IMPACT OF HEALTH SYSTEMS STRENGTHENING
ON HEALTH SYSTEMS PERFORMANCE AND OUTCOMES
Marshalling the Evidence: A Status Report

Photo by Brant Stewart, RTI.

USAID/BUREAU FOR GLOBAL HEALTH/OFFICE OF HEALTH SYSTEMS
APRIL, 2016
Health Systems (OHS) has adopted an integrated approach to marshalling the evidence (MTE) on this relationship. This initiative comprises 11 activities that seek to answer three principal questions, which are technical, methodological, and strategic in nature.

Evidence is scarce, scattered, and not widely disseminated on how reforms and interventions to strengthen health system performance in low- and middle-income countries (LMICs) contribute to sustained improvements in health status, particularly toward ending preventable child and maternal deaths (EPCMD), fostering an AIDS-free generation (AFG), and protecting communities from infectious diseases. Without this evidence, decision makers lack a sound basis for investing scarce health funds in health system strengthening (HSS) in an environment of competing investment options. As LMICs embark on a path towards Universal Health Coverage (UHC), this evidence gap could continue to hinder support for HSS from numerous stakeholders, both within and outside of USAID.

The field of HSS is relatively young and systems-level interventions are inherently complex; consequently, the evidence base for HSS reforms and interventions and their impacts on health outcomes is limited and less robust than for technical health interventions. To enhance our understanding of the impact of HSS on health systems performance and health outcomes, USAID’s Office of Health Systems (OHS) has adopted an integrated approach to marshalling the evidence (MTE) on this relationship. This initiative comprises 11 activities that seek to answer three principal questions, which are technical, methodological, and strategic in nature.

### 3 Principle Questions

1. What do literature and experience tell us about the impact of HSS interventions on health systems performance and health outcomes?

2. How can we prospectively monitor and evaluate country-level HSS interventions and initiatives?

3. How can we ensure a strategic, high-impact approach to health systems research and HSS in global health?

### About This Report

This report is organized in accordance with the three principle questions. For each question, we summarize the status of each of the associated activities in tables, followed by brief narrative descriptions of what we have learned to date or expect to learn. We include a summary of all the activities in Annex I. This report provides the first comprehensive picture of the current status of all MTE activities. We will issue subsequent reports as we learn more from existing activities and add new activities to the portfolio.
Assembled below are eight activities that address the question of impact. Three draw upon the current body of published research on HSS, whereas five draw on practice-based or tacit knowledge generated by USAID-supported field activities. The status of each activity is summarized below in Box 1.

Box 1:

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>ACTIVITY</th>
<th>DESCRIPTION</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PUBLISHED RESEARCH</strong></td>
<td>Impact Policy Report</td>
<td>Rapid review of systematic reviews of the evidence on the effects of HSS interventions on health outcomes</td>
<td>Final report and synopsis disseminated electronically and via technical briefing at USAID in 2015; journal article in preparation</td>
</tr>
<tr>
<td></td>
<td>Partnering with UNICEF on EQUIST Tool</td>
<td>A tool that will estimate the impact, in lives-saved, of different HSS interventions (to integrate into LiST for maternal, neonatal, and child health interventions)</td>
<td>Beta version of tool presented at USAID in 2015; preliminary work being merged with UNICEF’s work on EQUIST tool; steering committee of development partners working with USAID’s Health Finance and Governance Project and UNICEF to estimate effects of HSS on health to be incorporated into EQUIST tool</td>
</tr>
<tr>
<td></td>
<td>Investing in Global Health Systems: Sustaining Gains, Transforming Lives</td>
<td>Institute of Medicine expert consultation and report to Congress assessing the value of USAID’s investment in HSS</td>
<td>Report completed in 2014; dissemination in 2015 to Congressional staffers</td>
</tr>
<tr>
<td><strong>PRACTICE-BASED OR TACIT KNOWLEDGE</strong></td>
<td>Improving Quality of Care</td>
<td>National Academy of Medicine workshop report on evidence for quality improvement strategies commonly used by USAID</td>
<td>Report completed in 2015; dissemination electronically in 2015</td>
</tr>
<tr>
<td></td>
<td>Understanding the dynamics of successful HSS interventions: a qualitative study</td>
<td>A collaborative USAID-Health Finance and Governance Project study that explores the determinants of success among 6 robust cases of HSS</td>
<td>USAID Technical Advisory Group formed and convened in 2015 to review concept paper; study team constituted; cases selected; analytic framework and study questions selected; data collection in progress</td>
</tr>
<tr>
<td></td>
<td>Anatomy of Health Care Transformation: USAID’s 20-Year Legacy in Health Systems Strengthening in Central Asia</td>
<td>A sampling of stories documenting improvements in health system performance made by the countries of Central Asia, 1994-2015 with USAID support.</td>
<td>Presentation made at USAID in August 2015; discussions underway to develop a synopsis of the experience that provides insights and guidance for USAID missions</td>
</tr>
<tr>
<td></td>
<td>Governance and Health System Performance</td>
<td>Multi-faceted effort to gather evidence on governance’s contribution to health system performance, identify evidence gaps and research questions, and develop an action plan</td>
<td>2 workshops completed (2014 and 2015), in collaboration with DCHA/DRG; thematic working groups will lay groundwork in early 2016 for high-level, practice-based meeting on health governance in Fall 2017</td>
</tr>
<tr>
<td></td>
<td>Quality improvement casebook</td>
<td>Case studies documenting how improvement teams in low- and middle-income countries apply quality improvement methods to health care processes</td>
<td>Solicitation for QI cases that improved health outcomes generated 27 responses; QI team working to generate case studies. Casebook to be published Fall 2017.</td>
</tr>
</tbody>
</table>
In 2014, OHS commissioned a review of the impact of HSS interventions—encompassing a wide range of purposeful change strategies, policies, regulations, programs, and activities—on health outcomes in LMICs. The review sought to identify documented effects of such interventions on health status (including mortality, morbidity, life expectancy, fertility, nutritional status, and DALYs) and health status proxies (including service utilization, service provision, uptake of healthy behaviors, and financial protection) through a review of systematic reviews.

The review was completed in 2015. The final report presented a significant body of evidence linking HSS interventions to measurable impact on health for vulnerable people in LMICs. The investigators identified 13 HSS interventions with documented effects on health outcomes, with substantial evidence of the impact on health from HSS strategies that improve financial access to care, bring services closer to and engage communities, expand the health workforce available to provide care, and encourage the provision of high-quality care. The findings of this report document the value of investing in HSS. Evidence-based decisions on who delivers health services, and where and how these services are organized are important to achieve USAID’s priority health goals.

Evidence-based decisions on who delivers health services, and where and how these services are organized are important to achieve USAID’s priority health goals.

In 2015, the USAID-funded Health Finance and Governance (HFG) project developed an evidence-based, prototype Excel tool to model the impact of HSS on lives saved. The literature review to inform the development of this tool, which was compiled in an Excel matrix, was complementary to the review completed for the aforementioned impact policy report. Both of these literature reviews highlighted areas where the HSS evidence is weak or where observed effects have varied across contexts. These gaps and variations make the development of tools and models for health systems strengthening difficult.

In the coming year, analysts at UNICEF and HFG will work together to enhance the consistency and rigor of the HSS evidence base within EQUIST, a tool developed by UNICEF to maximize the impact and equity of health policies on children and women in developing countries. To generate agreed-upon, defensible impact projections associated with different HSS investments, EQUIST’s underlying effect measures and assumptions must be valid, and ideally validated by research and/or vetted by experts. HFG and UNICEF will convene a series of expert panels to review and come to consensus on the effect sizes that can then be incorporated into EQUIST’s “impact matrix” as default values.

At the end of this process, the existing HSS evidence base will have been consolidated into a concise and accessible format for country leaders to use to plan health systems strengthening efforts. Furthermore, the global community should have a more precise understanding of the state of the HSS evidence base, including where additional focused health systems research is most needed.
In 2014, USAID commissioned the Institute of Medicine’s (IOM) Committee on “Investing in Health Systems in Low- and Middle-Income Countries” to produce a Report for Congress and other government officials that summarizes the value of American investment in health systems. In their report, the authors focused on explaining how health systems improvements can lead to better health, reduce poverty, and make donor investments sustainable.

The committee concludes that building strong health systems in LMICs is in the strategic interest of the U.S. and should be a priority for the U.S. Government. The authors argue that adoption of such a strategy would protect the successes of the U.S. government’s longstanding investments in health and reduce dependence on foreign aid. Such a strategy would require integration of U.S. traditional support for categorical health programs within local health systems.

A key outcome of the Report includes the committee’s three recommendations for the US government to direct more aid to HSS: 1) emphasizing technical cooperation and country ownership in health systems with a focus on measuring outcomes; 2) investing in global health research and professional training for students in LMICs, and 3) investing in monitoring and management by requiring rigorous, external impact evaluations of USAID projects.

For USAID, quality improvement is a priority HSS investment as quality is a key factor for any country aspiring to achieve the goal of UHC. A lack of evidence about how to improve quality, however, has made it difficult for USAID missions and host country partners to make informed decisions about how best to invest in different quality improvement approaches and interventions. To address this challenge, the National Academy of Medicine organized in January 2015 a workshop that brought together quality of care experts. The principal outcome of the workshop was a summary report that compares six different QoC approaches (accreditation; clinical in-service training; client-oriented, provider-efficient services; improvement collaboratives; standards-based management and recognition; and supportive supervision), which account for 80% of USAID missions’ spending on QoC. The workshop participants specifically analyzed evidence on the approaches’ cost-effectiveness, sustainability, and the degree to which the models have been institutionalized in health systems.
DYNAMICS OF SUCCESSFUL HSS INTERVENTIONS

In October 2015, OHS and HFG embarked on a study to better understand the dynamics of successful HSS interventions. It is important to understand how and why HSS interventions are successful, particularly in LMICs at different points along the path to achieving UHC. The study draws upon the 2014 Global Call for HSS Cases, which generated 143 case descriptions of HSS activities supported by USAID-funded projects around the world. These cases reflect the breadth of USAID’s substantial investment in HSS and describe the impact of HSS reforms and interventions on health system performance and health status outcomes. This secondary, retrospective, qualitative analysis of six selected cases will provide a set of insights into how USAID-supported HSS interventions can be successfully designed, implemented, and managed in the field.

To help guide the design of the study and ensure high quality and policy-relevant products, the research team convened a USAID Technical Advisory Group (TAG) comprising 14 staff representing offices from across USAID’s Bureau for Global Health and Regional Health Teams. The research team selected the six cases through a multi-stage sampling process consisting of four sequential selection rounds that excluded cases that did not meet the specified criteria for each round. The six cases all met the criterion of a “robust” HSS intervention (i.e., addressed multiple diseases, at least two health system building blocks, and at least three sub-system functions within one or more building blocks).

Since the completion of case selection, the research team has been reviewing a variety of implementation frameworks with the objective of integrating and adapting the most relevant ones to guide data collection and subsequent analysis. Through both primary (key informant interviews) and secondary (archival document review) data collection, the research team will craft 6 robust case studies. The team will then complete a cross-case analysis to draw common patterns and lessons about what factors relate to the successful implementation of HSS interventions. The findings will be reported and disseminated widely through multiple fora.

LEYCAGE OF USAID INVESTMENT IN HSS IN CENTRAL ASIA

The report, Anatomy of health care transformation: USAID’s legacy in health systems strengthening in Central Asia: 1994-2015, provides a rich set of insights into the practice of large-scale, comprehensive HSS reforms, a complement to other MTE activities that have focused primarily on micro- and meso-level HSS interventions and strategies. The report, issued by the Quality Health Care Project in Central Asia/Abt Associates, identified a number of factors that have been consequential in health system transformation in that region during the last 20 years, including a strong enabling environment; balanced attention to health system support and strengthening; simultaneous yet sequenced improvements in all or almost all functions of the health system; the targeting of multiple populations; a flexible, sustained technical assistance model; commitment to institutionalizing new and improved processes at multiple levels of the health system; and partnering for success.

Furthermore, unlike countries that have engaged in UHC reforms in the last decade—many of which are struggling to achieve basic health service coverage for their populations—in the early 1990’s the then-newly independent countries of the former Soviet Union had achieved wide coverage but faced the significant systemic challenge of inferior quality health care services. The Central Asia experience can address current concerns about the quality of health service provision expressed by many experts involved with UHC. During 2016, OHS will work with the authors of the Central Asia legacy report to produce a user-friendly synopsis of the legacy experience, which will be diffused widely both within and outside of USAID.
In July 2014, USAID’s Bureau for Global Health; the Democracy, Rights, and Governance working group; and HFG convened over 50 health governance experts to identify gaps in current understanding of the impacts of governance interventions on health outcomes. The workshop summary report identified 13 such gaps and examples of how to address them, including high-impact capacity building interventions, overcoming political barriers, reducing corruption, institutionalizing sustainability of health reforms, and improving health system responsiveness to communities. In 2016, the focus will be on increasing USAID’s and the global health community’s collective understanding of how governance contributes to health system performance. To that end, USAID will organize in May 2016 a consultative meeting of USAID health and governance experts, and various stakeholders engaged in health governance research to chart a course toward a knowledge-sharing event in 2017. The event will generate knowledge about the role of governance in strengthening health system performance. Ideas about how to work cross-sectorally to maximize opportunities to improve health will figure prominently. The knowledge generated will be captured in a final report of the event, a webinar, and a professional publication. Participants will recommend how other appropriate products can be translated into operational guidance and knowledge-translation activities for USAID stakeholders on how to improve governance practice to improve health system performance and health outcomes.

Evidence Gaps

⇒ How:
- To promote sustainability of governance reforms
- To demonstrate governance leads to improved health outcomes
- Political factors serve as barriers to achieving health outcomes
- To build capacity in core governance functions
- Is evidence used in different decision-making contexts
- National/sub-national power structures impact health reforms
- Increased transparency in service delivery improves health outcomes
- To build common agenda around commitment to health outcomes
- To ensure commitment to reform is not reversed by political change

⇒ What:
- Are the factors that motivate leaders for/against health reform
- Are the most effective governance interventions that improve access, quality, availability, financial protection and responsiveness
- Is the impact of corruption in the public vs. private sector services
- Is the impact of individual corruption on health outcomes

Quality Improvement Casebook

No publications currently describe “how” improvement teams carry out QI interventions in LMICs to improve health care processes. Few practitioners are trained to record this information at a level of detail that would allow an outsider with no involvement in the intervention to visualize how it took place. The casebook on quality improvement (QI) will expand knowledge available to health practitioners, policymakers, academics, and others on how to implement QI interventions in low-resource settings. As of February 2016, 27 draft cases have been submitted from countries with large-scale QI programs in Latin America, Africa, Asia and Eastern Europe. The cases highlight different aspects of a QI intervention, including organization; testing changes to health care processes; roles of coaches; and scale-up and institutionalization of improved care processes. The casebook review team created a standard review methodology for the purpose of extracting and compiling these details by engaging authors in a series of drafts, feedback, questions, and revisions. By the end of this exercise, the casebook will provide a model for documenting how QI methods are applied to health care processes in LMICs. The casebook is expected to be completed by fall 2017 and will include expert commentary and a synthesis of shared lessons.
Two activities address how to monitor and evaluate country-level HSS interventions, programs, and initiatives. One offers normative guidance to the global health community and USAID HSS actors based on substantial accumulated experience, while the other is a data-driven tool for HSS performance comparison. The status of each activity is summarized in Box 2.

**Box 2:**

<table>
<thead>
<tr>
<th>PERSPECTIVE</th>
<th>ACTIVITY</th>
<th>DESCRIPTION</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NORMATIVE GUIDANCE</strong></td>
<td>Guide to M&amp;E of HSS interventions and activities</td>
<td>Guidance for the global community for planning prospective M&amp;E of HSS programs and activities</td>
<td>Guide is being finalized in collaboration with MEASURE Evaluation; Guide will be available in May 2016</td>
</tr>
<tr>
<td></td>
<td>Operational guidance to accompany USAID’s Vision for Action for HSS</td>
<td>Operational guidance aligned with USAID Vision for Action for USAID HSS actors; concrete examples of applying M&amp;E methods to USAID-supported HSS activities</td>
<td>Operational guidance for USAID’s HSS Vision for Action will be available in June 2016</td>
</tr>
<tr>
<td><strong>PERFORMANCE COMPARISON</strong></td>
<td>Health Systems Benchmarking Tool</td>
<td>A tool that benchmarks countries on health systems functions, performance, and impact indicators; focus is MNCH, Malaria and AIDS-free generation initiatives using global health databases (WHO, WB, UNICEF, IHME, DHS)</td>
<td>Indicators database for health system functions, performance, and impact developed with HFG, focusing on MNCH; benchmarking and clustering analysis being tested; draft tool presented a USAID meeting in 2015; tool will be available for use in June 2016</td>
</tr>
</tbody>
</table>
A rapid assessment of 10 evaluations purposively selected for review from the USAID Evaluation Registry revealed a pressing need for systematic, normative guidance for HQ and the field on monitoring and evaluation of HSS interventions, programs, and initiatives. The assessment identified wide variation in monitoring and evaluation approaches and methods.

Limited guidance is available on generating evidence on the impact of HSS interventions, capturing interactions between specific HSS interventions and other health system functions to influence health system performance, and identifying unintended consequences of project interventions. In addition, M&E activities often do not receive adequate attention during the design of HSS projects, resulting in problems for developing good M&E systems for data collection and analysis in project implementation. Thus, a guide for M&E of HSS interventions is being developed with MEASURE Evaluation and will use a project management cycle (design, implement, monitor, and evaluate) to describe what M&E activities need to take place at different points in the cycle.

It will start with guidance on how to prepare the M&E section of project design, including developing a theory of change, defining the results framework, and identifying major performance and systemic indicators. It will also describe how to review the HSS M&E plan before the start of implementation and how to conduct HSS performance and systemic monitoring. Lastly, it will provide guidance on how to prepare scopes of work for various types of evaluations, reviewing an evaluation protocol, and monitoring evaluation implementation and evaluation reports. The guide will be available in May 2016.

To improve our understanding of health system performance and build the evidence base to inform decision-makers about HSS investments, it is helpful to (1) capture the status of a health system in a given country using health system indicators; (2) benchmark countries to their peers (e.g., those with similar socio-economic and demographic characteristics, regions, income) against internationally accepted health system functions, outcomes, and impact indicators; (3) identify high and low performers within peer groupings; and (4) determine systemic and non-systemic factors for performance. OHS and HFG are in the final stages of developing an Excel-based tool that will house over 100 indicators on countries’ socio-economic and demographic characteristics, health system core functions, health system outcomes, and health impact, that can be examined when looking at strengths and weaknesses in the system. Data currently span the period 2000 to 2014 and originate from publicly available third-party sources with validated methodologies (e.g., WHO, DHS, UNICEF, World Bank). The tool will allow users to understand a country’s health system and use various benchmarking parameters, such as mean, median, or a specified standard/target. A unique feature is the clustering function, which will allow users to group countries with similar socio-economic and demographic characteristics and thereby control for these factors during benchmarking. Analysts are currently discussing visualization functions and how to sustain the tool. The tool is expected to be available for download by June 2016.
One activity addressed the question of how we can ensure a coordinated, high-impact approach to health systems research in global health within USAID. Two perspectives, one from USAID/Washington staff and the other from USAID missions, are summarized in Box 3. The findings from these activities were disseminated via a stock-taking workshop and a report. OHS will use the findings to inform the new USAID GH Research Strategy 2016-2020.

Box 3:

<table>
<thead>
<tr>
<th>PERSPECTIVE</th>
<th>DESCRIPTION</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>USAID / WASHINGTON PORTFOLIO LANDSCAPE ANALYSIS</td>
<td>Analysis of current and anticipated health systems research supported by centrally funded projects that describes research priorities and the processes followed to identify them, mechanisms to carry out the research and current status, and extent to which priorities are aligned with similar research within and outside of USG</td>
<td>Both activities completed; findings disseminated via stock-taking workshop at National Press Club in September 2014; final workshop report completed and disseminated in February 2015; continuing engagement with USAID research group under discussion</td>
</tr>
<tr>
<td>USAID MISSION CONSULTATIONS</td>
<td>Interviews by OHS staff with HSS focal points and team leads to assess sources of evidence on HSS, research priorities, evidence needed for decision making, research constraints and facilitators, and advocacy</td>
<td></td>
</tr>
</tbody>
</table>
The first perspective was a landscape analysis of current and anticipated health systems research activities supported by centrally funded USAID health projects. The projects are located in all headquarters offices of the Global Health Bureau and Regional Health Teams. All health system research activities were summarized in 10 “profiles.” Each profile describes, for a discrete HSS focal area (financing, medical products, human resources for health, information, service delivery, and governance), current research priorities, the processes to identify priorities, the mechanisms to address these priorities, a summary of current status, and the extent to which these priorities are aligned with similar research within and outside of USG.

A cross-profile analysis was conducted to determine commonalities and differences in research. Results indicated some overlap among these priorities as well as some duplication at the individual study or activity level. This overlap may stimulate innovation, but also may result in inefficiencies, duplication of effort, or missed opportunities for collaboration if not managed carefully. The way research activities are tracked varies across projects, offices, and implementing partners, as do the types of tracking tools. Therefore, there are opportunities for enhanced knowledge-sharing, at a minimum, through improved information management, and possibly more cross-office collaboration. Results from the analysis also indicated that USAID’s health systems research priorities align well within the agency and with those of global development partners. However, alignment with other USG agency priorities is more challenging.

Research on activities targeting system functions specific to meeting the objectives of disease control and promotion programs dominates the research portfolio; consequently, the power of the portfolio to identify root causes of health system performance deficiencies, or to address the scalability and sustainability of short-term gains achieved by health programs, is limited. Therefore, additional research is needed on strategies that seek to change health systems arrangements (governance, financing, and service delivery) and/or systemic reforms intended to ensure delivery of multiple cost-effective programs and services (e.g., risk-pooling, pre-service education, personnel performance review, decentralization, accreditation, regulation).

USAID MISSION CONSULTATIONS

For the second perspective, HFG consulted with USAID mission staff to explore how the project could support staff in prioritizing investments in health system research, strengthening research implementation, and enhancing the use of evidence. The consultation found that for HSS focal points and health team leads to make the case for investment in HSS, they need evidence from implementation/operational research and evaluations that demonstrate how to improve program implementation and impact of HSS on priority health outcomes. Priority HSS interventions vary from one mission to another. Inconsistencies regarding the ways mission staff access HSS evidence show a need for a more aggressive knowledge management strategy. Generally, support for HSS and health systems research is lacking due to the difficulty in conveying the return on investment for HSS; therefore, mission colleagues’ recommendations for the way forward include capacity building at the mission level, flexible funding for evidence generation, and determining OHS’s role in coordinating the HSR portfolio.
## ANNEX I: INTEGRATED APPROACH TO MARSHALLING THE EVIDENCE

<table>
<thead>
<tr>
<th>Question</th>
<th>Categorization</th>
<th>MTE Products</th>
</tr>
</thead>
</table>
| 1. What do the literature and experience tell us about the impact of HSS interventions on health outcomes? | Published research | 1. Impact Policy Report  
2. Partnering with UNICEF on EQUIST Tool  
3. Investing in Global Health Systems  
4. Improving Quality of Care |
| | Practice-based or tacit knowledge | 5. Dynamics of Successful HSS Interventions  
6. Legacy of Investment in HSS in Central Asia  
7. Governance and Health System Performance  
8. Quality Improvement Casebook |
| | Performance tracking | 10. Health Systems Benchmarking Tool |
| 3. How can we ensure a coordinated, high-impact approach to health systems research in global health? | Landscape analysis of centrally funded projects and USAID mission consultations regarding expectations, concerns, needs about health systems research | 11. Strategic Thinking for Health Systems Research |

### AUTHORS AND CONTRIBUTORS

This report was authored by Joseph F. Naimoli and Sweta Saxena. Direct any inquiries to jnaimoli@usaid.gov and ssaxena@usaid.gov

Many people contributed to the development of this report. From USAID’s Office of Health Systems, we thank Karen Cavanaugh, Jodi Charles, Trent White, Jim Heiby, Rhea Bright, Anwer Aqil, Anna Mary Coburn, Scott Stewart, Adam Slote, and Yara Francis. We also would like to acknowledge the contributions of Laurel Hatt and Abigail Conrad from Abt Associates, and Jeremy Kanthor from Development Alternatives, Inc.