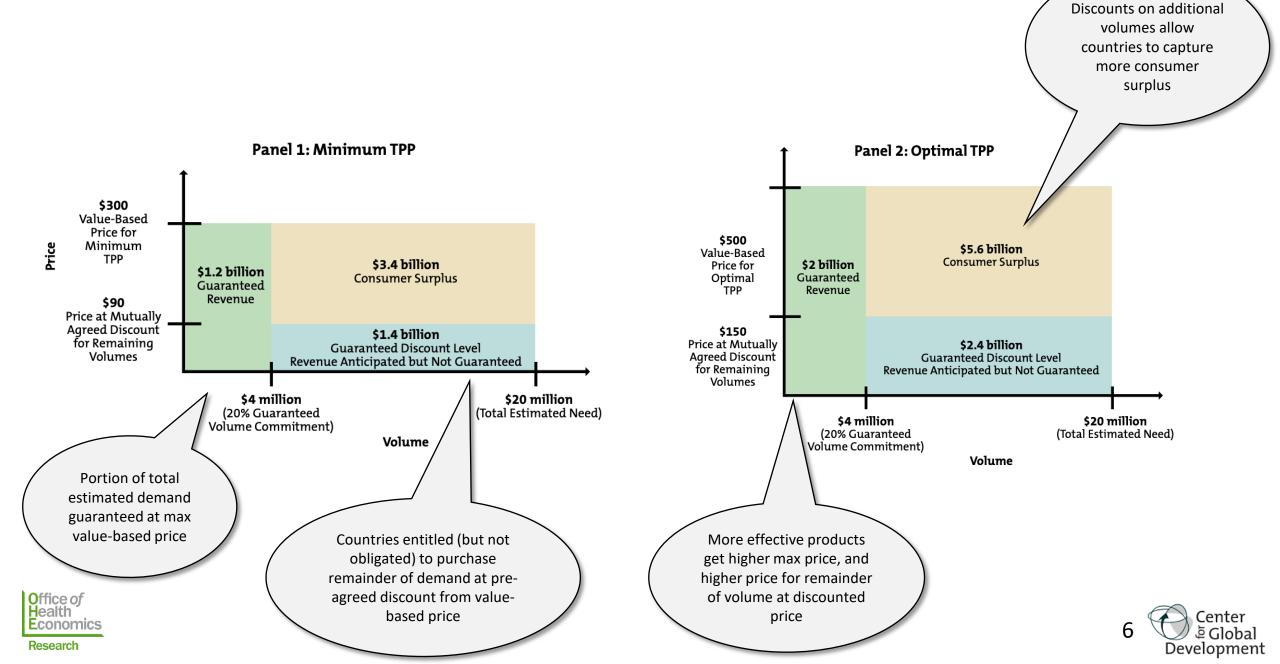
Step 2: First movers define and divide a value-based commitment pool; *example based on two countries*



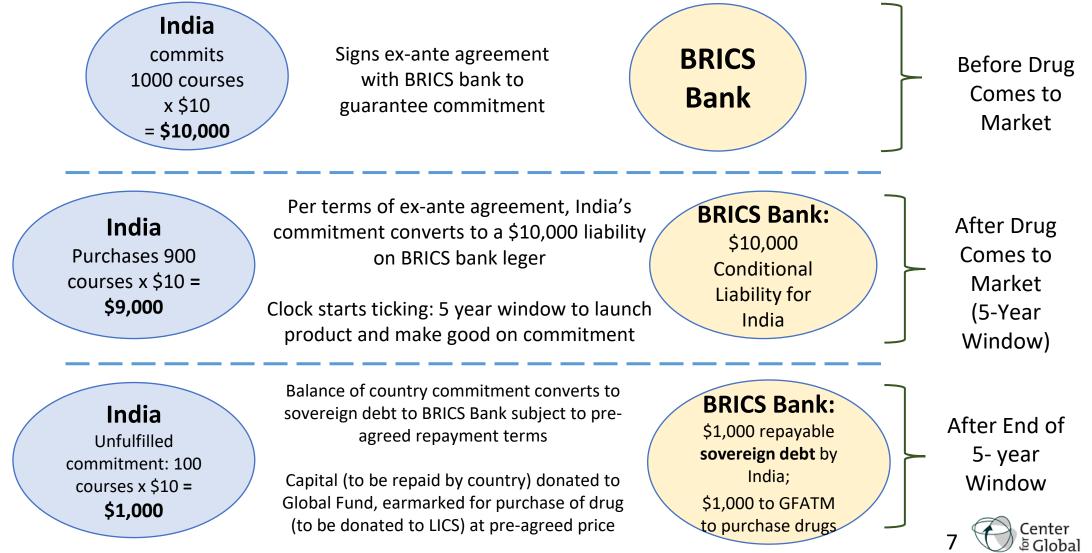
Research

Development

Structure and Size of Commitment Pool: One Model



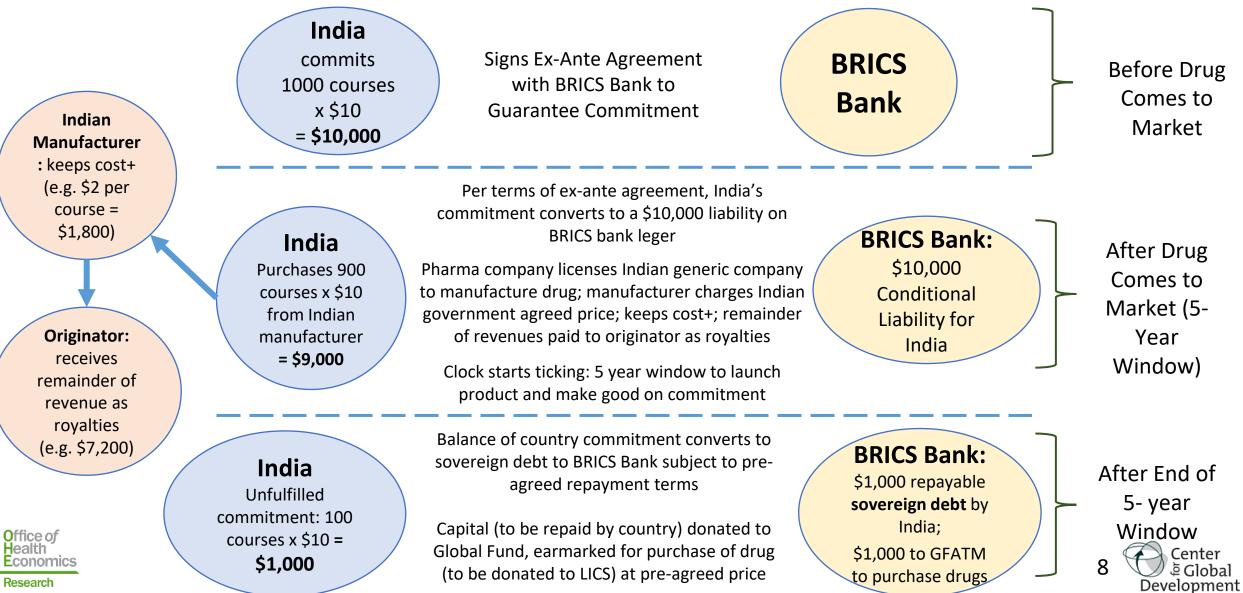
SOVEREIGN CREDIT TO SECURE ADVANCED COMMITMENTS: A SIMPLE MODEL



Development

Office of Health Economics Research

UNDERWRITING: WITH LOCAL LICENSING





Research

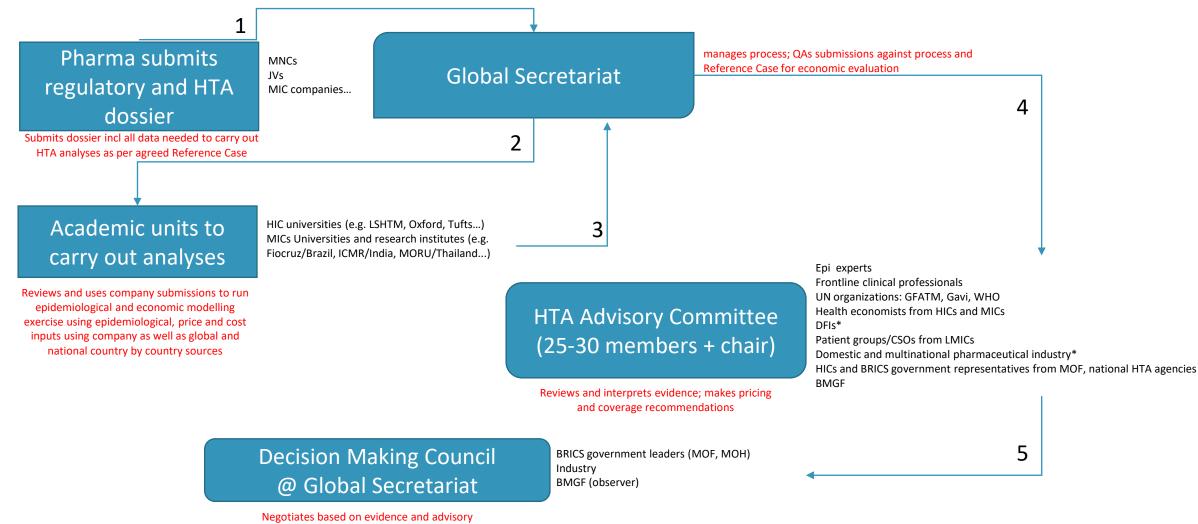
FULFILLING THE COMMITMENT: THREE SCENARIOS WITH ONE SUPPLIER

BRICS Bank Guarantee: \$10,000 Conditional Liability for India

Development

Scenario	Description	What Happens After 5-Year Window
Scenario 1: Country Fulfills Commitment	As agreed, India purchases 1,000 courses at \$10 per course = \$10,000	Nothing; BRICS Bank erases conditional liability
Scenario 2: Country Fulfills Price Commitment, but not Volume Commitment	India purchases drug at agreed price (\$10) – but only purchases 900 courses = \$9,000	BRICS Bank donates balance of commitment (\$1,000) to Global Fund; Global Fund <u>must</u> use money to purchase drug at India's agreed price (\$10) for use in LICs. India must repay \$1,000 to BRICS bank as loan.
Scenario 3: Country Fulfills Volume Commitment, but not Price Commitment	India rescinds price commitment and tells company it will only pay \$5 – but purchases agreed quantity (1,000 courses) = \$5,000	BRICS Bank guarantees original commitment price. BRICS Bank gives balance (\$5,000) directly to company. India must repay \$5,000 loan to BRICS Bank.
ffice of ealth conomics		9 Center § Globa

What would a locally legitimate global hta structure look like?



committee recommendations

*subject to COI rules employees whose product is being assessed will excuse themselves; DFIs will participate if final model involves a DFI

Process for Calculating and Fulfilling Advance Purchase Commitments

Step 1:

Ex Ante HTA (2019)

- Using base-case scenario (lambda, epi, GDP, savings, comparators, etc.) identify projected market value (MV) for maximum TPP (TPP_max) and minimum TPP (TPP_min)
- Total market volume (V) calculated based on epi projections
- Model calculates projected price (pP) pP_max and pP_min based on TPP_max and TPP_min:
- MV_min = pP_min*V
 MV_max = pP_max*V

Step 2:

Set Contract Ceiling and Floor (2019)

- Agree that guaranteed revenue (GR) will be X% of total MV, varying volume and holding price constant
- GR_min = X%*MV_min = pP_ min (X%*v)
- GR_max = X%*MV_max = pP_max (X%*v)
- GR_min is set equal to supplyside estimate for getting from Phase IIB to launch.
- MDB underwrites GR_max

Step 3: At-Launch HTA (2030)

- New product qualified against TPP_min
- Model rerun keeping baseline assumptions constant but varying product efficacy; generates pP_final based on baseline assumptions; used to calculate GR_final
- $GR_final = p\overline{P}_final (X\%*V)$
- GR_final is, by design, between GR_min and GR_max

Step 4:

Split GR_Final Across Countries at Value-Based Price (2030)

- Country-specific commitment "shares" derived from at-launch HTA to reflect relative value of new product across participating markets; each country assigned a share of GR_final, e.g. GR_Country at pP_Country
- Each country buys pP_Country up until they hit their share. E.g. guaranteed volume (GV_Country = GR_Country/ pP_country)
- Crowding in more countries reduces volume commitment for first movers keeping total market value the same.



Step 5: Voluntary Discounted Purchasing

- Once commitment met, Y% off pP_Country agreed
- Contractual protection against compulsory licensing for certain V





HTA is becoming a major tool for priority setting and price negotiations for national governments in emerging markets...

National Health Insurance Act of 2013, Section 11- Excluded Personal Health Services **Philippines**: "The Corporation shall not cover expenses for health services which the Corporation and the DOH consider cost-ineffective through health technology assessment..."

Indonesia: Minister of Health's Decree No. 71 /2013 Article 34 (5)Health Technology Assessment Committee **provide policy** recommendation to the Minister on the feasibility of the health service as referred to in paragraph (4) to be included as benefit package of National Health Insurance

"the India Medical Technology Assessment Board for evaluation and appropriateness and cost effectiveness of the available and new Health Technologies in India...standardized cost effective interventions that will reduce the cost and variations in care, expenditure on medical equipment...overall cost of treatment, reduction in out of pocket expenditure of patients...'. Ref: MTAB, Ministry of Health & Family Welfare, Government of

India



NATIONAL HEALTH INSURANCE FOR SOUTH AFRICA WARDS UNIVERSAL HEALTH COVERAGE

> hursday, 10 December 201 Version 40

health



national treasury Department: National Treasury REPUBLIC OF SOUTH AFRICA



Service coverage (5.3):

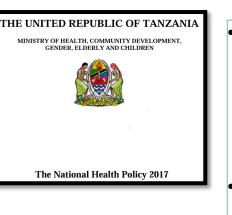
South Africa "Detailed treatment guidelines, based on available evidence about cost-effective interventions, will be used to guide the delivery of comprehensive health entitlements. Treatment guidelines will be based on evidence regarding the most cost-effective interventions."

HTA unit budgeted @R368m in 2018 budget by country's Treasury



...in low and middle income markets... (cont.)

5.14.3. Policy Statements "The government will improve adequate knowledge in health technology assessment (HTA) for evidence based selection of quality and safe technology as well as realizing value for money." National Health Policy 2017

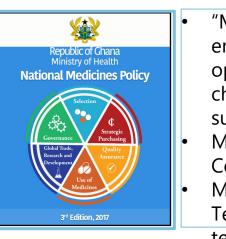


- "Define an evidence-based benefit package for Kenyans under Universal Health Coverage: (A list of services that should be prioritized and made available taking into account the cost effectiveness, impact on financial protection, and equity in access across the population).
- Define a framework for institutionalization of Health Technology Assessment (HTA)." Cabinet Secretary, Government Gazette, July 2018



TANZANIA HEALTH TECHNOLOGY ASSESSMENT **COMMITTEE (THTAC)**

The aim of the Tanzanian Health Technology Assessment Committee (THTAC) is to make evidenceinformed recommendations to the MOHCDGEC based on the internationally recognized HTA framework. The committee will make recommendations about the public provision of health technologies that will contribute to maintaining and improving the health and well-being of Tanzanians, provide value for money and lead to the ultimate goal of Universal Health Care." **Committee Chaired by CMO and reports to** Secretary, ToRs, 2018



- National Health Summit 2018 plan "MOH should develop a transition plan to ensure sustainable financing and operational management of the supply chain to transition to a government led supply chain system MOH should establish a National Pricing
- Committee for Medicines
- MOH should institutionalise Health Technology Assessment to provide

technical advice to the NPC"



Ghana



2018 Aide Memoire

Message from the Hon. Minister of State (MoHFW)



Health Technology Assessment (HTA) is a form of policy research that examines short- and long-term consequences of the application of a health-care technology. Prime objective of HTA is to ensure value for money to the patients, efficient utilization of the resources and ensure that the actual benefit of innovations reaches to the patients. HTA can solve numerous medical queries and problems for example cardiovascular problems can be resolved by various techniques like reduction of stress at workplace, cessation of smoking or heart by-pass surgeries.

Recognizing the importance of HTA in health services design, management, and delivery of health system, the Government of India has established the Health Technology Assessment in India (HTAIN) with a view to providing the maximum utilization of health care benefits to people.

Our achievements in various fields like life expectancy, infant & maternal mortality rate, accessibility of healthcare services in rural areas, intensive health campaigns, sanitation devices and increase in number of Government & private hospitals etc are significant. Improvement in immunization coverage and literacy rate, have improved the overall health of the country. But, the factors like, less health insurance coverage, large number of population lying in the low income group and High bills of medical care for long term disease are of great concern. The majority of healthcare spending in India, is out of pocket (OOP) (82.2%), 74.7% of which is spent on medicines. Many patients in India have been forced below the poverty line due to healthcare expenditure. Set against this backdrop, only 3 – 5% of Indians are covered under any form of health insurance.

I am confident that HTAIN will be a transparent, effective and systematic and unbiased system, which will be able to accelerate the process of providing access to new research and development to the patients and lead to 100% utilization of existing resources.





Stakeholders



Systematic assessment of value makes markets work better: Evidence from South Africa



"Standards of care, evidence-based treatment protocols and processes for conducting [HTA] to assess the impact, efficacy and costs of medical technology, medicines and devices relative to clinical outcomes must be developed. Findings... should be published to **stimulate competition** in the market, to **mitigate information asymmetry**, and to **inform decisions about strategic purchasing by the public and private sectors**."



...and in high income economies in the EU...

(cont.)



"The outcome of HTA is used to inform decisions concerning the allocation of budgetary resources in the field of health, for example, in relation to establishing the pricing or reimbursement levels of health technologies. HTA can therefore assist Member States in creating and maintaining sustainable healthcare systems and to stimulate innovation that delivers better outcomes for patients" **REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on health technology assessment and amending Directive 2011/24/EU**

...who use HTA to decide listing and pricing of new technologies as in India, China and the EU

Indonesia: Minister of Health's Decree No. 71 /2013 Article 34

 (5)Health Technology Assessment Committee provide policy recommendation to the Minister on the feasibility of the health service as referred to in paragraph (4) to be included as benefit package of National Health Insurance

Member Countries Initiation Date Alliance Areas of cooperation Malta, Cyprus, Greece, Italy, Information sharing on prices and markets, joint Valletta Declaration* Spain, Portugal, Slovenia, Croatia, May 2017 negotiation for purchasing to ensure affordability Ireland, Romania Romania, Bulgaria, Croatia, Central Eastern European and Latvia, Poland, Sebia, Slovakia, South Eastern European November 2016 Price negotiation Slovenia, Republic of Moldova, Countries Initiative FYR Macedonia Greece, Bulgaria, Spain, Cyprus, Information sharing on prices and markets, and Southerna European initiative June 2016 Malta, Italy, Portugal collaboration on R&D Bulgaria, Croatia, Estonia, Hungary, Latvia, FYR Macedonia, Information sharing on prices and markets, with Declaration of Sofia June 2016 Romania, Serbia, Slovakia, potential for joint purchasing in the future Slovenia Denmark, Iceland, Norway, Horison scanning, information sharing on prices Nordic Pharmaceuticals Forum June 2015 Sweden and markets Joint negotiations in purchasing to get lower prices for pharmaceuticals and cross-border Romanian and Bulgarian Initiative June 2015 Romania, Bulgaria exchange of medicines in short supply to ensure continuity of access HTA, horizon scanning, information sharing on Beneluxa Initiative on Belgium, Netherlands, April 2015 prices and markets, joint negotiation for Pharmaceutical Policy Luxembourg, Austria, Ireland** purchasing to ensure affordability Centralized joint purchasing (tenders, Baltic Partnership Agreement May 2012 Latvia, Lithuania, Estonia negotiation, payment and distribution) to reduce expenditure and ensure continuity of access

* Michalopoulos, 2017, 2018; ** Ireland recently joined (An Roinn Slainte, 2018; Beneluxa, 2018a)





Outcome Report ^{on} "Health Technology Assessment of Intraocular Lenses for treatment of Age-related Cataracts in India"

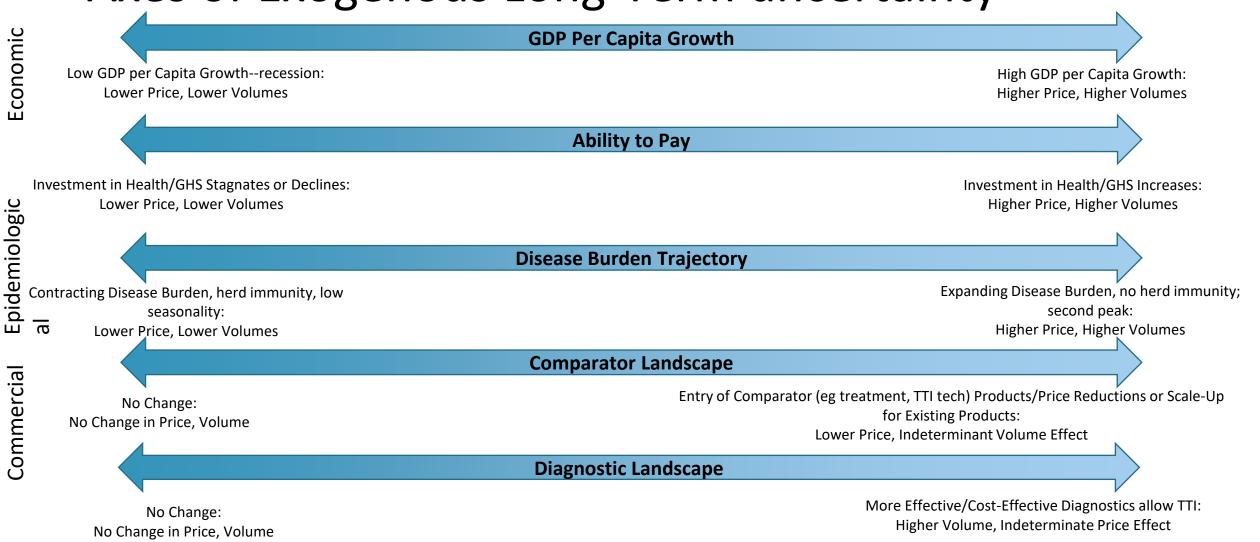
"The benefit packages for Phacoemulsification with foldable lens and small incision cataract surgery with rigid PMMA lenses may cost as 9606 INR and 7405 INR respectively"

Health Technology Assessment in India (HTAIn) Secretariat, Department of Health Research, Ministry of Health and Family Welfare

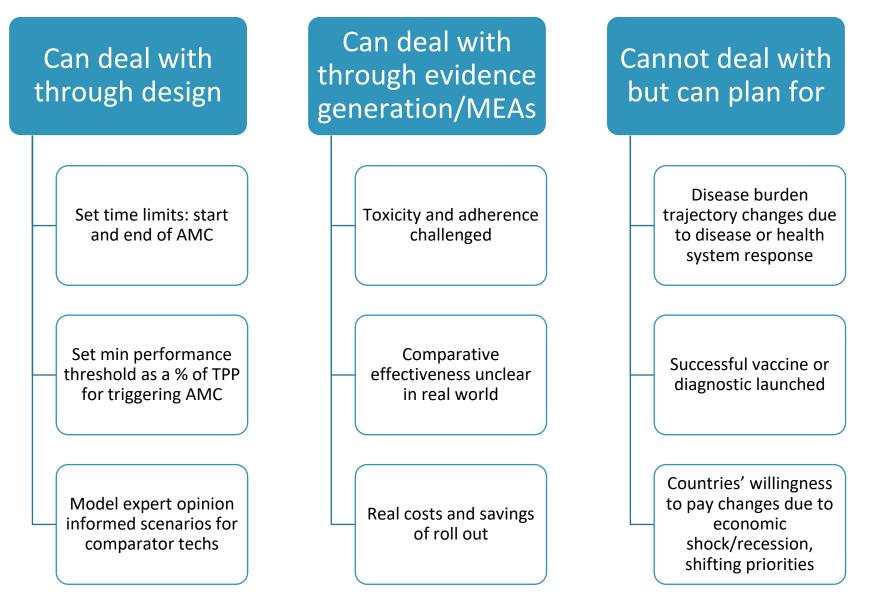
> July-2018 New Delhi

Table 1. Summary of European Collaborations in Procurement of Health Innovations

Benefit Based Price and volume: Axes of Exogenous Long-Term uncertainty



Uncertainty to be dealt with through Design



BB AMC proposes a moderate level of collaborative purchasing

Minimal Collaboration

BB AMC

- Countries make political commitment to use pre-defined HTA process at launch to determine price and volume
- Commitments are unsecured;
 reputational commitment only
- HTA process implemented by country governments
- No secretariat, or skeleton secretariat to track commitments only

- Countries make coordinated, secured purchase commitments via a financial intermediary
- Central Secretariat (coordination unit) sets TPP (and minimum TPP); sets and enforces common HTA approach; tracks commitment fulfillment; and negotiates directly with R&D actors
- HTA process to define price and volume commitments implemented by Secretariat in partnership with country governments
- Each country pays country-specific value-based price for regimen
- Each country manages own purchasing to draw down against commitment

Joint Purchasing

- Countries make coordinated, secured purchase commitments via a financial intermediary
- HTA processes and price/volume setting implemented by MVAC secretariat; all countries pay the same price
- All purchasing is done directly through a joint (centralized) purchasing unit; countries must make financial contributions to the central unit to cover their purchases

Less Collaborative

More Collaborative