

Secondary Case Review of Public- Private Engagements in Health

Crosscutting Analysis

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Abbreviations

AHI	ACCESS Health International
BPL	Below-poverty-line
CY	Chiranjeevi Yojana (India)
CHAM	Christian Health Association of Malawi
DHO	District Health Office
FHS	Family Health Strategy (Brazil)
FRL	Fiscal Responsibility Law (Brazil)
GOM	Government of Malawi
IHA	Insight Health Advisors
LMIC	low- and middle-income countries
MSPAS	Ministerio de Salud Publica y Asistencia Social (Guatemala)
MOH	Ministry of Health
MHS	mixed health systems
NGO	Non-governmental organization
PHC	primary health care
PEC	Programa de Extension de Cobertura (Guatemala)
PPE	public-private engagement
R4D	Results for Development
SLA	Service level agreement (Malawi)
SUS	Sistema Único de Saúde (Brazil)
SMHS	Strengthening Mixed Health Systems project
SDG	Sustainable Development Goals
TBY	Thayi Bhagya Yojana (India)
UHC	universal health coverage
UPHCP-II	Urban Primary Healthcare Project (Phase II) (Bangladesh)

Executive Summary

The Strengthening Mixed Health Systems (SMHS) project, led by Results for Development (R4D) and funded by Merck for Mothers, was designed to demonstrate and document practical and actionable processes for integrating quality private maternity care into government-stewarded health systems. One research and learning activity that was included in the project was the identification, additional data collection and secondary analysis of six public-private engagements designed to improve health outcomes. This research sought to contribute to answering the following key questions:

1. Is the approach of supporting public-private engagements to strengthen maternal and newborn health and UHC associated with **outcomes** including improved quality of engagement between the sectors and improvements in relevant health service outcomes?
2. What **factors** are associated with helping to achieve intended outcomes, and what factors are associated with hindering engagements?

The review of cases in India (2), Guatemala, Bangladesh, Malawi, and Brazil, the project identified the following results and recommendations for strengthening mixed health systems for maternal and newborn health and universal health coverages:

Environmental and structural factors. The status of contextual factors such as high-level political support at the start of an engagement may influence PPE outcomes even years after the engagement begins. Pressure and interest of high-level stakeholders can play a major role in both helping and hindering engagements, and overall availability of resources for engagements is critical both to support engagement directly and to strengthen trust and buy-in of partners. The design of contractual models as well as reimbursement and pricing schemes can create significant roadblocks for mixed health system outcomes, and thus early investment in these designs is critical.

Engagement factors. In addition to partnership context and “hardware,” factors related to how partners engage with each other are critical to the success of engagements. Will to engage of key public and private sector actors is likely a major driver of effectiveness and thus can be leveraged by identifying champions of engagements early in the process. Partners should closely monitor factors such as will to engage, trust, and partner motivations and goals consistently over the course of an engagement as they do often vary over time and across sectors, which can be associated with improving or worsening outcomes. Private and especially public sector actors should clearly define and communicate the roles and incentives of partners at the start of the engagement to avoid pitfalls associated with a lack of mutual understanding. Specific policies and practices related to communication, technical and managerial capacity, and accountability can strengthen other engagement factors as well as overall engagement effectiveness.

Finally, factors are highly interrelated, and there is strong evidence that they can influence each other. As such, conducting regular assessments of factors and triaging those that may be easier for partners and brokers to address can have ripple effects on the larger engagement.

Introduction

Background

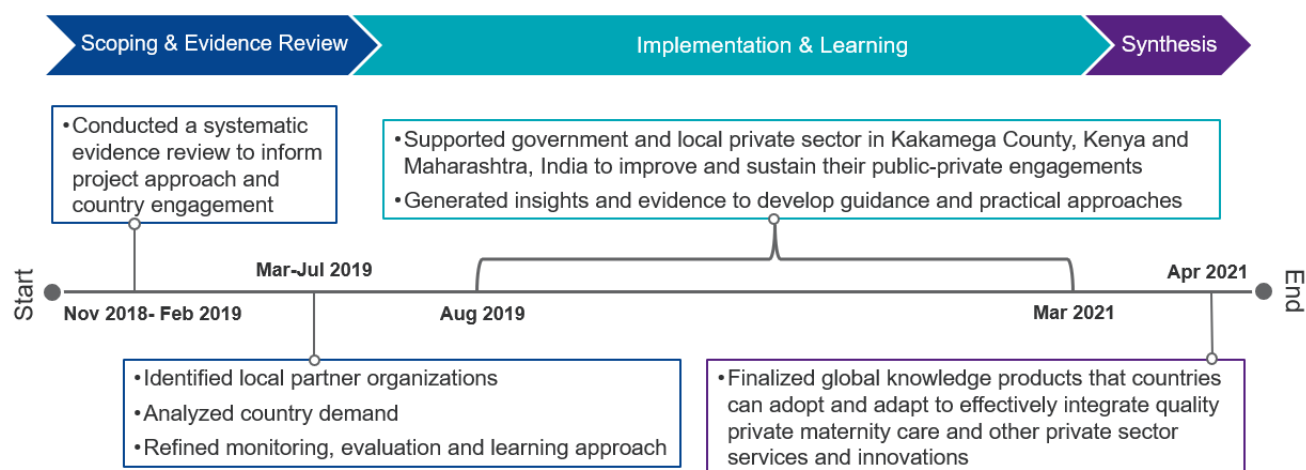
Many countries recognize their limitations in achieving the Sustainable Development Goals (SDGs) and universal health coverage (UHC) through public provision of health services alone — and wish to better engage the private sector to do so. However, country governments often lack information about local private providers and solutions in their countries, do not have a defined stewardship role, and/or are not supported by the appropriate institutional systems and processes to engage private providers in a mixed (public-private) health system (MHS).¹ Similarly, the local private sector in many countries wants to engage with the public sector, but they need government direction on how to engage and how to identify strategic opportunities.

In low and middle-income countries around the world, an estimated 40% of women seek maternal and reproductive health care from the private health sector.² This makes cooperation between the sectors vital to improving maternal health and ultimately achieving the SDG targets to lower maternal mortality.

About the SMHS Project

The Strengthening Mixed Health Systems (SMHS) project, led by Results for Development (R4D) and funded by Merck for Mothers, was designed to demonstrate and document practical and actionable processes for integrating quality private maternity care into government-stewarded health systems (**Figure 1**). R4D partnered with [Insight Health Advisors](#) (IHA) in Kenya and [ACCESS Health International](#) (AHI) in India to support project implementation.

Figure 1. *The SMHS project timeline*



¹ Defined as “a system with goods and services provide by the public and private sector, and health consumers requesting these services from both sectors.”

World Health Organization. 2019. The private sector and universal health coverage.

<https://www.who.int/bulletin/volumes/97/6/18-225540/en/> (29 April 2021, date last accessed).

² Campbell OM, Benova L, MacLeod D et al. 2016. Family planning, antenatal and delivery care: cross-sectional survey evidence on levels of coverage and inequalities by public and private sector in 57 low- and middle-income countries. *Tropical Medicine and International Health*. Apr;21(4):486-503.

Starting in November 2018, the project conducted a systematic evidence review to inform the project approach, conducted extensive country scoping and demand analysis – including local partner identification, and developed and refined the project's facilitation and monitoring, evaluation and learning approach. From August 2019 to April 2021, in collaboration with local partners, the project supported governments and local private sector in Kakamega County, Kenya and Maharashtra, India to improve and sustain their public-private engagements (PPEs). In Kenya, R4D partnered with Insight Health Advisors (IHA) and in India, ACCESS Health International (AHI). Throughout implementation, the project generated insights and evidence with the aim of producing global knowledge on the practical approaches that countries can adopt and adapt to effectively integrate quality private maternity care and other private sector services and innovations.

The project was designed around two interrelated but distinct approaches: (1) the provision of direct support and process facilitation for PPEs in two low and middle income countries (LMICs) to strengthen the integration of quality private maternal care in these locations and (2) an adaptive learning agenda to integrate both implementation learnings and results from these two cases with the broader evidence base from existing PPEs.

The first approach was piloted in Kakamega County in Kenya for a new engagement between the sectors and in Maharashtra State in India on a newly launched program (LaQysha Manyata) seeking to assure and improve the quality of maternity services in the private sector across the state. Ultimately, the processes for improving PPE, facilitated by R4D, IHA, and AHI, sought to help country actors move towards achieving UHC and improved maternal health outcomes and was tested as a potential model for supporting other countries with the same goals.

The second approach – the project's learning agenda – was designed iteratively to identify and fill evidence gaps in both the existing academic literature and the guidance for policymakers, development partners, and private sector actors seeking to develop or strengthen mixed health systems. Ultimately, the learning agenda was developed to include three key pieces of research: (1) a systematic review of the existing evidence of whether and how MHS can improve health outcomes, (2) two primary cases studies analyzing the programs undertaken in Kenya and India as part of the SMHS project, and (3) secondary analysis of six existing PPEs that have been evaluated as part of the existing literature.

This paper presents the results and learnings from the third piece of research: the secondary case analysis. We begin with a section on the Objectives, Research Questions, and Rationale for this component of the research. The next section describes our Methodology for both the analysis of individual cases and cross-cutting analysis. We then present an Overview of the Individual Cases, highlighting important context about the MHS programs and the existing research on each. We then end with two sections highlighting Results and Discussion from the cross-cutting analysis of these cases. It is worth noting that a full case report for each secondary case study is included/linked in the Annexes, and each individual case provides more detailed information about the analysis and results for the target program.

Challenge and Objectives

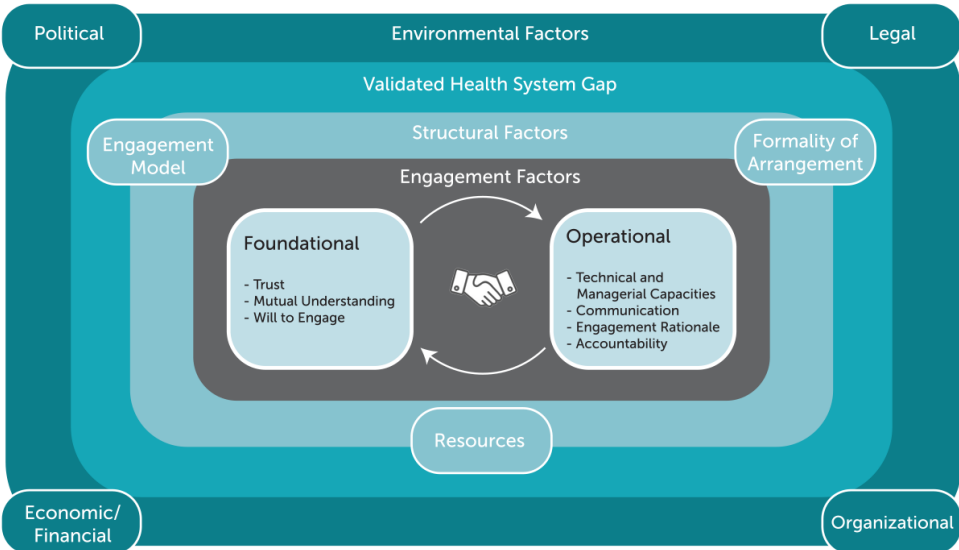
While many countries have a relatively long history of seeking to integrate public and private sector health actors, the rigorous evidence as well as common guidance for whether and how these engagements can improve outcomes has lagged behind this practice. As a result, those seeking to both implement and support effective mechanisms to improve health outcomes are left with many questions, not least of which is whether strengthening MHS can in fact lead to improved outcomes such as reductions in maternal mortality, improved quality of care, and increased access for rural and/or traditionally underserved populations.

From this perspective, the research questions that we sought to answer with the secondary case study review match two of our questions for the overarching SMHS project:

- 3. Is the approach of supporting public-private engagements to strengthen maternal and newborn health and UHC associated with **outcomes** including improved quality of engagement between the sectors and improvements in relevant health service outcomes?
- 4. What **factors** are associated with helping to achieve intended outcomes, and what factors are associated with hindering engagements?

While the existing literature does provide important and largely positive information about the relationship between PPEs and health outcomes, there is less information on the second question - what factors help and hinder effective engagements. While much of the existing literature does not tackle these questions directly, our systematic review revealed some valuable insights into factors that are cited by partners as playing a key role in either supporting mixed health systems or in serving as obstacles to their effectiveness. Based on this evidence review, we developed a PPE Ecosystem framework of factors (Figure 2) that we used to guide our coding and analysis of both the primary cases in Kenya and India and the secondary cases which we discuss in this paper. The secondary case studies were designed to contribute to answers to these two questions, and they provide a unique lens that we believed was important to include in this larger analysis.

Figure 2. Public-Private Sector Ecosystem: factors for effective engagement



Approach

The review of secondary case studies involved five steps: (1) Selection of Cases, (2) Desk Review, (3) Data Extraction, (4) Additional Data Collection, and (5) Data Analysis. Each of these steps is described in more detail below.

Selection of cases

We sought to identify 6-8 PPEs that had been evaluated using rigorous techniques to include in the secondary case review. Before selecting cases, we began by developing a primary and secondary set of criteria to select from potential cases identified (Box 1).

Specifically, we sought to identify secondary cases that focused on public-private engagements that has been evaluated using rigorous research methods. In fact, the existence of a published peer-reviewed evaluation of the program was one of the primary criteria used to identify the secondary cases. This is critical because each of these cases has existing evidence regarding whether the engagement was effective in achieving the health outcomes it was designed to achieve. There is a limited pool of engagements that has this existing evidence, and having objective results regarding the effectiveness of a program allowed us to better assess the role of factors in improved or unchanged outcomes (or both).

The inclusion of six secondary cases allowed us to study a larger pool of diverse PPEs to identify trends in conjunction with primary cases. While even a set of eight cases (two primary and six secondary) cannot provide conclusive evidence regarding outcomes and factors, observations of common factors and trends drawn from this larger subset of engagements can reveal insights that previous reviews of the literature did not allow. Ultimately, our belief is that, by leveraging both the objective findings and the experiences of researchers and implementers working on these engagements, we have been able to develop new insights for how PPEs work that provide critical and new guidance to the field and reveal new opportunities for further research in this important and growing field.

Based on these criteria, we ultimately developed a list of forty-seven potential cases that met some of the primary criteria, which was ultimately narrowed to nine cases that met the top three primary criteria. For each of these nine short-listed cases, we identified a primary evaluation article for the case and proceeded to reach out to authors of the articles to ascertain willingness to speak with us about the case. Of these efforts, six researchers/research teams agreed to be

Box 1. Criteria for selection of secondary cases

Primary criteria:

- Focus activities involving partnerships and/or engagement between public and private sector actors
- Target outcomes related to improvements in outcomes related to maternal, newborn, and child health either directly or through improvements to primary healthcare
- Existing research (quantitative, qualitative, or mixed methods) seeking to assess the effectiveness of the focus activities
- Willingness of program or research partners to support key informant interviews to augment existing data

Secondary criteria:

- Diversity in geography and type of public-private engagement across the cases (primary and secondary)
- Existence of a trusted brokering or supporting public-private engagement

interviewed for the secondary case research, leading us to ultimately select these six cases³. These cases are described briefly in the next section.

Desk Review

After identifying the six cases, we conducted an extensive review and search to compile as much documentation about each target PPE as possible. This review included searches for both additional published and peer-reviewed literature as well as “grey” literature. Specifically, using search terms including the name/title of the PPE in question, we conducted searches using PubMed (peer reviewed literature) and Google (grey literature). For each search, we recorded both the total number of articles that were returned using our search terms and the total number of articles that we ultimately included in the review. In addition, we also asked for any additional evidence and documentation from the identified researchers and implementers of the secondary case PPE with whom we spoke.

Data Extraction

For the included literature and documentation for each case, a researcher reviewed the full text and coded all relevant data according to a structured desk review database template. In addition to general overview information about each piece of evidence (e.g., citation, study/article type, etc.), the codebook for data extraction is included in Table 1.

Table 1. Codebook for Data Extraction

Case Study Component	Data Extraction
PPE context and background	<ul style="list-style-type: none"> • PPE timeline • PPE goal and objectives • Actors (public, private, and third party/other) • Partnership structure • Other context
Theory of change reconstruction	<ul style="list-style-type: none"> • Planned activities • Target outputs • Target outcomes (short, medium, and long term, if relevant) <ul style="list-style-type: none"> ○ Population health-related outcomes ○ Health system-related outcomes ○ Engagement-related outcomes
“Process evaluation” data (Research Question 1)	<ul style="list-style-type: none"> • Evidence on activities—were they implemented as planned? • Evidence on outputs—were target outputs achieved? • Evidence on outcomes—were target outcomes achieved? (<i>from selected evaluation</i>)
Helping/hindering factors (Research Question 2)	<ul style="list-style-type: none"> • Environmental factors • Structural factors • Engagement factors (will to engage, trust, mutual understanding, communications, engagement rationale, accountability and technical/managerial capacities)

³ While six researchers originally agreed to speak with us, one researcher ultimately did not want to be interviewed for this project. However, we decided to include this case in the secondary review and relied on multiple articles about the PPE for analysis.

Additional Data Collection

Upon completing data extraction for all secondary sources identified, the research team again contacted the author(s) of the main source article for each case to schedule a follow-on key informant interview. The key informant interviews allowed the research team to collect supplementary primary data relevant to both research questions by filling in evidence gaps identified through the desk review and collecting additional qualitative data on factors. Respondents included the author(s) of the main article as well as (where possible) PPE implementers that were purposively sampled via outreach to study authors or other identified contact persons for each secondary case study (conducted during the selection process).

Each interview included questions to validate a reconstructed theory of change for the engagement/program; address evidence gaps identified in the case literature, especially around outputs and outcomes (outcomes questions may be limited to respondents who are researchers/evaluators, rather than implementers or program staff); and identify factors that helped or hindered the effectiveness of the PPE. These interview transcripts were then coded according to the codebook in Table 1.

Data Analysis

Finally, the research team analyzed data from each case, focusing on the evidence related to outputs and outcomes (research question 1) and helping and hindering factors (research question 2). This analysis was conducted by one primary researcher for each case, and a secondary researcher reviewed and commented on the analysis. The results from each case are shared in detail in individual case studies that are available at the links shared in the next section. Upon completing the analysis of individual cases, the data for each factor as well as the outcomes was consolidated and further analyzed for cross-cutting trends and findings. These findings are presented in the Results sections below.

Limitations

While this methodology provided opportunities to better assess trends related to PPE outcomes and factors by expanding the evidence base that was being reviewed, the approach does have several limitations worth acknowledging. First, while the research team sought to speak with researchers and implementers from different sectors for each of the six PPEs, we were able to secure fewer interviews that we originally sought. As such, for some cases, input on factors come largely from existing literature and research that may not have focused explicitly on gaining insight into what contributed to effectiveness of the PPE or lack thereof.

Second, the factor coding and analysis of the primary and secondary data is based on the PPE Ecosystem developed as part of this project (presented earlier in Figure 2). However, while the distinctions between factor definitions in the Ecosystem is relatively clear cut, these same distinctions are not always as clear when reviewing secondary data. As such, the results presented below are organized according to factor categories as assessed by the individual case researchers and may be seen as representing a different category by the reader. This does not affect the validity of the results, but rather the factor category (such as Trust or Mutual Understanding) in which the result is presented.

Thirdly, while we sought to identify a diverse set of cases across geographies as well as types of PPEs, the cases do not represent the full set of potential characteristics that engagements between the public and private sector can have. Each of the engagements was either a country-wide initiative or covered a state in a large country (India or Brazil), which may make the conclusions drawn less generalizable for smaller engagements undertaken with a more limited geographic scope. Further, while there is some variation across the cases of the types of private sector partners, the majority worked explicitly with non-governmental organizations (NGOs); only the two cases in India also worked with for-profit providers. In addition, the

majority of cases feature PPEs centered on contracting schemes, which are one of many types of engagements that can be designed and implemented. Ultimately, these trends across PPE characteristics may lead to conclusions that are not fully generalizable across all PPEs.

Finally, because of the nature of this data, we cannot provide any evidence of causality between factors and outcome. This is an important question that is worthy of further study, and where possible we have included hypotheses regarding causality based on the evidence below.

Results and Key Success Factors

The cases included in this review are: (1) Chiranjeevi Yojana (Gujarat, India); (2) contracting out of basic health care services in São Paulo, Brazil; (3) partnership between Government of Malawi and Christian Health Association of Malawi facilities; (4) Thayi Bhagya Yojana (Karnataka, India); (5) Extended Coverage Program in Guatemala; and (6) the Second Urban Primary Health Care Project in Bangladesh. The descriptions of these six programs, including the goals, structure and evidence, are presented in Table 2.

The goal of the secondary case studies was to conduct supplementary analysis to pair with evaluations of PPEs to better assess the link between the effectiveness of engagements (outcomes from the PPE) with factors associated with effectiveness or lack thereof. This approach relies on rigorous evaluations that have already been conducted on each PPE to answer our first research question (are PPEs associated with improved health outcomes), followed by further analysis and additional data collection to identify trends in factors that researchers and implementers associate with these outcomes.

As such, one important, if challenging, finding related to the first research question is that the PPE cases reviewed provide a decidedly mixed picture as to the impact of PPEs in strengthening health outcomes. This is perhaps not surprising, given the complex nature of programs seeking to strengthen mixed health systems and the diverse time periods and geographic areas that these PPEs covered. However, it is useful to note that all six cases had strong evidence that some outcomes showed signs of improvement while others had little or no change associated with the engagement. These findings, presented in brief in Box 2, are valuable in that they present the challenges as well as opportunities that PPEs present.

For the purposes of our analysis, they do present one additional challenge. In assessing the role of different factors in driving or being associated with the effectiveness of an engagement, we do not have fully objective data on whether factors influenced outcomes. Instead, the analysis of factors relies on how researchers and implementers associated a factor with the outcome(s) of the PPEs; in other words, we use the perception of the source (such as key informant stating that a factor helped the engagement) rather than triangulating the factor with actual PPE outcomes drawn from the evaluation.

With that said, the findings that this analysis reveals provide invaluable and unique insight into the role that each factor may play in PPE effectiveness and suggest targeted support that can be provided to leverage helping factors and mitigate those that are likely road blocks for the effectiveness of these types of engagements.

Table 2. Description of Six Secondary Case PPEs

PPE	Basic information	Goal	Mechanism	Results
<u>Chiranjeevi Yojana (India)</u>	<ul style="list-style-type: none"> Timing: launched in 2006 Primary partners include: Government of Gujarat State (state and district levels); private obstetricians 	To harness the resources and skills in the private sector to provide free obstetric care services to poor and tribal women, especially in rural areas, with the goal of increasing institutional delivery rates and improving maternal and neonatal health outcomes (de Costa et al., 2014; Mohanan et al., 2016).	The program utilized demand-side financing through which the state recruits, contracts, and pays empaneled private obstetricians at a defined rate to provide free delivery services for poor and tribal women (de Costa et al., 2014; Mohanan and La Forgia, 2016).	The CY program showed some signs of limited improvements in outcomes, including reduction (but not elimination) of out of pocket expenses for women below the poverty line and access to private sector care that was perceived as being of better quality. These outcomes, however, are limited and in many cases have some contradictory evidence across different studies, and there is no evidence that the program impacted institutional delivery rates or maternal and neonatal health outcomes.
<u>Contracting out in São Paulo (Brazil)</u>	<ul style="list-style-type: none"> Timing: launched in 2001 Primary partners include: Government of São Paulo (Municipal Health Secretariats) and NGOs 	To improve access to free health care at all levels of complexity (primary, secondary, and tertiary) in the state of Sao Paulo.	Public authorities from the municipalities engaged health personnel or NGOs through indirect contracting. In indirect contracting with NGOs, NGOs supplied health personnel to provide PHC services in basic health units through <i>convenios</i> , or loose contracts or NGOs supplied health personnel or management services to operate a basic health unit through performance-related contracts where duties were specified in a mutually agreed action plan (Greve & Coelho, 2017).	There was significant variation in how municipalities implemented the program and thus outcomes experiences across São Paulo. Overall, contracting out did lead to increases in PHC appointments, reduction in hospitalizations, and several transparency/governance outcomes. However, there were no changes observed in higher level outcomes such as child mortality.

PPE	Basic information	Goal	Mechanism	Results
<u>Government of Malawi (GOM)-CHAM partnership (Malawi).</u>	<ul style="list-style-type: none"> • Timing: launched in 2004 • Primary partners include: Government of Malawi (Ministry of Health), District Health Officers, Christian Health Association of Malawi (CHAM) 	To increase coverage of health services for the rural poor.	The Government of Malawi put in place a national policy to encourage Service Level Agreements (SLAs) with Christian Health Association of Malawi (CHAM) facilities. This included: a broad memorandum of understanding, with SLAs administered through a decentralized structure at the district level and with the relevant district health office (DHO) taking charge of the implementation process (Chirwa et al. 2013).	The GOM-CHAM partnership in Malawi showed initial signs of effectiveness, with evidence that the introduction of service level agreements increased access to health services for those below the poverty. However, over time problems with the agreements led to frustration on the part of both private providers and the government, resulting in the disappearance of these gains in access when service level agreements were disintegrated.
<u>Thayi Bhagya Yojana (India)</u>	<ul style="list-style-type: none"> • Timing: launched in 2009 • Primary partners include: Government of Karnataka State (state and district levels); private obstetricians 	To increase the proportion of institutional deliveries and reduce maternal and infant mortality rates.	Implementing district governments entered into a partnership with public and private hospitals with the objective of providing poor and tribal women access to free obstetric care services (Mohanani et al., 2016).	Evaluations showed that TBV districts experienced slightly faster improvement rates for institutional deliveries; however, this has to be considered in light of improving rates across the entire state during the time of the program. This translated into minor improvements in private sector delivery rates and reduced out of pocket expenses in TBV districts—though attribution to TBV alone is doubtful—but no evidence of improved in maternal and child health outcomes.

PPE	Basic information	Goal	Mechanism	Results
<u>Extended Coverage Program (PEC) in Guatemala.</u>	<ul style="list-style-type: none"> Timing: launched in 1997 Primary partners include: Government of Guatemala (Ministry of Health), NGOs, and the Inter-American Development Bank 	To extend coverage of basic health services to impoverished rural and primarily Indigenous communities after the civil war (PEC launched in 1997).	The PEC focused on a partnership between the Ministry of Health (Ministerio de Salud Publica y Asistencia Social or MSPAS, by its initials in Spanish) and private NGOs, where the MSPAS contracted NGOs to deliver a basic package of child and maternal health services to rural, poor, and primarily Indigenous communities. The MSPAS engaged NGOs through two types of contract-like instruments called <i>convenios</i> or agreements (contracting-in and contracting-out).	During the period that PEC was studied, there is evidence that the program is associated with increased health coverage (particularly of indigenous populations) as well as several target outcomes (including improvement in vaccination rates and reported antenatal care visits in a health facility in the case of both contracting models). However, no change was observed in family planning use or knowledge, and there is evidence that outcomes may have ebbed and flowed during different phases of the program.
<u>Second Urban Primary Health Care Project in Bangladesh.</u>	<ul style="list-style-type: none"> Timing: launched in 1998 (second phase launched in 2005) Primary partners include: Ministry of Local Government, Rural Development, and Cooperatives; Ministry of Health; Urban Local Bodies; NGOs; Asian Development Bank 	To improve health coverage for the country's rapidly growing population of urban poor, who were increasingly facing difficulties accessing affordable health services.	The core of the program focused on a partnership between the central Ministry of Health, Urban Local Bodies, and local urban NGOs whereby the MOH and Urban Local Bodies contracted NGOs to provide primary healthcare services in an effort to expand coverage of government-funded care.	Perhaps the most positive of the six cases, UPHCP-II did show evidence of increasing coverage of and accessibility to healthcare for people below the poverty line living in urban settings, as well as increases in several maternal, neonatal and child health indicators. Respondents still noted several ways in which the program could have been improved between scale-up phases, discussed in more detail in the results below.

Environmental factors

Environmental factors are defined as those that **shape the operating environment for a given public-private engagement**. Individual actors in an engagement likely have indirect (if any) influence on these factors but the factors may impact the engagement's effectiveness and should be considered. These include **political, economic, legal, and organizational factors** described in detail in work by [Blanchet, Ishtiaq and Thomas \(2019\)](#).

Key take-aways:

- *The status of environmental factors (including high-level political support) at the start of an engagement may influence PPE outcomes even years after the engagement begins.*
- *Pressure and interest of high-level stakeholders can play a major role in both helping and hindering engagements.*
- *Overall availability of resources is critical.*

Four of the six secondary case studies identified environmental factors as playing a role in the target PPE (Guatemala, CY, TBY, and Bangladesh), with several themes merging across multiple cases.

Data for several of the cases revealed the importance of environmental factors at the start of an engagement to either provide a strong foundation for the work or to create obstacles that would continue to hinder the progress made as the engagement ramped up. In the case of Guatemala, the Government of Guatemala modified a legal framework that ultimately supported the contracting of NGOs into the Extension of Coverage program itself; specifically, the ministry leading this effort included an article in new health-related laws that served to allow for contracting out (Danel & La Forgia, 2005). Alternatively, the organization of primary care units in Brazil which included both traditional and “basic family” health units created confusion among health workers and managers as stakeholders were engaged in different systems; these different units, while both providing PHC, worked under different rules related to human resources and services which also created confusion among users (Greve & Coelho, 2017). In the case of India, funding for CY originally came from the central government (the National Health Mission), a factor that later changed to state level funding after a review that suggested the Gujarat government was seeking to privatize care. This change was perceived to increase operational challenges and payment delays (SMHS key informant interview, 2020).

These “early stage factors” could further be helped or hindered by the past experiences of PPE stakeholders with each other or with other PPEs. In the case of Bangladesh, initial challenges with coordination of partners within the public sector was seen to hinder the roll out of the engagement (Chirwa et al. 2013). On the other hand, previous experience in the state of Gujarat with PPEs in other sectors may have increased the willingness of partners to engage in a health-focused PPE; one informant noted that Gujarat’s experience with PPEs for roads, power and the industrial sector made leaders much more open to the idea of a health-focused PPE (SMHS key informant interview, 2020). It is interesting to note that these last two early stage examples may not have ultimately driven the path that the engagement took, as Bangladesh (which faced initial obstacles) was largely seen as being effective in achieving its goals while CY (which experienced initial will to engage due to experience with PPPs in other sectors) is associated with mixed evidence in terms of effectiveness.

All four of the secondary cases that cited environmental factors noted the importance of pressure and interest from stakeholders, which could play either a positive or negative role and included both political figures and those outside of the state. The interest and priorities of several external stakeholders outside of the political arena were noted as being important, with some, such as the broader NGO community (Bangladesh) and community health workers,

health promoters, and beneficiary communities themselves (Guatemala) engaging with and advocating for the engagements and others such as health worker unions and public providers more broadly (Guatemala, Brazil) resisting these programs (SMHS key informant interviews, 2020; Greve & Coelho, 2017). High level political commitment, beyond those public sector officials directly engaged in the PPEs, created an important foundation when it was present at the start of a program (as was the case in CY and Guatemala); however, both of these programs experienced a waning of political support over time (SMHS key informant interviews, 2020; Mohanan et al. 2016; de Costa et al. 2014; Cristia et al. 2015). Further, a lack of political pressure to prioritize urban health at the start of the UPHCP was seen to have played a hindering role in this program at the start, with one key informant stating: “... *most elected officials come to position wanting to have something to show for it – whereas softer service delivery is not so important in their view. So trying to get that mindset to change and advocate for more prioritization of urban health is also one of the challenges*” (SMHS key informant interviews, 2020). Finally, political pressure can trickle down to state officials tasked with implementing the PPE, which in the case of Brazil was seen as a positive factor; mayors felt direct political pressure to respond to the demands of constituents and thus mobilize the program to increase health service access. According to one key informant: “*Municipalities have elections every 4 years, so lots of political competition at the municipal level, the mayors want to respond to the demand for services. And you have some degree of social mobilization, people really believe they have the right to health, right to public services. All this I think helped.*” (SMHS key informant interviews, 2020).

In addition to political factors, the issue of the overall availability or package of resources was brought up in three cases, with both Indian programs being cited as under-resourced for the program needs. In the case of Guatemala, the PEC program saw changes to the overall funding package over time, but increases in funding at times in the program was seen as making a difference in being able to increase health packages and extend coverage (SMHS key informant interviews, 2020).

Structural factors

Structural factors are defined as those that **define the architecture of a given public-private engagement including the type of partnership model, formalities of the model arrangement and available resources to implement the engagement**. The actors implicated in the engagement generally have some control over these factors. As the name suggests these are structural elements but differ from the environmental factors in that they are specific to the engagement itself rather than the operating environment.

Key take-aways:

- *The design of contracting models (when these are part of the PPE) is associated with stronger and weaker outcomes and thus should be carefully designed at the start of the engagement.*
- *Many reimbursement and pricing schemes were associated with weaker health outcomes and thus also need to be very carefully designed to avoid common obstacles.*

Structural factors appear as one of the most frequently cited set of factors in this analysis, appearing in some form in all six secondary cases. In particular, issues related to contracting models, overall resource package for the PPE, and how reimbursements and payments are structured emerge as critical, if complex, factors for many cases.

Five of the six cases noted that the contracting model itself played a significant role as either a challenging or helping factor. In the case of the two Indian programs (CY and TBV), contracting was cited as something that hindered the effectiveness of the program, with evidence that the

contracting models were perceived as not being effective or transparent (Mohanani et al. 2016; Ganguly et al. 2014); a similar trend emerged in Guatemala but eventually improved over the course of the engagement. In the cases of Guatemala, Brazil, and Bangladesh, the models for contracting were perceived more optimistically, as being helpful in the overall effectiveness of the PPE. For example, in Guatemala the contracting-in model was seen as improving supervision and providing flexibility in hiring, a benefit that was also cited in Brazil (Cristia et al. 2015; SMHS key informant interviews, 2020; Greve & Coelho, 2017). In Bangladesh, it was also noted that the contracting model may have helped quality by ensuring that the strongest providers were selected in competitive bidding processes (SMHS key informant interviews, 2020). Given the importance of this factor and the complex nature of how the contracting model is perceived by partners, it would be worth further research to understand how these models strengthened or hurt partnerships in practice.

A related issue of reimbursement and pricing schemes arose as a largely hindering factor for many PPEs. While related to contracting models, this factor was identified independently in four cases, almost without exception as a factor that hurt the engagements. A common theme was that reimbursements and prices for private providers were too low to support the program (CY, TBY, Malawi) or that reimbursement delays hurt engagement with contracted providers (CY, Bangladesh, Guatemala and Malawi). Interestingly, the reimbursement model also led to potentially problematic incentives in the case of CY, effective in controlling C-section rates as compared to other schemes but potentially leading to care decisions that in some cases may have been harmful to the patient (Vora et al., 2015; SMHS key informant interviews, 2020). It is important to note that the issue of reimbursement and pricing schemes is inextricably linked to the overall package of resources and broader health financing country institutional architecture that we include as Environmental factors above.

In addition to these factors that emerged across several cases, two additional structural factors were cited in a single case each. First, in the case of CY, respondents noted that the participation of an academic/research partner helped to improve the overall design of the program (SMHS key informant interviews, 2020). Second, in a theme that resonates with one that was discussed in relation to Environmental factors, the lack of structures and guidelines set up in the start of the program in Malawi made it difficult for the engagement to progress effectively from the beginning (Chirwa et al. 2013).

Engagement factors: Foundational Factors

Key take-aways:

- *Will to engage of key public and private sector actors is likely a major driver of PPE effectiveness and thus can be leveraged by identifying champions of engagements early in the process.*
 - *Partners should closely monitor will to engage consistently over the course of an engagement as it does often vary over time and across sectors, which can be associated with improving or worsening outcomes.*
 - *Similarly, trust is highly variable and can be influenced by other factors over the course of an engagement; these factors associated with increasing and decreasing trust should be monitored and addressed quickly when they hurt partner trust.*
 - *Private and especially public sector actors should clearly define and communicate the roles and incentives of partners at the start of the engagement to avoid pitfalls associated with a lack of mutual understanding.*
-

Will to engage

Will to engage is defined as **the intention, interest, or commitment of the individual PPE actor and their institutions to enter and sustain the engagement**. Will to engage can be broken up into several different components, including capacity of actors to engage, mandate (including from colleagues, institutional culture and superiors), and desire to engage.

Will to engage comes up as a factor in four of the six cases, with common themes related to how will to engage comes about and how it may vary both over time and across sectors.

Will to engage, which most often was cited as a helping factor in the secondary cases, often comes from the personal history or desires of one or both sectors in an engagement. In the case of Guatemala, the PEC program began with a strong will to engage on the part of both the government and NGOs because some NGOs had experience working in targeted areas and the belief that the government was committed to the engagement (Cristia et al. 2015; SMHS key informant interviews, 2020). In Bangladesh, NGO partners were motivated by intrinsic desires to help underserved communities (SMHS key informant interviews, 2020). In Malawi, at least initially both CHAM facilities and the government similarly shared an intrinsic desire to help improve access and affordability of health services (Chirwa et al. 2013). In all cases, the fact that partners started the program with a clear will to engage was seen as an important foundation.

However, the actions and decisions of partners can lead to changes in will to engage over the course of the program. In the case of Brazil, managers were active in encouraging teamwork and not competition among the basic health units, which was seen as helping their will to engage and supporting a more effective program (Greve & Coelho, 2017). Alternatively, factors such as reimbursement delays contributed to a decline in will to engage in the case of Malawi during the PPE duration (Chirwa et al. 2013). It is also worth noting that even trends in improving or declining will to engage can be influenced by partner actions. In the case of Guatemala, an initially high will to engage in the program was hindered by the passage of law reducing the level of funding the NGOs can receive from the government after corruption cases emerged (SMHS key informant interviews, 2020).

Finally, it is worth noting that one case (Bangladesh) acknowledged that will to engage is unlikely to be consistent within a particular sector. For higher level officials in Bangladesh, service delivery was seen as a lower priority and thus will to engage was higher among less senior officials (SMHS key informant interviews, 2020). There is not clear evidence to suggest how this may have affected the program, but it is an important trend to consider in working to build political and partner will for engagements.

Trust

Trust is defined as **the belief that the opposite sector is acting in good faith and has the goodwill and integrity to effectively participate in an engagement** (i.e., will not allow personal benefits to negatively impact the engagement).

By definition, trust is closely related to will to engage; as such, it is not surprising that it appears as a critical factor in three of the four cases that also cite will to engage (Guatemala, Bangladesh, and Malawi) as well as in CY India.

In the two cases that discuss initial trust levels (Guatemala and Malawi), government partners were seen to have high trust in the private sector at the start of the engagement. In the case of Guatemala, previous NGO experience delivering services helped create a foundation of trust between NGOs and the government, and in Malawi common objectives helped to ensure the engagement started with a high level of trust (Cristia et al. 2015; SMHS key informant

interviews, 2020; Chirwa et al. 2013). However, it is worth noting that this initial trust was not fully reciprocated in the case of Guatemala; NGOs started the program with some distrust of the government partners (Danel & La Forgia, 2005).

However, all four cases note that other factors led to changes in trust during the engagement, and in most cases, the factors that emerged served to erode trust. In CY India, issues related to program structure (such as payment delays) and accountability (including corruption accusations) during the program led to the erosion of trust between partners (Ganguly et al. 2014; SMHS key informant interviews, 2020). Similar challenges (structural and accountability, as well as poor communication, limited capacity, and lack of mutual understanding) also lowered the trust that the government and CHAM providers had in the partnership in Malawi (Mpakati Gama et al. 2013). In the case of Guatemala, similar issues did lead to initial distrust between NGOs and the Ministry of Health; however, there are signs that trust did improve again as the program continued (Danel & La Forgia, 2005).

In the case of Bangladesh, however, evidence suggests that program factors actually helped to improve trust. Specifically, partners noted that strong governance and accountability allowed for trust to build between partners engaged in the UPHCP-II program (SMHS key informant interviews, 2020).

Mutual Understanding

Mutual understanding is defined as **the understanding of the opposite sector's capacities, motivations, resources, and role in the health system**. To increase mutual understanding, both sectors must identify and overcome negative misconceptions about the opposite sector.

Mutual understanding is noted in four of the six secondary cases that we reviewed, most often perceived as a hindering factor in the effectiveness of engagements.

While we define mutual understanding largely in terms of perceptions and understanding of the opposite sector's role in the engagement, three of the cases highlight this as a factor related to the private sector's own lack of understanding of their role. This factor emerged in both Indian cases and in Malawi. In TBY, the factor was raised as a general lack of understanding on the part of the private sector of the program and their role (Mohanani et al. 2016). In the case of CY, the lack of understanding was more specific: private providers did not understand what services were covered as part of the CY program, thus leaving them unclear on what care they should provide (SMHS key informant interviews, 2020). Finally, private providers in Malawi were unclear on their role in the engagement due to their perceptions that the government made hasty and unilateral decisions regarding the engagement (Chirwa et al. 2013).

A final case (Guatemala) provides an important lesson in terms of how to improve initial lack of clarity regarding roles. In the case of the PEC program, the Ministry of Health actively engaged with NGOs annually to provide transparent information on the program, including rules and what was covered. Because the government proactively provided information to the private sector on their role, NGOs experienced a clearer understanding of their own role as well as that of the government (SMHS key informant interviews, 2020).

Engagement factors: Operational Factors

Key take-aways:

- *Strong communication frequency and quality is associated with improvements in other factors and outcomes, and the formality of communications may be associated with better frequency and quality.*
 - *Both common goals and complementary motivations across partners can be associated with a strong PPE; however, goals and motivations can change over time and thus should be closely monitored to address misalignments if they arise.*
 - *Improving technical capacity, management capacity and management systems can be an important way to address multiple challenges in PPEs, including issues of trust.*
 - *Perceptions of accountability appears to be an important driver of several factors and outcomes, and building institutional/engagement-specific approaches to accountability may be one way to mitigate this factor hindering progress.*
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Communications

Communication is defined as **the process and approach used by sector partners to exchange information and participate in dialogue**. This factor includes several dimensions, including: Mechanism (the types of communication mechanisms used between sectors, both formal (with structure, rules, and accountability) and informal, including virtual and in-person communication.), Frequency (how often and with what regularity the sectors communicate with one another), and Quality (the level of transparency in information sharing between the sectors, including data sharing. The extent to which communication between sectors involves active dialogue (including joint agenda setting and is participatory and productive) versus passive communication (just dissemination of information)).

While communication on the surface appears to be one of the simpler factors, it arises in the vast majority of the cases (5 of 6) as playing an important role in the PPE.

Some of the ways in which communication emerges as important for PPE are unsurprising. Frequency and quality are both noted as helping factors in cases in Brazil and India (CY). In the case of Brazil, regular meetings between partners as well as the approach to experience sharing and problem solving in those meetings are both raised as factors that helped the engagement (Greve & Coelho, 2017). In the case of CY, one implementer interviewee noted that effective two-way communication between the state government and the association representing the private sector helped to identify issues and ensure accountability, but it is worth noting that this was not corroborated by other sources (SMHS key informant interviews, 2020).

The cases also provide some important insight into how to build these positive communications, as well as what might hinder them. In Bangladesh and Malawi, an interesting relationship emerged between communication formality, frequency and quality. In Bangladesh, this relationship was positively reinforcing; the formal organization of quarterly meetings for partners was seen as creating a culture of open sharing between the partners (SMHS key informant interviews, 2020). In contrast, the engagement between the government and CHAM facilities in Malawi never formalized communication procedures and protocols, which was perceived to lead to infrequent communications and information asymmetries (Chirwa et al. 2013).

Engagement Rationale

Engagement rationale is defined as **the basis and motivation for the engagement (related to a validated health system gap), including mutual benefit through pursuit of common goals and the underlying motives of each sector partner.**

In designing the PPE Ecosystem, we observed in the literature that the rationale for an engagement can take two different forms: a common goal that is shared by all partners in the engagement or complementary motives (in which goals are not the same but all partners see how they can progress toward their individual goals by partnering). Both of these instances arise and are validated in the secondary cases.

In both Guatemala and Brazil, the sector partners were perceived as having a common goal, which helped the engagement. In the case of Brazil, this was seen in part as resulting from the encouragement of PPE public sector managers (SMHS key informant interviews, 2020). Guatemala also provides evidence of the potential for complementary motives helping the engagement, a factor that also emerges in Bangladesh. While government and NGOs in Guatemala shared an overarching goal for the PEC program, they also saw their own benefits for participating, specifically the government wanting to expand access in places where NGOs were already working and NGOs seeking greater financial stability for their ongoing work (Cristia et al. 2015; SMHS key informant interviews, 2020). In the case of Bangladesh, NGOs experienced many benefits from the UPHCP-II program, including capacity building and resources for service delivery projects. For their part, government partners in Bangladesh saw an opportunity to fill gaps in providing services to urban populations; one interviewee noted that they also were happy to work with NGOs because they were less bureaucratic than public providers, allowing them to make and implement quicker decisions to help patients (SMHS key informant interview, 2020).

Some cases did experience changes in goals over time or across geographic regions. In Brazil, for example, one helping factor was that NGOs worked to continually ensure that government officials and health units had a shared vision and goal for the engagement and that they worked together on any problems that arose (SMHS key informant interviews, 2020). In contrast, the CY program in India had a more mixed experience relating to rationale for the engagement. The public sector was perceived to have a strong rationale for this engagement based on data and evidence; however, the experience and motivations of private providers varied significantly. More well-established private providers were perceived to have less incentive to work with the program, whereas younger providers saw value in the opportunity to establish their practice. Because there was some clustering of similar provider types by geographic area, some areas had several private providers who decided to work with the CY program together, whereas other areas had limited participation by the private sector (Iyer et al., 2017; Ganguly et al. 2014).

Technical and Managerial Capacities

Technical and managerial capacity is defined as **the capacities of PPE actors related to the technical area of PPE focus as well as project management and joint leadership.** This includes several dimensions, including: Technical Capacity (ability to understand and provide feedback on technical area of discussion (e.g., maternal health)), Project Management (ability to mobilize and manage financial resources, plan and execute work, set and hold meetings, and conduct monitoring functions), and Joint Leadership (ability for the people in management positions to properly lead teams, motivate across stakeholders and build consensus among divergent perspectives; members of both sectors take on leadership roles and have a seat at the table).

Technical and managerial capacity is one of the most often cited factors from the secondary case analysis, appearing in all six cases.

Among the dimensions of this factor, project management capacity is the most frequently cited factor, and it is generally noted that the lack of management capacity is a hindrance for these engagements. One theme we see in five cases is the inextricable link between management capacity and management systems put in place for the engagement. In every case with the exception of Brazil, studies and respondents note that at least some management system or mechanism is lacking (including monitoring and analysis, evaluation, and financial management) which leaves one or both sectors with limited capacity to manage the engagement.

At the same time, several cases provide examples of how improving management systems and management capacity for engagements can improve both overall capacity and the effectiveness of the program. In Guatemala and Brazil, there is evidence of investments in management and monitoring systems to support the PPEs, and in Brazil the management capacity of the government helped (Danel & La Forgia, 2005; Greve & Coelho, 2017; SMHS key informant interviews, 2020). The latter factor was also cited as important in Bangladesh, where NGOs were selected for inclusion in UPHCP-II based on technical and managerial capacity (Albis et al. 2019; SMHS key informant interviews, 2020).

Both the drivers and the ripple effects of limited management capacity are wide-reaching and cited in multiple cases. We see that lack of management capacity may be influenced by outside forces, including the bureaucratic processes that dictate contracting of NGOs (Brazil) and bureaucracy and lack of clear ownership of the process (Bangladesh) (SMHS key informant interviews, 2020). When management capacity is lacking, it may also influence factors such as perceptions of and experiences with accountability and even lower technical quality of care (CY and TBY) (AHI, 2012; Jayashri, 2015; Mohanan et al., 2016).

In the case of technical capacity, we discuss above the important role that strong technical capacity of NGO partners played in Guatemala, Brazil, and Bangladesh. However, the experience in India (CY) and Malawi highlights problems that occur when technical capacity of private providers is lacking. In the case of CY, several sources note that the low quality of care in private facilities may have hurt program outcomes (Mohanan et al., 2016; SMHS key informant interviews, 2020). For Malawi, CHAM facilities experienced a significant influx of patients at the start of the program which may have led to compromises in quality of care (Chirwa et al. 2013).

While joint leadership is one dimension of the technical and managerial capacity factor, this issue only emerged in one case – CY India. Several sources for the CY case noted that many different stakeholders from both sectors were involved in early design and launch of the CY program, helping to ensure greater buy-in. According to one key informant: “... *all the stakeholders were involved from the beginning, the professional associations, NGOs, researchers, government people. Everyone was there from the beginning and were part of the way it was designed. Ownership was there from the beginning*” (SMHS key informant interviews, 2020). We cannot say whether additional cases experienced this factor (or lack thereof); however, this would be worth further exploration, especially as joint leadership likely intersects with several other factors such as trust and mutual understanding.

Finally, capacity was perceived as varying over both geography and time for many cases. In Brazil for example, there was a perception that some municipalities had higher-capacity NGOs than others (SMHS key informant interviews, 2020). Interestingly, cases that discussed capacity varying over time often classified this as a result rather than a factor, noting that increased capacity in government (Guatemala) and NGOs (Bangladesh) was something that the program sought to achieve (Cristia et al. 2015; Danel & La Forgia, 2005; Albis et al. 2019; SMHS key informant interviews, 2020).

Accountability

Accountability is defined as **the process and approach used by sector partners to hold one another accountable for carrying out their roles and responsibilities in a PPE**. This includes several dimensions, including: Roles and Responsibilities (refers to (1) whether sector actors have articulated clearly defined roles within an engagement, and (2) the extent to which sector actors understand and agree on their roles in the engagement and the roles of the opposite sector), Empowerment (the extent to which sector partners feel held accountable for carrying out activities under an engagement and feel able to hold the opposite sector accountable), and Mechanisms (formal (i.e., clauses included in MOUs or contracts) or informal mechanisms used to hold PPE actors accountable for carrying out their roles and responsibilities).

As with technical and managerial capacities, accountability arises as a frequently cited factor, appearing in all of the six cases.

In four cases, specific perceptions and/or experiences with corruption or misuse of resources in the engagement are cited as hindering engagements. These instances point to some lack of accountability in the engagement which had further implications in terms of factors such as trust. These perceptions range from evidence of general misuse of funds or fraud by one or both sectors (TBY India, CY India and Guatemala) to more specific reports of private providers charging poor women fees or selecting only uncomplicated cases (CY India) and inappropriate claims made by private providers (Malawi) (AHI, 2012; Mohanan et al. 2016; SMHS key informant interviews, 2020; Ganguly et al. 2014; Chirwa et al. 2013; Mpakati Gama et al. 2013).

In the cases that do not cite instances of corruption or misuse of resources (Brazil and Bangladesh), both made note of institutional models and systems that helped to ensure that misuse did not occur. In Brazil, sources identified national data and monitoring systems are strong and allowed for monitoring of activities (Greve & Coelho, 2017; SMHS key informant interviews, 2020). Strong accountability measures laid out in contracts as well as supportive supervision was cited as helpful in Bangladesh (SMHS key informant interviews, 2020). Further, while Guatemala did report some perceived instances of misuse of resources, there was a perception that accountability systems improved over the course of the program and that the government provided resources to NGOs to help them improve their data systems.

Other factors

While the factors identified as part of the PPE Ecosystem were largely adequate to capture the factors that emerged in the secondary case review, a small number of additional characteristics were noted as helping or hindering engagement that are worth further exploration.

First, community engagement is raised in two cases (Bangladesh and Guatemala) as being a factor that helped improve the UPHCP-II and PEC programs (SMHS key informant interviews, 2020). This factor does not easily fit into the larger Ecosystem but deserves further exploration, especially for programs that work closely with active NGOs and community-based organizations in the provision of health services.

In addition, one factor included in the sources for the CY India case. One hindering factor that is noted by several sources is beneficiary characteristics. This factor arises in a few ways in the CY program, including beneficiary lack of knowledge of the scheme and low demand for the scheme by beneficiaries (Mohanan et al. 2016; de Costa et al., 2014; Vora et al., 2015; Iyer et al. 2016).

Themes cutting across factors

Key take-aways:

- *For common factor clusters (such as capacities and structural factors and engagement rationale, accountability, and structural factors), PPE partners and brokers should conduct regular assessments to identify gaps and utilize “malleable” factors (such as the development of accountability systems or capacity building) to strengthen the overall engagement.*
 - *Factors should be regularly monitored to rapidly capture changes in dynamic factors such as trust and understanding.*
 - *Significant energy and resources should be invested at the start of engagements to start factors “on the right foot.” This early investment may prevent the long-standing ripple effects of early gaps in factors.*
 - *Additional research on specific correlation between factors would provide additional guidance for partners and brokers.*
-

In addition to the specific factor themes discussed above, several important findings emerge when the factors are studied in tandem. One critical and consistent finding is related to the interrelatedness of factors. Many of the findings highlight how one factor is regularly associated with other factors, either in tandem or with evidence that one may influence another. In doing this analysis, several clusters of related factors appear; these clusters may be useful for practitioners seeking to leverage or improve a particular factor or to mitigate or minimize another:

- Environmental – and especially political – factors appear to be associated with structural factors (such as the availability of resources for a PPE) and will to engage of stakeholders directly involved in the engagement. While the specific nature of these relationships is not unambiguous, many of the data sources that present these links suggest that structural (resource) and will factors may be following environmental (political) factors.
- Structural factors related to financial resources and models for contracting and reimbursement appear to either help or hurt several other factors, including engagement rationale (with partners seeing resource availability as one factor that motivates or demotivates participation), accountability, and trust in the other sector.
- Will to engage can be linked to engagement rationale in terms of the motivations and reasons partners feel to work together, and it can also be influenced by environmental factors (such as the passage of new laws that are seen as helpful or harmful to private providers).
- Like will to engage, trust appears to move with factors such as structural components of the PPE, accountability, engagement rationale, communication, capacity and mutual understanding.
- Mutual understanding has fewer linkages than other factors; however, there is evidence that this is linked to structural factors and accountability.
- Communication is perceived as being influenced by some factors (including structural components of the PPE) and as playing a role in influencing other factors (including accountability and trust).
- While there is evidence that engagement rationale starts strong for many cases, several factors can erode common or complementary goals over time, including structural factors, accountability, trust, and some environmental factors.
- Managerial capacity in particular is inextricably linked to management systems that we consider structural factors. Strong systems for monitoring, analysis, and finances are

tied to strong management capacity, whereas weaker or nonexistent systems generally mean a limited capacity to manage PPEs.

- Capacities more broadly also share links with accountability (lower managerial and technical capacity is linked to a lower perception of accountability in the engagement) and political bureaucracy (environmental factor).
- Accountability was seen to improve in association with better structural models, including data systems and resources for monitoring, whereas instances of misuse and corruption (the results of inadequate accountability measures) eroded trust.

Box 3. Common factor clusters

While further research is needed to better assess the relationships of factor categories and the directionality of these clusters, it is worth noting two clusters that appear to be highly correlated based on the secondary case review.

Capacities and structural factors. This linkage is in part definitional; the structure of management and financial systems are a key tool needed for capacity to manage these aspects of a PPE. It is still worth noting the interconnectedness of these factors and thus the need to consider the functioning of one if the other factor is acting as an obstacle in a PPE.

Engagement rationale, accountability and structural factors. This cluster appears to be one in which structural factors (especially when not functioning well) may result in changes in both perceptions of accountability (inadequate systems and structures resulting in partners not feeling accountable) and engagement rationale (both structural and accountability hindrances associated with poor lower motivation and perception of shared goals).

A second theme that emerges in several of the factors is their dynamic nature and tendency to vary over time as well as within stakeholder groups. While this is not surprising, it is informative for those designing and implementing engagements; PPEs should acknowledge and plan for changes that may occur over time and variation within groups that can influence how the program progresses or stalls. Examples that emerged from the review of secondary cases include: environmental factors (specifically high-level political support); will to engage; and technical and managerial capacities.

Relatedly, in the case of several factors, there were repeated themes regarding the importance of starting off the engagement on the right note. While the previous bullets recognize that factors are not static throughout an engagement, there was also acknowledgement that a strong or weak foundation can play an important role in how an engagement progresses, especially in the case of environmental factors (existing laws and regulations); structural factors (PPE policies and guidelines); and communication.

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