

# international Decision Support Initiative: Mapping of priority- setting in health for 17 low and middle countries across Asia, Latin America and Africa

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## international Decision Support Initiative: Mapping of priority-setting in health in 17 low and middle countries across Asia, Latin America and Africa

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### **DISCLAIMER**

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## Executive summary

### Background

- The objective of this paper was to assess the characteristics of a sample of low and middle income countries (LMICs), in order to select a shortlist of countries in which an *international Decision Support Initiative (iDSI)*<sup>1</sup> practical support project could have the maximum likelihood of success and possible impact. The practical support project would take place between end 2014 until end 2015, and support one country in building institutional and technical capacity in priority-setting for universal health coverage (UHC).
- Candidate countries should provide for a strong likelihood of success for the iDSI practical support project with traction among policymakers ("feasibility"), aligned with the strategic objectives of iDSI ("wants"), and which could generate impact within the country and across neighbouring countries, as well as other countries with similar economic, socio-cultural or political characteristics ("needs").

### Method

- We identified a longlist of 17 LMICs across three regions, with a broad mix of geographical representation, population size and economic performance:
  - Latin America and Caribbean (LAC): Brazil, Chile, Colombia, Mexico and Uruguay
  - Sub-Saharan Africa (SSA): Ghana, Kenya, Malawi, South Africa and Uganda
  - South Asia and Asia Pacific: China, India, Indonesia, Myanmar, Philippines, Thailand and Vietnam.
- In order to assess priority-setting readiness in each country, we developed a set of qualitative and quantitative indicators covering: political will, current position along the UHC journey, institutional and technical capacity, health system financing characteristics, and potential economies of scale in priority-setting.
- Adopting a pragmatic, mixed-methods approach, we gathered and synthesised data up to May 2014 on countries' priority-setting readiness from various sources, including literature review, key opinion leader questionnaires and in-depth interviews.
- In shortlisting candidate countries for the iDSI practical support project, we excluded: (1) countries that have already established a dedicated, centralised priority-setting institution (reflecting lower need), (2) countries that have not articulated a political commitment to priority-setting for UHC (reflecting lower wants), and (3) countries where iDSI partners may be limited in their ability to gain traction (reflecting lower feasibility). For the remaining countries (the "shortlist"), we sought statements of intention from in-country policymakers, and described potential entry points for iDSI support.

### Key findings from long list of countries

- Countries that had clearly articulated political will for priority-setting and some existing unstructured HTA activities (South Africa, India, Indonesia and Myanmar), could benefit from consolidation and institutionalisation of such activities within a broader context of priority-setting for UHC.

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<sup>1</sup><http://www.nice.org.uk/about/what-we-do/nice-international/nice-international-projects/international-decision-support-initiative>

- Many of the SSA and Asian countries were committed to UHC, and faced current challenges in at least one health indicator for Millennium Development Goals (MDGs) or non-communicable diseases (NCDs). Therefore, they could benefit from more robust priority-setting mechanisms, to ensure that higher quality healthcare reaches the most vulnerable population groups.
- External donors accounted for high proportions of total health expenditure in the SSA countries (except South Africa) and in Myanmar. Robust country-led priority-setting mechanisms could help donors and policymakers make healthcare investments that are cost-effective, equitable and responsive to local needs.

## Shortlist of candidate countries

- We applied our exclusion criteria and identified a shortlist of four countries: Indonesia, Myanmar, South Africa and Ghana. An iDSI practical support project in any of these countries would likely be feasible, have impact through strengthening or consolidating priority-setting capacity, and be well-aligned with the strategic priorities of Bill & Melinda Gates Foundation (BMGF), UK Department for International Development (DFID) and high-level decision makers in those countries.
- **Indonesia** faces growing demand for quality healthcare and decreasing external healthcare aid resulting from strong economic growth, the Government of Indonesia has committed to introducing a single National Health Insurance Program (NHIP) for its 250m citizens by 2019. Moreover, the MoH has expressed clear political commitment in establishing formal priority-setting mechanisms. To support further institutional and technical capacity building for priority-setting, NICE International and Health Intervention and Technology Assessment Program (HITAP) could build on their preliminary engagement with senior policymakers as well as with foreign partners, such as the Joint Learning Network (Rockefeller Foundation) and Australian Agency for International Development (AusAID), and through networks such as HTAsiaLink (<http://htasialink.org/>) and Asia-Pacific Regional Capacity-Building for HTA Initiative (<http://arch.apec.org/>). This could also generate important lessons for other GAVI-graduating upper middle-income countries (MICs), and potentially other Islamic nations on the UHC journey.
- **Myanmar** has the lowest per-capita government spending on health in the world, with high rates of impoverishment from private healthcare costs, inequitable access to healthcare and overall poor quality of care, reflected by poor MDG indicators. The Ministry of Health (MoH) has committed to introducing UHC by 2035, and government expenditure on health has doubled over the past few years. Myanmar also has significant and increasing donor-led healthcare investments. There is a shortage of both institutional and technical capacity for priority-setting; the introduction of robust evidence-informed priority-setting mechanisms owned by the country's leadership, as the essential foundations for sustainable UHC, could have substantial positive impact. HITAP has had significant engagement in Myanmar with GAVI and WHO support in maternal and child health, and has strong relationships with the government. Furthermore, DFID Myanmar chairs the multi-donor Three Millennium Development Goals Fund (3MDG) coordination group, and has expressed an interest in funding our practical support project. The practical support project could provide important lessons that may be transferrable to other low-income countries (LICs) with similarly high donor involvement.
- **South Africa** has the world's highest Gini coefficient, and a similarly inequitable fragmented health system in which 20% of the population account for 80% of total



expenditure. The government intends to reach a single National Health Insurance scheme by 2025 with the goal of achieving UHC through a predominantly public health system. In terms of priority-setting capacity, South Africa is relatively advanced among SSA countries with a strong academic track record in priority-setting programmes such as PRICELESS SA. DFID South Africa has sponsored a series of engagements including a Ministerial visit to NICE in London, and an official invitation by the Minister for NICE International to support the country's health reforms. A practical support project could generate significant economies of scale within the region, and potentially for other upper-MICs grappling with inequity whilst aiming for UHC.

- **Ghana** has a National Health Insurance Scheme (NHIS) for 'basic' healthcare covering 36% of the population, but a generous benefits package means that the pharmaceutical expenditure is high, and there are genuine concerns about NHIS' affordability and sustainability. Major healthcare reforms are now underway; iDSI could leverage this momentum through NICE International's ongoing engagement with the MoH and the National Health Insurance Agency, with current funding support from the Rockefeller Foundation and strong links with DFID Ghana and the World Bank regional office. Possible practical support projects could consist of rational mechanisms for listing decisions, and quality standards for provider payment. This could help the MoH improve quality and contain costs through inclusive and transparent processes grounded on evidence and local values, and provide transferrable experiences for other countries in the SSA region.

## **Conclusion**

- All four shortlisted countries (Indonesia, Myanmar, South Africa, Ghana) share a common vision of increased public financing and provision of healthcare, with explicit priority-setting recognised as a crucial means of ensuring sustainable UHC.
- Leaders in all four countries have expressed a strong interest in working with iDSI in their effort to introduce UHC.
- In all four countries, an iDSI practical support project would be highly likely to generate economies of scale within and across regions.
- iDSI could support institutional and technical capacity building for priority-setting and add significant value for each of these countries in different ways.
- Given the strong traction on the part of key decision makers, clearly identified and articulated need for priority-setting for UHC, and the backing of BMGF and DFID, any one of these countries would be a viable option for an iDSI practical support project.

## Abbreviations

AfHEA	African Health Economics and Policy Association
AIIMS	India Institute of Medical Sciences
ANVISA	National Health Surveillance Agency (Brazil)
ASEAN	Association of Southeast Asian Nations
ASSE	Administración de Servicios de Salud del Estado (Uruguay)
AUGE	Acceso Universal de Garantías Explícitas (Chile)
AusAID	Australian Agency for International Development
CAUSES	Universal List of Essential Health Services
CCA	Consultative Advisory Committee (Chile)
CDSCO	Central Drugs Standard Control Organization (India)
CEA	Cost-effectiveness analysis
CENETEC	National Centre for Health Technology Excellence (Mexico)
CGHS	Central Government Health Scheme (India)
CHAM	Christian Health Association of Malawi
CITEC	Commission for Incorporating Technology (Brazil)
CMS	Council of Medical Schemes (South Africa)
CNHDR	China National Health Development and Research Centre
CONITEC	National Commission for Incorporation of Technologies (Brazil)
CRES	Comisión de Regulación en Salud (Colombia)
BMGF	Bill & Melinda Gates Foundation
DFID	Department for International Development (UK)
DHR	Department of Health Research (India)
DoH	Department of Health
DTC	Drug and Therapeutics Committee
EDL	Essential drug list
EHP	Essential health package
EML	Essential medicine list
EMHSLU	Essential Medicines and Health Supplies List for Uganda
ESIS	Employees' State Insurance Scheme (India)
FDA	Food and Drug Administration (Philippines)
FEC	Formulary Executive Committee (Philippines)
FICCI	Federation of Indian Chambers of Commerce and Industry
FNR	Fondo Nacional de Recursos (Uruguay)

FPGC	Fund for Protection against Catastrophic Health Expenditures (Mexico)
GAVI	Global Alliance for Vaccines and Immunization
GDP	Gross domestic product
GIN	Guidelines International Network
GNDP	Ghana National Drugs Program
HBP	Health benefits package
HITAP	Health Intervention and Technology Assessment Program
HSRI	Health Systems Research Institute (Thailand)
HSPI	Health Strategy and Policy Institute (Vietnam)
HTA	Health Technology Assessment
HTAi	Health Technology Assessment International
IAMC	Instituciones de Asistencia Médica Colectiva (Uruguay)
ICMR	Indian Council of Medical Research
IDB	Inter-American Development Bank
iDSI	International Decision Support Initiative
IECS	Instituto de Efectividad Clínica y Sanitaria (Argentina)
IETS	Instituto de Evaluación Tecnológica en Salud (Colombia)
IGO	Inter-Governmental Organisation
IIHMR	Indian Institute of Health Management & Research
IMSS	Instituto Mexicano del Seguro Social
INAHTA	International Network of Agencies for Health Technology Assessment
INEGI	National Institute of Statistics and Geography (Mexico)
ISSSTE	Government Worker's Social Security and Services Institute (Mexico)
JLN	Joint Learning Network
KEPH	Kenya Essential Package of Health
KHP	Kenya Health Policy
KHPF	Kenya Health Policy Framework
KEML	Kenya Essential Medicines List
KEPH	Kenya Essential Package for Health
KEMRI	Kenya Medical Research Institute
LAC	Latin America and Caribbean
LIC	low-income country

LMIC	low- and middle-income country
MCC	Medicines Control Council
MDG	Millennium Development Goals
3MDG	Three Millennium Development Goals Fund
MIC	middle-income country
MoH	Ministry of Health
MoHFW	Ministry of Health and Family Welfare (India)
MoHRSS	Ministry of Human Resources and Social Security (China)
MoMS	Ministry of Medical Services (Kenya)
MoPH	Ministry of Public Health (Thailand)
MoPHS	Ministry of Public Health and Sanitation (Kenya)
MoSP	Ministry of Social Policy (Colombia)
MoU	memorandum of understanding
MRA	Medicine Regulatory Authority
MTAB	Medical Technology Assessment Board (India)
NCD	non-communicable disease
NCPAM	National Center for Pharmaceutical Access and Management (Philippines)
NDoH	National Department of Health (South Africa)
NDP	National Development Program
NGO	non-governmental organisation
NHFPC	National Health and Family Planning Commission (China)
NHI	National Health Insurance (South Africa)
NHIA	National Health Insurance Authority (Ghana)
NHIP	National Health Insurance Program (Indonesia)
NHIS	National Health Insurance Scheme (Ghana)
NHS	National Health Service (UK)
NHSRC	National Health Systems Resource Centre (India)
NHIF	National Hospital Insurance Fund (Kenya)
NI	NICE International
NICE	National Institute for Health and Care Excellence (UK)
NPPA	National Pharmaceutical Pricing Authority (India)
NSHIF	National Social Health Insurance Fund (Kenya)
NRCMS	New Rural Cooperative Medical Scheme (China)
NRHM	National Rural Health Mission (India)

ODA	official development assistance
OHE	Office of Health Economics
OOP	out-of-pocket
PATH	Programs for Assessment of Technology in Health
PCS	Primary Care Strategy (Brazil)
PHFI	Public Health Foundation of India
PhilHealth	Philippine Health Insurance Corporation
PIAS	Plan Integral de Atención en Salud (Uruguay)
PMBs	Prescribed Minimum Benefits
POS	Compulsory Health Plan (Colombia)
PPB	Pharmacy and Poisons Board (Kenya)
POW	Programme of Work (Malawi)
PRICELESS	Priority Cost Effective Lessons for System Strengthening (South Africa)
REACH	Regional East African Community Health
RSBY	Rashtriya Swasthya Bima Yojana (national health insurance programme; India)
RTA	regional trade agreement
SEARO	Southeast Asia Region
SNIS	Sistema Nacional Integrado de Salud (Uruguay)
SSA	Sub-Saharan Africa
SPSS	Sistema de Protección Social en Salud (Mexico)
STG	standard treatment guideline
SURE	Strengthening Use of Research Evidence
SUS	Sistema Único de Saúde (Brazil)
SWAp	health sector-wide approach
UEBMI	Urban Employment Basic Medical Insurance (China),
UHC	Universal Health Coverage
UP	University of the Philippines
UPG	Updated Practice Guidelines (Uganda)
UN	United Nations
URBMI	Urban Resident Basic Medical Insurance (China)
USAID	US Agency for International Development
VSS	Vietnam Social Security
WHA	World Health Assembly

WHO World Health Organization

## 1. Background

This paper is an output of the International Decision Support Initiative (iDSI), whose mission is to guide decision makers to effective and efficient healthcare resource allocation strategies for improving people's health. iDSI achieves this through providing demand-driven practical support for priority-setting in countries, in combination with policy-informed knowledge products that facilitate evidence-informed and procedurally fair priority-setting in healthcare. As part of this effort, the iDSI project proposal to the Bill and Melinda Gates Foundation (BMGF) and the UK Department for International Development (DFID) included as a major deliverable, a practical support project in a selected country. This practical support project would support decision makers in an LMIC in establishing evidence-informed priority-setting processes, encouraging efficient and equitable healthcare resource allocation as a means towards better decisions for better health in the context of sustainable UHC.

The aforementioned practical support project required a systematic process for identifying a group of countries in conformity with the goals of the iDSI, in order to obtain the maximum possible impact from the support. An additional objective of the iDSI project proposal was "to identify and analyse potential for economies of scale in the generation and application of clinical and economic evidence and due process to allocation decision". Economies of scale refer to methods of production where a proportional increase in output can be achieved at a less than proportional increase in input costs. In the current context, the output that we are looking to increase is the quality and quantity of the information used by the policy makers in the process of priority-setting. We identified countries in which the implementation and development of an explicit priority-setting process will result in the production of more valuable information at a less than proportional increase in input costs (for instance in terms of time, human resources). Moreover, we seek to generate impact not only within the country (internal economies of scale), but also outside the country (external economies of scale), through other countries adopting and adapting the process and information generated from the improvement of priority-setting mechanisms.

The objective of this paper was to examine the characteristics of a longlist of countries, in order to select a shortlist of countries that had a strong likelihood of success in terms of the feasibility of a practical support project with traction among country policymakers as well as iDSI funders. In addition, a priority-setting practical support project in this shortlist of countries should also have a high likelihood of generating both external and internal economies of scale. With these objectives in mind, a comprehensive analysis of qualitative and quantitative data up to May 2014 was carried out.

While that the intention of this paper was not to rank or to judge countries' performance, we hope that the findings will positively inform the kinds of activities that could contribute to more robust priority-setting processes, with a view to increased population health and financial protection within and beyond our selective sample of LMICs.

Furthermore, given the timeframe, resource implications, magnitude and objectives of the exercise, the methods we employed were necessarily pragmatic rather than purely academic. To our knowledge, this report encompasses the most comprehensive mapping for priority-setting capacity and readiness across 17 LMICs in Latin America, Sub-Saharan Africa and Asia, and we hope it will be of considerable use to decision makers, funders and development partners worldwide.

## 2. Methods

### 2.1. Longlisting process

We identified three broad geographical regions in the world with a high concentration of low/middle income countries (LMICs): Latin America and Caribbean (LAC), South Asia and Asia Pacific, and Sub-Saharan Africa (SSA). Within these regions, a mapping of priority-setting readiness might usefully inform the scope of activities for iDSI in the short term, as well as priorities for capacity-building and potential for generating and leveraging economies of scale in the longer term.

In order to capture a representative sample of countries, we identified within each region up to seven countries considering: (1) mix of geographical representation, (2) population size (reflecting potential scale of impact for priority-setting), (3) economic performance, and (4) a balance between the number of LICs and MICs. Additionally, the selection includes countries of high strategic priority to the funders of iDSI<sup>2</sup> (BMGF and DFID).

### 2.2. Country mapping exercise

#### 2.2.1. Conceptual framework

We defined countries' "priority-setting readiness" from:

- **the supply side** – the country's capacity for priority-setting, in terms of institutional capacity, human capacity, evidence or data capacity;
- **the demand side** – whether there is an articulated demand from policymakers for active and explicit priority-setting; and
- **the level of need** – the potential gains from implementation of explicit and active priority-setting, for example absolute and relative gains in terms of health outcomes and financial protection, taking into account scale and applicable population.

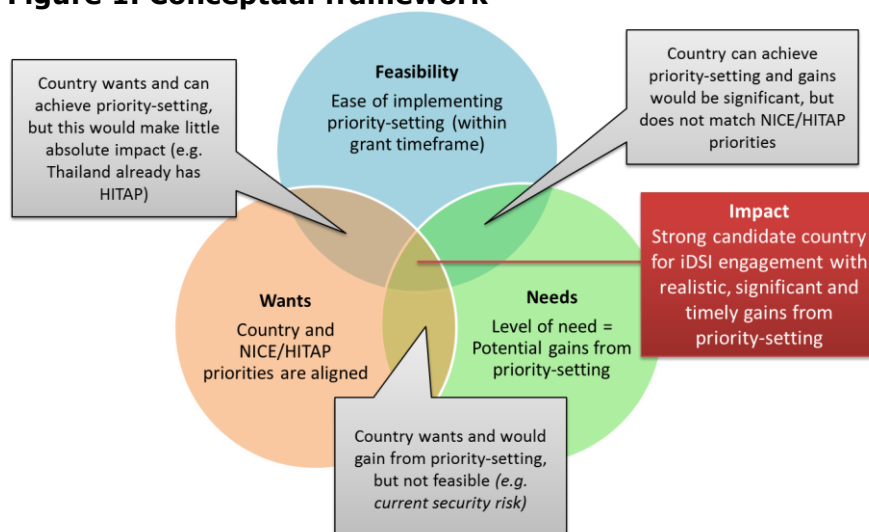
The aim of this analysis was to identify a shortlist of countries where priority-setting readiness was aligned with the priorities of iDSI funders (BMGF and DfID) and delivery partners (NICE and HITAP), and where in such countries a practical support project would be feasible within the timeframe of the iDSI grant. The country selected for the practical support project should meet all of these criteria.

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<sup>2</sup> At the time the method was being designed, the Rockefeller Foundation was not yet formally a funder of iDSI.



**Figure 1. Conceptual framework**



“Wants” in this context refer to explicit top-down strategic priorities or objectives of governments, donors and iDSI partners. It is recognised that the feasibility or level of need for priority-setting can also drive wants.

### 2.2.2. Development of indicators and reporting template

To assess the level of the wants, needs and feasibility for the priority-setting pilot, we developed indicators spanning the **demand** (partner countries and policymakers) and **supply** (donors, and iDSI delivery partners) sides.

#### Qualitative indicators

We reflected on our hands-on experiences and knowledge from engaging with LMIC policymakers in providing technical support for priority-setting, and identified potential indicators of priority-setting readiness, i.e. key factors that might determine whether efforts to institutionalise priority-setting might be successful. Following consultation across all iDSI delivery partners, the final set of qualitative indicators covered five broad headings: *political will and influence, potential to benefit given current position along the UHC journey, institutions, health system financing, and economies of scale* (Table 1).

For the reporting of the qualitative mapping, we developed a template (Annex 1) comprising an overview, and sections on the demand (wants) and supply (feasibility) sides of priority-setting and the potential to benefit (needs) from priority-setting, with guidance notes for the authors to ensure consistency.

#### Quantitative indicators

In addition to the qualitative indicators, we selected a set of quantitative indicators also based on our conceptual framework in **Figure 1** (wants, needs and feasibility) and which are described in Table 1.

An extensive number of quantitative indicators were initially considered, and the final choice of indicators was the result of a process of deliberation among the OHE and NICE International teams. These reflected a trade-off between a good approximation of the factors and a manageable analysis from which strong conclusions could be derived.

The sources and definitions of the indicators are showed in Table 1. A descriptive and comparative analysis of the indicators is presented below in the “Mapping of Longlisted Countries” section.

Some indicators do not operate in a single direction, and could potentially both facilitate and impede priority-setting depending on the circumstances. For instance, the policy maker of a country with an existing priority-setting capacity will probably have a higher commitment in further developing this established capacity. This could increase the probability of success and the benefit derived from practical support. On the other hand, a country currently lacking priority-setting institutions coupled with a very tight budget constraint has the potential to benefit from the introduction of priority-setting to allocate the resources in a more rational way.

**Table 1. Factors taken into consideration to analyse “Wants”, “Needs” and “Feasibility” of our conceptual framework**

<b>Political will and influence</b>	<b>Wants</b>	<b>Needs</b>	<b>Feasibility</b>	<b>Quantitative indicators</b>
<p><b><i>National health strategy calls for priority-setting and HTA</i></b></p> <ul style="list-style-type: none"> <li>• The country’s demands and priorities are clearly articulated by the health ministry, with high-level commitment and clear entry points through which priority-setting can add value.</li> <li>• Countries with multiple ongoing vertical healthcare programmes but that currently lack any priority-setting institutions could particularly benefit from the introduction of priority-setting mechanisms to coordinate vertical programmes in a more rational way.</li> </ul>	✓	✓	✓	<ul style="list-style-type: none"> <li>• Sponsor of World Health Assembly (WHA) Resolution on “Health Interventions and Technology Assessment in Support of Universal Health Coverage”</li> </ul>
<p><b><i>Centralisation of policymaking power</i></b></p> <ul style="list-style-type: none"> <li>• Priority-setting should be easier to implement from the top down in a country with a robust, influential central government and where assumptions made within priority-setting processes are more highly applicable throughout the country.</li> </ul>			✓	<p>This is considered in the qualitative analysis.</p>

Potential to benefit given current position along the UHC journey	Wants	Needs	Feasibility	Quantitative indicators
<p><b>Health indicators of current position along the UHC journey</b></p> <p><i>UHC is an aspiration for iDSI; increasing healthcare access entails increasing need for priority-setting; and UHC provides a platform on which priority-setting can operate.</i></p> <ul style="list-style-type: none"> <li>Health systems that are advanced on the journey to UHC are probably mature systems where the policy makers have identified the need for a more rational resource allocation process. This will result in stronger political commitment and feasibility.</li> <li>However, health systems at the early stage also suggest a greater need for the country to allocate resources through systematic and logical processes.</li> <li>Many health systems set out to provide far more services than are possible with the level of resources (Glassman &amp; Chalkidou, 2012). Similarly, many health ministries are committed to</li> </ul>	✓	✓	✓	<p>Millennium Development Goals Indicators</p> <ul style="list-style-type: none"> <li>Proportion of 1 year-old children immunised against measles (World Health Organization (WHO), 2013a) (Boerma, et al., 2014).</li> <li>Proportion of births attended by skilled health personnel<sup>3</sup> (The World Bank, 2014a).</li> <li>Maternal mortality ratio<sup>4</sup> (The World Bank, 2014a).</li> </ul> <p>Non-communicable Diseases Indicators (NCDs)</p> <ul style="list-style-type: none"> <li>Prevalence of smoking in adults (Females and Males)<sup>5</sup> (World Health Organization (WHO), 2013a).</li> <li>Percentage of all NCD deaths occurring under age of 70 (Females and Males) (World Health Organization (WHO), 2011).</li> <li>Effective Cervical Cancer Screening Coverage for Women (Gakidou, et al., 2008).</li> </ul>

<sup>3</sup> Percentage of deliveries attended by personnel trained to give the necessary supervision, care, and advice to women during pregnancy, labour, and the postpartum period; to conduct deliveries on their own; and to care for new-borns (The World Bank, 2014a).

<sup>4</sup> Maternal mortality ratio is the number of women who die during pregnancy and childbirth, per 100,000 live births. The data are estimated with a regression model using information on fertility, birth attendants, and HIV prevalence (The World Bank, 2014a).

<sup>5</sup> Prevalence of smoking any tobacco product among adults aged  $\geq 15$  years (%): Smoking of any form of tobacco, including cigarettes, cigars, pipes, bidis, etc. and excluding smokeless tobacco. Age-standardized prevalence rates for smoking tobacco (World Health Organization (WHO), 2013a).

<p>reaching UHC within a timeframe that is unrealistic given budgetary and other constraints, and face the challenge of limiting the provision of health services without abandoning the UHC objective. This increases the need of a transparent process for decision-making.</p>			<ul style="list-style-type: none"> <li>• General availability of breast<sup>6</sup>/bowel<sup>7</sup> cancer screening at the primary health care level (World Health Organization (WHO), 2013b).</li> <li>• Probability of premature death from cardiovascular disease, cancer, diabetes, and chronic respiratory disease<sup>8</sup> (World Health Organization (WHO), 2014a).</li> </ul>
<p><b>Financial protection and distributional issues</b></p> <ul style="list-style-type: none"> <li>• Protection from financial risk is a core dimension of UHC. Under-resourced and inequitable health systems with high incidence of catastrophic payments could particularly benefit from priority-setting.</li> </ul>		<p style="text-align: center;">✓</p>	<ul style="list-style-type: none"> <li>• Gini coefficient<sup>9</sup> (The World Bank, 2014a).</li> <li>• OOP expenditure as % of total health expenditure<sup>10</sup> (The World Bank, 2014a).</li> <li>• Incidence of catastrophic health expenditure due to out-of-pocket payments<sup>11</sup> (Saksena, et al., 2010)</li> </ul>

<sup>6</sup> This indicates whether or not the country has breast cancer screening (by palpation or mammogram) generally available at the primary health care level (World Health Organization (WHO), 2013b).

<sup>7</sup> This indicates whether or not the country has bowel cancer screening (by digital exam or colonoscopy) generally available at the primary health care level (World Health Organization (WHO), 2013b).

<sup>8</sup> Per cent of 30-year-old-people who would die before their 70th birthday from any of cardiovascular disease, cancer, diabetes, or chronic respiratory disease, assuming that s/he would experience current mortality rates at every age and s/he would not die from any other cause of death (e.g., injuries or HIV/AIDS) (World Health Organization (WHO), 2014a).

<sup>9</sup> Gini index measures the extent to which the distribution of income or consumption expenditure among individuals or households within an economy deviates from a perfectly equal distribution. A Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality (The World Bank, 2014a).

<sup>10</sup> Any direct outlay by households, including gratuities and in-kind payments, to health practitioners and suppliers of pharmaceuticals, therapeutic appliances, and other goods and services whose primary intent is to contribute to the restoration or enhancement of the health status of individuals or population groups (The World Bank, 2014a).

<sup>11</sup> The measure of financial burden and catastrophic health expenditure from OoP is based on the concept of health spending relative to household non-subsistence expenditure (or household capacity to pay, ctp). The latter was defined on the basis on food expenditure, whereby all household expenditure exceeding a particular food expenditure threshold was considered to be non-subsistence expenditure. OoP is presented as a share of household capacity to pay. Additionally, a household is defined as facing catastrophic health expenditure if its health spending exceeds 40% of its capacity to pay (Saksena, et al., 2010).

Institutions	Wants	Needs	Feasibility	Quantitative indicators
<p><b><i>Identified institutional capacity for priority-setting at policymaker level</i></b></p> <ul style="list-style-type: none"> <li>The ideal environment for an iDSI practical support project is where there are identified champions among senior policymakers for priority-setting who would partner with iDSI, but where priority-setting and HTA is not yet formalised as a central institution. There may be existing attempts to adopt or implement priority-setting products at a national level, e.g. EDLs and clinical guidelines (irrespective of the quality of these products or whether they consider cost-effectiveness, or the processes for deriving them).</li> <li>Potential or foreseeable changes in government within the timeframe of the grant (including general elections, or other changes that affect the health ministry) could disrupt efforts to develop priority-setting.</li> </ul>	✓	✓	✓	<ul style="list-style-type: none"> <li>Presence of essential drugs lists (World Health Organization (WHO), 2014b).</li> <li>Presence of national clinical guidelines: <ul style="list-style-type: none"> <li>National Treatment Guidelines for adult and paediatric treatment of HIV (year of the first record in the AIDSTAR-One database) (AIDSTAR-ONE, 2014).</li> <li>Standard treatment guidelines (STG) National &amp; Regional Osteoporosis Guidelines (year of the first record in the International Osteoporosis Foundation database) (International Osteoporosis Foundation, 2014).</li> </ul> </li> <li>Political Stability and Absence of Violence/Terrorism (2012)<sup>12</sup> (The World Bank, 2013a).</li> </ul>

<sup>12</sup> Reflects perceptions of the likelihood that the government will be destabilised or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism. Estimate of governance ranges from approximately -2.5 (weak governance performance) to +2.5 (strong governance performance) (The World Bank, 2013a).

<p><b>Identified institutional capacity for priority-setting at technical level</b></p> <ul style="list-style-type: none"> <li>• Advisory bodies, academic and research institutions that already support technical aspects of priority-setting (e.g. universities with health economics teaching) facilitate the building of further capacity, and could also benefit from consolidation within a formal institutional mechanism for priority-setting.</li> <li>• On the other hand, the absence of any such capacity may provide significant timely opportunities for such to be built (see <i>Political Will and Influence</i>).</li> </ul>		✓	✓	<ul style="list-style-type: none"> <li>• Researchers, headcounts/mn pop (2012)<sup>13</sup> (Cornell University, INSEAD and World Intellectual Property Organization (WIPO), 2013).</li> <li>• QS university ranking, average score top 3 (2012)<sup>14</sup> (Cornell University, INSEAD and World Intellectual Property Organization (WIPO), 2013).</li> <li>• University/industry research collaboration (2012)<sup>15</sup> (Cornell University, INSEAD and World Intellectual Property Organization (WIPO), 2013).</li> <li>• Statistical Capacity Scientific and technical journal articles (per 100,000 people) (2009)<sup>16</sup> (The World Bank, 2011).</li> <li>• Scientific and technical journal articles (per 100,000 people) (2009)<sup>17</sup> (The World Bank, 2014a)</li> </ul>
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<sup>13</sup> Researchers per million population, headcounts. Researchers in R&D are professionals engaged in the conception or creation of new knowledge, products, processes, methods, or systems and in the management of the projects concerned. Postgraduate PhD students (ISCED97 level 6) engaged in R&D are included (Cornell University, INSEAD and World Intellectual Property Organization (WIPO), 2013).

<sup>14</sup> Average score of the top 3 universities at the QS world university ranking per country. If fewer than three universities are listed in the QS ranking of the global top 700 universities, the sum of the scores of the listed universities is divided by three, thus implying a score of zero for the non-listed universities (Cornell University, INSEAD and World Intellectual Property Organization (WIPO), 2013).

<sup>15</sup> Average answer to the survey question: To what extent do business and universities collaborate on research and development (R&D) in your country? (1 = Do not collaborate at all; 7 = Collaborate extensively) (Cornell University, INSEAD and World Intellectual Property Organization (WIPO), 2013).

<sup>16</sup> Statistical Capacity Indicator provides an overview of the statistical capacity of developing countries. It is based on a diagnostic framework developed with a view to assessing the capacity of statistical systems. The framework consists of three assessment areas: methodology; data sources; and periodicity and timeliness (institutional framework has not been included in score calculation) (The World Bank, 2011).

<sup>17</sup> Scientific and technical journal articles refer to the number of scientific and engineering articles published in the following fields: physics, biology, chemistry, mathematics, clinical medicine, biomedical research, engineering and technology, and earth and space sciences (The World Bank, 2014a).

<p><b>Governance in health resource allocation</b></p> <ul style="list-style-type: none"> <li>• Perceived corruption at policymaker, health system or clinician level could highlight a need for explicit and transparent priority-setting processes to improve governance and to provide rational incentive structures.</li> <li>• Organised bodies with significant vested interests (e.g. powerful professional bodies, trade unions, industry-funded organisations or pharma companies themselves) could prove to be a barrier.</li> </ul>		✓	✓	<ul style="list-style-type: none"> <li>• Corruption Perception Index<sup>18</sup> (Transparency International, 2014).</li> <li>• Government Effectiveness (2012)<sup>19</sup> (The World Bank, 2013a).</li> <li>• Performance of Grants by Component: Tuberculosis, Malaria and HIV<sup>20</sup></li> </ul>
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<sup>18</sup> The Corruption Perceptions Index ranks countries and territories based on how corrupt their public sector is perceived to be. A country or territory's score indicates the perceived level of public sector corruption on a scale of 0 - 100, where 0 means that a country is perceived as highly corrupt and 100 means it is perceived as very clean (Transparency International, 2014).

<sup>19</sup> Reflects perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. Ranges from approximately -2.5 (weak governance performance) to +2.5 (strong governance performance) (The World Bank, 2013a).

<sup>20</sup> Based on The Global Fund database. The grant portfolio comprises more than 1,000 programmes across more than 140 countries. Grants are measured and rated against country-owned targets at each periodic disbursement of funding. Only in the case of Chile, there are no registered programs related to HIV, Tuberculosis and/or Malaria (The Global Fund, 2013).



Health system financing	Wants	Needs	Feasibility	Quantitative indicators
<p><b><i>Financial sustainability of the health system, considering projected growth and government spending</i></b></p> <ul style="list-style-type: none"> <li>Government-funded health systems that are committed to UHC (especially those promising nominally free access) can be made more sustainable through explicit priority-setting. In some cases, increasing coverage with overly generous packages has led to crises (financial unsustainability) which could be tackled using priority-setting to identify areas for disinvestment. In others, commitment to UHC has led to increasing health expenditure thus providing opportunities for priority-setting to achieve maximum gains from investment.</li> <li>Priority-setting should be easier to co-ordinate and implement in a primarily single payer (i.e. government-funded) health system than a fragmented one. Nonetheless, even a fragmented health system may benefit from priority-setting where government bodies are able to leverage over private payers and providers, for example through regulation and incentivisation.</li> </ul>		✓	✓	<ul style="list-style-type: none"> <li>Growth in health expenditure per-capita (estimation based on the World Bank data regarding health expenditure per-capita (The World Bank, 2014a) ).</li> <li>Public expenditure as % of total health expenditure <sup>21</sup> (The World Bank, 2014a).</li> </ul>

<sup>21</sup> Public health expenditure consists of recurrent and capital spending from government (central and local) budgets, external borrowings and grants (including donations from international agencies and non-governmental organisations), and social (or compulsory) health insurance funds. Total health expenditure is the sum of public and private health expenditure. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation (The World Bank, 2014a).

<p><b>Significant presence of other donors/development agencies in healthcare</b></p> <ul style="list-style-type: none"> <li>• Health systems with significant external donor funding could provide an important entry point for priority-setting, which would emphasise working closely with the donor(s) to co-ordinate resources across health programmes.</li> <li>• At the same time, other development initiatives could be competing with iDSI for stakeholder (policymaker, delivery, and implementation) attention and resources, especially those with similar aims to iDSI (e.g. evidence into policy). Even though this is not directly related to funding, it is included here, given that it is approximated using the same indicators.</li> </ul>	✓	✓	✓	<ul style="list-style-type: none"> <li>• Disbursements to recipient countries for health (Per-Capita, constant 2009 US\$)<sup>22</sup> (World Health Organization (WHO), 2013c).</li> <li>• External resources as % of total health expenditure (2011)<sup>23</sup> (The World Bank, 2014b)</li> </ul>
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<sup>22</sup> The amount of disbursements of official development assistance (ODA) for health, from donor(s) to recipient(s). A disbursement is the release of funds to, or the purchase of goods or services for a recipient; by extension, the amount thus spent. Disbursements record the actual international transfer of financial resources, or of goods or services valued at the cost to the donor (World Health Organization (WHO), 2013c).

<sup>23</sup> External resources for health are funds or services in kind that are provided by entities not part of the country in question. The resources may come from international organizations, other countries through bilateral arrangements, or foreign nongovernmental organizations. These resources are part of total health expenditure (The World Bank, 2014b).

Economies of scale	Wants	Needs	Feasibility	Quantitative indicators
<p><b>Geographic scope</b></p> <ul style="list-style-type: none"> <li>Countries with geographical proximity or similar socioeconomic circumstances can benefit from priority-setting activities (and vice versa)</li> <li>Candidate country has political, economic or cultural influence within geographical region or otherwise socio-politically similar countries; priority-setting awareness may be transferrable across policymakers.</li> </ul>		✓	✓	<ul style="list-style-type: none"> <li>Engagement in priority-setting networks, e.g. HTAsiaLink. This is considered in the qualitative analysis.</li> </ul>
<p><b>Existing support for priority-setting by NICE or HITAP</b></p> <ul style="list-style-type: none"> <li>The extent to which NICE and HITAP's track record of partnership with a country, their respective breadth and depth of expertise in priority-setting can provide scope for further contribution; and the ability to leverage existing relationships with donors, governments, delivery partners and other regional partners/networks.</li> </ul>	✓		✓	<ul style="list-style-type: none"> <li>NICE and HITAP own records. This is considered in the qualitative analysis.</li> </ul>

### 2.2.3. Data collection

We adopted a pragmatic, mixed-methods approach for mapping longlist countries' priority-setting readiness, as we felt that no single set of quantitative or qualitative indicators would sufficiently capture its complexity in various countries. As mentioned above, we defined a set of quantitative indicators, qualitative indicators, and standard mapping template for countries' priority-setting readiness (incorporating supply/capacity, demand, and needs/potential to benefit) and feasibility of a practical support project. We collected data up to May 2014 from a wide range of sources for mapping the longlist of countries.

Responsibility for data collection was shared across iDSI delivery partners (NICE International, HITAP, CGD and OHE). Our professional knowledge from previous or current engagement with the longlisted countries formed the starting point for the mapping, and for identifying key opinion leaders with current understanding on the priority-setting landscapes of various countries. We reviewed a selection of relevant and current literature, including published and unpublished material from the academic and the grey literature (e.g. the websites of WHO and individual ministries of health), reports from NICE International, HITAP and other iDSI partners.

We supplemented literature review findings with key opinion leaders' personal communication, both informal and formal, including the following data collection tools:

- **Standard questionnaire** (Annex 2. MAPPING OF PRIORITY-SETTING AND HTA: QUESTIONNAIRE): This was developed by NICE International and intended for self-completion by identified key opinion leaders. Questionnaire development was informed by an earlier questionnaire, jointly developed by HITAP and NICE International, which focused on HTA in Vietnam, and was field tested during an HTA workshop in Hanoi ("Situation analysis of HTA Introduction at national level", November 2013).

The current questionnaire captured some of the qualitative indicators for priority-setting readiness set out in Table 1, including: political commitment for priority-setting, potential for benefit and for economies of scale through explicit priority-setting processes, and capacity to develop and implement priority-setting products. To guide the respondent, the questionnaire included specific examples of priority-setting processes and products.

The questionnaire was piloted by NICE International with 20 delegates from various African countries during a supervised session at the African Health Economics and Policy Association (AfHEA) conference (Nairobi, Kenya; March 2014), and adopted in its current form by the respective iDSI mapping partners.

- **Semi-structured interview guide** (Annex 3. GUIDE FOR SEMI-STRUCTURED INTERVIEW FOR THE MAPPING OF PRIORITY-SETTING READINESS): This was developed by NICE International for mapping partners to capture more in-depth qualitative data on priority-setting readiness, again based on the key descriptive factors of priority-setting set out in Table 1, through semi-structured interviews with key opinion leaders. This included guidance for the interviewer to lead an open discussion, ensuring that three key themes were covered: *demand*, *need* and *capacity* (for priority-setting), with 10 suggested questions.

Draft mapping summaries were completed using a standard template (Annex 1) and reviewed by iDSI delivery partners (and for some countries, by key opinion leaders themselves).

#### 2.2.4. Limitations

The approach applied in this analysis was a pragmatic balance between a qualitative assessment of priority-setting readiness and an attempt to identify and report against possible quantitative indicators reflecting this readiness, with considerable time constraints and the need to cover a broad cross-section of countries, in a way that would be informative to the practical support project. Many of the indicators, both qualitative and quantitative, remain to be empirically tested and validated, and further research is needed to develop and assess predictors of success (or of failure) of priority-setting processes and institutionalisation of NICE or HITAP-like entities in countries moving towards UHC. iDSI has separately begun to address some of these questions, for example through the ongoing work by Itad and NICE International to develop and field-test indicators for institutional strengthening in health<sup>24</sup>, and frameworks and case studies led by CGD to understand the political economy of priority-setting<sup>25</sup>.

Support for the WHO HITA resolution was one of the indicators under “political will and influence”. However, although only six countries supported the HITA resolution, there may have been other countries with strong political will for priority-setting and HTA but that had not been actively involved with WHA.

High OOP expenditure and incidence of catastrophic health expenditure, under “potential to benefit” could indicate either high or low potential for a country to benefit from more explicit priority-setting. Countries with poor performance may benefit the most, alleviating the existing financial burden from individuals. However, countries with strong performance may also stand to benefit precisely because they are directing more public resources to healthcare and so priority-setting has a greater potential to improve spending decisions on the ground.

Similarly, the “health system financing” indicators could also be ambiguous. High levels of growth in health expenditure per-capita would be a negative indicator when is mostly due to a rise in OOP expenditure, and positive when is due to an increase in public spending. Similarly, high % of donor support may offer an opportunity to work with donors and government to incorporate vertical programmes to the basic package of services offered by the government (e.g. Myanmar), but it could also mean limited potential for impact as silo budgets distort attempts to set priorities across diseases, geographies, populations and technologies.

Our institutional capacity indicators may be limited in that presence of EML or guidelines do not necessarily reflect institutional capacity for developing, updating and implementing these norms. Similarly, technical capacity as reflected by the number of researchers per population or university rankings might be too broad to give much information on capacity specifically relevant to priority-setting.

Finally, while the various quantitative indicators used to reflect “current position along the UHC journey” might have provided useful snapshots of countries’ health system

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<sup>24</sup><http://www.nice.org.uk/about/what-we-do/nice-international/nice-international-projects/lunch-seminar-at-the-department-for-international-development>

<sup>25</sup> <http://www.idsihealth.org/>

performance, these were static indicators and would not have captured progress over time. This in part reflected a paucity of available dynamic data. Nonetheless, this did not ultimately affect the outcomes of the country selection process.

### **2.3. Shortlisting and final selection process**

In shortlisting candidate countries for the iDSI practical support project, we applied the following exclusion criteria:

- Countries that have already established a dedicated, centralised priority-setting institution. Such countries present lower need, given one of the stated goals of the practical support project is for the country to establish a formal mechanism for priority-setting.
- Countries that have not articulated a political commitment to priority-setting for UHC. These would not be aligned with the wants of iDSI.
- Countries where iDSI partners do not have existing links with policymakers at the highest level. Traction through prior NICE International or HITAP engagement is essential to ensure the feasibility of the iDSI practical support project during the short timeframe (summer 2014 through December 2015).

Countries that were in line with iDSI funders' strategic priorities (e.g. where BMGF or DFID had existing and ongoing commitment to in-country capacity-building) are preferable, as were countries where iDSI delivery partners had good links with other funders, where additional funding resource could be effectively leveraged for a practical support project.

We did not formally grade or rank the longlisted countries on the other qualitative and quantitative indicators for priority-setting readiness; these informed the kinds of practical support activities could take place.

For the remaining countries (the "shortlist"), we sought from in-country policymakers statements of their intent to collaborate with iDSI on a practical support project, and described a scope of possible entry points and activities. Throughout this process we remained in close discussions with BMGF and DFID, and with key stakeholders in the shortlisted countries,.

We presented the findings of the current report to BMGF and DFID at the iDSI Steering Group meeting on 5 June 2014, and jointly decided the country in which a practical support project would take place from end 2014.

### 3. Results from mapping of longlisted countries

#### 3.1. Synthesis of qualitative and quantitative findings across longlist countries

The objective of this section is to summarise the qualitative and quantitative information on the longlist of countries, in order to identify the shortlist of countries with the greatest likelihood of feasibility and impact from a practical support project.

We considered 17 countries on our longlist: Brazil, Chile, Colombia, Mexico, Uruguay (LAC); Ghana, Kenya, Malawi, South Africa, Uganda (SSA); China, India, Indonesia, Myanmar, Philippines, Thailand and Vietnam (South Asia and Asia Pacific).

Table 2 (page 29) summarises the information extracted for each country. The following synthesis is based on the factors mentioned in Table 1 and the summary displayed in Table 2.

##### 3.1.1. Political will and influence:

Regarding the level of institutionalisation of priority-setting in healthcare policymaking, the countries could be categorised into three groups:

- Those with clearly established and centralised HTA institutions at different levels of maturity (Brazil, Chile, Colombia, Mexico, Uruguay, China, Thailand, Philippines, and Vietnam)
- Those where HTA is applied on an unstructured or informal basis (South Africa, India, Indonesia, and Myanmar)
- Those without any contribution of HTA to priority-setting (Ghana, Kenya, Malawi, and Uganda)

Policymakers in the first group of countries recognised the importance of and have a clear interest in the development of a formal priority-setting process. At the same time, these countries presented lower strategic potential for iDSI given our interest in helping countries to establish such processes. In this group, the case of Vietnam stood out; it had very recently appointed a focal body within the MoH for co-ordinating HTA activities between different stakeholders, with NICE International and HITAP assistance through funding support from the Rockefeller Foundation.

Among the countries without formal or centralised HTA bodies, three (South Africa, Indonesia and Myanmar) sponsored the WHA Resolution on Health Interventions and Technology Assessment (World Health Organization (WHO), 2013d). All aforementioned countries as well as India had ongoing engagement with NICE International or HITAP, underlining their commitment to developing priority-setting institutions in their countries.

Regarding the countries without any contribution of HTA, two had formally communicated interest in future development of priority-setting processes: Ghana and Kenya. In the case of Ghana, there was also an explicit mention of the necessity of developing NICE-style quality standards. Related to Kenya, there was an explicit mention in the 2012-2030 Health Sector Program of the role of priority-setting in the future. In regards to Malawi and Uganda, the essential health packages nominally included consideration of cost-effectiveness principles, with a recent drive in Uganda to establish a unit within MoH to translate health economic evidence into policy.

### 3.1.2. Potential to benefit given current position along the UHC journey

On UHC and related health indicators, the countries could be broadly categorised into three groups (in relation to the selected sample):

- Countries with strong performance in comparison with the rest of the sample in at least one MDG or NCD indicator (Brazil, Chile, Uruguay, China, Thailand).
- Countries with average performance (Colombia, Mexico, Philippines).
- Countries facing current challenges on at least one MDG or NCD indicator in comparison with the rest of the sample (Ghana, Kenya, Malawi, South Africa, Uganda, India, Indonesia, Vietnam).

Myanmar was not classified because despite a low performance in cervical screening coverage, there was a relatively high proportion of children immunised against measles. This might be associated with the significant increase in health expenditures in recent years which has benefited certain vertical health programmes. Children immunisation against measles appeared to have benefited from the rise in health expenditures, increasing from 68% in 1990 to 85% in 2000 and to 99% in 2011 (World Health Organization (WHO), 2013a).

Furthermore, most countries in our sample have signed commitments or otherwise expressed a will to reach UHC. The current challenges they faced on health indicators constituted an opportunity for the development of more robust priority-setting mechanisms. With such mechanisms, decision makers would count on a systematic and more transparent process to allocate healthcare resources in a more cost-effective and equitable manner. At the same time, it would be possible to establish an achievable and sustainable definition of UHC for the country (what health services will be covered and in what proportions).

A further important dimension of UHC is protection from financial risk. 44 million households around the world are experiencing catastrophic health expenditure, which pushes them into poverty (Xu, et al., 2003). The highest level of out-of-pocket (OoP) health expenditures in our sample could be found among the Asian countries. An improved priority-setting process with explicit equity objectives could protect the most vulnerable people against catastrophic health expenditures.

Countries with higher levels of inequality could also derive other significant benefits from more transparent healthcare resource allocation through active priority-setting. More efficient resource allocation and less wastage means that such resources could be used to develop weak health sector areas, which would improve health indicators. Moreover, an iDSI practical support project in a country with higher inequalities would also help policy makers to develop a priority-setting process that emphasised equity. From the 17 countries in the longlist, South Africa stood out for its high level of inequality, both in general economic terms and in terms of its healthcare expenditure. Furthermore, the literature suggests that there are important inequalities in health between the poorest and the richest in South Africa (Ataguba, et al., 2011) (Harris, et al., 2011). This could have contributed to the high incidence of HIV that is taking up a significant proportion of the health care resources and investment. Interviews with key opinion leaders in Myanmar and Philippines suggested that these two countries also have high inequality in resource allocation and health services. All of this increases the necessity for a more efficient, transparent and equitable priority-setting process.



### **3.1.3. Institutions**

Institutional and technical capacity for priority-setting was perhaps the most difficult to capture reliably using our chosen quantitative indicators. For example, although prior implementation of priority-setting products may indicate such existing capacity, we found that all of the sampled countries have essential drug lists, and all countries except Indonesia have adopted national clinical guidelines for HIV and/or osteoporosis.

We also attempted to measure the general technical capacity of governments and other related institutions, such as universities and research centres, and found some discrepancy between these indicators and the qualitative findings regarding specific capacity for priority-setting. The latter proved more informative, for instance, in highlighting the specific academic disciplines that would benefit from capacity building to facilitate priority-setting, e.g. outcomes research and economic evaluation in Indonesia and Myanmar.

### **3.1.4. Health system financing**

Two indicators were used to estimate the sustainability of health systems financing: (1) share of government spending on the total of health expenditures and (2) growth of health expenditures. Regarding the first, in a health system with high government participation, the coordination and implementation of a priority-setting process should be easier, for instance in ensuring that the recommendations from an HTA assessment will become binding upon the health sector. From the sample of countries, Colombia, Uruguay, Ghana, Malawi, China and Thailand had health expenditures with a government participation of more than 50%. On the other hand, Uganda was mostly a privately-funded health system with a private expenditure of 87%, from which 65% was OoP.

Furthermore, Table 2 shows that most of the countries had a comprehensive package of basic health services which could be administered by a central government institution, or which must be covered by private and public health insurers. For instance, SUS in Brazil, SSP in Mexico, NHIS in Ghana and NHIP in Indonesia are public insurance schemes with the aim of covering the entire population for the use of an established package of health services. The AUGÉ Plan in Chile and EHP in Malawi are minimum plans that must be covered from the insurance in the country. In either situation, there is a need for establishing a clear and formal process to include or exclude health technologies from the benefits package, such that the maximum benefit from the limit budget can be achieved.

Regarding the growth in health expenditures, a high growth could be linked with a rise in the number of persons covered or in the health procedures covered by the insurance scheme, both of which could entail a rise on the pressures on health sector budget. In this regard, the countries with a health expenditure growth higher than 100% between 2006 and 2011 were Brazil, Uruguay, China, Indonesia, Myanmar, Philippines and Vietnam. In the case of Indonesia, the qualitative interviews also highlighted its continuous increase in per-capita health expenditures.

The final dimension related to health systems financing was external donor expenditure as a proportion of total healthcare expenditure. The SSA countries Ghana, Kenya, Malawi and Uganda had relatively high proportions (more than 10%) of donor expenditure, which could benefit from robust country-led priority-setting mechanisms to help donors and policymakers make healthcare investments that are cost-effective, equitable and responsive to local needs. Our qualitative analysis suggested that external assistance in

healthcare for Myanmar could rise, with the ongoing political and economic reforms that have opened up inflows of foreign aid.

**Table 2. Synthesis of key themes and findings from longlist**

<b>Country</b>	<b>Key quantitative indicators*</b>	<b>Overview of the health system</b>	<b>Demand side of priority-setting</b>	<b>Supply side of priority-setting</b>	<b>Potential benefits from better priority-setting processes</b>
Brazil	<p>Good performance in cervical screening coverage and female pelvic exams.</p> <p>High technical capacity for priority-setting.</p> <p>High growth of health expenditures.</p>	<p>Unified Health System (SUS): National health system financed by general taxation. 70% of Brazil's population uses SUS.</p>	<p>Increasing strain on SUS's already underfunded budget.</p> <p>Increasing interest from multinational pharmaceutical companies and biotech industries.</p> <p>MOH uses HTA analyses to inform its decisions on service coverage.</p> <p>HTA informs prices set for public sector purchasing of medicines.</p>	<p>HTA conducted by the MoH and the National Commission for Incorporation of Technologies (CONITEC).</p> <p>CONTIEC responsibilities: (1) SUS list of health technologies and clinical protocols and treatment guidelines. (2) National list of essential medicines.</p> <p>CONITEC does not have regulatory power – the MOH makes the final decision.</p>	<p>Relieve budgetary pressures: The SUS has continued to incorporate new medicines and technologies.</p> <p>Increased integration of existing bodies could improve governance and institutionalisation of HTA practices.</p>
Chile	<p>Good performance in births attended by skilled health staff.-</p> <p>High technical capacity for priority-setting (statistical capacity and number of scientific and technical articles).</p> <p>Low level of corruption</p>	<p>Comprehensive rights-based system for health care provision, consisting of guarantees of access quality and opportunity for health services.</p> <p>AUGE Plan: a set of explicit guarantees including access to treatment, opportunity, quality and financial protection.</p>	<p>Medical conditions included in AUGE are explicitly determined; there is significant demand for HTA. The main criterion is the number of healthy life years lost.</p> <p>The law mandates the use of cost-effectiveness analysis when deciding on inclusions in the AUGE benefits package.</p>	<p>The Consultative Advisory Committee's (CCA) is a technical entity meant to formulate recommendations to the MoH.</p> <p>The technical studies needed as an input for CCA recommendations are produced by the MoH on request.</p>	<p>Potential educational component, as a significant proportion of the population is unaware of the explicit guarantees included under AUGE.</p>
Colombia	<p>Government-funded health system.</p>	<p>UHC: all citizens, irrespective of their ability to pay, are entitled to a comprehensive health benefit package, the Compulsory Health Plan (POS).</p> <p>The percentage of population with insurance has growth</p>	<p>Criteria for evaluation have been established by law, and include epidemiological profile, appropriate technology available in the country, and the financial conditions of the system.</p> <p>There is an increasing yet not</p>	<p>Comisión de Regulación en Salud (CRES): Defines the technologies covered by the mandatory benefits package.</p> <p>Health Technology Evaluation Entity (IETS): Provides technical recommendations to CRES on which technologies to fund.</p>	<p>Programme funding remains a key issue. Maintaining sustainability will be a challenge that priority-setting could help address as Colombia faces high levels of requests for non-prioritised services, primarily from the higher income portions of the population, and as it considers restructuring its health benefits</p>

		<p>around 65% between 1993-2009)</p> <p>Problems of the health care system: accepting high drug prices (government drug expenditures have quadrupled since 2005); domination by private health insurance companies and health service providers; and corruption.</p>	<p>mandatory use of cost-effectiveness as a criterion.</p> <p>In practice, cost of technology to the system has been a main driver for topic selection.</p>		<p>plan towards the use of a negative list.</p>
Mexico	<p>Sponsor for WHA resolution on HTA.</p>	<p>System of Social Protection in Health (SSP): main component the public insurance scheme that provides access to the Universal List of Essential Health Services (CAUSES), which includes low-and medium complexity health interventions, in addition to financial protection.</p> <p>Costly, specialised interventions are covered through the Fund for Protection against Catastrophic Health Expenditures (FPGC).</p> <p>CAUSES and FPGC cover approximately 45% of the population</p>	<p>Services provided under SSP have expanded in recent years.</p>	<p>The National Centre for Health Technology Excellence (CENETEC): Activities determined by the Internal Regulations of the Secretary of Health</p>	<p>Systematised HTA processes could be used to inform and enhance decision making mechanisms within the SSP.</p>
Uruguay	<p>Good performance in births attended by skilled health staff and female pelvic exams.</p> <p>Low OoP and catastrophic health</p>	<p>National Health Insurance Plan (SNIS) covers almost half of the population.</p> <p>Almost 90% of those covered by SNIS receive care from collective health care</p>	<p>Benefits are standardised across providers through Uruguay's Integrated Health Care Plan (PIAS).</p> <p>Regardless of their chosen provider, all members of the</p>	<p>Fondo Nacional de Recursos (FNR): defining, financing, and monitoring highly specialised health technologies for the PIAS; already adopts some decisions by NICE.</p> <p>Ministry of Health: designs and</p>	<p>PIAS, which offers almost universal coverage, is at the centre of several competing tensions. As new demand is created, PIAS will need to evaluate new health services and technologies for inclusion, and to better coordinate the management</p>

	<p>expenditures.</p> <p>Low level of corruption and high political stability.</p> <p>Fast growth of health expenditures.</p> <p>Government-funded health system.</p>	<p>institutions (IAMCs) and the rest receive services from the State Health Services Administration (ASSE).</p>	<p>SNIS access the same basket of interventions.</p> <p>Economic evaluation is not mandatory for decision making but is often used in practice.</p>	<p>adjusts the complex services and drugs of the PIAS.</p> <p>No formal process for topic selection.</p>	<p>of PIAS between the MoH and FNR.</p>
Ghana	<p>Only African country with a positive result in the political stability and absence of violence index.</p> <p>Faces challenges on various MDG and NCD health indicators.</p> <p>Government-funded health system.</p> <p>High participation of external donors.</p>	<p>National Health Insurance Scheme (NHIS): provides financial risk protection against the cost of quality basic health care for all residents.</p> <p>The NHIS is funded by a combination of an earmarked Value Added Tax (60%) a premium from sections of the population considered able to pay (4%); and support from international donors.</p>	<p>Providers have expressed a need to agree common standards of care to be applied nationally.</p> <p>Interest in developing NICE-style quality standards.</p> <p>Generous health benefits package, but there is no explicit list for services and other technologies nor is there a clear process for listing and delisting.</p> <p>The MoH maintains a National Essential Medicine List (EML) and develops national clinical guidelines.</p>	<p>Some Universities, including the School of Public Health at the University of Ghana, have a small number of health economists.</p> <p>Clinical audit and cost data are not readily available.</p> <p>Capacity to carry out or quality assure analyses related to priority-setting at the MOH or NHIS appears to be lacking.</p>	<p>Has strong and stable institutions dedicated to the design, financing and delivery of healthcare. The establishment of dedicated priority-setting institutions or explicitly defined processes could serve to improve allocative and technical efficiency, reduce inequalities, and improve quality improvement at the provider level.</p> <p>NHIS is seen by some African governments and international donors as a model for increasing coverage levels across Sub-Saharan Africa.</p>
Kenya	<p>Low skilled birth attendance and female pelvic exams, and high maternal mortality ratio.</p> <p>Low capacity for priority-setting at technical level.</p> <p>Concerns about corruption and governance.</p>	<p>Constitution provides every person with the right to the highest attainable standard of health.</p> <p>Lack of financial and other resources in the health system and insufficient personnel with low salaries.</p> <p>National Social Health Insurance Fund (NSHIF): covering all Kenyans.</p>	<p>HTA is not used for priority-setting, though the health policy plan (2012-2030) makes explicit mention of HTA for priority-setting in the future.</p> <p>County hospitals and clinicians use disease-specific national guidelines provided by the MOH as a guide to patient care.</p> <p>Many stakeholders have some impact on priorities and</p>	<p>There is no written guidance or established process for HTA in Kenya and there is no legislation surrounding the performance of structured HTA.</p> <p>There is no organised effort to assess the on-going organisation of health service provision.</p> <p>The current priority-setting processes (e.g. essential medicines list, the national insurer's benefit</p>	<p>Considered a leader in the region in health policy making, and has adopted or adapted priority-setting processes, products or decisions from other countries.</p> <p>Main impediment to the performance of HTA: lack of technical capacity and lack of financial resources for research and evaluation.</p>

	High participation of external donors.	Government funds allocated by a formula, and local governments have considerable power when it comes to local priorities for health versus other areas. Still, many policies, particularly the availability of health technologies, are influenced or controlled by national level policies.	spending decisions (MoH, Ministry of Finance, national and private insurer, ext. donors, etc.).	package and the Ministry of Health's Kenya essential package of health (KEPH)) are not subjected to any peer review.	
Malawi	<p>Weaker in maternal mortality outcomes, cervical screening coverage and female pelvic exams and probability of premature death for NCD.</p> <p>Highest statistical capacity in Africa.</p> <p>Low performance in governance effectiveness.</p> <p>High participation of external donors</p>	<p>Frequent short supply of essential medicines, inadequate infrastructure, weak human resources and weak capacity in planning and prioritisation.</p> <p>Government is the largest provider of health care, followed by the Christian Health Association of Malawi (CHAM).</p> <p>Adopted the WHO recommended Essential Health Package (EHP) and designed a heavily donor financed Programme of Work (POW) to deliver it to vulnerable population.</p>	<p>EHP is based on evidence of both cost-effectiveness and burden of disease in Malawi: represents a greater commitment for priority-setting.</p> <p>Awareness of the very low levels of health financing: serious shortfalls in the drug budget, and the national drug formulary.</p>	<p>Department of Health Planning and Policy Development: development and coordination of the priority-setting process. It has critical capacity constraints.</p> <p>Health Services Research Department of the Ministry has the mandate for coordination of research activities with direct implications for health policy.</p>	<p>Could make the resource allocation process much more transparent, increasing the health impact of available resources and of implemented programs, and assist government in prioritising resources to different sub-populations.</p>
South Africa	<p>Sponsor for WHA Resolution on HTA.</p> <p>Relatively low proportion of children immunised against measles, and high premature deaths from NCDs.</p>	<p>Inequitable, two-tier health system. However, all citizens are covered with at least public insurance.</p> <p>High HIV and TB disease burden consumes a significant share of health sector resources.</p>	<p>The demand for priority-setting is articulated by the central government and it is mainly for medicines.</p> <p>Private sector health insurance plans are regulated by national government through the Council of Medical Schemes (CMS).</p>	<p>HTA is not formal or centralised, and plays a limited role and is mostly indirect and decentralised among various agencies and organisations (e.g. Medicines Control Council (MCC) and Pricing Committee in the NDoH.</p>	<p>The political aim of a single NHI by 2025, UHC on a more equitable basis, presents both a need and opportunity to introduce more explicit, comprehensive, and coordinated priority-setting across different disease/health interventions and types of care.</p>

	<p>Highest inequality.</p> <p>Highest technical capacity for priority-setting from the selected African countries.</p> <p>High performance in already established programmes.</p>	<p>Healthcare delivery and insurance systems is overlapping and tiered .</p> <p>The current leadership has established a goal of a single NHI scheme by 2025.</p>	<p>Priority-setting products are commissioned by National Department of Health (NDoH) unit for Essential Medicines List (EDL) and standard treatment guidelines and by the CMS for overseeing administration of the Prescribed Minimum Benefits (PMBs).</p> <p>It is mandatory for NDoH to follow the findings of HTA and other government analyses in making spending decisions.</p>		
Uganda	<p>Relatively weak on a range of MDG and NCD indicators.</p> <p>Concerns about corruption and governance.</p> <p>High participation of external donors</p>	<p>A centralized health financing delivery system with MoH being the core governmental unit. Nonetheless, a large percentage of medical care spending is OoP by patients.</p>	<p>The MoH makes limited use of priority-setting analyses by its Health Policy Analysis Unit and other bodies.</p> <p>There is an Essential Medicines, a Health Supplies List (EMHSLU) and a suite of Updated Practice Guidelines (UPG).</p>	<p>There is no explicit health priority-setting or HTA; priorities are largely set by historical precedent. Public healthcare providers provide utilisation data to influence subsequent spending.</p> <p>The drug regulatory agency, the National Drug Authority (NDA), provides review of new medicines.</p> <p>For analysing priorities, MOH has a Health Policy Analysis Unit but also draws upon donor input and the SURE (Strengthening Use of-Research Evidence) project at Makerere University, with very limited capacity.</p>	<p>Crucial need to address the large gap in HTA technical and institutional capacity.</p> <p>Uganda is a member of the East African Community and has regional influence should it succeed in establishing more robust priority-setting mechanisms.</p>
China	<p>Sponsor for WHA Resolution on HTA.</p> <p>High performance in births attended by skilled health staff and children immunised against measles.</p>	<p>Medical insurances: a scheme for urban employees, another for unemployed urban residents, and a third for rural residents. 95% of the population covered in 2011.</p> <p>2009: Government announced a commitment to UHC of basic</p>	<p>High level political commitment and interest in more robust priority-setting mechanisms, including development of clinical practice guidelines, the production of MoH/NHFPC derived "clinical pathways" (several hundred 'disease</p>	<p>The supply of evidence-based priority-setting outputs is currently fragmented. However, there is a 'national' body (the HTA Division of CNHDRC) with its focus on improving the quality and efficiency of rural healthcare. Additionally, it provides evidence-based technical</p>	<p>The sheer size of the population translates to high potential benefit of more evidence-based priority-setting processes, which could focus on methods of clinical guideline development; application of HTA methods to adjusting the essential medicines list (EML); and</p>

	<p>High technical capacity for priority-setting</p> <p>Fast growth of health expenditures.</p> <p>Government-funded health system.</p>	<p>health services, accompanied by rural health reforms that emphasised quality, efficiency and access.</p>	<p>categories' are now covered), the development of a national formulary, payment reform, and formal impact assessment.</p>	<p>support on national technology adoption decisions. It does not have the capacity to satisfy demand.</p>	<p>on reducing misuse of diagnostic technologies.</p>
India	<p>Relatively low proportion of children immunised against measles, and high proportion of premature deaths from NCDs.</p> <p>High OOP and catastrophic health expenditure.</p>	<p>National Health Policy is determined by the Ministry of Health and Family Welfare (MoHFW).</p> <p>Health policy is largely decentralised to State bodies, who are only mandated to follow central government guidelines in a limited vertical programmes (via the National Health Mission, NHM).</p> <p>Around 1/4 of the population are covered under various national social insurance schemes: wide variations in package prices and non-transparent pricing processes.</p> <p>External donors appear to command disproportionate influence in health policymaking.</p>	<p>MoHFW is currently articulating a demand for HTA, with specific reference to cost-effectiveness of diagnostics and treatments.</p> <p>The DHR (Department of Health Research) has mandated ICMR (Indian Council of Medical Research) to provide guidance based on HTA.</p>	<p>No formal HTA programme.</p> <p>DHR has a current mandate for the formulation of evidence-based policy.</p> <p>Medical Technology Assessment Board (MTAB): established within DHR, but its remit is unclear.</p> <p>ICMR makes recommendations on vaccines and has an advisory role to MoHFW.</p> <p>ICMR does not have technical capacity for systematic reviewing or health economics.</p> <p>MoHFW commissioned the Federation of Indian Chambers of Commerce and Industry (FICCI) to develop national standard treatment guidelines.</p>	<p>Institutionalisation of quality-focused priority-setting at the national level, including via NHM and public health insurance schemes, would not only support policymaking at the State level to deal with irrational prescribing and improve quality, it would also force private providers to improve quality to remain competitive.</p> <p>Local implementation of priority-setting processes may be transferrable: both across patient populations and across Indian states.</p>
Indonesia	<p>Sponsor for WHA Resolution on HTA.</p> <p>Relatively high smoking prevalence, and low availability of breast/bowel cancer screening.</p> <p>No national clinical</p>	<p>Demand for healthcare with significant resource requirements.</p> <p>Balance of public and private hospitals.</p> <p>There has been a significant shift from primary to</p>	<p>There is demand for the development of a benefit package that is feasible and sustainable for NHIP.</p> <p>MoH is planning to establish an independent National HTA Commission or a similar body.</p> <p>MoH has already established a</p>	<p>Limited supply-side capacity for HTA; health economists are not familiar with outcomes research, and there is almost zero capacity for disease modelling.</p>	<p>Given the government commitment to UHC, priority-setting can play a crucial role to achieving a sustainable benefits package.</p>



	guidelines for osteoporosis and HIV.	secondary and tertiary care. Continuous increase in per-capita health expenditure.  The government has committed to the introduction of UHC through a single National Health Insurance Program (NHIP) by 2019.	national technical team with three working groups through a Ministerial Decree: (1) Working group for Medical Devices, (2) Working group for Medicines, and (3) Working group for Procedures.		
Myanmar	Sponsor for WHA Resolution on HTA.  High performance in children immunised against measles but low cervical screening coverage.  High OoP health expenditure.  Low technical capacity for priority-setting  Fast growth of health expenditure	The health system has suffered from low health investments.  Inequity in resource allocation.  The Health Minister has made a commitment to introduce UHC in Myanmar by 2035.	The Department of Health Planning has requested HTA training from HITAP.  Need to address the growing demand for primary health care, where a basic healthcare package has not been accessible.	Three Departments of Medical Research (lower, upper, central) under the MoH, that focus on outcomes research.  The Department of Health Planning focuses on health systems and policy research.  Lack of expertise in health economic evaluations and modelling techniques.	As the government has almost doubled their health budget during the past few years and expressed the need to establish a health benefit package, priority-setting will have an increasingly important function.
Philippines	Highest technical capacity among the studied Asian countries.  High OoP health expenditure.	Health system: decentralised structure, involving multiple layers of government, with the Philippine Department of Health tasked with providing overall strategic and policy direction.  Significant inequities and inefficiencies.  Philippine Health Insurance Corporation (PhilHealth): National health insurance agency.	The government established an HTA Committee within Philhealth as far back as March 1999.  PhilHealth uses HTA in its coverage decisions, including for all new technologies.  The Department of Health is currently articulating a demand for HTA through the National Center for Pharmaceutical Access and Management (NCPAM) (national formulary	Philhealth had an HTA committee between 2000 and 2006.  Philippine Food and Drug Administration (FDA) has also established an HTA unit.  The Department of Health (DoH) Research Hub comprises of multiple research and strategy units: direct research priorities from government to researchers, and translating any research findings into actionable recommendations.	Reducing irrational prescribing.  Informing the range of Philhealth benefits patients can expect to receive while at the same time linking such guarantees to better evidence-informed payment mechanisms.  A critical issue will be the ability of senior policy makers to engage in this work.

		<p>Strong interest in increasing the number of poor families in the PhilHealth.</p> <p>Z Benefit Package for catastrophic illnesses and</p> <p>Primary Care Benefit I for preventive services.</p>	<p>decisions).</p> <p>Technical support through a Rockefeller funded NICE International / HITAP evaluation of two vaccine products.</p>		
Thailand	<p>Sponsor for WHA Resolution on HTA.</p> <p>High performance in births attended by skilled health staff and children immunised against measles.</p> <p>Government-funded health system.</p>	<p>Very strong civil society, including in the health sector. Civil society representatives sit on many decision making bodies (e.g. committee of the pharmaceutical reimbursement list and the UHC management board).</p>	<p>HTA has become instrumental in informing and guiding resource allocation in Thailand, in particular on the development of the pharmaceutical reimbursement list, UHC benefits package, and health promotion policies.</p>	<p>HTA in Thailand is relatively well established with capacity in policy and research.</p> <p>2006: The government, through the Thai Health Promotion Foundation, initiated an HTA program called HITAP (semi-autonomous research organisation under the Ministry of Public Health).</p> <p>Universities have developed post-graduate programs on HTA.</p>	<p>HTA has become critical in ensuring fairness and sustainability of UHC policies.</p> <p>HTA involves a wide range of stakeholders, makes strong links with the decision making process, and focuses on a number of policy issues.</p> <p>Thailand has become progressively influential in the region in terms of supporting other countries to develop HTA capacity.</p>
Vietnam	<p>Faces challenges with NCDs (e.g. cancer screening indicators)</p> <p>High level of OoP health expenditure.</p> <p>High performance in already established programmes.</p>	<p>Centralised health system; MoH plays an important role in planning and implementing health plans.</p> <p>The Vietnam Social Security: a public health scheme under the MoH.</p> <p>Inequitable distribution and utilisation of high cost health technologies.</p>	<p>Clear commitment from the MoH on HTA, with the designation of the Health Strategy &amp; Policy Institute (HSPI), a unit within MOH, as the focal point for HTA.</p> <p>Particular attention placed on the health benefits package for the introduction of UHC. The current package has been criticised for being too broad, undefined and unreasonable.</p>	<p>HSPI, academic institutes, other research organisations and NGOs have a relatively significant pool of researchers with backgrounds in HTA. A strong competitive environment has in the past resulted in an uncoordinated approach to research, which should improve as HSPI develops its technical and institutional capacity, in particular in convening relevant stakeholders.</p>	<p>Ensure appropriate use of health technologies, inform the development of the health benefits package, and inform price negotiation with the private sector.</p> <p>Prioritisation of topics in a systematic way will be important to avoiding personal interests and donor agendas.</p>

\* Definition of the quantitative indicators showed in Table 2.

### **3.2. Quantitative mapping**

In terms of GDP per-capita, the richest countries in the sample were Uruguay and Chile, and the poorest were Malawi and Uganda (Table 3). The same held true for life expectancy which was for females 52% higher and for males 41% higher in Chile than in Malawi (Table 3). Similarly, the LAC region had higher life expectancies than the SSA countries, regardless of sex.

In relation to health expenditure per-capita, the average of the Latin American countries (US\$870.32) widely exceeded the values of Africa (US\$174.76) and Asia (US\$121.10). Furthermore, looking at the country level, the differences were considerable; for example, health expenditure per-capita in Malawi was 2.80% of Uruguay's and 2.76% of Brazil's. Myanmar had the second lowest health expenditure following Malawi, with a value that corresponded to 2.01% of Brazil's.

Similarly, there were clear differences between regions in the variables that reflect health status. For instance, the African countries were characterised by a higher rate of communicable diseases (such as malaria and measles) in comparison with Asia and Latin America. The same was true for the infant mortality rate (Table 3).

**Table 3. General characteristics of the longlisted countries**

Region	Country (Classif. by Income†)	Population in millions (2012)	GDP per-capita (current US\$) (2013)	Health expenditure per-capita (current US\$) (2011)	Cause of death by CD †† (% of total) (2008)	Infant mortality rate††† (2008)	Life expectancy at birth, female (years) (2011)	Life expectancy at birth, male (years) (2011)
Latin America and Caribbean	Brazil (UMI)	198.66	11,340	1,120.6	14	14	77	70
	Chile (HI)	17.46	15,452	1,074.5	9	8	82	76
	Colombia (UMI)	47.70	7,748	432.0	13	15	77	70
	Mexico (UMI)	120.85	9,749	619.6	12	13	79	75
	Uruguay (HI)	3.40	14,703	1,104.9	8	9	80	73
Sub-Saharan Africa	Ghana (LMI)	25.37	1,605	75.0	53	3	62	60
	Kenya (LI)	43.18	943	36.2	63	48	62	59
	Malawi (LI)	15.91	268	30.9	63	53	54	54
	South Africa (UMI)	52.27	7,508	689.3	67	35	57	53
	Uganda (LI)	36.35	547	42.4	65	58	59	57
South Asia and Asia Pacific	China (UMI)	1,350.70	6,091	278.0	7	13	76	74
	India (LMI)	1,236.69	1,489	59.1	37	47	68	64
	Indonesia (LMI)	246.86	3,557	95.0	28	25	72	68
	Myanmar (LI)	52.80	1,144	22.5	33	48	67	63
	Philippines (LMI)	96.71	2,587	96.5	31	20	72	65
	Thailand (UMI)	66.79	5,480	201.8	17	11	77	71
	Vietnam (LMI)	88.77	1,755	94.8	16	17	80	71

† Country groups by income according with The World Bank classification (The World Bank, 2014a): LI = Low-income economies (US\$1,035 or less), LMI = Lower-middle-income economies (US\$1,036 to US\$4,085), UMI = Upper-middle-income economies (US\$4,086 to US\$12,615), and HI = High-income economies (US\$12,616 or more). The split is based on 2012 GNI per-capita.

†† Cause of death by communicable diseases and maternal, prenatal and nutritional conditions.

††† Probability of dying by age 1 per 1000 live births.

Source: Data extracted from data.worldbank.org (The World Bank, 2014a). The GDP for Myanmar was extracted from data.un.org (United Nations Statistics Division, 2014) .

The remainder of this section explores the quantitative variables within the framework presented in Table 1.

### 3.2.1. Political will and influence

We considered that the importance of HTA for policymakers reflected in a country's support to the WHA Resolution on "Health Interventions and Technology Assessment in Support of Universal Health Coverage" (World Health Organization (WHO), 2013d), specifically in the sponsorship of this resolution. Out of the 17 countries, six sponsored this resolution: China, Indonesia, Mexico, Myanmar, South Africa and Thailand. This reveals a higher level of demand for priority-setting as well as a stronger commitment from the health ministries in comparison with the remaining 11 countries. This could be

crucial for the success of a programme with the objective of improving priority-setting processes in the country. In a similar context, all the selected Latin American countries supported the resolution CSP28.R9 "Health Technology Assessment And Incorporation Into Health Systems", established during the 28th Pan American Sanitary Conference (Pan American Health Organization, 2012).

### **3.2.2. Potential to benefit given current position along the UHC journey**

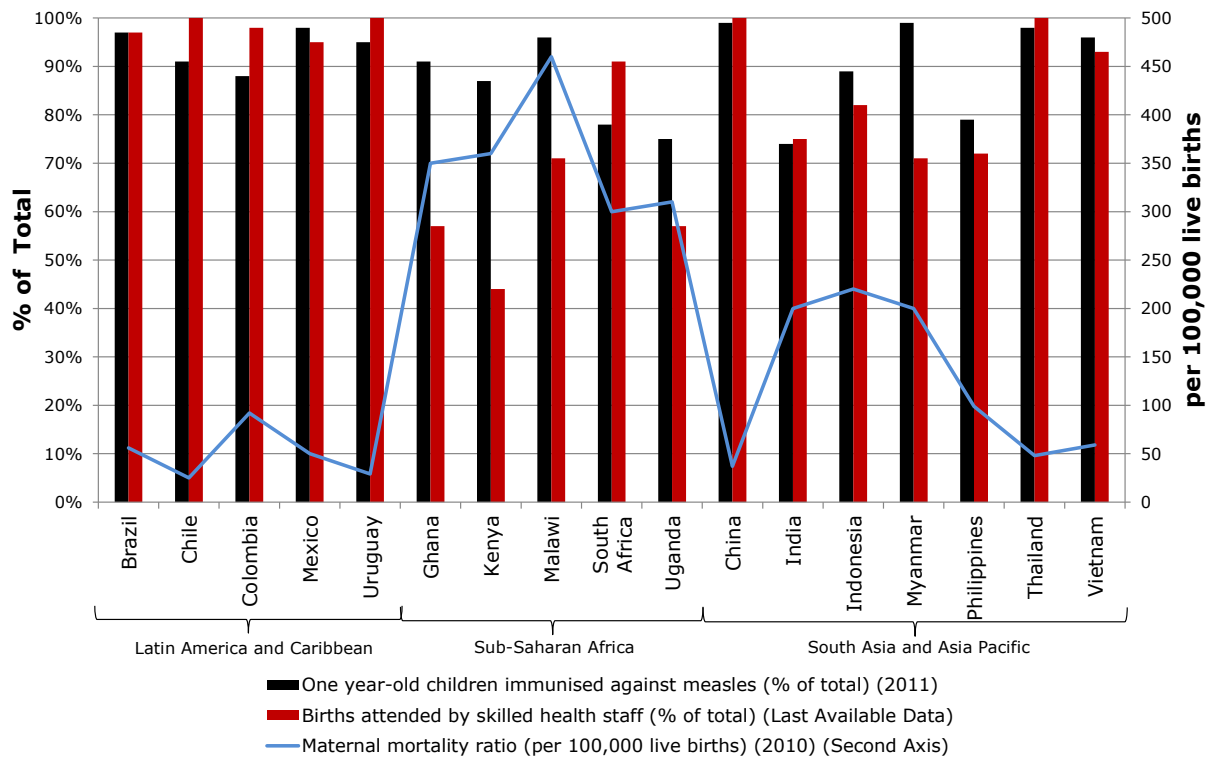
An indication of countries' current position along the UHC journey was approximated firstly through health indicators, and secondly through indicators of financial protection and distribution.

The framework in Table 1 considered a selected group of health indicators that are part of the 60 indicators used to measure progress towards the Millennium Development Goals (MDGs). These indicators are presented in Figure 2. The deficit in births attended by skilled staff stood out in three of the five African countries: Kenya, Uganda and Ghana. To a lesser extent, Malawi, India and Myanmar also showed values below the average.

Furthermore, the African countries also exhibited the highest levels of maternal mortality ratio, far above the levels observed in Latin America or in Asia. However, note that India, Indonesia and Myanmar presented levels of maternal mortality above 200 per 100,000 (Figure 2).

The third variable in Figure 2 is the percentage of one-year-old children immunised against measles. Here two African countries, Uganda and South Africa, and two in Asia, India and Philippines, exhibited the lower values. Overall, China performed well with 100% of births attended by skilled staff and 99% of one year-old children immunised against measles. A similarly high level of one-year-old children were immunised against measles in Myanmar.

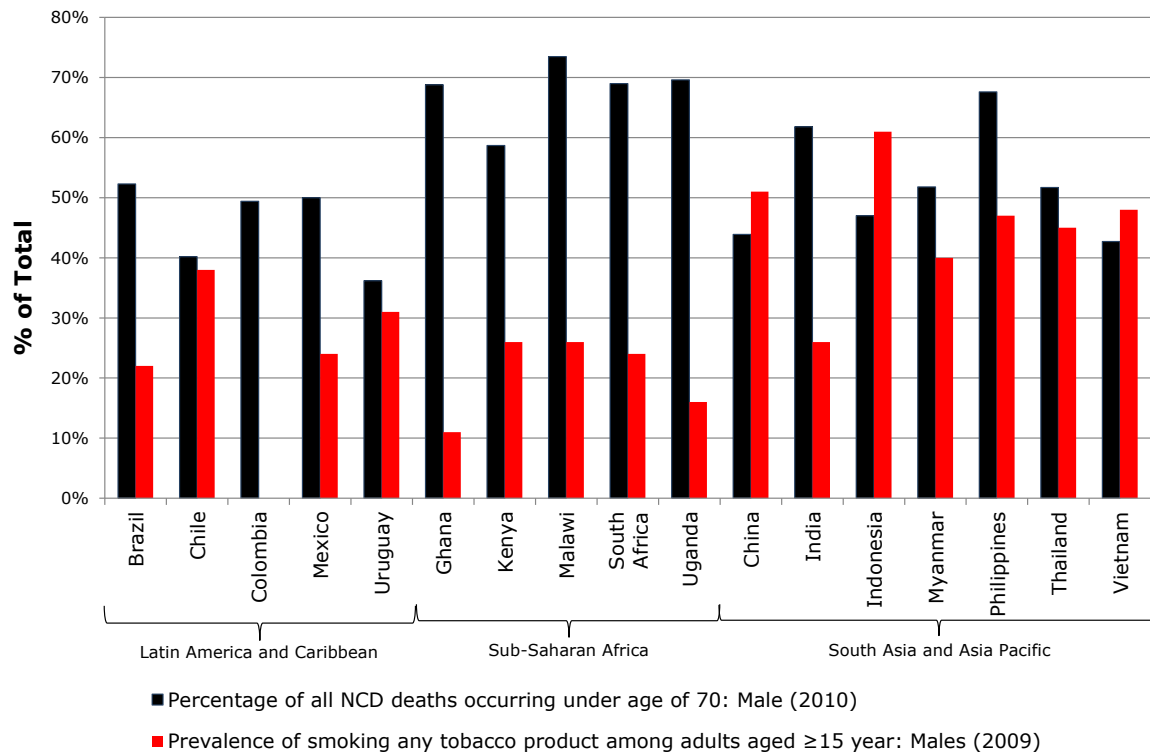
**Figure 2. Potential to benefit given current position along the UHC journey: Millennium Development Goals Indicators**



Source: Authors' elaboration. Data from World Health Organisation (World Health Organization (WHO), 2013a) and the World Bank (The World Bank, 2014a).

Another group of health indicators relating to current position along the UHC journey were those associated with NCDs. Figure 3 shows two of these: the percentage of NCD death occurring after the age of 70, and the prevalence of smoking. In order to facilitate the analysis, only the values for males are shown. Similar to the MDG indicators in Figure 2, the African countries stood out in Figure 3, with the lowest prevalence of smoking but the highest percentage of NCD deaths occurring under the age of 70. Ghana was particularly striking since almost 70% of NCD deaths occurred before the age of 70 yet the smoking prevalence was the lowest in the sample. In the Asia group, the Philippines had the highest proportion of NCD deaths before 70, followed by India. On the other hand, Indonesia had a high prevalence of smoking, 61%.

**Figure 3. Potential to benefit given current position along the UHC journey: Non-communicable Diseases Indicators (NCD deaths and prevalence of smoking)**



Source: Authors’ elaboration. Data from World Health Organisation (World Health Organization (WHO), 2013a) (World Health Organization (WHO), 2011).

Table 4 presents a further set of NCD-related indicators, four of which were related to the availability and coverage of cancer screening. Ghana, Uganda, Indonesia and Vietnam reported low availability of breast and bowel cancer screening at the primary health care level. Ghana also had relatively low cervical screening coverage. These suggested clear entry points for priority-setting to increase the availability of cost-effective interventions for NCDs through the care pathway (including prevention, diagnosis and treatment).

**Table 4. Potential to benefit given current position along the UHC journey: Noncommunicable Diseases Indicators**

Region	Country	Effective Cervical Cancer Screening Coverage for Women (Age 25–64)	Fraction of women who have never had a pelvic exam (ages 25–65)	General availability of breast cancer screening (by palpation or mammogram) at the primary health care level	General availability of bowel cancer screening (by digital exam or colonoscopy) at the primary health care level	Probability of premature death (age 30-70) from cardiovascular disease, cancer, diabetes and chronic respiratory disease
Latin America and Caribbean	Brazil	0.73	0.09	yes	yes	20
	Chile	n/a <sup>†</sup>	n/a	yes	no	13
	Colombia	n/a	n/a	n/a	n/a	15
	Mexico	0.66	0.17	yes	n/a	17
	Uruguay	0.61	0.07	yes	yes	20
Sub-Saharan Africa	Ghana	0.04	0.79	no	no	27
	Kenya	0.06	0.83	yes	yes	25
	Malawi	0.03	0.94	no	yes	36
	South Africa	0.23	0.50	yes	n/a	27
	Uganda	n/a	n/a	no	no	33
South Asia and Pacific	China	0.23	0.30	yes	no	21
	India	0.05	0.72	yes	no	27
	Indonesia	n/a	n/a	no	no	25
	Myanmar	0.01	0.54	yes	no	n/a
	Philippines	0.11	0.65	yes	no	23
	Thailand	n/a	n/a	yes	yes	21
	Vietnam	0.07	0.20	no	no	21

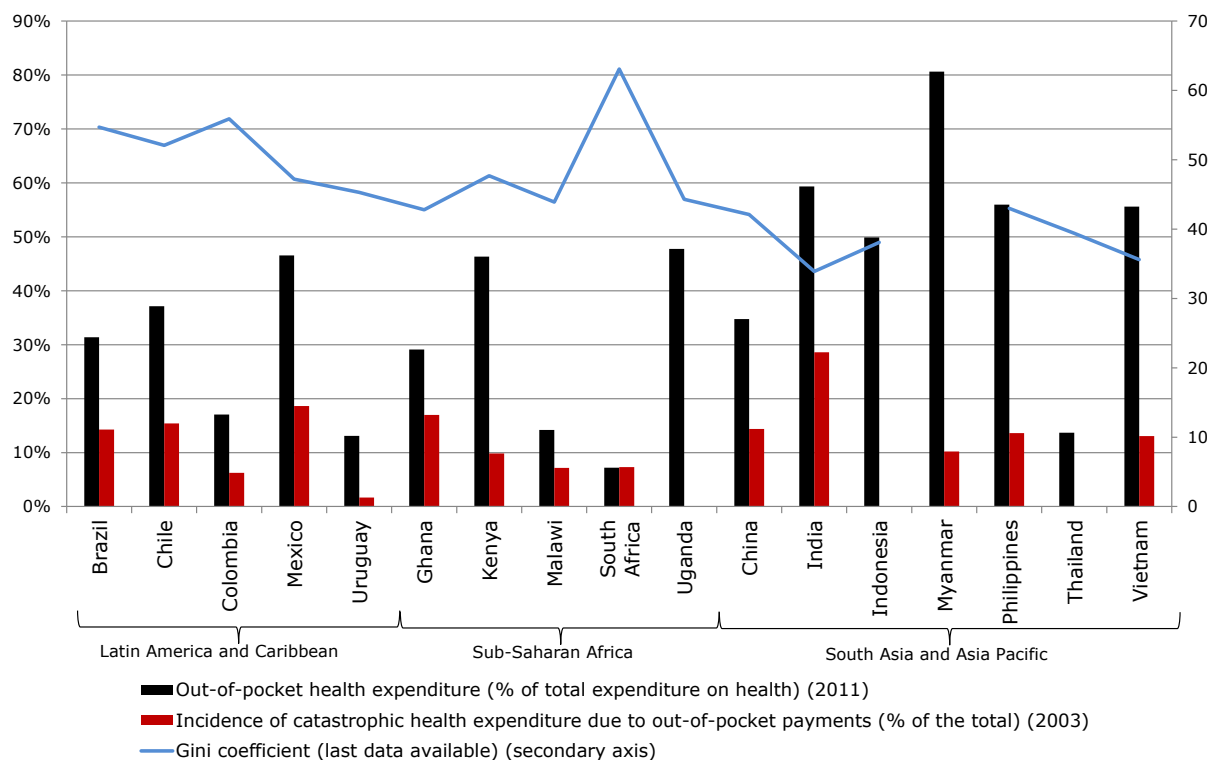
<sup>†</sup>n/a = Not available

Sources: Data from the World Health Organization (World Health Organization (WHO), 2013b) and Gakidou et al. (Gakidou, et al., 2008)

Another group of indicators associated with the current position along the UHC journey were the financial protection and inequalities indicators. Figure 4 shows that the majority of longlist countries had OoP expenditures below 50% as a proportion of total expenditure on health. Only in four cases did OoP expenditures exceed 50%, Myanmar (81%), India (59%), Philippines (56%) and Vietnam (56%). On the other hand, OoP expenditure represented less than 15% of the total in Uruguay, Malawi, South Africa and Thailand. Note that despite the relatively low OoP expenditure in South Africa, the distribution of the health care was highly unequal; about 20% of the population absorbed 80% of the total healthcare expenditure (see qualitative summary of South Africa: Section 3.3.9, page 69). In addition, between 2% (Uruguay) and 27% (India) of households across the selected countries suffered from catastrophic health expenditure due to OoP expenditures (Figure 4). The Gini coefficient in Figure 4 shows that South Africa had comparatively the highest inequality. In general, the Gini indices were slightly higher in Latin America than in Asia.



**Figure 4. Potential to benefit given current position along the UHC journey: Financial protection and distributional issues**



Sources: Authors' elaboration. Data from The World Bank (The World Bank, 2014a) and Saksena et.al. (Saksena, et al., 2010).

### 3.2.3. Institutions

The indicators for "Institutions" in Table 5 were an attempt to measure the institutional capacity in the country for priority-setting, both in terms of capacity for policymaking and for conducting technical work. Here the objective is to identify the existence of a department or body that has already developed or implemented a priority-setting product, and could be willing and able to work in partnership with iDSI to strengthening the country's priority-setting process.

First, all the countries included in the longlist have implemented a National List of Essential Drugs (World Health Organization (WHO), 2014b) (Table 5).

Second, the existence of national clinical guidelines for two conditions, HIV and osteoporosis, was taken to estimate the extent in which clinical guidelines were generally used in the country. Although the existence of guidelines neither provides any indication of the quality or rigour of the guideline development process or outputs, nor that they are implemented at the clinician level, it could be an indicator of interest for developing or implementing priority-setting products at a national level. While guidelines for HIV were common in most of the countries (AIDSTAR-ONE, 2014), osteoporosis guidelines did not exist in Indonesia, Myanmar, and in all the selected African countries (International Osteoporosis Foundation, 2014).

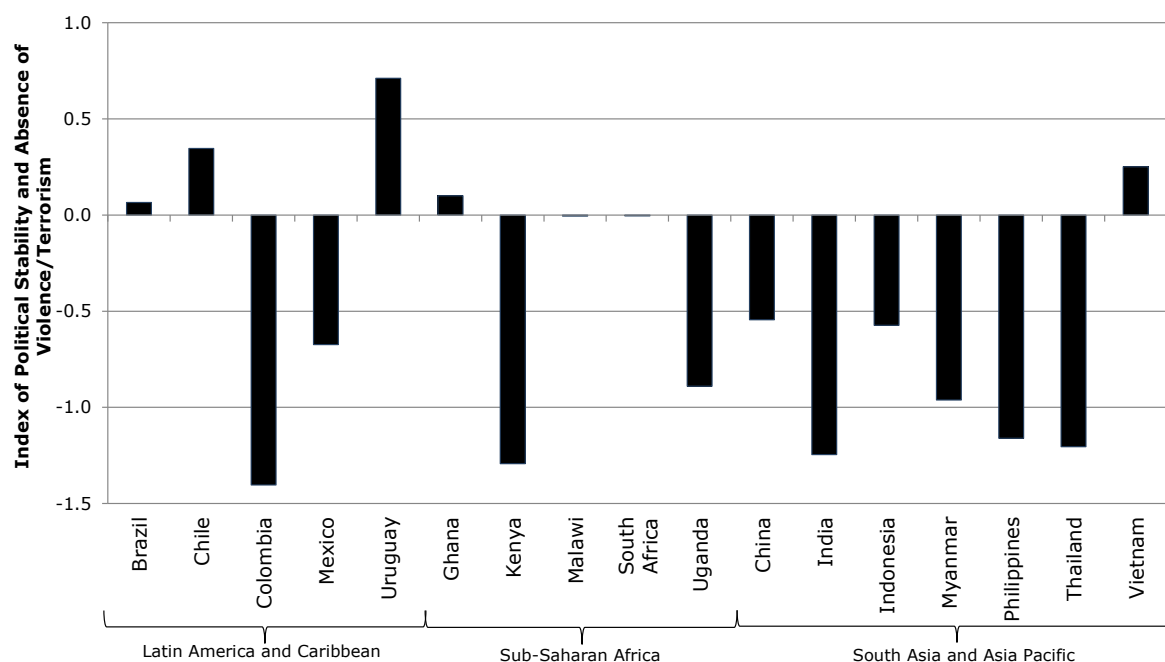
**Table 5. Institutions: Capacity for priority-setting at policymaker level**

Region	Country	List of Essential Drugs	National Treatment Guidelines for adult and paediatric treatment of HIV (year of first publication)	National & Regional Osteoporosis Guidelines (year of first publication)
Latin America and Caribbean	Brazil	Yes	2008	2012
	Chile	Yes	2010	2012
	Colombia	Yes	2010	2009
	Mexico	Yes	2012	2009
	Uruguay	Yes	2006	2009
Sub-Saharan Africa	Ghana	Yes	2008	no
	Kenya	Yes	2011	no
	Malawi	Yes	2011	no
	South Africa	Yes	2010	no
	Uganda	Yes	2009	no
South Asia and Asia Pacific	China	Yes		1999
	India	Yes	2006	2011
	Indonesia	Yes	no	no
	Myanmar	Yes	2011	no
	Philippines	Yes	2009	2011
	Thailand	Yes	2010	2010
	Vietnam	Yes	2009	2012

Sources: Data from the World Health Organization (World Health Organization (WHO), 2014b), AIDSTAR-One (AIDSTAR-ONE, 2014) and International Osteoporosis Foundation (International Osteoporosis Foundation, 2014).

Figure 5 illustrates the level of political stability in the countries. Unexpected changes in the government or other institutions linked to the healthcare sector during the iDSI practical support project could prevent the attainment of the objectives. Uruguay and Chile had higher scores than other longlist countries.

**Figure 5. Institutions: Capacity for priority-setting at policymaker level (political stability)**



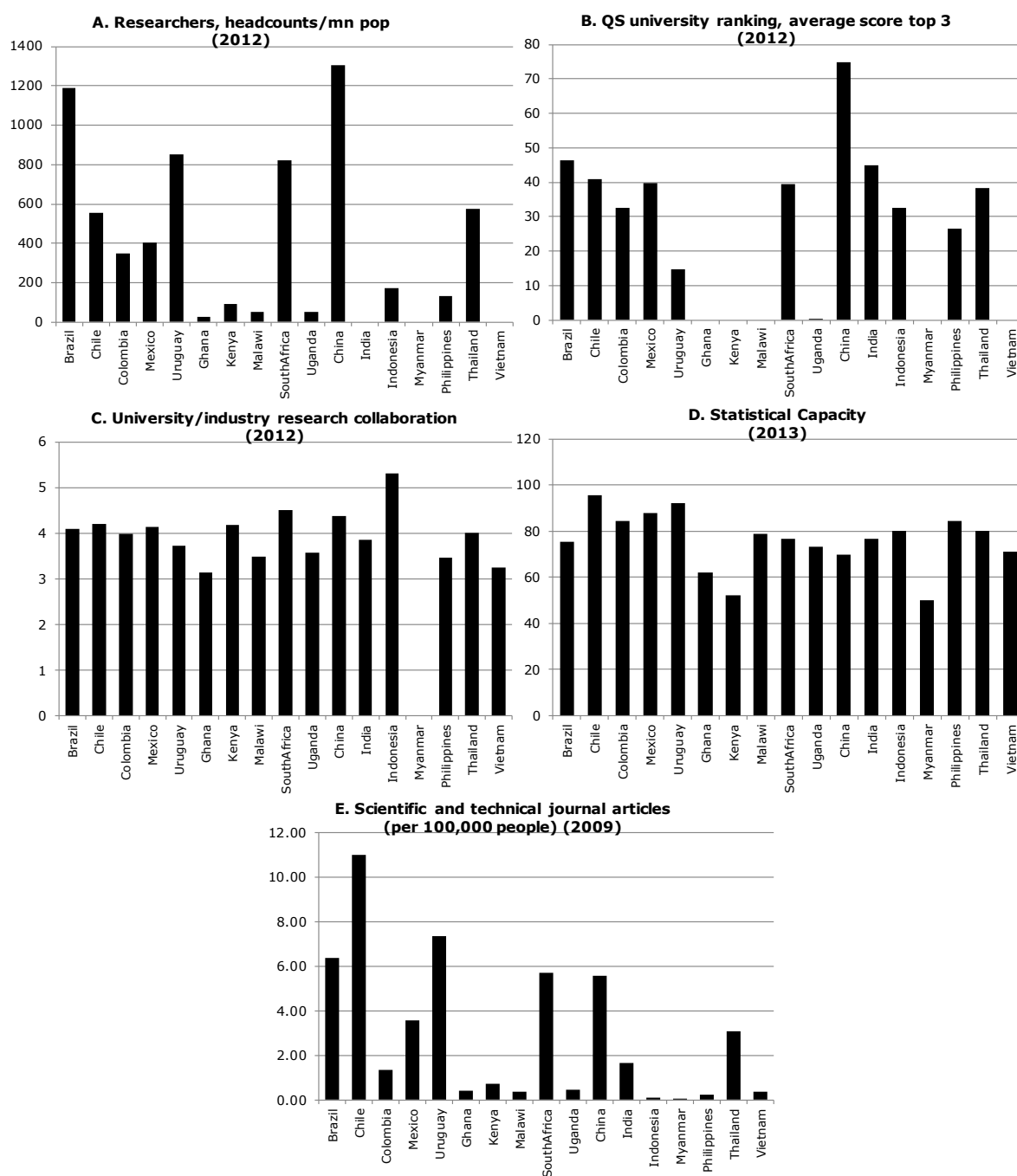
Source: Authors' elaboration. Data from The World Bank Group (The World Bank, 2013a).

Figure 6 displays the selected group of indicators related to the general technical capacity of the country, which may be a proxy for specific technical capacity to develop a priority-setting process.

The variables in panels A, B and C of Figure 6 were extracted from the Global Innovation Index 2013 (Cornell University, INSEAD and World Intellectual Property Organization (WIPO), 2013). China stands out among all the countries in terms of the number of researchers per population and the university ranking. South Africa's results are better than those from the other selected African countries. Moreover, in a much lesser extent than South Africa, Brazil stands out among the Latin American countries in panel A and B. In terms of statistical capacity (Panel C), Ghana, Kenya and Myanmar have room for improvement compared to the remainder of sampled countries.

The last panel on Figure 6 presents the total number of scientific and engineering articles published per 100,000 persons. First, the figure shows that the number of articles in Chile exceeds those of the rest of the countries. Moreover, it is also notable that Latin America performs better than the other two regions. Additionally, the number of publications per 100,000 person in South Africa and China exceed those from the other countries inside their respective geographical regions.

**Figure 6. Institutions: Technical capacity for priority-setting**



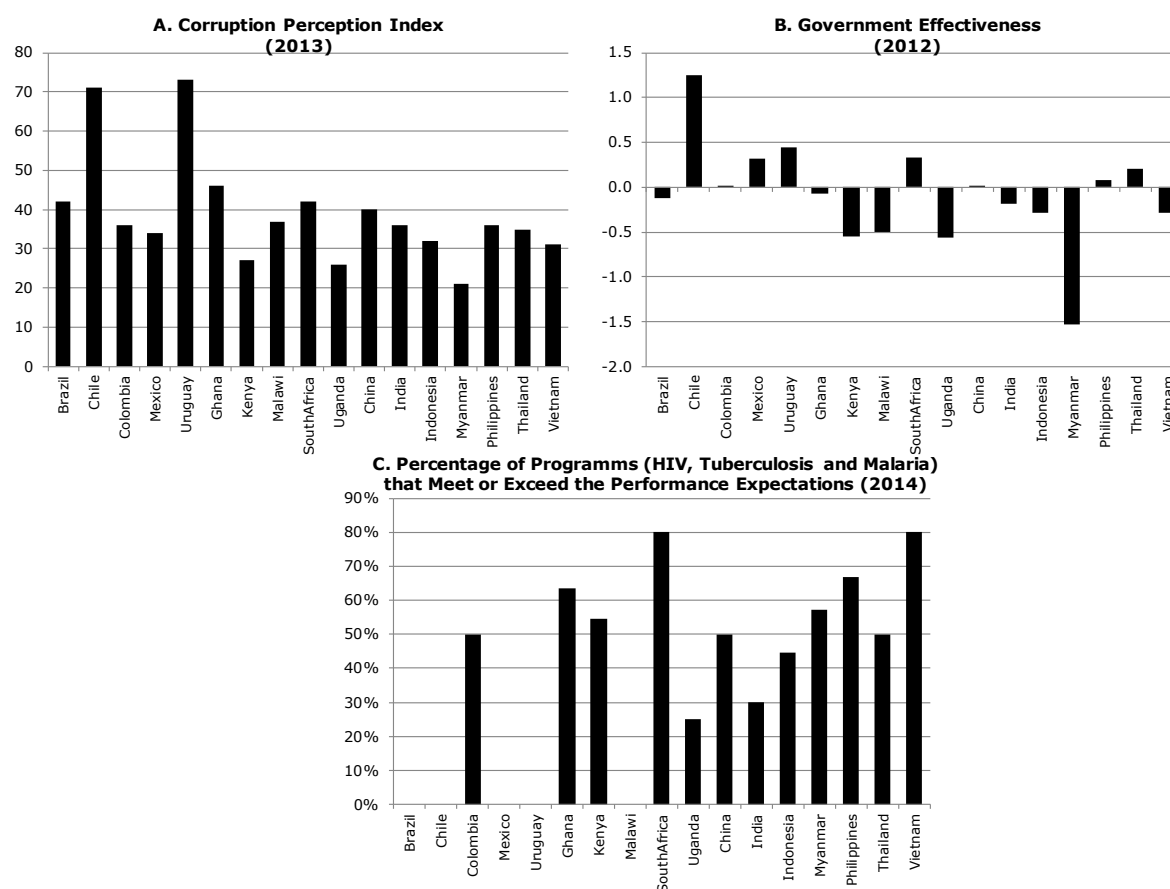
Sources: Authors' elaboration. Data from the Global Innovation Index 2013 (Cornell University, INSEAD and World Intellectual Property Organization (WIPO), 2013) and The World Bank (The World Bank, 2014a) (The World Bank, 2011)

The last block of the "Institutions" factor is related to strength of governance and is presented in Figure 7. In this sense, Panel A (Figure 7) shows the corruption perception index. This index is a value distributed between 0 (highly corrupted) and 100 (very clean). Moreover, Panel B (Figure 7) displays the governance effectiveness index; this is an indicator for general governance capacity reflecting the quality of the public services, the credibility of the government and the independence of government decisions from political pressures. Negative values of the government effectiveness index are associated with weak governance performance. Therefore, lowest values in these two indexes

indicate higher perceived corruption and weaker governance which could present an opportunity for better, more transparent and accountable decision-making through active priority-setting. Accordingly, the relatively low indices of Myanmar suggest it could reap the greatest benefit from enhanced governance and explicit priority-setting mechanisms.

A final indicator for governance in health resource allocation is the performance of the country related to the established Global Fund programmes. Figure 7, Panel C shows the proportion of HIV, tuberculosis and malaria programmes whose implementation meets or exceeds the expectations. South Africa and Vietnam are the most promising cases, with values above 60%.

**Figure 7. Institutions: Governance in health resource allocation**



Sources: Authors' elaboration. Data from The World Bank (The World Bank, 2013a), Transparency International (Transparency International, 2014) and The Global Fund (The Global Fund, 2013).

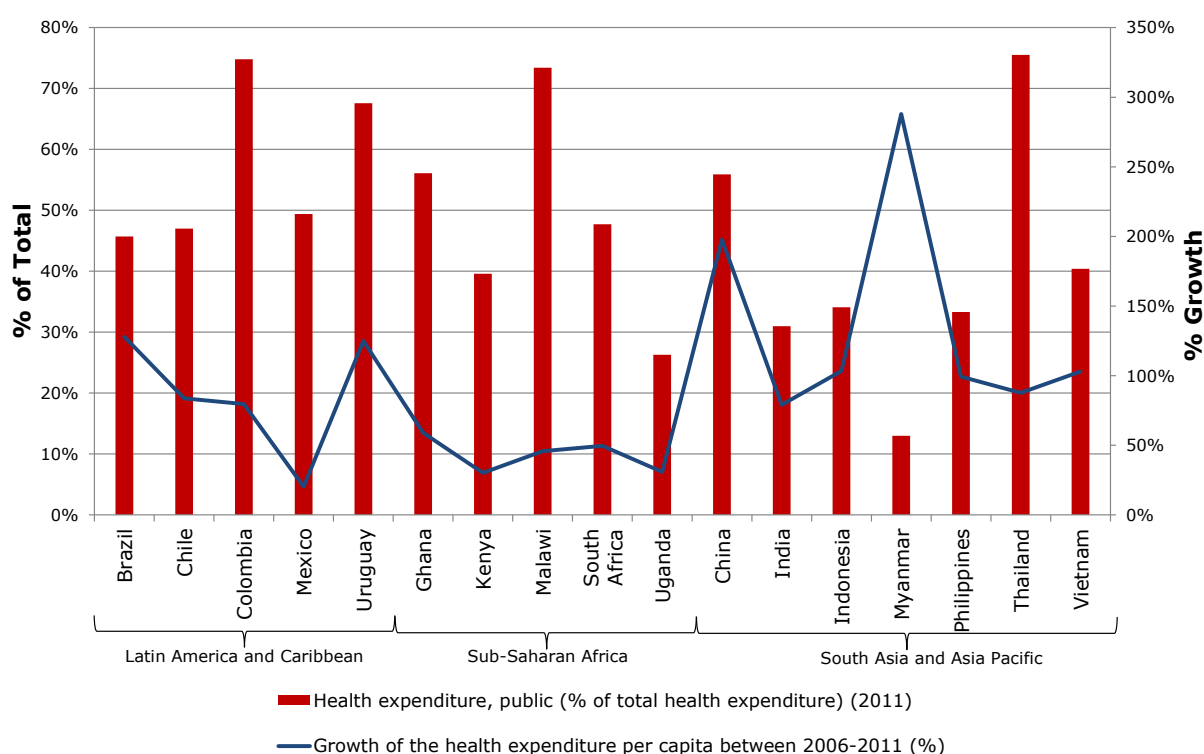
### 3.2.4. Health system financing

Figure 8 shows the growth in health expenditures per-capita. A rapid growth could be taken as an indicator of substantial increases in the level of coverage leading to pressures on the health system budget. This pressure can be partially relieved with the application of a more transparent resource allocation process which would also ensure greater returns in health from the additional investment. The Asian countries, with Myanmar at the top of the list, were the group with the fastest growth in health expenditures. In addition, China, Indonesia and Vietnam stood out with a growth in health expenditures per-capita higher than 100% during the period 2006-2011. Between

the Latin American countries, two countries stood out with growth exceeding 100%: Brazil and Uruguay.

In addition to the spending growth, the government share of the funding for health could provide an indication of the budgetary pressures facing a country's health system, especially if it is committed to UHC. Moreover, public expenditure in health is a good approximation of policy makers' capacity to implement an active priority-setting process into their decision making, as the coordination, funding and implementation of new processes and policies is likely to be easier in a primarily government-funded health system than in a fragmented health system. Figure 8 shows that of all 17 countries only six had a health sector where public expenditure represented more than 50% of the total: Colombia and Uruguay in Latin America; Malawi and Ghana in Africa; Thailand and China in Asia. At the lower end, Myanmar's public sector accounted for just 13% of the total health expenditures, followed by Uganda where only 26% of the health expenditures were public.

**Figure 8. Indicators for health system financing**

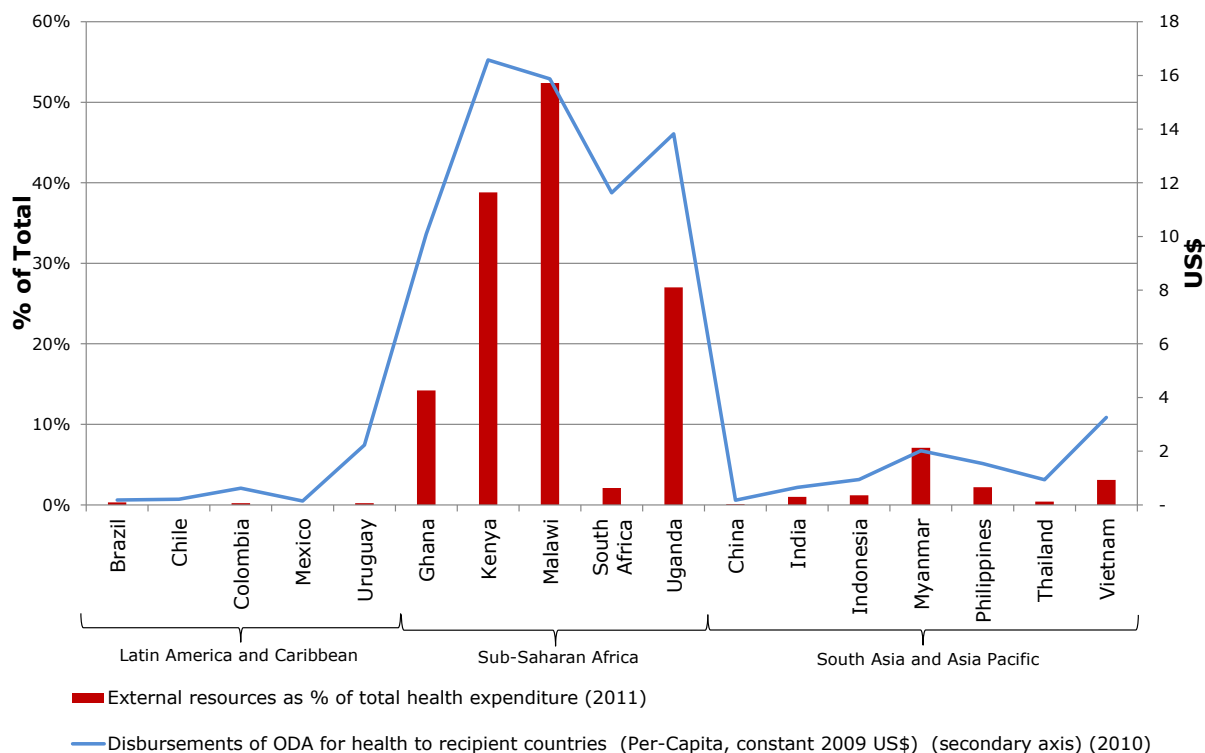


Sources: Authors' elaboration. Data from The World Bank (The World Bank, 2014a) and World Health Organization (World Health Organization (WHO), 2013c)

Finally, an important factor in the implementation of the iDSI support for the development of a priority-setting process is the presence of other donors in the health sector (Figure 9). Health systems with significant external donor funding could provide an important entry point for priority-setting. Nevertheless, as mentioned in Table 1, this is not only an indicator related to the "Health system financing" factor, but also to the "Political will and influence" factor. A significant participation of external donor in financing the health system implies particular challenges, for instance, the necessity for coordinating actions with the donors in order to avoid duplication of effort and diversion of stakeholder attention and resources. As seen in Figure 9, the SSA countries received the highest amounts of official development assistance (ODA) for health per-capita, with

a maximum value corresponds to Kenya. The same held true for the share of external donors in the total health expenditure, except in the case of South Africa. Among the Asian countries, Myanmar had the highest share (7.1%) of external donors in total health expenditure.

**Figure 9. Indicators health system financing: External donors**



Source: Authors' elaboration. Data from The World Bank (The World Bank, 2014a) (The World Bank, 2014b)

### 3.3. Qualitative mapping

In this subsection, qualitative analyses are presented on the possible benefits of the practical support project to support the development of active, systematic priority-setting processes. Following the framework presented in **Figure 1**, for each country the analysis is divided into five sub-sections addressing specific issues:

1. Overview of the health system landscape and challenges:
  - What is the landscape in terms of healthcare provision and payment?
  - Who decides on healthcare resource allocation?
  - What is the position in the country's journey towards UHC?
2. The demand side of priority-setting (*wants*):
  - What is the level of political commitment?
  - Who articulates demand for priority-setting?
  - What priority-setting products are demanded?
  - What is the structure for commissioning such products?
3. The supply side of priority-setting (*feasibility*):
  - Who has the capacity to deliver the technical aspects of priority-setting?
  - Who has the capacity to convene these technical agencies?
  - What are the institutional and legal arrangements for implementing the recommendations from priority-setting?
  - Who has the technical capacity to quality assure priority-setting outputs?

4. The potential to benefit from priority-setting (*needs*):
  - What is the potential to benefit given journey to UHC, health system, and so on?
  - How could priority-setting improve efficiency, equity, quality and access?
  - To what extent would 1) decisions, 2) the processes and structures for decision-making be transferrable?
5. Conclusions
  - Possible activities that could be conducted as part of an iDSI practical support project.

An overview of the information presented on the 17 countries can be found in Table 2, page 29.

### 3.3.1. LAC: Brazil

#### Overview

Over the last two decades there have been marked health improvements in Brazil. As of 2010, the average life expectancy was 73.5, a high figure even compared to other countries in Brazil's income group. This could be partly explained by the relatively high total health expenditure, approximately 9% of GDP. Furthermore, the right to access to health care has been included in Brazil's constitution since 1988.

High coverage of health services has been implemented through a series of programmes and reforms. Brazil has a national health system financed by general taxes called the Unified Health System (Sistema Único de Saúde, SUS). The cornerstone of the SUS is the Primary Care Strategy (PCS). Almost 70% of Brazil's population uses SUS for most or all of their health care.

#### The demand side of priority-setting

With its large, emerging economy, Brazil has gathered increasing interest from multinational pharmaceutical companies and biotech industries. As the Brazilian constitution guarantees the right to health care, including public funding of medicines, there has been increasing strain on SUS's already underfunded budget.

#### The supply side of priority-setting

Unlike many other countries, Brazil uses HTA to inform prices set for public sector purchasing of medications. In 2006 Brazil established a formalised process for incorporating technologies into its SUS, including the creation of the Commission for Incorporating Technology (CITEC) under the MoH. In 2011, a new law replaced CITEC with a new technical agency for the evaluation of health technologies, the National Commission for Incorporation of Technologies (CONITEC). The new agency aimed to have several new features including faster analysis (issuing a recommendation within 180 days of the funding request), greater transparency, improved drug access, and stricter requirements for reimbursement (IHS, 2012).

CONITEC is tasked with the power to issue guidance on the inclusion, exclusion, or alteration by SUS of health technologies and with the creation or alteration of clinical protocols and treatment guidelines, and finally, suggests and updates the national list of essential medicines. Technical support for CONITEC's activities comes mainly from HTA units based in MoH controlled medical centres such as the National Cardiology Institute. There is arguably a need to draw on skills from a wider constituency, principally the academic community. This is particularly the case with respect to economic analysis and



modelling, for which capacity may be of high, international standard among Brazilian universities but which is not currently tapped in a co-ordinated way to support CONITEC.

CONITEC is comprised of 13 representatives, including seven from the MoH and one each from the Brazilian Health Surveillance agency, the private health sector, the National Association of the State Secretaries of Health, the National Association of Municipal Secretaries of Health, the National Health Council, and the Federal Council of Physicians (Kuchenbecker & Polancz, 2012).

CONITEC does not have regulatory power — the agency gives its opinion to the MoH and the Minister makes the final decision. Before a decision is taken, CONITEC is required by law to conduct a public consultation. Another issue that faces CONITEC is to ensure that its methodological and decision making processes are broadly consistent with those of National Health Surveillance Agency (ANVISA), which is responsible for the regulation and approval of medicines especially. This is particularly important since ANVISA uses HTA methods to inform acceptable prices.

There is no formal process on how and why topics are selected for HTA — though, the definition of priorities has been made through an Annual Workshop on Priorities. Criteria for consideration include epidemiological relevance, the quality of health care programme for patients, opportunity for the Brazilian market, and budgetary impact.

#### Potential to benefit from priority-setting

Two main characteristics of the health system define the potential benefit from a further development of the priority-setting process in Brazil. First, despite underinvestment, the SUS has continued to incorporate new medicines and technologies under the benefits that it provides. Second, although the SUS accounts with 25 years of existence, there are still inequalities in the health system.

There are opportunities for improved understanding of HTA approaches and methodologies by both policy makers and healthcare professionals. For instance, there is room for analytical work to examine decision-making processes within the SUS and the other governing parties of CONITEC. Moreover, increased integration of existing bodies could improve governance and institutionalisation of HTA practices — increasing accountability and transparency of SUS decisions.

NICE International has an memorandum of understanding (MoU) with the Secretariat for Science and Technology under which CONITEC sits. Methods and processes of HTA, approaches to tackling inequalities, and responses to legal challenge through a contestability mechanism are the key priorities for bilateral learning in the MoU. In addition to this, NICE International has provided technical and process support on HTA and clinical guideline development to Brazilian authorities since the establishment of NICE's international division. This support has largely been in the form of training workshops and high-level policy discussion meetings.

#### Conclusions

Given NICE International's longstanding relationship with Brazil involving high-level contacts in key institutions, there could be further opportunities to strengthen its priority-setting processes. However, the fact that an institutional framework for making such (evidence-based) decisions exists, and that there has been experience in the application of HTA to support policy making, the need for further support in this context may be less relative to other jurisdictions.

## Sources

Available literature (Couttolenc & Dmytraczenk, 2013) (Inter-American Development Bank, 2014a) (Kuchenbecker & Polancz, 2012).

### **3.3.2. LAC: Chile**

#### Overview

Chile's life expectancy is 80 years for women and 73 years for men. Significant gains in health status have been achieved through reform processes over the last decade. Chile has a comprehensive rights-based system for health care provision. This consists of guarantees of access to quality health services.

In 2000, reforms mainly aimed at improving patient access to services, led to the creation of the AUGE Plan, a set of explicit guarantees including access to treatment, opportunity, quality, and financial protection. The plan is guaranteed by Chile's public and private insurers, and is funded by compulsory payroll contributions.

AUGE aims to ensure universal care — providing health services and financial protection for the most common health problems representing 60-70% of the disease burden of Chile. While the AUGE plan began by guaranteeing treatments for 25 conditions, this list has been expanded in recent years, totalling 80 as of 2013. Each health condition included in AUGE is complemented by a set of guarantees relating to access, timelines, quality of services, and financial protection.

As of 2009, 46% of all public resources were channelled into this explicit benefits plan.

#### The demand side of priority-setting

Given that the medical conditions included in AUGE are explicitly determined, there is significant demand for HTA. The principle criterion for health condition ranking is the number of healthy life years lost. Following this consideration, the effectiveness of health interventions was assessed along with the feasibility of offering the service to the entire population, including consideration of existing expertise and infrastructure. Processes to utilise HTA and cost-effectiveness (as well as social preferences) are institutionalised to inform adjustments to the plan. Costing is done periodically as indicated through the plan's legal framework.

The MoH on request produces the technical studies needed as an input for Chile's Consultative Advisory Committee's (CCA) recommendations. Topic selection is carried out by the CCA, and criteria considered include health status of the population, the effectiveness of interventions, and their contribution to the extension or the quality of life. The law mandates the use of cost-effectiveness analysis when deciding on inclusions in the benefits package (AUGE), but its use in practice is still limited and not formally organised.

#### The supply side of priority-setting

Chile's HTA body is CCA. The CCA is a technical entity meant to formulate recommendations to the MoH on the analysis, evaluation, and adjustment of the explicitly defined health guarantees package (AUGE). Analysis and proposals relating the allocation of health resources and financial management of health services is provided by the Department of Health Economics within the MoH (Departamento de Economía de la Salud (Department of Health Economics), Chile, 2014).

### Potential to benefit from priority-setting

To date, the National Budget Office has not conducted an evaluation to determine the coverage of guarantees and whether the programme has reached its objective.

As a significant proportion of the population is unaware of the explicit guarantees included under AUGE, a potential educational component could be enhanced. A 2007 survey result found that just under half of respondents could identify even one of the explicit guarantees.

There remain opportunities to increase the transparency of the process in which health benefits are incorporated into AUGE. The relative importance of each of the different criteria incorporated into decisions is not known; in addition there are no rules governing the decisions of the committee which makes these decisions.

### Conclusions

NICE International has engaged in knowledge sharing activities with the MoH and their Department of Health Economics. These existing contacts could facilitate further international support in evidence-informed priority-setting. It is notable that the MoH have recently published a guide to the conduct of economic evaluations for the Chilean context. The ministry has also published work on individual cost effectiveness analysis, and the inclusion of cost-effectiveness considerations in clinical practice guidelines.

### Sources

Available literature (Missoni & Solimano, 2010) (The World Bank, 2008).

### **3.3.3. LAC: Colombia**

#### Overview

In 1993, Colombia approved a universal health insurance scheme whereby all citizens, irrespective of their ability to pay, are entitled to a comprehensive health benefit package called the Compulsory Health Plan (Plan Obligatorio de Salud, POS). Before 1993, only 25% of the population had insurance, but after the reforms this grew to exceed 90% in 2009 (Tsai, 2010). An even more dramatic increase was observed between the population in the lowest level of income, with an increase in insurance coverage of 84% between 1993 and 2009 (Tsai, 2010). This increase can be partly explained by the fact that Colombia spends over 70% of its total public resources for health into the POS. Currently the plan costs between US\$370 and US\$420 per-capita.

The health system is funded by two insurance structures, one for those with the ability to pay (primarily the formal sector population), and a subsidised regime (primarily aimed at the informal sector). All enrolled receive access to the POS. The system is currently undergoing reform, and is considering moving from an explicit positive list to a negative list of health services that will not be funded. Currently, the plan is not accompanied by a set of guarantees relating to timeliness, quality, or financial protection.

Colombia's health care system has been criticised for accepting high drug prices (government drug expenditures have quadrupled since 2005) (Webster, 2012), domination by private health insurance companies, health service providers, and corruption.

#### The demand side of priority-setting

The law mandates that adjustments to the benefits package (POS) must be based on the evaluation of the available evidence. Criteria for evaluation have been established by law

and include epidemiological profile, appropriate technology available in the country, and the financial conditions of the system. In this context, there is an increasing yet not mandatory use of cost-effectiveness as a criterion. Based on these criteria, the adjustments to the benefit plan have been grouped as follows:

- Health needs: epidemiological criteria of morbidity and mortality, years lost to disability, years lost to premature death, and disease burden.
- Technical possibilities: the technologies available in the country.
- Sustainability: the POS must be sustainable with existing resources.
- Efficiency: the optimal use of resources to obtain a health outcome.
- Establishment of guidelines: the technologies that should be considered in the update of the POS, such as those set forth in the clinical practice guidelines.
- Process: the conditions under which update processes must be performed, e.g., periodicity, citizen participation and transparency.

There is no pre-established process for topic selection. Nevertheless, in practice cost of technology to the system has been a main driver for topic selection.

Additionally, Colombia conducts annual actuarial calculations to determine and adjust how much should be paid to insurers providing the health benefits plan.

#### *The supply side of priority-setting*

Colombia has integrated priority-setting processes for technologies, and has taken action in defining who evaluates and decides on the inclusion of these technologies. Currently, two agencies work in the area of HTA. The first is the Comisión de Regulación en Salud (CRES), organisation responsible for making adjustments to POS, has a total staff of 63, made up of expert commissioners and 20 technical with expertise in clinical medicine, economists, public policy, statisticians and actuarial sciences. Each study takes 3-4 months and costs US\$6,000–10,000. The CRES' key task is to define the technologies covered by the mandatory benefits package.

The second agency is the recently established not-for-profit, public-private body known as the Institute for Health Technology Evaluation (Instituto de Evaluación Tecnológica en Salud, IETS), which has been providing technical assessments for inform decisions on technology incorporation. IETS was set up with support from the Inter-American Development Bank (IDB), and has been in operation for over a year.

NICE International provided advice on the terms of reference for IETS following its establishment in law in 2011, and submitted proposals on how it would interact with bodies responsible for drug licensing and quality monitoring. In providing this support to the Ministry of Social Policy (MoSP), and along with the IDB, NICE International worked with the Instituto de Efectividad Clínica y Sanitaria (IECS) of Argentina for their expertise in, and links with, other Latin American Countries (Chile, Brazil and Uruguay).

#### *Potential to benefit from priority-setting*

The funding for the sustainability of the POS remains a key issue. In this sense, the costs of the provision of health services have created a significant tax burden. Maintaining sustainability will be a challenge that priority-setting could help address.

In addition, Colombia faces many requests for non-prioritised services, primarily from the higher income population. Colombia has a legal mechanism that allows individuals to petition for health benefits not covered through the explicit health benefits plan. In 2010, over 89,000 of these petitions were submitted.

Finally, Colombia is currently considering restructuring its health plan, and moving away from its comprehensive benefits list towards the use of a negative list. This would be a significant health reform, that could benefit greatly from international expertise on priority-setting.

### Conclusions

Given NICE International's longstanding relationship with Colombia, and its involvement in the creation of IETS, there could be further opportunities to strengthen its priority-setting processes. However, the fact that an institutional framework for making such (evidence-based) decisions now exists, and that Colombia has already been drawing on international expertise, including those from academia, the need for further support in this context may be less relative to other jurisdictions.

### Sources

Available literature (Giedion & Villar Uribe, 2009) (Vargas-Zea, et al., 2012).

#### **3.3.4. LAC: Mexico**

##### Overview

Mexico's population has presented a rapid growth during the last century. Although this slowed as fertility rates drop, population growth is still around 1.2% per year, with the population having risen from 111 million in 2005 to over 122 million in 2013 (The World Bank, 2014a).

In addition, Mexico has experienced a significant shift in the burden of diseases. In 1990 the primary causes of premature death were diarrhoeal disease, lower respiratory infections, and preterm birth complications (Institute for Health Metrics and Evaluation (IHME), 2013). In 2010 the top three causes of premature death in terms of years of life lost included ischemic heart disease, diabetes and chronic kidney disease. The large burden of NCDs is largely driven by risk factors including high body-mass index, high fasting plasma glucose, and dietary risks (Institute for Health Metrics and Evaluation (IHME), 2013).

These changes, together with a life expectancy at birth of 77 years (The World Bank, 2014a) and the fact that the right to health is recognised in constitution since 1983, have resulted in substantial pressures on the health system.

##### The demand side of priority-setting

Health services are accessed through four major mechanisms, including private insurance, social security, or public insurance. The primary social security mechanisms include the Mexican Social Security Institute (Instituto Mexicano del Seguro Social, IMSS) and the Government Worker's Social Security and Services Institute (Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado, ISSSTE).

After the health reform of 2003, Mexico approved the creation of the System of Social Protection in Health (Sistema de Protección Social en Salud, SPSS) and its functional mechanism, the *Seguro Popular*. The objective of the SPSS was to extend the health coverage to those Mexicans that had been excluded from the formal social security system, such as workers in the informal sector, unemployed and their dependents. In 2012, nine years after the creation of SPSS, over 52.6 million Mexicans were incorporated into the program.

The public insurance scheme provides access to an explicit and comprehensive package of health benefits in addition to financial protection. The three main components of public insurance (IMSS, ISSSTE and Seguro Popular) offer diverse benefits to their enrollers, with narrower coverage of services through the latter.

Most of the health benefits are provided through the Universal List of Essential Health Services (CAUSES), which includes low- and medium- complexity health interventions. This list originally consisted of 97 interventions, but has been expanded to 284 interventions – associated with 1,500 diseases and the related pharmaceuticals.

Costly, specialised interventions are covered through the Fund for Protection against Catastrophic Health Expenditures (FPGC), which comprises 8% of *Seguro Popular's* resources. As of 2011, 57 interventions were covered through this fund, having increased immensely from just six in 2004.

Together, CAUSES and FPGC cover approximately 45% of the population and costs an estimated \$200 per-capita as of 2012, almost 30% of total health expenditure.

#### *The supply side of priority-setting*

The National Centre for Health Technology Excellence (CENETEC) was established in 2004 in response for a need for timely and high quality information on health technologies by policy makers. While CENETEC originally focused on medical equipment, it has expanded its scope to cover medical devices, procedures, and pharmaceuticals. The total staff of CENETEC is 16 people, primarily with clinical and engineering backgrounds. CENETEC is a body under the umbrella of the Mexican MoH, assessments are delivered following the request by the MoH (INAHTA, 2014).

Current CENETEC activities, as determined by the Internal Regulations of the Secretary of Health, include:

- Dissemination of information on the effectiveness, usefulness, safety and health technology applications.
- Counselling on policy assessment and management of health technologies to requesting health care sector agencies.
- Establishing and conducting HTA.
- Establishment of assessments of economic, social and ethical impacts of health technologies.
- Proposals for innovative schemes to rationalise the purchase, use and distribution of medical technologies.
- Issuance of clinical guidelines concerning the management of biomedical technology (technological guides and equipment).
- Evaluation of research and technological development national and international innovations.
- Permanent coordination with international organisations dedicated to the assessment and management of health technologies (INAHTA, HTAi, GIN, WHO).
- Establishing national guidelines for infrastructure, policies and processes for the development of telemedicine systems.
- Organisation of the annual National Forum on Health Technologies.

#### *Potential to benefit from priority-setting*

The services provided under the SPSS have been expanded in recent years. Therefore, a systematisation of HTA processes could inform and enhance decision making mechanisms. Moreover, despite the existence of explicit health benefits plans (CAUSES

and FPGC), there is still no systematic adjustment process for these benefits. This process still needs to be formalised and documented. In addition, the programmes do not at present disclose the information used as the basis for costing the plan.

There is lack of an explicit link between the cost of the benefits plan and allocation of resources, which has hindered provision of priority services. Priority-setting could improve the equality and access of health services by ensuring that incentives are aligned for service provision.

NICE signed a MoU with the Secretaria de Salud in 2012. In addition, NICE has also signed a MoU with IMSS and has been in discussions with the Ministry of Health (Secretaria de Salud) about the methods and processes of priority-setting, with an emphasis on clinical pathways and technology adoption within priority diseases and conditions included in the Mexican basic package.

### Conclusions

NICE International's existing relationships with Mexico, backed by MoUs, could facilitate further engagement to strengthen priority-setting processes and methods.

### Sources

Available literature (Gómez Dantés, et al., 2011) (Knaul, et al., 2012) (Pueblita, 2013).

## **3.3.5. LAC: Uruguay**

### Overview

The estimated life expectancy in Uruguay as of 2012 was 77 years. Uruguay's health total health expenditure per-capita is US\$1,210, comprising 8.9% of GDP (The World Bank, 2014a).

Uruguay's National Health Insurance Plan (Sistema Nacional Integrado de Salud, SNIS) is financed through a contributory scheme from employers, workers and pensioners. The SNIS covers 1.59 million people, almost half of the population. Around 90% of those covered receive care from collective healthcare institutions (Instituciones de Asistencia Médica Colectiva, IAMC), and the rest receive services from the State Health Services Administration (Administración de Servicios de Salud del Estado, ASSE).

Uruguay's Integrated Health Care Plan (Plan Integral de Atención en Salud, PIAS) covers 95% of the population. All individuals are entitled to the same benefits plan. There has been no costing study on the cost of the plan per-capita, but the annual premium has been set at \$650 per beneficiary. Benefits included in the plan are organised by technologies (interventions and procedures) rather than by the type of health condition. Benefits are explicit and provided through an enforceable guarantee. The program includes care at all levels, including primary, secondary and tertiary initiatives. As of 2008, Uruguay allocated 72% of its public resources for health to its health care plan.

### The demand side of priority-setting

Benefits are standardised across providers through the PIAS. Regardless of their chosen provider, all members of the SNIS access the same basket of interventions, including the following services among others: conventional ambulatory care and hospital care, general surgery, gynecology and obstetrics, paediatrics, conventional outpatient and hospital care, emergency care, and home care.

All high-cost services and pharmaceuticals have coverage guidelines and regulations that explicitly state when they can be used, with inclusion and exclusion criteria. Moreover,

there is a systematic and institutionalised adjustment process for the modification of the PIAS in relation to high-cost benefits. Even so, there are very few official documents cited in the public domain on the processes and methods used to define PIAS.

#### *The supply side of priority-setting*

Two key agencies work in the realm of HTA. The Fondo Nacional de Recursos (FNR) is in charge of defining, financing, and monitoring highly specialised health technologies made available and mandatory in PIAS. In addition, the Ministry of Health defines and updates the list of low- and medium-complexity services and drugs of the PIAS.

FNR was created to provide funding of highly specialised medical services to ensure equitable access across the entire population. At the beginning, the FNR treatments funded six conditions: cardiac catheterisation, cardiac surgery, hip implant, haemodialysis, kidney transplantation and pacemakers. In 2005, high-cost drugs were incorporated. Currently, the FNR and finances allows beneficiaries access to a set of 21 highly specialised medical techniques and drug treatments for 24 conditions of high complexity, with high-cost treatment.

The FNR evaluates the care provided to patients, controlling processes and outcomes, and efficiency of the system (through cost analysis). In addition, the FNR is committed to bringing down demand for treatment and prevention programmes through health promotion activities. Moreover, it supports the development of evidence-based medicine through training, research, and assessments and guidelines for clinical practice.

The FNR has an annual budget of about \$200 million dollars, including for administrative as of 2012. Most studies are contracted out. Six institutes and about 60 experts are responsible for producing most assessments upon request of FNR.

There is no formal process for topic selection; both the MoH and the FNR define the topics. Criteria for deciding high priority topics include prevalence, burden of disease, uncertainty, health impact, and potential economic, organisational, ethical, social, and/or legal impact. The role of economic evaluation in decision making is not mandatory but often used in practice.

There are mechanisms in place to restore financial balance and to incorporate new technologies and remove obsolete ones from PIAS. Moreover, the legal framework states that the plan must be periodically adjusted based on scientific, demographic, and epidemiological evidence. Decisions are made by a simple majority vote of the FNR's administrative committee, and can be appealed within 20 days. Currently, there is not a clearly defined participation phase for beneficiaries during PIAS adjustments.

#### *Potential to benefit from priority-setting*

PIAS, which offers almost universal coverage, is at the centre of several competing tensions, including growing demand and financial limitations. As new demand is created, PIAS will need to evaluate new health services and technologies for inclusion.

The split in the management of PIAS between the MoH and FNR can lead to coordination difficulties. Explicit priority-setting processes that function across the organisations can reduce coordination difficulties and overlapping functions.

NICE and FNR have been discussing a partnership for sharing information on topic selection and evaluation primarily of high cost pharmaceutical products, including so-called orphan drugs. NICE decisions serve as a source for FNR.



Several issues have been identified as challenges facing the SNIS in coming years. These include demands for higher pay by health workers, pressures for SNIS to become more sustainable, and pressure for additional coverage influenced by new health care services and technologies.

### Conclusions

NICE HTA decisions already serve as an input to FNR decisions, and there may be scope for NICE International to build on existing relationships with Uruguay to provide support in strengthening the institutional mechanisms of priority-setting.

### Sources

Available literature (Aran & Laca, 2011) (Inter-American Development Bank, 2014b) (Martinez, et al., 2011).

## **3.3.6. SSA: Ghana**

### Overview

In 2003, the government of Ghana implemented the National Health Insurance Scheme (NHIS), administered by the National Health Insurance Agency (NHIA). This occurs in response to growing public dissatisfaction with the "Cash and Carry" payment system, which required advance OOP payment for all treatment. The NHIS provides financial risk protection against the cost of quality basic health care for all residents (The World Bank, 2013b) (National Health Insurance Scheme (NHIA), 2014). The Scheme is funded by a combination of an earmarked Value Added Tax, which accounts for around 60% of NHIA's revenue; a premium from sections of the population considered able to pay (around 4% of revenue); and support from international donors.

Enabling movement towards UHC is a stated aim of the NHIS. In 2011, the NHIS had a budget of over 760 million Cedis (US\$499 million). In 2013 the NHIS has achieved a coverage of 36% of the population (National Health Insurance Authority Ghana, 2011).

### The demand side of priority-setting

Ghana has a generous health benefits package. Policy makers claim this covers ambulatory care and inpatient treatment for 95% of the total disease burden in the country. However, other than for pharmaceuticals which account for over 50% of total health expenditure, there is neither an explicit positive (nor negative) list for services and technologies, nor a clear process for listing and delisting. This is something NHIA and MoH are trying to change, given the affordability concerns with the current package as coverage expands to cover the whole of the population.

The NHIS appears to have strong commitment from stakeholders across the Ghanaian healthcare system; for instance, it has survived changes in political leadership at both presidential and parliamentary levels, and appears to have widespread, multi-party support as well as donor support.

Colleagues from a number of healthcare organisations felt that the benefit package offered by the NHIS was too generous given the scheme's budget. Re-engineering the benefit package, with defined criteria for including reimbursed products to ensure greater value for money was stated as a priority.

The MoH maintains a National Essential Medicine List (EML), adapted from the WHO list, defining which drugs are expected to be available in public facilities. A commission meets regularly to update the list, based on international cost-effectiveness data, clinical trials

and Cochrane reviews, and expert opinion. Manufacturers are involved in the processes through stakeholder consultation processes, and asked to contribute evidence and develop economic models. In the absence of a fully recorded process for making inclusion/exclusion decisions it is difficult to ascertain to what extent decisions are based on evidence and how much is negotiation or preference based, and to what extent conflicts of interest are declared and managed. Furthermore, this is a process separate from the one determining the NHIS formulary, though the two lists overlap.

A committee consisting of physicians and pharmacists identified by the MoH develops national standard treatment guidelines (STGs). The STGs are currently being updated. A number of colleagues reported, however, that implementing guideline recommendations had been difficult, due to a lack of buy-in from providers, and conflicts with the reimbursement levels of NHIA.

Providers expressed a need to agree common standards of care applied nationally, and it was thought the MoH would be best placed to convene and drive this process. There was interest in developing NICE-style quality standards to help improve quality of care and to inform monitoring programmes through an inclusive and transparent process, insulated from vested interests, in the context of the ongoing provider payment reform, and, specifically, the primary care capitation pilots in northern Ghana.

#### *The supply side of priority-setting*

In terms of capacity, some universities, including the School of Public Health at the University of Ghana, have a small number of health economists. However, exact numbers are not known. In addition, capacity at the MoH or NHIA to carry out or quality assure analyses related to priority-setting appears to be lacking.

There are also issues surrounding data availability and reliability. NHIA routinely collect administrative and operational data, but the lack of a fully functional electronic claims system means data have a significant time lag and are prone to error or manipulation by transcribers. Clinical, audit and cost data seem less readily available.

Regarding institutions in the health sector, Ghana is in a unique position, relative to other countries in the region. There are strong and stable institutions dedicated to the design, financing and delivery of healthcare. However, to our knowledge, no dedicated priority-setting institutions or processes exist. Potentially, MoH and/or NHIA seem well placed to convene a multi-stakeholder decision making process to inform decisions regarding listing but also disinvestment (the latter requiring stronger governance mechanisms).

#### *Potential to benefit from priority-setting*

Re-engineering priority-setting process and methods for benefits package adjustment to improve both allocative and technical efficiency, and reduce inequalities, could be beneficial to the NHIA, given the need to ensure financial sustainability at a time of increasing coverage.

Quality improvement at provider level is seen as a priority, in particular in the context of provider payment reform and a move to a capitation based system, which presents an opportunity to build cost-effective quality incentives into the payment system at an early stage of the system's design. Without formalised processes and methods for controlling the clinical appropriateness and affordability of services covered by NHIS, extending the package to the whole of the population will result in serious financial problems and may exacerbate inequalities.

NHIA is seen by some African governments and international donors as a model for increasing coverage levels across Sub-Saharan Africa. NHIA have hosted delegations from countries such as Ethiopia, Zambia and Benin, keen to adapt or emulate the Ghanaian model. There therefore appears to be opportunities to share learning within the region.

### Conclusions

There is great potential in an engagement in Ghana given the political commitment, the overseas support, the existing institutional structures, the ongoing affordability crisis and NICE International's engagement in the country supported by the Rockefeller Foundation as well as the World Bank (in kind).

A possible collaboration between iDSI and policy makers in Ghana would complement the ongoing work by the World Bank with Chilean experts (AUGE) and by Rockefeller/Joint Learning Network, both in the field of costing.

In terms of enforceability, the political commitment and fiscal pressures suggest the key counterparts are likely to use regulation/performance management and reimbursement to implement the products of our joint activities.

Key institutional partners include MoH/NDP; NHIA/Quality and Payment Divisions; National Professional Organisations; Ghana Health Service; academic institutions (e.g. University of Ghana/School of Public Health); the Rockefeller Foundation, DFID Ghana, the World Bank and other donors such as USAID. We have strong links with major policymakers in Ghana and an ongoing programme of work currently at the scoping stage, supported by Rockefeller.

Given the existing Rockefeller support, iDSI could contribute marginally but benefit from our experience in terms of research and capacity building amongst policy makers, whilst investing in an alternative country practical support project.

### Sources

- NICE International and HITAP scoping visit, October 2013, which included meetings and interviews with Ministry of Health (Directors General, Chief Pharmacist), Providers (Directors and Deputy Directors Ghana Health Service; Executive Director Christian Health Association of Ghana), Head of College of Physicians and Surgeons, Professor at School of Public Health University of Ghana, Civil Society Groups, Donors (Health specialists and leads at World Bank, DFID, Rockefeller Foundation)<sup>26</sup>.
- Follow up calls and videoconferences coordinated by the World Bank country office.
- Face-to-face meetings in London with Director of GNDP and Chief Executive and Deputy Chief Executive of NHIA of Ghana.
- Mapping questionnaire completed by practicing physician and medical researcher.
- Selection of literature including World Bank country reports and governmental websites (GNDP/MOH; NHIA).

### **3.3.7. SSA: Kenya**

#### Overview

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<sup>26</sup> Agenda of meetings and full field report available upon request

Kenya has had relatively poor health sector performance indicators for the past two decades. Improvement has been slow until recently, with particular improvement related to MDGs through the implementation of Kenya Health Policy Framework (KHPF 1994-2010) and the Kenya Health Policy (KHP 2012–2030) (Ministry of Medical Services Kenya (MoMS) and Ministry of Health Sanitation Kenya (MoPHS), 2012). Nonetheless, the entire health sector is undergoing major re-organisation linked to the societal devolution of governmental responsibility to 47 counties (under Kenya Vision 2030 the new Constitution of August 27, 2010).

Kenya embraces the vision of UHC, and The Constitution of Kenya 2010 provides an overarching conducive legal framework for a more comprehensive and people-driven health services delivery, and a rights-based approach to UHC (KHP 2012-2030). There is currently no explicit health sector priority-setting process or HTA body, although KHP 2012-2030 explicitly mentions the future role of such processes.

Healthcare in Kenya is financed by three groups of stakeholders: the government, the private sector (households or individual consumers), and donors. Consumers are the largest contributors accounting for 35.9% of healthcare expenditure. Government and donors contribute approximately 29.3% and 31% respectively. Most pharmaceuticals are financed by the government through the MoH and by donors. The Kenyan healthcare system allows for cost sharing, and resources generated in this manner go into a facility improvement fund, which is often used for the purchase of medicines when government resources run out.

In 1989, the government introduced user fees to supplement government financing, and later started the National Hospital Insurance Fund (NHIF) that covers all formally employed individuals by mandate and allows the voluntary participation of informally employed people. The NHIF covers inpatient care and beneficiaries must pay for other services out-of-pocket. In 2004, following the adaptation of health financing reform by parliament, the government set up the National Social Health Insurance Fund (NSHIF) with the aim of covering all Kenyans for inpatient and outpatient services and avoiding catastrophic health expenditures. A more recent development followed the formation of a Grand Coalition Government in 2008. Kenya's MoH was divided into two ministries: the Ministry of Medical Services (MoMS) and the Ministry of Public Health and Sanitation (MoPHS) (Garrison, et al., 2012). However, this split was reversed in 2013 as the devolution of the health sector was rolled out. With such devolution and with government funds allocated by a formula, local government should have considerable power and accountability in priority-setting for health versus other sectors, such as education, but with the constraint created by a right to health. Still, many policies, particularly around the availability of health technologies, should be influenced if not controlled by national level policies.

#### *The demand side of priority-setting*

The Kenyan MoH has overall responsibility for priority-setting (e.g. budget allocations across programmes and health services, based on factors such as catchment population, disease prevalence disease). However, there is neither a formal national priority-setting mechanism nor a central government arm responsible for HTA. National priority-setting processes are mostly informal, consisting of decisions made by an expert committee of stakeholders convened by the MoH. Overall, health sector priorities are expressed as a result of historical precedents and existing public and private delivery systems, with some exceptions include adaptation process of WHO guidelines for paediatric care where

the Kenyan MoH has collaborated with various stakeholders (Kenya Paediatric Association, Kenya Medical Research Institute – KEMRI, and University of Nairobi).

The MoH maintains the Kenya Essential Medicines List (KEML) in conjunction with the Clinical and Referral Guidelines which are part of the Kenya Essential Package for Health (KEPH). Our interviews with Ministry of Health officials suggest that the KEML is produced using the WHO EML as a basis for selection of medicines. All medicines on the KEML are generic. Private health facilities may use any medicines of their choice, and it is common for the expensive private hospitals in Kenya (especially in Nairobi) to cover costly non-generic, branded innovator medicines.

In any event, MoH policies are only advisory. Decisions for most functions (including procurement, service delivery and human resource) are made at the local (county) level by health managers and clinicians in county hospitals. These decisions are based on local priorities and needs, revenue generating potential, and so on.

Other stakeholders also have impact on priority-setting. The nation health insurer (covering 20% of the population) and private health insurers (1% of the population) respectively define their own benefit packages for beneficiaries. External donors as well as NGOs affect health through off-budget support to the MoH, and they lobby and advise the government on health priorities for on-budget support. Professional organisations (e.g. medical associations) lobby and provide advice to the MoH. Finally, patient and carer organisations are not currently active in Kenya.

One respondent commented:

“There is a political commitment in setting the demand side [of] priority-setting... Priority-setting products are clearly articulated in the various policy documents by the government... there is the problem of structure in the health care, however once the Health Bill is passed, all will be fine.”

In terms of future policy goals, KHP 2012-30 mentions the following possible roles of priority-setting and HTA (Ministry of Medical Services Kenya (MoMS) and Ministry of Health Sanitation Kenya (MoPHS), 2012):

- Defining and applying an evidence-based essential package of health products and technologies, to incorporate national lists of essential medicines, health products and diagnostics; treatment protocols, and standardised equipment.
- Establishing a national appraisal mechanism for health products and technologies, providing guidance on the clinical and cost-effectiveness of new health technologies and interventions.
- Putting in place a harmonised national regulatory framework for health products and technologies, which shall be autonomous and encompass “products and technologies” in their broadest sense including vaccines, cosmetics and even food and tobacco.
- Developing adequate and appropriate health infrastructure by making evidence based health-infrastructure investments.

#### *The supply side of priority-setting*

One respondent cited the following organisations and units as being involved in priority-setting.

**Table 6. Organisations involved in priority-setting in Kenya**

<b>Institution</b>	<b>Type of priority-setting product</b>
The former department of pharmacy in the MoH	Essential medicines list
Kenya Medical Supplies Agency within the MoH	Develop list of drugs that can be ordered by public health facilities
National Health Insurance Fund	Develop benefit package that is reimbursable by the National insurer
MoH including the department of policy and planning and finance department	Develop the package of services that are provided by public facilities. Currently this package is the Kenya essential package of health. They also develop clinical guidelines that are used in the public sector

There is currently no explicit formal priority-setting or HTA process in Kenya, and only limited institutional and technical capacity to produce *de novo* priority-setting outputs. Kenya has adopted or adapted priority-setting outputs or decisions (such as the essential drugs lists, and clinical guidelines) from other countries or the WHO, although there is no effort to assess whether these are implemented or lead to better health outcomes. Interviewees were not aware of any HTA outputs or decisions from other countries being directly adopted in Kenya.

One respondent acknowledged that the drug approval committee of the Kenya Pharmacy and Poisons Board (PPB) performs some form of HTA, as they assess clinical, safety and efficacy evidence provided by applicants on the common technical document, before allowing a product to be registered. However it does not consider economic evidence in its decision (Garrison, et al., 2012).

A member of the MoH Drug and Therapeutic Committee (DTC) also said that they have tried to perform HTA in the past by soliciting academic experts to write technical assessments on health technologies of interest. This suggests an attempt at comparative effectiveness research. To date, the DTC has never asked for an economic technical assessment.

One national research institute, KEMRI, conducts research synthesis to inform adaptation of clinical guidelines for paediatric care. The Kenya Paediatrics Association is involved in the dissemination of these guidelines. Other national guidelines on malaria, HIV/AIDS, TB and management of common childhood ailments are adapted from WHO and partners' guidance (e.g. UNICEF).

There is no systematic quality assurance mechanism for priority-setting in Kenya. Current priority-setting processes such as the essential medicines list, the national insurer's benefit package, the MoH's Kenya Essential Package of Health (KEPH) and clinical practice guidelines are not subjected to any external or transparent peer review. Any quality assurance is predominantly done in-house with no 'audit trail' of the process (e.g. on how comments/disagreements are handled).

#### Potential to benefit from priority-setting

In terms of developing or quality assuring the technical aspects of priority-setting products, further capacity is needed in understanding basic HTA concepts, techniques and applications, and in the institutionalisation of HTA, including in the following areas highlighted by one respondent:

- Use of evidence and deliberative processes in priority-setting
- Research synthesis and cost-effectiveness analysis
- Costing and budget impact analysis
- Targeted training of hospital administrators (managers) given the critical role of hospitals in the delivery of healthcare, and the substantial health care resources they consume
- Capacity of professional associations to contribute to priority-setting for specific disease conditions.

Kenya is considered a leader among the region in health policy making, and many policy decisions in Kenya have been adopted by neighbouring countries. A case in point is the approach adopted by Tanzania to implement UHC, which is a replica of the process used in Kenya. Demand exists for cross-country sharing of products of priority-setting processes in East Africa. For example, Kenyan national paediatric guidelines ('Basic Paediatric Protocols') have been adopted by professional associations in Uganda and Rwanda for in-service training of health providers in these countries.

It appears that there is interest on HTA from the PPB and the Ministry of Health. The limited HTA (which currently does not include cost-effectiveness analysis) that is performed by the PPB and the MoH DTC is sponsored by these agencies. The PPB is financially independent and finances its operations from fees charged for product registration. The MoH has a centralised tender process that publishes requests for expression of interest in providing consultancy services. The DTC would presumably pay for the development of technical reports by academics or private consultants through this avenue.

One survey respondent commented:

"There exist benefit towards the journey to UHC and this has been accorded the necessary priority in the country. The Ministry recently commissioned three studies that are made meant to take stock on progress and advice on the way forward."

Priority-setting should improve efficiency in terms of resource allocation (human, financial and physical) which in the process will impact positively on efficiency, equity and access.

### Conclusions

The main challenge to Kenya's healthcare system from the perspective of those interviewed was a lack of financial and human resources for healthcare services. There are few physicians, nurses, and pharmacists, and those that are available are grossly underpaid.

Stakeholders also expressed concerns about the liberalisation and commoditisation of the pharmaceutical sector. The PPB does not have the capacity to ensure and regulate the rational use of medicines because there are too many products with many more being registered every year.

Given this lack of resources for healthcare in Kenya, interviewees felt that HTA could help to better target resources and to reach more Kenyans with high quality health care services, and unanimously agreed that HTA should play a prominent role in Kenya. The majority favoured medicines taking precedence over other technologies in the HTA process since they can be very expensive, but a lack of technical capacity remains the main impediment to the performance of HTA. Furthermore, the government is currently not funding research adequately and the same is expected to happen to HTA.

In order to establish capacity for HTA in Kenya, interviewees expressed the need to train a core of professionals. Development partners can help local universities to develop the technical capacity to teach HTA courses to expose professionals such as doctors and pharmacists to concepts and methods of HTA. This needs to be supported through the establishment of a legal framework and mandate, and a national institution for HTA (Garrison, et al., 2012).

#### Sources

- Available literature (Ministry of Medical Services Kenya (MoMS) and Ministry of Health Sanitation Kenya (MoPHS), 2012) (Garrison, et al., 2012)
- Interviews with the Dean of the School of Pharmacy at the University of Nairobi, the Deputy Registrar of the Kenya Pharmacy and Poisons Board, the Chief Pharmacist at the Ministry of Health, the Head of Production at the Kenya Medical Research Institute, the Deputy CEO of the Kenya Medical Supplies Agency, a member of the MoH DTC, and the head of the Kenya National Council of Science and Technology
- Survey responses from health economist working on Health Policy Project Futures group, expert at KEMRI-Wellcome Trust Research Programme, and a local university-based health economist

### **3.3.8. SSA: Malawi**

#### Overview

Malawi's key health indicators are generally unsatisfactory, with maternal and child health outcomes still amongst the worst in the world, but there has been significant improvement in some key health outcomes including infant and under-five mortality rate, as well access to birth by skilled attendant over the past decade.

The health system is generally weak, characterised by very low financing of US\$38 per-capita per year, critically and frequently short supply of essential medicines, inadequate infrastructure, weak human resources for health and weak capacity in planning and prioritisation generally.

Health care is predominantly publicly financed, with substantial direct budget support from donors. With a growing population, very low levels of economic growth and the resultant high prevalence of poverty, options for increasing resources and expanding provision of health services are limited. This is a key motivation for the country to put together systems for priority-setting.

Government is the largest provider of health care, followed by the Christian Health Association of Malawi (CHAM). In general, Government and CHAM operate an informal non-overlapping policy that restricts them from constructing health facilities within each other's catchment areas.

Use of health care is nominally free of charge in all public facilities but some wards within the major public hospitals charge a user fee to those with ability to pay. Users of health services at CHAM facilities pay a user fee, which is based on the total cost of services minus subsidies received from government and donors.

The country adopted the WHO-recommended Essential Health Package (EHP) in 1999, and designed a heavily donor financed Programme of Work (POW) in 2004 to deliver the EHP to the poor and most vulnerable sub-populations, focusing on improving maternal and child health. The POW was implemented between 2004 and 2011 within a collaborative programme known as the Health Sector-wide Approach (SWAp). A key



feature of the Malawi Health SWAp is that key health sector donors contribute to the health sector through a ring-fenced budgetary support (also known as pool funding) to the Malawi Ministry of Finance instead of the traditional project approach that characterised the majority of donor support prior to 2004.

The government's objective is to make the EHP free to every Malawian. However, there are not guidelines on what should be done for those services and interventions not covered in the EHP, and the strategic documents complicates this by defining every other service and intervention currently provided by the public sector as essential non-EHP. This results in significant variations amongst public providers. Also, very low per-capita funding in the health sector, a lack of effective prioritisation of what services should be provided to which sub-groups, and generally high levels of inefficiency means that the EHP itself is inadequately provided.

Currently, UHC of the EHP is unachievable due to the non-overlapping arrangement between the government and CHAM. The government has since 2004 been implementing service level agreement with individual CHAM providers, largely focusing on removing the fees paid for use of pre- and post-natal care, but few facilities have more coverage beyond these.

#### *The demand side of priority-setting*

Since 2004, the Malawi Government has emphasised the delivery of the EHP, which is based on the principles and evidence of cost-effectiveness and burden of disease. This represents a greater commitment for priority-setting at the highest level.

Traditionally, the Department of Health Planning and Policy Development is the key entity in health policy development and coordinating the priority-setting process. For the allocation of health resources, it works jointly with the Ministry of Local Government which is responsible for delivery secondary and primary health care, and the Ministry of Finance which makes the final allocation decisions based on revenue projections. Currently, a resource allocation formula developed by the MoH's planning department is used to guide the resource allocation decisions to districts and other cost centres. At the district level, there is no explicit guidance for allocating resources, but every year the Department of Planning in the MoH develops guidelines to facilitate the prioritisation process.

There is currently no explicit prioritisation framework, due to critical capacity constraints in the Department of Health Planning and Policy Development and the country in general, and largely because previous efforts have lacked continuity and did not take into account the capacity limitations and institutionalisation requirements. For example, with support from development partners, the Ministry attempted in 2007-2008 to integrate priority-setting in district implementation planning process; but this did not take into account central government reporting requirements, the weak capacity at the district level, and the absence of evidence on cost-effectiveness to inform the priority-setting process, and so the process never moved beyond the pilot phase.

Generally, there is great awareness that the very low levels of health financing and the poor health outcomes call for careful prioritisation with respect to the services and interventions that need to be implemented to reduce the prevalence of diseases targeted in the EHP. At the moment, the country acknowledges that focusing on the EHP alone will not be adequate to improve health outcomes, and that a multi-sectorial approach to addressing the social determinants of health will need to be implemented to compliment to current efforts in the area of health service delivery.

Moreover, the country faces serious shortfalls in the drug budget. The national drug formulary, although would clearly benefit from evidence on cost-effectiveness, is largely informed by a procurement process that focuses on financial management accountability and not cost-effectiveness in the context of the country's resources.

#### *The supply side of priority-setting*

Generally, the Health Services Research Department of the Ministry has the mandate for coordination of research activities with direct implication on health policy, and currently there are four government officers training in health economics at the PhD level. Due to capacity constraints, it has a working relationship with the College of Medicine, the University of Malawi. However, the Department of Planning in many cases coordinates specific research aimed at informing a key policy reform in which case the Research Unit acts as the clearing unit to ensure compliance with legal and ethical requirements.

The government through the National Research Commission has also supported training of PhDs and MSc degrees in health economics. The College of Medicine has attempted previously to establish a health economics unit; but efforts remain improperly uncoordinated. There is some interest in health economics at the Economics Department, Chancellor College, which is the main teaching department for general economics in the country.

Within the Ministry of Health, the Monitoring and Evaluation Technical Workgroup could be assigned to have the convening responsibilities, while the Department of Health Planning and Policy Development jointly with the Health Services Research Department could take responsibility of institutional and legal aspects of priority-setting.

#### *Potential to benefit from priority-setting*

The Malawi health sector strategic plan emphasises that efficiency, equity, quality and universal accessibility of healthcare as its key overriding objectives. However, presently there is not much evidence to inform the relevant decisions. Improved capacity in priority-setting, and implementation of programs based on priority-setting principles will free resources from less effective areas to more effective areas whilst increasing quality, for example, through prioritising implementation of very cost-effective interventions at both the national and cost centre levels. Further resources from prioritisation can come from increased transparency through reduction in theft and corruption.

Priority-setting will also assist government in prioritising resources to different sub-populations. For instance, the lowest income levels could be benefit if evidence suggests the poor account for the largest burden in the particular health outcome.

Since 2007, there is been growing awareness for expanding capacity in health economics within and outside of the public sector. There is potential for co-ordinating the capacity within existing priority-setting initiatives, and sustainably institutionalising this into the planning and implementation of health services in the country.

Moreover, post adoption of new treatments, opportunities exist for cost-effectiveness analyses in natural context for on-going evaluation of interventions, which may well be the most promising area for iDSI involvement.

#### *Conclusions*

Options for developing capacity for priority-setting include supporting a position in health economics within the Department of Planning and Policy Development, in order to improve its capacity in specifying the evidence needed for priority-setting. The overall

strategy would need to be in the direction of supporting establishment of a health economics unit at the College of Medicine with links to the Economics Department at Chancellor College; mentoring professionals already trained in health economics through financing initial research activities. This can take the form in which an experienced health economist is hired to lead the methodological aspects of health economics within a developing country context, and a ready team of the currently inexperienced health economists, with a long-term view of transferring and institutionalising capacity in the country. Alternatively, the available health economists in the country can work within a local health economics linked up with a leading health economics centre outside the country. This will have long-term impact on institutionalising priority-setting through nurturing in-country capacity relevant for priority-setting.

Possible initial activities can seek to address the broader aspects of the current health policy concerns, in the following dimensions. First, generating evidence to inform the prioritisation of the EHP, including for example:

- The implications of the current organisation of health care and financing with respect to efficiency, equity and sustainability.
- Examining socioeconomic inequality in the prevalence of diseases by its determinants as well as explaining inequality in access to and utilisation of the EHP.
- Examining the impact of the current non-overlapping arrangement on service use, focusing on the impact of removing user fees on the availability and quality of the essential health package
- Evaluating the current drug formulary to examine if adoption is consistent with international standards in comparable economies, and based on very highly cost-effective interventions generally.

Secondly, at the impact level, work can focus on initial modelling of determinants of key health outcomes such as under-five mortality, child malnutrition, maternal mortality, prevalence of HIV and AIDs, generating evidence to inform prioritisation of interventions to address these. This work could evolve into examining the cost-effectiveness of different interventions for the essentials package as well as evaluating the overall cost-effectiveness of and options for improving different programmes in the Malawi health sector.

#### Sources

- The Malawi Health Sector Strategic Plan (2011-2016) (Ministry of Health Malawi, 2011), the Programme of Work for the Malawi Health Sector (2004-2010) (Ministry of Health Malawi, 2004)
- Information provided by Mr Dominic Nkhoma, the Department of Planning and Policy Development of the Malawi Ministry of Health.

### **3.3.9. SSA: South Africa**

#### Overview

According to the National Health Insurance (NHI) policy paper, the South African health system is inequitable, in which the population in the lowest level of income have the poorest access to the health services (Department of Health of the Republic of South Africa, 2011a). The NHI also mentions that South Africa suffers from a “quadruple burden of disease” with high rates of HIV and TB; maternal, child, and infant mortality; non-communicable diseases; and injury and violence (Department of Health of the Republic of South Africa, 2011a). South Africa has less than 0.7% of the world

population, but 17% of the population with HIV, and one of the highest rates (73%) of HIV and TB co-infection. Life expectancy is low compared to other LMICs, and has been declining.

Healthcare resource allocation and healthcare priority-setting processes are a complicated mixture of public sector and private sector interactions, as well as market-driven and multi-level government planning activities. Dealing with the high prevalence of HIV and TB consumes a significant share of health sector resources.

The healthcare delivery and insurance systems, attempting to cover 52 million citizens, can be similarly described as an overlapping, tiered system with multiple financing and delivery systems. This includes private employer-based insurance sector; a public, tax-funded delivery system covering all citizens; an HIV care system; and government employees health plan. Additionally, out-of-pocket payments are also a significant proportion of health expenditure, about 17.7%. In response to this situation, the current leadership has established a goal of a single NHI plan by 2025.

#### *The demand side of priority-setting*

The national government and National Department of Health (NDoH) are, in principle, seeking improved priority-setting processes especially in dealing with the EDL. However, they are taking a long view on the transition; they currently demand priority-setting for medicines only, through CEA and international reference price benchmarking. In the MoH there is a dedicated budget with a team of full time professionals who support the academics serving the technical committees.

Nevertheless, according to the experts interviewed, priority-setting is in a process of development. Institutions and provinces request reviews or the lead reviewer of a chapter identifies the need. The technical committee then scopes the review which is presented to the National EDL Committee prior to review. The process of scoping is new; traditionally, this has been at the discretion of the chair of the technical committee which has had some governance issues and more importantly has resulted in priority reviews being held up.

Regarding the private sector, the health insurance plans are regulated by national government through the Council of Medical Schemes (CMS), which is appointed by the Minister of Health and is a statutory body established by the Medical Schemes Act. There are about 120 medical schemes covering about 8 million beneficiaries. Prescribed Minimum Benefits (PMBs) are defined to ensure a minimum benefit for all competing schemes. The PMBs are comprehensive and thorough, covering nearly 270 conditions and ensuring minimum service levels comparable to that provided in the public sector. In this respect, the CMS has introduced some interesting and important concepts that involve some measure of HTA.

#### *The supply side of priority-setting*

Formal, centralised, comprehensive HTA is not currently practiced, and HTA is mostly indirect and decentralised among various agencies and organisations. For instance, HTA for marketing authorization is supervised by the Medicines Control Council (MCC), supported by the Medicine Regulatory Authority (MRA). For treatment guidelines in the minimum benefit package, HTA is carried out by the NDoH, which also has a Pricing Committee to conduct HTA for national formulary recommendations. It is mandatory that the NDoH follows the findings of HTA and other government analyses in making spending decisions. Private insurance companies also use HTA themselves for private

insurance coverage of new medicines; a new public sector process for pharmacoeconomic assessment may influence the private sector to a greater extent (Garrison, et al., 2012).

In the public sector there is the National Essential Medicines List committee which is appointed by the National Minister of Health. The HTA is performed by a network of 4 technical expert committees: primary health care, hospital adult, paediatric, and tertiary care. The technical experts are appointed by the Minister, provincial representatives and then the programs such as HIV, TB etc. This committee applies clinical effectiveness principles and increasingly pharmacoeconomic principles in setting this list. Although the NDoH regularly review the alignment with the WHO model list, no medicine is added without due diligence to the evidence and cost. For hospitals and clinicians, the EDL is mandatory although in the public sector currently about 20% of medicines are non-EDL; however, this percentage is decreasing considerably.

In addition, the pricing committee is a regulatory body established in terms of the Medicines Control Act and sets transparent prices, so called single exit price, in the private sector. In 2013 the Minister published the pharmacoeconomic evaluation guidelines intended as a tool for setting the single exit price. The long term vision is that this will be used by the EDL process.

#### Potential to benefit from priority-setting

The potential to benefit from improved priority-setting is tremendous given the political aim of a single NHI by 2025. Both macro- and micro-level HTA is already occurring in South Africa through multiple channels. For instance, the design and implementation of NHI is the ultimate exercise in macro-HTA at the health system level. Moreover, the NDoH has an ongoing process for updating its essential drug list and the associated treatment guidelines (Garrison, et al., 2012).

Given the large inequality and divergence between public and private systems, and the ongoing NHI reforms, priority-setting could help direct resources to the most deprived groups and ensure sustainability as the basic package expands to cover the whole of the population.

#### Conclusions

South Africa does not have a single national HTA agency or process, but there are several ongoing activities that aim to rationalise clinical pathways, to promote the appropriate use of medicines, and to achieve economically efficient use of medicines. These efforts are coordinated to some extent through policy linkages and the overlapping leadership. However these activities themselves are challenged by the lack of resources, including inadequate numbers of well-trained personnel.

According to the experts interviewed, there is no coordination of the private sectors medical schemes, but in 2014 it has been introduced membership of the private schemes in each of the 4 technical expert committees. In addition, broader priority-setting analyses are occurring in the private sector and by academic or NGO researchers now with NDoH support. For instance, the formation of the Priority Cost Effective Lessons for System Strengthening South Africa (PRICELESS SA) which is a programme to promote evidence-based decisions about health investment in South Africa (based at the Wits School of Public Health).

Finally, the current initiative to reach NHI by 2025, UHC on a more equitable basis, presents both a need and opportunity to introduce more explicit, comprehensive, and

coordinated priority-setting across different disease/health interventions and types of care.

Sources:

- Available literature (Department of Health of the Republic of South Africa, 2011b) (Garrison, et al., 2012) (Pharasi & Miot, 2012).
- Interviews with the Director of the National Department of Health, the Director of a Private Consulting Company, the Director of Economic Analysis NGO, a Health economist and consultant from the Wits University, a representative from the Pricing Committee of the Guateng Province PTC, and a representative from SAMJ Guidelines Editorial Sub-Committee.
- Various presentation slides from key opinion leaders, such as Jacques Snyman, Gavin Steel, and Anbay Pillay.

### **3.3.10. SSA: Uganda**

Overview

In 2012 Uganda had a population of 36.3 million inhabitants and a life expectancy at birth of only 57/59 years (males/females) (The World Bank, 2014a). Following its British colonial legacy, Uganda has a centralised health financing delivery system with the MoH being the core governmental unit. Nonetheless, a large percentage of medical care spending is out-of-pocket by patients.

There is no explicit health priority-setting or HTA at a national level. Priorities are set by historical precedent and by market responses to existing forces. There is no permanent body for HTA in relation to technology coverage, payment, or reimbursement. There is a drug regulatory agency, the National Drug Authority (NDA), which provides a review of new medicines. Many of the planning documents mention priorities, but do not explicitly mention either "priority-setting" or HTA.

The demand side of priority-setting

The Ugandan MoH sets priorities, develops policies, and implements its policies generally through centralised purchase arrangements for the country and through the distribution of essential medicines to facilities. For analysing priorities, it has a Health Policy Analysis unit but also draws upon donor input and the SURE (Strengthening Use of Research Evidence) project at Makerere University. This project generates evidence briefs to inform decision-making on selected topics. Additionally, there has been a drive by the MoH to establish the Health Economics and Systems Institute, with the aim of boosting the link between health systems research and policy. Note that the Health Economics and Systems Institute has had early engagement with China National Health Development and Research Centre (CNHDRC).

In 2012, the MoH produced an Essential Medicines and Health Supplies List for Uganda (EMHSLU) and a set up Updated Practice Guidelines (UPG), which are locally adapted from the WHO model formulary and standard treatment guidelines.

External donors also influence spending decisions, providing financial support to MoH programs that are aligned with the external donors' goals. Public healthcare providers (e.g. public hospitals) provide utilisation data to the MoH to influence subsequent spending. Professional organisations (e.g. medical associations) are advisory to the MoH but have limited influence in spending decisions.

The supply side of priority-setting

The MoH and academics, such as those working on the SURE project, represent the supply side, but one with very limited capacity. However, they are addressing relevant areas and are involved in building capacity.

Uganda has adopted international guidelines (mainly developed by the WHO), and country adaptation of some guidelines (e.g. Integrated Management of Adult Illnesses) is underway. Similarly, adaptation of WHO guidelines occurs commonly for high burden diseases such as HIV, malaria, and tuberculosis.

There is some in-country capacity in academic institutions and institutes to carry out evidence-based evaluations:

**Table 7. Organisations involved in priority-setting in Uganda**

<b>Institution</b>	<b>Type of priority-setting product</b>
SURE Project, Makerere University	Health systems evidence Briefs (Policy briefs) and Systematic reviews
School of Public Health, Makerere University	Operational and Health Systems Research Cost-effectiveness evaluation Systematic reviews
Infectious Diseases Institute, Makerere University	Operational and Health Systems Research Cost-effectiveness evaluation
Uganda Virus Research Institute	Operational and Health Systems Research

*Potential to benefit from priority-setting*

The MoH obtains information related to health from Uganda’s 111 districts but most decision-making is centralised. Capacity for effective local decision making is limited in many parts of the country where there are staff shortages and lack of skilled personnel.

Evidence briefs are reviewed internally by the MoH and subjected to policy dialogues prior to decision-making. The MoH has grossly insufficient in-house technical staff given the large number of health challenges.

*Conclusions*

There is a large gap in priority-setting capacity in Uganda, but currently only limited capacity in country to train health economists, epidemiologists, and other relevant social scientists. Yet, there is interest: in 2013 a local chapter of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) was established. Personnel need to be trained in the MoH and in academic institutions to support evidence-based decision-making. Retention of trained personnel to work within such institutions would be a challenge.

Uganda is a member of the East African Community that also includes Kenya, Tanzania and Rwanda. The community has established the Regional East African Community Health (REACH) Policy Initiative Project that aims to serve as knowledge broker for health decision-making and evidence-informed policy within the region. Consequently, evidence-based health policy decisions in Uganda are likely to impact countries within the region.

### Sources:

- Available literature (Ministry of Health Uganda, 2010a) (Ministry of Health Uganda, 2010b) (Ministry of Health Uganda, 2010c) (Ministry of Health Uganda, 2011) (Ministry of Health Uganda, 2012a) (Ministry of Health Uganda, 2012b) (Ministry of Health Uganda, 2012c) (Ministry of Health, Health Systems 20/20, and Makerere University School of Public Health, 2012) (Nabudere, et al., 2013) (Uganda AIDS Commission, 2012) (Uganda National Health Research Organisation, 2008) (The World Bank, 2014c).
- Interviews with experts (one Uganda health economist and one epidemiologist based in Uganda)

### **3.3.11. South Asia and Asia Pacific: China**

#### Overview

Total health expenditure has increased markedly over the past ten years or so, reaching to about 5% of GDP in 2010. Measured at constant prices, health expenditure has increased on average by 11.3% annually between 1978 and 2011. However, around 35% of that expenditure represents out-of-pocket payments (although this has fallen from around 60% in 2002). Moreover, medicines accounts for about 42% of total health expenditure. Aside from private OOP expenditure, funding sources for health care and public health services (e.g. disease prevention and control, maternity and child care) come from general taxation, social insurance, and company-based health insurance schemes.

Life expectancy now stands as 75 years (The World Bank, 2014b). The Chinese government has set a goal to increase life expectancy by a further one year by 2015.

In terms of medical insurance, there are broadly three types: a scheme for urban employees (Urban Employment Basic Medical Insurance, UEBMI), another for unemployed urban residents (Urban Resident Basic Medical Insurance, URBMI), and a third for rural residents (New Rural Cooperative Medical Scheme, NRCMS). The Ministry of Human Resources and Social Security (MoHRSS) is responsible for the UEBMI and the URBMI. The National Health and Family Planning Commission (NHFPC, the former Ministry of Health) is responsible for the NRCMS. The proportion of the population covered by available insurance schemes has increased from 87% in 2008 to over 95% in 2011.

In 2009 the Chinese government announced a commitment to universal access of basic health services, regardless of geography, ethnicity, age, gender, occupation and income level. This was also accompanied by ongoing rural health reforms that emphasised quality, efficiency and access, and included pilots exploring the implementation and impact of standardised care protocols or “clinical pathways” linked with changes to reimbursement mechanisms (such as fixed case payment methods).

NICE International has been actively involved in the ongoing health reforms through its collaboration with CNHDRC, a policy think-tank of the National Health and Family Planning Commission (NHFPC- the former Ministry of Health) which has been leading on policy-orientated research projects of health strategy and health system reform.

#### The demand side of priority-setting

Despite significant achievements in terms of healthcare coverage and some key MDG indicators, there remains wide variation in practice and evidence of both “under-



treatment” (particularly in relation to the management of chronic disease) and “over-treatment” (such as the excessive use of antibiotics and parenteral drug administration). In addition, patient management is largely centred on hospital facilities with relatively underdeveloped preventative services and community, primary care based facilities.

Various initiatives have been implemented, often in the form of pilots, in an attempt to address these problems. These include developing clinical practice guidelines (formulated by a committee of the Chinese Medical Association and other professional organisations), the production of NHFPC-derived “clinical pathways” (several hundred ‘disease categories’ are now covered), the development of a national formulary, payment reform, and formal impact assessment.

Moreover, given that responsibilities for the various schemes are split across multiple ministries, there are a number of high profile stakeholders for HTA. In this respect, there is high-level political commitment and interest in better priority-setting, not just by the NHFPC, but also from such bodies as the Development Research Commission, the prestigious think-tank of the State Council, and the National Development and Reform Commission. In addition, there has been interest in the potential for evidence-based priority-setting processes from more politically decentralised levels such as the Qingdao Health Bureau (Qingdao is a major city in eastern China, with a population of over 8 million and one of the fastest rates of economic growth).

The combination of quality-focused provider payment reform (the clinical pathways) with HTA for informing listing and reimbursement of technologies within the pathways (or independently), offer a unique opportunity for using priority-setting to influence policy and practice across China in the midst of the world’s largest scale healthcare reform.

#### *The supply side of priority-setting*

HTA is gaining more traction under the current administration. Moreover, NICE International has been working with the Chinese MoH to inform evolving policies on diagnostics and interventional procedures.

The Division of Health Technology Assessment at CNHDRC is the main HTA division, with its focus on improving the quality and efficiency of rural healthcare. Additionally, the HTA Division has also been working on the development of clinical pathways and providing evidence-based technical support on national technology adoption decisions with respect to high cost medical equipment such as the Da Vinci surgical robot. It has undertaken research into the costs and benefits of peritoneal dialysis compared with haemodialysis for end-stage renal disease. In addition, CNHDRC are working on developing a ‘how to’ guideline for HTA.

Despite the existence of this ‘national’ body, the supply of evidence-based priority-setting outputs is currently fragmented. For instance, professional organisations have been involved in the formal production of centralised clinical guidelines. It is not clear how these guidelines were developed, and the extent to which their methods adhere to international best practice (Yang, et al., 2013).

Arguably CNHDRC does not have the capacity presently to satisfy demand in terms of both volume and quality, but there is commitment to train and recruit more staff to build up their capacity to address NHFPC requests.

There is potential for technical support to come from universities located in Beijing and elsewhere in the country. However, there appears to be no obvious mechanism at

present for linking demand for evidence-based priority-setting to the supply of technical information from academia, which is a major weakness.

#### Potential to benefit from priority-setting

Given the size of the country, the potential benefits of evidence-informed priority-setting processes are likely to be significant. This is especially important given the currently high levels of OOP expenditure.

There is a need for examining the methods of guideline development. There is also a need to apply HTA methods to adjusting the EML, as a significant number of included technologies may not be cost-effective. Exploring the cost-effectiveness of EML items will also help ensure that they are consistent with clinical practice guidelines and any developed “clinical pathways”. The use of robust HTA and clinical guidelines would need to be implemented alongside other (evidence-informed priority-setting) initiatives to support health system improvement in order to ameliorate any potential adverse consequences (such as cost-shifting to patients) and excessive financial risks to providers.

In addition, there is evidence to suggest significant overuse or misuse of diagnostic technologies – again the application of routine HTA on these interventions, combined with robust clinical guidelines to contextualise their appropriate use, is very much needed and likely to lead to a significant impact in terms of both health outcomes and costs.

There is senior political recognition of the impact of market reforms on the health system and its shift away from traditional planned approaches. Policymakers have recently begun highlighting issues relating to equity, efficiency and universal access to basic affordable care. Indeed, it has been argued that establishing a ‘China NICE’ could contribute to improving health system performance (Yang, et al., 2013) (Cheng, 2012). Nevertheless, there appears to be a deliberate, ‘incrementalist’ approach to reform, often involving decentralised negotiation processes and piloting. Consequently, the development of evidence-based processes in China may involve central and local government plus health bureaus, engaged in multiple and mutually supporting streams of HTA-based activity with the potential of cross-transferability.

It is possible that a ‘China NICE’ could be set up at a local level (for example, in a city like Qingdao), as a form of pilot, and its impact assessed. Notably, the Head of the Qingdao Health Bureau, Mr Cao Yong and the Deputy Chief Executive of NICE, Dr Gillian Leng, recently signed a MoU between their respective organisations. In addition, NICE and CNHDRC facilitated an introduction between the Qingdao health authorities and NHS London which also led to the signing of a bilateral agreement.

#### Conclusions

The obvious central institutional partner is CNHDRC. Aside from ongoing activities with NICE International in relation to the clinical pathways project, there may be benefit in offering further technical training to staff within the CNHDRC especially around informational needs (e.g. costs, quality of life, appropriate ‘willingness to pay’ thresholds).

It is possible that iDSI could support local initiatives to develop institutions devoted to evidence-based priority-setting, with the agreement of central authorities.

#### Sources

- Available literature (Barber, et al., 2013) (Cheng, 2012) (People's Republic of China Ministry of Health and Family Planning Commission, 2012) (Yang, et al., 2013) (Yang, et al., 2013).
- Interviews with Prof Kun Zhao and Dr. Wudong Guo from CNHDRC.

### **3.3.12. South Asia and Asia Pacific: India**

#### Overview

India has a population of 1.24 billion and it is a federal union comprising 28 states and 7 union territories. National Health Policy is determined by the Ministry of Health and Family Welfare (MoHFW), but State bodies are not mandated to follow central government guidelines, except in 19 federally-administered vertical programmes which have tended to institutionalise rigid planning approaches without consideration of local priority (Kumar, et al., 2013).

India has one of the most privatised healthcare sectors in the world with around 70% private expenditure (ranking 179 out of 196 nations in terms of proportion of public health expenditure, Rs. 600 per-capita or 1.4% of GDP) and a mix of public and private providers. Out-of-pocket expenditure is substantial since represents 86% of the private health expenditure (The World Bank, 2014a), and of this approximately two-thirds are spent on medicines.

As of 2011, over 300 million people (roughly one quarter of the population) are covered under various national social insurance schemes. These include the Rashtriya Swasthya Bima Yojana (RSBY) (for the Below Poverty Line and run by the Ministry of Labour), the Central Government Health Scheme (CGHS) (for government employees and run by the MoHFW), the Employees' State Insurance Scheme (ESIS) (jointly funded by employers and employees), and State-specific schemes, such as Rajiv Aarogyasri (a public-private partnership in Andhra Pradesh) and Vajpayee Aarogyasri (Karnataka). The positive impact of these various insurance schemes is subject to debate, as insurance schemes have mainly focused on reimbursing specific drugs or procedures in secondary or tertiary care. There are wide variations in package prices across insurance schemes, and non-transparent pricing processes that do not appear to reflect differences in local epidemiology (Kumar, et al., 2013).

The Clinical Establishments (Registration and Regulation) Act 2010 was enacted by the central government as a response to demands for regulating private providers. One of the clauses in the Act forces all hospitals and clinics to maintain some minimum standards, and adopt STGs. However, there has been no separate, autonomous structure and budget for implementing the Act. Quality of healthcare is becoming increasingly important as a political issue, and as a focus of the National Rural Health Mission (NRHM), as well as health insurers (e.g. RSBY) and international funders (the World Bank, which completed the Quality Accreditation Initiative with the National Accreditation Board for Hospitals).

Drug regulation is currently carried out by at least two separate Union agencies: the Central Drugs Standard Control Organisation (CDSCO) and the National Pharmaceutical Pricing Authority (NPPA, which sits under the Ministry of Chemicals and Fertilisers). These have different and overlapping remits for drug approval and pricing regulation; neither has the responsibility for considering clinical and cost-effectiveness, within a policy and ethical context, for new and existing drugs.

### The demand side of priority-setting

The Indian high-level expert group on UHC recommended the establishment of 'an institute akin to NICE' (Planning Commission, Government of India, 2013). The MoHFW is currently articulating a demand for HTA, with specific reference to cost-effectiveness of diagnostics and treatments. The DHR (Department of Health Research, part of MoHFW) has mandated ICMR (Indian Council of Medical Research, an autonomous body under DHR) to provide guidance based on HTA.

Two public-funded insurance schemes at national level have articulated demand for priority-setting based on cost-effectiveness and quality, and asked NICE International to provide technical assistance, in order to manage high-cost and high-frequency procedures (RSBY), and rational mechanisms for reimbursement decisions on expensive new technologies, e.g. cancer drugs (CGHS). There has also been similar demand from some states, including Tamil Nadu, Andhra Pradesh, Kerala, and Karnataka, with requests for NICE International support in developing clinical guidelines.

### The supply side of priority-setting

To date, there is no formal national HTA programme in India. DHR has a current mandate for the formulation of evidence-based policy. The Medical Technology Assessment Board (MTAB) is being established within DHR, but its remit is currently unclear.

ICMR currently makes recommendations on vaccines and has an advisory role to MoHFW. It has focused on commissioning and conducting basic science research, although it is believed to have commissioned recent research to establish norms for the EQ-5D among the general population in Delhi. Given its national mandate, interviewed key opinion leaders supported the idea that ICMR could either strengthen its in-house technical capacity to conduct systematic reviewing or health economics, or to convene the agencies across in India with such capacity in developing priority-setting products such as HTA analyses.

In addition, the National Health Systems Resource Centre (NHSRC) has delivered standard operating procedures, service-level guidelines and standards for NRHM<sup>27</sup>.

Moreover, MoHFW has been commissioning a small technical secretariat in the Federation of Indian Chambers of Commerce and Industry (FICCI), to develop some 280 national standard treatment guidelines. A project led by the World Bank has involved the states of Andhra Pradesh, Karnataka, and RSBY in adapting some of these guidelines for national quality improvement in cardiology, oncology and secondary care procedures. There has also been fragmented activity in individual states such as Rajasthan to adapt clinical guidelines for various conditions.

Technical capacity for priority-setting analyses is scattered among a few key academic institutions. For example, CMC Vellore houses the Cochrane Centre in India and is widely recognised as producing high-quality work; the Indian Institute of Health Management & Research (IIHMR) in Jaipur and the India Institute of Medical Sciences (AIIMS), Delhi both have health economics capacity and a good reputation. At the national level, the Public Health Foundation of India (PHFI) is an autonomous public-private initiative with particularly strong technical capacity in health systems analysis.

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<sup>27</sup> Examples can be found in the NHSRC web page [nhsrccindia.org](http://nhsrccindia.org)

### Potential to benefit from priority-setting

Evidence-informed priority-setting processes and decisions occurring at the Union level, particularly within the framework of a national government priority-setting institution (delivering both HTA and STGs), could have huge potential impact on policymaking in states and public institutions across India. In addition to providing an advisory function to the MoHFW, such an institution could also provide a support function for national health insurers such as CGHS. States could adapt its national clinical guidelines to deal with irrational prescribing locally. This is most relevant given the government commitment to increasing public spending on healthcare whereby a priority-setting process will ensure more healthcare for the resources invested.

Institutionalisation of quality-focused priority-setting for public providers could also force private providers to improve quality to remain competitive. This would ultimately be beneficial for consumers.

Some national health insurers have substantial leverage in influencing pricing of medical technologies. For instance, when CGHS lowered its payout for stent from Rs 100,000 to Rs 60,000 and later to Rs 25,000, the market price for stent fell accordingly, despite CGHS covering less than 0.1% of the population.

The experience of NRHM Kerala in developing evidence-informed quality standards to reduce maternal death, with NICE International's technical support, suggests local implementation of priority-setting processes may be transferrable. This transferability would be in two directions: (1) across patient populations (as NRHM Kerala have since adopted a similar process to develop standards for neonatal care), and (2) across Indian states (as NRHM Odisha and Bihar have sought to learn from the Kerala team in conducting maternal mortality audits).

### Conclusions

Various agencies have been proposed by key opinion leaders as possible focal points for a central, semi-autonomous HTA body, including: NHSRC, the National Institute of Health and Family Welfare (NIHFW), the IIMR, and possible options for a network nested within public health institutions. In general, key opinion leaders recognised that ICMR should be supported to build absorptive and functional capacity given its legal mandate; although its current limited capacity and current focus on primary research means that this will be a stepwise process.

Key opinion leaders agreed that any such central institution would need sustained financial and political backing from the Union government; a governance structure and decision-making process that is evidence-informed, inclusive and open to consultation. In particular, this institution will need to show 'teeth' in managing conflicts of interests, and engage the healthcare industry and professional organisations positively in the decision-making process.

The outcome of the general election of April - May 2014 is likely to have an impact on the Union government's health policy directions. Given a clear entry point for capacity-building support for priority-setting at the Union level may not become clear until late 2014, NICE International, as the leading partner in iDSI, can continue to leverage its ongoing DFID funding to engage with DHR/ICMR, RSBY, and State level quality initiatives. Separate to the iDSI practical support project, NICE International is keen leverage DFID funding support to plan a high-level forum, where Indian policymakers,

priority-setting technicians, healthcare providers, industry and other stakeholders can convene to discuss a roadmap for priority-setting in India, with HITAP representation.

#### Sources

- Available literature (Chalikdo, et al., 2014) (Chauhan & Agrawal, 2014) (Jan Swasthya Abhiyan (JSA), 2014) (Kumar, et al., 2013) (Kumar, et al., 2013) (Planning Commission, Government of India, 2013) (Ministry of Health and Family Welfare India, 2010).
- Since October 2009, NICE International has been engaging with Indian policymakers and other stakeholders at Union and State levels, through several scoping visits, technical assistance projects and workshops on priority-setting, as well as study tours from Indian counterparts to NICE.
- In January to March 2014, we also conducted face-to-face and telephone interviews specifically on priority-setting issues, with nine key opinion leaders including: the Directors/Chief Executive Officers of government health insurance schemes, local and international NGOs, professors in health economics from Indian academic institutes, and senior technical advisers of international development agencies.

### **3.3.13. South Asia and Asia Pacific: Indonesia**

#### Overview

Indonesia has a population of approximately 245 million with geographical and economic disparities. It has the largest Muslim-population in a country worldwide with approximately 204 million Muslims.

There is a roughly 50/50 balance of public and private hospitals, and over the past ten years there has been a significant shift from primary to secondary and tertiary care. The growth of health facilities without beds on average over the past 6 years has increased by a rate of 9% while the growth of health facilities with beds over the same period has increased at a rate of 34%.

A significant decrease of maternal and perinatal mortality as well as infectious disease burden has been observed, while NCDs have surpassed the aforementioned as major causes of death in Indonesia. This is creating demand for healthcare with significant resource requirements.

Indonesia has one of the fastest growing economies in the region, which has resulted in a continuously increase per-capita health expenditure. However, inaccessibility to quality health services remains a significant obstacle and raises public awareness.

The government of Indonesia has been committed to introducing UHC to all Indonesians through a single National Health Insurance Program (NHIP) by the year 2019. If successful, NHIP will become the largest public insurance scheme in the world. A clear action plan has already been prepared. The scheme would be mandatory for all with 3% of the contribution coming from employers and 2% from employees based on a monthly salary. However, there would be exceptions for the elderly and young populations in which the government would pay for the respective contributions at the rate of US\$36 per-capita per year. Thus, there is a clear limitation of resources used to finance universal coverage.

#### The demand side of priority-setting

There is a clear demand for the development of a benefits package that is feasible and sustainable by NHIP, and the MoH is planning to establish an independent National

Health Technology Assessment Commission or a similar body. As an interim arrangement, the Health Minister has already established a national technical team, chaired by the Health Minister, with three working groups through a Ministerial Decree. The operational head of the technical team is the Senior Advisor to Health Minister for Health Technology and Globalisation (Prof. Agus Purwadianto). The three working groups are for: (1) medical devices, (2) medicines, and (3) procedures.

#### *The supply side of priority-setting*

There is limited supply-side capacity for HTA. Health economists are familiar with costing studies but not with outcomes research. Although there is an increasing interest among academics in systematic review and meta-analysis, there is almost zero capacity for disease modelling.

There are approximately 20 economic evaluation studies conducted related to the Indonesian setting and published in international journals, and the majority are related to vaccines (compared to 30 studies in Vietnam, 106 in Thailand, and 4 in Myanmar). Out of the 20 studies, 12 have been published after 2008.

AusAID supports the healthcare reforms in the country and has expressed an interest in NICE International and HITAP offering their expertise to the Indonesian counterparts in government.

#### *Potential to benefit from priority-setting*

Given that the Indonesian government has committed to UHC, priority-setting can play a crucial role for achieving sustainable UHC. Local capacity is crucial because of the diversity of populations and the cultural context (rarely has HTA on interventions focused on Islamic countries), which may have specific implications regarding ethical and social acceptance. There may be interventions and public health programmes that are specific to Islamic communities, and thus efforts to introduce active priority-setting processes should generate lessons that may be applicable to other Islamic settings, in the Middle East, for example.

Indonesia is 'graduating' from funding support for vaccines under the GAVI Alliance (Table 8), leaving the country with the responsibility of covering the expenses of vaccines, immunisation services, and the choices of introducing new vaccines in the country. HTA can play a crucial role to assist the government of Indonesia on whether to adopt new vaccines under the national immunisation program. The establishment of robust priority-setting mechanisms could also generate significant economies of scale in terms of lessons for the large number of MICs that are graduating from the GAVI Alliance and the Global Fund.

**Table 8. GAVI support for Indonesia**

Type of support	Approvals† 2001-2019 (US\$) (31 Mar 2014)	Commitments†† 2001-2019 (US\$) (31 Mar 2014)	Disbursements 2000-2014 (US\$) (31 Mar 2014)	% Disbursed (31 Mar 2014)	Duration of support based on commitments
Civil Society Organisation support (CSO)	3,900,500	3,900,500	4,000,500	103%	2008-2011
Health system strengthening (HSS)	15,407,000	24,827,500	15,407,000	100%	2008,2012-2014
HepB mono (NVS)	17,511,000	17,511,000	17,511,000	100%	2002-2008
Immunisation services support (ISS)	12,636,000	12,636,000	12,636,000	100%	2004-2008
Injection safety support (INS)	9,856,844	9,856,844	9,856,844	100%	2003-2007
Penta (NVS)	30,477,500	51,176,500	30,477,500	100%	2013-2016
Vaccine Introduction Grant	3,891,000	3,891,000	3,891,000	100%	2002,2013
<b>Total</b>	<b>93,679,844</b>	<b>123,799,344</b>	<b>93,779,844</b>		

† Total Approved for funding.

†† Multi-year programme budgets endorsed in principle by the GAVI Board. These become financial commitments upon approval each year for the following calendar year.

Source: GAVI Alliance (GAVI Alliance, 2014)

### Conclusions

Given the size and level of economic development of Indonesia, it is both very important and challenging to introduce priority-setting to support the government's vision for the largest UHC program in the world. It would not only be a crucial step for Indonesia to establish evidence-informed priority-setting and HTA mechanisms, but it would also provide a good lesson for other LMICs that are graduating from international development aid to be able to justify their own investments.

### Sources

- Presentation file made by Hasbulla Thabrany, Professor, Faculty of Public Health, University of Indonesia, Depok, Indonesia. "Indonesian Health Care System, Policy and the Road to Universal Health Coverage".
- Personal communication with the Ministry of Health staff and the World Health Organisation Country office staff in Indonesia.

### **3.3.14. South Asia and Asia Pacific: Myanmar**

#### Overview

With a total population of 52.8 million (The World Bank, 2014a), Myanmar is expecting a rapid change in both socioeconomic and cultural factors following recent political and social reforms. In addition to its rich natural resources which have remained relatively untouched, Myanmar is situated in a very strategic location, in between China and India, leading to great potential for economic growth in certain sectors. In addition, Myanmar's purchasing power is likely to grow, leading to increasing interest from transnational drug



and other health technology industries. As a result, capacity building for the national drug regulatory agency may quickly become a pressing issue.

The health system has suffered from low health investments at less than 2% of GDP, and only 11% of health expenditure comes from the government, while 6% comes from intergovernmental organisations and NGOs, and 83% comes from the private sector as of 2009. This is reflected in the relatively high maternal and infant mortalities and inequitable access to care across counties, although inequity in resource allocation extends beyond healthcare into other public service provisions, such as education and social development. Between 2011 and 2012, the budget trend of government investments in health has changed rapidly, from 5.4% to 7.5% of total government spending.

#### *The demand side of priority-setting*

The Myanmar Health Minister, Prof Pe Thet Khin, has made a commitment to introduce universal coverage in Myanmar by 2035. This means that the Myanmar government needs to seriously plan and prioritise investments as well as strengthen health systems across the board to ensure the achievement of this goal.

The Department of Health Planning has demanded HITAP for HTA training, focusing on assessment of public health policy and interventions as opposed to technology assessment. There is a clear need and demand for the development of community initiatives and public health interventions to address the growing demand for primary health care in Myanmar, where a basic healthcare package has not been accessible.

In addition, the School of Public Health of the University of Yangon used to request the WHO SEARO to conduct a health technology-like workshop by UK universities. This reflects the demand from renowned academic institutes in Myanmar about the need for HTA capacity development.

#### *The supply side of priority-setting*

There are three Departments of Medical Research (lower, upper, central) under the Ministry of Health that focus on outcomes research, whereas the Department of Health Planning focuses on health systems and policy research. However, there is a lack of expertise in health economics evaluations and modelling techniques.

Myanmar has many schools of public health with capable staff on medical statistics and epidemiology. However, they rarely work for the Ministry of Health, but rather work with international donors. This is in part explained by the financial incentives received from international organisations as well as other kinds of support received.

DFID chairs the multi-donor 3MDG panel and has expressed an interest in involving NICE and HITAP in supporting the Myanmar's government, while HITAP has a long-term relationship with the Myanmar with a track record in guidance development in maternal and child health.

#### *Potential to benefit from priority-setting*

Currently, Myanmar is undertaking major policy reforms, including in the health sector. The government has almost doubled their health budget during the past few years and expressed the need to establish a health benefits package for primary health care including maternal and child health, NCD prevention and control. In this context, HTA can play a crucial role in advising the Department of Health in developing the primary care benefits package.

After the political reform, many international development agencies have turned their attention to Myanmar and offered both loans and support, including health investments. As a result, the Department of Health Planning needs to establish a mechanism prioritising not only international support, but also its own policy investments. This may include powerful mechanisms to convince, coordinate, and negotiate with various international agencies and development partners; unity among different sources of finance for national health policies; and good governance together with some management notions, for example, akin to the UN's sector-wide approach.

Furthermore, initiatives to establish robust priority-setting mechanisms could generate significant economies of scale across other LICs settings worldwide, especially countries with multiple donor-funded vertical healthcare programmes and low government healthcare spending, but which are committed to achieving UHC.

Finally, health information infrastructure in Myanmar is poor. Therefore, health intervention assessments and primary research work can greatly benefit this country.

### Conclusions

Although priority-setting and HTA are not well established in Myanmar, given the current situation, small steps will make a big impact in population health. The challenge remains that the Myanmar government structure is vertical and relies heavily on top-ranking decision makers. Also, even though international support is welcome by Myanmar, the international partners are rarely involved in the decision making process. Conversely, some decisions are donor-driven due to the lack of technical capacity within the government to negotiate.

Rational, evidence-based policy decision-making processes in Myanmar are not well established and can be easily influenced by top-ranking decision makers. This makes it crucial to establish stable mechanisms in order to introduce and sustain evidence-based policy decisions.

### Sources

- Available literature (Grundy , 2012) (Ministry of Health Myanmar, 2013) (Township & Pyi Taw, 2014).
- Information collected and produced by Nattha Tritasavit (HITAP), who has four years of institutional experience in Myanmar on the development and evaluation of public health programs, namely the Maternal and Child Health Voucher Scheme.
- In addition, HITAP has had several staff visits from the Department of Health Planning, Myanmar and each party has shared knowledge on the status, advances and challenges of priority-setting in-country.

### **3.3.15. South Asia and Asia Pacific: Philippines**

#### Overview

The Philippines is an archipelago of 7,107 islands, subdivided into 17 administrative regions. The health system operates within a decentralised structure, involving multiple layers of government, with the Philippine Department of Health tasked with providing overall strategic and policy direction.

While there has been considerable success over recent decades in reducing the prevalence of communicable diseases and infant mortality, significant health service inequities and inefficiencies remain. Despite the creation of a national health insurance agency in 1995 (the Philippine Health Insurance Corporation, also known as PhilHealth),

the provision and availability of health services remain fragmentary, and often associated with high OOP payments, representing around 56% of the total health expenditure (The World Bank, 2014a).

The Philippine Department of Health has made significant progress in supporting PhilHealth and improving access to and affordability of medications, but problems remain including non-transparent pricing structures, ineffective public procurement mechanisms, limited generic use, and stakeholder resistance to implementing a national pharmaceutical policy.

Since 2010, efforts have been made to increase the number of poor families enrolled onto PhilHealth. PhilHealth has introduced 'no balance billing' for these sponsored households. It has also explored using case payment and in 2012, introduced a Z Benefit Package for catastrophic illnesses, initially providing guaranteed fixed rates for breast cancer (up to Stage III-A), prostate cancer and acute lymphocytic leukaemia. In the same year PhilHealth announced a Primary Care Benefit I package covering preventive services. A key challenge, particularly concerning the Z-packages, is to ensure that the fixed payments are adequate and that inclusion/exclusion criteria for eligibility are not overly restrictive.

#### *The demand side of priority-setting*

HTA was notably on the public policy agenda in the Philippines over 15 years ago, but initial enthusiasm cooled through lack of political support and strong opposition from vested interests.

The DoH is currently articulating a demand for HTA through the National Center for Pharmaceutical Access and Management (NCPAM), in order to support national formulary inclusion and exclusion decisions. While a process is in place for the consideration of evidence on individual technologies by its independent Formulary Executive Committee (FEC) (supported by the NCPAM secretariat), significant details remain to be fleshed out, particularly in relation to clarity over institutional and political relationships to support implementation of recommendations made by the FEC. In this sense, budget fragmentation, and lack of coordination between Philhealth and DoH for example, has arguably resulted in suboptimal and inconsistent decisions over technology adoption.

NICE International is supporting the development of methods for HTA, by NCPAM and is working with PhilHealth on clinical guidelines. For instance, NCPAM has recently received technical support through a Rockefeller-funded NICE International and HITAP initiative with respect to the evaluation of two vaccine products.

Philhealth has very recently announced that all new technologies "shall undergo the process of [health technology] assessment if they can be developed into a benefit package or be excluded from the same" (PhilHealth, 2013). It remains unclear how this will be operationalised, and also how it will link (and be consistent with) efforts by NCPAM/DoH in their ongoing attempt to develop a detailed methods and process manual for HTA and economic evaluation to support its own decision making on the formulary. It is notable that the then government established an HTA Committee within PhilHealth as far back as March 1999.

#### *The supply side of priority-setting*

The recent vaccines work described above was based on the NCPAM secretariat actively delivering on technical aspects, with direct foreign technical support (from HITAP). Key members of that secretariat have developed their skills in economic modelling, but it is

not apparent that this will be a sustainable or the most appropriate source of routine HTA.

There is a strong desire to build academic support for HTA delivery, principally through the University of the Philippines (UP), Manila. It is not clear the extent to which there is capacity within UP to provide the needed technical support.

PhilHealth has professed a strong commitment to use HTA in its coverage decisions, for instance, by hosting an HTA committee between 2000 and 2006. In addition to PhilHealth, the Philippine Food and Drug Administration (FDA) has showed its interest in HTA through the establishing an HTA unit. In both cases it is unclear who will deliver on the technical aspects, and how any HTA activity will slot into an overall process for priority-setting backed by well-defined institutional and legal arrangements.

The DoH Research Hub was established in 2012 and comprises of multiple research and strategy units. It aims to direct research priorities from government to researchers, and then later translating any research findings into actionable recommendations. One of the key institutional partners is the National Institute of Health of the University of the Philippines. The hub through its network activities could be important in supporting the development of HTA capacity, particularly in terms of its core informational needs, such as accurate cost information, and research into health-related quality of life.

#### Potential to benefit from priority-setting

There is significant scope for evidence-based priority-setting to improve efficiency, equity, access and quality as part of the Philippine journey towards UHC. This not only applies to the reducing irrational prescribing but also importantly, in informing the range of PhilHealth benefits patients can expect to receive while at the same time linking such guarantees to better evidence-informed payment mechanisms. The latter is particularly important given the continuing high levels of OOP payments and the professed commitment to expand access to affordable care for all.

However, while HTA has been a feature in the policy landscape for many years it has failed to gain much traction in the archipelago. There are a number of reasons for this including: the decentralised nature of the health system, fragmentation of budgets (silo budgeting), lack of adequate institutional cooperation, and perhaps insufficient political engagement and understanding.

Work by NCPAM and the members of the FEC to improve HTA capacity and methods, could be the springboard needed to spread evidence based processes beyond national formulary decisions, and support transferability. These have included activities with participation from PhilHealth and the FDA at joint training workshops. A critical issue will be the ability of senior policy makers to engage in this work, and draw a tangible link between HTA, clinical guidelines, and so on, and the path towards UHC.

#### Conclusions

HTA capacity building through pilot activities have already taken place by means of the recent Rockefeller-funded engagement by NICE International and HITAP, working with NCPAM/DoH, and to a lesser extent, PhilHealth. While there are certainly important technical development issues that could be addressed through iDSI practical support project, especially around informational needs (e.g. costs, quality of life, appropriate 'willingness to pay' thresholds), key improvement issues relate to process and institutional aspects, and policymaker/provider understanding of the role of HTA and guidelines in supporting better priority-setting.

### Sources

- Available literature (Hartigan-Go & Teh, 2013) (Romualdez, et al., 2011).
- Based on interviews with Dr Melissa Guerrero, Program Manager (NCPAM/DoH) and Madeleine Valera, Former Under Secretary for Health (DoH).

### **3.3.16. South Asia and Asia Pacific: Thailand**

#### Overview

Even though Thailand spends only 3.9% of its GDP on health (The World Bank, 2014a), it has been one of the few LMICs successful in achieving UHC. This can be partly explained by the fact that Thailand has a very strong healthcare infrastructure mainly funded by the public (76% of total health expenditure comes from public spending), especially on primary healthcare, and research capacity on health systems and policy. This is reflected in the establishment of Health Systems Research Institute (HSRI) as an autonomous body under the Ministry of Public Health (MoPH), responsible for planning and supporting the generation and use of health systems and policy research into policy and practice.

Thailand has a very strong civil society, including in the health sector. Civil society plays an important role in using evidence to pursue public policies and improved access to health care and technologies, prominently on areas related to HIV/AIDS. Civil society representatives sit on many decision-making bodies, including the Committee for the Development of the Pharmaceutical Reimbursement List, the Universal Healthcare Coverage Management Board and the Social Security Scheme Board.

With the involvement of civil society, strong health systems and policy research capacity, the health system in Thailand has used evidence to inform reform, and the tradition has continued for more than three decades. This has become the norm, for example, since 1981 the first National List of Essential Medicines was issued to guarantee public access to pharmaceutical products. A number of versions have been revised since then, based on health need, safety, efficacy, and, since 2008, adding value for money, and budget impact information.

#### The demand side of priority-setting

With relatively small public investments in health but with strong commitment to offer high quality of healthcare to cover a wide range of health problems for all, there has been significant demand for priority-setting.

The turning point occurred in 2005 when the government was pressured by civil society and health professionals to include one of the most expensive health technologies into the UHC benefits package for renal replacement therapy. Since the scale of the budget implication raised awareness of the use of evidence in the deliberative process, this was the first time that the government requested for HTA research informed by cost-effectiveness analysis to be conducted. The resulting information was discussed in a wide range of policy forums, including cabinet levels. The final policy decision was guided by an HTA report and this made some stakeholders aware of the usefulness of HTA.

#### The supply side of priority-setting

In 2006, after observing the usefulness of HTA research in guiding resource allocation on renal replacement therapy, the government, through the Thai Health Promotion Foundation, initiated an HTA program called the Health Intervention and Technology Assessment Program (HITAP) to be a semi-autonomous research organisation under the

Ministry of Public Health. Apart from the Thai Health Promotion Foundation, HITAP was funded with resources from the HSRI and the MoPH's Bureau of Policy and Strategy. Significant core funding of more than US\$3.5 million was provided to this research organisation and its network for building up capacity in HTA, conducting HTA for policy use, linkage of HTA research in policy decision making, and creating an HTA network.

Since the establishment of HITAP, HTA output has been significantly increased at the local and global levels. This is because HITAP does not only produce HTA evidence, but also supports country partners to generate evidence. At the same time, HTA has become instrumental in informing and guiding resource allocation in Thailand, in particular on the development of the pharmaceutical reimbursement list, UHC benefits package, and health promotion policies. Consequently, HTA in Thailand does not only focus on health technologies (medicines, vaccines, medical devices) per se, but also public policy (e.g. supporting the development of Medical Devices Act or Alcohol Control Act), public health interventions (e.g. screening of refractive errors of the eye in very young children at schools by teachers and linked with health service), and health policy impact assessments (e.g. assessment of government use license policies).

An increasing number of academic units in universities are interested in HTA and have developed post-graduate programs on HTA as part of a broader program on Social Pharmaceutical Administrative and Health Economics, including Master and Doctorate degrees. Currently, these academic units form a health economics group alongside HITAP to support the national pharmaceuticals reimbursement list committee. In addition, there is also an ISPOR Thailand chapter with groups of both private and public scholars who gather together to exchange knowledge and information on HTA as well as make links with international networks.

In terms of individual capacity, there are estimated almost 150 capable HTA researchers. Of these, about one third of them are in HITAP, one third in other academic institutes, and the last third are in industry.

#### *Potential to benefit from priority-setting*

With respect to Thai UHC, HTA has become one of critical parts to ensure fairness and sustainability of UHC policies. This is because HTA in Thailand involves a wide range of stakeholders, makes strong links with the decision-making process, and focuses on a number of policy issues including feasibility, value for money, and financial sustainability. HTA in Thailand is also used as an evidence-based tool for price negotiation with industry. Experience demonstrates that it is a very effective tool, resulting in heightened decision maker interest to support HTA to improve accessibility of advanced health technologies at reasonable prices.

Due to the need for providing implementable advice on health interventions and technologies, the context of HTA is more localised to Thailand. HTA research increasingly includes pilot studies in order to show feasibility in implementation. Since Thailand is an MIC, this work could be relevant and applicable to other MICs, albeit taking into account context-specific factors.

Thailand has become progressively influential in the region in terms of supporting other countries to develop HTA capacity or raise awareness of HTA. HITAP has formally established an international unit to work closely with NICE International, the WHO, and the World Bank. The objective of this international unit is to provide technical support and assistance to governments and non-profit organisations in other countries (e.g. Myanmar, the Philippines, Vietnam, Bhutan, and Nepal) as well as forming regional

networks (e.g. HTAsiaLink, with HTA agencies from Australia, Bhutan, China, England, Japan, Malaysia, the Philippines, Singapore, South Korea, and Taiwan).

### Conclusions

HTA in Thailand is well established with capacity in policy and research. HITAP in Thailand is well placed to make links with all relevant parties to ensure systematic, transparent, participatory, and evidence-based resource allocation for sustainable UHC.

HTA organisations in Thailand have high potential to provide policy relevant information and HTA capacity building for other LMICs. There is hope that in the near future more MICs will have well-established HTA systems and capable of providing similar support to countries in and outside the region.

### Sources

- Thailand and international scholars/organisations have a number of publications and documents related to HTA in Thailand (Ahn, et al., 2012) (Mohara, et al., 2012) (Tantivess, et al., 2012) (Tantivess, et al., 2009) (Teerawattananon, et al., 2009) (Yamabhai, et al., 2011) (Youngkong, et al., 2012).
- These also include external evaluations of a Thai HTA agency.

## **3.3.17. South Asia and Asia Pacific: Vietnam**

### Overview

Vietnam has one of the fastest growing economies in Asia and has recently emphasised investments in health. In 2009, as a response to a private health expenditure of around 60% of the total, of which a large proportion comes from OOP payments, the government has committed itself to achieve UHC by 2014. Vietnam is part of the ASEAN Plus Three UHC network as well as one of the target countries for the Joint Learning Network for UHC.

The governance of the healthcare system in Vietnam is centralized. The MoH plays an important role in planning and implementing health plans. For instance, the Vietnam Social Security (VSS) is under the MoH. In addition, macro-level and micro-level decisions are made by very high-level officers in around twenty departments of the MoH (so most decisions are made individually).

### The demand side of priority-setting

The priority-setting process is currently not well established. Limited stakeholders can play a role. Until now, there is no clear request from decision makers about what kind of evidence should be used in policymaking decisions. Therefore, although most technologies available in Vietnam's market are covered in the benefits package, the decision on what to cover and who to cover, even for a single drug or vaccine, can take up to two years. In recognition of these challenges and in order to ensure close and effective coordination between policy makers, research institutions and other stakeholders, the Health Strategy and Policy Institute (HSPI) under the MoH has recently been assigned a key co-ordinating role in establishing a systematic HTA process for UHC.

In addition, the top-level health ministerial officers have already expressed a clear commitment on HTA as a tool for priority-setting in Vietnam, paying particular attention on fine-tuning the health benefits package for UHC. This particular attention is explained by the fact that the current package has been highly criticised for being too broad, undefined and unreasonable. For example, on the one hand, they set a ceiling for

technologically advanced medical services, including dialysis, transplantations, certain kinds of cancer treatment, and cardiovascular operations. While on the other hand, the benefits package currently excludes potentially cost-effective interventions, for example, medical check-ups, and traffic accident treatments, and include some very expensive medicines that are rarely used even in high-income countries. In addition, they allow hospitals to set prices on drugs; and because the package allows hospitals to ask for a certain percentage of co-payments, hospitals can profit from OOP payments.

Nevertheless, there is a lack of understanding and experience of HTA within the MoH. Moreover, although the term HTA has been increasingly used, different groups of stakeholders have different interpretations. More importantly, health professionals, academics, civil societies, and industry have not been aware of the usefulness of HTA for Vietnam's healthcare system.

#### *The supply side of priority-setting*

HTA and other priority-setting tools are relatively new disciplines in Vietnam, although there are some individuals capable of carrying out costing and economic evaluations. This may be the result of past attempts to build up country capacity on HTA by international development partners (e.g. University of Queensland and Atlantic Philanthropies).

Until recently, there has been no single organisation in Vietnam that could respond to the significant demand for priority-setting. HSPI has some in-house capacity, as do academic institutes such as Hanoi Medical University, Hanoi School of Public health, and Ho Chi Minh Medical and Pharmaceutical University, and other research organisations and NGOs, such as VSS's research institute, the Vietnam Union of Science and Technology Associations, and the Vietnam Health Economic Association. These organisations are relatively ahead of others in terms of having a significant pool of researchers with relevant backgrounds for HTA.

A strong competitive environment has resulted in an uncoordinated approach to research, although there is an obvious need for extensive collaboration and linkage between organisations. Since there is minimal local funding to conduct research, including on HTA, it is inevitable that organisations receive external funding.

#### *Potential to benefit from priority-setting*

Monitoring and evaluation of distribution and utilisation of high cost technologies – a simple HTA approach – can make a significant impact on both government plans for investment and population health. This is because an inequitable distribution and utilisation of high cost health technologies has been observed. Technologies are concentrated in big cities in the north and south.

It is also relevant to use HTA for informing clinical guideline development, to ensure appropriate use of health technologies and quality standards for high priority diseases and conditions. Hospital regulators, namely the Medical Services Administration department of the MoH, could be the agency responsible because this department is responsible for both hospital accreditations and investments.

HTA can be used for the development of the health benefits package under VSS. This includes both the introduction of technologies to be covered under the insurance scheme as well as delisting obsolete technologies or interventions from the current package.



Moreover, HTA can be used for price negotiation with the private sector. Although a majority of medicines are currently procured at the hospital level, it is also possible to make price negotiations and contracts at the central level, especially for very high cost medicines. It is also relevant for vaccine procurement because it is already done at the central level. At the moment, the government has used reference pricing for negotiation and has not been successful, because the companies claim that the market is small, resulting in severely delayed introduction of innovative products and opportunities lost for patients.

iDSI partners are working with Rockefeller support to help build capacity for priority-setting by providers and high level policy makers in Vietnam, including ongoing work by NICE International to support the development of evidence-informed quality standards for stroke care, to HITAP and NICE International supporting HSPI in developing the institutional processes for HTA. There is an opportunity to leverage this work to promote priority-setting in a major emerging economy.

### Conclusions

Demand, supply and needs for HTA are quite high in Vietnam. With strong political commitment from top-ranking decision makers, HTA in Vietnam has been gaining strong momentum to move forward. Nevertheless, challenges remain that need to be overcome for the development of the HTA system. These include:

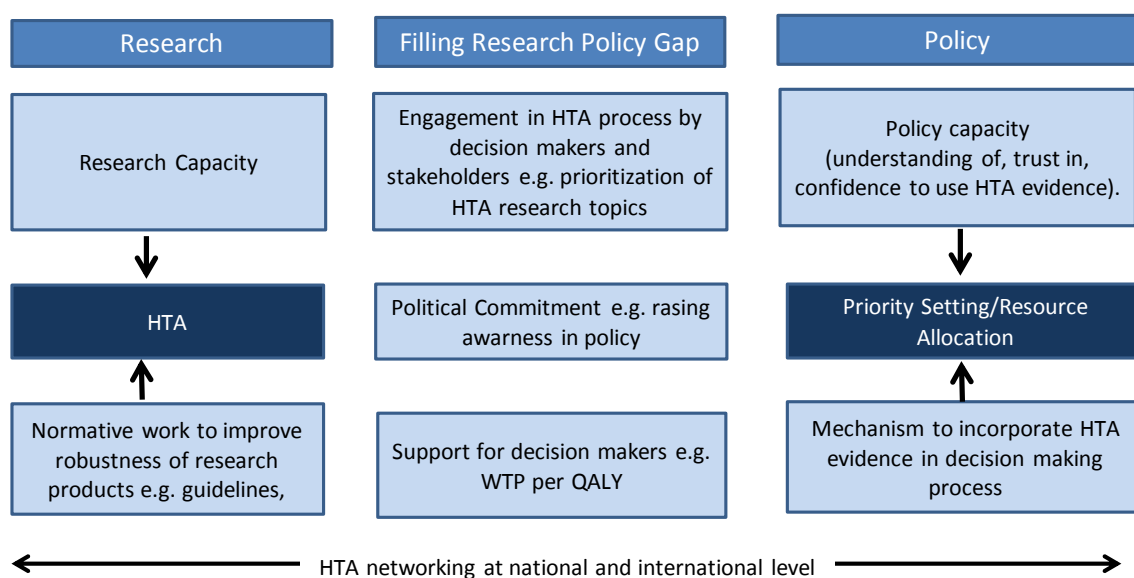
- *Prioritisation of topics for HTA in a systematic and participatory manner:* Ideally, all relevant stakeholders, such as decision makers, health professional associations, academics, patient representatives, industry, NGOs, and the public (and all international donors), should be able to submit relevant topics for consideration. The prioritisation process should be done with clear criteria that is acceptable among stakeholders and with extensive face-to-face consultations of relevant health authorities. This process is to overcome the past experience of choosing personal interests and donor-driven research agendas. The prioritisation should also be used as a means to educate stakeholders about HTA and develop a good reputation from the start that HTA in Vietnam is very systematic and participatory. In addition, the prioritisation process can be used to ensure the usefulness of HTA products in policy and practice if potential users, such as health authorities, are involved in topic selection.
- *The development of methodological guidelines and a code of conduct for HTA, to ensure that HTA is conducted with high quality in a neutral and transparent manner:* This initiative should be applied across HTA agencies and endorsed by relevant MoH departments. It is also important to develop process guides, a protocol informing all stakeholders what, how, and when each can be involved in the HTA process, as a means of using HTA to support priority-setting.
- *Use of HTA in policy and practice:* Although HTA capacity already exists in multiple research institutes, HTA work in the past has rarely, if at all, been used in policy and practice due to limited stakeholder linkage, minimal relevancy of topics to decision makers, and low quality assurance. HTA pilots should be conducted by relevant research institutes with supervision of experts to ensure that the studies overcome the past shortcomings. The results of the studies should be presented to decision makers as well as relevant stakeholders. Relevant and specific workshops can be provided by HTA experts, if appropriate, as opposed to general HTA training. The

technical and non-technical experience gained can feed back to the development of methodological and process guidelines.

- *Domestic and international networks for HTA should be developed and maintained in order to ensure knowledge transfer:* An annual domestic conference could be organised by the HTA focal point, including decision makers, technical advisers, international organisations, and industry.

To visualize the concepts above, the overall plan of HTA in Vietnam should focus not only on research or policy capacity, but also on filling in the research-policy gap (Figure 10).

**Figure 10. Priority-setting challenges for Vietnam**



Sources

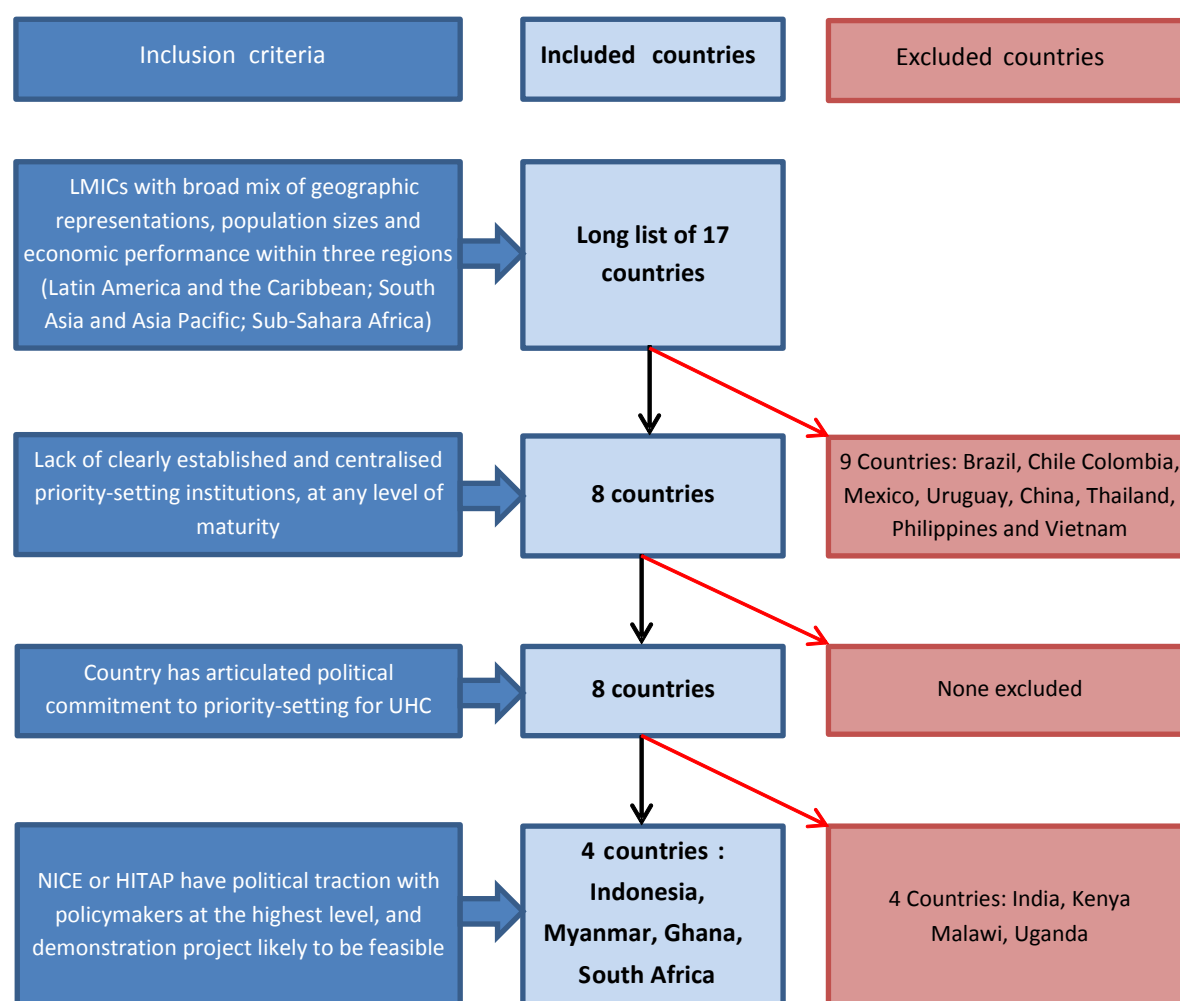
- The majority of information is from face to face interviews and group discussions during the training workshop done in Hanoi and Bangkok for Vietnamese delegates working in various health organisations: Le Tuan Pham, Tien Van Tran, Mai Oanh Tran, Nguyen Khanh Phuong and Van Minh Hoang.
- Participants of the training course for developing a roadmap to HTA in Vietnam: Cao Ngoc Anh, Nguyen Anh Thang, Vu Thanh Nam, Tham Chi Dung, Duong Huy Luong, Vu Huy Diep, Nguyen Dang Hong, Nguyen Tuan Anh, Le Van Duy, Vu Van Chinh, Le Thi Hong Minh, Vuong Lan Mai and Dao Thi Ngoc Lan.
- Available literature (Mastushima & Yamada, 2013) (Somanathan, et al., 2013).

## 4. Shortlist of Countries

### 4.1. Shortlisting process

After reviewing the data synthesis from the quantitative indicators and qualitative mapping summaries, we identified a shortlist of four countries for a potential iDSI practical support project: **Indonesia, Myanmar, Ghana, and South Africa**. The shortlisting process is illustrated in Figure 11.

**Figure 11. Flow of country shortlisting process.**



Among the 17 longlist countries, we excluded the 9 countries that had already established formal priority-setting institutions and thus less potential for generating new impact through an iDSI practical support project, and were lower among BMGF and DFID strategic priorities. These comprised all of the sampled LAC countries, Thailand alongside three other Asian countries (China, Philippines, and Vietnam) that had recently established national HTA institutions. These three countries have also been receiving NICE International or HITAP support, and we shall be drawing on these cases more widely to inform iDSI.

We further excluded four countries based on low feasibility during the timeframe of the iDSI practical support project (summer 2014 through December 2015): Kenya, Malawi and Uganda. In these countries iDSI partners did not have existing links with senior policymakers. In the case of India, despite NICE International's history of engagement at

ministerial level, the recent formation of a new government meant that an entry point for iDSI was likely to remain unclear until late 2014.

The four countries remaining in the shortlist were Indonesia, Myanmar, Ghana, and South Africa. In all four countries, an iDSI practical support project would likely be feasible during the grant period:

- BMGF or DFID were already providing or prioritising support in building health systems capacity (and in some cases there are clear opportunities to leverage support from other funders and development partners).
- iDSI partners had existing engagement and working relationships with high-level decision makers.
- The key stakeholders have all articulated an interest in establishing priority-setting for UHC with the support from iDSI and its partners, and therefore iDSI practical support is likely to receive political backing.
- In all four countries, an iDSI practical support project would be highly likely to add value in terms of significant within-country impact, as well as economies of scale within and across regions.

For each shortlisted country, we present our analyses of potential entry points for an iDSI demonstration, and statements of intentions from key decision makers as follows.

#### **4.1.1. Indonesia**

Indonesia is an LMIC that has enjoyed dramatic economic growth in recent years. A consequence of this economic development is that NCDs have now surpassed communicable diseases as a major cause of death. At the same time, Indonesia is graduating from GAVI Alliance support such that it will eventually have to decide the coverage of and pay for its immunisation services. Within this broad context of increasing demand for quality healthcare and decreasing external resources, the government of Indonesia has committed to the introduction of the world's largest UHC programme through a single NHIP for its 250 million citizens by 2019. Establishing robust mechanisms and technical capacity for priority-setting in order to sustain efforts towards UHC will be both crucial and challenging.

An iDSI practical support project could facilitate both institutional capacity building (e.g. supporting MoH policymakers in transitioning from current HTA working group arrangements to institutionalising an independent HTA commission), and technical capacity building (e.g. providing training for technical staff within MoH and academic groups on evidence-based medicine and health economics).

This support could achieve significant economies of scale, first, in terms of impact within the large population and the biggest economy in ASEAN, and second, because the experiences could be highly transferrable to other GAVI graduating countries, as well as potentially to other Islamic nations (such as those in the Middle East) along the UHC journey. There may for instance be interventions or public health programmes that are context-specific to Islamic communities. Working with Indonesia could add considerably to our understanding of the religious and cultural components in the political economy of priority-setting.

Furthermore, collaboration with Indonesia would also add value for iDSI, given that no iDSI partner has previous working relationships with Indonesia on priority-setting and HTA.

Indonesian policymakers have expressed a clear political will in establishing formal priority-setting mechanisms. NICE International (through the Rockefeller-sponsored Joint Learning Network and more recently, through AusAID) and HITAP have been engaging in preliminary discussions with senior members of the Ministry of Health and other key stakeholders (including WHO representatives in Jakarta) since early 2012. In addition, in May 2014 Indonesia has formally co-sponsored the 67<sup>th</sup> World Health Assembly Resolution on Health Interventions and Technology Assessment (World Health Organization (WHO), 2014c). Likewise, HITAP is currently working closely with the Programs for Assessment of Technology in Health (PATH), who receive some funding from BMGF, to bring the first HTA workshop for Indonesian policymakers in summer 2014. Thus there is arguably significant traction among our Indonesian counterparts in working with iDSI partners in developing and institutionalising HTA. Further evidence for this is suggested by the comments of the experts interviewed:

*"It is the right time since we are building an HTA organization in our office. Looking forward [to] further cooperation between NICE and MoH of Indonesia." Email communication with Prof Akmal Taher, Director General of Health Care, Ministry of Health of Indonesia (May 2014)*

*"We in Indonesia will be most welcome to be assisted by NICE and HITAP in developing and implementing HTA. I enjoyed how you and your team developed, worked and negotiated with related parties." Email communication with Prof Ali Ghufron Mukti, Vice Minister, Ministry of Health of Indonesia (May 2014)*

Additionally, BMGF has contributed actively in Indonesian healthcare since 2013, coinciding with its graduation from GAVI, through Global Fund contributions, partnerships with and matched funding from the Tahir Foundation (Indonesian philanthropic venture). In April 2014, BMGF pledged US\$40 million, matched by Tahir Foundation and partners, to establish the Indonesian Health Fund. This could imply a greater need for local priority-setting mechanisms serving stakeholders at all levels, and iDSI is well placed to support these.

Finally, AusAID is a major player in supporting health systems strengthening in Indonesia. Debbie Muirhead, Senior Advisor of Health (AusAID Jakarta) has expressed a specific interest in NICE International and HITAP providing expertise to Indonesia, in order to develop HTA as part of health systems strengthening (personal communication, May 2014). There may be potential for iDSI to leverage AusAID support.

#### **4.1.2. Myanmar**

As the only LIC on our shortlist, Myanmar has persistently had one of the lowest per-capita spending on health in the world (at less than 1.8% of GDP in 2012), with the lowest proportion of government expenditure. Inequitable access to healthcare and overall poor quality of care, reflected by MDG indicators in maternal and child health, remain key challenges. As a response, the Health Minister, Prof Pe Thet Khin, is committed to the introduction of UHC by 2035 and government expenditure on health has doubled over the past few years (Grundy, 2012).

In order to achieve and sustain the goals of UHC, the MoH recognises the need for developing a primary care benefits package, and it is crucial that this is evidence-informed through HTA. Nevertheless, there is a shortage of local technical capacity in health economics, and there is no process for translating evidence into government policy, thus this rarely happens. Meanwhile, external development agencies (international government agencies and NGOs) currently contribute 6% of total health

expenditure, and ongoing political and economic reforms are yet opening up an influx of vertical healthcare funding and programmes. Therefore, the MoH of Myanmar could benefit from robust, evidence-informed priority-setting mechanisms to co-ordinate and prioritise international support alongside its own investments.

HITAP has a long and good relationship with the government through supporting their development of maternal and child healthcare. For instance, HITAP completed a programme evaluation of the Community Health Initiative (a voucher scheme) (Ministry of Health Myanmar, World Health Organization (WHO) and Health Intervention and Technology Assessment Program (HITAP), 2010), with GAVI support.

Similar to Indonesia, Myanmar co-sponsored the 67<sup>th</sup> World Health Assembly Resolution on Health Interventions and Technology Assessment (World Health Organization (WHO), 2014c), and the MoH has articulated clear interest for broader and deeper engagement with HITAP and partners. The Department of Health Planning, led by Dr San San Aye, has already requested HITAP support for HTA training focusing on assessment of public health policy and interventions.

“Of course [iDSI] is really very important and Myanmar would like to participate. Myanmar [is] facing many challenges for evidence-based data for policy decision making... We, the MoH [are] looking forward to [collaboration] with HITAP and NICE International.” *Email communication with Dr San San Aye, Director (Planning), Department of Health Planning, Ministry of Health, Myanmar (May 2014)*

An iDSI practical support project led by HITAP could take a two-pronged approach: supporting the MoH in developing a rational benefits package (with HTA being an important tool), alongside the development or adaptation of evidence-based clinical guidelines in identified high-priority disease areas tailored to the local policy and clinical context. Both components would ideally involve not only training events on specific procedural or technical aspects of priority-setting and HTA, but more importantly ‘learning-by-doing’ through collaboration with local policymakers, healthcare professionals and academics.

NICE International and HITAP have a positive track record in adopting this approach in our recent Rockefeller-funded practical support project with Vietnam. We have early successes in engaging with key decision makers and supporting them in introducing a stakeholder-led, evidence-informed quality improvement process, and in the institutionalisation of HTA processes within the MoH with the wider involvement of Vietnamese academic institutions. A similar top-down policy context in Vietnam suggests that our model has a good likelihood of success in Myanmar.

Myanmar is a high-priority country for both BMGF and DFID. DFID chairs the 3MDG panel, and has expressed an interest in involving NICE International and HITAP in supporting the MoH in strengthening the institutional mechanisms and technical capacity for evidence-informed priority-setting:

“We had been trying to find a time... to come to Myanmar to initiate discussions with MoH regarding health research and how to get evidence into policy. I am pleased to say that we met with the Health Minister this week and he was extremely warm and welcoming on this initiative.

In particular, he mentioned the need for a process to: (1) Make better use of research in Myanmar, (he estimates that only 10% of research is used in policy), and (2) contextualise evidence based practise including development of guidelines.

This might slightly change how we go about doing things. In particular to show interest, I am wondering what the chances are of someone from NICE/LSHTM [London School of Hygiene and Tropical Medicine] coming to do a short workshop on evidence based practice, to open the discussion ...” *Email communication with Billy Stewart, Team Leader Basic Services/Senior Health Advisor, DFID Burma; Chair of 3MDG*

With a public healthcare system that is as yet a ‘blank slate’, the potential for positive impact on the population health of Myanmar could be substantial, and iDSI can provide support to the MoH in introducing robust evidence-informed priority-setting mechanisms as the essential foundations for sustainable UHC. The lessons from a practical support project could also be transferrable to other LIC settings, especially those with low public health spending, strong donor presence and a government commitment to UHC.

#### **4.1.3. South Africa**

The only upper-MIC in our shortlist, South Africa also has a highly unequal society. South Africa has, together with Seychelles, the highest level of inequality in the world measured through the Gini coefficient (65.02) (The World Bank, 2014a). The overlapping and tiered health system with multiple financing and delivery mechanisms exhibits similar inequity: approximately 20% of the population absorbs 80% of total healthcare expenditure. Another main characteristic of the South-African health system is the “quadruple burden” of HIV and TB, maternal and child mortality, NCDs, and injury and violence (Department of Health of the Republic of South Africa, 2011a). In this context, the government intends to reach a single National Health Insurance scheme by 2025 with the goal of UHC. There is thus both tremendous need for and potential impact from more explicit and comprehensive coordinated priority-setting mechanisms, with equity and sustainability as core objectives, in ensuring healthcare resources are targeted at the most deprived population groups.

Priority-setting (including consideration of aspects of HTA and related analytic tools) at the NHI level currently occurs within three separate committees for essential medicines, pricing, and essential equipment. There is also considerable priority-setting activity among other agencies in the public, private, academic and NGO sectors, although some initiatives such as PRICELESS SA have the support of the National Department of Health (NDoH). A key challenge for the NDoH will be to coordinate and integrate priority-setting efforts and capacity, driving economies of scale and impact across both public and private sectors (Garrison, et al., 2012).

“We believe that there is an urgent need for international collaboration both between middle income countries as peers as well as the more advanced economies so as to ensure that we maximise the effectiveness of our available resources.” *Questionnaire response from Gavin Steel, Chief Director, NDoH (April 2014)*

Both BMGF and DFID have a strong presence in South Africa. NICE International have been engaging with senior stakeholders at regional and national levels in South Africa since a Ministerial visit to London in 2012. However, given that the PRICELESS SA group at the Wits School of Public Health has established political backing, technical capacity, and regional partnerships, they would be well placed to lead on a priority-setting project with limited iDSI support. iDSI partners could support technical training events tailored to the specific needs of South Africa, for instance, equity considerations (drawing on University of York’s expertise on distributional cost-effectiveness analysis), and the procedural, technical and practical aspects of establishing evidence-based public health interventions (drawing on NICE’s experience in developing public health guidelines, and implementation and costing tools for local governments in England).

“South Africa stands on the brink of the introduction of UHC for its citizens, a vision facing considerable challenges in terms of health care needs, escalating health expenditures, persisting inequities and a deeply fragmented historical context, all of which pull resource allocation in opposing directions.

In this context the need for well researched, evidence-based and well-communicated priority-setting for policy-makers and health care providers will be paramount to the success of sustainable achievement the nation’s health objectives, which include equitable delivery and health outcomes.

While pockets of cost-effectiveness research and implementation exist in the country there is as yet no overarching framework for priority-setting using the technical, methodological and process tools necessary to apply such work practically to the health system and the development of the UHC package which has been envisaged.

PRICELESS SA is well positioned within the Witwatersrand School of Public Health (WSPH) and the South African Medical Research Council (MRC)/ Wits Rural Public Health and Health Transitions Research Unit (Aginccourt), with an interdisciplinary approach and experience in focused areas of research to gain from, and contribute substantially to, the development of procedural and technical expertise in LMICs, as well as further developing the network capabilities between ourselves and similar institutions in other countries.

The engagement between these established units and the iDSI will prove invaluable to the common goals shared by South Africa, the iDSI and its funding agencies.” *Statement from Prof Karen Hofman, PRICELESS (May 2014)*

Finally, as South Africa is relatively advanced among SSA countries in terms of priority-setting capacity and academic reputation, a practical support project with iDSI input could generate significant economies of scale within the region, and potentially for other upper-MICs grappling with inequity whilst aiming for UHC.

*“I am seeing an increasing number of students in my pharmaco-economic courses from countries such as Botswana, Swaziland, Zimbabwe, Zambia etc who are thirsty for this knowledge and are taking this back to their work environments.” – Questionnaire response from Jacqui Miot, Gauteng Province Pricing and Therapeutics Committee; Lecturer, Wits University (April 2014)*

#### **4.1.4. Ghana**

In this LMIC the objective of providing equitable access and financial coverage for basic healthcare for all citizens has been directly approached through the implementation of the NHIS in 2003. Nevertheless, in 2013 the NHIS has achieved only 36% coverage of the total population with high pharmaceutical expenditure (currently over half of total health expenditure). At the same time, the generous NHIS benefits package, with no explicit positive or negative list, has increased concerns about NHIS’ affordability and sustainability. In addition, although the MoH has produced STGs in stakeholder committee-led processes, consistent implementation of STGs has remained a challenge. The government recognises these challenges, and consequently, has set out quality improvement whilst containing costs. Major healthcare reforms are now underway, including in provider payment mechanisms (moving towards capitation) and the STGs development process. Reforms will undoubtedly also need to address current gaps in terms technical capacity for priority-setting (with only a small number of health economists in universities) as well as issues around data availability.

“Setting priorities and using resources effectively is becoming increasingly important for the Ghanaian health system as it seeks to improve quality of care and ensure financial sustainability, whilst simultaneously increasing coverage. Ghana already has strong institutions dedicated to the purchasing and provision of healthcare, and working with iDSI



would complement and strengthen policymakers' existing efforts in using evidence and social values to inform the setting of priorities, making decisions better and more defensible." *Statement from Patricio V. Marquez, Lead Health Specialist, World Bank Africa Region (May 2014)*

NICE International has engaged with the health authorities in Ghana since an early scoping visit in 2009. Examples are the series of exchanges with major stakeholders on various platforms (such as the Rockefeller-funded Joint Learning Network), and a more substantive scoping visit in late 2013 (by NICE International and HITAP) with the support of the World Bank regional office in Accra and funding from the Rockefeller Foundation. Additionally, NICE International is continuing discussions with Ghanaian colleagues to plan work to support evidence-informed priority-setting in health policy and practice, and specific activities for a NICE International-led/iDSI practical support project:

- The development of a roadmap for institutionalising HTA, particularly within the context of NHIS listing and delisting decisions
- The development of evidence-informed quality standards along pathways of care for high-priority conditions; these can be built into payment incentives for capitation, with the aim of driving the uptake of STGs and quality improvement.

An iDSI practical support project in Ghana could leverage significant support from the Rockefeller Foundation, the World Bank and potentially DFID Ghana. Furthermore, some African governments and international donors see the NHIA as a model for UHC across SSA; support from iDSI could therefore generate significant opportunities to share learning within the region. Given the existing substantial funding support from the Rockefeller Foundation however, the best use of iDSI resources may be for us to contribute marginally in Ghana and draw lessons from NICE International's ongoing engagement and experience in capacity building, whilst investing in practical support in another country.

## 5. Conclusion

The four countries on our shortlist vary in terms of economic performance, with one LIC (Myanmar), two lower-MICs (Indonesia and Ghana) and one upper-MIC (South Africa). All four countries are aiming towards UHC and are at different stages of the journey, but policymakers in all four countries share a common vision of increasing the role of public financing and provision of healthcare, with explicit priority-setting recognised as a crucial means of ensuring provision of and access to high quality healthcare is sustainable and equitable. In all four countries, we have identified significant economies of scale that could be generated either regionally or across other jurisdictions with similar socioeconomic or cultural contexts, as a result of iDSI support in capacity building.

The four shortlist countries have different levels of readiness for priority-setting in terms of institutional and technical capacity, and thus have different needs and potential benefits from iDSI support. Ghana has strong institutions and needs to focus on strengthening technical and data capacity. South Africa potentially has both institutional and technical capacity, which needs to be consolidated among different stakeholders in the private and public sectors. Indonesia is moving rapidly in order to realise its vision of UHC by 2019, and has a pressing need to build upon existing institutional and technical capacity specifically for priority-setting. Finally, Myanmar requires extensive support in building both institutional and technical capacity, but the marginal gains from strengthened priority-setting are probably the greatest in this country, given the 'blank slate' of the healthcare landscape and the aligned commitment of the government and iDSI funders.

Myanmar also stands out among the shortlisted countries in that donor-led healthcare investments are significant and likely to increase, and which would particularly benefit from robust priority-setting mechanisms. This could provide important lessons that may be transferrable to other LICs, with similarly high donor involvement, a group of countries that have received relatively less attention in terms of international support for priority-setting efforts.

## **ANNEX 1. Template for IDSI priority-setting mapping**

[Country Name]

### Sources

Papers, reports, interviewees (job roles and level of seniority)

References:

### Overview

Issues to cover: What is the landscape in terms of healthcare provision and payment? Who decides on healthcare resource allocation? What is the position in the country's journey towards UHC?

### The demand side of priority-setting

Issues to cover: What is the level of political commitment? Who articulates demand for priority-setting? What priority-setting products are demanded? What is the structure for commissioning such products?

### The supply side of priority-setting

Issues to cover: Who has the capacity to deliver the technical aspects of HTA/priority-setting? Who has the capacity to convene these technical agencies? What are the institutional and legal arrangements for implementing the recommendations from HTA/priority-setting? Who has the technical capacity to quality assure?

### Potential to benefit from priority-setting

Issues to cover: What is the potential to benefit given journey to UHC, health system, etc.? How could priority-setting improve efficiency, equity, quality and access? To what extent would 1) decisions, 2) the processes and structures for decision-making be transferrable?

### Conclusions

Possible options in terms of building capacity in priority-setting, especially in relation to iDSI Objective 5: potential institutional counterpart(s); possible topics/policy priorities to address in a pilot; early assessment of capacity and data likely to be available to support us locally; early assessment of likely implementation frameworks (legally binding directions? education/work with professionals? etc.)

## ANNEX 2. Mapping of priority-setting and HTA: Questionnaire

This has now been published on the iDSI website ([http://www.idsihealth.org/knowledge\\_base/idsi-priority-setting-questionnaire-v1-0/](http://www.idsihealth.org/knowledge_base/idsi-priority-setting-questionnaire-v1-0/) ).

Details of respondent

Name	
Country	
Organisation	
Role	

### Acknowledgements

This questionnaire builds on an earlier questionnaire, jointly developed by Health Intervention and Technology Assessment Program (HITAP) and NICE International ("Situation analysis of HTA Introduction at national level", November 2013) for the purposes of a health technology assessment (HTA) training workshop in Hanoi, Vietnam.



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*Preferred citation: NICE International (2014) Mapping of priority-setting and HTA: Questionnaire. Version 1.0. NICE, London.*

## *Background*

NICE International is conducting a mapping exercise of priority-setting capacity in low and middle income countries, as part of the international Decision Support Initiative (iDSI, [www.idsihealth.org](http://www.idsihealth.org)) funded by the Bill and Melinda Gates Foundation and the UK Department for International Development. We shall use a range of data sources, including this questionnaire, to inform the mapping exercise.

## *Aims*

As a potential stakeholder in healthcare spending decisions, we would like to seek your understanding of the priority-setting context in your country.

## *Objectives*

The questionnaire will assess:

- The level of political commitment for priority-setting in your country
- The potential for the country to benefit from explicit priority-setting processes, and for economies of scale in running priority-setting-processes
- Current and potential future capacity to develop and implement priority-setting products.

## *Instructions*

Please complete all 15 questions.

## *Definitions*

**Priority-setting** is the process by which resources are allocated in health, i.e. deciding how to organise the healthcare system and what healthcare interventions to pay for.

- Priority-setting is always happening in practice, whether decisions are being made explicitly by the policymaker/payer (e.g. Ministry of Health defines an essential drugs list through a transparent and scientific process), or implicitly elsewhere in the health system (e.g. clinicians prescribing drugs that generate the greatest personal profit)
- Explicit, deliberative priority-setting should ideally involve systematically summarising information about the clinical, social, economic and ethical issues relating to the organisation of the healthcare system and use of healthcare interventions.
  - This involves encompassing both procedural principles (e.g. transparency, minimising interference from vested interests, involving local stakeholders in decision-making), and applying technical methods / analytic tools appropriate to the level of decision being made (e.g. operations research; HTA to assess cost-effectiveness of individual interventions).

**Priority-setting products** are the outputs of explicit, deliberative priority-setting processes. Examples of such products might include:

- Systematic literature reviews and meta-analysis (e.g. Cochrane reviews)
- Developing or adapting clinical guidelines, including cost-effectiveness and budget impact considerations

- Evidence-informed clinical quality indicators
- HTA analyses (e.g. cost-effectiveness analysis, budget impact analysis)
- Redesigning basic package / essential drugs list
- Operational and health systems research

## Questionnaire

### Institutional aspects

1. In your country, is there a central agency responsible for priority-setting and HTA? If yes, please state their name.
2. What is the institutional structure of this priority-setting / HTA body?
  - Department or unit within Ministry of Health
  - Department or unit within another public sector body
  - Standalone public sector institution
  - Other academic or research institution
  - NGO (non-governmental organisation)
  - Private sector
  - Other \_\_\_\_\_
  - Don't know
3. At the policymaker level, what is the current status of priority-setting recommendations? Please describe.
  - Advisory (e.g. Ministry of Health uses the findings of HTA and other analyses to help them make healthcare spending decisions)
  - Mandatory (e.g. Ministry of Health must follow the findings of HTA and other analyses in making healthcare spending decisions)
  - Other \_\_\_\_\_
  - Don't know
4. At the healthcare provider level, what are the current institutional arrangements for implementing priority-setting decisions? Please describe.
  - Advisory (e.g. hospitals and clinicians may use EDLs to guide the treatments that they provide) \_\_\_\_\_
  - \_\_\_\_\_
  - Mandatory (e.g. by law, or in order to be reimbursed, hospitals and clinicians have to provide a treatment specified on EDL) \_\_\_\_\_
  - \_\_\_\_\_
  - Other \_\_\_\_\_
  - \_\_\_\_\_
  - Don't know

Health policy decision making

5. To your knowledge, what is the relationship between health policy decisions at the central government level to decision-making at the local level (for instance, within a province or state)? Please describe. \_\_\_\_\_

6. What is the role of each of these stakeholders in your country's healthcare spending decisions? Please name the agencies and individuals where possible, and you may select more than one option.

- Ministry of Health \_\_\_\_\_
- Priority-setting / HTA body \_\_\_\_\_
- Other central government body \_\_\_\_\_
- Government health insurers \_\_\_\_\_
- Private health insurers \_\_\_\_\_
- Other academic or research institution \_\_\_\_\_
- External donors \_\_\_\_\_
- NGO (non-governmental organisation) \_\_\_\_\_
- Public healthcare providers (e.g. public hospitals) \_\_\_\_\_
- Private healthcare providers (e.g. private hospitals) \_\_\_\_\_
- Clinicians \_\_\_\_\_
- Professional organisations (e.g. medical associations) \_\_\_\_\_
- Patient and carer organisations \_\_\_\_\_
- Pharmaceutical and devices industry \_\_\_\_\_
- Don't know

Demand side of priority-setting

7. Who pays for the development of priority-setting products in your country? You may select more than one option; and please name the institutions/individuals where possible:

- Ministry of Health \_\_\_\_\_
- Priority-setting / HTA body \_\_\_\_\_
- Other central government body \_\_\_\_\_
- Government health insurers \_\_\_\_\_
- Private health insurers \_\_\_\_\_
- Public healthcare providers (e.g. public hospitals) \_\_\_\_\_
- Private healthcare providers (e.g. private hospitals) \_\_\_\_\_
- Don't know

8. Is there a formal process for deciding what priority-setting products will be

developed? If yes, please describe. (e.g. who selects the topic to be covered by a clinical guideline)

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9. Who establishes the rules and processes by which technical agencies should follow when developing priority-setting products?

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Supply side of priority-setting

10. What institutions (including departments within the government or health system, and advisory or research institutions) are responsible for developing priority-setting products? What kind of work have they been conducting?

Institution	Type of priority-setting product

11. Which of the following stakeholders are involved in developing priority-setting products:

- Ministry of Health \_\_\_\_\_
- Priority-setting / HTA body \_\_\_\_\_
- Other central government body \_\_\_\_\_
- Government health insurers \_\_\_\_\_
- Private health insurers \_\_\_\_\_
- Other academic or research institution \_\_\_\_\_
- External donors \_\_\_\_\_
- NGO (non-governmental organisation) \_\_\_\_\_
- Public healthcare providers (e.g. public hospitals) \_\_\_\_\_
- Private healthcare providers (e.g. private hospitals) \_\_\_\_\_
- Medical doctors \_\_\_\_\_
- Other clinicians and allied health professionals (e.g. pharmacists, nurses, psychologists) \_\_\_\_\_
- Professional organisations (e.g. medical associations) \_\_\_\_\_



- Patient and carer organisations \_\_\_\_\_
- Pharmaceutical and devices industry \_\_\_\_\_
- Don't know

12. What are the current arrangements for the quality assurance/peer-reviewing of priority-setting products? Please describe. (For example, an HTA agency may have in-house technical staff to quality assure the analyses produced externally by universities.)

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13. In terms of developing or quality assuring the technical aspects of priority-setting products, where do you see the need for further capacity to be developed?

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Economies of scale in priority-setting

14. Has your country adopted or adapted priority-setting processes, products or decisions from other countries? Please describe. (e.g. adopting the drug reimbursement decision of a neighbouring country with similar socio-economic circumstances; or adapting an international clinical guideline to local circumstances)

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15. To what extent do you see health policy decisions in your country influencing that in neighbouring or otherwise similar countries (i.e. in social, economic or political respects)? Please describe.

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## **ANNEX 3. Guide for semi-structured interview for the mapping of priority-setting readiness**

### *Aim*

To assess the demand, need and capacity for priority-setting in LMICs.

### *Objectives*

- To assess the level of political commitment to priority-setting (“demand”).
- To assess the potential for the country/state to benefit from priority-setting, and for economies of scale (“need”).
- To assess current and potential future capacity to deliver, quality assure and implement (enforce) priority-setting (“capacity”).

### *Method*

Key policymakers from LMICs will be individually interviewed in a semi-structured format. This is anticipated to be an open discussion, guided by the following questions to cover all three main themes (demand, need and capacity).

The interviewer will explain that for the purposes of this interview:

- Priority-setting is defined as the process of systematically summarising information about the clinical, social, economic and ethical issues relating to the organisation of the healthcare system and use of healthcare interventions, in order to allocate scarce healthcare resources in a rational manner.
- Priority-setting encompasses both procedural principles (e.g. transparency, minimising interference from vested interests, involving local stakeholders in decision-making) and technical, analytic methods (e.g. for searching and assessing clinical evidence, and conducting health economic evaluations).
- Thus the work involved in priority-setting encompasses both technical work (e.g. conducting clinical and cost-effectiveness analyses as part of HTA; other kinds of analyses such as operations research), and efforts to uphold the procedural principles (e.g. recruiting committees to interpret the analyses and make recommendations, stakeholder consultation).

### *Framework of themes and possible questions*

#### Demand

- Who articulates the demand for priority-setting, including the technical work and efforts to uphold procedural principles?
- What is the current structure for commissioning HTA-PS work (both technical and procedural aspects)?

#### Need

- What are the key strengths of your country/state’s health system in fulfilling a commitment to Universal Health Coverage (UHC)? Where do you see the key challenges?
- Where do you see priority-setting adding value, in terms of improving the efficiency, quality or equity of health resource allocation?

- To what extent do you see decision-making in your healthcare system influencing that in neighbouring countries/states?

#### Capacity

- What institutions (including departments within the government or health system, and advisory or research institutions) are responsible for conducting the technical and procedural components of priority-setting work?
  - What kinds of priority-setting work have these institutions delivered? Please give some specific examples relating to technical aspects (e.g. specific health economic evaluations; recommendations to benefits package; clinical guidelines) or procedural aspects (e.g. convening an advisory committee).
  - What is their technical capacity (in terms of expertise, resources, and ability to develop further capacity)?
- What are current arrangements for quality assuring priority-setting work?
- What are the current institutional and legal arrangements for implementing the recommendations arising from priority-setting work?

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