BILL & MELINDA GATES foundation

Grant Proposal Narrative

This is a proposal shaping document and not a commitment by the foundation to fund the work.

General Information	
Proposal Title	iDSIplus: Strengthening and scaling countries' institutional capacities to make better decisions for health
Investment Duration (Months)	60

Proposal Details

1. Executive Summary

Provide a brief summary of the investment.

The international Decision Support Initiative (iDSI) will continue to grow and consolidate a global platform for realising value for money in healthcare spending. We shall work together with low- and middle-income country (LMIC) governments and global development funders to create lasting, country-owned institutional capacity for evidence-informed priority-setting and investing in the most cost-effective and equitable priorities for better population health.

iDSI*plus* will build on the track record and legacy of the global iDSI network, whose core partners[1] comprising government agencies, thinktanks and academic institutions have a decade of experience in institutionalising and capacity-building for evidence-informed priority-setting in LMIC health systems. Thanks to iDSI support, 7 LMICs have made tangible institutional progress towards the embedding of health technology assessment (HTA) into national health priority-setting, health benefits package (HBP) design and listing, and commodity procurement for universal health coverage (UHC), including: **South Africa**, **Ghana**, **India**, **China, Philippines, Indonesia** and **Vietnam.** iDSI has also contributed to early progress in influencing HBP design through legislation and foundational convening of national committees in **Kenya**, **Tanzania, Zambia,** and **Bhutan**. Our influence, impact and trust among LMIC and development partners is evident from the numerous letters we have received (see Appendix) in support of iDSI's funding renewal.

Our vision for iDSI*plus* is a flourishing network and a global resource for LMIC governments, payers, and development partners to enhance value for money in global health – leading to more cost-effective, equitable and sustainable resource allocation and guidance that will translate into higher quality healthcare coverage, reduced financial impoverishment for households, and ultimately better health and more lives saved.

In the next 5 years, iDSIplus will work with policymaker counterparts to embed evidence and good governance into domestic investment decisions at national and subnational levels in our flagship countries **Kenya, South Africa, Ghana, India**, **China –** which have transitioned or are due to transition from Gavi and Global Fund for AIDS, TB and Malaria (GFATM) assistance **–** and beyond through our *regional hub* strategy for scaling up and diffusing on of impact in Sub-Saharan Africa (SSA). iDSI*plus* will help countries to develop sustainable mechanisms for effective, evidence-informed priority-setting, and this will involve mobilising a wide range of capacities among country stakeholders[2] – not only the technical capacity to "do" research in economic evaluations. Our *practical support* may include, for example:

- sharing of real-life examples by our Thai and Chinese government partners, of using HTA to enhance health system efficiency and equity towards sustainable UHC, with senior LMIC client policymakers on a peer-to-peer level;
- giving tailored guidance on how to operationalise transparent and accountable HTA institutional structures and navigate political economy challenges within the country's context;
- training and coaching to local technical and research teams to generate robust HTA evidence which can then inform policy, and in doing so strengthening their capacity to generate as well as translate knowledge.

We shall also enhance and contextualise our *knowledge products* and global knowledge platforms on health economics and other disciplines related to evidence-informed priority-setting, particularly with the SSA audience in mind - for instance using innovative models such as massive open online courses (MOOCs) to deliver our *What's In, What's Out* guide to HBP design. This will help to diffuse knowledge and build capacity at scale, across and beyond SSA.

iDSIplus will help countries achieve:

- More efficient and equitable allocation of government and spending on health, projected to reach $89bn by 2020 in SSA alone

[1] Currently: Center for Global Development (CGD); Global Health and Development Group, Imperial College London (GHD; the team formerly known as NICE International); National Health Foundation (NHF) and Health Interventions and Technology Assessment Program (HITAP), Thailand; Priority Cost Effective Lessons for System Strengthening South Africa (PRICELESS SA), Wits University School of Public Health; and China National Development and Research Center (CNHDRC)

[2] Li R, Ruiz F, Culyer AJ *et al.* Evidence-informed capacity building for setting health priorities in low- and middle-income countries: A framework and recommendations for further research [version 1; referees: 2 approved]. *F1000Research* 2017, **6**:231 (doi: 10.12688/f1000research.10966.1)

- More and more equitable access to cost-effective, good quality care under UHC for the total population in the above geographies projected to reach 4.6bn by 2030
- Timely adoption of good value technology and innovation in pharmaceuticals markets that will be worth over US$257bn across Africa, China, and India by 2022[3]

At a time when aid initiatives in emerging markets are being scaled down, sharing and diffusing iDSI's global expertise is a low cost means of supporting the development of Southern centres of excellence so that countries can focus their transition on smart spending.

Describe the charitable purpose of this work by completing the statement "This grant will be used [to …]." Please limit to one sentence, begin with "to" and do not include a period at the end. Example: "This grant will be used [to fund new schools and assist other organizations in the design of new schools]"

This grant will be used to reinforce a global platform for realising value for money in healthcare spending, working together with LMIC national governments and global development funders to create lasting, country-owned institutional capacity for evidence-informed priority-setting and investing in the most cost-effective and equitable priorities for better population health

2. Problem Statement

Describe the problem, why it is a problem, and who is impacted by the problem. What specific elements of the problem is this investment trying to address?

The most cost-effective health interventions produce as much as 15,000 times the benefit as the least cost-effective. In sub-Saharan Africa, less than US$4 out of every US$100 in public budget monies go to the health maximizing intervention or technology. Up to US$2.8tn spent annually on healthcare is said to be wasted.[4] This means that hundreds, thousands, and even millions of deaths are a direct result of our inability to allocate according to maximum health gain. Although public budgets are set to grow, if we fail to reverse inertial and wasteful resource allocation by governments, we will squander most of the value of the additional resources available, or end up funding highly cost-effective interventions in an *ad hoc* and funder-dependent way.[5]

Decisions that result in the cost-effective allocation of scarce public monies for health will ultimately determine whether LMIC governments can rapidly improve health. In the absence of robust processes to assess the comparative costs and benefits of health interventions for public funding, such decisions are prone to be driven by inertia and lobbying rather than science, economics, ethics, and the public interest. Many more lives could be saved, health equity enhanced, and potential financial impoverishment for the poor averted, by reallocating public and funder monies toward the most cost-effective and equity-enhancing health interventions and technologies.

Yet too many LMIC health systems lack the tools and institutional mechanisms to prioritise the interventions and products that generate the most health for the money. This will involve mobilising among country stakeholders a wide range of capacities[6], which include: the technical capacity and methods to generate and weigh up economic and other relevant evidence, articulate opportunity costs, and make informed choices; the policy mechanisms to ensure that cost-effective interventions are routinely assessed and funded; and the robust, accountable institutions and transparent governance processes to manage conflicting interests and to directly, routinely influence budgets, resource allocation, and purchasing in healthcare.

Decisions made without following sound principles of explicit priority-setting – even well-intentioned guidance offered by global development partners influencing those decisions – can have real negative consequences for health systems:

- The World Health Organization (WHO), in its 2013 HIV guidelines, gave a 'strong' recommendation for the widespread adoption of viral load monitoring (VLM) for people on antiretroviral therapy (ART), mirroring a model of care now used in high-income countries. This was despite no randomized controlled trial having conclusively shown that VLM improves health outcomes compared to existing, less expensive alternatives[1]. WHO's own modelling showed that continued scale-up of ART would deliver 6 times the health gains of adopting VLM at prevailing costs[1].
- **Tanzania**'s 2013 National Essential Medicines List, NEMLIT included bevacizumab (Avastin) for cancer treatment, despite NICE having rejected its use in England and Wales for lung, ovarian, breast, and colorectal cancers on cost-effectiveness grounds. The UK's total health expenditure per capita was 40 times that of Tanzania in 2015 (PPP international dollars, WHO Global Health Expenditure Database).
- **Malawi** has had an HBP, the Essential Health Package (EHP), since 2004 and which was revised in 2011. However, its aspirational nature, exacerbated by the use of disease burden criteria and arbitrary cost-effectiveness thresholds in intervention selection, meant that the EHP was chronically underfunded and essentially unaffordable. Large coverage gaps for basic low-cost and highly cost-effective interventions remained, and existing healthcare inequalities were exacerbated. Conversely, around 20% of district-level expenditures have been on interventions outside the EHP[1].

iDSI will directly address the weakness in priority-setting methods, capacity and processes, and respond to demand for knowledge diffusion and translation, bridging the disconnect between evidence and the policy decisions that drive allocation of public and external funder monies across LMICs.

Sub-Saharan Africa: a changing health and development landscape

Challenges stemming from inefficient resource allocation are particularly stark in Sub-Saharan Africa (SSA), with growing pressures on public health systems as the population is projected to grow from 1.03bn in 2016 to 1.4bn by 2030. Economic and sociodemographic changes (including a growing urban poor and expanding middle-class) are contributing to increasing non-

[3] Mckinsey and Company: "Africa – an opportunity for Pharma and Patients UNIDO 2018"
[4] WHO World Health Report 2010
[5] As in Good Ventures' funding to buy amoxicillin in Tanzania
[6] Li R, Ruiz F, Culyer AJ *et al.* Evidence-informed capacity building for setting health priorities in low- and middle-income countries: A framework and recommendations for further research [version 1; referees: 2 approved]. *F1000Research* 2017, **6**:231 (doi: 10.12688/f1000research.10966.1)

communicable disease (NCD) burdens alongside skyrocketing demand for all kinds of healthcare and products, at the same time as donor funds are being withdrawn from all but the poorest of countries. And whilst there is a continuing surge in Africa's healthcare spending, from US$28.4bn in 2000 to $117bn in 2012, the effectiveness of this spend is questionable with predominantly private out-of-pocket (OOP) spending on the rise especially as funders depart. For example, the healthcare commodities market has undergone particularly dramatic growth, at an estimated 9.8% compound annual growth rate between 2010 and 2020 (5-fold higher than the US or EU markets) but the bulk of spending comes from private and highly fragmented sources, leading to gross inequalities and inefficiencies. The availability of private market services and products also drives pressure for coverage and reimbursement of the same kinds of interventions – many of dubious clinical efficacy – with public monies.[7]

Many SSA countries are introducing national health insurance schemes for UHC, and looking to a greater role for both public and private provision of healthcare. This need will accelerate imminently as LMICs transition from external aid. By 2022, 24 countries are projected to be undergoing simultaneous transitions from external financing, including BMGF focus countries **Kenya** and **Nigeria**, while **Ghana** and **Zambia** will have exceeded Gavi eligibility by 2020[8]. Such countries will have to make extremely difficult decisions on how best to integrate and finance previously donor-funded technologies and health services into their UHC packages, identifying and balancing tradeoffs among competing health priorities and ensuring that high-quality, affordable access to healthcare can be provided to the population in a way that is equitable and financially sustainable.

There is an urgent need for ministries of health and finance across SSA to build the required institutional capacity - where generating and using research evidence to articulate tradeoffs and inform decisions becomes the norm - in order to set cost-effective priorities in their health planning and health benefit package (HBP) design, and make sustainable investments in their health systems.

Making every dollar go further

Thanks to the support of the Foundation and others (including the UK Department for International Development [DFID], the Rockefeller Foundation, and the Wellcome Trust), iDSI has established a track record of helping countries develop sustainable capacities and mechanisms for effective priority-setting, for example by sharing with policymakers international examples of how HTA can be used to enhance health system efficiency and equity and providing guidance on how to operationalise HTA institutional structures witin the given policy context; and providing technical training and coaching to local research teams to generate HTA evidence which can then inform policy. Our work has paid off – in countries as diverse as **China**[9], **India**, **South Africa**[10] and **Ghana**[11], national policymakers are institutionalising HTA[12], developing the frameworks to connect analyses to product and service selection, procurement, price negotiations, and decisions on the uses of health budgets. In **China** and **India** alone, where iDSI has respectively contributed the introduction of HTA into the Essential Medicines List and the first national HTA analysis (intraocular lens for cataract surgery) to inform listing on the National Health Protection Scheme ("ModiCare"), our work will affect access to services and commodities for a potential 2.8bn people, over one-third of the world's population.

As global funders shift strategic focus to LMICs in Africa, the challenge is to replicate and scale the operations and impact of iDSI to a new and dynamic environment with very different contexts to some of the middle-income Asian countries where iDSI has been engaging in the past 5 years, and to ensure that LMICs can sustainably transition from aid and develop impactful health systems..

Lands of opportunities

The solution has to be found within Africa and the countries themselves. From iDSI's early scoping, we know that there is a potential wealth of talent in health economics and other disciplines necessary for evidence-informed priority-setting, currently spread across SSA but which is not strongly coordinated[13]. With support from the Foundation, iDSI proposes to scope out and establish a minimum of two SSA regional mechanisms that will build a critical mass, in turn plugging into policy and providing responsive, demand-driven locally relevant technical expertise and data. This will build countries' predominantly government-owned capacities to translate knowledge and evidence (including BMGF-global public goods such as those by Disease Control Priorities (DCP) and the Institute of Health Metrics and Evaluation [IHME]) into real decisions positively impacting people's lives.

Public health system capacity alone is insufficient to meet growing demand and enable UHC in SSA. The healthare industry, with growing markets for private healthcare payers and providers across Africa, could be the catalyst to unlock more efficient, equitable, effective healthcare coverage for millions of citizens. However the realities and pitfalls of unregulated, unpredictable healthcare markets, as recently highlighted by the Competition Commission in South Africa, require an enabling environment for fairer and more stable markets which would incentivise genuine good value innovations. iDSI, drawing on HTA and its UK NICE experience of almost 20 years in engaging with the healthcare industry, is ready to help shape markets and potentially scale up alongside African-wide health technology and regulatory mechanisms. (see Appendix: Use case for the private sector)

At 5 years old, iDSI is at a critical crossroads. The investment by the Foundation into building lasting national institutions that translate evidence into policies is beginning to bear fruit. However institutionalisation requires time and sustained investment: in Africa, regulatory harmonisation has yet to generate a streamlined approval process and the Africa Medicines Agency has only recently been announced almost 20 years after NEPAD's establishment in 2001. Without further funding, five years since the first BMGF grant on the iDSI Reference Case for economic evaluation, there is a risk that fledgling HTA and evidence-informed policy ecosystems will

[7] Glassman, Amanda, Ursula Giedion, and Peter C. Smith, eds. *What's in, what's out: designing benefits for universal health coverage*. Brookings Institution Press, 2017

[8] Kallenberg, Judith, Wilson Mok, Robert Newman, Aurélia Nguyen, Theresa Ryckman, Helen Saxenian, and Paul Wilson. "Gavi's transition policy: moving from development assistance to domestic financing of immunization programs." *Health Affairs* 35, no. 2 (2016): 250-258.

[9] In 2017, HTA-based criteria were introduced into the National Reimbursement Drug List China which resulted in up to 70% price reductions in key high-cost drugs

[10] Newly established National Health Insurance fund budgeted in the 2018-2021 Mid term budget review for HTA to analyze the cost-effectiveness of health interventions

[11] In May 2018, the Ghanaian government signed the Aide Memoire cementing the role of HTA in optimising drug procurement and supply chains for UHC

[12] HTA is the systematic evaluation of health interventions, quantifying and comparing their tradeoffs in terms of costs and health benefits, as to inform resource allocation decisions. HTA is used by agencies to refer both to the policy process and to individual cost-effectiveness analyses.

[13] Doherty, Jane E., Thomas Wilkinson, Ijeoma Edoka, and Karen Hofman. "Strengthening expertise for health technology assessment and priority-setting in Africa." *Global health action* 10, no. 1 (2017): 1370194.

regress in emerging markets such as **South Africa** and **India –** and health resource allocation will fall back to *ad hoc,* inefficient, unfair, and driven by perverse incentives. Worse even, HTA agencies may survive not as a technocratic facilitator but as a bureaucratic hurdle that delays or blocks the uptake of high-value healthcare innovations and discourages private investment.

How iDSIplus will serve the global health community

We believe the only way forward for the global health community is to move beyond a piecemeal, projectised approach to research, advocacy, and knowledge sharing events, which we believe to be counterproductive to global health goals. Without ongoing connections to budget decision-makers and payers, the global development community will be trapped in the same vicious circle of crowding out public spending with external funding, and failing to set up sustainable systems to influence resource allocation towards best value for money for health. Instead, we propose to use iDSI as a platform to engage with multiple BMGF-funded and other initiatives, plugging and diffusing global knowledge into practice through policy mechanisms that are country-led and country-owned. These initiatives include:

- disease- and technology-specific initiatives, e.g. Tufts' Global Health Cost Effective Analysis (GH-CEA) registry, HIV/TB/malaria modelling consortia;
- data and indicator generation and evidence synthesis, e.g. Global Health Costing Consortium and Access and Delivery Partnership [ADP], both of which have memorandums of understanding with iDSI; as well as IHME Global Burden of Disease, DCP, UCL Dashboard;
- recently launched capacity building work (e.g. Strategic Purchasing African Resource Center [SPARC] and Primary Health Care Performance Initiative [PHCPI]); and
- networks, e.g. Joint Learning Network for UHC (JLN) with the World Bank (WB)

This will be necessary in order to realise our vision of a truly grand convergence for transitioning LMICs – coordinated, national-level reforms to build and implement a comprehensive and affordable UHC package including bringing together personal and public health, NCDs and Millennium Development Goals (MDGs). The latter is of particular importance as PEPFAR, Gavi and other global funders move on and leave behind little legacy by way of country-owned governance, data or analytical capacity. The gap is huge, the demand real and articulated by senior local actors (see Appendix: Letters of Support).

How does it all fit together, where is the knowledge, experience and learning centralized? How consistent are the approaches across entities? And the ultimate test: who will be at the frontline and accountable for the process and decision of whether a transition country keeps or discards a previously donor-funded activities? There is a core knowledge generation and management issue, and the need for data and models and reference cases to be consolidated and made public. We are nearing a time – with the multiple replenishments and aid transition arrangements at stake, where a simple and clear ask of countries will need to be made with respect to future investments in public health. Many interventions will fall off the list given budget constraints, and the criteria for deciding what's in and what's out should be based at least in part on maximizing health outcomes given the budget available (and on how big that budget should be). The global health community is not currently organised to provide a joined-up offer. iDSIplus can help articulate and deliver that joined-up offer.

Through our proposal we set out a sustainable route to *scaling up* the activities across SSA through regional hubs, working closely with local institutions and national governments, to *sustaining* them through leveraging multiple donor funds whilst strengthening countries' own capacities to transition from external assistance, and with a view to establishing a *business function* for iDSIplus to attract private sector as well as government funding where appropriate.

3. Scope and Approach

Describe the scope and approach of the proposed work. This should be a narrative description of the principal results the investment would achieve and how those results relate to the problem described above (rather than a list of outcomes and outputs.) Note: You will provide a list of outcomes and outputs in the Results Framework.

Overview

The international Decision Support Initiative (iDSI), through the proposed iDSI*plus* grant, will serve as a strategic linchpin for the global health community on resource allocation, maximising impact across disease areas and assuring that:

- **Capacities to generate and use evidence** are developed among global development partners and national governments
- BMGF investments act as a catalyst, **empowering LMICs themselves to invest** in key cost-effective global health priorities
- The **efforts of development partners** such as WHO to improve LMIC policy decisions are more efficient and effective, drawing on iDSI as a technical resource to work with national priority-setting institutions
- Global funders' offerings and **transition arrangements** support the most cost-effective use of funds available
- Research (from R&D to implementation research) attends to **cost-effectiveness and affordability** considerations using standard criteria such as the iDSI Reference Case
- All efforts **connect with and respond to LMIC governments' policy** processes and local realities, and progress towards UHC.

Over the next 5 years, iDSI*plus* will apply the principles, values, methods and expertise of iDSI, as well as from BMGF-funded and other relevant global knowledge, in LMICs anticipating or entering epidemiological and financing transitions. We envision two broad types of country: *flagship countries*, where there is clear unmet demand from policymakers for evidence-informed priority-setting and local capactities that could be utilised to meet this demand and potentially consolidated into *regional hubs* to serve demand in neighbouring countries; and *scale-up countries* where demand is less clearly articulated and that stand to benefit from our global and regional hub activities,

In the 5 *flagship countries,* **Kenya**, **South Africa, Ghana**, **China**, and **India**, our engagement will serve not only as an end but also as a means to create global public goods, including data, methods and tools that will be diffused to our *scale-up countries* across SSA. We shall build country-owned sustainable institutions and governance mechanisms, with a view to testing our approach to scale and sustainability through networks and iDSI *regional hubs* in **Eastern** and **Southern Africa**, where we shall convene, consolidate and build on local and regional capacity. This will enable iDSI to provide 'boots on the ground' presence to respond to domestic demand, as well as South-South and government-to-government collaboration serving other Africa Team focus countries.

The power of iDSI is in its ability to bring people together, mobilising global and national expertise and building lasting relationships in a country-led priority-setting process with direct links into national governments and payer organisations. We provide **demand-driven practical support** that is sensitive to local contexts, plugged into local policy and politics, and responsive to a country's changing needs as it makes progress. This will go far beyond a "fly-in/fly-out" approach that characterises traditional consultancies. As part of scaling up, countries that may be "less ready" for HTA will require more intense engagement on the ground, in order to capitalize on windows of opportunity to stimulate demand with key influencers and to ensure that substantive relationships, mutual trust and local capacity can be built. There is no one-size-fits-all solution, and iDSI will sequence and combine a variety of approaches as required (Table 1).

Our approach to country practical support[14] will involve:

- Dialogues with country stakeholders to diagnose the problem and need, and help them articulate their demand through targeted advocacy efforts
- Mobilising in-country government and other partners, by forming partnerships with and working through trusted local institutions who understand the context and can bring together relevant policymakers and researchers to work jointly on HTA-related activities, and through bidirectional staff placements (iDSI staff in country; and LMIC staff among iDSI core partners)
- Developing the technical, organizational, convening, and fundraising capabilities of those local partners, such that as they can sustainably serve domestic demand alongside regional hub functions
- Regionalising resources where economies of scale and scope can be built (e.g. evidence generation and synthesis) whilst maintaining our bespoke, hands-on country-by-country approach to national policy decisions and governance mechanisms.

What are the core principles underpinning a strong evidence-informed priority-setting mechanism?

Independence. There should be strong and enforced conflict of interest policies.

Transparency. Analyses, decisions, decision criteria and rationale for individual decisions should be made public and accessible.

Inclusiveness. There should be wide and genuine consultation with stakeholders, and a willingness to change decision in light of new evidence

Scientific basis. There should be strong, scientific and economic methods and reliance on critically appraised evidence and information

Timeliness. Decisions should be produced in reasonable timeframe; minimise delays in publishing decisions

Consistency. Same technical and process rules should be applied to all cases

Regular review. Decisions and of methods should be regularly reviewed.

[14] Examples of past iDSI experience can be found in Tantivess S, Chalkidou K, Tritasavit N and Teerawattananon Y. Health Technology Assessment capacity development in low- and middle-income countries: Experiences from For he international units of HITAP and NICE [version 1; referees: 2 approved]. *F1000Research* 2017, **6**:2119 (doi: 10.12688/f1000research.13180.1)

Table 1. iDSI's flexible resourcing model for a range of country engagement modalities.

Typically lower resource requirements Less embedded				Typically higher resource requirements More embedded
Country visits (e.g. workshops, high-level policy dialogues) *Kenya: Training workshop on HTA for HBP Advisory Committee* *Ghana: Convening iDSI/HTAi and MOH joint event 'Setting Priorities Fairly' for awareness raising among broad stakeholders*	**Series of country visits** (e.g. targeted workshops on specific projects) *India: HTA capacity-building workshops over 9 months for State officers, connected to local HTA decisions*	**Regional or country hub** *Thailand: HITAP providing practical support to SEARO and WPRO countries* *Kenya: KEMRI-WT with strong links to government and policymakers, and nascent engagement with Uganda*	**Embedded country-based consultant** *India: Full-time Delhi-based consultant providing rapid response to DHR and MOHFW, instrumental to the establishment of HTAIn*	**Core partnership directly with MOH (with commitment of MOH resource)** *China: Core partner CNHDRC is the official thinktank of the National Health Commission, potential provider of South-South expertise under Belt and Road Initiative*
Remote coaching on specific projects with regular virtual meetings, complemented with country visits *Tanzania: Providing technical input into streamlining of National Essential Medicines List*	**Face-to-face coaching** on specific projects *Indonesia, Vietnam: Intensive support by HITAP to local research teams on HTA studies and HBP review*	**Institutional twinning** with country-based partner *Vietnam: OUCRU as local delivery partner for quality standards with a strong hospital network and MOH links*	**iDSI full-time staff based over 50% of their time in-country** *South Africa: Placement of iDSI Secretariat senior adviser to assist in business plan development for NDoH HTA Unit*	**iDSI country office** *Potential option for future iDSIplus scale-up strategy, subject to funding*
Hosting study visits including direct engagement with senior policymakers in host nations (i.e. Thailand, China, UK) *China: Annual People-to-People dialogue at health minister level through UK Foreign and Commonwealth Office, and visits to learn about PHC and integrated care in the NHS, NICE, etc.* *Vietnam: Visits to Thailand's HITAP and NHSO to learn about evidence-informed strategic purchasing*	**Hosting placements / internships at iDSI partner institutions** *Indonesia, Vietnam, Philippines, South Africa: Technical officers from health ministries and HTA agencies enrolled at Mahidol University Masters/PhD programme and some as interns at HITAP*		**Partnership with organisations that have country offices and in-country networks** *Partnership with CHAI in Ethiopia, South Africa, Zambia, and potentially beyond; work with ODI fellows*	

Our *knowledge products* in the form of global public goods drawing on a range of disciplines and grounded in the need for research to inform priority-setting decisions in LMICs, make our practical support more robust and country-relevant. We shall develop innovative ways to tailor and apply our flagship knowledge products such as the *iDSI Reference Case* and the *What's In, What's Out* guide to HBP design in SSA countries, contributing to and synergising with the WHO's global guidance efforts where relevant. We shall build on and utilise global knowledge platforms, including our electronic platforms such as *Guide to Economic Analysis and Research (GEAR)* and *iDSI Knowledge Gateway* with F1000, networks such as African Health Economics and Policy Association (AfHEA) and HTAsiaLink, and global policy forums such as the Prince Mahidol Award Conference (whose themes for the next 5 years will focus on UHC), with an emphasis on cross-country and cross-regional capacity building and knowledge diffusion. Exploring such themes as routinely collected data, real world evidence, and Big Data analytics will inform future iDSI country engagements with the potential to enable African nations to leapfrog existing HTA systems in their trajectories of development.

Reaching scale

Seeded in all country engagement will be the South-South partnership capabilities approach, with a view to creating a "NICE International" or "HITAP International Unit" in every major flagship country partner. We see the seedlings of this in:

- **China,** where iDSI core partner CNHDRC have established an HTA network of 33 provincial authorities, and are firming their position as a development partner for Africa in health priority-setting, as an element of the Belt and Road initiative;
- **India,** with its hub-and-spokes model with HTAIn at the Central level, and core teams established in technical or academic institutes in 7 States across the country[15], some which are providing technical assistance to State health insurers; and

South Africa, where through earlier iDSI work **Tanzania** and **Zambia** have both embedded HTA and economics in their budding priority setting processes. The *Regional hubs* section outlines our vision for a Southern Africa and an Eastern African iDSI hub. These hubs would continue to support these initiatives in their regions.Strategic collaboration with global and regional partners will be critical to enhancing our scale of influence and impact, geographic and technical scope, and crowding in funding sources beyond BMGF. An important new partnership will be with the Norwegian Institute of Public Health (NIPH). As the Norwegian government's agency conducting systematic reviews and HTA for the Norwegian health system, NIPH will significantly strengthen iDSI's ability to make a

[15] https://dhr.gov.in/sites/default/files/eNewsletter/img/HTAIn/HTAIn10-01-2017.pdf

meaningful contribution through initiating joint work in **Ghana** then potentially in other countries, and open the possibility of leveraging future Norad funding.

At a time when aid initiatives in emerging markets are being scaled down, sharing and diffusing iDSI's global expertise is a low cost means of supporting the development of Southern centres of excellence so that countries can lead their transition to smart spending.

Grant objectives

The scope of activities will comprise two core programmatic areas, **Country Engagement** and **Knowledge Products (**Figure 1**)**. The two programmatic areas will be synergistic, such that our country engagement will be informed by existing and new iDSI knowledge products (e.g. the iDSI Reference Case) and at the same time valuable global public goods may arise from the country work. The cross-cutting **Knowledge Transfer and Exchange (KTE) and Advocacy** component will feed into and support both programmatic areas, enhancing knowledge translation, dissemination, diffusion, as well as targeted demand generation in our scale-up countries.

All activities will be underpinned by well-established and proven project management processes and a fit-for purpose governance arrangement.

Figure 1. iDSIplus programmatic areas.

Country Engagement

Institutional strengthening: *Develop institutional capacities and transparent governance processes, enabling maximum health gains and transition from aid*

Smart purchasing: *Empower countries to spend their own budgets smarter and implement more efficient and equitable health benefits packages and delivery platforms, making Universal Health Coverage and SDGs a reality*

Country engagement will be oriented towards achieving two closely interlinked strategic objectives: **institutional strengthening** to develop lasting in-country institutional capacity for evidence-informed priority-setting; and implementing cost-effectiveness evidence for **smart purchasing** for UHC (e.g. evidence-informed health benefits package planning and purchasing). iDSI regional hubs will enable impact *at scale* and ensure *sustainability* beyond donor funding.

Country selection

iDSI's country engagement plans are illustrated in Figure 2 (SSA) and Figure 3 (Asia). *Flagship countries* include a subset of BMGF Africa Team focus countries or where there is local BMGF Country Office presence. The principal criteria for selecting these countries were:

- ones in which we have already identified a clear and significant demand from respective national policymakers
- known local technical capacity to deliver evidence-informed priority-setting support and which could be leveraged to develop iDSI regional hubs with a strong likelihood of success
- the work would continue and deepen existing iDSI engagement, likely to last 3 years or more, and lead to measurable and significant achievements
- political stability.

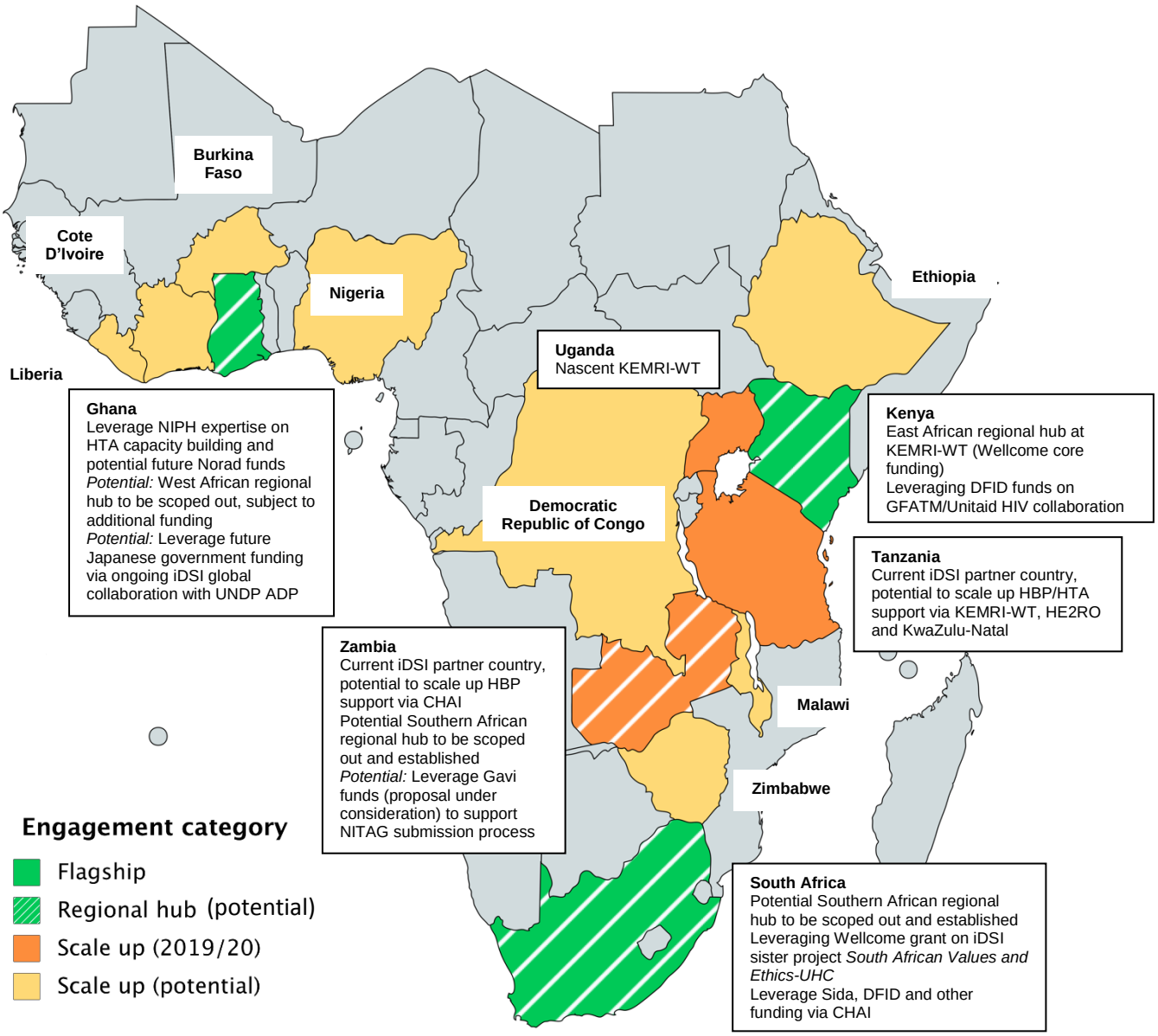

Figure 2. Planned iDSIplus engagement in SSA.

In SSA, we have well established relationships with national payers and the government in all three flagship countries, **Kenya**, **Ghana**, and **South Africa.** We propose to adopt an opportunistic approach to specific activities according to stages of progress towards UHC, shifting political priorities and locally established longer term commitments. These include current urgent government requests to expand quality healthcare coverage through whilst assuring financial sustainability of national health insurance (NHI) schemes. This engagement will aim to evolve the countries' respective HTA systems from early Emergent (where HTA may be conducted *ad hoc* with limited links to policy) to a Developed stage, where HTA would routinely inform policy including in HBP selection and reimbursement, and strategic purchasing and delivery of services (Figure 4). Our engagement in all three countries will aim to build the foundations for regional hubs with sustainable in-country capacity for South-South collaboration.

How does HTA support strategic purchasing?

By definition, purchasing can only be strategic where there is evidence, and a rational process to evaluate that evidence, informing what should be purchased for the given population and at what price.

Clearly HTA can be that process (or at least part of it), as it is the case for instance in UK, Thailand and many countries with mature and well-integrated systems where HTA directly influences pharmaceutical pricing and price negotiations.

The use of clinical guidelines and quality standards developed using HTA principles and processes to generate results-based financing indicators (e.g. Quality Outcomes Framework for PHC, in the UK and in Thailand) is another example.

"HTA is not about devices or medicines only. It is a scientific method for Strategic Purchasing." *Dr Lydia Dsane-Selby, Deputy CEO of NHIA Ghana, at the iDSI/HTAi Setting Priorities Fairly event (September 2018)*

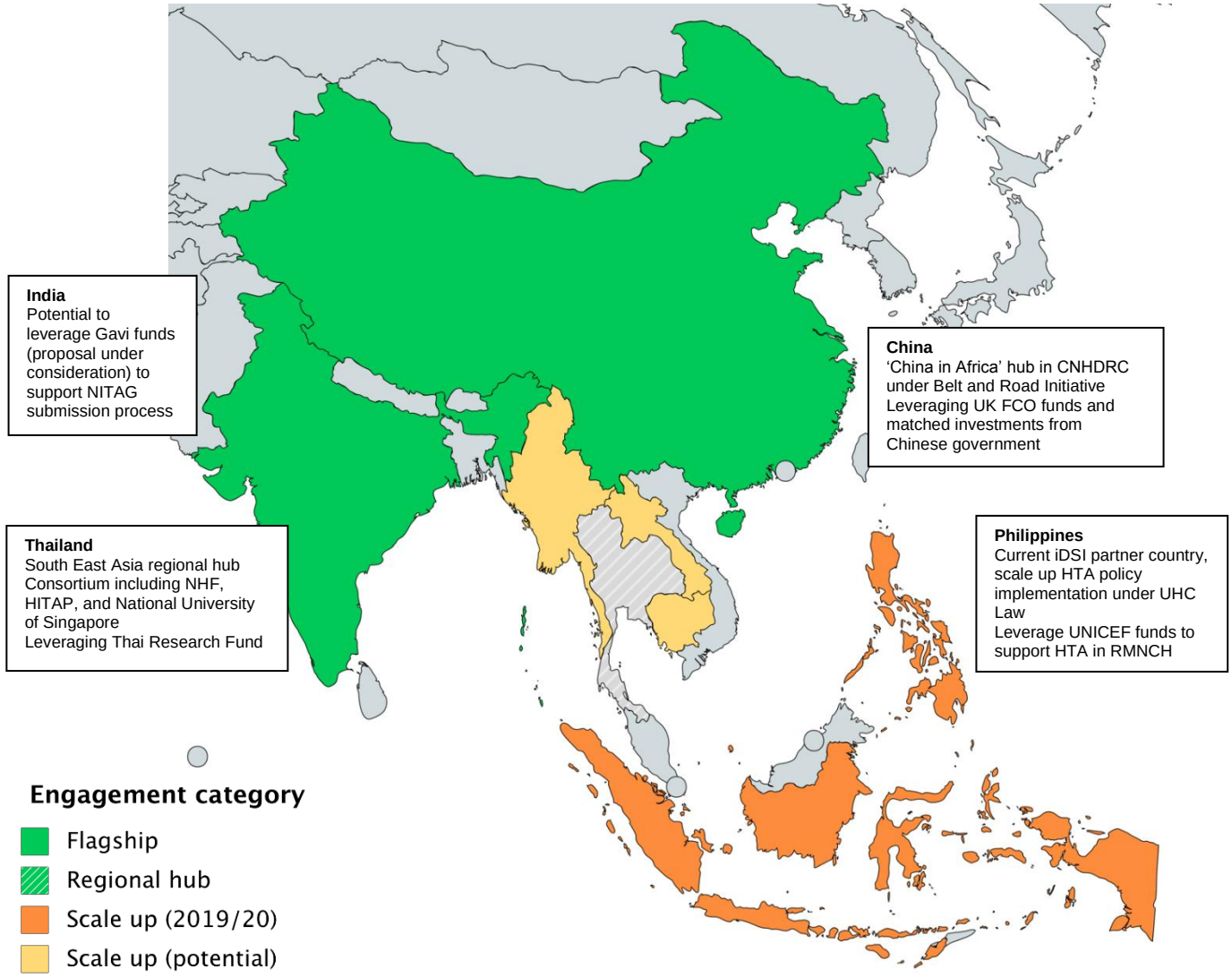

Figure 3. Planned iDSIplus engagement in Asia.

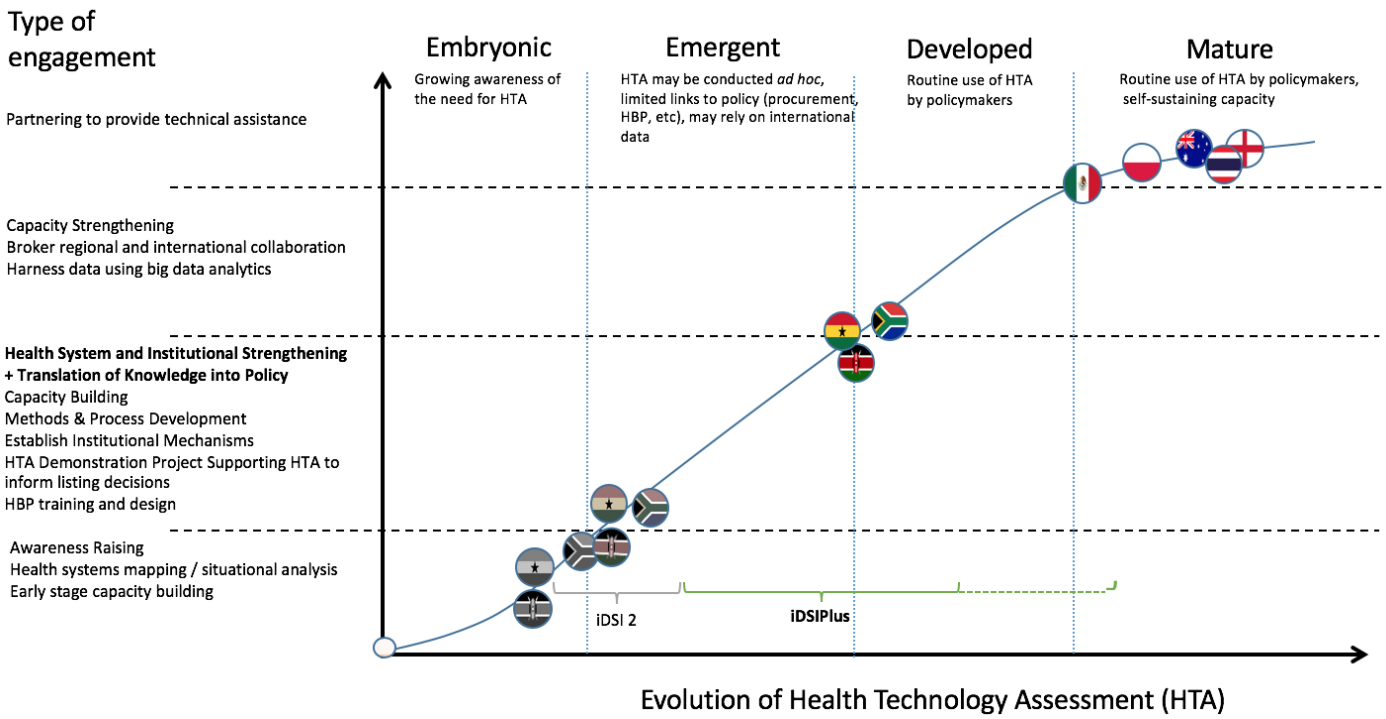

Figure 4. Indicative iDSI activities change as partners countries' HTA institutional capacity evolves.

In Asia, we shall continue our flagship engagements in **India** and **China,** drawing on existing funding from BMGF Country Offices, and potentially the UK Cross-Government Prosperity Fund in the case of **China**. Both are strongly committed to using HTA to inform the direction of UHC, with substantial domestic investment into institutional capacity, and are well on the way to reach a stage of

development in which they are self-sustaining in the main capacities required and our focus can be on the remaining weaker areas and supporting scale-up Figure 4). In addition we shall strengthen the South-South collaborative element for both countries to support SSA, building on **China**'s Belt and Road initiative and BMGF's China in Africa strategy with a focus on development assistance in health priority-setting.

Sequencing of practical support activities

Figure 5 outlines iDSI's typical strategy ("playbook") for engaging with countries based on our past experience. Given our demand-driven country support approach, the selection, timing and sequencing of activities will be flexible, may vary from country to country and will depend on the political context at the time. There is no one-size-fits-all solution and it is not intended to be a linear process. And as iDSI's country practical support adapts over time, we should also see a country making progress on the HTA evolution trajectory (*Figure 4*).

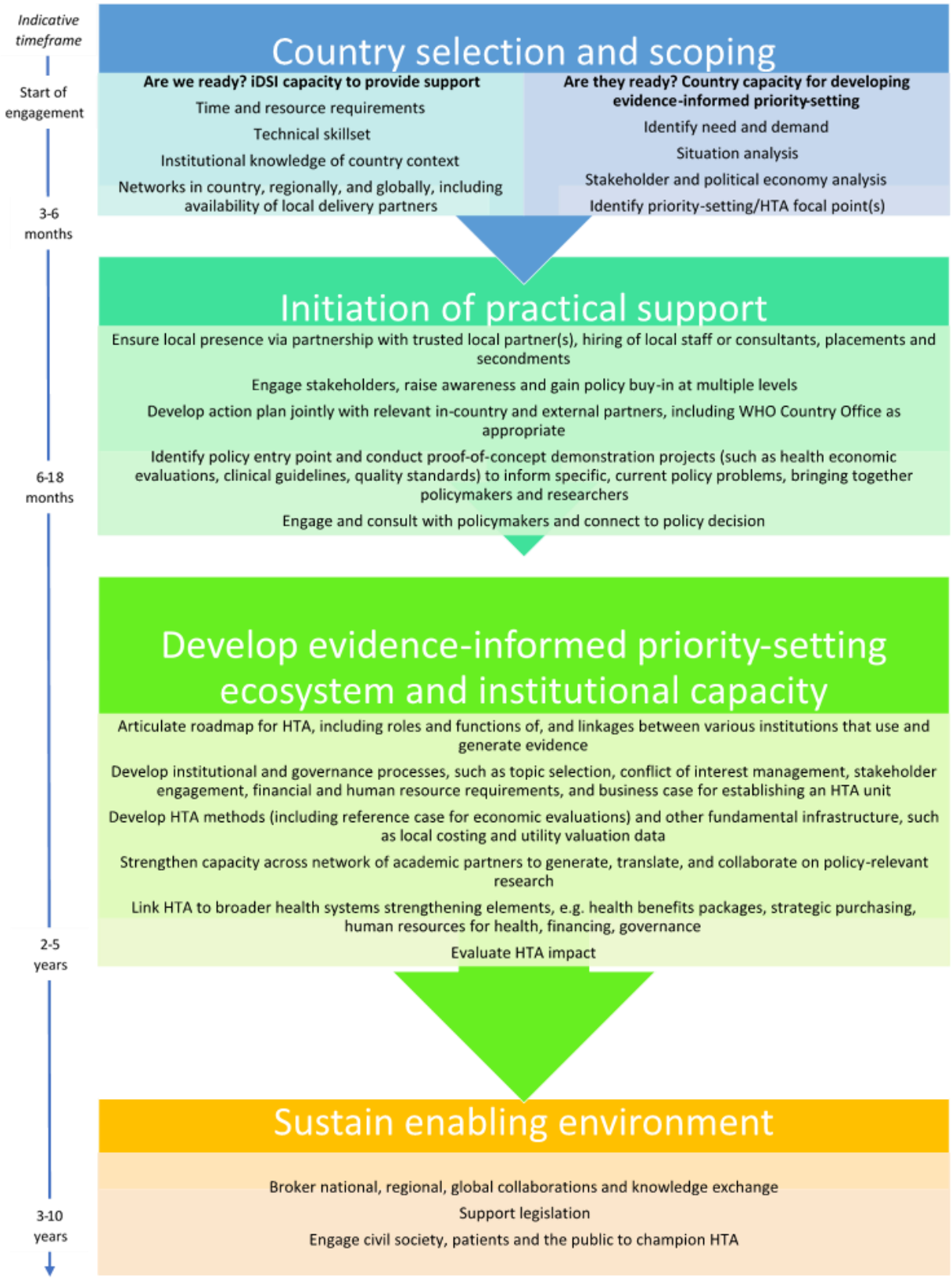

Figure 5. iDSI strategy for country engagement. .

All iDSI engagements have an opportunity cost; that is, financial and human resources committed in one country will not be deployable elsewhere. To ensure that iDSI is making most cost-effective use of resources and to ensure readiness to respond to new, high value opportunities, we propose as part of our playbook to build in a review point, 'When do we walk away?' at the end of year 2 and every 2 years thereafter, unless unforeseen circumstances (e.g. sudden political change) require a more urgent decision. The review point will provide an opportunity for iDSI in conjunction with country partners and the Foundation to take stock and make a strategic decision on next steps.

We anticipate that reasons for exiting will likely include:

- engagement has accomplished its objectives, bringing the project to a natural closure
- engagement has progressed but further engagement is likely to bring diminishing returns, compared to beginning or intensifying an engagement elsewhere
- lack of progress or momentum
- engagement has progressed but country partners request our withdrawal, including where political changes make further engagement untenable

At the outset of all country engagements, we shall build the foundationals for sustainable priority-setting capacity, and expect that the country will eventually 'transition' from iDSI support. 'Exiting' does not preclude future re-engagement if the need arises despite our evident that the country remains independently on course. We propose to structure the grant with shorter-term, repeated contracts with partners to deliver specific activities as necessary, such that if there is a need to exit a country engagement and to pivot elsewhere we retain the flexibility to reallocate budgets across the programme.

HTA institutional development is a complex intervention and will take years, not months. For example, our first engagements with **Ghana** dated from 2012 (as NICE International). We continued with low-intensity visits and exchanges over the years, but it was not until 2016-2017 that a window of opportunity to pursue a joint HTA analysis on hypertension drugs. This catalysed a whole sequence of policy reforms in 2018 cementing the role of HTA into HBP selection, drug supply chain and procurement. With countries like **China**, where we have engaged for even longer and forged a long-term partnership, our Chinese partners including iDSI core partner CNHDRC are now generating significant policy impact as the national governement's trusted technical experts. CNHDRC have been shaping major ongoing health reforms including the institutionalisation of HTA and its embedding into the Essential Drugs List and social health insurance schemes. Within iDSIplus, CNHDRC have great potential to be providers of expertise in their own right under the Belt and Road Initiative across Asia and SSA.

Phasing of country engagements

In the first 2-4 years of the grant, we propose to focus our primarily on the flagship/regional hub countries, including carrying out the necessary preliminary scoping of in-country partners and potential structures for regional hubs (see below). We shall also sustain or, where appropriate, initiate engagement in scale-up countries, including convening policy dialogues to articulate a coordinated and clear ask for relevant stakeholders. By years 4-5, we will expect our regional hubs to begin to ownership of scale-up country engagements.

Flagship countries

Table 2 outlines the objectives for our flagship countries, the current context and opportunities in each flagship country, key stakeholders, as well as potential outcomes that could be scaled up regionally and globally. Indicative activities for achieving those objectives and timeframes are detailed in the Section 11 (*Activities)*.

		Strategic objectives			
	HTA development (current and projected)	***Institutional strengthening***	***Smart purchasing***	***KTE and advocacy***	***Potential for scale and diffusion***
Sub-Saharan Africa					
Kenya ***iDSI regional hub for East Africa*** **Population 48.5m** **Health spend US$70 per capita (5.2% GDP)** **Target date for UHC: 2022**	**2018: Emergent (early)** **2023: Emergent (late)**	Develop framework for institutionalising HTA in the context of national UHC implementation	Support MOH in rationally designing and reviewing the HBP for UHC Develop institutional capacity of the UHC Unit for healthcare priority-setting through proof-of-concept HTA to inform a current policy decision Collaborating with and leveraging funding from global development partners to improve value for money in HIV management and converging NCD and MDG priority setting processes	Facilitate South-South knowledge sharing on HTA, HBP and UHC through peer-to-peer senior policy dialogues with Thailand at the request of the Kenyan MoH	Develop KEMRI-WT's capacity as regional hub, and also priority-setting capacity of **Uganda** as its first scale-up country Establish and strengthen African HTA networks and communities of practice through HTAsiaLink connection Generation of knowledge products relevant to GFF, other development partners and SSA countries (especially methods and dat. Proof-of-concept for operationalising GFATM's commitment to value for money, and for working

					with global funders including GFF
South Africa ***Potential iDSI regional hub for Southern Africa*** **Population 52.3m** **Health spend US$689 per capita (9.2% GDP)** **Target date for UHC: 2025**	**2018: Emergent (early)** **2023: Emergent (late) to Developed**	Scope out institutional options for a Southern Africa regional hub. Continue to support the development of a sustainable ecosystem for evidence-informed priority-setting for converging National Health Insurance (NHI) and vertical programmes under UHC.		Convene key players in government, academia and other relevant sectors in policy dialogue, to articulate roadmap for operationalizing HTA in NHI decision-making. Convene stakeholders to plan the development of a regional hub.	Strong technical and research capacity and policy influence; ideal spearhead for HTA regionalisation, research funding generation, and capacity strengthening NHI will be one of Africa's largest health insurance experiments with lessons for federal states **Kenya** and **Nigeria**, and how HTA could add value to private sector Generation of knowledge products relevant to GFF, other development partners and SSA countries.
Ghana ***Potential iDSI regional hub for West Africa*** **Population 25.4m** **Health spend US$75 per capita (4.7% GDP)** **36% NHI coverage achieved in 2013**	**2018: Emergent (early)** **2023: Emergent (late)**	Develop framework for institutionalising HTA, building on existing partnership with MoH, academia and National Health Insurance Authority	Advise the National Pricing Committee (NPC) on pricing, procurement, and reimbursement Strengthen provider-payment mechanisms to increase uptake of good value innovations and improve quality of services		Leverage Japanese government (UNDP/ADP), Norad (through NIPH partnership) and other funding sources, including research funding focused on capacity development Future regional hub as gateway to Gates Africa Team focus countries including **Nigeria**, **Liberia**, and **Sierra Leone**
Asia					
India **Population 1.32bn** **US$63 per capita health spend (3.9% GDP)** **Target date for UHC: 2030**	**2018: Emergent** **2023: Developed**	Strengthen existing mechanisms for embedding HTA into National Health Protection Scheme, building on existing partnerships with the Ministry of Health and Family Welfare (MoHFW), National Health Agency, State governments, and academic institutions	Strengthen institutional capacity of HTA Secretariat and Technical Appraisal Committee to commission, quality assure, and diffuse HTA evidence to inform the EDL, pricing and strategic purchasing, and deployment of health services Build State level capacity with robust mechanisms for uptake of HTA evidence to support State-level priority-setting towards UHC *Gavi-funded activity:* Develop NITAG capacity to use cost-effectiveness and other evidence to inform vaccine selection	Facilitate South-South knowledge exchange and joint initiatives between Indian partners and their international counterparts on the use of HTA for defining HBPs	Large population size Knowledge diffusion between Central-State and State-State levels HTAIn experience transferrable to SSA countries Hub-and-spoke approach adopted by India relevant to large federal systems such as **Kenya**, **South Africa, Nigeria**, **South Africa**
China **Population 1.34bn** **Health spend US$426 per capita (5.3% GDP)** **95% NHI coverage**	**2018: Emergent** **2023: Developed**	Strengthening mechanisms for embedding HTA into the Essential Drugs List, national vaccination programme, and new unified insurance bureau, and building capacity of HTA Centers at Province level	Strengthen policy mechanisms and HTA methods for comprehensively evaluating clinical use of drugs at the national level, from procurement through pricing and reimbursement	Facilitate South-South institutional knowledge exchange with African counterparts in health priority-setting under the Belt and Road Initiative	Large population size China in Africa with technical assistance angle to be a major policy priority for upcoming China international development agency Leverage ongoing bilateral funding support from UK FCO

Table 2. Strategic objectives for iDSIplus flagship country engagements.

Scale-up countries

Scale-up countries are indicative of our diffusion and scale up plans. They involve countries which stand to benefit from regional hub activities, typically where policymaker demand may not yet be clearly articulated, and the HTA ecosystem is likely to be at an Embryonic or early Emergent stage (Figure 4). The engagement will be phased across the grant, initially led by the iDSI Secretariat or co-led with the regional hub, with an expectation that iDSI regional hubs will lead as the grant progresses. The nature of

engagement will at the beginning likely be exploratory (e.g. scoping, demand generation), or otherwise low in intensity. This may include discrete activities in such countries where iDSI is currently engaged, or where iDSI may play a supportive role to other development partners oftentimes also supported by the Foundation (e.g. **Ethiopia**, where University of Bergen is currently intensively engaging with Norad and BMGF funding support, alongside CHAI, IHME and others).

In the initial phase of the grant, we shall scale up existing engagement in **Zambia** and **Tanzania** where iDSI has to date provided light touch support on EML and HBP design for UHC, drawing on new partnerships with CHAI and other major players in Southern and Eastern Africa, and additional funding sources (e.g. Gavi). Through our iDSI East African hub, we shall explore engagement in **Uganda** where KEMRI-WT has a nascent unit with links to Makerere University.

Through our South-East Asian regional hub, a consortium of the National Health Foundation (NHF), Thailand, HITAP, and the National University of Singapore (NUS), we shall also continue iDSI engagement in the **Philippines**, scaling up policy implementation of HTA under the recently passed UHC Law. This will leverage our recently awarded UNICEF grant, with potential synergies to Gates-funded strategic purchasing initiative ThinkWell, and potential global public goods such as HTA methods on NCDs which will be increasingly relevant to SSA.

In addition, using entirely non-BMGF funding, we shall continued providing technical expertise to local teams on HTA policy implementation and MDG/UHC convergence in **Indonesia**, supported through iDSI's Gavi funding proposal and the Japanese government-funded Access & Delivery Partnership led by UNDP (UNDP ADP). UNDP ADP focus countries include **Ghana**, **Tanzania**, **Zambia, Ethiopia** and **India,** and have indicated iDSI as their preferred partner of HTA technical assistance; this is an important potential source of funding for iDSI.

Regional hubs

Central to our responsive engagement approach is having trusted implementing partners sharing iDSI's values and who are able to provide efficient local (in-country and regional) presence and influence key stakeholders. iDSI has tried a range of types of collaboration, including working with:

- non-governmental centres of excellence in-country that attract national and international funding, e.g. the Oxford University Clinical Research Unit (OUCRU) in **Vietnam** for infectious diseases work
- networks or consortia of academic centres within a country, e.g. States of **India** for HTA work, with the Postgraduate Institute of Medical Education and Research (PGIMER) Chandigarh playing an important coordinating function across the HTA network in India.
- regional hubs illustrating real-world examples of HTA influencing policy, and providing capacity building support to the wider region whilst serving domestic policy needs, e.g. the role played by HITAP in **Thailand** and across SE Asia.

In order to scale up their impact and build sustaining capacity to respond to the growing demand for practical support in a greater number of African countries, iDSI regional hubs will over time serve the following functions:

- **Lead and deliver context-specific, responsive practical support** to governments and other partner institutions within the region, and demonstrate policy and ultimately population health impact through implementing evidence-informed priority-setting
- **Diffuse knowledge and scale up impact,** by plugging into WHO country and regional offices; regional policy and economic unions – Southern African Development Community (SADC), East African Community (EAC), and Economic Community of West African States (ECOWAS); pan-African networks (such as Collaborative Africa Budget Reform Initiative, AfHEA, AFREHealth); and global networks (such as HTAi, HTAsiaLink and the JLN/WB).
- **Convene regional networks and collaborations,** with a commitment to form in-country and regional partnerships, and identify potential new client countries
- **Build and strengthen institutional, technical, and informational capacities,** in order to attain a critical mass of priority-setting expertise and allow evidence-informed priority-setting to be self-sustaining
- **Secure and leverage additional funding sources** to ensure long-term sustainability, for instance through bids to HIC global research funders that will buy in staff capacity whilst addressing policy-relevant research priorities

Ideal regional hub institutions will have the following key characteristics:

1. An ability and willingness to mobilise and coordinate multidisciplinary capabilities, as required to fulfill demand, and to bring about a critical mass of expertise. This will be done through strengthening own capacities and through partnerships with other institutions within the country and beyond. This will require suitable leadership and management capacities as well as existing health economics and other technical capacities.
2. Being 'plugged into' policy, with a clear commitment to supporting policy as a priority over academic research. Having strong institutional links to government or other decision-making bodies would be advantageous, and crucially having access to policymakers and the ability (and legitimacy) to influence them
3. Ability to scale up and down operations as required in response to changing demands. This means being able to generate absorb funding and to build, grow and sustain health economics capacity in-house and also tap into a local and regional talent pool.

Given that political contexts, the level and interconnectedness of capacity, and institutional relationships will vary from country to country, we anticipate that regional 'hubs-and-spokes' may take different forms. In one country, an individual centre of excellence (whether academic, governmental, or NGO) may play a leading technical role, whereas in another country a regional hub may have a much more prominent coordination role and working with a consortium of partners with a range of capabilities.

Geographic scope of regional hubs

To date, iDSI has worked in three countries in Southern Africa: **South Africa, Zambia** and **Tanzania**, and developed regional networks and partnerships. Building on this early work, we shall now scope out options for a Southern African hub, potentially in **South Africa or Zambia,** to deliver more intense engagement within Southern Africa. We will also establish a new hub in **Kenya**, serving East Africa. The regional hubs for Southern Africa and East Africa will be scoped out from the outset, providing practical support to countries in the regions during the end, and be self-sustaining by the end of the grant. A potential West African hub will be scoped out towards the end of the grant and subject to additional funding being sourced.

East Africa

- Regional hub base: Kenya Medical Research Institute Wellcome Trust Research Programe (KEMRI-WT), **Kenya**
- Potential geographic scope: selected EAC member states and current KEMRI-WT/Wellcome partners - **Kenya, Rwanda, Tanzania, Uganda;** also **Ethiopia, Democratic Republic of Congo**

KEMRI-WT, a centre of excellence in infectious diseases, evidence-based medicine and health systems and policy research with core funding from the Wellcome Trust, will be a new core partner within iDSIplus. KEMRI-WT have a proven track record of being able to scale up through their academic research, and more importantly having already established country offices in **Uganda** and **Tanzania.** As part of the MORU Tropical Health Network of Wellcome-funded, Oxford-affiliated clinical research units, KEMRI-WT has a strong local capacity-building focus (including an in-house research capacity buiiding programme), an active research portfolio and network (including with the London School of Hygiene and Tropical Medicine and its HIV Modelling Consortium – with whom iDSI is also collaborating), and provides opportunities to leverage Wellcome as well as other philanthropic and research funding sources. Importantly, like its sister units across Asia (including MORU in **Thailand**, which has close links with HITAP, and OUCRU in **Vietnam**) and unlike most traditional academic institutions, KEMRI-WT has strong ties with the MOH and is uniquely plugged into knowledge and policy translation.

As the regional hub for East Africa, KEMRI-WT will provide responsive, locally-relevant practical support and capacity-building to **Kenya** and the broader region. Its unit in **Uganda** has strong institutional links with the School of Public Health, Makerere University, with whom it will be well-placed to scope out potential support on institutionalising evidence-informed priority-setting. iDSI's new core partner NHF and HITAP There is also potential for wider knowledge diffusion via the MORU Tropical Health Network, include its units in the **Democratic Republic of Congo**, **Myanmar**, and **Laos**.

Southern Africa

- Regional hub base: **South Africa or Zambia**, institution(s) to be determined through scoping exercise in year 1 of grant
- Potential geographic scope: selected SADC member states - **Lesotho, Malawi, Mozambique, South Africa, Eswatini (Swaziland), Tanzania, Zambia, Zimbabwe**

In years 1-2, we shall scope out the iDSIplus Southern African regional hub, identifying and selecting suitable candidate partner institutions through a rigorous and competitive process, potentially in **South Africa** or **Zambia**. The hub will play a primary role as a coordinating body, forming a consortium or community of practice that includes academic institutions, NGOs, government and public entities, together providing the skillsets required to support priority-setting across Southern Africa and not currently provided by any existing networks. CHAI is likely to be a major partner given their direct institutional links, significant regional presence and influence in Southern Africa and SSA more broadly, and potential to leverage funding support from Sida, DFID and others.

iDSI began engaging in **South Africa** with PRICELESS SA, an academic unit with technical expertise in health economics and policy influence. Over the past 3 years, PRICELESS has made some progress towards the foundations for an iDSI regional hub, forming links with networks such as CABRI and AfHEA, and begun engaging in **Tanzania** and **Zambia** to introduce evidence-informed principles and methods into EML review and fiscal policy.

In 2017, as NHI reforms in **South Africa** gained momentum and HTA began to receive high-level policy buy-in, there was an unprecedented window of opportunity to influence Africa's biggest health insurance scheme bringing together public and private sectors. iDSI made a deliberate strategic decision in conjunction with the Foundation to intensify our engagement with the domestic agenda. This has by all means been a success, where the Treasury in March 2018 has committed a budget line of 370m rand (US$25.4m) including an as yet unspecified amount dedicated to establishing an HTA unit.

Yet much work remains ahead to help the NDoH to institutionalise HTA and link it systematically to other components of the fragmented health system of **South Africa**. If iDSI is also to deepen and scale up nascent engagements with **Tanzania**, **Zambia** and other countries in the SADC region, this will require mobilising and coordinating a range of capabilities beyond that available to PRICELESS alone. Herein lies an opportunity to use a South Africa-based hub for servicing the demand for evidence-informed priority-setting throughout Southern Africa. For this we shall need from the outset to create a coalition of likeminded partners across Southern Africa through whom the country support will be provided.

We are in discussions with other likely key players among academic institutions (e.g. HE2RO at Wits University where PRICELESS is also based; Health Economics Unit and Division [HEU] at the University of Cape Town; University of KwaZulu-Natal where HEARD and the AFREhealth network resides with significant SSA reach) and government and statutory agencies (e.g. South African Medical Research Council [SA MRC], Human Sciences Research Council; the Council of Medical Schemes (CMS); and the National Health Laboratory Services).

An alternative location for a Southern Africa hub will be scoped out in **Zambia**, where iDSI has developed a strong relationship with the University of Zambia and the MOH, and supported them with policy analysis and HTA capacity-building activites.

West Africa

Subject to additional funding

- Regional hub base: To be determined, but expected to be identified from centres of excellence in **Ghana.**
- Potential geographic scope: selected ECOWAS member states – **Cote d'Ivoire, the Gambia, Liberia, Mali, Niger, Nigeria** (Africa team focus country)**, Senegal, Sierra Leone**

Ghana, currently moving "beyond aid" and committed to HTA as a means of rationalising its UHC offer, has strong research capacity in public health and health economics, and with iDSI's contributions in recent years, an academic community that is increasingly ready to plug into policymaking with policy-relevant research. Building on the momentum of iDSI/HTAi Setting Priorities Fairly event, the National Medicines Policy and Aide Memoire of the Annual Healthcare Summit, we shall identify potential institutional partners, and subject to additional funding begin to scope out the hub structure and functions.

We are in discussions with the MOH, NHIA, and WHO Country Office to identify the ideal location for servicing both domestic and regional needs. A key partner could include the School of Public Health, University of Ghana, which has strong links to MOH and NHIA, and ability to leverage funding from Norad and other research funders. Alternatively, the MOH may set up a dedicated pharmacoeconomics or HTA Unit as our counterpart. Further, we are in the process of signing an MOU with NIPH, and have recently submitted a joint funding proposal (in collaboration with School of Public Health and MOH) to the WHO and Wellcome on strengthening capacity for evidence-informed priority-setting. We shall also engage with the Institute of Tropical Medicine (ITM) in Antwerp, which hosts a community of practice 'Learning for UHC' and is an avenue into Francophone West Africa. ECOWAS was highlighted as another potential networking opportunity with Ghana chairing 6 of the 7 subgroups of the region including regulation and antimicrobial resistance.

Knowledge products

Methods, Processes and Tools: *Co-create global public goods to support LMICs and funders in standardizing, contextualizing and applying approaches to improve value-for-money in health*

Data, evidence, and analytics: *Generate, integrate and deploy policy-relevant data and knowledge to support better decisions at global and national levels*

iDSI has a track record of developing cutting edge, policy-informing global public goods in health economics and other important disciplines for evidence-informed priority-setting. Our most important knowledge products to date include:

- *iDSI Reference Case* which has been adopted and contextualized by government institutions in **India** and **China,** and can serve as a blueprint for national references cases in African nations such as **Kenya**, **Ghana**, and **South Africa**
- *What's In, What's Out* guide to HBP design by CGD, co-developed with LMIC stakeholders and which is now being delivered in different formats such as courses for senior policymakers, e.g. planned for **India** in Q4 2019 as it rolls out NHPS.
- *GEAR*, an innovative global knowledge brokering and rapid response 'matchmaking' platform on economic evaluation. It provides a central resource for LMIC HTA researchers, including hosted guidelines and tools from the Global Health Costing Consortium.

iDSIplus will build on these investments, widening their reach to SSA audiences through coordinated networking and knowledge translation efforts. We shall also continue to make our knowledge accessible to researchers and policymakers in LMICs, through the iDSI Knowledge Gateway, an open access platform in collaboration with F1000 (which also hosts *Gates Open Research*). To broaden our scale and scope, we shall also commit to leverage the iDSI network to submit joint research funding proposals with LMIC institutions to deliver specific policy-relevant academic research activities.

Methods, processes, and tools

Going forward, led by the NHF, HITAP and NUS consortium and CGD, we propose to develop three major knowledge products:

- **Expansion of GEAR with an emphasis on SSA**. GEAR currently has over 400 subscribers of which around 10% (over 40) are researchers from SSA institutions, and there is significantly potential to increase this through concerted advocacy efforts among African HTA communities. Content-wise, we shall build on GEAR's innovative 'mindmap' concept, identifying and providing solutions to technical challenges of HTA researchers and users in African settings.
- **Free, open-access decision analysis software** that will enable researchers in SSA (LICs in particular) to conduct high-quality health economic evaluations, including probabilistic uncertainty analysis as recommended by iDSI Reference Case without being hindered by the prohibitive costs of commercial software
- **MOOC on HBP design** based on *What's In, What's Out*, in collaboration with the Inter-American Development Bank

HTAsiaLink

HITAP and GHD (formerly NICE International) are founding members of HTAsiaLink. Now with over 40 HTA agencies as institutional members, it has generated evident value in scaling, diffusion, and capacity development for HTA across Asia, and sustaining a vibrant regional HTA community focused on generating policy-relevant research.

iDSIplus will continue to strengthen the HTAsiaLink platform. We shall leverage it to translate knowledge among health priority-setting institutions in Asia and Africa, inviting **Kenya**, **South Africa, Ghana** and other countries in SSA to participate in the annual conference and related research activities (e.g. a network wide survey of HTA use in price negotiations and other pricing interventions; proposal submitted leveraging Singaporean research funding). HTAsiaLink can also offer high-level institutional support to SSA regional hubs, with a view to creating an "HTAfricaLink" of budding HTA agencies and academic institutions.

WHO – Total Systems Effectiveness framework

HITAP will work with the WHO Initiative for Vaccine Research on further methodological development and knowledge diffusion of the Total Systems Effectiveness framework for vaccine evaluations, from the perspective of building HTA systems that recognise

opportunity costs and acknowledge the challenges of incorporating vertical programmes. The exact scope of activities will be determined through discussion with WHO and the Foundation.

iDSI will make additional contributions to WHO global public goods on request. We anticipate this to be supported by the WHO-based technical resource to be housed in Geneva funded by BMGF.

Data, evidence, and analytics

A new programmatic area for iDSI, this will seek to bring together global evidence sources such as BMGF-funded data synthesis, optimisation and visualisation initiatives; and also harness the mass of routinely collected eHealth, mHealth and related data across LMICs and SSA in particular, including health and billing datasets from national UHC and NHI programmes, as well as dynamic and geo-accurate data sources such as DHIS.

Two specific knowledge products will include:

- **Comprehensive mapping of SSA economic evaluations** in collaboration with the Tufts' GH-CEA database, which will identify the most prolific and high-quality research institutions and inform our scoping of iDSI SSA regional hubs
- **Scoping of "GEAR for Real World Evidence"**, which will create a dialogue forum and technical resource on the appropriate definition, integration, and political economy of 'real world evidence' and 'real world data' for decision-making in LMICs, including SSA. This will draw on iDSI core partners' experience in HICs such as UK and Canada.

Potential future collaborations, subject to additional funding, could include:

- Drawing on our partnership with NIPH, who have experience of developing and implementing DHIS2 and e-registries in SSA including an active collaboration in **Ghana**
- Leveraging CGD project networks and working with other BMGF grantees (e.g. Zenesys, IHME in **Ethiopia**) engaged in the use or feedback of HMIS2 to decision-makers
- Tapping into the global *learning health systems* community and top AI experts and informaticians, through Imperial's ROAD2H research project with **Serbia** and **China** (CNHDRC). With **China**, one of the objectives will be to set out the informational requirements for a dynamic, 'living HTA' system using national health insurane claims data and thereby inform the China Reference Case.

KTE and advocacy

KTE and advocacy: *Tailor and deliver evidence-informed messages to influence the right audiences to buy into iDSI's model, enabling greater health gains and more value for money*

The overarching goal here will be to gain decision-maker buy-in for iDSI's model to deliver greater health gains and more value for money. We will anchor activities in synergy with our country engagement and knowledge products, including through engaging with global policy forums such as the Prince Mahidol Award Conference to advance countries' commitment to UHC, around five advocacy objectives:

1. *Communicating impact* through the dissemination of readily-accessible research and evidence of the impact and cost-effectiveness of iDSI interventions, drawing from iDSI's Monitoring, Evaluation and Learning (MEL) component.
2. *Positioning iDSI and evidence-informed priority-setting as means to achieve UHC and the SDGs* through articulating and promoting a vision for iDSI-tested and supported approaches that can be widely-owned at the funder and political level
3. *Building awareness of the roles of iDSI and evidence-informed priority-setting* in achieving efficiency and effectiveness, particularly on value for money and the efficiency of iDSI-supported health interventions
4. *Generating policy outreach* through the promotion and facilitation of policy dialogue and learning with information, briefings and targeted presentations towards key decision makers.
5. *Raise iDSI's profile with potential funding and delivery partners* - promoting iDSI's work and vision through global and regional media that is seen by key stakeholder groups to build both credibility and a supportive context.

Strategic global and regional collaboration

Strategic collaboration with global and regional partners will be critical to achieving effective and efficient in-country delivery of practical support, as well as diffusion and scale across countries including those where we may not be engaging directly. Figure 6 outlines how potential key partners, in addition to aforementioned in-country partners, could inform and support iDSI's engagements across the spectrum. Potential collaborative activities are further detailed in the *Critical Relationships* section, and will be built into the functions of iDSI regional hubs.

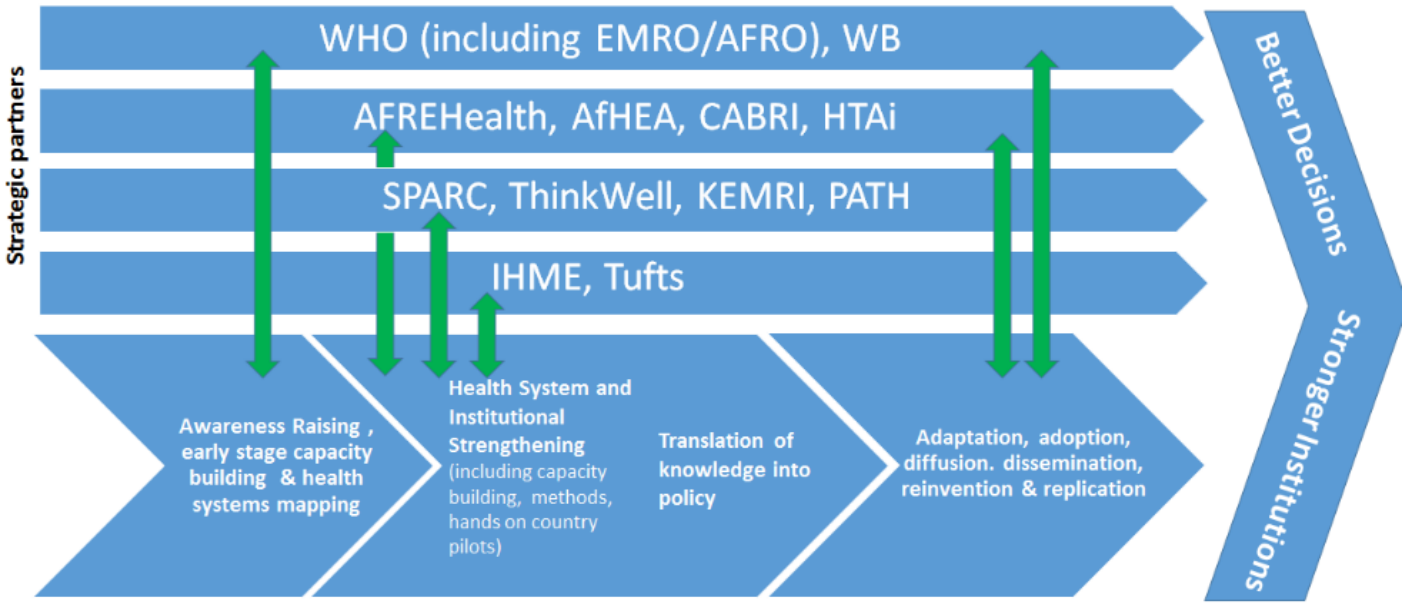

Figure 6. Entry points in countries through global and regional collaborations.

World Health Organization

The WHO will be one of our most important partners given their role in providing global guidance and setting norms, global and regional convening power, and ability to identifying areas of need and demand from LMICs for technical assistance in evidence-informed priority-setting for UHC. To date, iDSI has responded to WHO requests for technical assistance to countries looking to implement the Health Interventions and Technology Assessment resolutions particularly in the South East Asia (SEARO, e.g. **India**, **Indonesia, Myanmar**, **Bhutan**, **Nepal**) and West Pacific (WPRO, e.g. **Philippines**), and coordinated with individual country offices, e.g. in **Ghana** and **Kenya**. Going forward iDSIplus will double down on our excellent working relationships including in the African (AFRO) region, continuing coordination and joint work in countries including but not limited to **Kenya** and **Philippines** (as set out in the WHO proposal to the Foundation), **Ghana,** and other countries where WHO have significant local presence – together achieving WHO's target of 1bn more people globally to have access to quality UHC by 2020.

As part of their proposal to the Foundation, WHO plan to establish a global network intended to bring together initiatives in the priority-setting space and we shall be keen to participate as part of that network. We have also started discussions towards establishing a *WHO Collaborating Centre for Evidence-Informed Priority-Setting* at Imperial College School of Public Health. This is in sync with NIPH who is also pursuing similar status as a WHO Collaborating Centre for Decision Science for UHC. Our proposed scope of collaboration with WHO is detailed further in the *Activities* section.

Engaging the wider evidence-informed priority-setting community

Given the increasing interest among funders, development partners and LMICs in strategic purchasing and HTA, we propose to convene a roundtable bringing together the key global and regional players such as SPARC, Thinkwell, and Comparative Health Systems, and country stakeholders (such as **Ghana, Kenya, Nigeria**) in years 1-2. The objectives will be to discuss conceptual linkages between HTA and strategic purchasing, and possible, practical synergies and strategic partnerships at the the regional and country level.

Appendices

All Appendices (*Letters of support from LMIC and global development partners; use cases for BMGF; Figure – how iDSI engages with LMICs and funders; iDSI Indonesia case study*) are accessible on Dropbox.

As needed, describe why you believe the approach would lead to the desired results. Reference related work, existing evidence from evaluations or systematic reviews, and/or relevant experience, etc.

We believe that sustainable impact is only possible when there is **local ownership**, **local leadership**, and **local capacity** to prioritise and adopt the interventions and technologies that generate the most health for the money (see Appendix: How do we work

to maximise the value of funds and coverage of quality healthcare) . The best way to achieve this is by being **demand-driven, context-specific**, and **building lasting relationships** with in-country partners.

iDSI's mid-term learning review (MTR), commissioned by the Foundation in 2016, provides evidence substantiating our belief. The conclusions of the MTR included:

"iDSI's approach to technical assistance at country level is an important feature of its niche, and its ability to align its support to country-led demand is a distinguishing quality worth safeguarding... an important component of iDSI's practical support is establishing the foundations for institutionalisation of priority-setting. This effort is starting to show impact in several countries (examples from Indonesia and India are discussed in case studies). iDSI partners are viewed as credible, experienced, respectful and, most importantly, worthwhile engaging with in support of country goals."

The iDSI Board (which included grants officers from our core funders BMGF and DFID) acknowledged that the evaluators' findings were broadly positive, and that they *"support our ambition and generally recognise the rapid progress made in a young network, while delivering a set of independent recommendations to iDSI based on extensive research and discussion"*. Two years on, **India** and **Indonesia** have already demonstrated astonishing progress, rapid progress in HTA institutional development.

- In **India**, the first HTA produced by HTAIn with iDSI's technical support, intraocular lens for cataract surgery has already informed HBP inclusion and reimbursement under the NHPS.
- In **Indonesia**, HTA studies conducted by several teams of MOH and Indonesian university researchers with iDSI technical support has resulted in incremental, systemwide changes to NHI policies, ranging changes to allow cost-effective off-label medicines to be reimbursed, and the delisting of some of the poor value drugs consuming a significant proportion of the NHI budget (such as insulin analogues and several high-cost cancer drugs) – which could save US$30m from the health budget annually, equivalent to averting 44,787 Disability Adjusted Life Years (DALYs)[16]. The rapid and meaningful uptake of HTA evidence into the health system provides strong evidence in support of our impact.

Robust theory of change

To our knowledge, iDSI was one of the first BMGF-funded priority-setting support initiatives to have developed a Theory of Change (Figure 7). This provides the foundation for the MEL and outlines the key causal steps and preconditions for successful translation of iDSI support into the institutionalization and capacity-strengthening required for "better decisions". The ToC has been successfully applied in our partner countries and was recently strengthened following a recent literature review on institutionalising evidence-informed priority-setting. Our ToC and approach is also consistent with the findings of the BMGF-funded Learning for Action initiative.

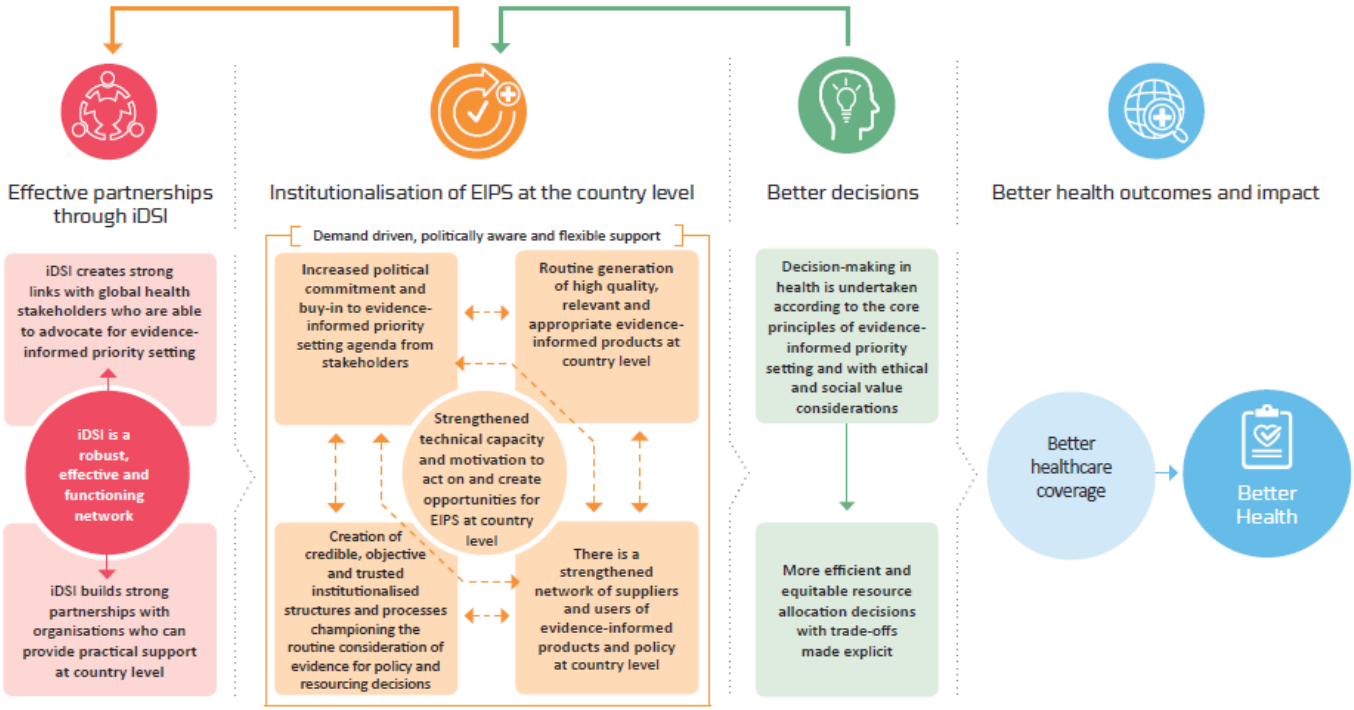

Figure 7. iDSI Theory of Change.

HTA: a good value for money policy intervention

There is a small but consistent body of evidence suggesting that HTA – both in the sense of an individual cost-effective analyses and related priority-setting decisions and of a sustained programme of analyses / an HTA institution – is extremely good value for money with very high returns on investment. Our country pilots show the enormous value that can be recovered by choosing the

[16] Calculations from University of York's DALY calculator: https://www.york.ac.uk/che/research/teehta/health-opportunity-costs/estimating-health-opportunity-costs-for-lmics/#tab-4

most cost-effective technologies for public subsidy (e.g. Ghana and Vietnam), and they have illustrated the relatively low cost of the HTA function – less than 0.1% of a country's healthcare budget[17]– when compared to the savings and health gains from more cost-effective uses of public monies[18]. IDSI is currently developing a more sophisticated framework for evaluating the impact of 'better decisions' with initial promising findings from our clinical pathways work in China (in preparation). Furthermore, the returns on investment are additional to the tangible direct savings from value-informed price negotiation of pharmaceuticals and vaccines that can be gained from HTA approaches. In the UK, implementing the findings of merely 10 HTA reports across the NHS would more than cover the costs of the HTA programme including evidence generation and synthesis for more than 20 years. Given the evidence suggests LMICs, particularly in SSA, pay higher not lower prices for pharmaceuticals than in the developed world, there is good reason to believe that HTA will unlock even greater ROIs than currently seen.

4. Risk Mitigation

As needed, describe any significant risks to the success of this project and how you plan to address them.

Risks	Plans to mitigate (controls)
Failure to deliver the project outputs to adequate quality	• Quality controls - We will ensure an internal quality assurance is in place for all outputs including country outputs, through early review of drafts and near final outputs. We will also plan to take advantage of the peer review process at CGD, which include 2 external and 1 internal reviewer. • CGD's Board of Directors & External Advisory Group are commissioning an audit of research quality in 2018, the outcome of which will further strengthen our quality control measures. • Contracts with sub-awards and consultants include appropriate clauses to ensure high quality delivery of outputs • Regular meetings with all iDSI partners to discuss project progress and challenges and potential bottlenecks
Scope creep - unanticipated requests/demands to deliver outputs beyond the original scope of delivery - or over-commitment of resources to deliver originally agreed outputs	• Focus on delivering on agreed work plan, only adding new activities if additional resources (people and money) have been secured or if existing activities are substituted in order to accommodate new activities • Agree clear milestones and activities with funders and country partners • Agree a 'change of scope' process with partners and beneficiaries • Be up front and clear on what resource will be committed to the delivery of specific outputs (define in work plan)
Delays in the delivery of draft and final outputs	• Put in place internal project management controls to make sure project team, consultants and sub-awards are aware of the when draft and final outputs are due • Regular meetings with iDSI partners to discuss progress, challenges and potential bottlenecks • If necessary, re-planning of activities to accommodate delays and minimise disruption to the overall project.
Delivery partners (sub-grantees and sub-contractors) underperform, resulting in variable quality of final product or in delays	• Detailed work specification included as part of all agreements with sub-awards and consultants and close monitoring and supervision by iDSI secretariat throughout delivery cycle (including review of early drafts)
Cost overruns occur on one of more project deliverables	• Project management meetings include budget monitoring to identify potential cost overruns so that remedial action can be taken and expenditure kept on track, re-budgeting where required. • Consultants and subawards held responsible for managing their own budget, and held legally responsible for any overspend • Introduce grant managing system to keep track of project expenditure in real-time / near real-time, to ensure greater visibility of grant finances
Changes in political will or priorities in countries leading to loss of momentum in project activities	• Close links are maintained with the different parts of the Government to help in broaden the visibility and impact of iDSI work to a broader range of stakeholders. • Ensure regular monitoring of the political situation through dialogue with our country partners • Ensuring there is freedom and flexibility to pivot and consider new opportunities in country (eg. Shifting to state activities if change of political will at Central level) or an exit from country should this be required • Multiple options on the in the pipeline to ensure resources can be redirected if needed

[17] Glassman, Amanda, Ursula Giedion, and Peter C. Smith, eds. *What's in, what's out: designing benefits for universal health coverage*. Brookings Institution Press, 2017

[18] It is estimated that implementing just ten HTA reports of the hundreds produced, with a conservative yield of 12% of net health benefits, generates enough value in one year to cover the costs of UK's entire HTA program for 20 years (Guthrie *et al.*, 2016).

	• Early face to face engagement with government/partner institution to understand challenges and identify potential compromises (including refocusing of activities)
Workshops/events are cancelled/rescheduled because of poor attendance and last minute cancellations, resulting in cancellation charges.	• Confirm participation as far in advance of the event/workshop, as possible. • Ensure bookings for flights, venue, and hotels are flexible, where this is financially viable and adequate refund policies are in place. Minimise one-off face to face meetings to reduce travel, by taking advantage of existing scheduled meetings
Challenges finding partners willing/able to work with each other to create iDSI regional hubs	• Issue a call for a consortium of multiskilled partners willing to work together as a iDSI regional hub • Take advantage of existing networks and communities of practice and build-in additional capacity to enable them to serve as a iDSI regional hub
Moving iDSI secretariat from Imperial College to the Centre for Global Development Europe (CGDE) may cause brand confusion or limit access to relevant expertise.	Over the past 5 years, with the help of the Foundation, we have established iDSI as a brand in its own right, one that countries and funders identify with. As the iDSI brand has become stronger and more well-known we have become less reliant on the brand of the host organisation. Moving the secretariat and hosting arrangements from Imperial College to CGDE does not preclude us from accessing the relevant expertise and skills from Imperial College as Imperial College would continue to be a partner in IDSI, and would be a sub-award on the overall grant. Instead, at CGDE we would benefits from (a) swifter approval processes, incl subgrants HR issues and overseas placements; (b) ability to leverage other relevant Gates grants in procurement, transition, domestic resource mobilisation, education and R&D and (c) freedom to set up business unit and potential dedicated spin off as and when more funding materializes.
Failure to secure additional (non BMGF) funding	We will continue to undertake fundraising and advocacy activities to continue to raise the profile of iDSI. With support from BMGF we have already started discussions with GiveWell, UK's Department for International Development, Gavi, ADP and others. We will also be working with our sub awards (including our regional hubs) to access regional funds directed at supporting work in sub-Saharan Africa and South East Asia.

We will keep Foundation staff aware of progress and any barriers to success, and will inform the Foundation should any risks prove difficult to address

5. How We'll Work Together

This question is intended to begin the dialogue on how foundation staff would work with you to achieve the intended outcomes. Topics could include minimal staff support, any specific issues that would likely need on-going discussion, regular communications, or other information to help establish mutual expectations and assist with implementing the proposed work.

We look forward to continuing our engagement with the BMGF Program Officer and across the Foundation. As mentioned above, we plan to establish a more fit-for-purpose governance arrangement for the iDSIPlus grant, which will include a streamlined Advisory Group. We envisage 1-2 BMGF representatives to sit on this group.

We may also require *ad hoc* communication, as required, in order to consider jointly any major policy shifts in flagship countries and the wider impact this has on our proposed scope of work. As with previous BMGF grants, we expect to schedule a check-in call at least every other month to assess progress and identify issues.

We view BMGF as a convener and key influencer in our relationship and future collaborations with the WHO, IHME, SPARC and other strategic partners (see figure 4), and we will be looking to BMGF in order to support and nurture these relationships

BMGF have been key to the success of iDSI to date, which makes both informal and formal engagement critical to the future success of this project.

6. Global Access and Open Access

Knowledge and Information

Describe how the knowledge and information gained from the project will be promptly and broadly disseminated (including how you will comply with the foundation's Open Access Policy, discussed above).

All knowledge products from the supplement activities, including technical reports, working papers as well as accessible materials such as policy briefs and case studies, will be published on the iDSI Gateway, an open access Web platform in collaboration with F1000. Selected outputs will also be showcased on the iDSI website and blog (www.idsihealth.org) and on

partner organization websites. All peer-reviewed publications will be published in BMGF-approved peer-reviewed journals or via CGD's peer-reviewed Working and Policy Paper series, in accordance with the BMGF Open Access Policy.

7. Activities

Describe in further detail what activities are necessary to produce the principal results. Please ensure that these activities align with the results in the Results Framework.

Country Engagement

In line with iDSI's engagement model and in order to be responsive to the changing needs of country counterparts, all activities are indicative, subject to demand from government policymakers, and will be scoped out in discussion with country stakeholders. (see also Figure 4 and Figure 5 for indicative activities as time and countries' HTA capacity development progresses).

Flagship countries

Kenya

KEMRI-WT, as the East African hub, will co-lead this package of work with CGD, GHD and the NHF/HITAP/NUS consortium in the initial phase whilst strengthening KEMRI-WT hub capacities. NHF and HITAP will be providing support on knowledge exchange and technical capacity building as required on specific activities, including through bilateral placements, hosting of senior delegations, and linkages to HTAsiaLink.

Country objectives	*Indicative activities and timeframes*	*Building hub capabilities: Potential for scale and diffusion*
• **Institutional strengthening:** Develop framework for institutionalising HTA in the context of national UHC implementation • **Smart purchasing**: Support MOH in rationally designing and reviewing the HBP for UHC • Develop institutional capacity of the UHC Unit for healthcare priority-setting through proof-of-concept HTA to inform a current policy decision • Collaborating with and leveraging funding from global development partners to improve value for money in HIV management • **KTE and advocacy**: Facilitate South-South knowledge sharing on HTA, HBP and UHC through peer-to-peer senior policy dialogues with Thailand	Year 1-3 • **Situational analysis and stakeholder mapping** of priority setting and HTA • **Comprehensive economic evaluations on ART delivery model** with GFATM/Unitaid, with dual emphasis on local capacity development as well as generation of data and methods which could be scaled or applied to other African settings, including via staff placements with HIV Modelling Consortia on the ground • **Processes and methods for HBP design/review,** including deliberative meetings and technical training workshops coupled with handholding support on evidence review and value-for-money analyses as required, stakeholder consultations, and staff placements • **Proof-of-concept HTA or clinical guidelines/quality standards project**, to strengthen MOH capacity in evidence-informed priority-setting, including: topic selection to identify a current priority setting decision, targeted training workshops, stakeholder consultations, hands-on technical support, and potential bidirectional staff placements with Thailand (NHF and HITAP) • **Initiate development of technical methods and processes** such as Reference Case for economic evaluation, multicriteria decision-making, elicitation of community preferences and values (e.g. Kenyan-specific utility weights and ethical frameworks); we expect some of these issues will arise from the above HBP and HTA work • **Articulate potential direction of travel for HTA implementation**, including its functions, linkages to existing institutions, positioning within broader policymaking processes for health (e.g. budget planning, HR development, policy advocacy, price negotiation, procurement, reimbursement), convergence between MDGs and NHIF HBP, implementation at national and provincial levels, and M&E. This will draw on high-level policy and knowledge exchange with Thailand Ministry of Public Health, National Health Security Office and other UHC partners in Thailand Years 4-5 • **Strengthening nascent HTA institutional mechanisms**, including revisiting processes and methods based on experience an testing; expanding applications across disease areas; exploring implementation levers in detail (including at provincial level) • **Awareness raising** workshops and other exercises to engage stakeholders in fair and legitimate priority-setting processes perhaps using EAC or other regional networks	• KEMRI-WT will strengthen its health economics and economic evaluation skills and capacity, which will help it serve as the focal institution for the East African Hub • KEMRI-WT's Uganda unit currently specializes on clinical research and lacks any health economist or health systems researcher. The regional support proposed for Uganda could contribute to capacity-building in the country as part of the regional hub. Equally we could build links with the Tanzanian unit of KEMRI given our existing engagement in Tanzania. • Thai expertise could support hub efforts to establish and strengthen African HTA networks and communities of practice, through HTAsiaLink, Prince Mahidol Award Conference, UHC Forum (to be hosted in Bangkok, 2020), and iDSI global knowledge platforms such as GEAR • Generation of knowledge products (e.g. economic evaluation data and methods potentially transferrable to other African settings; clinical guidelines and indicators in RMNCH of relevance to GFF), to be disseminated through iDSI regional hubs and global partners (e.g. WHO networks, JLN/WB, SPARC). • Collaboration with GFATM/Unitaid will be a proof-of-concept for operationalising GFATM's commitment to value for money, as well as how iDSI and countries can work with global funders including GFF and others to influence evidence-informed priority-setting, both globally and laying the foundations for further funding and networks across the region

Ghana

Subject to additional funding, in years 4-5 we shall scope out and identify potential partners for iDSI West African regional hub. Meanwhile, ensuring that Ghana is engaged with other regional and global networks (such as HTAi, AfHEA, HTAsiaLink) will help to support partnership building and South-South knowledge diffusion.

Country objectives	*Indicative activities and timeframes*	*Potential for scale and diffusion*
• **Institutional strengthening:** Develop framework for institutionalising HTA, building on existing partnership with MoH, academia and National Health Insurance Authority • **Smart purchasing:** Advise the National Pricing Committee (NPC) on pricing, procurement, and reimbursement	Year 1-3: • **Methods and process guide for the evaluation of pharmaceuticals**, including a Ghana Reference Case for economic evaluation based on the iDSI RC, and appropriately contextualized. • **Articulate organizational actors that could be involved in an institutionalized HTA system** in Ghana, and to develop business case for a formalized HTA focal point, as per recent legislation for establishing a pricing and procurement unit for medicines using HTA to inform purchasing decisions. • **Test the methods and process guides** (and any supporting tools such as stakeholder submission templates), on 2-3 high priority HTA topics as articulated by Ghanaian authorities informed by stakeholder consultation. • **Leverage NIPH expertise** with Norad funding for enhancing support to Ghana and the region • Seek to **leverage Wellcome and WHO funding on research led by University of Ghana**, in partnership with NIPH and MOH, to strengthen the latter's capacity to use research evidence in decision-making Years 4-5: • Explore **implementation levers for HTA outputs** including financial and non-financial incentives, and the integration of HTA information into quality improvement initiatives. • Develop appropriate **methods and processes for the use of HTA for non-drug technologies,** including preventative interventions, devices and diagnostics.	• As host country for major international HTA conferences in 2018 (HTAi) and 2019 (AfHEA), Ghana will be in the spotlight as an African pioneer in HTA and benefit from increased networking with regional collaborators • Focus country of UNDP/ADP (funded by Japanese government), who has previously funded iDSI work in **Ghana** and **Tanzania,** and currently in discussions over collaboration in **Indonesia.** Potentially to leverage additional funding to explore and scope out iDSI West African regional hub • Future regional hub could provide important gateway into West Africa, including in **Nigeria**, the African nation with the biggest population and economy; **Liberia** and **Sierra Leone** which have been rebuilding health systems following Ebola and Zika outbreaks and where systematic evidence-informed priority-setting and HTA development has been minimal and much needed

South Africa

In the first two years, we shall scope out a Southern African regional hub and network, potentially in **South Africa** or **Zambia**. This will include identifying potential institutional partners, developing criteria for and mapping of organisational and technical capabilities and capacities; and developing a business plan for the hub. In years 3-5, we will provide additional support to domestic South African priorities and support the hub in providing technical assistance in the wider SSA region.

Country objectives	*Indicative activities and timeframes*	*Building hub capabilities: Potential for scale and diffusion*
• **Institutional strengthening:** Continue to support the development of a sustainable ecosystem for evidence-informed priority-setting for converging National Health Insurance (NHI) and vertical programmes under UHC • **KTE and advocacy**: Convene key players in government, academia and other relevant sectors in policy dialogue, to articulate roadmap for operationalizing HTA in NHI decision-making	Year 1-2 –Scoping out a regional hub: • Scope out **institutional options** for a Southern Africa regional hub, potentially in South Africa or Zambia. Including assessing capacity and regional links. • Convene stakeholders to plan the development of a **coalition** to support the regional hub. Years 3-5 –Embedding the regional hub & developing domestic capacity (dependent on political will in RSA) • Regional hub providing **technical support to SADC countries**, with iDSI support. • Hub convening **regional policy dialogue** with regional stakeholders, potentially with SADC. • **High-level policy dialogue** with NDoH and key players in the health and technical assistance space to articulate a joined-up vision for the NHI, and how evidence-informed priority-setting (including Health Technology Assessment) could support its different components; use findings for dissemination through Hub to region	• South Africa's strong technical and research capacity and policy influence among SSA nations makes it well placed as a spearhead for HTA regionalisation, as well as the generation of funding for policy-relevant research • NHI will be one of Africa's largest health insurance experiments bringing together the public and private sector payers and providers. Succesful efforts to embed HTA could serve as a model for other African nations with fragmented health systems (and especially those with federal systems such as **Kenya** and **Nigeria**), and for how HTA could add value to private sector more broadly • Zambia and Tanzania are both SADC members and have signalled political commitment for HTA and interest in regionalisation, so we will explore alternatives for the hub depending on momentum in South Africa

India

IDSI will continue delivering on its existing ICO grant to end 2019 and inform ICO's strategy early 2019. With the additional iDSIplus funding and the advent of the NHPS, we shall look to extend scale and impact across the States and potentially draw lessons for emerging SSA HTA systems.

Country objectives	*Indicative activities and timeframes*	*Potential for scale and diffusion*
• **Institutional strengthening:** Strengthen mechanisms for embedding HTA into National Health Protection Scheme, building on existing partnerships with the Ministry of Health and Family Welfare (MoHFW), National Health Agency, State governments, and academic institutions • **Smart purchasing**: Strengthen institutional capacity of HTA Secretariat and Technical Appraisal Committee to commission, quality assure, and diffuse HTA evidence to inform the EDL, pricing and strategic purchasing, and deployment of health services • Build State level capacity with robust mechanisms for uptake of HTA evidence to support State-level priority-setting towards UHC • *Gavi-funded activity:* Develop NITAG capacity to use cost-effectiveness and other evidence to inform vaccine selection • **KTE and advocacy**: Facilitate South-South knowledge exchange and joint initiatives between Indian partners and their international counterparts on the use of HTA for defining HBPs	Year 1-3 • **Demand generation** through scaling up engagement with Central government (MoH, NHPS/National Health Agency, Niti Aayog), State governments (MoH, State Health Authority, NHM) and development partners (WHO country office, WHO SEARO, World Bank) • **Support generation and expansion of important national datasets** for cost of health service provision and quality of life, with local academic partners PGIMER Chandigarh and DHR • **Support generation and use of HTA for EDL, HBP design and deployment** by State-level Government partners and affiliate academic institutions, including through delivery of locally-tailored training workshops and follow-up support with a view to integrating with NHPS • Maintain a **'light-touch' presence with HTAIn and central government** by providing quality assurance advice for HTAIn outputs and contributing to locally-lead policy events and training workshops • Support a local academic institute to design and deliver **formal Masters and PhD postgraduate programmes** in health economics, contributing to the generation of a cadre of highly skilled health economists Years 4-5 • **Support evaluation of health insurance data** to test effectiveness of State governments' monitoring mechanisms and further refine and improve the provision of high-quality care • **Facilitate HTAIn to be recognized as a WHO Collaborating Center for HTA** • Support the **endowment of a senior academic chair in health economics** and HTA to foster a programme of research and study in India and garner regional interest	• In a country of 1.3bn citizens, there are significant and important opportunities to scale-up the lessons learned in establishing the HTAIn and evidence-informed priority-setting under the MoHFW, and diffuse these lessons outwards to the States • Facilitate regional State-State and Centre-State knowledge exchange, and create locally-driven examples of meaningful insurance reforms that can be diffused across the country • Capitalize on the HTAIn experience and network as well as the Modi administration's increasingly outward-looking African foreign policy to diffuse knowledge and lessons that are transferrable to countries in SSA. This includes countries at an Embryonic stage of HTA development, such as **Kenya**, **Zambia**, **Tanzania,** and **Nigeria**, and to countries such as **South Africa** where Emergent HTA capacity exists but mechanisms for its routine use are yet to be fully defined. • India's hub-and-spoke model may be particularly relevant to federal systems such as **Kenya**, **South Africa**, and **Nigeria,** where fiscal federalism poses a unique challenge to the generation and deployment of HTA evidence. The Indian model has demonstrated early success in effectively managing both Central and State interests.

China

Through CNHDRC, the national government's trusted health thinktank, will continue delivering on its Gates China grants as China is preparing for the imminent launch of a National HTA Center. The current grant will provide light-touch supplementary input and also support the South-South element to share expertise and diffuse knowledge to SSA, expected to be a major policy priority for the upcoming China international development agency.

Country objectives	*Indicative activities and timeframes*	*Potential for scale and diffusion*
• **Institutional strengthening:** Strengthening mechanisms for embedding HTA into the Essential Drugs List and new unified insurance bureau, and support capacity-building of HTA Centers at Province level	Year 1-3 • **Support development of processes and methods guidelines** for embedding HTA into the Essential Drugs	• China in Africa with technical assistance angle to be a major policy priority for upcoming China international development agency • Large population size with vast national and provincial health insurance systems; potential for

• **Smart purchasing**: Strengthen policy mechanisms and HTA methods for comprehensively evaluating clinical use of drugs at the national level, from procurement through pricing and reimbursement • **KTE and advocacy**: Facilitate South-South institutional knowledge exchange with African counterparts in health priority-setting under the Belt and Road Initiative	List and other national processes such as procurement, pricing, and reimbursement Years 4-5 • Explore South-South knowledge exchanges **in SSA**,	innovative experiments drawing on Big Data analytics • Leverage ongoing bilateral funding support from UK FCO (Cross Government Prosperity Fund)

Scale-up countries (2019-2020)

These are indicative activities based on current demand from national policymakers and will be scoped out in discussion with country stakeholders.

SSA

- **Tanzania**: Scale up existing iDSI engagement on EDL review, potentially drawing on capacity from both iDSI East Africa (KEMRI-WT) and Southern Africa regional hubs
- **Zambia**: Through CHAI, support the MOH and National Health Insurance Technical Working Group in developing HBP and its processes for the upcoming launch of NHI, following the **Kenya** model. Potentially leverage Gavi funding to support NITAG vaccine investment case development.

Asia

- **Indonesia**: Use proposed UNDP ADP and Gavi funding to scale up policy implementation of HTA as part of UHC NHI, and for converging of MDGs and NCDs. Successful delivery of UNDP ADP outputs is likely to unlock future funding for iDSI to support HTA work in its focus countries (**Ghana**, **Tanzania**, **Zambia**)
- **Philippines**: Scale up HTA implementation as part of UHC Law, focusing on NCDs at government's request; this will generate knowledge outputs of relevance to SSA countries facing increasing NCD burdens.

Knowledge products

Strategic objective	Knowledge product	Indicative activities
Methods, processes, and tools	GEAR	• Develop mindmaps for identified technical challenges of HTA researchers and users in African settings. • Awareness raising activities (e.g. seminars and workshops) for GEAR in SSA countries • Explore sustainable operational models for GEAR
	Open-access decision analysis software	• Develop and test decision-tree software • Conduct training workshop in an SSA country
	HTAsiaLink network survey of price interventions	• Survey HTAsiaLink member countries plus selected SSA partner countries (e.g. **Kenya**, **Ghana**, **South Africa**) of price interventions, pre-, during, and post-conducting HTA for health technologies, to inform pricing, negotiation and procurement as well as adjustment of price after policy implementation
	What's In, What's Out MOOC	• Develop and disseminate MOOC, through coordinated communication efforts with CGD, IADB, and *KTE & Advocacy* objective
Data, evidence, and analytics	Comprehensive mapping of SSA economic evaluations	• Systematic literature mapping and analysis of SSA-based economic evaluations in the entire Tufts GH-CEA database, including: institutional affiliation, authorship, collaborations (regional and international), study quality, and other key characteristics
	Scoping of "GEAR for real world evidence (RWE)"	• Situational analysis and stakeholder mapping of routinely collected data, real world data, and RWE in LMICs, especially in SSA, including: definitions of the concepts, data sources (including electronic health records, NHI billing data, DHIS, and others), how data are being used, how they can complement traditional research studies, the political economy including perspectives of policymakers and industry, and potential contribution to health system • Explore existing RWE work in other countries such as Canada, UK, US to make the most of existing research • Inter-regional seminar on the subject and identify areas for future work • Build an RWE resource platform for LMICs which may be hosted on GEAR • Showcase a real-world analysis in collaboration with an SSA country

Global and in-country collaboration with WHO

We propose to:

- Establish a *WHO Collaborating Centre for Evidence-Informed Priority-Setting* at Imperial College. Discussions with WHO are underway to begin this process, and we envision the Collaborating Centre will be able to draw on the iDSI network and capacity to respond to WHO and country requests for technical assistance (in particular AFRO and WPRO).

- Work closely with the WHO Economic Analysis and Evaluation (Health Systems, Governance and Financing) team as the global focal point for evidence-informed priority-setting, including participating in WHO's proposed global network and Web platform bringing together development partners and LMIC partners working in the evidence-informed priority-setting space
- Observe standard operating procedures on all iDSI country engagements to ensure coordination, including liaising with WHO country officer and HQ team at the outset, regularly reviewing workplans together as appropriate to the country context. In particular we shall work closely on our engagements in **Kenya** and **the Philippines**.
- Provide technical input into WHO global public goods, for instance on clinical guidelines, HTA and HBP processes
- Provide technical input into WHO plans to explore African HTA regionalisation mechanisms, potentially around iDSI regional hub countries. This could function alongside the Africa Medicines Agency, a harmonised drug regulatory mechanism currently being developed by the African Union, and reap economies of scale for HTA generation and use.

In addition, iDSI (led by NHF and HITAP) will support the WHO Initiative for Vaccine Research team in methodological development and knowledge translation of the Total Systems Effectiveness framework, from the perspective of building HTA systems that recognise opportunity costs and acknowledge the challenges of incorporating vertical programmes. The specific scope of work and activities is to be discussed with WHO and the Foundation, and expected to align with the WHO proposal on R&D of vaccines due to be submitted to the Foundation.

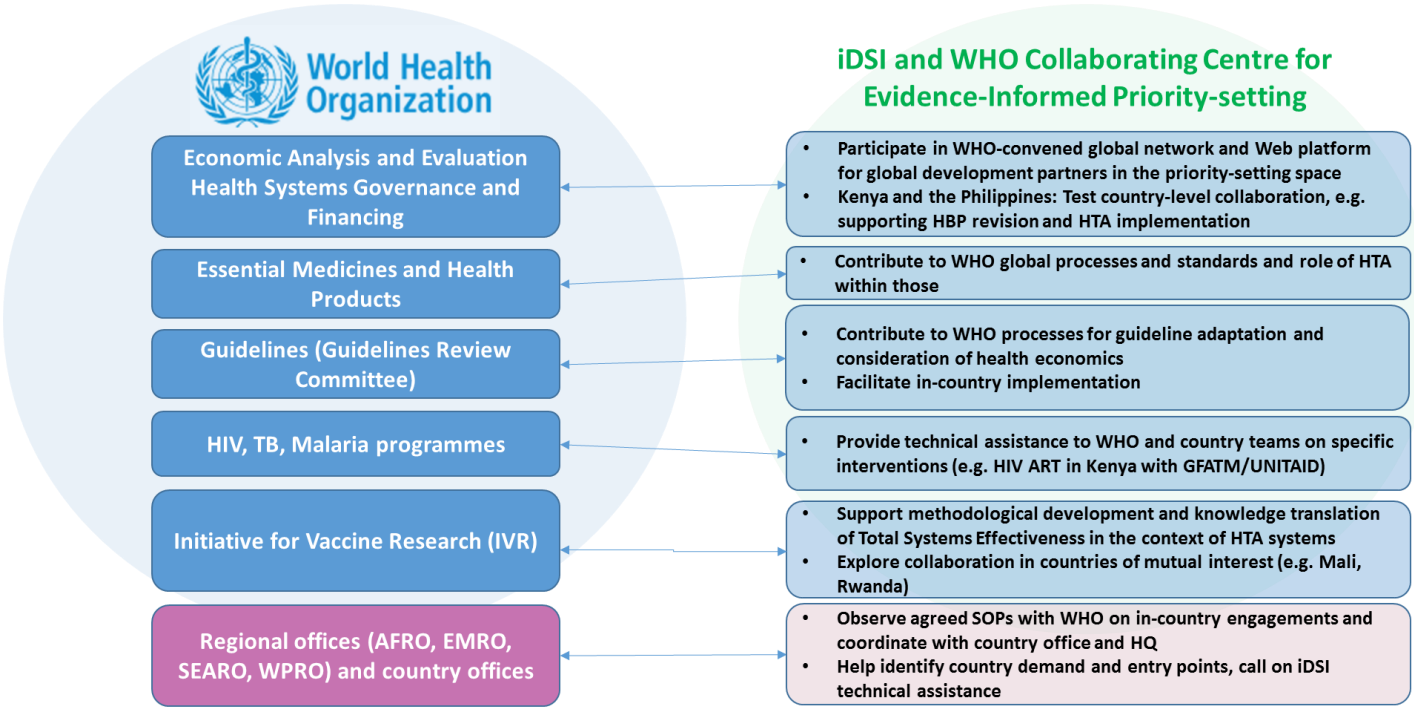

Figure 8. Potential areas of collaboration with WHO

KTE and advocacy

Advocacy and communications activities will be scoped out proactively, tailored to specific target audiences (whether at country-, regional, or global level) and delivered as deemed supportive to achieving the advocacy objectives. We shall draw on the communications expertise and channels of the iDSI global network of partners to diffuse knowledge and increase buy-in.

Advocacy objective	Indicative audiences	Indicative activities	Long term outcomes
Communicate impact of iDSI interventions and model	• Funders • Global civil society • Journalists	• Case studies and impact summaries • Data visualisation • Press • Public campaigning – video, e-campaigns	iDSI-inspired solutions are diffused and replicated across multiple locations
Positioning iDSI and evidence-informed priority-setting as a means to achieve UHC and the SDGs	• Policymakers in client countries • Policymakers in funding countries • National and global civil society • Global health and development audiences	• Blogging • Short publication – policy brief or think piece • Networking • Workshops	iDSI considered a thought leader on UHC, value-for-money and SDGs
Build awareness of evidence-informed priority-setting and iDSI's role in achieving efficiency and effectiveness	• Policymakers in client and funding countries • Philanthropic funders • Private companies	• Policy reports/briefs with use of data • Direct lobbying in implementing countries • Workshops with funders and other development partners	Funders and implementing governments get value for money from their health spending

Generate policy outreach to promote iDSI learning and solutions.	• Policymakers in client countries • Global civil society • National civil society	• Workshops with governments and development partners • Collaboration with governments and development partners • Press • Case studies and impact summaries	Stronger links with implementing governments outside of initiatives and projects Implementing government better equipped to manage health spending effectively
Raise iDSI's profile with potential funding and delivery partners	• Development partners • Country offices of funders • Private investors • Global civil society • National civil society	• Press • Workshops with potential new partners • Networking	iDSI is working with new partner on a joint project

Table 3. Advocacy objectives and associated activities.

8. Organizational Capacity

Describe any changes or improvements you plan to make to your organization's capacity to undertake or achieve the outcomes of the proposed investment.

CGDE has a highly experienced existing staff comprising senior management, technical leads, project management and administrative support, who will be continue to be dedicated to delivering country practical support and strategic management over the next 5 years. This core team will also draw upon the capacity of the wider CGD global health team, leveraging their policy influence, research experience and strategic outreach expertise, as outlined in section 13 below.

To deliver effectively on and maximise the impact of this grant, we propose to make the following improvements to the way we work:

- Expand and develop the iDSI regional hub model (see scope and approach) allowing the core team to leverage the expertise of in-country partners and their wider networks for greater impact
- Redress the balance of desk based versus on-the-ground presence. It is anticipated that under this grant, all Analysts and Advisers will spend 50% of their time delivering on grant activities on-the-ground, to maximise impact

Governance arrangements

IDSI2 included a strong and future proofed governance arrangement that included a Project Board, risk assessment group, a delivery executive group and other structures.

For iDSIplus we plan to introduce a more fit-for-purpose, streamlined, and less resource intensive governance arrangement, which will include establishing an Advisory Group (in year 1), which will provide support to the strategic direction and impact of the project, without executive/decision making powers.

We envisage the Advisory Group to include representatives from BMGF, iDSI core partners, regional hubs, country partners and from other donors that might provide co-funding.

The monitoring of risks will continue, led by the iDSI secretariat and risk registers will be included as part of regular reporting to BMGF. In addition, CGD has recently commissioned a capability assessment to review the core capabilities required to manage grants of this nature, including financial management, ability to manage downstream partners and a comprehensive assessment of the status of policies and practices to handle fraud, conflicts of interest and safeguarding within the organisation. This assessment's recommendations will help strengthen governance processes at CGDE and mitigate any capacity gaps or risks to grants of this nature.

9. Organizational Fit

What experience does your organization have to implement the proposed work?

Launched in early 2014 with BMGF, the Rockefeller Foundation and DFID support, the iDSI was established to address direct demands from countries' governments for methods, process and capacity support in setting priorities for health investments. It has over the years built strong partnerships with LMICs governments and global development partner organisations.

Now in its' 5th year, iDSI has a well-developed track record of tailoring context-specific and long-lasting solutions for evidence informed priority setting, through hands-on practical support in country, and through the development of internationally recognised global public goods. With CGDE as its host, iDSI will be strategically placed to:

- Meld rigorous research with strategic outreach and communications aimed at informing, promoting, and provoking meaningful policy change.
- Build on a 17 year track record of influencing research and policy in health, and a well-established audience and network of influential individuals and organizations who actively engage with the Center in policy debates around a range of development topics

- Leverage a series of other projects (funded by BMGF and others), in: Global health procurement; Aid transition (new); GFF and domestic resource mobilisation (new); Family planning and service prioritisation; TB and pharma R&D in BRICS through value based advance market commitments, and ensure the cross-fertilisation with the Gates education grant also under consideration to CGD, with a substantial component likely to go to CGDE if approved.

CGDE's back-office functions, with support from the wider team in Washington DC, will be able to provide responsive, fit-for-purpose support including:

- Flexibility and swift logistics including contract sign off, subgrant payments, and HR policies inclluding overseas placement support which is critical for this work
- Ability to diversify funding revenues to include non-grant funding.
- Provide a launch pad from which iDSI could spin off into self-sustaining entity (see section 17)

Given this unique position, along with its international reputation and track record in influencing health policy, CGDE is well-placed to serve as the lead coordinating and technical hub for this grant.

10. Beneficiaries

Who would benefit from this investment?

The beneficiaries from this investment include:

- LMIC decision-makers, including officials in ministries of health, finance, planning; and executives of national health insurance funds responsible for allocating healthcare resources. These are the main clients requesting iDSI support
- Researchers in HICs and LMICs, committed to offering fit-for-purpose scientific and economic evidence for informing health spending decisions; academic and other partner institutions in LMICs in particular will benefit from the institutional capacity we will have helped to build
- Funding conduits such as GFATM and Gavi, especially vis-à-vis transitioning countries which tend to have limited capacity to take on the task of setting priorities for MDGs and technologies such as vaccines, as donors withdraw
- Bilateral funders such as DFID, and philanthropic foundations such as BMGF, already funding or interested in funding iDSI, with a stake in ensuring their resources are spent effectively and help build and scale up sustainable institutional and technical capacity in the countries they support
- WHO, whose remit includes responding to country requests for technical asssistance and providing global public goods and guidance; iDSI can help to fulfill both needs.
- Private healthcare sector in HICs and LMICs, who will benefit from a more transparent and stable, fairer, and less asymmetric marketplace that incentivises innovation

Eventually, better governed processes underpinned by sound economics and other principles for allocating resources will benefit patients and the public in LMICs – especially the poorest – through better, more affordable and more equitable access to quality UHC, and lower risk of financial impoverishment.

11. Critical Relationships

Describe any critical relationships with other partners or projects that may influence this work (or that this work may influence).

The critical relationships for this work are with in-country partners, including policymakers at various levels within ministries of health, finance, planning, and other executive bodies where relevant, academic institutions and researchers, as well as other relevant stakeholders (including clinicians and professional associations) who may contribute to and be affected by iDSI's work on priority-setting. Cross-ministerial awareness of evidence-informed priority setting and buy-in from all of these groups will have critical influence over the long-term sustainability of in-country priority setting and value for money initiatives.

IDSI partners and regional hubs, whom will receive funding from this grant, will be critical to ensuring that the goals and objectives of the grant are delivered.

As earlier outlined in the *Scope and Approach ("Strategic global and regional collaborations")* section, strategic collaboration with global and regional partners will be critical to achieving effective and efficient in-country delivery of TA, as well as diffusion and scale across countries including those where we may not be engaging directly (Table 4).

Development partner	**Potential for collaboration**
BMGF-funded initiatives	
Tufts GH-CEA Registry	See *Knowledge Products: Data, Evidence and Analytics*.
DCP	At an early stage of scoping their country engagements, not expected to include any iDSI priority countries. Continue to explore synergies
SPARC (Amref, **Kenya**)	Leverage SPARC platform to achieve scale. Currently at an early stage of scoping their country engagements; continue exploring potential collaboration within **Kenya** and elsewhere. Potential to feed in iDSI's technical expertise in priority-setting and HTA, which directly underpins strategic purchasing

Thinkwell	Potential to provide technical expertise in bridging priority-setting with strategic purchasing in the context of UHC reforms, especially in joint target countries (e.g. **Ghana, Tanzania, Uganda, Zambia, Philippines**)
PHCPI	Ensure coordination on the ground on supporting HBP implementation at PHC level in joint target countries, particularly in **Kenya** Potential to apply PHCPI tools where relevant to iDSI practical support
IHME	Broad common interests in applying data and evidence to policy, including in cost-effectiveness at the health systems efficiency level and intervention levels. Potential to explore joint activities in **Ethiopia**. See also Appendix: Concept note on IHME collaboration
Optima and related groups, e.g. UCL	Potential to utilise Optima model in **Kenya** HIV differentiated care economic evaluation, and to applying optimization modelling methods and data to policy in other transitioning LMICs.
Disease modelling consortia	Utilise their technical capacity on specific practical support projects, e.g. collaborating with HIV Modelling Consortium for on-the-ground presence on Kenya HIV differentiated care project. Work with Imperial College, LSHTM, and other key institutional partners to enhance coordination and policy translation of modelling consortia outputs
Multilateral organisations	
GFATM and UNITAID	Ongoing collaboration in **Kenya** to inform HIV differentiated care (and potential one additional SSA country), leveraging DFID iDSI funding. Continue in-country practical support as a conduit into LICs, informing priority-setting for vaccines and infectious disease programmes where domestic funding in health is typically very scarce High-level advocacy, to operationalise GFATM commitment to value-for-money.
Gavi	iDSI funding proposal led by HITAP and PRICELESS, under consideration by Gavi to support NITAGs in **Zambia**, **India** and **Indonesia** and deliver more cost-effective vaccines
World Bank	Continue ongoing collaboration on knowledge sharing and global public goods for UHC and transitioning from aid (see *JLN*). Potential to collaborate on and utilise optimsation modelling / costing work, particularly in **Kenya** on HIV engagement; potentially also in **Zimbabwe, Cote d'Ivoire** and **South Africa.**
GFF	Ongoing collaboration through CGD to inform GFF investment case approach to value for money. Potentially offer practical support, on request of the WHO, to specific countries in the process of developing GFF investment cases.
Other global networks	
Joint Learning Network for UHC (JLN, World Bank)	Continue ongoing collaboration on knowledge sharing and global public goods (e.g. contributing HBP expertise in recent workshop in **Kenya**)
HTAi	Collaborating on upcoming joint HTA conference in **Ghana**, HTAi's first in Africa. Leverage their network to attract engagement and funding from private sector (pharma industry)
International Association of National Public Health Institutes (IANPHI)	Through Public Health England as a key member leverage the convening power and capacity-building expertise of IANPHI, to engage public health institutes and support them to develop evidence-informed priority-setting functions.
Regional networks and intermediaries	
AfHEA	Collaborate on AfHEA 2019 bi-annual conference to take place in Accra, capitalising on HTA policy momentum in **Ghana**. Strengthen technical capacity across network and also could serve as a growing talent pool and policy intermediary for iDSI's regional hubs
Collaborative Africa Budget Reform Initiative (CABRI)	Continue collaboration on joint awareness raising and knowledge diffusion events, including on how HTA could enhance the private sector and economic development more generally. Leverage platform of finance ministries to gain broader buy-in of value-for-money argument beyond health ministries with a view to achieving greater scale
Regional economic communities, including: SADC, EAC, ECOWAS	Connect with policymakers beyond MOH from across African countries, identify demand and potentially new partner countries

Table 4. Potential collaborative activities with global and regional initiatives.

WHO will be one of our most important partners given their role in providing global guidance and setting norms, convening power, and ability to identifying areas of need and demand from LMICs for practical support in evidence-informed priority-setting for UHC. Our proposed scope of collaboration is outlined in detail in the *Activities* section.

We have a strong relationship with DFID as a core funder and strategic supporter of iDSI's work and the Imperial College iDSI team also has strong links with NICE, the UK Department of Health and the UK National Health Service. These are important relationships which can enhance our engagement at a bilateral level as well as help generate new opportunities and additional funding.

12. External Factors

Describe any external factors that may influence the success of this investment.

- Political instability, both in beneficiary countries and in partner countries, including changes in government, senior leadership or policy champions affects our capacity to generate support for our objectives. Changes to leadership may also result in a more supportive political climate, enhancing iDSI's influence and impact.
- An absence of additional funding by third parties (e.g. from initiatives such as Prosperity Fund, GAVI and GiveWell) may limit the scope and sustainability of the grant

- Availability of and willingness to share data during country engagements will affect the type of engagement and the technical/analytical activities we are able to undertake

- Lack of capacity in-country limits regional hubs' ability to commission analyses and/or manage governance for scoping and/or scaling country support, though iDSI can and has in the past built such needed institutional and technical capacity

13. Sustainability

Describe the vision of the long-term sustainability of this project beyond the proposed time frame and funding with consideration to economic/financial, organizational, or behavioral factors.

Demand generation

On the demand side, while we anticipate the market for iDSI's work will be growing for the foreseeable future, we shall ensure that demand is sustained and new demand generated through our ongoing KTE and advocacy efforts. Over time, advocacy efforts will extend to regional markets, including through iDSI regional hubs or where iDSI seeks to build new connections. There will be an explicit focus on showcasing iDSI leveraging the status of current funders to raise iDSI's profile – adding to the credibility of iDSI's mission, vision and bringing the network to newer, equally relevant audiences (potentially including the private sector).

Financial Sustainability

Over the past 3 years we have raised over $6m from various philanthropic, bilateral, multilateral and research funders, and leveraged resources through our partnerships, furthering the iDSI vision. These funders include the Wellcome Trust, USAID, the UK government (Prosperity Fund and Newton Fund), SIDA, UNDP ADP (via PATH), Gavi, World Bank, WHO, Thai Research Fund and PMAC Foundation, and more recently UNICEF and Norad via NIPH. Notably, we have secured in-kind commitments from LMIC governments and payers for dedicated capacity for carrying out HTA analyses and evidence translation, as well as direct funding to supplement iDSI country engagements, including from **China, India, Indonesia, Vietnam, Thailand, South Africa** and **Ghana**. In particular, **China** committed $1.5m co-funding the BMGF Country Office funded work on HTA establishment; this trend is set to continue as the country ramps up policy and budgetary commitments to be a key player in the HTA and global technical assistance space.

Our intermediate vision for iDSIplus is to build on the success and momentum of iDSI 2, moving towards a model where we able to attract funding from a range of sources, including grant and non-grant funding. In order to realise our vision we plan to use the first half of iDSI grant to identify and secure funding from other funders. We are already in early discussions with GiveWell, and the UK government's Prosperity Fund, with a view scaling up and expanding our offering. In addition, we intend to build and support our regional hubs so they are well positioned to attract synergistic funding and increase capacity.

Ultimately, our long-term vision for iDSI is to create a dedicated fit-for-purpose stand-alone entity, which will be able to serve beneficiaries in LMICs as well as provide fee-for-service support to high income countries and the private sector. Creating an independent stand-alone entity would free us from the current project driven approach and allow us to be more strategic and ambitious with our offering.

14. Measurement and Evaluation

Describe your plan for monitoring and evaluation of the outputs and outcomes you identify in the Results Framework & Tracker that accompanies your Proposal Narrative. Specifically address:

1. The learning/evaluation questions for this investment and how you plan to answer them through monitoring and/or evaluation;
2. The resources (financial, technical, human) you need to ensure high quality monitoring and/or evaluation data; and
3. If you are planning a formal evaluation, describe when it will be conducted during the grant, who will conduct it (external/third party or not), the methodology you will consider, and how the main evaluation audiences will use the findings.

See the foundation's evaluation policy for reference.

iDSI developed its Monitoring, Evaluation and Learning (MEL) framework in response to the need to understand and critically reflect on its progress and contribution towards our long-term sustainable vision of “better decisions for better health.” Our Theory of Change (Figure 7), refreshed in 2018, provides the foundation for the MEL and outlines the key causal steps and preconditions for successful translation of iDSI support into the institutionalization and capacity-strengthening required for “better decisions”.

We shall be utilising this MEL framework to capture a steady stream of information that could support the identification of achievements, challenges and lessons learnt from our proposed country engagements. As part of ongoing progress tracking, we shall monitor overall progress towards “institutionalization of evidence-informed priority-setting at the country level”, including selected key outcome indicators as follows:

1. *Strengthened technical capacity and motivation to act on and create opportunities for evidence-informed priority-setting*

2. *Increased political commitment and buy-in to evidence informed priority setting agenda from stakeholders*

3. *Creation of credible, objective and trusted institutionalised structures and processes championing the routine consideration of evidence for policy and resourcing decisions*

4. *Strengthened network of suppliers and users of evidence-informed products and policy at country level*

5. *Routine generation of high quality, relevant and appropriate evidence-informed products at country level*

An important measure of iDSI’s success is the “better decisions”: *decision-making in health is undertaken according to the core principles of evidence-informed priority-setting*. In other words, countries’ health resource allocations are demonstrated to be good value for money (in terms of cost-effectiveness, budget impact or affordability, equity impact, etc.) and, having been made through a deliberative, institutionalised process, are implemented in policy for instance through changes to the HBP.

We aim to quantify *ex ante* the return on investment (ROI) of evidence-informed priority-setting decisions (and, by extension, the ROI of HTA institutions or iDSI practical support as an intervention), taking into account the level of implementation where possible. In the current iDSI investment, we have already developed a methodological framework based on our work in **Myanmar**. Subject to additional funding, which could be sought from research funders such as the UK Economic and Social Research Council, there is potential to extend this methodological work and to apply it to iDSI SSA country engagements including *ex post* assessments.

15. Data Access

We anticipate this investment, if funded, would generate datasets that may be of interest to the foundation and/or to the field if made publicly available. Please describe any datasets that will be generated as part of this investment. Specifically address when and how the datasets would be made available to the foundation and/or to the public, in what form or format, and any anticipated costs to your organization. Additional information about Data Access can be found here.

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