Project Title: Mechanisms for engaging the private sector in planning, delivering and demonstrating accountability for quality maternal and newborn health services: Evidence from Bangladesh

Introduction:

The Network for Improving Quality of Care for Maternal, Newborn and Child Health (the Network), a consortium of Ministries of Health in eleven countries and their technical partners, works to improve the quality of care for maternal and newborn health (MNH). To achieve the Network's goal of halving maternal and newborn deaths and stillbirths in health facilities in five years' time, countries and partners in the Network are improving quality of care in health facilities through four strategic objectives: leadership, action, learning and accountability (Adeniran, Likaka et al. 2018, World Health Organization 2018).[6,7]

Whilst the Network's efforts to achieve this ambitious goal have largely focused on strengthening the public health sector, members of the Network recognize that private providers (e.g., non-government providers, for-profit businesses) are an important source of health care and have a role to play in improving quality of care. The private sector addresses an increasing volume of MNH care needs amongst countries in the Network. However, little is known about how to effectively engage and sustain private sector involvement in delivering quality care in low- and middle-income countries. This gap must be addressed, if the Network is to achieve its aims of reducing maternal and newborn deaths and stillbirths.

The engagement and contribution of the private sector in implementing quality care standards, developing and identifying best practices for delivering quality MNH care and strengthening health systems for delivering with quality is an area with great potential that requires immediate attention. There is a need to understand what can be done to create, nurture, and encourage a vibrant private sector that is fully engaged in improving and sustaining quality of care for mothers and newborns. Through an effective collaboration with private sector, we have the potential for reaching more women and newborns with quality health services in accordance with their needs.

Background

Definition of the private health sector

The private health sector is comprised of non-governmental health actors. These actors can be categorized by the levels at which they operate: multinational, national, or sub-national; and organizations, hospitals, clinics, or individuals. They can also be categorized by how they operate: providers involved in the direct delivery of health services (i.e., hospitals, clinics, formal and informal providers), associated industries supplying inputs (i.e., pharmaceutical industry, medical

equipment industry), health research and training institutions, or payers (i.e., insurers). For-profit organizations can be motivated by a combination of profit and social motives. In lower-middle-income countries, informal and unqualified private providers may offer services as 'quacks,' traditional healers, or traditional birth attendants (Wadge, Roy et al. 2017).[8]

Quality of care amongst private providers

Quality of care is fragmented and distributed inequitably between the public and private health sectors (SHOPS Project 2012).[9] Analyses of healthcare in both government-run and private-sector health facilities have found poor quality across multiple dimensions with little difference between public and private facilities (Basu, Andrews et al. 2012).[10] Whilst studies suggest that private providers deliver better service quality than public providers, technical quality amongst the private sector is as poor if not poorer than the public sector (Bhatia and Cleland 2004, Morgan, Ensor et al. 2016).[11,12] For example, a mixed-methods study in rural Bangladesh revealed that private physicians scored higher in friendliness, respecting, informing and guiding than the public sector; however, neither sector scored optimally and both sectors would benefit from improvements in quality (Joarder, George et al. 2017).[13]

Private sector health care is associated with very high costs. This uncertainty of cost deters people from entering into the medical care market, and they enter only when forced due to aggravation of conditions that may be too late to cure and require huge costs. Outside major cities, facilities lack round-the-clock general duty physicians. In major cities, general duty physicians are often found to be on their continuous shift duties, certainly affecting the quality of care that they deliver. Almost every facility displays a long list of specialists, but many may not at all attend the facility and others may only attend on call. However, people may become attracted to attend a facility with the hope of being treated by those specialists (Kabir HM 2014).[14]

This theme continues in various iterations across settings. A systematic review in low- and middle-income countries revealed that private sector providers (including unlicensed and uncertified providers) were less likely to follow the standards of medical practice, had poorer patient outcomes, and reported lower efficiency than public sector providers resulting partly from perverse incentives for unnecessary testing and treatment (Basu, Andrews et al. 2012).[10] Public-private partnerships offer an important opportunity for quality improvement in healthcare generally and for MNH in particular. Improving quality of care outcomes requires an integrated system of care and productive interactions between the public and private sectors. Delivering person- or patient-centered care requires "providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions," (Institute of Medicine Committee on Quality of Health Care in America 2001, p. 6).[15] Poor

experience with the health system is believed to have significant impact on patients' healthcare seeking behaviors, loss to follow-up, and unnecessary spread of disease.

Policies, strategies and plans for the private sector

Countries within the Quality of Care Network and beyond have increasingly developed specific policies for developing the private sector, strengthening public-private partnerships, and improving the investment climate. Bangladesh has developed policies to address issues such as developing partnership-based relationships between the public and private sectors, expanding the role of the private sector in the national health system, and improved monitoring of quality in the public and private sectors. The National Health Policy 2011 (NHP)[16] maintained that the quality and extent of current health services provided by public and private sectors in the country needed to be improved. The NHP aims to ensure quality service by private hospitals, clinics and diagnostic centers and keep the services cost affordable to all people. The NHP identified quality control in private health care facilities as one of the challenges and suggested strengthening existing government regulatory system for this purpose. Other national policies and strategies include: the Strategic Plan for Quality of Health Care Services in Bangladesh (2015); Bangladesh National Strategy for Maternal Health (2019-2030) (Bangladesh Ministry of Health and Family Welfare 2019); the Health, Nutrition and Population Strategic Investment Plan (2016-2021); the 4th Health Population Nutrition Sector Program (HPNSP) 2017-2022 (Bangladesh Ministry of Health and Family Welfare 2016); the National Health Policy (Bangladesh Ministry of Health and Family Welfare 2008); and the National Strategy for Adolescent Health (2017-2030) (Bangladesh Ministry of Health and Family Welfare 2016).

The existence of policies, strategies and plans for the private sector is a positive sign; however, the existence of such documents does not mean that these policies, strategies, and plans are being implemented effectively.

Legislation and regulation of the private sector

Regulation is crucial throughout the health care system. From the quality and cost of medicines to the qualifications of health workers to medical education, the health system requires a regulatory framework with defined roles and accountabilities (National Academies of Sciences Engineering and Medicine 2018).[17] Regulatory activities protect the client/consumer and ensure that service delivery meets minimum prescribed standards. A lack of regulations and/or inconsistency amongst regulations negatively impacts quality of care and patient safety. Without oversight and incentives to prevent corruption, it is easier for corrupt practices to occur. What is the right oversight for countries with weak regulatory mechanisms to protect populations and ensure that quality of care and safety standards are met while still encouraging innovation and involvement from

the private sector? Good leadership and management are crucial components of ensuring accountability and thus delivering quality care (Kruk, Gage et al. 2018). [18]

The regulatory functions depend not only on laws but also on having proper organizational structure, manpower, funding, governance structure and finally on sound compliance and enforcement mechanisms. Though on many areas there are laws, large gaps remain on the compliance and enforcement of these legal instruments. This happens due to structural problems of existing regulatory bodies, which are compounded by weaknesses of governance structures (Kabir HM 2014).[14] In Bangladesh, The Private Practice and Private Clinics and Laboratories (Regulation) Ordinance, 1982 governs the establishment of private clinics and hospitals in the private sector. The government enacted an Ordinance to regulate private health care, but evidence shows that regulatory practices are ineffective as a result of problems of legislative design, information and implementation, as well as internal and external contradictions within the regulatory system (Rahman R 2007).[19] The Private Practice and Private Clinics and Laboratories (Regulation) Ordinance, 1982 governs the establishment of private clinics and hospitals in the private sector (Kabir HM 2014).[14]

Within the Directorate General of Health Services (DGHS), the Director (of Hospitals and Clinics) has the responsibility for registration and renewal of private diagnostic centers, clinics and hospitals, registration and renewal of private blood bank. The Directorate General of Medical Education (DGME) looks after the subject of medical education. To some extent, these laws are monitored for compliance. The regulatory functions of the Directorate General of Drug Administration (DGDA) extend to product evaluation and market authorization, licensing, inspection quality control, pricing, etc. Bangladesh Medical and Dental Council (BMDC), State Medical Faculty (SMF), Bangladesh Nursing Council (BNC), Bangladesh Pharmacy Council (PCB), Bangladesh Homeopathic Board, Bangladesh Board of Unani and Ayurvedic Systems of Medicine have regulatory functions in the area of registration, certification and professional conduct. Regardless of their type, most of the laws within the boundaries of these organizations are weak and often do not have procedural laws to effectively carry out their functions. There are also weaknesses in the institutional mechanisms and structures required to implement in the provisions of law effectively (Kabir HM 2014).[14]

A mechanism is needed to unite a complex array of regulatory domains, such as the health workforce, health facilities, service delivery, and products that might be administered by multiple institutions. This mechanism should also have the ability to monitor the flow of providers between private and public practice (Akhtar 2011, Makinen, Sealy et al. 2011, Ghana Ministry of Health 2014).[20,21] One potential mechanism, professional organizations, can promote high-quality health services by regulating members and sanctioning those who fail to provide minimum standards (Kruk, Gage et al. 2018). [18]

Financing and infrastructure of the private sector

Patient payments and health insurance reimbursements primarily finance the private sector's operational costs. In most instances, the private sector receives very little, if any, funding from governments or development partners. Financing may be limited as a result of the high cost of credit (e.g., high bank interest rates, short repayment periods, collateral requirement, high transaction costs); an inability to meet requirements of financial institutions (e.g., viable business case, adequate financial records); and a lack of knowledge and understanding by financial institutions of the private health sector's needs (Makinen, Sealy et al. 2011, Ghana Ministry of Health 2013, Ghana Ministry of Health 2014).[21,22,23] In Bangladesh, historically, supply-side financing of health care services has been the backbone strategy for improving the access of poor households to essential health care services. Bangladesh, the out-of-pocket expenditures makes up 64% of total health expenditures (HEU/DI 2010).[24] Such high out of pocket expenditures on health can lead to loss of productive assets (selling items to pay for medicines) and threaten economic survival, especially in countries with high rates of catastrophic illnesses, such as Bangladesh (Health Care Financing Strategy 2012-2032).[24]

Accountability

Accountability in the health sector is weak and limited by the inadequate reporting of health service indicators such as quality of care in both the public and private sectors. Quality data are key for accountability. The private sector offers little publically available data on the quality and quantity of care it provides. There is an urgent need to integrate the private sector in national health system reporting, planning and monitoring; and to incentivize the private sector to reliably collect and share these data in a timely manner (Saleh 2013).[25] Like many countries in the Network, Bangladesh has adopted a national electronic health records system using the District Health Information System (DHIS 2) for aggregate reporting from paper-based registers in public health facilities. Private facilities are required to submit reports and feedback to the Ministry of Health as part of this system, but enforcement of this policy is difficult due to a lack of clarity on reporting requirements.

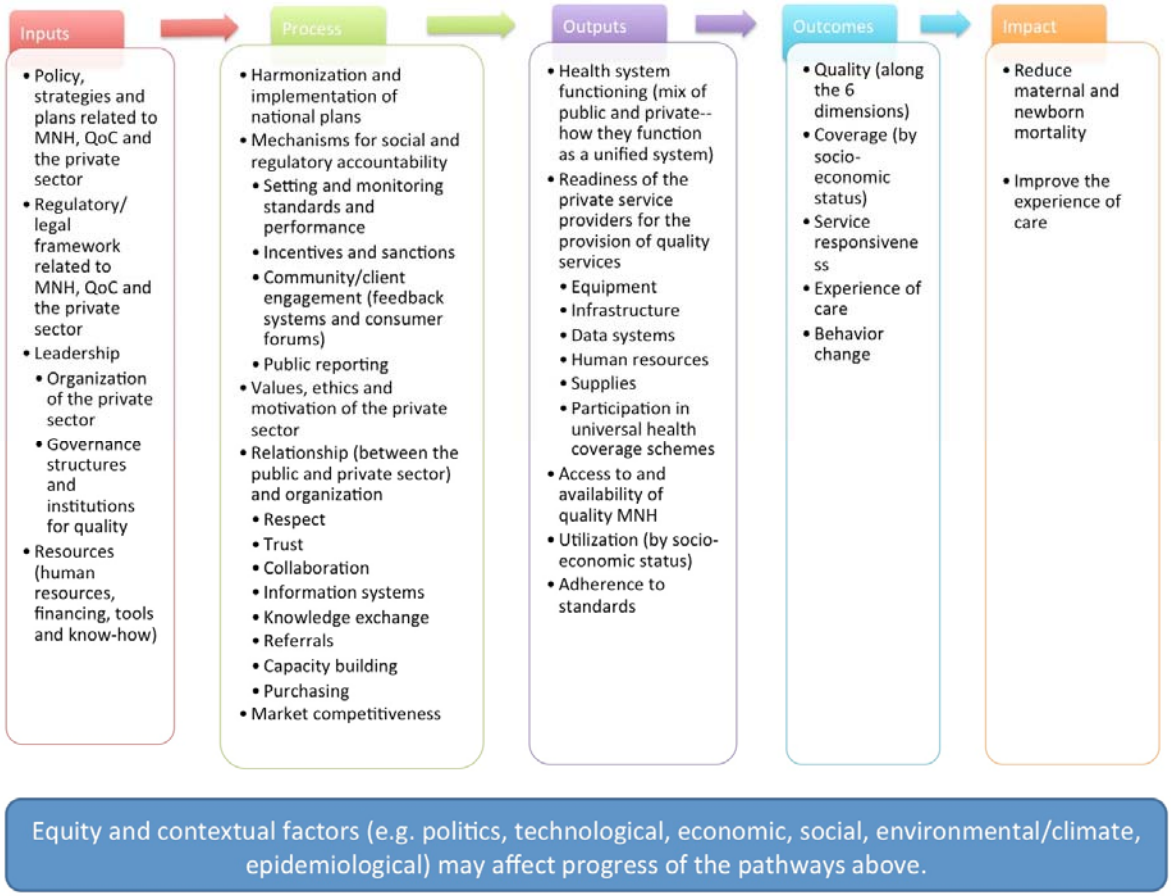
Informal payments, common around the world, negatively impact the quality, efficiency and equity of healthcare provision. Whilst the practice is more prevalent in the public sector than in private not-for-profit facilities—with the exception of Cameroon where informal payments are highest in private for-profit facilities—the prevalence of informal payments across the public and private health sectors indicate a need for a sector-wide and sector-specific approaches to solving it (Kruk, Gage et al. 2018). [18]

Project logic model for mapping the private sector

Based on the relevant literature above as well as input from colleagues at WHO

and a global advisory working group, we developed a logic model (Figure 1) to guide the project. The model depicts key components of the private sector's involvement in delivering quality maternal and newborn health services within the national health system. It was adapted from the evaluation framework for the scale-up for maternal and child survival (Bryce, Victora et al. 2011).[26] At the top and bottom of this model, we include the domains under which different components operate, and we recognize that equity and contextual factors (e.g., political, technological, economic) may affect the progress of the above pathways. This study will be part of a multic-country study.

Figure 1: Logic model for mapping the private sector's engagement in delivering quality for maternal and newborn health as part of the national health system



- **Rationale for Implementation Research:**

The private sector plays a key role in delivering sexual and reproductive health services. It provides a substantial proportion of family planning services among women aged 15-49 years in Asia (45%), Latin America and the Caribbean (44%), and sub-Saharan Africa (28%) (Ugaz, Chatterji et al. 2015).[27] The Sustainable

Development Goal (SDG) 3 of reaching universal health coverage (UHC) by 2030 is challenging in pluralistic healthcare systems such as Bangladesh (Adams and Evans 2018).[28] In Bangladesh's pluralistic health system, an issue of particular concern is the role of the non-public or private health work force. This includes both qualified and informal (often known as village doctors or unqualified/semi-qualified providers or quacks) service providers. Over 80 percent of people in Bangladesh turn to non-public providers, with informal providers often a frequent first resort for poor and remote villagers (Bangladesh Health Watch 2007).[29]
In Bangladesh, the private sector is now the dominant source of contraceptive supply for 49 percent of modern method users (BDHS 2017).[1] In the private sector, the pharmacy or drug store is supplies 45 percent of users (BDHS 2017).[1] The private sector is now the most prominent source of antenatal care (ANC), both in urban and rural areas. Overall, 58 percent of ANC seekers went to the private sector to receive checkups, while 36 percent used the public sector (BMMS 2016).[2] In Bangladesh, the increase in facility-based delivery appears to come primarily from growth in the private sector (Pomeroy, Koblinsky et al. 2014).[3] Between the 2007 and 2017, facility delivery increased from 15 percent to 50 percent. This has been possible due to rapid increase in delivery in private health facilities. Delivery in private facilities increased from 22 percent to 32 percent, in public facilities from 13 percent to 14 percent, and in non-governmental organization (NGO) facilities from two percent to four percent (BDHS 2017).[1] Eighty-four percent of deliveries in private facilities were by C-section (BDHS 2017).[1] The median expenditure related to normal deliveries at home is less than Taka 1,000. Normal delivery costs the most at private facilities (median around Taka 6,800), followed by government and NGO facilities (median around Taka 3,000 and Taka 2,600 respectively). The median expenditure associated with C-section deliveries at private facilities was around Taka 20,000. In comparison, the median expenditure for C-section deliveries was lowest in government facilities, around Taka 12,000 (BMMS 2016).[2]

Whilst the private sector's role is expanding in many countries, the quality of services varies. For example, only two percent of private facilities offering antenatal care services met the readiness criteria considered important for the provision of quality ANC services. One-third of the private hospitals performed all nine signal functions for comprehensive emergency obstetric and newborn care in the last three months, whereas all of them reported having conducted deliveries through Cesarean section. Basic signal function readiness was 39 percent among private hospitals and only nine percent among NGO clinics that offer normal delivery services. None of the private facilities surveyed had all 13 items considered essential for providing normal delivery care services (BHFS 2017).[1] In the context of low public sector capacity and growing healthcare demands in urban Bangladesh, private for-profit engagement is critical to achieving UHC. Given the informality of the sector, the nascent state of healthcare financing, and a weak regulatory framework, the process of engagement must be gradual (Adams AM et al. 2019).[5] To accelerate progress to reach the SDGs for ending preventable maternal and newborn deaths, it is critical that both the public and private health service delivery systems invest in increasing coverage of interventions to sustainably deliver quality care at scale. Thus, it is time to identify possible ways of enganagment between public and the private sectors particularly to delivery of health services for quality of care.

- **Objectives:**

General objective-

The study aims to explore the mechanisms for engaging the private sector in planning, delivering and demonstrating accountability for quality MNH services in Bangladesh and establish the evidence based on mechanisms that ensure an active and meaningful engagement of the private sector for delivering on national plans for quality of care, with a focus on MNH.

Specific objective:

- ✓ Analyze the drivers and determinants of the current engagement of the private sector to deliver quality MNH services;
- ✓ Identify opportunities for involving the private sector in working within the national health system to deliver quality MNH services; and
- ✓ Propose models for effective engagement of the private sector within the national health system for implementing quality MNH services.

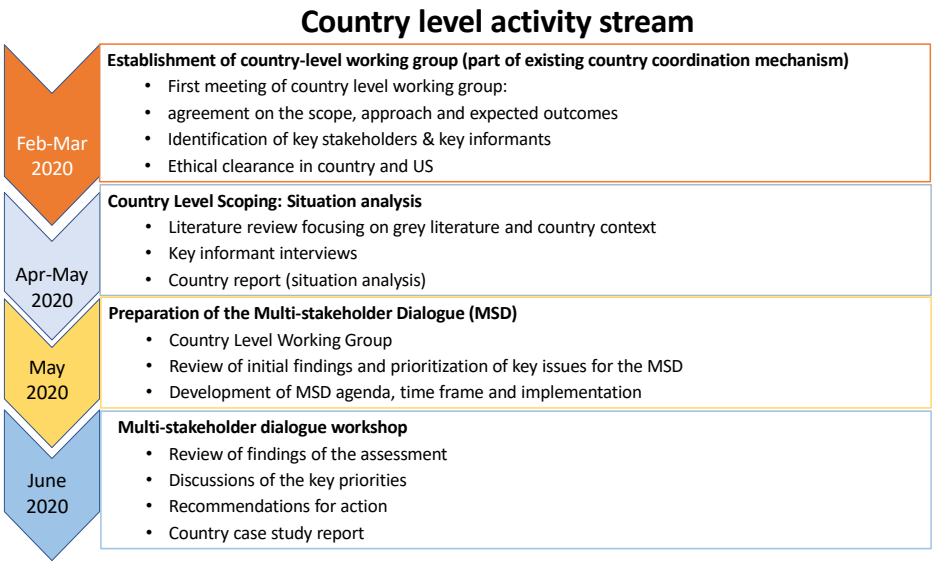
- **Methodology:**

Study design:
This is an exploratory research involves conducting a situational analysis on the private sector's involvement in delivering quality of care for MNH. It is cross-sectional in design.

A systematic review, along with the country case studies and an overall summary paper, will be packaged as a series for publication in a journal like Health Policy and Planning. Finally, the project will develop a package of finalized tools and process guidelines for other Network countries to use to replicate this process. Project activities will also occur at the country-level in Bangladesh (Figure 3).

Three components will comprise this analysis: (1) a literature review focusing on grey literature and country context; (2) a stakeholder assessment; and (3) key informant interviews. This situational analysis will be shared with attendees at a multi-stakeholder dialogue in each country, where participants will review the initial findings and prioritize key actionable issues to take forward in each country. Findings from the situational analysis and multi-stakeholder dialogue will then be combined to develop country case studies.

Figure 3: Country-level activity stream



Within Bangladesh, the study involves the collection and analysis of both primary and secondary data. Secondary data and grey literature (e.g., policies, facility-based assessments, reports) will be used to provide background context on the private sector to situate the country case study. Country-specific literature will be forwarded from the systematic review, and efforts will be made in each country to obtain additional grey literature from key informants. As seen in Table 1, this secondary data will address the following topics: policies, strategies and plans related to quality of care and MNH; the regulatory/legal framework; harmonization and implementation of national plans; and a range of health-related outputs, outcomes, and impacts.

Factors in study (variables):
Key variables to be analyzed are as follows which is not limited to this.
Formal private service delivery providers (both for profit and non-profit) and their clients (mothers and newborns).
Service delivery of quality care and MNH including preventive, promotive, and curative services. In general, areas will cover national level policies, strategies and plans, regulatory and/or accreditation, any committees/ groups in private sector, resources for the private sector, market competitiveness, accountability, collaboration exists between the government and private sector, provider's respectful / ethical practices and unified health system

Table 1: Data sources mapped to the project logic model

Inputs		
Topic	*Interviews*	*Literature Review*
Policy, strategies and plans related to MNH, quality of care, and the private sector	x	x
Regulatory/legal framework related to MNH, quality of care, and the private sector	x	x
Leadership: - Organization of the private sector - Governance structures and institutions for quality	x	
Resources for the private sector (human resources, financing, tools and know-how)	x	
Process		
Topic	*Interviews*	*Literature Review*
Harmonization and implementation of national plans	x	x
Mechanisms for social and regulatory accountability (e.g., setting and monitoring standards, incentives and sanctions)	x	
Values, ethics and motivation of the private sector	x	
Relationship between the public and private sector and its organization (e.g., trust, information systems, referrals)	x	
Market competitiveness	x	
Outputs		
Topic	*Interviews*	*Literature Review*
Improved health system functioning (mix of public and private sectors and how they function as a unified system)	x	
Improved readiness of the private service providers for the provision of quality MNH services (e.g., infrastructure, data systems, supplies)		x
Improved access to and availability of quality MNH		x
Improved utilization		x
Adherence to standards		x
Outcomes		
Topic	*Interviews*	*Literature Review*
Quality (the six dimensions)		x
Coverage		x
Equity		x
Service responsiveness		x
Experience of care		x
Behavior change		x
Impact		
Topic	*Interviews*	*Literature Review*

Reduce maternal and newborn mortality	x
Improve the experience of care	x

Key informant interviews will be used to gather primary data on inputs, processes, and outputs related to the private sector's engagement in delivering quality care for MNH as part of Bangladesh's national health system (Table 1). Key informants in each country will be identified by a stakeholder assessment and input from the national technical working group.

Expected duration of the study:

The total period will be 04-months for the proposed study after having approval, which has been summarized in implementation plan. Currently proposing from April- July, 2020.

Study Location:

Since we are interested in national policies and practices involving the private health sector in Bangladesh, we are not geographically bound to a specific region or city. A participant residing in any part of the country may be eligible to participate, if s/he meets the eligibility criteria. **Interviews will be conducted in person with a member of the research team.** In addition to the national level key informants, the private health facilities located in selected districts will be included for key informant interviews. These facilities will be selected from the ten districts where Save the Children is supporting quality of care initiatives.

Study population:

The study population will include individuals involved in the delivery of formal health services in the public and the private sectors of Bangladesh. Individuals from this population will be invited to participate in the key informant interviews and/or the multi-stakeholder dialogue that will discuss findings from the key informant interviews.

For the purpose of this study, we define the private sector "as any non-government health actor: self-financing private sector (also referred to as for-profit), not-for-profit and mission or faith-based facilities involved in the delivery of health services; input suppliers (pharmaceuticals, equipment); health research and training institutions; traditional and informal providers; health promotion and education; and health financing," (Ghana Ministry of Health 2013).[23] However, as previously mentioned, the scope of this project is focused on private sector service delivery of quality care and MNH. For this reason, we will sample a larger proportion of individuals involved in service delivery than in policy/administration or regulation.

Inclusion/exclusion criteria-

Individuals will be invited to participate in the key informant interviews and/or

multi-stakeholder dialogue if they meet the following inclusion criteria:

- have experience in and knowledge of service delivery of quality of care and/or MNH in Bangladesh;
- are currently working in the public health sector and/or the private formal health sector in Bangladesh; and
- have been working in their current role for at least 2 years

Individuals will be excluded from participating if they:

- work in the informal private sector; or
- work on topics beyond service delivery (e.g., supply chain, education/training, insurance provision).

Methods of Data Collection:

We will take a mixed-method approach, integrating both qualitative and quantitative data throughout the data collection, analysis, and interpretation phases.

For the literature reviews, secondary quantitative and qualitative data will be collected from grey and published literature on the private sector's size, scope, distribution, and quality of care outcomes related to MNH in Bangladesh. Both data (i.e. primary and secondary) will be collected at the same time and subsequently integrated to facilitate an appropriate interpretation of the overall results. We anticipate more robust results from mixing methods rather than using the two approaches separately.

For the key informant interviews, trained interviewers will conduct the interviews using a semi-structured interview guide (Annex). This guide was developed based on the logic model framework (Figure 1) and an assessment of existing tools. This guide will enable the study team to pool the information gathered by different interviewers while at the same time giving the interviewers flexibility to explore issues unique to respondents. Piloting the guide in Bangladesh will help formulate the interview guide and see that it includes the correct questions.

Interviews are expected to last approximately 60 minutes and will be audio recorded, if the participant consents. In cases where the participant does not consent to the interview being audio recorded, the interviewer will take handwritten notes.

Based on findings from the key informant interviews, we will organize a multi-stakeholder dialogue meeting in Bangladesh. For the dialogue meeting, approximately 35 eligible participants will be invited to attend a two- to three-day meeting to discuss project findings and to generate actionable recommendations for effective engagement of the private sector in the national health system for delivering and demonstrating accountability for quality of care for MNH. The

meeting will not be recorded, but project staff will take notes that will be used in writing up meeting report. Planning the dialogue meeting will involve project staff and members of the national technical working group (e.g., representatives from the Ministry of Health, partners).

Sampling:

We will select individuals for participation in the key informant interviews and/or multi-stakeholder dialogues based on a stakeholder assessment for Bangladesh and input from the national technical working group. The stakeholder assessment will: (1) identify all the stakeholders in the space and assess their influence, positions, and interests; (2) explore stakeholders' responses with respect to policies, strategies, regulations, incentives, private investments, etc.; and (3) be conducted using an adapted Excel spreadsheet. Following this step, eligible interview participants in Bangladesh will be selected purposively using a sampling matrix (Table 2) to capture a range of viewpoints and experiences with private sector service delivery of quality MNH.

In this proposed research, the qualitative sample will be selected using a non-probabilistic stratified purposive sampling approach. This approach will allow for comparisons between subgroups while displaying variation on individuals' roles and the level at which they operate (Patton 2002).[30] Not only must the sample have "symbolic representation," but it must also illustrate the diversity within the population's boundaries (Ritchie, Lewis et al. 2003).[31] Based on these requirements and important characteristics put forth in the literature, the final sample size in each country will be influenced by the sampling matrix depicted below (Table 2) that captures health sector (public or private), role (policy/administration, service delivery, regulation), and level (national, subnational, facility). Informants will be selected based on these characteristics for a proposed total of 28 interviews (2 individuals per sector, role, and level) or until saturation occurs.

Table 2: Qualitative sampling matrix

Health Sector	Role	Level
Public Health Sector	Policy / administration	National
		Sub-National
	Service delivery	National
		Sub-National
		Facility (Manager/Director) [interested in referral links]
	Regulation	National
		Sub-National
Private Health Sector	Policy / administration	National
		Sub-National
	Service delivery	National
		Sub-National
		Facility (Manager/Director)
	Regulation	National
		Sub-National

For the multi-stakeholder dialogue, we anticipate inviting approximately 35 participants. These participants will be purposively selected based on the stakeholder assessment and input from members of the national technical working group.

Pretesting:

The study tools will be pre-tested with a sample of private sector providers in non-intervention districts. These exploratory interviews will aim to explore appropriate language and terminology in Bangladesh, assess validity of the questions, test the flow of the questions, and formulate the final interview guide.

Translation of the study tools:

All study tools will be developed in English and then translated into Bangla. All interviews will be in Bangla which will recorded based on prior permission and transcribed accordingly.

Quality assurance:

To ensure the quality of data, several steps will be followed:

Recruitment of efficient and experienced research assistants, data transcriber and paramedics ,pre-testing of the tools extensive training on the data collection tools pre-testing the tools.

Regular supportive supervision from the study investigators including the thematic and implementation team from project staff, nominate regional/ district focal point with clinical background to do this supportive supervision,spot checking during field visit, review the collected data in the field.

Data Analysis:

Qualitative data from the key informant interviews will be analyzed using content analysis technique. They will also be organized around the logic model. NVivo software will be used to assist the organization and retrieval of themes from the data. All audio-recorded in-depth data will be transcribed verbatim immediately after each session and will be critically examined for accuracy and representation of the response of the participant. In order to ensure uniformity, coding of each transcript will be done via a process known as labeling phrases and quotations to identify themes and patterns (Creswell 2014).[32] Coding is the process of reading the data, breaking text down into subparts, and giving a label to that part of the text. The labels provide a way to begin to identify patterns in the data (Grove, Gray et al. 2015).[33] Coding serves as the pivotal link between data collection and explaining the meaning of the data. Themes are developed and put together into a story to represent the respondent's stories during the process of coding. The final step in the data management process will be the interpretation of the results. Various themes will be identified from the coded data that will be used to describe the thoughts of the respondents.

- **Utilization of Results:**

Written materials derived from the findings will be shared with project staff, the Bangladesh Ministry of Health and Family Welfare, USAID and relevant key stakeholders in Bangladesh. Internationally, findings will be shared via Save the Children's online knowledge sharing platforms as well as the World Health Organization (WHO). If the final report meets Save the Children's publication criteria, it will be submitted to relevant peer reviewed journals for consideration for publication.

In Bangladesh, a detailed report containing appropriate recommendations will be prepared by Mr. George, Ms. Chowdhury, Dr. Md. Hasan, Dr. Shams, and Ms. Herrera and shared with the Ministry of Health and other stakeholders. Mr. George, Ms. Chowdhury, Dr. Md. Hasan, Dr. Shams, and Ms. Herrera will also take the lead in preparing the Bangladesh case study for publication. Publications from this research will be disseminated to participants who consented to being contacted with copies of the final publications.

- **Facilities:** (Resources, equipment, chemicals, subjects (human, animal) etc. required for the study):
    - Facilities Available: trained staff for research, program intervention, analysist, integrated project with DGHS/DGFP, project intervention districts and health facilities, ongoing intervention on same topic
    - Additional Facilities Required: few external data collectors for up to transcription preparation

- **Approval / Forwarding of the Head of Department / Institute / IRB.**
  Attached

- **Flow Chart:**
  The timeframe and implementation steps are outlined in the implementation plan below.

Task	Time line			
	Aug,20	**Sep,20**	**Oct,20**	**Nov,20**
Conduct survey/interviews				
Transcribe interviews (in Word or NVivo)				
Analyze the data				
Write a preliminary situational analysis report on private sector collaboration and involvement in planning and delivering quality MNH services				

Share preliminary findings from the report with the national technical working group and the Network Secretariat				
Prepare for the multi-stakeholder dialogue with private sector representatives and the national technical working group, identify meeting participants, and prepare meeting materials				
Host a two- to three-day multi-stakeholder dialogue meeting with assistance from the national technical working group and with private sector representatives to discuss the findings on different models of effective engagement of the private sector with the public sector and to agree on a way forward				
Submit a meeting report to the national technical working group and the Network Secretariat with written input on proposed models for effective engagement of the private sector with the public sector for implementing quality of care for MNH				
Write up the country case study and recommendations for other Network countries				

- **Ethical Implications:**

The minimum ethical consideration for the assessment is the protection of individuals, both providers and patients. As stated in the Procedures section above, respondents' records will be de-identified before hand over to investigators.
The final dataset to be used for the analysis will only contain data that can't be used to identify individual respondent. No sensitive questions will be asked. During interview, if a respondent finds a question objectionable, they will be free to skip the question and/or terminate the interview. Interviews will be arranged at a time and date that is private and convenient to respondent to minimize the burden. Each respondent of qualitative interviews will take once for approximately 50-60 minutes. Before taking interview, interviewers will brief the study participants about reason for participation, potential risk and benefits, future use of information, how we will maintain their privacy and anonymity and regarding their right not to participate and withdraw.
A written consent will be obtained before each interview. The signed consent form will be retained by the PI and a copy will be left for the respondent. The discussion will be recorded by the interviewer but stored with the collected data only with PI to maintain confidentiality and anonymity. After having all the responses in the analysis and report dissemination, all the recorders will be destroyed.

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