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# SYNOPSIS: IMPACT OF HEALTH SYSTEMS STRENGTHENING ON HEALTH



## THE CHALLENGE

*“We will not be successful in our efforts to end deaths from AIDS, malaria, and tuberculosis unless we do more to improve health systems around the world.”* - President Barack Obama, 2009


Leaders in low- and middle-income countries (LMICs) require timely and compelling evidence about how to strengthen their health systems to improve the health and well-being of their citizens. Yet, evidence on how to strengthen health system performance to achieve sustainable health improvements at scale, particularly toward Ending Preventable Child and Maternal Deaths (EPCMD), fostering an AIDS-Free Generation (AFG), and Protecting Communities against Infectious Diseases (PCID) is limited. The evidence that does exist is scattered, insufficiently analyzed, and not widely disseminated. Without evidence, decision-makers lack a sound basis for investing scarce health funds in health systems strengthening (HSS) in an environment of competing investment options.

**USAID is committed to advancing the evidence base on HSS and this commissioned report clearly demonstrates that HSS can improve health in LMICs.**

## What We Learned

This report, based on a review of systematic reviews of the effects on health of HSS, presents a significant body of evidence linking HSS interventions to measureable impact on health for vulnerable people in LMICs. Making decisions on who delivers health services and where and how these services are organized is important to achieve priority health goals such as EPCMD, AFG, and PCID. The findings of this report document the value of investing in HSS.

 **ETHIOPIA:**  
**40% REDUCTION**  
**in all-cause mortality**  
following community worker-based management of malaria in rural setting

 **NEPAL:**  
**30% REDUCTION**  
**in neonatal mortality,**  
**80% REDUCTION**  
**in maternal mortality**  
as a result of community-based, participatory health interventions (cluster-randomized evaluation in one district)

**1** | HSS interventions were associated with **reductions in mortality** at different stages in the life cycle: neonatal and/or perinatal, infant, under-five, and maternal.

- Neonatal and perinatal mortality rates lowered by training health workers to improve service quality and strengthening community health services.
- Infant mortality lowered by integrating primary health care and health insurance.
- Maternal mortality lowered by promoting community and provider engagement, conditional cash transfers and training health workers to improve service quality.
- Under-five mortality lowered by promoting community and provider engagement and strengthening community health services.
- Mortality lowered by task-sharing compared to traditional HIV patient care.

**2** | HSS interventions were associated with **reductions in morbidity** for a range of conditions—acute and chronic, infectious and non-infectious—including diarrhea, sexually transmitted diseases, under-nutrition, malnutrition, low birth weight and complications, diabetes, and mental disorders.

- Childhood diarrhea lowered by contracting out service provision.
- Sexually transmitted infections reduced by the provision of vouchers.
- Postnatal depression reduced through task sharing.
- Under-nutrition reduced by contracting out service provision, conditional cash transfers, and performance-based financing.
- Birth weight improved by the provision of conditional cash transfers.
- Reported health improved by conditional cash transfers, contracting out service provision, and supply-side performance-based financing programs.
- Health insurance associated with reductions in morbidity for a range of conditions, including diabetes, birth complications, and pain, anxiety, and depression.

**3** | HSS interventions were associated with **improvements in service utilization, financial protection, and quality service provision**, all important outcomes on the pathway to improved health. The strongest evidence for task-sharing comes from three systematic reviews assessing nurse-led provision of antiretroviral therapy (ART) for HIV/AIDS treatment. The authors found that nurse-led routine HIV/AIDS care is comparable to—and possibly better than—physician-led care. Another review including 20 peer-reviewed articles looked at the impact of integrating HIV/AIDS services with maternal, newborn and child health, nutrition, and family planning services on service utilization indicators and health behaviors.



- Integrating antenatal care and ART services doubled the proportion of individuals initiating treatment during pregnancy and reduced delays between HIV diagnosis and treatment initiation.
- Integrating child malnutrition services with HIV testing led to 30% higher uptake of HIV testing among children and caregivers, as well as a significant increase in the number of children recovering from malnutrition.
- Integrating HIV testing and family planning services resulted in increased contraceptive uptake, increased condom use, fewer pregnancies and an increase in the percentage of clients tested.

**4** | The report identified **13 types of HSS interventions with quantifiable effects on health**. Many of the interventions straddle several health system functions and often overlap or are implemented in combination. Table 1 summarizes the health impact and outcome effects for each intervention.

**TABLE 1: SUMMARY RESULTS OF SYSTEMIC REVIEW:**

Documented Effects of Thirteen types of HSS interventions. (The list is not comprehensive. The absence of a given HSS intervention only reflects the absence of published systemic reviews on the specific intervention)

HSS FUNCTION	TYPES OF INTERVENTIONS	IMPROVED SERVICE PROVISION/ QUALITY	INCREASED FINANCIAL PROTECTION	INCREASED SERVICE UTILIZATION	UPTAKE OF HEALTHY BEHAVIORS	REDUCED MORBIDITY/ MORTALITY
<b>HRH</b>	Task sharing/task shifting	✓				✓
	Health worker training to improve service quality	✓			✓	✓
<b>FINANCE</b>	Supply-side performance-based incentive programs		✓			✓
	User fee exemptions		✓			
	Conditional cash transfers		✓	✓	✓	✓
	Voucher programs		✓	✓	✓	✓
	Health insurance		✓	✓		✓
<b>GOVERNANCE</b>	Contracting out service provision		✓	✓		✓
	Community engagement/ decentralization	✓		✓	✓	✓
<b>INFORMATION</b>	Information technology support (mHealth and eHealth)			✓	✓	✓
<b>MEDICINES VACCINES &amp; TECHNOLOGY</b>	Pharmaceutical systems strengthening initiatives	✓				
<b>SERVICE DELIVERY</b>	Bringing health services closer to community level			✓	✓	✓
	Service integration			✓	✓	✓

**5** There is considerable space for **expanding and shoring up HSS literature**. The current weaknesses reflect, in part, the particular challenges that health systems researchers face in generating evidence on HSS impact.

- The distal nature of many HSS interventions often makes it difficult to draw causal connections and implies a longer time horizon for effects to be observed.
- HSS interventions are complex, often interconnected, and operate system-wide, with multiple related tasks occurring simultaneously. This dynamic phenomenon makes it difficult to isolate the individual factors that influence a health change.
- Analyses of the interactions among HSS interventions are rare.
- The universality of systems-level interventions sometimes makes it difficult to identify a plausible control group, further limiting researchers' ability to draw inferences about impacts.

 **GHANA,**  
 **THE GAMBIA,**  
 **BENIN:**

**63% REDUCTION**  
**in under-5 mortality**  
 after Community Health Workers provided basic treatment, insecticide-treated nets and education (highest-quality review)

## 6 | We need to be judicious in **how we interpret the findings** of this review.

- There is an absence of published systematic reviews on many well-known HSS interventions. The absence of a given intervention from this report reflects an absence of published systematic reviews on the intervention and does not lead us to conclude that it is not effective.
- None of the systematic reviews consulted included a comparative evaluation of the relative effectiveness of alternative HSS interventions; consequently, we cannot conclude that the interventions listed represent HSS “best buys”.

## Recommendations

- **ENGAGE POLICY-MAKERS AND OTHER STAKEHOLDERS**—in LMICs and globally—in exploring how to use the findings from this report to ensure funding and implementation of these proven HSS interventions and evaluation of other such interventions.
- **EXPAND THE VOLUME OF RESEARCH.** The field of HSS would benefit from a greater investment in research so that a larger body of HSS interventions could be studied, particularly via investigations that examine the relationship between HSS interventions and impact- and outcome-level measures.
- **ENRICH THE METHODOLOGY FOR STUDYING HSS INTERVENTIONS.**
  - Additional methods for estimating the effects of HSS interventions in complex, adaptive systems are needed. Some of these methods have been used in fields other than health.
  - Understanding why an HSS intervention works, in what situations it is most likely to work, and identifying important enablers for success is as important as understanding whether the intervention works.
  - Greater investment in implementation research can improve our understanding of how an intervention is conducted, what challenges it faces, and how the implementation of the intervention adapts to challenges over time.



### METHODOLOGY:

USAID commissioned the Health Finance and Governance Project to conduct a review of published literature reviews assessing the effects of HSS interventions on health in LMICs. The researchers identified 66 systematic reviews from the McMaster University Health Systems Evidence Database and the online database PubMed that met the review’s inclusion criteria for analysis. These reviews cover more than 1,500 individual peer-reviewed studies on the effects of HSS interventions on health.

## For More Information

Hatt, Laurel, Ben Johns, Catherine Connor, Megan Meline, Matt Kukla, and Kaelan Moat, June 2015. *Impact of Health Systems Strengthening on Health*. Bethesda, MD: Health Finance and Governance Project, Abt Associates Inc. (<https://www.hfgproject.org/impact-hss-health>).



### UGANDA:

**33% REDUCTION**  
**in under-5 mortality**

as a result of a rural  
monitoring initiative