UNDERSTANDING THE DYNAMICS OF SUCCESSFUL HEALTH SYSTEM STRENTHENING INTERVENTIONS: CROSS-CASE ANALYSIS

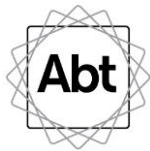**The Health Finance and Governance Project**

USAID's Health Finance and Governance (HFG) project helps to improve health in developing countries by expanding people's access to health care. Led by Abt Associates, the project team works with partner countries to increase their domestic resources for health, manage those precious resources more effectively, and make wise purchasing decisions. The five-year, $209 million global project is intended to increase the use of both primary and priority health services, including HIV/AIDS, tuberculosis, malaria, and reproductive health services. Designed to fundamentally strengthen health systems, HFG supports countries as they navigate the economic transitions needed to achieve universal health care.

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ACRONYMS

CDC	U.S. Centers for Disease Control and Prevention
CFIR	Consolidated Framework for Implementation Research
COE	Maternal and Child Centers of Excellence: Improving health systems and quality of services in the Dominican Republic
CP	Improving Care through Patient-Centered Clinical Pharmacy Services activity
Dialogue	Dialogue Project on HIV/AIDS and TB
HFG	Health Finance and Governance Project
HSS	Health Systems Strengthening
M&E	Monitoring and Evaluation
MOH	Ministry of Health
PEPFAR	President's Emergency Plan for AIDS Relief
PMI	President's Malaria Initiative
REP	Replicating Effective Programs
TB	Tuberculosis
Twubakane	Twubakane Decentralization and Health Program
USAID	United States Agency for International Development
USG	U.S. Government
WHO	World Health Organization
ZISSP	Zambia Integrated Systems Strengthening Program

EXECUTIVE SUMMARY

USAID's Health Finance and Governance project (HFG) contributes to USAID's assistance to countries to deliver key health services and builds the evidence base around health systems strengthening (HSS). Under HFG's research portfolio, a series of retrospective, qualitative case studies were undertaken to understand the dynamics of successful HSS interventions by focusing on how HSS projects were implemented. This report presents the results of analysis across the five cases. The aim of this study is to address four key questions:

1. How were a range of successful HSS interventions implemented in different countries?

2. What factors facilitated and constrained the successful implementation and documented outcomes of the interventions?

3. What were important factors about implementation that emerged across the different cases?

4. What are the implications of this study for implementing future HSS interventions?

We used an implementation framework to guide data collection and analysis for the individual case studies and the cross-case analysis to determine which factors influence implementation (Damschroder et al. 2009; Kilbourne et al. 2007). The implementation framework organizes key domains along four key project phases: pre-condition, pre-implementation, implementation, and maintenance and evolution. We organize our analysis and results along these phases and domains.

Pre-condition. The pre-condition phase of the framework includes the enabling environment, implementation setting, and project design. Each of the cases presented a variety of structural considerations that shaped the design and implementation of HSS projects. While key features of the enabling environments varied across projects (e.g., economic status, governance), they were largely supportive of the projects. One of the most prominent cross-case dimensions of the enabling environment was decentralization, which was present for several cases. The project designs were largely guided by agreed-upon problems and well-defined sets of solutions; developed with strong involvement from sub-contractors, local implementing partners, and governments; and focused on solving service delivery problems.

Pre-implementation. The pre-implementation phase of the framework, which addresses implementation groundwork, was considered to be an important part of effective implementation. We found that some of the important considerations in pre-implementation were the diverse composition of implementing teams, the identity of the prime, the inclusive and engaging manner in which the project was structured, the different types of planning processes in which various stakeholders participated, and their attendant use of existing data. These themes directly informed the subsequent implementation of project activities and further contributed to effective maintenance and evolution.

Implementation. The implementation phase of the framework includes execution of activities, actor engagement, and cost. We found that several aspects of the implementation approach were closely related to the projects' design and reflected the partners' follow-through on the original vision – projects were implemented at multiple levels of the health systems, and most projects acted as catalysts of government initiatives, and implemented activities that addressed governance and accountability. Project implementation was affected by national context, external forces, and factors internal to the project. Several projects demonstrated learning and adaptation in response to these external factors.

Respondents from all projects described the strong partnerships between prime and subcontractor partners as well as strong engagement with USAID, ministries of health, and other government actors.

Maintenance and evolution. The maintenance and evolution phase includes sustaining implementation and dissemination. For all the cases, at least partial components of the projects' original portfolio have been sustained, although challenges to sustainability were identified by respondents. Notably, all the projects appeared to have taken sustainability into account during project design and several projects made changes to the focus or mechanics of the project in order to make the activities more likely to be sustained. Respondents did not identify unexpected changes and dissemination of project activities as important factors in the projects.

Challenges. Cutting across the implementation phases, we collected data on challenges faced by the projects and lessons learned. Respondents primarily reported implementation challenges that were external to the project and affected broad programming strategies rather than routine implementation. The most common types of challenges that respondents identified concerned the characteristics of the target facilities and broader health system context. Across the projects, respondents most commonly identified lessons around three topics – the importance of early and meaningful engagement with multiple levels of government, specific components of project design to consider, and a range of specific interventions or project strategies to improve project quality and effectiveness.

Recommendations:

1. **Expect project to be responsive to local conditions and priorities.** Donor-supported projects need to not only reflect local conditions in their design but also be sensitive to them. Due to the complexity of implementing HSS activities, engagement with government actors and flexibility on the part of donors (e.g., in process, targets, change) is essential. Further, project designs should be driven by local priorities to ensure local support and commitment, capitalize on aligned efforts, and build sustainability.

2. **Encourage efforts to target multiple levels of the health system.** Even if the specific effort has a relatively narrow focus, targeting the same issue at multiple levels of the health system is more likely to address the bottlenecks that impede lasting change.

3. **Engage multiple stakeholders early, often, and with purpose.** HSS efforts are likely to touch on issues that affect multiple stakeholders whether within the Ministry of Health (MOH), the government as a whole, development partners, and civil society. Understanding the actors and institutions with interests at stake is critical, and engaging them early, often, and with specific goals lays the groundwork for a more productive relationship.

4. **Ensure participatory planning.** Implementation of HSS requires careful planning, which should engage not only those implementing the activities but also those impacted, both within the system and as beneficiaries. Mechanisms for participatory planning should be feasible and context-specific but there should be an *a priori* expectation that many stakeholders will engage and collaborate in project planning. Further, planning should be aligned with government priorities (for donor-funded projects) and sector-wide coordination between government and development partner projects is crucial.

5. **Reframe monitoring and evaluation (M&E) of HSS implementation as an opportunity for learning.** Stakeholders should carefully reflect on the purpose of the activities and the core responsibility for accountability, both in terms of who is responsible for carrying out M&E efforts and who ensures that changes are enacted as needs emerge. Likewise, the indicators selected need to capture more of the process of HSS implementation rather than health outcomes, which may be too distal to be affected. Incorporating M&E and learning cycles

into a project's design would allow for greater synergy between implementation and learning. Of particular relevance to donor-supported projects, careful consideration should be given to the role that local stakeholders, including the MOH, can play in carrying out M&E and holding implementing partners accountable for findings.

I. BACKGROUND AND RATIONALE

The World Health Organization's (WHO) health system framework delineates six essential building blocks that are necessary for improved health outcomes – service delivery; health workforce; information; medical products; vaccines and technologies; financing; and leadership/governance (WHO 2007: 3). According to the WHO, health systems strengthening (HSS) interventions are those that implement "changes in policy and practice in a country's health system" and improve "one or more of the functions of the health system and that leads to better health through improvements in access, coverage, quality, or efficiency" (WHO 2011: 9). HSS came out of the health sector reform movement of the 1990s and became an important approach to achieving global health goals (GHI 2012: 5). HSS interventions are horizontal approaches that can address the root causes of health system constraints and impact multiple issues, rather than vertical service- or disease-specific interventions like health system support programs (Travis et al. 2004: 903). In practice, HSS interventions and reforms are difficult to implement given their complexity and broad scope.

Evidence is scarce, scattered, and not widely disseminated on how interventions to strengthen health system performance contribute to sustained improvements in health status, particularly toward ending preventable child and maternal deaths and fostering an AIDS-free generation. A recent literature review found that few evaluations of HSS interventions assessed impacts on more than one health system building block and none investigated system-level impacts. As a result, many of the evaluations do not reflect the complexity of HSS interventions and do not explore the system effects of the interventions (Adam et al. 2012: 14). Another recent review of the HSS literature found that certain interventions have resulted in improved outcomes, but that the same intervention was not successful in every situation (Hatt et al. 2015). These two literature reviews point to the limited evidence and understanding of HSS impacts and how they vary.

There is both a knowledge gap and urgency in understanding the dynamics of successful HSS interventions or what is in the "black box" of successful HSS interventions, particularly in low-income countries. Without this evidence, decision makers lack a sound basis for investing scarce health funds in HSS interventions in an environment of competing investment options. This evidence gap impedes support for HSS from numerous stakeholders, both within and outside of USAID.

To address this evidence gap, USAID's Office of Health Systems has adopted an integrated approach to marshalling the evidence on the impact of HSS on health outcomes. This initiative brings together a variety of existing and new activities that attempt to answer important technical, methodological, and strategic questions. Under this portfolio, the Health Finance and Governance (HFG) project is conducting a study of why and how successful USAID-supported HSS interventions achieved success.

This document presents the cross-case analysis. In this section, we present the study objectives and research questions. In Section 2, we present the research methods. In Section 3, we present the results of the cross-case analysis. Finally, in Section 4, we present reflections and recommendations.

1.1   Objectives

The goal of this study is to bring into better balance our focus on "what works" in HSS with "**how HSS works**" to **improve the performance of future HSS efforts**. This report presents the results from the cross-case analysis of five qualitative, retrospective case studies of successful USAID-supported HSS interventions.

The aim of this study is to address four key questions:

1. How were a range of successful HSS interventions implemented in different countries?

2. What factors facilitated and constrained the successful implementation and documented outcomes of the interventions?

3. What were important factors about implementation that emerged across the different cases?

4. What are the implications of this study for implementing future HSS interventions?

We used an implementation framework to guide the individual case studies and the cross-case analysis to determine which factors influence implementation, and to comment on the applicability of the framework for HSS interventions. We developed this framework by combining two implementation frameworks – the Consolidated Framework for Implementation Research (CFIR) (Damschroder et al. 2009) and the Replicating Effective Programs (REP) framework (Kilbourne et al. 2007). Both CFIR and REP are based on implementation theories and empirical evidence of what affects the successful implementation of health interventions. We used CFIR to frame the intervention and REP as a framework that focuses on project implementation process (Conrad et al. 2016). Figure 1, outlines the combined framework.

Figure 1: Outline of combined implementation framework
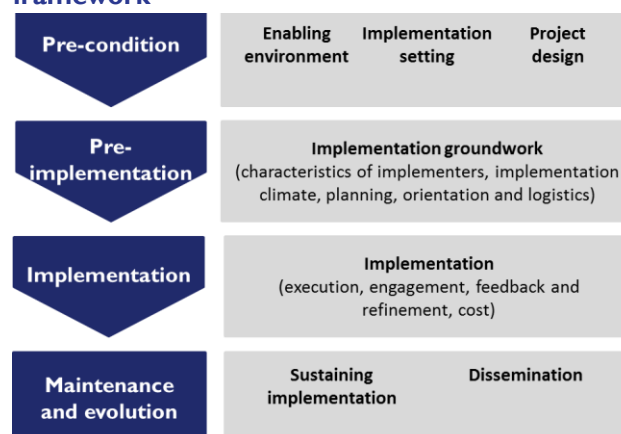
1.2   Case selection

Our objective in the case selection was to purposively select six cases from the 143 cases submitted to *USAID's 2014 Global Call for HSS Cases* that are successful, robust examples of HSS interventions. The reviewers engaged in a multi-stage sampling process consisting of four sequential selection rounds that excluded cases that did not meet the specified criteria in each round using the identified available data and the predetermined review method. The four selection rounds were as follows:

1. **Round 1:** Reviewers considered only those interventions that were fully implemented before the start of the selection process (Oct 2015).
2. **Round 2:** Reviewers accepted the submitter's self-reported definition of HSS, labeled the intervention "provisional," and sought a determination of an "effective" intervention.
3. **Round 3:** Reviewers applied criteria to determine whether a provisional, effective HSS intervention could be confirmed as HSS.

4. **Round 4:** Reviewers applied criteria to determine whether a confirmed, effective HSS intervention was robust.

To ensure impartiality when reviewing and selecting the cases, team members from implementing partners who submitted cases were not involved in scoring the cases implemented by their respective organizations either as primary reviewer or tiebreaker. In addition, we tried to keep the review of cases blind in terms of the implementing partner throughout the process. When we made the final case selection, although it was primarily based on scores, we still did not label the cases with the implementing partner.

We describe each selection round in detail below.

1.2.1   Case selection process

Round 1: Criteria for a completed intervention

To be included in the study, the submission must have stated that the implementation period of the intervention ended before the beginning of the study, which was October 31, 2015. The purpose of this criterion was to ensure that the success of the intervention could be assessed and to increase the likelihood of maximum documentation of the intervention's effect.

Round 2: Criteria for determining whether a provisional HSS intervention was effective

The reviewers defined an "effective" provisional HSS intervention as one that had a positive effect on health system outcomes *and* health impacts with the potential to sustain, at scale, the short- and medium-term gains of multiple programs (Travis et al. 2004). The reviewers applied three criteria to arrive at a judgement of "effectiveness." The case had to satisfy all three criteria to pass to the next round. Those criteria were as follows:

1. The case describes implementation of at least one of 13 types of interventions for which there are documented effects on health impacts and health system outcomes as determined by HFG's "Impact of HSS on Health" systematic review (Hatt et al. 2015);

2. The case describes achievement of one of five health impacts *and* health system outcome measures as identified by HFG's review (Hatt et al. 2015); **and**

3. The case referenced documented impact on health or health systems outcomes (e.g., a final monitoring and evaluation (M&E) report or evaluation).

Round 3: Criteria for determining whether a provisional, effective HSS intervention was a confirmed HSS intervention

The reviewers classified an effective, provisional HSS intervention as a confirmed HSS intervention if it represented a broad architectural approach or strategy that aimed to address the underlying or root causes of sub-optimal performance of *multiple* disease control and health promotion programs. As identified in Chee et al. 2012, one of the criteria that qualifies an intervention to be system strengthening is that it has cross-cutting benefits beyond a single disease with the potential to create a "more cohesive and integrated health system" (Chee et al. 2012: 5). The case had to satisfy this single criterion to pass to the next round; it had to state that the activity targeted at least two diseases with equal importance.

Round 4: Criteria for determining whether an effective, confirmed HSS intervention was robust

In theory, a robust HSS intervention is one that improves six health system functions,[1] addresses sub-system components within the broader functions (e.g., human resources within the financing system or financing within the pharmaceutical system), and manages "their interactions in ways that achieve more equitable and sustained improvements across health services and health outcomes" (WHO 2007:4).

In practice, none of the cases from selection round 3 addressed all six functions of the health system, although many addressed more than one function. The reviewers ranked the cases from round 3 by the number of health system functions and sub-system functions that they addressed, assuming that the more complex the intervention was at a high system level and sub-system level, the more "robust" the health systems intervention. To be considered "robust," the case had to satisfy both of the following criteria:

1. The intervention addressed at least two health system functions; and

2. The intervention addressed at least three sub-system functions.

1.2.2   Selected cases

The first selection round began with the 143 cases submitted to the Global Call and each subsequent selection round included the cases that met the criteria for the previous round (Table 1). We sequenced the stages to prioritize the key factors of success and HSS while aiming to remain as inclusive as possible in each round until the final selection round. Note that team members did not review cases from their home institution in rounds 3 and 4 to ensure impartiality. Cases that were excluded from each round were double checked to verify exclusion. In rounds 1 and 2, a team member verified the initial automated exclusion. In rounds 3 and 4, a second team member verified the exclusion and a third broke a tie if necessary. Each stage was documented, including the reason for the inclusion and exclusion of each case (see Annex A for more information).

Table 1: Summary of case selection results

Round	No. cases reviewed	No. cases met criteria	Criteria
1	143	108	Project completed by October 31, 2015
2	108	39	Implemented one of 13 effective HSS interventions (as documented in Hatt et al. 2015), achieved one of five health impacts *and* health system outcomes (as defined in Hatt et al. 2015), and referenced documentation of the health outcome or impact
3	39	28	Confirmed an HSS intervention because addressed multiple disease control and health promotion programs
4	28	10[2]	Categorized as robust HSS interventions because intervention addressed at least two health system functions and at least three sub-system functions

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[1] According to WHO, the six health system functions or building blocks are governance, financing, human resources for health, information, medicines and commodities, and service delivery (WHO 2007: 3).

[2] In this round, we consolidated five cases to one because multiple components of an intervention were submitted as five different cases in the Global Call.

We selected the final six cases for inclusion in the study by ranking the cases from round 4 by the number of health system functions and sub-system functions that they addressed.[3] We reviewed the top six ranked cases to determine if each high-level health system function was represented at least once across the cases and that no country was represented more than once. To ensure diversity of cases, we selected the top-ranked cases, replaced the lower-ranked duplicate country case with the next in the ranking,[4] and replaced the lowest-ranked case with the next in the ranking with the unrepresented health system function so all six were represented.[5]

Table 2 presents the selection and inclusion criteria for the five completed case studies, including information about the high-level health system function and sub-system functions on which they intervened. We were unable to complete one case study because we could not collect sufficient data for analysis.

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[3] Prior to completing the review process, we decided that if at least six cases did not meet all of the criteria, then we would reexamine our case selection criteria and determine how to move forward. This was not an issue though, as 10 cases met all of the selection criteria.

[4] One case was replaced in this way.

[5] One case was selected in this way.

Table 2: Selected case studies and health systems functions

Round	Criteria	Inclusion criteria	Maternal and Child Centers of Excellence: Improving health systems and quality of services in the Dominican Republic (COE)	Improving Health Outcomes through Clinical Pharmacy Services – Ethiopia (CP)	USAID Dialogue on HIV and TB Project (Central Asia) – Kazakhstan ("Dialogue")	Twubakane Decentralization and Health Program – Rwanda ("Twubakane")	Zambia Integrated Systems Strengthening Program (ZISSP)
1 (implementation period)	Implementation completed	Submission states implementation period was completed by 10/2015	2014	2014	2015, March	2010	2014
2 (impact and evidence)	Effective intervention	One of 13 identified types of interventions referenced	Accountability and engagement interventions	Accountability and engagement interventions			Accountability and engagement interventions
							Health insurance
			Health worker training to improve service delivery	Health worker training to improve service delivery	Health worker training to improve service delivery		Health worker training to improve service delivery
							Information technology supports
			Pharmaceutical systems strengthening initiatives	Pharmaceutical systems strengthening initiatives		Pharmaceutical systems strengthening initiatives	
			Service integration	Service integration	Service integration	Service integration	Service integration

					Strengthening health services at the community level	Strengthening health services at the community level	Strengthening health services at the community level
						Task sharing/task shifting	
				Voucher programs			
	Health systems outcome	One of 4 health systems outcomes referenced	Improved service provision/quality	Improved service provision/quality		Improved service provision/quality	Improved service provision/quality
					Uptake of healthy behavior	Uptake of healthy behavior	Uptake of healthy behaviors
	Health impact	Health impact referenced	Reduced morbidity and mortality	Reduced morbidity and mortality	Reduced morbidity and mortality	Reduced morbidity and mortality	Reduced morbidity and mortality
	Both health system outcome and health impact	At least one health system outcome and health impact referenced	Yes	Yes	Yes	Yes	Yes
	Verification of health impact and health system outcome achieved	One type of documentation is referenced for at least one health impact or health system outcome	Project M&E data	Project M&E data	Project M&E data	Project M&E data	Project M&E data
3 (HSS)	Multiple primary disease targets	At least 2 diseases targeted referenced	Maternal and child health	All	HIV, TB	Family planning, reproductive health, child health, malaria, nutrition	Malaria, diarrhea, HIV/AIDS, bilharzia, maternal and child health

4 (robust HSS)	Multiple health system functions and sub-systems targeted	At least 2 HSS WHO building blocks targeted and at least 2 sub-systems functions targeted	*Building blocks:*	*Building blocks:*	*Building blocks:*	*Building blocks:*	*Building blocks:*
						Financing	
				Health workforce	Health workforce	Health workforce	Health workforce
			Leadership and governance			Leadership and governance	Leadership and governance
			Service delivery		Service delivery		
			Sub-systems functions:	*Sub-systems functions:*	*Sub-systems functions:*	*Sub-systems functions:*	*Sub-systems functions:*
					Governance		
						Financing	
			Health workforce	Health workforce	Health workforce	Health workforce	Health workforce
			Information		Information		Information
			Leadership and governance	Leadership and governance		Leadership and governance	Leadership and governance
			Pharmacy and medical technology	Pharmacy and medical technology			
			Service delivery	Service delivery	Service delivery	Service delivery	Service delivery
	Verification that intervention was successful HSS intervention	Intervention had health system outcome and health impact, and targeted multiple diseases and health system functions	Yes	Yes	Yes	Yes	Yes
	Category D for HSS intervention type	Based on typology of HSS we developed, case addresses at least 2 health	Yes	Yes	Yes	Yes	Yes

	system functions and at least 3 sub-systems					
Category E for HSS intervention type (not inclusive of D)	Based on typology of HSS we developed, case addresses at least 2 health system functions and at least 4 sub-systems	Yes	Yes	Yes	Yes	Yes

1.3 Individual case studies

Individual case studies were developed for each of the cases identified above based on document review and key informant interviews, which serve as the foundation for the cross-case analysis. Two important changes from the study design should be noted. First, it was not possible to get sufficient materials or interviews for the Projet Kineya Ciwara in Mali so this case was discontinued. Second, during data collection it became evident that the Improving Health Outcomes through Clinical Pharmacy Services in Ethiopia was only one component of a larger project despite the information provided during the initial case submission. Although this group of activities had been completed as of October 2015, the overall project was still ongoing.

A summary of relevant case study features is in Table 3, and individual case study reports are also available (see Rodriguez 2016; Arem and Conrad 2017; Koon 2017; Sciuto 2017; Keane and Rodriguez 2016).

Table 3: Case study features

Project	Country	Period	Budget / Funding source	Prime contractor	Sub-contractors	Local implementers	Focus
COE	Dominican Republic	Feb 2009 – Feb 2014	$15,500,000 / USAID	Abt Associates	CESDEM, INTEC, SISPROSA, Universidad CES, and Cultural Practice LLC.		Quality and management improvement
CP	Ethiopia	2012 – 2016	$428,299/ USAID	Management Sciences for Health		Jimma University, Mekele University, PFSA	Clinical pharmacy services
Dialogue	Kazakhstan	Oct 2009 – Aug 2015	$3.04 million (Kazakhstan), $14.8 million (project) /USAID	Population Services International (PSI)	AIDS Foundation East-West, Project HOPE, Kazakh Association for people living with HIV/AIDS	9 different local NGOs	Treatment and support for HIV/AIDs and TB in key populations
Twubakane	Rwanda	Jan 2005 – Jan 2010	$34,871,226/ USAID	IntraHealth	RTI International, Tulane University, EngenderHealth	RALGA, Pro-Femmes Twese Hamwe, VNG	Local district management and financing to inform access to and quality of health care services
ZISSP	Zambia	Jul 2010 – Dec 2014	$88,092,613/ USAID	Abt Associates	Akros, ACNM, BRITE, LSTM, JHU CCP	Planned Parenthood Association of Zambia	Strengthen systems for planning, management, and delivery of quality, high-impact health services at

							national, provincial, and district levels

II

We conducted retrospective case studies for each selected project. For each case study, we conducted document review of the relevant published and unpublished documents about the intervention that we were able to obtain. We also conducted interviews with key informants for each case (see below for sample). For a full discussion of our methods, see the study design.

2.1 Sample

For primary data collection, we conducted individual interviews with key informants who possessed in-depth knowledge of the history and workings of the HSS interventions. We followed a common semi-structured interview guide for the interviews, but adjusted the questions posed as applicable for the respondent and their role in the project. We conducted interviews in English, Spanish, and Russian as applicable. We documented each interview through verbatim notes in English. Across cases, we conducted 44 interviews (see **Error! Reference source not found.** for detail). Informants included representatives of USAID's implementing partners who sponsored the intervention, relevant Ministry of Health (MOH) officials, and USAID mission staff with knowledge of the intervention, as appropriate and feasible. We were not able to interview key informants across all institution types for all cases.

Table 4: Key informant sample by institution and project

Project	Informant institutional affiliation				Total
	Prime implementer	Sub-contractor or grantee	Government	USAID	
COE	5	0	2	2	9
CP	4	2	1	1	8
Dialogue	2	4	0	1	7
Twubakane	6	3	2	0	11
ZISSP	3	4	1	1	9
Total	**20**	**13**	**6**	**5**	**44**

2.2 Cross-case analysis

We analyzed the five descriptive narratives to help generate explanations for successful HSS interventions. The cross-narrative analysis sought to build or strengthen the evidence base for the "how" and "why" of what works in HSS by determining which implementation domains and factors from the implementation framework influenced the success of the interventions. We looked for common and divergent factors that were present or absent across cases and contexts, and we tried to determine the relationships between the implementation factors and domains based on our findings. As an exploratory study, these findings can provide some insight on the factors that may be associated with successful HSS implementation and inform future studies of HSS interventions.

A first step in the cross-narrative analysis was exploratory: (1) to examine what the data in each narrative look like; and (2) to achieve a thorough understanding of the dynamics of each narrative before proceeding to cross-narrative explanations. Then, we used a variable-oriented strategy to analyze across

the cases (Miles and Huberman 1994) using unit-by-variable matrices to test the emergent findings (Bernard and Ryan 2010). This variable-oriented strategy focused on the how the domains and factors within each of the four implementation phases that provide the structure for each narrative – pre-conditions, pre-implementation, implementation, and maintenance and evolution – were similar or divergent across the narratives. Studying variation among these domains and features informed analysis about the nature and relative importance of different processes, or combination of processes, associated with successful interventions. We judged the relative importance of factors by how frequently and consistently it was discussed and how the respondent characterized the factor (e.g., statements of its relative importance compared to other factors). It allowed us to identify if there were several paths to a similar outcome, the same path to different outcomes, or different paths to different outcomes. Further, inductive thematic analysis was completed to look for sub-variables of note within these features, and/or additional variables that contributed to a successful intervention, but which are not part of the implementation framework.

As was the case with the individual narratives, a representative from the technical advisory group provided comments on the cross-case narrative. The research team finalized the analysis and narrative based on this feedback.

2.3   Reflections on implementation frameworks

We drew the combined implementation framework (see Table 5) from the CFIR (Damschroder et al. 2009) and the REP (Kilbourne et al. 2007) frameworks. We used CFIR to more broadly frame the intervention and we use REP as a framework to focus on the project implementation process. We first mapped the links between both of the frameworks because there were a number of areas of overlap and REP is one of the frameworks on which CFIR is based. Next, we determined which domains were either not applicable for our study or not feasible to investigate. These included some constructs with the outer setting domain and characteristics of individuals involved in CFIR. Then, we organized the framework according to the implementation phases in REP. After this, we consolidated the remaining domains and factors to streamline the framework and make it more amenable to an exploratory application. Finally, we differentiated the organizational factors of the implementing partners (e.g., prime and sub-contractors) from those of the target organizations in which the intervention was implemented (e.g., MOH). CFIR and REP seem to assume that an organization is implementing the project within their own organization (e.g., hospital is implementing changes with own staff). This was not applicable in the projects we investigated because they were funded by USAID, which contracts organizations to implement projects in a host country. We used the framework to guide our data collection and analysis, but we did not apply the framework in a structured manner.

Our attempts to ground this research in the implementation framework resulted in several observations:

1. Some factors of the combined framework were too granular to apply in practice while others like engaging and executing were too broad to be useful in analysis because they captured so much variation.

2. There was significant overlap between certain factors (e.g., intervention source and identification of effective intervention), and potential for factors to fit in more than one framework domain (e.g., adaptability both in pre-condition and implementation).

3. A number of sub-categories were unused during our analysis (e.g., draft package, start-up, unexpected consequences). It is unclear if these were not relevant to the cases under study, if the factors were too specific, or if we did not collect data on it because they were retrospective case studies. Thorough data collection on the implementation setting and implementation

groundwork domains in particular would require conducting data collection in person at multiple points during project implementation, such as part of a process or developmental evaluation.

We found two key strengths of using the combined implementation framework. The first strength of this framework was that it provided a common structure to apply across cases, which created sufficient consistency across case studies to enable cross-case analysis. Second, the framework was comprehensive, which ensured that we explored a range of internal and external factors that could have influenced project implementation.

In our view, the combined framework presented here would be of great use prospectively in planning the implementation of complex efforts, like HSS programs or projects. The framework can be used to ensure that program planners i) take stock and document the conditions in advance of their program, ii) identify different activities and how they are planned, iii) document the detailed process of implementation, including relevant changes along the way, and iv) capture efforts made to sustain the program's efforts over time. In terms of assessment, the framework would be most appropriate for a developmental evaluation that is embedded in the program's implementation and assesses it in real time. This is because the framework is so detailed that nuanced implementation is difficult to capture retrospectively. This feature of the integrated framework is further accentuated by the complexity of HSS programs which have many interventions, at different levels of the health system, and rely on a varied array of implementing partners. For this reason, a longitudinal approach to data collection for complex programs such as HSS would be optimal.

Table 5: Combined CFIR and REP frameworks

Phase	Domain	Factor	Description	Unit of analysis
I Pre-condition	Enabling environment	Wider environment	Economic, political, social, and health system context within which intervention[6] is implemented	National/regional context
		External policies and incentives	Strategies to spread intervention – policy, regulations (not directly implemented by project but (pre)existing) Policies that constrained implementation Other donor-led initiatives that complement intervention	National/regional context
	Implementation setting	Characteristics of organization	Structural characteristics of organization such as social architecture, age, maturity, and size of organization Culture of organization such as norms, values, basic assumptions of organization	Change target/larger host organization[7] (identify for each case; e.g., MOH)
		Implementation climate	Climate within organization, including relative priority of project, readiness for implementation, learning climate, and policies, procedures, and reward systems that inhibit or facilitate implementation	Change target/larger host organization (identify for each case; e.g., MOH)

[6] The total package of activities that is implemented by the project.
[7] Institution within which activities are being implemented; may be MOH or other local organization (will focus on larger organization like MOH rather than individual hospitals); depending on the case this organization may be more or less involved in the actual implementation.

Phase	Domain	Factor	Description	Unit of analysis
	Project design	Intervention source	Stakeholder perception if intervention internally or externally developed	As applicable for each case (e.g., MOH, local partners, change target)
		Identification of effective intervention	Process for deciding intervention approach and activities Stakeholder perception of quality and validity of evidence that intervention will have desired effects Perceived relative advantage and complexity/perceived difficulty of intervention	As applicable for each case (e.g., MOH, local partners, change target)
		Adaptability	Degree to which intervention was adapted to local needs, including degree to which beneficiaries' needs were understood and design was adapted to meet their needs	Project implementers[8] (e.g., prime + subs)
		Draft package	Perceived quality of how intervention is presented	As applicable for each case (e.g., MOH, local partners, change target)
2 Pre-implementation	Implementation groundwork	Structural characteristics of implementing organization	Structural characteristics of implementing organization such as social architecture, age, maturity, and size of organization; culture of organization such as norms, values, basic assumptions of organization	Project implementers (e.g., prime + subs)
		Implementation climate	Climate within project including relative priority of project, readiness for implementation, learning climate, and policies, procedures, and reward systems that inhibit or facilitate implementation	Project implementers (e.g., prime + subs)
		Planning	Degree to which intervention is planned in advanced, quality of methods; refinement of draft package based on pilot testing, stakeholder feedback	Project activities
		Orientation and logistics	Quality of initial planning and execution of the project, including needs assessment, pilot testing, leadership engagement	Project activities[9]

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[8] Prime contractor and sub-contractors (may include local subs) who implement the project. This does not include the change target organization.

[9] Specific activities directly implemented by the project implementers. These may or may not align with other activities in the change target organizations. These individual activities make up the intervention as a whole.

Phase	Domain	Factor	Description	Unit of analysis
3 Implementation	Implementation	Executing	Fidelity of implementation	Project activities
		Engaging	How the project attracted and involved appropriate individuals throughout project: opinion leaders, formally appointed internal implementation leaders, champions, external change agents	Project activities
		Feedback and refinement	Qualitative and quantitative feedback about progress and quality of implementation Refinement of activities based on feedback	Project activities
		Cost	Costs of total intervention - planned and actual	Intervention
4 Maintenance and evolution	Sustaining implementation	Organizational, financial changes	Changes made to sustain the intervention	Project implementers (e.g., prime + subs); Project activities
		Re-customize delivery as need arises	Adapting the intervention delivery as circumstances change	Project implementers (e.g., prime + subs)
	Dissemination	National dissemination	Preparing refined package, training, and technical assistance program for national dissemination; was project nationally disseminated	Project implementers (e.g., prime + subs); Change target

2.4   Study limitations

There are several methodological limitations beyond those discussed above about the implementation framework. First, we conducted retrospective case studies, which caused some challenges with recall error and bias because projects had already ended, in some cases several years earlier. The time lapse made it difficult for some respondents to explain details of how projects were implemented and challenges faced, particularly around day-to-day activities. Second, there are some limitations to comparability between projects because of their varying size, scope, and complexity. Third, we were not able to interview a full range of stakeholders for all projects, particularly MOH and USAID staff. It was also not feasible to interview stakeholders in communities or project beneficiaries. This limited the range of perspectives that were included. Fourth, limited availability of qualified, Russian-speaking staff limited the number of interviews we could conduct for Dialogue in Kazakhstan. Fifth, due to resource constraints, we conducted interviews by phone, which may have decreased the quality of interviews due to limited rapport and an inability to read body language. Finally, again due to resource constraints, we could not produce transcripts of interviews and had to rely on verbatim notes for analysis. This was not a serious constraint, but necessarily means that some nuance of language was lost.

3. RESULTS

In order to synthesize the complexity of the combined CFIR and REP implementation frameworks, the results will be presented focusing only on the implementation phases and domains, where applicable. These results draw from across the five case studies.

3.1 Pre-condition

The pre-condition phase of the framework includes the enabling environment, implementation setting, and project design. Common pre-condition themes will be presented that cut across cases. In addition to this, potential explanations for similarities and differences will be explored. In this way, the section will provide insight into the ways in which pre-conditions shaped the implementation of HSS projects.

3.1.1 Enabling environment

Each of the cases presented a variety of structural considerations that shaped the design and implementation of HSS projects. These structural considerations focused largely on the country environment, the history of the project design, the nature of partner relationships and their historical identity in the health system, and the health landscape more broadly. Some common themes as well as distinguishing characteristics will be presented for each of these areas in turn.

Countries' economic status and influence in the region did not seem to be consistently identified as a key feature of the enabling environment, with the exception of Dialogue. CP, Twubakane, and ZISSP were all conducted in low-income countries, while COE and Dialogue were carried out in upper-middle-income countries. Dialogue is an exception because Kazakhstan is arguably the most influential and wealthiest country in Central Asia. This status later posed a problem for implementation as economic growth later reduced financial flows from foreign assistance. It is unclear from the other cases, if/how economic growth or productivity contributed to effective implementation.

The country environment varied widely and yet was an important structural dimension of the HSS projects in question. The political context differed both in terms of political representation and governance structure. While all cases were conducted in functional democracies, some cases, such as CP (Ethiopia), Dialogue (Kazakhstan), and Twubakane (Rwanda), operated in a context of strong state control. This is not to be confused with centralized systems of governance, but rather under the authority of strong leadership from political representatives.

One of the most prominent cross-case dimensions of the enabling environment was decentralization. The one exception to this was perhaps Dialogue, where we focused on the project's implementation in Kazakhstan. However, the project was conducted in multiple countries simultaneously in Central Asia, and thus functioned like it would have in a decentralized context. Across the other cases, actors frequently discussed decentralization, albeit in different ways. For example, in COE, actors spoke of the relative strength of decentralization in bringing sophisticated decision-making structures closer to the point of service delivery. On the other hand, in Twubakane, decentralization was described as a "mess." This is perhaps because the project began at the onset of an urgent and ambitious process of decentralization. The entire project was built around strengthening the health systems capacity to account for these large-scale changes and thus an obstacle was turned into an opportunity by implementing partners. The extent to which decentralization across the cases played a positive role in

implementation is less clear. Nevertheless, it seems to have, at the very least, contributed to a conducive enabling environment for HSS interventions.

With the exception of Dialogue, the enabling environment was broadly receptive to the projects, which collaboratively approached solving agreed-upon problems with a well-defined set of solutions. Respondents typically did not identify more specific characteristics about the implementation setting or climate related to the target MOH or facilities, with the exception of a few challenges addressed in Section 3.5. This may be in part due to study limitations as discussed in Sections 2.3 and 2.4.

3.1.2 Project design

In general, the case study projects varied in terms of the geographic location, budget support, and number of implementation partners (see Table 3 above for project profiles). Project implementation ranged from four to six years for the five cases. The prime implementer was the same (Abt Associates) for COE and ZISSP. Three projects were implemented in sub-Saharan Africa, one in Asia, and one in Latin America and the Caribbean. The smallest (CP) and the largest project (ZISSP), in financial terms, were both located in sub-Saharan Africa. It is important to note, however, that the smallest project ($428 thousand) was actually an activity of a larger project. The two largest projects were ZISSP in Zambia ($88 million) and Twubakane in Rwanda ($34.8 million). Given this considerable range, the size of budgetary support did not seem to have significant bearing on implementation. Rather, projects reported that the scope accurately reflecting the availability of funds. The largest number of local implementing partners was found in Dialogue, which had an explicit aim of strengthening the ability of local NGOs to address the health needs of key populations. The smallest number of local implementing partners was in COE, but this project also had the largest number of sub-contractors. This suggests that perhaps the sub-contractors operated in Dominican Republic much the same way as local implementing partners operated in other countries. Again, no clear trend can be drawn from these variations. Nevertheless, the strong involvement of a multiplicity of both sub-contractors and local implementing partners, as well as different government agencies suggests that doing good HSS work involves a high degree of stakeholder consensus and coordination.

Projects in each country were driven by a pragmatic problem-solving rationality in which actors sought to address a pressing issue that was collaboratively identified by health system actors both inside and outside government. The role of epidemiological and health systems data was mentioned in each case, both in characterizing the problem and the availability of effective solutions. The nature of evidence use was somewhat difficult to determine given the retrospective nature of this study. Similarly, the manner in which actors generated consensus was also less clear, though the data suggest that consensus was sought at an early stage by actors representing a multiplicity of organizations. While the preferences of the funder, USAID, was clearly a consideration in determining the priority placed on certain interventions in certain contexts, there was some indication that the prime implementing partner and other implementing partners were given latitude to design innovative solutions to address the problem. In fact, the flexible manner in which implementing partners arrived at this consensus and allowed for change throughout the implementation process seemed to be consistent with their prior work in-country and past performance could feasibly have been a consideration the procurement process.

The health issue under consideration mattered for both how the projects were designed and implemented. Thus, the enabling environment for quality of care initiatives in COE, HIV/AIDS and TB treatment in Dialogue, pharmaceutical services in CP, and broad-based health service strengthening in ZISSP varied somewhat. One common feature to all projects, with the exception of Twubakane, was that all had a strong emphasis on achieving marked improvements in service delivery. This was through outreach (Dialogue) or facility-based care (COE). As was discussed in ZISSP, all projects adopted some measure of a "diagonal approach," whereby health outcomes were strengthened at several

(administrative) levels of the health system. Dialogue is somewhat unique here in that it worked closely with and relied on another project, the Quality Healthcare Project, which was funded and implemented in tandem to more fully focus on HSS. This was seen as a very helpful approach. Dialogue took the lead on community outreach and the Quality Health Care Project played the important role of integrating the activities. The effects of one are difficult to disentangle from the other, but both benefitted from USAID's strong vision and regional focus on addressing an urgent health priority. No other cases were focused specifically on infectious disease control programs. Instead, the health problems addressed by the other projects were designed to meet broader constraints to the effective delivery of high quality health care.

3.2   Pre-implementation

The pre-implementation phase includes the implementation groundwork domain and factors such as organizational characteristics and implementation climate. A few important features were identified in data related to the pre-implementation phase of the framework. It may be important to note that data collected in this phase were considerably less detailed than for other segments of the framework, a point we discuss in Section 2.3. These concerned the composition of implementing teams, the identity of the prime, the inclusive and engaging manner in which the project was structured, the different types of planning processes in which various stakeholders participated, and the general use of data. A number of common themes emerged across cases that potentially represent aspects of effective HSS.

First, the composition of the implementing teams was diverse. This varied by actor and their relationship to government as well as global financing structures. For example, many implementing teams were composed of government employees as well as local and international NGOs. In one project, ZISSP, this line was even intentionally blurred somewhat, with project staff being seconded to key positions in government ministries. Perhaps more importantly, the projects emphasized the interdisciplinary nature of their teams as well as the stakeholder groups that provided input through platforms such as technical working groups. By drawing on a diverse array of skills and expertise, these projects may have been better placed to address the nuanced nature of effective HSS work.

Second, the identity of the prime implementing partner, situated in a particular implementation context, seemed to an important factor. Prime implementing partners were characterized by respondents as exhibiting strong leadership qualities. These qualities were in part established prior to many of the projects and in some ways were likely responsible for their incumbency status or at least their long-standing relationship with the health system in country. Regardless of whether or not the prime implementing partners' legitimacy was cause or consequence of their position, most respondents, commented that their project was led by the "right" implementing partners. In addition to their reputation, prime implementing partners typically enjoyed close professional relationships with stakeholders in the health sector, which is in part attributable to the manner in which the projects were designed and implemented.

Third, the way in which the prime, sub-contractors, and implementing partners from other projects interacted seemed to play a role in generating a climate favorable to implementation. The prime implementing partner played a central, but not overbearing role, in the design, implementation, and adaptability of the project. In addition to this, respondents noted that the prime implementing partners typically created an inclusive and transparent decision-making environment. This was important because some projects had overlap between implementing partners, which created competitive tensions internally. By involving all members at every step of the design and planning process, the projects presented here were able to maintain a problem-solving ethos in which shared concern for HSS (and not internal organizational development) seemed to be a motivator. Furthermore, the team spirit exhibited by these projects engendered a sense of trust among implementing partners. For example, the

long-standing experience of local staff and the small network of relevant actors caused the respondents from the consortia of implementing partners in both Dialogue and Twubakane to characterize the project as a "family." Thus, in addition to shared vision and cohesive administrative arrangements, there seemed to be a degree of social pressure to engage constructively in the implementation of project activities. Thus cooperative interaction among implementing partners was seen as a critical pre-implementation aspect of successful HSS.

Fourth, the planning processes for each project was somewhat context specific and varied, but reinforced the notion that open engagement with all relevant stakeholders was key to effective pre-implementation. While both Dialogue and ZISSP relied heavily on the input of technical working groups in the design phase, this was seen as a natural extension of strong group dynamics. The most critical aspect of the COE project was seen to be the site selection process, which was done through a collaborative effort between the project and the Ministry of Public Health. CP benefitted from planning processes that were well established through the wider project and similarly emphasized collaboration and engagement.

Fifth, with the possible exception of Twubakane, most projects were more focused on improving the use of existing data than generating data to inform implementation. This is interesting as it perhaps reveals that HSS can successfully rely on innovation as opposed to invention. In other words, planning and design processes were aided by a strong evidence base for determining the problem and its magnitude. Effective HSS in these projects potentially benefitted from an environment in which data related to the set of activities were relatively accessible and complete. This then allowed for planning to focus on developing innovative strategies for addressing new or persistent problems. Driven by this problem-solving ethos, project teams appeared to exhibit a measure of creativity and latitude when planning for implementation.

In summary, the pre-implementation domain of the framework was considered to be an important part of effective implementation. We found that some of the important considerations in pre-implementation were the composition of implementing teams, the identity of the prime, the inclusive and engaging manner in which the project was structured, the different types of planning processes in which various stakeholders participated, and their attendant use of existing data. These themes directly informed the subsequent implementation of project activities and further contributed to effective maintenance and evolution as discussed below.

3.3   Implementation

Several themes emerged across cases for project implementation: i) the approach to implementation, ii) organizational learning, and iii) actors and relationships.

3.3.1   Implementation approach

Several aspects of the implementation approach were closely related to the projects' designs and reflected the partners' follow-through on the original vision. First, all projects worked at multiple levels of the health system and with various actors (see Table 2 and 3). However, in some cases, the engagement with different levels was not as strong or as sustained as intended. For example, COE staff reflected that engagement with the regional and provincial levels should have started earlier in order to be better prepared for transferring project activities.

Second, and likewise related to the design, most projects acted as catalysts of government initiatives. Twubakane took several approaches to support decentralization in Rwanda, including instituting District Incentive Funds, which were distributed to support local-level planning and implementation efforts.

ZISSP's revitalization of the technical working groups were intended to support the stewardship role of the MOH. The hospital certification process in the Dominican Republic was developed by COE to align with government efforts to address issues of quality of care. In Ethiopia, CP did not conduct trainings themselves; instead, they supported the government in its efforts in training.

Third, all of the projects introduced or supported governance and accountability measures as part of their project activities. General governance and stewardship approaches, such as guideline and policy development and support for technical working groups, were explicitly supported under COE, CP, Twubakane, and ZISSP. Accountability measures, such as reporting and financial audit support both for government and NGOs, took place in the Dialogue, Twubakane, and CP.

Fourth, there were also examples of how the projects functioned as learning organizations to adapt implementation. Changes in implementation were undertaken in response to changing environmental factors, both at the national level and external to the country. Major changes at the MOH forced reformulations to ZISSP and Twubakane and their approaches. In Zambia, the MOH broke into two ministries (i.e., MOH and Ministry of Community Development, Mother and Child Health), which required ZISSP to engage with a greater number of actors who presented more limited institutional capacity. Meanwhile, decentralization in Rwanda resulted in a greater focus on district level with introduction of District Incentive Funds and greater engagement at the local level for planning responsibilities on the part of Twubakane. Also in Rwanda, toward the end of the project period, there were increasing critiques by government of international NGOs, so the project leadership responded by raising the profile and meeting participation of their senior Rwandan colleagues. Dialogue became increasingly convinced of the need to formally include migrants as a target population for the project because of the prevalence of injecting drug use among the migrant population, which led to formalizing the Dialogue's relationship with the Institute of Migration.

A number of implementation changes took place in reaction to external factors focused on financing as well. Dialogue in Kazakhstan underwent changes to better integrate with an upcoming Global Fund proposal, but most importantly to respond to the withdrawal of funding midway as the country's income status changed. Conversely, two projects took on additional funds and funding streams, which resulted in additional reporting and effort investments for the partners. As one respondent from Twubakane explained,

> "Even though we had money from the office of population, maternal health, child survival, democracy and governance – all of our financial reporting didn't have to report according to those line…but the challenge is 3 years later we actually did get some PEPFAR [President's Emergency Plan for AIDS Relief] money and also then the PMI [President's Malaria Initiative] came along…even though it was great because our resources went up…once PEPFAR and PMI started we actually had to report spending very differently because it was being tracked differently and also you may know this, the country instead of having one operating plan a MOP, a COP, and an OP – have you heard those? [laughs] So it had the malaria operational plan, the country operational plan which was PEPFAR, and the OP was just the regular operational plan. And then actually, one of the things we helped the administrative health do was develop its own joint health sector operating plan, which was all the donors and all the partners and in some ways that was actually, to us, the most important one because it was building capacity and again it involved all the donors, but then the government had all its requirements around the different kinds of plans that it wanted. At one point we had five different versions of our work plan because all of these different OPs, COPs, and MOPs had different tables or columns or budgets or whatever." (Twubakane, Implementing Partner)

The COE project also demonstrated implementation changes as reflective practice through its 1-2-8 implementation approach, which was laid out in the design phase. Under this approach, COE introduced

new modules in one hospital, learned from that experience before introducing the modules to a new (second) hospital, reflected, and learned again before rolling them out to the remaining eight hospitals.

Lastly, there was little information generated around M&E and costs. For M&E, it was unclear to what extent these were used to inform the projects' efforts and adapt program implementation. For costs, although there were funding stream changes as described above, only one respondent from ZISSP cited insufficient resources. This was somewhat surprising as projects were informed by various kinds of data in pre-implementation, but it is unclear how data was used to inform implementation. Also, most projects do a mid-term evaluation to shape course corrections and while we found evidence of these, it was not apparent from the document review or key informant interviews, how this information was used during implementation.

3.3.2   Actors and relationships

Respondents from all projects described the strong partnerships between prime and subcontractor partners. While for CP and the Dialogue the prime was identified as a strong leader within the partnership, COE, Twubakane, and ZISSP were more diffuse partnerships supporting the tenet that no one leadership approach is fundamental to successful project implementation. This was likely driven by a shared sense of purpose toward the project mission, which seemed to be shared within all the projects under study. Also worth noting is that four projects singled out a strong connection and support from their oversight team at the Mission; CP, the exception, did not address this issue one way or another.

All the projects engaged with MOH, as expected, but also with a number of actors outside of the MOH, both governmental and non-governmental (Table 6).

Table 6: Examples of non-MOH actors engaged by HSS projects

	COE	ZISSP	Twubakane	Dialogue	CP
Government actors, non-MOH	Government HMO insurance (SENASA) Ministry of Public Administration	National Institute for Public Administration	Local government authorities Ministry of Local Government (MINALOC) Ministry of Finance District mayors District accountants	Justice officials (e.g., police)	
Non-governmental actors	Garbage workers Firefighters		Religious leaders Women's group	Civil society Journalists	Other development partners Academic institutions

It is also notable that two projects in particular coordinated with other U.S. Government (USG) efforts taking place concurrently. Dialogue was linked with another regional effort, Quality Health Care Project; they were intended to work in tandem supporting different, complementary aspects of the USG-supported HIV effort in Central Asia. Also, respondents reported that ZISSP, along with other USAID-supported projects, was instructed to work collaboratively with the U.S. Centers for Disease Control and Prevention (CDC) and its supported projects (and vice versa) to ensure a cohesive effort around maternal mortality that drew on projects' inherent strengths, such as ZISSP convening capacity at the local level and the CDC projects' health information systems.

Actors, both supportive and resistant, did not play a driving role in projects' implementation. Although respondents identified a few champions across the projects (e.g., Minister of Health in Rwanda and the Dominican Republic, local health providers in Kazakhstan), projects were not dependent on them for effectiveness or success. Likewise, almost none of the projects (with the exception of Dialogue) identified specific individual or organizational impeders preventing the projects' functioning.

3.4 Maintenance and evolution

The maintenance and evolution phase includes sustaining implementation and dissemination. For all the cases, at least partial components of the projects' original portfolio have been sustained (Table 7). Notably, several projects made changes to the focus or mechanics of the project in order to make the activities more likely to be sustained. For example, under the new loan from the Inter-American Development Bank, COE changed the selection process for hospitals so that participating hospitals were proposed *a priori* instead of competing for selection, and the management team was housed within the MOH. A respondent under Twubakane indicated that the malaria activities were more focused on critical analysis for malaria, rather than continuing specific activities post-project, in order to ensure that the capacity to identify emerging trends was retained.

Table 7: Current status of HSS projects

Project	USG support	Other donor support	Government / Community support
COE	Project not renewed	Quality improvement activities toward certification continued under Inter-American Development Bank loan; 11 hospitals (6 from COE, 5 new ones)	MOH included COE project activities in loan application Many COE project staff hired/integrated into MOH for implementation Unclear whether Vice-Ministry of Quality Assurance has continued COE assessments and certifications
ZISSP	Project follow-on (i.e., 3rd phase) awarded to same implementing partners, with greater focus on health outcomes Target area reduced from 10 to 5 provinces	World Bank program in remaining provinces – details and implementation unclear	Leadership and public administration trainings continued Saving Mothers, Giving Life initiative continued Neighborhood Health Committees (some) continued
Twubakane	Expected follow-on project delayed 2 years, reformulated and awarded to different implementing partners		
Dialogue	USAID support ended midway through the project period USAID support to Kazakhstan continued through the Flagship project	Services continued with Global Fund support	Government has incorporated the voucher program Government now uses the Health Management Information System
CP	At interview date the project		CP trainings institutionalized

	had not ended		through new curricula at academic institutions

Several challenges specifically related to sustainability were identified by the case projects. Uncertainty of funding or delays in funding renewals were difficult for Dialogue, Twubakane and COE. Both ZISSP and COE respondents noted that the contracting gaps (about 1 year) between projects created a cessation of project activities that was especially problematic for HSS. Likewise, both of these projects experienced a considerable shift in their target areas (e.g., Zambia: 10 down to 5 provinces; Dominican Republic: mix of old and new hospitals) calling into question whether the activities the projects had implemented were sustained in areas that were no longer being included.

> *"It's not a secret, with the procurement process and having these big gaps in between the end of ZISSP and the award of the next project – we're talking about a year. I think particularly with HSS it's a process, you are trying to build a system and when you have these gaps a lot of times the work that is done, some of it but not all of it can get undone. My sense is particularly when you have a follow-on project, I think the average procurement cycle it is generally too long, but with the follow-on projects you kind of know from the beginning you will most likely have a follow on project. I don't know if there are any studies on the impact between the first HSS program and the second, I think the gap was nine months and the second gap was almost a year and of course you have the time you build up and have to hire people. I don't know if anyone's quantified what the additional cost is of shutting down these big projects for a year, programmatically, and also we don't know the impact with any specificity. We just know it is hard to get started again."* (ZISSP, Implementing partner)

In addition, several projects noted difficulties sustaining project efforts due to project staff turnover (both leaving post and reallocation) and overburdening of government staff, especially MOH. If the focus of the activities was on technical capacity development, these issues were especially problematic because there was a loss to institutional capacity as well.

Notably, all the projects appeared to have taken sustainability into account during project design – explicitly or implicitly. The COE project intended to build a certification process with the MOH to ensure that it would be adopted, which it was. Both Twubakane and ZISSP instituted bottom-up participatory planning that incorporated local priorities (though taking different forms procedurally), and built MOH capacity for implementation through secondment (ZISSP) and training (Twubakane). CP's focus on standard operating procedures and instituting curricular changes set the stage for local stakeholders to take project activities forward. The regional approach of Dialogue was pre-determined by the procurement process but also allowed for socialization between countries and governments in terms of addressing key population issues. Conversely, the voucher program initiated by Dialogue was incompatible with local Kazak regulations on personal identification, though these regulations eventually changed.

Finally, two areas were not discussed at length by respondents: unexpected challenges and dissemination. None of the respondents noted unanticipated challenges resulting from implementation. In terms of dissemination, the projects' efforts to disseminate information about their interventions and successes appear to be limited, with the exception of CP, which explicitly noted efforts to disseminate to other countries via a Summit and presentations at two international workshops. Both COE and Twubakane respondents lamented missed opportunities to disseminate within USAID about innovative project approaches that could be useful elsewhere. It is not clear if these missed opportunities for dissemination were not present in the original projects' scopes of work, workplans, or simply were not captured by this research.

3.5 Challenges

Respondents primarily reported implementation challenges that were external to the project and affected implementation. The most common types of challenges that respondents identified concerned the characteristics of the target facilities and broader health system context. Respondents may not have highlighted day-to-day challenges as much in part due to recall bias or wanting to present their project in a positive light. It may also suggest that day-to-day challenges were surmountable or did not particularly constrain project implementation. In addition, our selection of successful projects may have meant that these projects did not face some implementation challenges that other less successful projects face or that they were able to overcome the challenges. Also, it is unclear why some of this information was not captured in project evaluations especially taking into account that they were conducted by 3rd parties, if these challenges did exist.

Respondents raised characteristics of the target health facilities as a challenge most often across four projects, typically revolving issues with human resources. For COE, these challenges were due to limited infrastructure in hospitals, limited staff capacity, staff availability, and changes in hospital directors. CP faced challenges with staff shortages, staff turnover, limited staff capacity, and limited staff incentives (e.g., salary, benefits, support) caused problems. For Twubakane, issues included unpredictable patient loads, staff turnover and staff shortages, and limited institutional capacity. In ZISSP, they also faced challenges with staff shortages, and turnover and mobility of community volunteers and civil service staff. For example, health staff are employed by the Civil Service Commission, which typically moves staff every two years causing loss of institutional memory, loss of capacity in a facility or office, and staff leaving the health sector.

Respondents from four projects discussed challenges relating to the broader health system context, often involving ministries of health, likely because projects were primarily engaged with the public health sector. The ministries posed several types of challenges across projects.

- *Lack of centralized authority:* A respondent under COE said that the MOH was resistant to dictate policies to hospitals to promote specific pharmaceutical practices nationally. In the case of ZISSP, they had to report and coordinate with multiple levels of government (with health falling under two ministries), which was complex and at times difficult to navigate.

- *Leadership changes:* Changes in MOH leadership posed problems for COE, Twubakane, and ZISSP. This caused larger shifts in MOH staff, shifts in priorities and processes, and meant that projects had to start building a relationship with MOH leadership from square one.

- *Referral policies:* Dialogue initially faced challenges because there was not a referral system and some of the key populations were not eligible to receive services (e.g., foreign migrants).

- *Resistance to change:* For Dialogue, the local health officials were somewhat resistant to change because it was something new or unusual, which complicated daily engagement for the project.

- *Service delivery:* The MOH in the Dominican Republic did not ensure proper oversight and changes in the hospitals whose inadequate care caused patients to have complications. These patients were then referred to COE target facilities, which could only do their best to treat the patients.

Respondents from three projects raised challenges that stemmed from the broader political and economic environment in the country. Respondents from COE and Twubakane reported that politicians at the national or regional levels affected what was implemented in different areas. For COE, one respondent said that cultural factors like religious beliefs and gender inequality in the Dominican Republic negatively impacted service delivery. In Kazakhstan, the key populations Dialogue targeted

faced severe legal and social discrimination, which inhibited patients' health care seeking and made it more difficult for the project to provide them with services. Finally, two projects had to make changes in response to changes in the broader environment – Twubakane had to make significant changes to the project design in response to decentralization, and Dialogue had to change the scale of implementation after funding decreased as previously noted.

A few respondents discussed other issues that affected project implementation. Respondents from COE and CP reported that the project M&E was of limited or insufficient quality. Challenges managing or working with implementing partners came up across three projects – Twubakane, CP, and Dialogue. Challenges around costs and funding occurred for three projects. COE had unmet expectations for funding from the MOH. In addition, COE and Dialogue experienced funding changes due to shifting USAID priorities. Unique to Dialogue as a regional project, the project faced some challenges with communication with USAID because it had activity managers in two countries in addition to an AOR.

3.6   Lessons learned

In interviews, we asked respondents to identify the lessons they learned from their involvement in the project that they would take forward to other similar projects. Here we present only those lessons learned that respondents identified (see Section 4 for lessons drawn from the synthesis). These lessons stemmed from both successful components of the projects as well as components that respondents thought should have been included in the project but were not. Across the projects, respondents most commonly identified lessons around three topics – engagement, project design, and specific interventions or project strategies.

Respondents from all projects identified lessons learned about engagement with entities like the government and communities. Respondents from all projects identified engagement with the government, particularly ministries of health, as important. They identified early engagement with the government in project design and implementation as key as well as ongoing communication to foster coordination and maintain strong commitment for the project. Respondents from two projects related the project design to government engagement by discussing how the project needed to work with the government in a complementary way to each party's comparative advantage. For example, a respondent from COE explained how this is an obvious but necessary lesson. The respondent said,

> *"We have to be disciplined, not to try and replace [the MOH] and do the work. I think this issue of respecting the MOH, a lesson that I learned in other countries, is central. All of this I am telling you… is common and very simple. We have people who say it is obvious. It is obvious. Hacer lo ordinario de manera extraordinaria (Doing the ordinary in an extraordinary way)."* (COE, Implementing partner).

The importance of engagement with the local level government was raised as a lesson learned by respondents from COE, ZISSP, and Twubakane. In COE, a respondent thought that they should have engaged regional offices sooner to get greater buy-in for the project given the decentralization process. A respondent from ZISSP emphasized the importance of working with all levels of local government in addition to the central MOH in order to coordinate implementation. This coordination was needed so that the project and government could "move together" even if that meant that the project had to compromise and sacrifice at times (ZISSP, Implementer). It was better for overall project implementation to engage in that coordination and compromise to accommodate availability of government officers' time since officers faced competing priorities. A respondent from ZISSP stated that it is critical to work multi-sectorally across ministries like with ministries of gender and education to successfully carry out the multisectoral work required for holistic HSS interventions. Respondents from all projects except CP highlighted the importance of engaging communities and civil society in projects. Several respondents noted that communities know best what they need, so projects should engage them

from the beginning. One respondent from COE also noted that engaging communities is a way to foster health providers' accountability to communities. A few respondents also recognized that community engagement can be challenging in a project and is not always done enough. Finally, respondents from COE and ZISSP said that they should have done more to engage in implementation other partners and stakeholders, like local NGOs and other projects.

Some respondents discussed what they saw as important components of project design. Respondents from COE, CP, and ZISSP said that it is important to implement holistic or comprehensive interventions that cut across the health system and the six building blocks and that address the multiple issues that affect patient health seeking behavior and service delivery. A respondent from Twubakane suggested that USAID require HSS projects to do an upfront analysis of how the project affects all six building blocks so that their impact on each building block is at least neutral (and not negative) and intentional (rather than haphazard or accidental). For example, governance is necessarily part of every project so it needs to be intentional so the project does not have unintentional or negative consequences on governance. Finally, COE and ZISSP respondents said that it was critical that government priorities, rather than externally developed project goals, were central to the project design.

Finally, some respondents identified a range of specific interventions and activities that projects should engage in to improve the quality or effectiveness of projects. With the exception of M&E and data analysis, there was little consistency across projects regarding which interventions or activities respondents discussed:

- *M&E and data analysis*: Respondents from COE, CP, Twubakane, and ZISSP identified data analysis and M&E as weaknesses in their projects. They said that M&E and data analysis are needed for self-evaluation and continual improvement in implementation and to track the health outcomes associated with project activities. It is unclear why, however, this was not accomplished in these projects.

- *Government capacity building:* Engaging in continuous capacity building with the government is an activity identified by a respondent from Twubakane as important.

- *Health staff engagement:* A respondent from COE highlighted the importance of engaging with government health staff to enable change management and provide technical as well as emotional support to staff. Project staff were well integrated with hospital staff, which allowed them to really understand hospital staff needs and limitations and ensure that they felt seen and supported.

- *Phased implementation*: In COE, the project first implemented interventions that would be "quick wins" to generate initial impact, credibility, and adherence to project interventions going forward.

- *Policy work:* Policy work was seen as a critical piece of CP. The project helped enact regulations on pharmacy management and foster regional accountability for implementing pharmacy guidelines.

- *Team building within project:* The leadership of Twubakane emphasized the importance of investing in team-building activities, like multi-day workshops or annual retreats, to ensure mutual trust is developed and maintained among team members. While clinical expertise is needed, projects cannot be successfully implemented without strong communication and leadership skills within teams.

4.   REFLECTIONS AND RECOMMENDATIONS

Based on the results presented above, here we provide reflections on the relevant factors for implementation, approaches to HSS project implementation, and implications for future HSS projects. We conclude with recommendations for donor-supported HSS projects.

4.1   Factors affecting implementation

Several factors underlying these projects affected their implementation, both in positive and negative ways. Positive factors included project designs that were responsive to local priorities and agendas, which allowed for a focus on supporting existing government initiatives. Second, all of the projects had collaborative and functional group dynamics with a sense of shared mission and vision, regardless of the leadership approach taken by the prime implementing partner. Third, projects engaged the government in meaningful ways wherever possible, from planning through implementation. On the negative side, turnover or significant changes among MOH leadership presented difficulties for projects and raised the management and transactional costs of engaging with government counterparts.

We also identified few actors impeding project implementation, which may be a result of several factors, singly or in combination: i) there truly was little to no resistance to the projects' efforts, ii) projects were designed (either in approach or activities) to avoid any significant opposition, or iii) the case selection process' focus on "successful" cases that met predetermined criteria excluded any projects that ran into significant resistance.

Two interesting findings emerged from this specific group of cases. First, these cases represent a range of political contexts, both in terms of democratization as well as centralized decision-making, indicating that HSS efforts can be successfully implemented anywhere. Second, all of these projects were funded as bilateral programs, which may have contributed to the close Mission support projects experienced, the hiring of partners with long histories and relationships in-country, and the responsiveness to local priorities in project design. Upon review of cases submitted to the Global Call (see Section 1.2), 27 cases of centrally funded projects (24 Bureau for Global Health, 3 regional) were submitted; these were all excluded during Round 2 (20 removed) or Round 3 (7 removed) of case selection.

4.2   Approaches to implementing HSS projects

Several approaches to successful implementation emerged from these cases:

1. *Project activities targeted multiple levels of the health system*. This is partly to be expected due to the case selection criteria.

2. *Projects engaged multiple stakeholders outside of the MOH*, both by necessity and by design.

3. *Participatory planning was the norm* across the projects, even though modalities varied. Participatory planning was applied within the project, with sister projects (as in Kazakhstan) as well as with government work planning. However, despite community-level efforts in several projects, community participation in project planning appears to have been limited, except in Kazakhstan.

4. *Adaptability in implementation* demonstrated projects' approach as learning organizations, although this was more often responsive to contextual issues outside the project rather than by design or in response to project M&E.

We also observed limited efforts targeted at multisectoral approaches to implementing HSS activities, though this was not a hindrance to the success of the projects and may have been tied to funding.

4.3 Implications for future HSS projects

Three major implications for future HSS projects were identified. First, these projects provided technical assistance for HSS but they also infused resources (financial, human, technological) to carry out their activities that would otherwise not be present in the MOH. These material investments carry significant implications for ownership and sustainability as they usually cannot be replicated once a project ends. Thus, while investments in technical capacity may be retained, the ability for the MOH to continue the project's efforts – no matter how relevant to the MOH's mission – is unclear. Staff turnover and retention make this quandary even more difficult.

Second, the gaps in funding resulting from uncertainty, changes in priorities, or contracting delays (both

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Box 1. Replicable HSS Project Innovations*

Management and Communications Plan (Dialogue, Kazakhstan): A Management and Communication Manual was developed in year 1 to coordinate across partners and implementation sites. This was amended and transformed into the management and communication plan which harmonized the activities, structuring lines of communication as the project matured.

1-2-8 roll-out of project activities (COE, Dominican Republic): Iterative learning cycle where each new module was developed at 1 facility, reflection and lesson learning informed implementation at the 2nd facility, and reflection and lesson learning informed implementation in final 8 facilities.

Integration of related projects (Dialogue, Kazakhstan; ZISSP, Zambia): In Kazakhstan, the Dialogue and Quality Health Care projects coordinated efforts, while in Zambia, USAID and CDC projects were expected to be responsive to interagency requests and build on each other's strengths.

Secondment of project staff to MOH (ZISSP, Zambia): ZISSP project staff were seconded at multiple levels of the MOH in order to build technical capacity *in situ*, which also allowed ZISSP to be well-attuned to MOH and local priorities and incorporate those into the project's work planning.

District Incentive Funds (Twubakane, Rwanda): Small grants were provided directly by Twubakane to districts as support for decentralization efforts but also to build technical capacity in priority setting and financial management.

Incorporate easy wins into the implementation plan (COE, Dominican Republic): COE's first activities were designed to engage the entire hospitals' staff, make visible change, and win over skeptics. Activities included cleaning up medical records and establishing hospital management systems, and whole hospital clean-up efforts.

Participatory planning approaches (Twubakane, Rwanda; ZISSP, Zambia): Twubakane pursued annual work planning through retreats that included all project staff, including drivers, while ZISSP leveraged its seconded staff to take into account government priorities as they developed their work plans.

Work planning and awareness meetings (CP, Ethiopia): To help pharmacists apply what they learned in clinical pharmacy training, the last day of training included stakeholders and students preparing work plans together to ensure support from their home institution. Upon return to their institutions, pharmacists provided an awareness training to facility staff to explain their new roles to staff in their home institutions.

*For further information on all of these innovations, please refer to the individual case study reports.

during or at the completion of the project's period of performance) proved a difficult obstacle to overcome, both in practical terms as well as in relation to the sustainability of the projects' efforts. HSS efforts, unlike other service delivery-oriented activities, are closely linked to processes, and gaps in funding can result in a significant loss of institutional memory among local organizations.

Third, despite the issues identified above, these projects exemplified donor-supported HSS activities that were responsive to local needs and priorities. Innovations identified across these HSS case studies that could be replicated elsewhere can be found in Box 1.

4.4 Recommendations

Policy recommendations are presented as general recommendations for HSS, which are applicable to both donor and locally supported efforts, and recommendations for donor-supported projects. On the whole, these reflect crucial tenets of aid effectiveness.

4.4.1 Recommendations for donor-supported HSS projects

1. **Expect project to be responsive to local conditions and priorities.** Donor-supported projects need to not only reflect local conditions in their design but also be sensitive to them. Due to the complexity of implementing HSS activities, engagement with government actors and flexibility on the part of donors (e.g., in process, targets, change) is essential. Further, project designs should be driven by local priorities to ensure local support and commitment, capitalize on aligned efforts, and build sustainability.

2. **Encourage efforts to target multiple levels of the health system.** Even if the specific effort has a relatively narrow focus, targeting the same issue at multiple levels of the health system is more likely to address the bottlenecks that impede lasting change.

3. **Engage multiple stakeholders early, often, and with purpose.** HSS efforts are likely to touch on issues that affect multiple stakeholders whether within the Ministry of Health (MOH), the government as a whole, development partners, and civil society. Understanding the actors and institutions with interests at stake is critical, and engaging them early, often, and with specific goals lays the groundwork for a more productive relationship.

4. **Ensure participatory planning.** Implementation of HSS requires careful planning, which should engage not only those implementing the activities but also those impacted, both within the system and as beneficiaries. Mechanisms for participatory planning should be feasible and context-specific but there should be an *a priori* expectation that many stakeholders will engage and collaborate in project planning. Further, planning should be aligned with government priorities (for donor-funded projects) and sector-wide coordination between government and development partner projects is crucial.

5. **Reframe monitoring and evaluation (M&E) of HSS implementation as an opportunity for learning.** Stakeholders should carefully reflect on the purpose of the activities and the core responsibility for accountability, both in terms of who is responsible for carrying out M&E efforts and who ensures that changes are enacted as needs emerge. Likewise, the indicators selected need to capture more of the process of HSS implementation rather than health outcomes, which may be too distal to be affected. Incorporating M&E and learning cycles into a project's design would allow for greater synergy between implementation and learning. Of particular relevance to donor-supported projects, careful consideration should be given to the role that local stakeholders, including the MOH, can play in carrying out M&E and holding implementing partners accountable for findings.

ANNEX A: CASE STUDY SELECTION PROCESS

Round	Criteria	Data source	Inclusion criteria	Review method	No. remaining cases at end of round
1 **(implementation period)**	Implementation completed	Global Call submission	Submission states implementation period was completed by 10/2015	Entry of implementation dates to Excel from Global Call submission	108
2 **(impact and evidence)**	Effective intervention	Global Call submission	One of 13 identified types of interventions referenced	Text search for interventions (and similar terms) using NVivo[10]	106
	Health systems outcome	Global Call submission	One of 4 health systems outcomes referenced	Text search for outcomes (and similar terms) using NVivo[11]	62
	Health impact	Global Call submission	Health impact referenced	Text search for outcomes (and similar terms) using NVivo[12]	58
	Both health system outcome and health impact	Global Call submission	At least one health system outcome and health impact referenced	Results in Excel from text search	42
	Verification of health impact and health system outcome achieved	Global Call submission and documents submitted	One type of documentation is referenced for at least one health impact or health system outcome	Text search for impacts and outcomes (and similar terms) using NVivo[13]	39
3 **(HSS)**	Multiple primary disease targets	Global Call submission	At least 2 diseases targeted referenced	Review submission and record number of diseases[14]	28

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[10] Cases that do not have matching search terms are reviewed to verify exclusion.
[11] Cases that do not have matching search terms are reviewed to verify exclusion.
[12] Cases that do not have matching search terms are reviewed to verify exclusion.
[13] Cases that do not have matching search terms are reviewed to verify exclusion.
[14] Team members did not review cases submitted by their institution.

Round	Criteria	Data source	Inclusion criteria	Review method	No. remaining cases at end of round
4 **(robust HSS)**	Multiple health system functions and sub-systems targeted	Global Call submission	At least 2 HSS WHO building blocks targeted and at least 2 sub-systems functions targeted	Review submission and record number of building blocks and sub-systems[15]	10[16]
	Verification that intervention was successful HSS intervention	Global Call submission	Intervention had health system outcome, health impact and targeted multiple diseases and health system functions	Review submission and verify case criteria by two team members and third to resolve discrepancies[17]	10
	Category D for HSS intervention type	R3 excel	Based on typology of HSS we developed,[i] case addresses at least 2 health system functions and at least 3 sub-systems	Review Excel and categorize based on total numbers of health system functions and sub-systems addressed	3
	Category E for HSS intervention type (not inclusive of D)	R3 excel	Based on typology of HSS we developed, case addresses at least 2 health system functions and at least 4 sub-systems	Review Excel and categorize based on total numbers of health system functions and sub-systems addressed	7
5 **(Final selection)**	Robustness of HSS intervention	R4 excel	Out of cases, case addressed highest number of health system functions (3) and sub-systems (4-5)	Select top 6 cases according to ranking	6
	Diversity of health system function addressed in intervention	R4 excel	Inclusion of at least one of each of the 6 WHO building blocks as health system functions addressed	If each health system function is not represented in top 6 ranked cases, select next on the list that fulfills other unrepresented health system function. Exclude duplicate health	

Round	Criteria	Data source	Inclusion criteria	Review method	No. remaining cases at end of round
				system function cases by rank order.	
	Diversity of countries	R4 excel	Country is not represented by another case	If there are duplicate countries in the top 6 ranked cases, replace lower ranked duplicate country case and select the next case in ranking. Exclude duplicate country cases by rank order.	

[i] We developed typology of categories for HSS interventions based on the levels and scope of health systems addressed, which we equate with robustness. The more primary health system functions and sub-systems that an intervention addresses, the closer the intervention is to being the ideal and "robust" HSS intervention that addresses all components of the health system functions and sub-systems. The typology we developed is as follows:

HSS typology categories	No. diseases targeted	No. health system functions targeted (trumps no. sub-systems)	No. sub-systems targeted
Category A (HSS label but health system support)	1	1	≥1
Category B	≥2	1	1-2
Category C	≥2	1	3-6
Category D	≥2	2	≥3
Category E	≥2	2-6	≥4
Category F (ideal)	≥2	6	6

ANNEX B: SUMMARY OF INDIVIDUAL CASE STUDIES

Maternal and Child Centers of Excellence: Improving Health Systems and Quality of Services in the Dominican Republic

USAID's Health Finance and Governance project (HFG) contributes to USAID's assistance to countries to deliver key health services and builds the evidence base around health systems strengthening (HSS). Under HFG's research portfolio, a series of retrospective, qualitative case studies were undertaken to understand the dynamics of successful HSS interventions by focusing on how HSS projects were implemented. This report presents the results for one of the five cases: the Maternal and Child Centers of Excellence: Improving health systems and quality of services in the Dominican Republic project (COE).

The COE project was implemented in the Dominican Republic from February 2009 to February 2014, through a direct contract of $15.5 million between the USAID Mission in the Dominican Republic to Abt Associates. The project was intended to address the "Dominican paradox" of high maternal and infant mortality despite high rates of prenatal care and facility deliveries by addressing issues in quality of care and the culture around service delivery. Enabling environment factors that influenced the project included prioritization by the Ministry of Public Health (MOPH) to address mortality rates, consistent support among MOPH leadership, decentralization of the health system, the early 2010 earthquake in Haiti, and USAID's broader decision to refocus maternal and child health (MCH) funding.

The COE project worked diagonally by integrating improved health systems functions and addressing quality of care in 10 hospitals, and three provincial and three regional health directorates (RHDs) across the country, and establishing the different sites as models that could replicate best practices. In each site, multi-disciplinary change management teams were established to spearhead and oversee the implementation of different activities. Following the development of the change management teams, key quality improvement activities (e.g., improving clinical records systems, hospital clean-up, and biosafety activities) were undertaken that engaged staff across the health facility and resulted in visible changes to service delivery in order to ensure early buy-in. Subsequent management and quality improvement efforts addressed the whole pathway of MCH services, and finally a replication system was established whereby sites could share best practices with others in their network.

Critical features of the COE project implementation were the site selection process – a collaborative process between the project, USAID, and the MOPH – which saw potential hospitals applying to be selected as a project site; joint development of COE components between project staff and site staff; "quick win" activities that engaged entire facilities and resulted in noticeable changes; phased implementation of each COE component with built-in learning cycles; and commitment of project staff to empowering facilities and staff to make positive changes.

Three main challenges to implementation were identified. First, several project components were not fully realized including community engagement activities, activities to address neonatal mortality, and engagement with RHDs. Second, the project was unable to address root causes leading to high rates of Cesarean section, which were driven partly by patient demand/preference but also by clinician-related factors such as work hours and reimbursement rates. Third, health systems challenges arose from persistent difficulties in changing the work culture of providers and facilities to a rights-oriented

approach, issues with staff mobility and turnover, and counterpart resources from the health system that did not materialize.

The COE project contributed to significant reductions in maternal and child mortality during the project period; critical tracer indicators, such as maternal death audits and active management of third stage of labor, were significantly improved; and an evaluation of the project found that staff, management, and clinicians attitudes had shifted to be more responsive to patient needs. Further, the MOPH adopted the certification system developed through the COE project and began to apply the system in its facilities. By the project end, three of the project hospitals had partially met the requirements for certification.

The Dominican Republic government pursued a loan from the Inter-American Development Bank (IDB), which was used in part to continue the COE activities and expand the program after USAID support ended. Despite a lag between USAID- and IDB-funded activities, the program is currently underway. It is unclear how many of the original COE sites, both hospital and provincial/regional sites, have sustained their COE activities outside of this additional support because the certification process that is meant to be implemented by the MOPH does not appear to be active.

Lessons learned from the implementation of the COE project include the need for respectful engagement of local counterparts and developing activities that are responsive to country needs; the integration of project staff at the sites and in the teams led to more meaningful change; and engagement with RHDs and on activities for newborn health should have taken place earlier during the project's life to ensure better gains.

Improving Care through Patient-Centered Clinical Pharmacy Services (SIAPS/Ethiopia)

USAID's Health Finance and Governance project (HFG) contributes to USAID's assistance to countries to deliver key health services and builds the evidence base around health systems strengthening (HSS). Under HFG's research portfolio, a series of retrospective, qualitative case studies were undertaken to understand the dynamics of successful HSS interventions by focusing on how HSS projects were implemented. This report presents the results for one of the five cases: the Improving Care through Patient-Centered Clinical Pharmacy Services (CP) activity.

The Clinical Pharmacy activity in Ethiopia was implemented from 2012 to 2016 and had a budget of $428,299. Clinical Pharmacy was part of the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) project in Ethiopia.[18] SIAPS, led by Management Sciences for Health, implemented the activity with local partners including Jimma University, Mekele University, and the Pharmaceutical Fund and Supply Agency. The activity was implemented in 65 hospitals in the regions of Amhara, Tigray, Oromia, Harari, Afar, and Benishangul Gumuz; the Southern Nations, Nationalities, and Peoples' Region; and the city administrations of Addis Ababa and Dire Dawa.

Clinical Pharmacy's objective was to promote patient-centered pharmaceutical services in support of the SIAPS Intermediate Result 5 to improve pharmaceutical services to achieve better health outcomes. SIAPS Ethiopia took a pharmaceutical systems strengthening approach following the project's systems

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[18] The broader SIAPS program was implemented in over 20 countries, including in Ethiopia, from 2011 to 2016 and aimed to improve the pharmaceutical systems and services in the countries they worked in. The prime implementer was Management Sciences for Health and the four core partners were the Accreditation Council for Pharmacy Education, Harvard University, the Logistics Management Institute, and the University of Washington. USAID centrally funded SIAPS for a total of $197.9 million as a Cooperative Agreement.

strengthening approach. Specifically, Clinical Pharmacy was intended to address improper medication use in clinical wards and chronic care units, and shortages of properly trained staff. While the activity aimed to provide a holistic approach to building clinical pharmacy capacity, the main approach to the project was a one-month in-service training program. Clinical Pharmacy trained over 200 pharmacists, and as a result of the activity, 53 of 65 hospitals implemented clinical pharmacy services.

The broader context set the stage for this project. Namely, there were larger national initiatives that supported the Clinical Pharmacy program. These included recognition in 2008 by Ethiopia schools of pharmacy to better train for patient-focused services; inclusion of a pharmacy chapter in the Ethiopian Hospital Reform Implementation Guidelines (EHRIG) in 2010 (national support); and groundwork laid by the Strengthening Pharmaceutical Systems program. The activity had broad stakeholder commitment, in part due to the consensus around the problem and the need for improved training.

We identified several factors that supported the intervention's implementation and success. SIAPS implemented the Clinical Pharmacy activity in a very conductive policy environment and had joint support from the USAID mission and Government of Ethiopia's Federal Ministry of Health. SIAPS was well positioned to implement the program because they had experts in the field of pharmacy, as well as partners well versed in relevant fields, including supply chain, drug therapeutic committees, and rational use of medicines. A key strength of the program was that it developed an implementation plan for existing guidelines. The implementation model was to build staff and organizational capacity and skills. Without this implementation plan, few hospitals would have had the capability or resources to reach the goals outlined in the EHRIG pharmacy chapter. Respondents cited the Standardized Operating Procedures as a key factor in contributing to success and adherence of the guidelines.

Lessons learned emerged around challenges that the activity faced and from the factors that contributed to success. Two challenges – limited monitoring data and continued shortage of human resources – constrained implementation and support for the intervention, and threatened sustainability of the intervention outcomes. Key factors of success that provide lessons learned for other projects are to develop interventions in direct support of government policies and initiatives that require support to be implemented or adopted. Further, Ethiopian stakeholders played a key role in and maintained strong ownership of the activity during implementation, and they plan to continue that ownership.

Dialogue Project on HIV/AIDS and TB in Kazakhstan

USAID's Health Finance and Governance project (HFG) contributes to USAID's assistance to countries to deliver key health services and builds the evidence base around health systems strengthening (HSS). Under HFG's research portfolio, a series of retrospective, qualitative case studies were undertaken to understand the dynamics of successful HSS interventions by focusing on how HSS projects were implemented. This report presents the results for one of the five cases: Dialogue Project on HIV/AIDS and TB in Kazakhstan (2009-2015).

Dialogue was led by Population Services International (PSI) with support from the AIDS Foundation East-West, Project HOPE, and the Kazakh Association for People Living with HIV/AIDS. In addition to this, nine local NGOs were awarded sub-grants to implement various components of the project. Dialogue trained local government officials, journalists, pharmacists, and medical providers on service delivery issues for key populations (KPs) and on addressing persistent social problems such as gender-based violence. Importantly, Dialogue was part of a bifurcated strategy to address escalating HIV and TB epidemics through USAID's Central Asian Mission. The other project, Quality Health Care Project (QHCP), was an important partner, with an explicit focus on HSS. Though they were not identified in the case study selection process, their interaction with the more service delivery-oriented Dialogue project was seen as crucial to sustainable implementation. While this case study was not analytically

equipped to disentangle the effects of QHCP vs. Dialogue, it is important to note that this nuanced approach to regional planning was likely a key aspect of effective HSS.

Though Dialogue was implemented as regional project in five Central Asian countries, this case study focuses specifically on Kazakhstan, which represented approximately 20 percent of the overall project cost. This included an initial funding of $3.04 million of the $14.8 million regional project and received a total obligation of $3.8 million out of $19.8 million by the end of the project. While declines in funding for Kazakhstan were reported during the project, these were accommodated by the increased financial presence of the Global Fund Round 10. Despite this, actors seemed to think that the level of funding was adequate for implementation of the full package of outreach and support services delivered by the project.

Dialogue focused on reducing the spread of HIV and TB epidemics in Central Asia by improving health behaviors among KPs (i.e., people who inject drugs, sex workers, men who have sex with men, prisoners, people living with HIV/AIDS, and migrants). This was accomplished by focusing on three broad areas, including supported outreach to KPs, improved evidence-based decision making, and improvements to the continuum of care. The backbone of this approach was delivery of a targeted package of services to KPs, through one of six different outreach models. Some of the services included in these outreach efforts were 1) information on HIV, 2) oral presentations on TB preventive methods (individual or group counseling, sessions/ mini-sessions), 3) referral of KPs for HIV and TB testing and counseling, 4) referral to drug treatment, 5) distribution of information, education, and communication material 6) condom distribution, 7) motivational interviewing, 8) case management for adherence to treatment, and 9) TB community adherence support. While the project centered on service delivery, one of the themes that emerged from the analysis was that effective implementation touches on other aspects of health systems that can lead to sustainable improvements.

Implementation of the Dialogue Project was facilitated by a number of important factors related primarily to project design and the complex dynamics among actors. First, there existed reliable epidemiological data with which to accurately diagnose the problem of growing HIV and TB epidemics in Central Asia, and implementing partners were intimately acquainted with evidence-based models for delivering outreach services to KPs. Second, the prior lack of political priority for addressing the needs of KPs created ample space for USAID to develop a sizable program of work to be implemented by partners that were familiar with each other. Third, Dialogue focused on generating high-level political support from a wide array of entities throughout its lifespan. While some of this is attributable to the strategic vision of USAID's regional mission, Dialogue used technical working groups and regional committees to monitor and respond to changes in implementation, which created a degree of ownership for the portfolio across government, civil society, and other community stakeholders. Fourth, while the focus of implementation was on the delivery of outreach services to KPs, the project worked through multidisciplinary teams, nine sub-grantees NGOs, multiple implementing partners, the Department of Health, and republican AIDS Centers to strengthen the working dynamics among partners. Not only was the capacity of local NGOs strengthened, but several of the project tools were reportedly adopted by republican AIDS centers and are now included in national treatment protocols. Furthermore, the capacity of health professionals and the media to accommodate and understand the challenges faced by KPs in seeking treatment were reported to have effects that extended beyond the life of the project. By planning for sustainability and implementing effectively, the project was able to report on the multiple ways in which it served to strengthen the health system.

Despite these facilitators, a number of challenges, primarily with the enabling environment and implementation climate, were present throughout project implementation. Some of these challenges included stigma toward KPs, vertical service delivery systems, funding changes, and coordination/cooperation among multiple implementing partners. In addition to these broad challenges,

project staff identified a number of smaller operational issues, such as branding requirements by USAID, difficulties in recruiting local implementing NGOs in some regions, bureaucratic services to migrants, staff turnover, and language difficulties. These problems were all seen as surmountable and did not interfere with the ability of the project to achieve its objectives.

Dialogue achieved a number of positive outcomes. The project reached a total of 34,810 KPs from 2009 to 2015. Over the life of the project, 5,050 KPs were referred to HIV testing and counseling (HTC) services and now know their HIV status. A total of 4,499 KPs were referred to diagnostics over this time period as well. Another key achievement was the training of KPs as outreach peer educators, of which 527 were trained to provide outreach services in "hot zones." There were also important behavioral health impacts of the project among KPs in Kazakhstan. For example, people who inject drugs had a significantly higher proportion of HTC utilization (87.4% vs. 48.1%, Odds Ratio (OR)=7.3, $p<.001$). Similarly, those involved with the project were more likely to use condoms with regular partners (47.9% vs. 27.6%, OR=2.0, $p<.05$) and seek TB testing (87.1% vs. 73.8%, OR=2.1, $p<.05$). Sex workers who participated in the project were also more likely to utilize HTC than other sex workers (88% vs. 74%, $p<.01$). Also, men who have sex with men and were project participants reported safer sexual behavior than other men who have sex with men (84.4% vs. 11.5%, $p<.001$). The multidisciplinary team approach conducted at three project sites resulted in 82 percent of TB patients continuing antiretroviral treatment. These statistics demonstrate that participation in the project had a strong effect on improving reported health behaviors among KPs.

While it remains debatable whether the Dialogue Project can be classified as a true HSS project, this research demonstrates two important features of effective HSS. First, the combination of Dialogue with QHCP as financed through USAID's Central Asia Mission is an example of how seemingly intractable problems can be tackled through coherent project design and nimble project coordination. Second, Dialogue's experience demonstrates that excellence in implementation, including actor engagement and adaptability, necessarily generates positive effects that serve to strengthen other dimensions of health systems. In this way, the Dialogue Project was a strong example of how a shared vision, through effective collaboration, can be transformed into measurable behavioral health outcomes and improved health systems performance.

Rwanda's Twubakane Decentralization and Health Program

USAID's Health Finance and Governance project (HFG) contributes to USAID's assistance to countries to deliver key health services and builds the evidence base around HSS (HSS). Under HFG's research portfolio, a series of retrospective, qualitative case studies were undertaken to understand the dynamics of successful HSS interventions by focusing on how HSS projects were implemented. This report presents the results for one of the five cases: Rwanda's Twubakane Decentralization and Health Program.

Twubakane was led by IntraHealth with support from RTI International, Tulane University, and EngenderHealth as the subcontractors. Numerous Rwandan counterparts, local implementers, and development partners supported smaller pieces of the contract. Originally funded at $24 million, the project received a total obligation of $28,379,327 from USAID. The project implemented a two-pronged HSS approach where both health care delivery and governance were addressed through six components:

- Family planning and reproductive health;
- Child survival, malaria and nutrition;
- Decentralization policy, planning and management;

- District-level capacity building;

- Health facilities management; and

- Community engagement and oversight.

The project was meant to support health system financing, decentralization, and human resources for health. Only six months into the project in 2005, the geographic scope of the work changed when President Paul Kagame initiated Phase II of Rwanda's decentralization efforts. Phase II aligned formerly unaligned administrative and health districts with single unified districts. In response, the project reprioritized to make district-level capacity-building its top priority. The projects' ability to accommodate this change in work plan facilitated project sustainability.

Critical features of the project were established early on. First, USAID engaged the Government of Rwanda (GOR) during the Request for Application (RFA) development process to understand GOR priorities and establish a mutually respectful relationship. In doing so, Twubakane was able to align activities with existing GOR policies and initiatives from the beginning. Consequently, Twubakane staff were invited to participate in workgroups and steering committees to update outdated policies, which further strengthened project-GOR relationships. When ad-hoc needs were identified, like training police officers to raise awareness about gender-based violence or changing the geographic scope of the project, Twubakane staff knew whom to speak with and how to navigate the process successfully. One project activity expanded an existing structure, community-provider partnerships (Partenariats pour l'Amélioration de la Qualité, or PAQs), which were ultimately deemed a best practice by the GOR before the project ended. Second, IntraHealth promoted collaboration by making staff engagement a top priority. Everyone from drivers to the Chief of Party were expected to participate in staff meetings and annual retreats. This increased staff buy-in and ownership of the project, which ultimately increased team spirit. Finally, district officials were offered financial resources and the opportunity to manage them through District Incentive Funds. This increased district ownership over the planning, budgeting, and management of resources which increased their adherence to the capacity-building opportunities offered by Twubakane.

The main challenges revolved around reporting requirements, data availability, and limited opportunities for innovation. Over the course of the project, multiple reporting requirements were expected from various GOR agencies at different times. Sometimes this limited staff availability to work on the implementation itself. A second limitation was the lag in the Demographic and Health Survey data. While the project was able to conduct large-scale capacity assessments, their monitoring and evaluation efforts to assess health outcomes were limited due to the data lag. Finally, the GOR preferred not to fund pilot activities unless they were evidence-based and scalable. This limited the amount of innovation Twubakane could introduce.

Among other outcomes, the project contributed to 1) a reduction in the infant mortality rate from 107 to 62 per 1000 live births, 2) an increase in couple years of protection by almost five-fold, and 3) the active engagement of a supervisor in 98 percent of the 136 PAQs.

Some lessons learned include the value in:

- Regular communication between team members and stakeholders;

- Building highly effective teams through regular communication and in-person retreats;

- Bottom-up stakeholder engagement in the planning and implementation process; and

- Convincing the target population of the importance of the activity.

Zambia Integrated Systems Strengthening Program

USAID's Health Finance and Governance project (HFG) contributes to USAID's assistance to countries to delivery key health services and builds the evidence base around health systems strengthening (HSS). Under HFG's research portfolio a series of retrospective, qualitative case studies were undertaken to understand the dynamics of successful HSS interventions by focusing on how HSS projects were implemented. This report presents the results for one of the six cases: Zambia Integrated Systems Strengthening Program (ZISSP).

ZISSP was implemented in Zambia from July 2010 to December 2014. The United States Agency for International Development (USAID) funded the project through a contract of $ 85,092,613 to lead contractor Abt Associates in collaboration with Akros Inc., the American College of Nurse-Midwives, BroadReach Institute for Training and Education, Johns Hopkins Bloomberg School of Public Health−Center for Communication Programs, Liverpool School of Tropical Medicine, and Planned Parenthood Association of Zambia.

ZISSP worked closely with the Ministry of Health (MOH) and the Ministry of Community Development Mother and Child Health (MCDMCH) to increase the use of quality, high-impact health services through a health systems strengthening approach. ZISSP used a whole-systems approach to support the MOH and MCDMCH to improve access and utilization of health services in particular areas. The project was intended to address gaps in the Zambian health system related to problems in service implementation, resource coordination and management, human resource administration, community engagement, and utilization of health services. Enabling environment factors that influenced ZISSP's implementation included Zambian public workforce structure, other donor-led projects, and Zambia's recent history experiencing withdrawal of major donor funds relating to financial mismanagement. One relevant factor in the implementation setting was the realignment of the MOH to create the MCDMCH, which occurred by presidential decree in 2011.

ZISSP used a whole-system or diagonal approach to improve planning and management at each level of the health system and strengthen the specific program areas of HIV and AIDS, family planning, malaria, maternal, newborn and child health, and nutrition. At the national level, ZISSP worked through the technical working groups as well as with six subcontractors in specific areas of capacity building. ZISSP used secondment of key staff and increased personnel to improve and decentralize training down to provincial and district levels. ZISSP specifically focused district-level interventions in 27 districts across 10 provinces by working through District Community Medical Offices. Within target districts ZISSP used secondment and behavior change communication, provided small grants to community health organizations, and worked with the health center advisory committees to improve community involvement.

Important factors from ZISSP's implementation include funding (both availability of ZISSP funds and from other sources), high levels of MOH involvement in the early project stages, the project's broad and thin approach, and secondment of key staff at different levels of Zambia's health system.

ZISSP encountered three key challenges to its implementation. First, coordination of the many actors and activities was a substantial and ongoing obstacle. Secondly increased activity led to a tendency of particular program components or individuals to become overworked. Finally, ZISSP was challenged by the movement of staff both within the health system as well as attrition.

Currently, there is a follow-on project to ZISSP, which focuses on five rather than 10 provinces, and other projects have incorporated some of the strategies and developments included in ZISSP. Additionally, many of the organizations ZISSP supported and developed have been successfully handed back to control of local stakeholders.

Lessons learned during ZISSP's implementation included two major themes. Firstly, the whole-system or diagonal approach was perceived as a unique and strong characteristic of ZISSP's design because it enabled many stakeholders and partners to be informed and included in the coordination. The second theme that emerged was the importance of high levels of local ownership of the project's activities as crucial to their sustainability.

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Dialogue Project on HIV/AIDS and Tuberculosis Project, Kazakhstan

USAID's Health Finance and Governance project (HFG) contributes to USAID's assistance to countries to deliver key health services and builds the evidence base around health systems strengthening (HSS). Under HFG's research portfolio, a series of retrospective, qualitative case studies were undertaken to understand the dynamics of successful HSS interventions by focusing on how HSS projects were implemented. This report presents the results for one of the five cases: Dialogue Project on HIV/AIDS and TB in Kazakhstan (2009-2015).

Dialogue was led by Population Services International (PSI) with support with support from AIDS Foundation East-West, Project HOPE, and the Kazakh Association for People Living with HIV/AIDS. In addition to this, nine different local NGOs were awarded sub-grants to implement various components of the project. Dialogue conducted trainings with local government officials, journalists, pharmacists, and medical providers on service delivery issues for key populations (KPs) as well as addressing persistent social problems such as gender-based violence. Importantly, Dialogue was part of a bifurcated strategy to address escalating HIV and TB epidemics through USAID's Central Asian Mission. The other project, Quality Health Care Project (QHCP), was an important partner, with an explicit focus on health systems strengthening. Though they were not identified in the case study selection process, their interaction with the more service-delivery-oriented Dialogue project was seen as crucial to sustainable implementation. While this case study was not analytically equipped to disentangle the effects of QHCP vs. Dialogue, it is important to note that this nuanced approach to regional planning was likely a key aspect of effective health systems strengthening.

Though Dialogue was implemented as regional project in five Central Asian countries, this case study focuses specifically on Kazakhstan, which represented approximately 20% of the overall project cost. This included an initial funding of $3.04 million of the $14.8 million regional project and received a total obligation of $3.8 million out of $19.8 million by the end of the project. While declines in funding for Kazakhstan were reported during the project, these were accommodated by the increased financial presence of the Global Fund Round 10. Despite this, actors seemed to think that the level of funding was adequate for implementation of the full package of outreach and support services delivered by the project.

Dialogue focused on reducing the spread of HIV and TB epidemics in Central Asia by improving health behaviors among KPs (i.e. people who inject drugs, sex workers, men who have sex with men, prisoners, people living with HIV/AIDS, and migrants). This was accomplished by focusing on three broad areas, including supported outreach to KPs, improved evidence-based decision-making, and improvements to the continuum of care. The backbone of this approach was delivery of a targeted package of services to KPs, through one of six different outreach models. Some of the services included in these outreach efforts were 1) information on HIV, 2) oral presentations on TB preventative methods (individual or group counseling, sessions/ mini-sessions), 3) referral of KPs for HIV and TB testing and counseling, 4) referral to drug treatment, 5) distribution of information, education, and communication material 6) condom distribution, 7) motivational interviewing, 8) case management for adherence to treatment, 9) TB community adherence support. While the project centered on service delivery, one of the themes that emerged from the analysis was that effective implementation touches on other aspects of health systems that can lead to sustainable improvements.

Implementation of the Dialogue Project was facilitated by a number of important factors related primarily to project design and the complex dynamics among actors. First, there existed reliable epidemiological data with which to accurately diagnose the problem of growing HIV and TB epidemics in Central Asia, and implementing partners were intimately acquainted with evidence-based models for delivering outreach services to KPs. Second, the prior lack of political priority for addressing the needs of KPs created ample space for USAID to develop a sizable program of work to be implemented by partners that were familiar with each other. Third, Dialogue focused on generating high-level political support from a wide array of entities throughout its lifespan. While some of this is attributable to the strategic vision of USAID's regional mission, Dialogue used technical working groups and regional committees to monitor and respond to changes in implementation, which created a degree of ownership for the portfolio across government, civil society, and other community stakeholders. Fourth, while the focus of implementation was on the delivery of outreach services to KPs, the project worked through multidisciplinary teams, 9 sub-grantees NGOs, multiple implementing partners, the Department of Health, and republican AIDS Centers to strengthen the working dynamics among partners. Not only was the capacity of local NGOs strengthened, but several of the project tools were reportedly adopted by republican AIDS centers and are now included in national treatment protocols. Furthermore, the capacity of health professionals and the media to accommodate and understand the challenges faced by KPs in seeking treatment were reported to have effects that extended beyond the life of the project. By planning for sustainability and implementing effectively, the project was able to report on the multiple ways in which it served to strengthen the health system.

Despite these facilitators, a number of challenges, primarily with the enabling environment and implementation climate, were present throughout project implementation. Some of these challenges included stigma towards KPs, vertical service delivery systems, funding changes, and coordination/cooperation amongst multiple implementing partners. In addition to these broad challenges, project staff identified a number of smaller operational issues, such as branding requirements by USAID, difficulties in recruiting local implementing NGOs in some regions, bureaucratic services to

migrants, staff turnover, and language difficulties. These problems were all seen as surmountable and did not interfere with the ability of the project to achieve its objectives.

Dialogue achieved a number of positive outcomes. The project reached a total of 34,810 KPs from 2009-2015. Over the life of the project, 5,050 KPs were referred to HIV testing and counseling (HTC) services and now know their HIV status. A total of 4,499 KPs were referred to diagnostics over this time period as well. Another key achievement was the training of KPs as outreach peer educators, of which 527 were trained to provide outreach services in "hot zones". There were also important behavioral health impacts of the project amongst KPs in Kazakhstan. For example, people who inject drugs had a significantly higher proportion of HIV testing and counseling utilization (87.4% vs. 48.1%, Odds Ration (OR=7.3, p<.001). Similarly, those involved with the project were more likely to use condoms with regular partners (47.9% vs. 27.6%, OR=2.0, p<.05) and seek TB testing (87.1% vs. 73.8%, OR=2.1, p<.05). Sex workers who participated in the project were also more likely to utilize HIV testing and counseling than other sex workers (88% vs. 74%, p<.01). Also, men who have sex with men and were project participants reported safer sexual behavior than other men who have sex with men (84.4% vs. 11.5%, p<.001). The multidisciplinary team approach conducted at three project sites resulted in 82% of TB patients continuing antiretroviral treatment. These statistics demonstrate that participation in the project had a strong effect on improving reported health behaviors among KPs.

While it remains debatable whether Dialogue can be classified as a true health systems strengthening project, this research demonstrates two important features of effective health systems strengthening. First, the combination of Dialogue Project with QHCP as financed through USAID's Central Asia Mission is an example of how seemingly intractable problems can be tackled through coherent project design and nimble project coordination.   Second, the experience of Dialogue Project demonstrates that excellence in implementation, including actor engagement and adaptability, necessarily generates positive effects that serve to strengthen other dimensions of health systems. In this way, the Dialogue Project was a strong example of how a shared vision, through effective collaboration, can be transformed into measurable behavioral health outcomes and improved health systems performance.

ANNEX C: BIBLIOGRAPHY

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