

EVALUATION OF PFI'S CBM IMPLEMENTATION: ENDLINE FINDINGS

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EXECUTIVE SUMMARY

To address the health needs of its underserved rural areas, the government of India created the National Rural Health Mission (NRHM) in 2005, with an initial focus on 18 states that have poor public health indicators and infrastructure. The underlying goal was to establish a fully functional, community-owned, decentralized health care delivery system that would provide universal access to quality care. A key feature of the NRHM framework is the promotion of local ownership and management of the health care delivery system through community involvement—referred to as “communitization” of health services. The NRHM (now known as the National Health Mission, or NHM) features several activities to engage communities, including building the capacity of *Panchayati Raj* institutions to participate in health-sector programming, providing untied grants at various levels to help meet local needs for health services, and mandating the rollout of community-based monitoring (CBM) to identify those needs. CBM is a central mechanism for institutionalizing communitization under the NHM and, in turn, for establishing local accountability and responsiveness in the public health system.

Implementation of CBM in Bihar began in 2011, with support from the state’s nodal agency, the Population Foundation of India (PFI). In addition to providing state-level guidance on CBM implementation, PFI has managed direct implementation of CBM in Bihar over four phases, in collaboration with field NGO partners. The first three phases of PFI’s CBM implementation involved creating and strengthening Village Planning and Monitoring Committees (VPMCs) to conduct much of the CBM work at the village level. This contrasts with the NHM’s CBM guidelines, under which Village Health, Sanitation, and Nutrition Committees (VHSNCs) lead local CBM activities—and is a result of VHSNCs operating at the *Gram Panchayat* rather than the village level in Bihar. However, starting in 2019 (Phase 4), PFI shifted its local-level focus from VPMCs to VHSNCs, to support the anticipated rollout of VHSNCs at the village level in Bihar in the near future.¹ Starting in Phase 3 (2017-2019) of its CBM implementation, PFI introduced several innovations in Bihar, including developing an interactive voice-response system (IVRS) to share information about specific health services and collect feedback as part of the CBM process. Phases 3 and 4 have focused on strengthening the quality of reproductive health and maternal health (RH/MH) services.

To inform the implementation and potential scale-up of CBM in Bihar, the Packard Foundation engaged Mathematica to conduct a multiyear external evaluation of PFI’s CBM approach in Bihar, focusing on its Phase 3 intervention blocks and villages. Mathematica examined the extent to which and how CBM processes have taken root in these project communities over Phases 3 and 4, which components were working well and which were not, and how CBM processes have affected targeted outcomes related to the availability, delivery, and utilization of RH/MH services.

¹ Under the NRHM, VHSNCs were to be constituted at the village level in most states, but were constituted at the *Gram Panchayat* level in Bihar. To enable more effective local planning and action, PFI originally constituted VPMCs at the village level. Based on the success of VPMCs in decentralizing health planning and building local capacity, The State Health Society Bihar (SHSB) is now planning to shift VHSNCs to be constituted at the village level. During this transition period, while VHSNCs continue to operate at the *Gram Panchayat* level, many of the VPMCs created by PFI have continued to function at the village level.

This is the final report from Mathematica’s evaluation of PFI’s CBM approach. The evaluation had two main components: (1) a process study and (2) an outcomes study. The process study included all four Phase 3 intervention blocks and a combination of villages that have and have not been involved in earlier phases. Drawing on the different histories of CBM across Phase 3 blocks and villages, Mathematica assessed factors that affected the rollout, effectiveness, and sustainability of PFI’s CBM approach and the transition to Phase 4 of CBM implementation. We also identified CBM implementation learnings and best practices, with an eye toward scale-up. The outcomes study focused on Baheri, the one Phase 3 block in Darbhanga that was excluded from Phase 2. Phase 3 implementation delays in Baheri enabled Mathematica and its partner, Sambodhi Research and Communications, to collect baseline data near the start of Phase 3 (mid-2017), which was followed by endline data in the middle of Phase 4 (end 2019-early 2020). In Baheri, the outcomes study focused exclusively on implementation villages that were new in Phase 3 (those not included in prior phases). Within these villages, the study team measured changes in the availability, quality, and use of health services, with a focus on RH/MH services. Although Phase 4 expanded implementation into additional blocks and villages, no evaluation activities were conducted in these new areas.

Findings from the evaluation revealed that PFI’s CBM approach was largely implemented as planned and closely aligned with the NHM’s guidelines for CBM. Community engagement and participation in CBM activities increased during the evaluation period, as did community members’ awareness of specific RH/MH services and the services that Village Health and Sanitation Nutrition Days (VHSNDs) and health sub-centers (HSCs) should offer. Availability and receipt of RH/MH services, especially ANC and postnatal services, also increased over time, with qualitative data suggesting that CBM contributed to these improvements. However, some VHSNDs and HSCs continue to lack basic supplies and equipment that continue to affect the overall quality of ANC and family planning services, and uptake of family planning services remains low.

Key takeaways from the evaluation, as well as implications for sustainability and scale-up, are summarized below.

Process study

- VPMCs have continued to function in all study communities despite PFI’s shift away from them in 2019, and are playing an ongoing and critical role in CBM, demonstrating the value of village-level committees for supporting CBM. They are providing VHSNCs with important details about the quality of health services in their villages and advocating for specific uses of untied funds to meet their communities’ needs. VPMCs have also continued to disseminate information about health rights and entitlements in their communities. The continued functioning of VPMCs without PFI support suggests that these village-level committees are both capable of continuing to function without external support and critical for helping VHSNCs understand and make decisions related to health planning and monitoring in their constituent villages. It also points to the importance of planning and monitoring at the village level under CBM models, and, in turn, the importance of the eventual transition from *Gram Panchayat*- to village-level VHSNCs to the success of CBM in Bihar.
- IVRS appears to be especially useful for supporting the engagement and informed decision-making of high-level health officials, so it is important to ensure that community members engage with the platform regularly. Despite some challenges, CBM stakeholders are generally pleased with IVRS

because it has simplified the process of collecting and reporting on community feedback, automated the generation of *Gram Panchayat* and facility report cards, and allowed VHSNCs and NGO partners to easily present data to the block and district levels. Block-level officials report that they receive and review these data—which suggests that, in a change from the baseline findings, these officials are beginning to use the data the CBM process generates. VPMC and VHSNC members generally regard the data coming into the IVRS system to be valid and useful. About half of women of reproductive age (WRA) survey respondents in Baheri were aware of the system at endline, suggesting that there is likely to be enough knowledge of and support for the IVRS system for it to become a common method of collecting community feedback. However, IVRS use by WRA remained fairly low at endline, despite VHSNC members’ perceptions that the call-in number has become more popular with women in their community. There are also persistent challenges with navigating the phone menu and other components of IVRS and responding to automated questions that may ultimately limit the value and representativeness of these data. Given the value of the data to high-level health officials, VHSNCs must continue to provide support and troubleshooting to community members who seek to use the system.

Outcomes study

- Interest and engagement in CBM among community members grew significantly during the evaluation period—a key first step in ensuring that CBM is a community-driven, bottom-up process. Nearly all VPMCs, VHSNCs, and other CBM actors believed that community members’ willingness to engage in CBM activities has increased over time. This perception was borne out in Baheri, where the share of WRA survey respondents who reported participating in VHSNC meetings, viewing report cards, and being familiar with IVRS increased, and where VHSNC members reported that women were regularly sharing feedback with them in informal ways. It is likely that sustained engagement in these communities by PFI and NGO partners, over the course of multiple phases of CBM implementation, has helped sensitize community members to this process and made them feel comfortable participating in it. The “communitization” of health services under the NHM’s vision depends upon this kind of community action and engagement; the information generated through CBM and the issues reported to high-level health officials must originate from community members’ reports of their own experiences. A growing willingness among community members to share their experiences and concerns is a critical first step in achieving this vision.
- Knowledge and awareness of health services and entitlements have grown substantially over time, which may be a testament to VPMC and VHSNC members’ efforts to spread awareness. The WRA survey in Baheri indicated substantial gains in women’s knowledge and awareness of health services and entitlements over time, especially knowledge of ANC services and the services to which community members are entitled at VHSNCs and HSCs. While the design of our outcomes study does not allow us to attribute these gains to PFI’s program alone, these changes likely reflect VPMC and VHSNC members’ concerted efforts to raise awareness of these health services in their communities, and their belief that they have been successful at educating women in their communities, reducing discomfort or shame associated with RH/MH topics, and encouraging community members to seek more information about services via IVRS. PFI, NGO partners, and other CBM actors have indicated that they believe this kind of awareness-building is critical for ensuring community engagement in CBM and for generating demand for high quality RH/MH

services. It remains to be seen whether increased knowledge and awareness of RH/MH services and entitlements will lead to sustained increases in the use of these services.

- Findings on the quality and use of RH/MH services are mixed. Availability and receipt of services generally increased during the evaluation period, as did availability of basic supplies and equipment at VHSNDs, with qualitative reports suggesting that CBM contributed to these improvements. However, service delivery assessments revealed that VHSNDs and HSCs continue to experience critical shortages of basic items, including family planning commodities and equipment such as examination tables, leading to some ANC clients being turned away. In addition, most VHSNDs are not providing the full set of core ANC services. Finally, while women generally report being satisfied with services received at VHSNDs and HSCs, a sizable proportion report that they would not recommend the VHSND or HSC to a friend – suggesting that women may have some underlying quality concerns that are not being captured in survey questions about satisfaction.

Implications for sustainability and scale-up

- PFI's CBM approach's close alignment with NHM guidelines – and its active state-level advocacy – sets it up well for institutionalization and expansion across the state. Throughout its many phases of implementation, PFI's CBM approach has generally followed the NHM blueprint. This remained true during PFI's most recent phase – to the point that very few stakeholders could articulate meaningful differences between Phase 4 of PFI's CBM implementation and the typical CBM process under the NHM – although most confirmed that their communities became much more intensively engaged in CBM once PFI and its NGO partners began implementing their projects. In addition, PFI's close relationship with the Bihar State Health Society through its role as the state's nodal agency for CBM has helped bring PFI's learnings and perspectives on CBM implementation to state-level officials who focus on CBM. This bodes well for future institutionalization and scale-up of PFI's approach across the state – as reflected in PFI's continued work on a streamlined version of the Phase 4 model in other districts across the state. PFI's strong connections at the state level should help ensure that learnings from the Phase 4 model are shared and acted upon across the state. PFI's trainings and orientations for various committee members, coaching and support provided by NGO partners, and implementation of IVRS are likely to be particularly valuable program components that could be scaled up. However, any efforts to scale up this CBM work must be considered in light of the critical workforce shortages across Bihar. For example, nearly half of all available ANM positions and over four-fifths of General Nursing Midwife positions are vacant across the blocks in which PFI is currently working. The impact of any CBM activities will necessarily be limited by these systemic gaps in human resources.
- VPMCs' continued functioning through Phase 4 suggests that VHSNCs (at the *Gram Panchayat* level or village level) may be able to operate independently in the future, although NGO partners will likely still be needed to support some key activities. The fact that VPMCs continued to operate without PFI support is a testament to their willingness and ability to continue to engage in CBM and to make valuable contributions to it. Although most project stakeholders believed that the participation and support of block-level NGO partners are critical for ongoing success at all stages of the CBM process, over time these partners may be able to reduce the intensity of the technical support they provide to VHSNCs. In PFI's four project blocks, NGO partners have been found to be especially effective at organizing *Jan Samwads* and providing initial training and support to

VHSNCs, but much of the more intensive support that NGO partners have historically provided under previous phases of PFI's CBM implementation – such as regularly convening VPMC/VHSNC meetings and helping to generate report cards – is now being provided by ASHA Facilitators and thus may require only minimal support from NGO partners moving forward.

- The close relationship between VPMCs and VHSNCs under Phase 4 should facilitate the transition to village-level VHSNCs, but the current existence of these two committees may also create some confusion during the transition. By design, VPMCs and VHSNCs working under PFI's CBM approach are closely connected, with purposeful overlap in members. Close connections between the village and *Gram Panchayat* levels have been critical for thoroughly understanding village-level issues and mobilizing *Gram Panchayat*-level resources to resolve them. These close relationships should facilitate the eventual transition of VHSNCs from the *Gram Panchayat* level to the village level. However, the existence of two similar committees has the potential to create some confusion when this transition occurs; PFI and NGO partners will likely have to provide significant support and guidance as responsibilities shift and redundancies between the two committees are eliminated. PFI may be able to draw on lessons learned and best practices in other states, where VHSNCs have long been constituted at the village level.

1. INTRODUCTION

A. Background and purpose of the evaluation

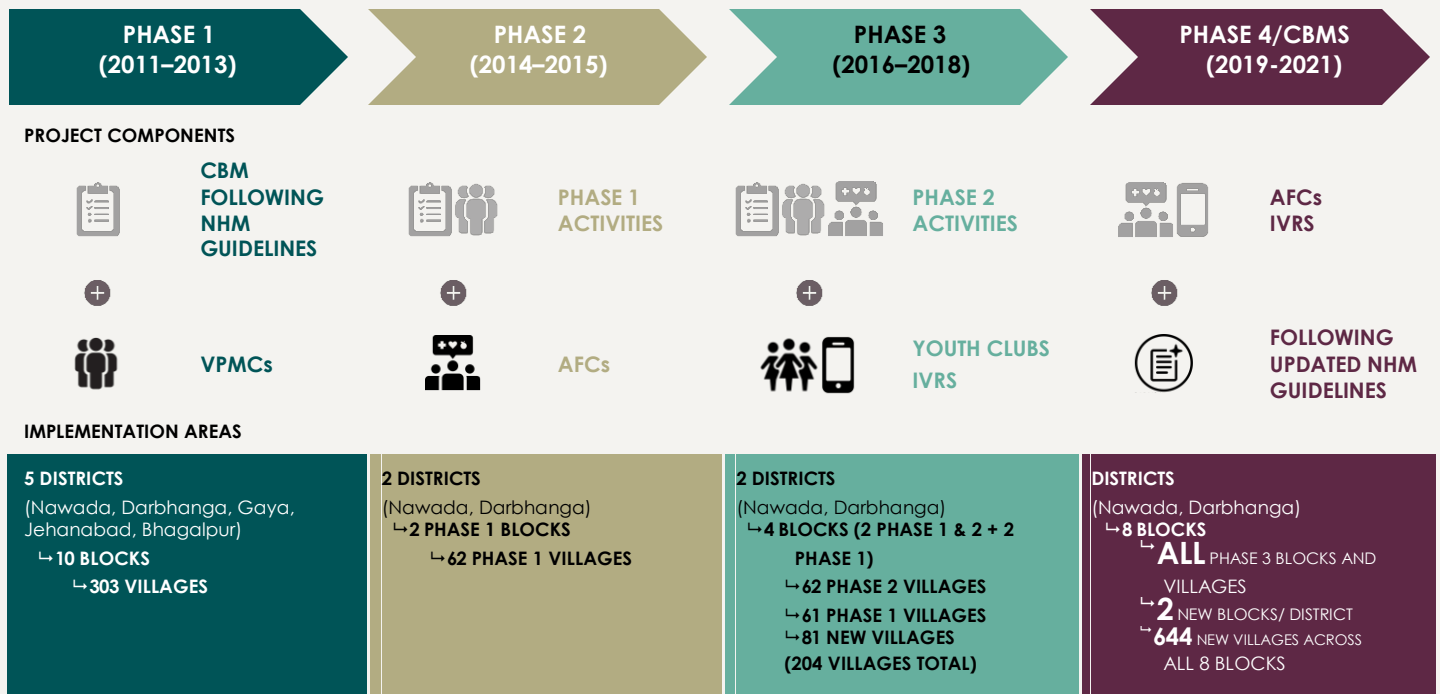
To address the health needs of its underserved rural areas, the government of India created the National Rural Health Mission (NRHM) in 2005, with an initial focus on 18 states that have poor public health indicators and infrastructure. The underlying goal was to establish a fully functional, community-owned, decentralized health care delivery system that would provide universal access to quality care. A key feature of the NRHM framework is the promotion of local ownership and management of the health care delivery system through community involvement—referred to as “communitization” of health services. The NRHM (now known as the National Health mission, or NHM) features several activities to engage communities, including building the capacity of *Panchayati Raj* institutions to participate in health-sector programming, providing untied grants at various levels to help meet local needs for health services, and mandating the rollout of community-based monitoring (CBM) to identify those needs. CBM is a central mechanism for institutionalizing communitization under the NHM and, in turn, for establishing local accountability and responsiveness in the public health system.

To guide implementation of CBM, the government of India created a national Advisory Group on Community Action (AGCA) in August 2005. From 2007 to 2009, this group facilitated a pilot of the NHM’s CBM approach in nine states.² In each state, a nodal organization oversaw the development of CBM processes, in coordination with the state health department and district- and block-level nongovernmental organizations (NGOs). These processes involved five key steps: (1) forming multi-stakeholder planning and monitoring committees at the village, block, and district levels; (2) raising community awareness of health services and entitlements; (3) instituting periodic collection of community feedback on the quality of health services using specific data collection tools; (4) reporting this feedback to providers and government officials through public report cards and forums; and (5) engaging in dialogue at all levels to facilitate corrective action. Following encouraging results from this pilot, the government of India mandated that CBM be rolled out in all of the NHM’s high-priority states, including Bihar, in 2010.

Implementation of CBM in Bihar began in 2011, with support from the state’s nodal agency, the Population Foundation of India (PFI), which has also served as the Secretariat of the AGCA through an order from the Government of India’s Ministry of Health and Family Welfare. In addition to providing state-level guidance on CBM implementation, PFI has managed direct implementation of CBM in Bihar over four phases, in collaboration with field NGO partners (Figure 1.1). In Phase 1 (2011–2014), PFI, supported by the State Health Society of Bihar, implemented the NHM’s CBM approach in 10 blocks across five districts in Bihar. However, there was one central modification. Under the NHM’s CBM approach, the village-level committee tasked with CBM duties is the Village Health, Sanitation, and Nutrition Committee (VHSNC). Although VHSNCs are formed at the village level in most states, in Bihar, they exist at the level of the *Gram Panchayat*—a collection of multiple villages. To better align CBM activities with village-level service provision under the NHM, including services delivered by community health workers and at monthly Village Health, Sanitation, and Nutrition Days (VHSNDs), PFI formed

² The pilot states were Assam, Chhattisgarh, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, and Tamil Nadu.

Figure 1.1. PFI implementation of CBM in Bihar, by phase



Village Planning and Monitoring Committees (VPMCs) at the village level. Under PFI’s approach, VPMCs led local CBM activities while collaborating with VHSNCs on health planning and resource allocation efforts.

With funding from the David and Lucile Packard Foundation, PFI began Phase 2 of CBM in Bihar in late 2014, focusing on two of the five Phase 1 districts (Nawada and Darbhanga) and one Phase 1 block in each district (Figure 1.1). This second phase of implementation (2014–2015), referred to as the Advocacy for Change project, included all Phase 1 activities but also incorporated an enhanced community awareness and mobilization component. Specifically, in Phase 2, PFI trained key community influencers, including community health workers, to be advocates for change (AFCs). The AFCs helped disseminate information about health rights, entitlements, and services to support the CBM process. PFI also introduced a focus on reproductive health and maternal health (RH/MH) in its CBM efforts.

In Phase 3 (2016–2018), also funded by the Packard Foundation, PFI expanded its Phase 2 CBM activities to two additional blocks in the Phase 2 districts, both of which took part in Phase 1 (Figure 1.1).³ In addition to all Phase 2 CBM activities, Phase 3, referred to as the Advocacy, Communication, and Accountability (ACA) project, also includes activities designed to engage youth as well as a new interactive voice-response system (IVRS) designed to foster community awareness and monitoring. Phase 3 also continued the focus on RH/MH services.

³ Within the four Phase 3 blocks, PFI’s activities covered villages that were included in previous phases along with others that were not included.

Beginning in early 2019, with continued Packard Foundation support, PFI began its fourth and current phase of CBM implementation, referred to as the Community-Based Monitoring of Health Services (CBMS) project. In Phase 4, PFI continued to work in the districts, blocks, and villages targeted in Phase 3 and also expanded to additional villages in the four Phase 3 blocks, as well as to two new blocks in each district. PFI used learnings from Phase 3 to modify its CBM approach in Phase 4. Most notably, the program shifted its local-level focus from the village-level VPMCs developed and supported in Phases 1-3 to the *Gram Panchayat*-level VHSNCs mandated by the NHM, because the state of Bihar expects to shift VHSNCs to the village level in the near future.⁴ The current phase also provides support to Accredited Social Health Activist (ASHA) Facilitators and Block Community Mobilizers (BCMs), new cadres of health workers and health officials under the NHM, who provide additional support to VHSNCs and ensure a strong linkage between these and higher-level health committees. The overall approach to CBM in Phase 4, however, is generally the same as Phase 3.

To inform the implementation and potential scale-up of CBM in Bihar, in 2017, the Packard Foundation engaged Mathematica to conduct a multiyear external evaluation of PFI's CBM approach in Bihar, focusing on its Phase 3 intervention blocks and villages. Mathematica examined the extent to which and how CBM processes have taken root in these project communities over Phase 3, which components were working well and which were not, and how CBM processes have affected targeted outcomes related to the availability, delivery, and utilization of RH/MH services. Because Phase 4 of PFI's CBM approach was rolled out during the final 12 months of the evaluation period, the study also captured the first year of Phase 4 implementation in the Phase 3 study blocks.

This is the final report from Mathematica's evaluation of PFI's CBM approach. The evaluation had two main components: (1) a process study and (2) an outcomes study. The process study included all four Phase 3 intervention blocks and a combination of villages that have and have not been involved in earlier phases. Drawing on the different histories of CBM across Phase 3 blocks and villages, Mathematica assessed factors that affected the rollout, effectiveness, and sustainability of PFI's CBM approach and the transition to Phase 4 of CBM implementation. We also identified implementation learnings and best practices, with an eye toward scale-up. The outcomes study focuses on Baheri, a Phase 3 block in Darbhanga. Implementation delays in Baheri enabled Mathematica and its partner, Sambodhi Research and Communications, to collect baseline data near the start of Phase 3 (mid-2017) and endline data in the middle of Phase 4 (end 2019-early 2020). In Baheri, the outcomes study focused exclusively on implementation villages that were new in Phase 3 (that is, those not included in prior phases). Within these villages, the study team measured changes in the availability, quality, and use of health services, with a focus on RH/MH services. Although Phase 4 expanded implementation into additional blocks and villages, no evaluation activities were conducted in these new areas.

The report is organized as follows. In the remainder of this chapter, we provide a more detailed description of PFI's CBM approach. In Chapter 2, we describe the evaluation design and endline data collection and analysis. In Chapter 3, we present process study findings, drawing on qualitative data collected across the four Phase 3 intervention blocks. In Chapter 4, we share outcomes findings using

⁴ During this transition period, while VHSNCs continue to operate at the *Gram Panchayat* level, many of the VPMCs created by PFI have continued to function at the village level.

survey and service delivery data collected in Baheri block as part of the outcomes study. In Chapter 5, we summarize key findings and takeaways from this evaluation.

B. PFI's CBM implementation

CBM approach

Phases 3 and 4 of PFI's CBM approach build on previous implementation phases, while seeking to achieve similar goals, including (1) strengthening community engagement in monitoring health service delivery, (2) ensuring responsiveness of the public health system to local needs, and, ultimately, (3) increasing the availability, quality, and use of health services, with a focus on RH/MH services.

In Figure 1.2, we show the five main components of PFI's CBM approach and their alignment with the NHM's CBM blueprint. Below, we describe each component in detail and highlight any differences between PFI's Phase 3 and 4 CBM approach. (Appendix A includes a logic model that shows the links between these components of PFI's CBM model and targeted outcomes.)

Figure 1.2. Key CBM components and implementation under the NHM and PFI's CBM approach

	1	2	3	4	5
Key components of CBM under the NHM	Form and support planning and monitoring committees at all levels	Build community awareness of health services and entitlements	Collect community feedback on service availability and quality	Report on feedback at the community, block, and district levels	Address gaps in health service provision through collective action and planning
Implementation under the NHM	Institute/train: <ul style="list-style-type: none"> • VHSNCs • BPMCs • DPMCs Deploy ASHA Facilitators and BCMs to mentor VHSNCs and strengthen links to block-level activities	Disseminate information about health services and entitlements through: <ul style="list-style-type: none"> • Awareness campaigns • Village meetings 	Collect regular community feedback on health services provision through focus group discussions and interviews with community members by using monitoring tools	Report feedback to the community, providers, and block health officials through: <ul style="list-style-type: none"> • Report cards • Community meetings • Block-level public dialogues (Jan Samwads) 	Engage in dialogue at all levels, including district and state levels, to facilitate corrective action and planning
PFI's CBM approach	Institute/train/support planning and monitoring committees: <ul style="list-style-type: none"> • VPMCs (Phase 3) • VHSNCs (Phase 4) • BPMCs • DPMCs Train ASHA Facilitators and BCMs (Phase 4)	Disseminate information on health rights/entitlements via: <ul style="list-style-type: none"> • Village meetings • Advocates for change (community health workers and elected representatives) • IVRS 	Use IVRS to collect community feedback: <ul style="list-style-type: none"> • Disseminate call-in number to community members, with a focus on women of reproductive age 	Facilitate reporting on feedback : <ul style="list-style-type: none"> • Support development of public report cards • Ensure public dialogues are held • Create and distribute a dashboard based on IVRS data 	Support dialogue and quality improvement: <ul style="list-style-type: none"> • Facilitate review and use of IVRS data for decision making by health officials • Conduct district- and state-level advocacy to support health improvements

1. **Form and support planning and monitoring committees at all levels.** The NHM's CBM model hinges on the active engagement of planning and monitoring committees at each level of the health system. Each committee monitors health service provision at its own level, engages in health planning to address local issues, and passes findings and unresolved issues up to the next level. The committees also conduct awareness-building activities to support community engagement in health service provision. PFI's CBM approach provides support to these committees, with a particularly strong focus on the village-level VPMCs in Phases 1-3 and on the *Gram Panchayat*-level VHSNCs in Phase 4. In Figure 1.3, we summarize the roles and responsibilities of the planning and monitoring committees under Phases 3 and 4.
 - **Village and Gram Panchayat level.** Under the NHM, the foundation of the CBM architecture is the VHSNC, which is created at the village level in most states. In Bihar, VHSNCs are constituted at the *Gram Panchayat* level. Because *Gram Panchayats* are typically composed of multiple villages, VHSNCs are somewhat removed from the village level. To rectify this, Phases 1-3 of PFI's CBM implementation involved forming VPMCs at the general village level to conduct and oversee community-level CBM activities. During Phase 3, the Bihar government indicated a willingness to change statewide rules and begin constituting VHSNCs at the village level, rather than the *Gram Panchayat* level. In anticipation of this shift, under Phase 4, PFI stopped supporting VPMCs and began actively supporting VHSNCs. VHSNCs have continued to operate at the *Gram Panchayat* level throughout Phase 4, but PFI has sought to ensure that VPMC members are well-represented on their corresponding VHSNCs. This representation has helped ensure a strong link between the village and *Gram Panchayat* levels and should also help smooth the eventual transition of VHSNCs from the *Gram Panchayat* to the village level. In many villages that participated in previous phases of PFI's CBM implementation, VPMCs have continued to operate at the village level in addition to these *Gram Panchayat*-level VHSNCs.

Many of the roles and responsibilities that are to be held by VHSNCs under the NHM's CBM approach were held by VPMCs under PFI's CBM implementation in Phases 1-3. In Phase 4, PFI has focused on transitioning these roles and responsibilities to VHSNCs, although VPMCs in some villages have continued to play a supporting role at the village level where possible. VHSNCs include elected *Panchayati Raj* representatives, community health workers (ASHAs, *Anganwadi* workers [AWWs], and auxiliary nurse midwives [ANMs]), and other community members. As shown in Figure 1.3, under the NHM guidelines and PFI's CBM approach, the main responsibilities of VHSNCs (and formerly VPMCs under PFI's previous phases) are to (1) empower community members to participate in CBM by building awareness about health services and entitlements; (2) facilitate the collection of community feedback on health service delivery during VHSNDs (run by local ANMs) and at health subcenters (HSC, the lowest level of public health facility); (3) monitor health service delivery through periodic visits to these service delivery points; (4) report on and discuss CBM findings at the community level; and (5) develop village-level health plans and use local funds provided under the NHM to meet day-to-day health care needs.

Under the NHM's CBM approach, VHSNCs collect community feedback on health service provision through in-depth interviews and focus group discussions (FGD) with community members. They also conduct facility record reviews, using specific paper-based tools. Starting in Phase 3, PFI replaced this paper-based community enquiry process with an IVRS platform that

enables community members to comment directly on health service delivery using their mobile phone (see Program Component 3 below). Twice a year, VHSNC members (and formerly VPMC members) work with PFI's NGO partners to compile IVRS data into *Gram Panchayat*- and facility-level report cards that are shared with facilities and community members. The role of VPMCs in previous phases, and the role of VHSNCs under Phase 4, focuses largely on educating community members about—and encouraging them to use—the IVRS. They also collect additional community feedback through monthly meetings and ad hoc conversations with community members and work with NGO partner staff to compile this information into report cards. VPMCs' work under Phase 3 and VHSNCs' work under Phase 4 has focused on these community-based components of feedback collection. Community-level feedback on services delivered at HSCs and PHCs are collected through IVRS and through on-site reviews conducted by BPMC members under Phase 4.

Starting in Phase 4, PFI's NGO partners are reviving and strengthening VHSNCs in *Gram Panchayats* where they had already existed and forming new VHSNCs in *Gram Panchayats* where they are needed. To do so, they are using a process similar to that used in Phases 1-3 to create VPMCs at the village level. In each PFI-supported *Gram Panchayat*, staff from the block-level NGO partner (called cluster coordinators) hold introductory meetings with community leaders to discuss the role of the VHSNC and to recruit key community members to join the VHSNC. In *Gram Panchayats* that had participated in previous phases of PFI's implementation, PFI and NGO partners constituted or strengthened VHSNCs by bringing in VPMC members from each constituent village. After the VHSNC is formed, a subset of committee members is selected to receive a two-day training conducted by the NGO partners. The training covers (1) the VHSNC's role and responsibilities in the CBM process, (2) health services and entitlements under the NHM, and (3) provision of RH/MH entitlements and services. NGO partner staff also support VHSNCs through monthly meetings and targeted assistance, as needed. Although VHSNCs have been constituted and strengthened at the *Gram Panchayat* level, they have been advised that these committees will eventually be shifted to the village level, essentially replacing the VPMCs that PFI had constituted in previous phases.

As mentioned, PFI's NGO partners used to provide similar assistance to VPMCs under previous phases of CBM implementation, but they do not provide this support any longer. Although some VPMCs that were supported under previous implementation phases are still functioning at the village level, they have not been a focus of Phase 4.

- ***Additional support and mentorship at the Gram Panchayat level.*** The NHM recently mandated the creation of a new cadre of health workers, called ASHA Facilitators, to provide additional support to ASHAs and better link them to block-level resources and directives. The NHM also established a team of BCMs, block-level health officials who are responsible for overseeing and providing support to ASHA Facilitators. Under PFI's Phase 4 approach, PFI and their NGO partners work with ASHA Facilitators and BCMs to provide additional support and mentorship to VHSNCs. ASHA Facilitators help ensure that any ASHAs they oversee who are members of their VHSNCs participate regularly in VHSNC meetings and, in some cases, help the ASHAs to organize and convene those meetings themselves. ASHA Facilitators also help to moderate meetings and identify key issues with the availability and/or quality of services that VHSNCs should address or raise at higher levels. BCMs oversee and provide support to ASHA Facilitators

as they act in this mentorship role, participate in block-level CBM activities (see below), and coordinate with ASHA Facilitators to ensure a strong linkage between *Gram Panchayat*- and block-level CBM activities.

- **Block level.** The NHM mandates the establishment of a Block Planning and Monitoring Committee (BPMC) in every block, made up of the block-level medical officer in charge, block-level *Panchayati Raj* representatives, representatives from the *Rogi Kalyan Samiti* (Patient Welfare Committee), and other health officials and representatives from civil society organizations. The BPMCs review the CBM report cards and, in PFI project areas, the block-level dashboards created via the IVRS platform. They also monitor services at the block-level Primary Health Center (PHC) and Community Health Center through periodic facility visits. Finally, BPMCs help organize and participate in biannual block-level *Jan Samwads* (public dialogues or hearings) to discuss problems with health services (see Component 4 below). In each PFI project block, PFI's NGO partners revive or strengthen BPMCs, facilitate the review of report cards and dashboards by BPMC members, and help organize biannual block-level *Jan Samwads* in collaboration with the BPMC.
 - **District level.** The NHM also mandates the establishment of District Planning and Monitoring Committees (DPMC) in each district. The DPMCs include the civil surgeon, district-level *Panchayati Raj* representatives, representatives from the *Rogi Kalyan Samiti*, and other health officials and representatives from district-level civil society organizations. Similar to BPMCs, DPMCs review report cards and, in PFI project areas, block- and district-level dashboards created via the IVRS platform. They also monitor services at the district hospital, attend block-level *Jan Samwads*, and lead district-level health planning, taking into account feedback from the *Jan Samwads* and IVRS data. As needed, DPMCs facilitate corrective action to solve problems raised in *Jan Samwads* and in the IVRS data. In Phases 3 and 4, PFI district-level staff⁵ have helped revive or strengthen DPMCs, facilitate the review of report cards and dashboards, encourage DPMCs' participation in block-level *Jan Samwads*, and provide support for planning and corrective action.
- 2. Build community awareness of health services and entitlements.** An important part of the NHM's CBM approach is to ensure that community members are aware of their entitlements to public health

⁵ In Phases 1 and 2, PFI selected local NGO partners to lead district-level activities. For Phases 3 and 4, PFI decided to use its own staff for this activity to ensure better coordination of its district- and state-level activities.

Figure 1.3. Roles and responsibilities of planning and monitoring committees under PFI's Phase 3/4 CBM implementation

<p>VPMC (Phase 3) VHSNC (Phase 4)</p>	<ul style="list-style-type: none"> • Empowers community members to participate in CBM by building awareness about health services and entitlements • Facilitates IVRS-based collection of community feedback on service delivery during VHSNDs, at HSCs, and at PHCs; monitors service delivery at these delivery points • Reports on and discusses CBM findings at the community level • Creates village health plans and uses local health funds provided under the NRHM to meet day-to-day needs
<p>BPMC</p>	<ul style="list-style-type: none"> • Monitors service delivery at Community Health Centers • Reviews village- and facility-level report cards and block-level dashboards generated by the IVRS platform • Helps organize and participates in biannual block-level <i>Jan Samwads</i> to discuss the availability and quality of health services and to devise solutions to close gaps
<p>DPMC</p>	<ul style="list-style-type: none"> • Reviews report cards and block- and district-level dashboards summarizing IVRS data on service delivery; monitors service delivery at district hospitals • Attends biannual block-level <i>Jan Samwads</i> • Leads district-level planning for health service provision, taking into account <i>Jan Samwad</i> feedback and IVRS data • Facilitates corrective action based on <i>Jan Samwad</i> and IVRS data

services. Under the NHM, VHSNCs bear most of the responsibility for building community awareness, typically by holding regular community meetings. Consistent with this approach, PFI requires VHSNCs (and formerly VPMCs) to disseminate information about health entitlements to community members through monthly meetings. However, PFI also includes a number of other community actors in its awareness-building efforts, including community health workers and any elected *Panchayati Raj* representatives who are not already mandated by the NHM to participate in the VHSNC. In addition, PFI has included learning modules in the IVRS platform to build awareness. While Phase 3 of PFI's CBM implementation also included the institution of youth clubs as a mechanism for disseminating information, these clubs have not actively received any additional support under Phase 4. Each of PFI's efforts is described in detail below.

- ***Advocates for Change.*** Since Phase 2, PFI has been training and supporting ASHAs, AWWs, and village-level elected representatives in project villages to serve as AFCs. The role of AFCs is to educate community members about health entitlements and related topics, with a focus on RH/MH services. Cluster coordinators from PFI's NGO partners conduct a two-day training session for AFCs that focuses on health services and entitlements, RH/MH topics and services, and behavior change. PFI also provides AFCs with information, education, and communications materials to facilitate their interactions with community members. These materials include information on RH/MH topics, including family planning (FP) services and methods, and the IVRS call-in number. PFI's NGO partner staff monitor the household visits by, and provide general support to, AFCs. In Phases 3 and 4, PFI also incorporated behavior change communication approaches into its training sessions to strengthen demand for high quality RH/MH services, especially FP. AFCs were trained in 204 project villages in Phase 3. Under Phase 4, these AFCs received a refresher training, and additional AFCs were recruited and newly trained in an additional 644 new villages.
- ***IVRS learning modules.*** The IVRS platform includes several information packages that inform callers about health services and entitlements, with a focus on RH/MH. Following a general introduction to the entitlements under the NHM, callers may choose to hear more information on (1) FP services and methods, (2) safe abortion services, (3) maternal and child health and safe

delivery services, (4) services at VHSNDs, and (5) services at public health facilities. In addition to their responsibilities as community educators, AFCs disseminate the IVRS phone number to community members. Community members who call receive an automated callback from the system at no cost to them. Once callers are connected to the system, they may listen to the learning modules or skip to a survey that asks for feedback on health services received (see Program Component 3 below).

- 3. Collect community feedback on health services.** As mentioned, under the NHM, community feedback is collected through a paper-based community enquiry process that involves conducting interviews and FGDs with health providers and community members. This process is usually conducted by block-level NGO partners in collaboration with the VHSNCs (or VPMCs in earlier phases of PFI implementation). The IVRS platform, which was introduced under Phase 3 of PFI's CBM implementation and is also being used in Phase 4, is meant to streamline and simplify the enquiry process and to increase community engagement in CBM. In addition to the IVRS learning modules described above, callers are asked to respond to a brief survey about their recent experiences in seeking RH/MH and child health services at VHSNDs, HSCs, and PHCs. In addition, community members can share specific feedback by leaving a message. Unlike the paper-based process, in which VPMC or VHSNC members sought feedback from specific types of clients (such as pregnant women or couples seeking FP services), the IVRS-based process is not limited to collecting feedback from specific community members; although the program focuses on seeking feedback from women accessing RH/MH services, any community member who recently sought health services is able to call the IVRS number and provide feedback.
- 4. Report on community feedback.** Under the NHM's CBM model, block-level NGO partners and VHSNCs compile community feedback data into biannual *Gram Panchayat*- and facility-level report cards. These report cards summarize information on the availability and quality of health services at different levels and are made available to all planning and monitoring committees and health facilities. At the village level, committees discuss the findings at a meeting with community members; at the block and district levels, the findings are presented to BPMC and DPMC members by VHSNC members or NGO partners. The findings are also shared with the general public at block-level *Jan Samwads*, during which community members also report on their own health care experiences. These reports are made before a panel of health officials, providers, and other stakeholders from the local, block, and district levels who discuss how the issues in question will be resolved. Based on experience from Phase 3, when health officials and community members reported that *Jan Samwads* could often be lengthy and somewhat adversarial, NGO partners are now taking a more active role in streamlining and prioritizing the issues to be raised on the *Jan Samwads* and moderating the conversation to ensure that it is collaborative and productive.

As noted, under PFI's CBM implementation, NGO partner staff support the community feedback process by helping VHSNC members (and formerly VPMC members) to compile report cards based on the IVRS data. Much of this compilation has become automated with the introduction of IVRS in Phase 3, but throughout Phases 3 and 4, NGO partners and VHSNC members in some communities have continued to work together to compile report cards manually based on feedback collected through community meetings and one-on-one conversations. NGO partner staff also meet with BPMC and DPMC members to discuss the report cards, facilitate the BPMC's use of the IVRS dashboard to review community feedback data in real time, and help convene biannual *Jan Samwads*

at the block level. In some blocks, VHSNC members will also occasionally attend weekly block-level meetings of ANMs and PHC staff to deliver additional community feedback.

- 5. Engage in dialogue to promote corrective action.** The overall goal of the NHM’s CBM process is to ensure greater responsiveness of the health service delivery system to local needs, as identified through community monitoring and feedback. To achieve this goal, the NHM empowers planning and monitoring committees to use CBM data to develop action plans and use untied funds at each level of the health system to address local health issues. Issues that cannot be resolved at the committee’s level are passed on to the next level of the health system.

Under PFI’s CBM implementation, NGO partner staff facilitate the use of CBM data to inform health planning and advocacy at all levels of the system through regular meetings with VHSNC, BPMC, and DPMC members. Issues that cannot be resolved at the BPMC and DPMC levels are raised to the state level by PFI through its broader work as the state nodal agency.

Implementation of project activities since baseline

In Table 1.1, we summarize CBM activities that have taken place in the original four Phase 3 blocks under Phases 3 and 4 since completion of baseline data collection.

Table 1.1. Implementation status in study blocks since baseline data collection in mid-2017

CBM component	Phase 3 (ACA project, late 2017 – end 2018)	Phase 4 (CBMS project, 2019)
1. Form and support planning and monitoring committees	<ul style="list-style-type: none"> VPMCs received continued support from PFI’s NGO partners, met regularly, and collected feedback on availability and quality of health services in their communities. Seven to eight BPMC meetings held per block. Two DPMC meetings held in Nawada. 	<ul style="list-style-type: none"> VHSNCs at <i>Gram Panchayat</i> level constituted (or activated) and trained in early 2019. ASHA Facilitators and BCMs in all project blocks trained in early 2019. BPMCs and Nawada DPMC received updates on Phase 4 implementation and continued to meet regularly. Darbhanga DPMC constituted in September 2019 and met once.
2. Build community awareness	<ul style="list-style-type: none"> AFCs continued operating. Youth clubs continued operating. VPMC members and AFCs continued distributing IVRS number. 	<ul style="list-style-type: none"> New AFCs trained and recruited in 644 villages in early 2019. All AFCs in 848 project villages received refresher training in mid-2019. VHSNC members and AFCs continued distributing IVRS number.
3. Collect community feedback	<ul style="list-style-type: none"> Two rounds of feedback collected via IVRS in each block. 	<ul style="list-style-type: none"> At least one round of feedback collected via IVRS.
4. Report on community feedback	<ul style="list-style-type: none"> Two <i>Jan Samwads</i> held in each project block (Spring 2018 and summer/fall 2018). 	<ul style="list-style-type: none"> One <i>Jan Samwad</i> held in each Phase 3 project block.
5. Engage in dialogue to promote corrective action	<ul style="list-style-type: none"> <i>Jan Samwad</i> findings and additional ad hoc feedback shared with higher-level officials to initiate district- and state-level quality improvements. 	<ul style="list-style-type: none"> No activity yet.

2. EVALUATION APPROACH

A. Evaluation objectives and design

The objectives of this evaluation are (1) to assess and document PFI's CBM processes, successes, and challenges, with the aim of guiding scale-up and institutionalization of CBM in Bihar and (2) to generate evidence on the effects of PFI's Phase 3/4 approach to CBM on targeted outcomes. More specifically, the evaluation seeks to answer the following research questions:

1. What learnings from PFI's project implementation can be used to inform, strengthen, and potentially scale up CBM processes in Bihar?
2. To what extent and how has PFI's approach to CBM empowered communities to participate in the CBM process?
3. To what extent has PFI's approach to CBM contributed to improvements in the availability, quality, and use of RH/MH services?

We used a mixed-methods approach to the evaluation, which included two interrelated studies:

- **Process study.** The process study was designed to generate evidence that can be used to determine the potential benefits of and best approach to sustaining, scaling up, and institutionalizing CBM activities implemented during Phases 3 and 4 (research question 1). It examined the extent to which and how CBM activities were being implemented and institutionalized in blocks and villages with different histories of CBM implementation, as well as how implementation changed in the transition from Phase 3 to Phase 4. The process study included all four Phase 3 implementation blocks and a mix of villages that did and did not participate in Phases 1 and 2 of PFI's CBM implementation ("old" and "new" villages, respectively). By the time of the endline, all study villages had transitioned to Phase 4. In study areas, in-depth qualitative data were collected from a range of stakeholders at two time points: June/July 2017 and December 2019 through February 2020. Data were used to identify which aspects of the CBM process are working well and why; which aspects of the CBM process are not working well and why; the extent of community engagement in CBM processes; and key factors that will likely affect the effectiveness, sustainability, and institutionalization of CBM over time.
- **Outcomes study.** The outcomes study assessed the contribution of PFI's CBM approach to changes in key intermediate and longer-term outcomes (research questions 2 and 3). It was restricted to the 21 "new" Phase 3 villages in Baheri block, where delayed implementation allowed us to collect baseline data soon after the introduction of Phase 3 activities.⁶ The outcomes study focuses on three broad domains: (1) community awareness of and participation in CBM processes, (2) the availability and quality of RH/MH services, and (3) knowledge, perceptions, and use of RH/MH. To measure changes in outcomes, two rounds of quantitative data were collected through surveys of women of reproductive age (WRA) and service delivery assessments (SDA) at VHSNDs, HSCs, and PHCs. This quantitative data collection occurred at roughly the same time points as the qualitative data collection (June/July 2017 and December 2019 – February 2020).

⁶ Of the 81 "new" villages covered by Phase 3, 21 are located in Baheri and covered by the outcomes study.

B. Data collection and analysis

Sambodhi Research and Communications, in consultation with Mathematica, led baseline data collection in June/July 2017 and endline data collection between December 2019 and February 2020. An Institutional Review Board reviewed and approved the study protocol and data collection instruments in New Delhi in May 2018 and again in December 2019. At the start of each round of data collection, Sambodhi piloted the instruments and further refined them based on learnings from the pilot.

Below, we describe our approach to sampling, data collection, and data analysis for the process and outcomes study components.

Process study: data sources and analysis approach

At baseline and endline, we collected qualitative data for the process study in all four Phase 3 blocks across the two intervention districts and in a total of 12 (old and new) villages. Baseline data collection included (1) FGDs with VPMCs in each selected village; (2) group interviews with PFI and block-level NGO partner staff; and (3) in-depth interviews with block- and district-level health officials, including the medical officer in charge (MOIC) and block program manager (BPM) in each of the four intervention blocks and the civil surgeon (CS) and district program manager (DPM) in the two intervention districts. For the FGDs with VPMCs, we purposively selected a mix of old and new villages with high- and low-performing VPMCs. These selections were based on PFI's assessment of how frequently VPMCs meet and how well they have identified service delivery needs.

At endline, we conducted in-depth interviews with the same NGO partners and health officials that were interviewed at baseline. To examine the transition from Phase 3 to Phase 4 activities and better understand the involvement of VHSNCs under Phase 4, we also conducted FGDs with the same 12 VPMCs that were interviewed at baseline. In addition, we conducted FGDs with two VHSNCs per block (eight FGDs total). In each block, we conducted one FGD with a VHSNC in a *Gram Panchayat* to which a VPMC in our sample belonged and one FGD with a VHSNC in an area where PFI had not created or supported any VPMCs in Phase 3. We also purposively selected VHSNCs to ensure a mix of high- and low-performing VHSNCs. This selection was based on the frequency of the VHSNCs' meetings, number of regular participants, and utilization of any untied funds. We also conducted FGDs with ASHA Facilitators and individual interviews with BCMs in each intervention block at follow-up. In addition to interviews with the same block- and district-level officials targeted at baseline, we also interviewed a member of the State Health Society in Bihar who works closely with PFI. In Table 2.2, we provide a summary of the endline qualitative study sample.

All interviews and FGDs were conducted in Hindi; the interviews and FGDs were then transcribed and translated into English for analysis. Transcripts were coded in NVivo based on a coding scheme designed to capture information about how CBM activities are being implemented, key roles and responsibilities of program participants, perceptions of the effectiveness and value of CBM, contextual factors influencing CBM activities, and perceptions about the CBM approach's prospects for sustainability and scale-up. Detailed summaries were produced for each code, allowing for an in-depth examination of common responses, any unusual or outlying responses, and similarities or differences by study block or respondent type. We triangulated these findings with program materials and insights from Delhi- and Patna-based PFI staff to surface (1) findings related to CBM implementation across the four study blocks,

(2) community participation in and enthusiasm for CBM, and (3) the potential for scaling up PFI's CBM approaches to additional blocks or districts in Bihar.

Table 2.1. Process study: Endline data sources

Block	VPMC FGDs	VHSNC FGDs [Endline only]	ASHA facilitators [Endline only]	NGO partner interviews	Block-level interviews	District-level interviews	State-level interviews
Rajauli	2 new, high-performing; 1 old, low-performing	1 high-performing; 1 connected to low-performing VPMC	Group interview with ASHA facilitators	Group interview with NGO head and cluster coordinators	Group interview with MOIC and BPM Individual interview with BCM [new]	Interview with Nawada CS and DPM	Interview with Bihar State Health Society member
Kawakol	1 old, high-performing; 1 old, low-performing; 1 new, high-performing	1 low-performing; 1 connected to high-performing VPMC	Group interview with ASHA facilitators	Group interview with NGO head and cluster coordinators	Group interview with MOIC and BPM Individual interview with BCM [new]		
Singhwara	1 new, high-performing; 2 old, high-performing	1 low-performing; 1 connected to high-performing VPMC	Group interview with ASHA facilitators	Group interview with NGO head and cluster coordinators	Group interview with MOIC and BPM Individual interview with BCM [new]	Interview with Darbhanga CS and DPM	
Baheri	1 old, high-performing; 1 new, high-performing; 1 new, low-performing	1 low-performing; 1 connected to high-performing VPMC	Group interview with ASHA facilitators	Group interview with NGO head and cluster coordinators	Group interview with MOIC and BPM Individual interview with BCM [new]		

Notes: VPMC and VHSNC performance was based on PFI's assessment along key dimensions, such as frequency of meetings and number of health issues resolved.
In each block, a group of 7-8 ASHA facilitators were randomly selected for the group interview (out of a total of 15-20 per block).

Outcomes study: Data sources

In Table 2.3, we provide an overview of the two primary data sources for the outcomes study in Baheri block: (1) a survey of WRA and (2) SDAs at targeted service delivery points, including VHSNDs, HSCs, and the block-level PHC. The WRA surveys and SDAs were conducted both at baseline and at follow-up. Below, we describe the target population, sampling approach, and sample sizes for each data source.

Table 2.3. Outcomes study data sources, target population, and key outcome domains

Data source	Target population	Key outcome domains
Survey of WRA	<ul style="list-style-type: none"> Pregnant women Women who have given birth in the previous 12 months 	<ul style="list-style-type: none"> Community participation in and perceptions of CBM Knowledge and awareness of RH/MH entitlements and services Receipt, use, and perceptions of RH/MH services
SDAs	<ul style="list-style-type: none"> VHSNDs HSCs Baheri PHC 	<ul style="list-style-type: none"> Ability to provide key RH/MH services Quality of RH/MH services Uptake of services

- **Survey of WRA.** The target population for the WRA survey was women who were either pregnant at the time of the survey or had given birth in the previous 12 months, as they are the population most likely to seek RH/MH services during the project period and are the main target of AFC activities.

Because there was no readily available sample frame identifying pregnant women and women who had given birth in the previous 12 months, we conducted a baseline household listing in all 21 outcomes study villages⁷ to identify households with women eligible for the survey.⁸ Because the women who were eligible for this survey at baseline would not necessarily also be eligible at endline, we conducted a separate listing exercise at follow-up, following the same procedures used at baseline. If there were multiple eligible women in the household, we randomly selected one woman. To obtain a representative sample of targeted WRA, we randomly selected (from the list of households with eligible women) 13 pregnant women and 25 women who had recently given birth. If a village did not have enough eligible women in either category to meet this number, we sampled all eligible women in that category in the village.

Although we were able to collect WRA survey data from all 21 targeted villages at baseline, unrest due to nationwide protests prevented us from being able to collect survey data from five villages at endline. Our analyses thus focus on the 16 villages where both baseline and endline data were collected.⁹ In the 16 villages where we were able to collect data at baseline and follow-up, response rates were high (96 to 97 percent) at both baseline and endline (Table 2.2).

Table 2.2 WRA survey response rates

Category	BASELINE			ENDLINE		
	Number sampled	Number interviewed	Response rate	Number sampled	Number interviewed	Response Rate
Pregnant	208	189	91%	224	214	96%
Gave birth in last year	383	358	93%	364	354	97%
Total	591	547	93%	588	568	97%

Source: Baseline and endline WRA surveys, June/July 2017 and December 2019 – February 2020.

Note: Baseline and endline response rates are calculated only among the 16 villages for which both baseline and endline data were available.

⁷ Eight villages were expected to be very large based on census data. The data collection team divided these villages into roughly equal-sized segments and conducted the listing and WRA survey in only a subset of segments that was expected to yield a sufficient number of eligible women based on census data.

⁸ Women were considered eligible for the survey if they were age 18 or older and if they were currently pregnant or had given birth in the last 12 months. Women who were currently pregnant and had given birth in the last 12 months were considered pregnant for purposes of sampling and administering the survey.

⁹ The five villages in which we could not collect endline data were similar to the other 16 villages in terms of sociodemographic characteristics at baseline.

Baseline and endline WRA survey respondents were largely similar, but respondents in the endline WRA survey were younger, more educated, more likely to be literate, and less likely to have a spouse that is employed.¹⁰ The average woman in the baseline sample was about 24 years old, while the average woman in the endline sample was 23 years old (Table 2.3). At both time points, the vast majority of survey respondents were Hindu, with a sizeable portion belonging to a scheduled caste or tribe (35 percent at baseline and 43 percent at follow-up). More than half of baseline respondents had never attended school, compared with only 40 percent of endline respondents. Similarly, only 40 percent of baseline respondents said they could read or write, compared with 54 percent of endline respondents. Many more women were engaged in paid work at baseline (10 percent) than at endline (2.5 percent). Almost all respondents were married at both time points, and the average age at marriage for both populations was about 18. At both time points, about two-thirds of women reported that their household had a Below Poverty Line (BPL) card.

Table 2.3 Demographic information (percentages unless otherwise indicated)

	Baseline sample	Endline sample	Baseline mean	Endline mean	Difference
Age (years)	547	568	24.6	23.8	-0.8**
Hindu	547	568	93.5	98.0	3.9***
Scheduled Caste/scheduled tribe ^a	547	568	35.4	42.5	3.0
Education and literacy					
Never attended school	547	568	55.2	40.3	-14.6***
Years of schooling (years)	534	521	3.5	4.9	1.4***
Literate: can read and write	547	568	40.9	53.9	12.1***
Engaged in paid work in 12 months	547	568	10.0	2.5	-8.8***
Marital status and spouse characteristics					
Currently married	547	568	99.4	99.9	0.7
Age at the time of first marriage (years)	547	568	18.3	18.3	-0.0
Spouse never attended school	544	567	28.9	22.8	-5.4
Spouse has been employed in past 12 months	544	567	96.8	98.8	2.8*
Household has a BPL card	547	568	70.4	66.9	-4.3
Children and pregnancies					
Pregnant	547	568	43.3	43.2	-0.6
Current/most recent pregnancy was unintended	547	568	4.0	9.0	4.7**
Wanted to have baby later	547	568	2.8	8.1	4.8**
Did not want more children	547	568	1.2	0.9	-0.0
Months since last child was born	499	478	13.2	13.9	0.3
Total number of children	189	214	5.4	5.3	-0.1
Number of months pregnant ^b (%)	547	568	1.8	1.6	-0.2*
Wealth Index					
< 20th percentile	547	568	19.8	22.6	3.0
20th - 40th percentile	547	568	20.2	22.1	0.4
40th - 60th percentile	547	568	20.0	14.4	-4.8
60th - 80th percentile	547	568	19.8	18.4	-1.7
> 80th percentile	547	568	20.1	22.5	3.1

Source: Baseline and follow-up WRA surveys, June/July 2017 and December 2019 – February 2020.

Notes:

^a Based on self-reported scheduled caste/scheduled tribe status.

^b Among women who are currently pregnant.

*/**/** Significantly different from zero at the .05/.01/.001 level, two-tailed test.

¹⁰ We examined whether baseline respondents in the 16 villages included in the follow-up were demographically similar to those in the 5 villages that were not included in the endline. We found that respondents were largely similar across all demographics, suggesting that there was nothing systematically different about the 5 villages that could not be surveyed at endline.

- **SDAs.** The SDAs focused on specific service delivery points targeted by the CBM process: VHSNDs, HSCs, and the Baheri PHC. The SDAs involved reviewing records at these service delivery points, interviewing key staff (the ANM at VHSNDs and HSCs, and the MOIC at the PHC), and observing the availability and condition of key equipment and supplies. In addition, at VHSNDs and HSCs, we observed the provision of targeted RH/MH services, such as tetanus toxoid (TT) injections and abdominal examinations for pregnant women. We sought to conduct assessments at every service delivery point that serves the communities covered by the WRA survey: VHSNDs in all 21 targeted villages, as well as the five HSCs and one PHC that serve these villages.

The baseline assessment covered all five HSCs and the Baheri PHC (Table 2.6). However, VHSNDs were held in only 11 of the 21 targeted villages in Baheri during the baseline data collection period; heavy rains and flooding prevented VHSNDs from being held in 10 villages. We assessed VHSNDs in all 11 villages that held a VHSND during the baseline data collection period. At endline, we were able to conduct assessments at the Baheri PHC and at four of the five HSCs assessed at baseline. The fifth HSC was not operational during the endline data collection period because the ANM in charge was unavailable. VHSNDs were held in 20 of the 21 targeted villages during the endline data collection period, and assessments were conducted at all 20 of these VHSNDs, including the 11 VHSNDs assessed at baseline.

Table 2.6 SDA baseline and follow-up samples

Service delivery point	Baseline		Endline	
	Number targeted	Number assessed	Number targeted	Number assessed
VHSND	21	11	21	20
HSC	5	5	5	4
PHC	1	1	1	1

Source: Baseline and follow-up SDAs, June/July 2017 and December 2019 – February 2020.

Outcomes study: Analysis approach

We conducted pre-post analyses to understand changes in key outcomes in the WRA and SDA data between the two data collection timepoints. For the analysis of WRA data, we used a regression framework to estimate the difference between outcomes at baseline and endline. This approach enabled us to increase the precision of our estimates and control for any differences in the WRA sample between baseline and endline. We included controls for key demographic and other individual-level variables, such as the respondent’s religion, membership in a scheduled caste or tribe, age, literacy, education level, marital status, spouse’s education, number of living children, and ownership of a BPL card, as well as whether the respondent was pregnant at the time of the survey. We also controlled for household wealth, using a composite measure of the household’s living standard.¹¹ We used village-level fixed effects and applied analytic weights to these analyses to account for sampling and nonresponse.¹² As mentioned earlier, we used only WRA survey data collected from the 16 villages where both baseline and endline data were collected.

¹¹ We constructed a composite wealth index utilizing the same approach applied by the Demographic and Health Surveys, and categorized each respondent into a wealth quintile depending on her household’s wealth relative to the baseline sample.

¹² We use household-level weights for these findings. Given that the vast majority of women in the sample came from households that included only one eligible woman, the household-level weights are equivalent to woman-level weights in most cases.

For the analysis of SDA data, we calculated differences in mean outcomes between baseline and endline, by service delivery point.¹³ Because we sought to assess all service delivery points in Baheri, and because of the small number of service delivery points assessed, we did not apply any sampling weights, adjust our analyses for any facility- or community-level characteristics, or assess the statistical significance of the observed changes in outcomes.

Where possible, we triangulated quantitative results with the qualitative findings from Baheri block to provide further insight into the outcomes study findings.

¹³ As mentioned, we were able to collect data from more targeted VHSNDs at endline than at baseline. We used data from all VHSNDs at both time points to calculate these differences. In addition, as a robustness check, we examined differences in outcomes among only the 11 VHSNDs conducted in villages where both baseline and endline data were available. The results were largely similar.

3. PROCESS STUDY FINDINGS

In this chapter, we examine Phase 3 and 4 CBM processes in the four study blocks (summarized in Figure 3.1). We present findings on implementation of specific CBM activities, followed by findings related to the institutionalization and sustainability of PFI's CBM approach.

Figure 3.1. Key process study findings

INSTITUTING PLANNING AND MONITORING COMMITTEES	<ul style="list-style-type: none">• VPMCs continued to function in all study communities, despite the shift away from them in Phase 4, and continued to play a role that was separate from and complementary to <i>Gram Panchayat</i>-level VHSNCs.• ASHA Facilitators play a key role in ensuring that VHSNCs are functional, in addition to their duties as mentors to ASHAs and, in some cases, as ASHAs themselves.• VPMCs, VHSNCs, and ASHA Facilitators all saw building community awareness as a key component of their role in CBM, and AFCs were willing to engage in this activity even though it increased their normal workloads.• VPMCs and VHSNCs reported that community members' willingness to provide feedback increased over time, as evidenced by the greater frequency of informal feedback they receive, as well as the increase in IVRS use among WRA survey respondents, and noted that IVRS had greatly simplified the process.• IVRS has also simplified the process of report card generation; data collected via IVRS is now automatically collated for use in report cards.• Jan Samwads are occurring regularly, but continue to be a contentious process. In spite of this, BPMC members state that IVRS data and Jan Samwads are their two most valuable sources of information for health planning.• Most VHSNCs could cite at least one example of using untied funds to resolve issues and generally believed that funds were accessible when needed.• VPMCs, VHSNCs, ASHA Facilitators, and BCMs believed that many of the issues surfaced through CBM could be resolved by VHSNCs at the <i>Gram Panchayat</i> level, and that VHSNCs could successfully leverage NGO partners and higher-level officials for additional support when needed.• VPMCs and VHSNCs each perform critical functions that the other cannot take on; unless and until this gap is addressed (through the creation of village-level VHSNCs or otherwise), both committees will likely be needed to ensure that CBM is successful.• PFI's CBM implementation is aligned with the NHM's guidelines – which may help pave the way for further scale-up and institutionalization.• Consistent with the perspectives voiced at baseline, most stakeholders envision a long-term role for PFI and/or NGO partners in CBM processes.
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A. CBM Implementation

Instituting and supporting planning and monitoring committees

VPMCs continued to function in all study communities despite PFI's shift away from them in 2019, with the role of VPMCs described as distinct from and complementary to VHSNCs. All 12 VPMCs

targeted for the study reported that they had continued to meet regularly in the time since baseline data collection despite PFI's shift in focus to VHSNCs. All VPMCs also said that they continued to share information about health services and entitlements with community members either through community gatherings or one-on-one meetings. Several VPMCs also mentioned meeting with their former cluster coordinators, suggesting that—although PFI and NGO partners have officially discontinued their support of VPMCs—some individual cluster coordinators have been able to maintain a relationship with and

provide limited, ad hoc support to VPMCs. NGO partners largely corroborated this finding: while most cluster coordinators stated that some VPMCs under their purview had stopped meeting and that VHSNCs had been able to take over much of the CBM duties that had previously belonged to VPMCs in these cases, some cluster coordinators reported that they had a duty to continue to provide some mentorship and guidance to the VPMCs that had continued to meet.

All VPMCs reported that their *Gram Panchayat* had a functioning VHSNC. Similarly, six of the eight study VHSNCs reported having VPMCs in their constituent villages; the two VHSNCs who reported having no VPMCs were in areas where PFI had not previously created VPMCs. There was significant overlap between VPMC and VHSNC membership, with most VPMCs reporting that two to five of their members also sat on their *Gram Panchayat's* VHSNC. This account was consistent with VHSNCs' reports that they had adequate village-level representation and was by design—PFI and NGO partner staff reported working to ensure that there was significant overlap between VPMCs and VHSNCs when they began working with VHSNCs under Phase 4, with the expectation that this overlap would ease the eventual statewide transition to village-level VHSNCs. However, most members of both committees believed that the overlap in membership was not sufficient for ensuring that the most local-level concerns about the availability or quality of health services were acknowledged and addressed; most believed that there was value in maintaining both types of committees, at least until VHSNCs are established at the village level in Bihar. Both VPMC and VHSNC members drew a clear distinction between their CBM-specific roles and responsibilities: VPMC members were focused on disseminating information about health services and entitlements, as well as understanding and documenting highly localized, village-specific information about the availability and quality of services, while VHSNCs indicated that they held responsibility for collecting feedback at the *Gram Panchayat* level through a combination of community meetings, visits to VHSNDs, and reports from VPMCs; deciding how to use untied funds; and forwarding community feedback to higher levels. When VHSNCs are created at the village level, the expectation is that they will assume the current responsibilities of the VPMCs.

VHSNCs have been meeting regularly since they were oriented to PFI's Phase 4 approach and trained in early 2019. VHSNC members described a consistent process for forming their committees. The process began with a cluster coordinator convening key community leaders such as ANMs, ASHAs, AWWs, and elected representatives, who in turn invited others from their villages to consider joining the VHSNC. The

"The VPMCs look after the issues of their respective villages and inform VHSNCs about them. Because they don't have any funds, they can't resolve some issues. Those are escalated to the VHSNCs."

—VHSNC member

cluster coordinator explained the purpose of the VHSNC, and elections were held to select a final committee of about 15 members. VHSNC members received a brief training on the health system, their roles and responsibilities, CBM processes and tools (including IVRS), and RH/MH health services and entitlements.

Since their introduction in Phase 4, ASHA Facilitators have quickly become a critical support for VHSNCs. ASHA Facilitators see themselves as critical to the successful functioning of VHSNCs and, thus, the entire CBM process. Most reported that the individual ASHAs they supervise play a key role in ensuring that VHSNCs meet regularly¹⁴ and following up on the information they receive to improve the quality of health services, as well as in ensuring that ANMs are held accountable for attending monthly VHSNDs as mandated by the NHM. Thus, ASHA Facilitators believe that it is their responsibility to provide strong supervision and mentorship to ensure that their ASHAs are equipped to play this role. Specifically, ASHA Facilitators reported being in frequent contact with ASHAs to confirm that they attended monthly VHSNC meetings and VHSNDs. ASHA Facilitators also reported taking primarily responsibility for organizing and facilitating VHSNC meetings, collecting community feedback on health services, and occasionally supporting individual ASHAs and other VHSNC members to collate feedback and integrate it into report cards in cases where these report cards are still compiled manually. Although ASHA Facilitators were hesitant to say explicitly that they were critical to their VHSNCs' successful functioning, many indicated that VHSNCs would likely not function without their support. BCMs largely agreed with this view, stating that ASHA Facilitators played a critical role in understanding village- and

Gram Panchayat-level issues and ensuring that these issues were appropriately raised with block-level health officials. Few VHSNC members explicitly called out the importance of

ASHA Facilitators to their committees' functioning, but ASHAs who sat on the VHSNCs were typically among the most vocal and informed members of each VHSNC focus group—which may indirectly reflect the value of the mentorship provided by ASHA Facilitators.

"If the ASHA won't participate in a VHSNC meeting, the meeting won't take place. And if we don't go, then the ASHAs also don't want to go."

"Today, VHSNDs only happen because of the ASHA Facilitator and her ASHAs."

— ASHA Facilitators

ASHA Facilitators have been playing many roles and risk becoming overburdened. According to NHM guidelines, ASHA Facilitators are selected from among the ASHAs in a given geographic area. Once they become ASHA Facilitators, they are tasked with providing mentorship and support to ASHAs, but they are no longer supposed to perform ASHA duties themselves. In reality, many ASHA Facilitators reported that they were still performing the work of individual ASHAs in addition to their facilitator-specific responsibilities because there are vacant ASHA posts within their jurisdiction. Under Phase 4, ASHA Facilitators in PFI project areas have also received training on CBM processes and tools, their role in supporting VHSNCs, and RH/MH services and entitlements. Although ASHA Facilitators believe that their roles and responsibilities under PFI's CBM approach were largely consistent with their more general roles and responsibilities and that involvement in PFI's CBM implementation did not add significantly to their workload, they still reported feeling overburdened.

These ASHA Facilitators reported feeling overwhelmed by their work, concerned that no other health workers or officials held as much responsibility or cared as much for their communities as they do. One BCM suggested that with all of the responsibilities they hold, some ASHA Facilitators

"I still must perform the duties of an ASHA despite receiving a letter saying I do not need to. I must do it because circumstances are so dire here. Many ASHA posts are vacant in my Panchayat."

—ASHA Facilitator

¹⁴Per NHM guidelines, ASHAs are designated as the Member Secretary of VHSNCs and hold responsibility for organizing VHSNC meetings.

may be at risk of burnout, which would limit their long-term ability to provide support to VHSNCs.

Building community awareness

VPMCs, VHSNCs, and ASHA Facilitators all reported that building community awareness was a key part of their role; VPMC members often said this was their main job. All VPMCs, VHSNCs, and

ASHA Facilitators emphasized that a major part of their role under the NHM’s CBM blueprint generally, and under the PFI’s CBM approach specifically, was to build community awareness around available RH/MH services, the benefits of using these services, and people’s specific services and entitlements related to these services. VPMC members were particularly emphatic about this point. Perhaps because they hold little power to resolve issues themselves, these committees tended to focus much of their energy on ensuring that their community members were aware of the services available to them.

Awareness-building activities were not limited to AFCs, whose primary role under PFI’s CBM approach is to disseminate RH/MH information in their communities and who receive a dedicated multi-day training to prepare them for this work. Many VPMC members, even those who were not trained as AFCs, reported going door-to-door or holding individual meetings with women in their communities to inform them about available RH/MH services. VPMCs, VHSNCs, and ASHA Facilitators also frequently stated that a key component of their awareness-building duties was disseminating the IVRS number and encouraging community members to call it to obtain detailed information about RH/MH services.

AFCs noted that their duties under PFI’s CBM approach place an increased burden on already high workloads, but they generally felt that the increased effort was worthwhile. Similar to their

responses during baseline FGDs, AFCs embedded within VPMCs universally stated that their role as AFCs created a relatively small but still meaningful increase in their day-to-day job responsibilities. Many AFCs expressed a willingness to continue to play this role because they take pride in being able to ensure that their community members had accurate and up-to-date information about RH/MH services and entitlements. Some AFCs also suggested that bringing together multiple cadres as AFCs (AWWs, ASHAs,

and elected representatives from a single community) allowed for a degree of communication and collaboration that had historically been difficult to achieve and that helped them streamline some of their duties. For example, they could collectively track who had visited which households and what RH/MH needs specific women in their community might have.

“Before AFCs were created, the ASHA, AWW, and ward member all used to work individually. Now, we are all working together – there is more coordination and cooperation.”

—AFC

Collecting feedback

Community participation in feedback processes has improved. In Phases 3 and 4 of PFI’s CBM approach, VPMCs and VHSNCs have focused their efforts to collect community feedback on community members themselves, rather than on monitoring visits to

VHSNDs or HSCs. VPMC and VHSNC members unanimously reported that members of their communities have become much more willing to participate in the feedback process throughout Phases 3 and 4. Most reported that community members were initially hesitant to discuss RH/MH services; even if women themselves were willing to discuss these services, their husbands or other family

“Initially, villagers thought that we were making money by going to their houses [...] They used to chase us away. But we kept talking with them and providing information. We kept telling them that these services are made for them and we need their feedback. Now they don’t consider talking to us a waste of time.”

—VPMC member

members often prevented them from doing so. These barriers made it difficult for VPMC and VHSNC members to build community awareness and to collect feedback on community members' experiences with RH/MH services. Over time, through a combination of regular community-wide meetings, door-to-door visits, and public information campaigns, VPMCs and VHSNCs reported being able to speak more freely with women in their communities and collect feedback from a wide range of community members. Members of most VPMCs and VHSNCs could point to at least one example of a community member proactively seeking them out to deliver feedback on RH/MH services—a notable change from baseline, when VPMC members indicated that community engagement was limited and very few WRA survey respondents in Baheri reported participating in the community enquiry process.

Despite some technical challenges, IVRS is viewed favorably by VPMC and VHSNC members and the IVRS number is being distributed widely.

Consistent with findings from the baseline, VPMC and VHSNC members reported that IVRS has greatly simplified the process of collecting and reporting on feedback. Members of both VPMCs and VHSNCs reported that disseminating the IVRS number to community members was a key component of their role in the CBM process, both for the purpose of providing a source of accurate information about RH/MH services and for collecting community feedback. Many VPMC and VHSNC members themselves reported calling the IVRS number to refresh their memories on specific RH/MH services or entitlements. VPMC and VHSNC members provided very little critical feedback about IVRS; in contrast to the baseline, these respondents very rarely reported any specific challenges or drawbacks to using the system. Most believed that community members found the system easy to use and trusted it as the main way to deliver feedback on RH/MH services. Some VPMC and VHSNC members shared specific cases when community members had trouble responding to IVRS questions or understanding the system's instructions, but these incidents were described as isolated and relatively uncommon.

VPMC and VHSNC members emphasized that, while the bulk of the community feedback and reporting process was conducted via IVRS, they still believed it was important to collect feedback through regular community meetings, ad hoc conversations with individual community members, and direct observations of service provision at VHSNDs. Some VHSNC members reported that the existence of IVRS facilitates some of these other feedback collection activities. For example, when members receive informal feedback from community members about RH/MH services, they will pause the conversation at times and ask the community member to provide this feedback through IVRS.

Reporting on feedback

In most communities, generation of report cards is now a largely automated process that requires less time investment from all parties; however, there is still variation in the roles that VPMCs, VHSNCs, and NGO partners play in this process. The IVRS system allows for near-automatic aggregation of IVRS data from specific service delivery points and communities, greatly streamlining the process of summarizing community feedback into report cards and reducing the amount of work required to produce them. While most VPMCs, VHSNCs, and NGO partners reported that the aggregation of IVRS data greatly simplified the report card generation process overall, some noted that they have continued to aggregate data manually, which allows them to incorporate their own impressions of the availability and quality of services based on their meetings and one-on-one conversations with community members. Regardless of the specific approach that each *Gram Panchayat* took to report card generation, while there was general agreement among all respondents that the duty of

generating report cards was shared by VPMCs, VHSNCs, and NGO partners, there was a great deal of variation in the specific roles that each group played. Despite no longer receiving support from NGO partners under Phase 4, all but one VPMC reported that they had continued to produce village-level report cards (some independently and some with limited support from their cluster coordinators), even though village-level report cards were no longer expected or supported under Phase 4 of PFI's CBM approach. VHSNC members corroborated this: all VHSNCs that were connected to VPMCs reported that the report cards generated by VPMCs informed their *Gram Panchayat*-level report cards. No VPMCs or VHSNCs spoke in detail about generating facility-level report cards; their efforts tended to be focused on village- and *Gram Panchayat*-level report cards.

NGO partners reported a large reduction in the amount of time and effort they put into report card generation. At baseline, cluster coordinators described a lengthy and complex process by which they led the development of report cards, with input and support from VPMC members. Now, cluster coordinators universally noted that they typically play little role in report card generation because most *Gram Panchayats* have transitioned to

"When we used to prepare the report card, it used to take a lot of time. Now, with IVRS, it has become much easier. We can look at the data and validate it quickly, and we can generate a report card immediately."

—NGO partner

utilizing and sharing report cards that are automatically with aggregated IVRS data. However, members of some VPMCs and VHSNCs indicated that they still prefer to generate report cards manually, and therefore require some input from cluster coordinators to help manually synthesize and report on feedback collected via regular VHSNC meetings or one-on-one conversations with community members.

Jan Samwads are occurring regularly, but they are still largely viewed as contentious. All respondents in all four blocks noted that *Jan Samwads* are a critical component of the CBM process, and all stated that NGO partners were regularly holding *Jan Samwads* in their blocks. Block officials said that they took the *Jan Samwads* very seriously and truly tried to absorb and respond to all feedback presented. This attitude was reflected in VPMC and VHSNC members' belief that block officials treated these information-sharing events (and CBM data in general) with the respect and seriousness they deserved. Still, most respondents acknowledged that these events could be long and somewhat confrontational, and NGO partners highlighted the skillful moderation required to ensure that these meetings were productive and solution-oriented. While block-level officials were generally grateful for the detailed information emerging from *Jan Samwads*, some block and district officials believed that *Jan Samwads*

would be more constructive if the NGO partners moderating the events could provide officials with a preview of the data or stories to be covered at each event. Although many of these officials have access to the IVRS dashboards and receive report cards in advance, they do not always know which issues or stories are likely to be most salient in the *Jan Samwads*. With advanced notice, these officials felt that they would be better positioned to offer effective solutions.

"The [NGO partner staff] don't come to meet us until it is time for a Jan Samwad. If they could present the data to us a few days before the Jan Samwad happens, that would be more beneficial to us because we could take some actions in advance."

—Block official

Block and district officials say that IVRS data and information from Jan Samwads are their two most important sources of information for lower-level health planning. Block and district officials

did not describe a systematic decision-making process for health planning, but all officials said that the IVRS data presented to them by NGO partners and the *Jan Samwads* provided the most detailed and valuable biannual inputs into their planning and decision making. Several block and district officials were particularly impressed with the data visualizations in the IVRS dashboard and found them particularly valuable for identifying where to direct additional resources, determining where and to whom to provide more guidance, and planning their own supervisory visits. Some officials further noted that the *Jan Samwads* provide important context for IVRS data,

noting that the specific and detailed stories told by community members could often serve as motivation for improving the quality of health services. These officials also pointed out that moderation of these events by the NGO partners lent a feeling of objectivity and credibility to these stories because they had been vetted by a third party; block and district officials felt that the information was more trustworthy and deserved to be acted upon.

“During [DPMC meetings], we can access the IVRS dashboard. Through the dashboard, we identify gaps or poor indicators and then set targets or improvements. We do all of this planning based on the dashboard data.”

—District official

QUALITY IMPROVEMENT DIALOGUE AND ACTION

Most VHSNCs could point to at least one instance of using untied funds to resolve issues, and most said the funds were generally accessible when needed. PFI’s program data indicated that a

little more than half of all VHSNCs participating in Phase 4 had been able to access some untied funds by the time of endline data collection. VHSNCs in our sample seemed to fare better: seven of the eight interviewed VHSNCs reported that they had been able to access untied funds to resolve at least one issue in their *Gram Panchayat*. These funds were almost always used to purchase necessary equipment or supplies, such as chairs, log books, examination tables, and scales. One VHSNC also indicated that it had used untied funds to pay for the transportation of equipment from another location to their *Gram Panchayat*.

VHSNCs largely described a collaborative decision-making process whereby members would review IVRS data and informal feedback from community members to determine how best to use untied funds, but a small minority of VHSNC respondents stated that ANMs held ultimate decision-making authority because of their ability to access the funds. Most VHSNC members noted that the process of accessing these funds could be complicated, as both the ANM and a local elected representative must provide a signature in order to withdraw funds. Indeed, the VHSNC that was not able to access untied funds stated that they were prohibited from doing so because the ANM post in their *Gram Panchayat* was vacant and, thus, there was no appropriate signatory on the account. Only one ASHA Facilitator voiced concern that funds were potentially being misused by the ANM in one of her *Gram Panchayats*; no other respondents of any type shared any concerns about the funds being used inappropriately.

VPMCs, VHSNCs, ASHA Facilitators, and BCMs all agreed that many issues related to basic supplies, equipment, and service provision could be resolved at the Gram Panchayat level – and VHSNCs generally knew how to leverage NGO partners and higher-level officials for additional support when needed. Most respondents believed that the provision of untied funds at the

Gram Panchayat has been critical to the decentralization of health planning and monitoring, as it enables communities to resolve many of the most commonly cited barriers to delivering high-quality care: the

lack of basic, critical medicines, supplies, and equipment. All seven VHSNCs that had accessed untied funds could cite examples of having resolved these types of issues in their communities, including cases where they were able to obtain basic equipment for their VHSNDs and HSCs (such as exam tables, chairs, or blood pressure [BP] machines), procure additional family planning commodities, and make minor repairs to their HSC. Some VHSNC members also said that the CBM process is useful for identifying service delivery gaps—for example, villages where routine immunizations or core antenatal care (ANC) services are not being provided. VHSNCs reported being able to resolve many of these issues themselves by speaking with the ANM in charge.

In some cases, the issues raised by the CBM process could not be resolved by the VHSNC alone. In these cases, VHSNC members identified several other pathways to ensuring that these issues were addressed. For example, VHSNC members ensured that concerns about the availability of key medicines such as iron and folic acid (IFA) tablets were raised in block-level *Jan Samwads*

as a way of ensuring that block-level officials were aware of the issue. VHSNC members also noted that their NGO partners were valuable for lending a sense of urgency and importance to the requests that VHSNCs made. For example, VHSNCs mentioned that they often requested that their cluster coordinator sign on to a letter requesting new equipment or alerting higher-level officials to HR shortages.

“Previously there was no ANM here so immunizations were not provided regularly. All VHSNC members jointly wrote a letter that [the cluster coordinator] gave to the block level, and then an ANM was posted.”

—VHSNC member

B. Sustainability and scale-up

VPMCs and VHSNCs currently perform critical functions that the other cannot take on; unless and until this gap is addressed, both committees will likely be needed to ensure that CBM is successful. As mentioned, VPMCs play a critical role in collecting the most localized information about

health services and are best positioned to understand how these services reach the village level. However, only VHSNCs have the power to allocate untied funds to resolve issues that the VPMC surfaces. Even as PFI has sought to focus on the VHSNC as the primary local-level body in the CBM process, the continued organic functioning of VPMCs suggests that there is still a need for these village-level entities. Ultimately, implementing a statewide policy to convene VHSNCs at the village level, while maintaining their ability to access untied funds, may be the best way to reduce redundancies between the two groups and ensure local control of important health planning resources. While PFI staff seemed confident that this was likely to happen, the State Health Society official interviewed for this study expressed some confusion on this point. Specifically, this official noted that it seemed as though the official policies on the level at which VHSNCs should be constituted have changed frequently, and it has been challenging to push for a single, concrete, coherent policy establishing VHSNCs at the village level. This discrepancy suggests that this continues to be an unresolved issue with important implications for how CBM functions in the state.

Phases 3 and 4 of PFI’s CBM approach seem to be functioning in ways that are aligned with NHM guidelines, which may help pave the way for further scale-up and institutionalization. The NHM’s

CBM guidelines were developed by PFI in its role as the Secretariat of the ACGA; as such, it is not surprising that respondents of all types, including block and district health officials, reported little or no distinction between the CBM guidelines laid out by the NHM and PFI’s operationalization of these guidelines under Phases 3 and 4. All believed that PFI was simply ensuring that CBM activities were carried out according to the NHM’s blueprint. Block and district officials further noted that PFI played a

critical role in ensuring that CBM was carried out in their areas per the NHM mandate. Although PFI staff and NGO partners have highlighted important differences between the two (such as PFI's reliance on IVRS rather than paper-based community enquiries, their introduction of AFCs, and their focus on RH/MH services and entitlements), they largely agreed that the spirit of Phases 3 and 4 of PFI's CBM implementation have been well aligned with national CBM guidelines. PFI's program model is thus well positioned for wider adoption within Bihar.

VHSNCs showed confidence in being able to operate independently. All VHSNC members confirmed that ASHA Facilitators and NGO partners provided critical mentorship and guidance, especially when the VHSNCs were first created. Most VHSNC members reported feeling comfortable determining when to use untied funds to resolve an issue and when an issue required escalation to higher levels. They also reported feeling confident in their understanding of RH/MH services and entitlements and believed they could successfully continue to raise awareness about these topics in their communities with little or no outside support. While ASHA

Facilitators, BCMs, and NGO partners largely agreed that VHSNC members were capable and enthusiastic CBM participants, all believed that their success was dependent on the continued support of other actors—especially ASHA Facilitators and NGO partners. They believed that these actors play a critical role in ensuring that VHSNCs stay on track, meet regularly, and use untied funds appropriately.

“VHSNCs are very important. If their meetings are conducted regularly and their decisions are implemented properly, then gaps can be much improved. We cannot do all of that ourselves.”

—Block official

Consistent with the perspectives voiced at baseline, most stakeholders envision a long-term role for PFI and/or NGO partners. Respondents of all types praised the work of PFI and the NGO partners.

Although CBM actors have largely shown improved capacity to conduct CBM activities over the course of PFI's CBM implementation, they all believed that PFI and NGO partners are necessary for providing ongoing technical support, offering advice and mentorship where needed, and advocating for the use of CBM inputs to guide state-level planning and resource allocation. Respondents also noted that NGO partners serve in the key position of neutral arbiter; they believed that actors at all levels of the health system are more likely to take CBM data seriously and to trust that actors at other levels are operating in good faith when they know that the CBM process is being mediated by an independent NGO. Thus, even as the level of support that PFI and NGO partners have to provide to CBM stakeholders may decrease over time, there may be value in ensuring their continued presence in the CBM process.

4. OUTCOMES STUDY FINDINGS

In this chapter, we present findings from the WRA survey conducted at both baseline and endline in Baheri, as well as SDAs from VHSNDs, HSCs, and the PHC in this block, where Phase 3 project activities were just beginning at the time of baseline data collection. Where relevant, we also draw on program data and qualitative findings from FGDs with VPMCs and VHSNCs and interviews with ASHA Facilitators, BCMs, and other block-level officials in Baheri to help explain and contextualize the survey and SDA findings. We first describe changes in women’s engagement in CBM activities under PFI’s CBM approach, followed by changes in community members’ knowledge and awareness of RH/MH services and entitlements. Finally, we describe outcomes related to the availability, quality, and receipt and uptake of RH/MH services, drawing on findings from the SDA as well as the WRA survey. (A high level summary of outcome findings are presented in Figure 4.1)

Figure 4.1 Key outcomes study findings

<p>COMMUNITY ENGAGEMENT AND PARTICIPATION IN CBM</p>	<ul style="list-style-type: none"> • WRA’s knowledge about VPMCs, VHSNCs, and IVRS improved over the evaluation period. For example, awareness of VPMCs increased by 38 percentage points and awareness of IVRS increased by 46 percentage points. • Participation in CBM-related meetings also increased over time, but remained low overall. • Use of IVRS also increased, but is still limited, with only about 2 percent of endline WRA respondents reporting having called the IVRS number.
<p>KNOWLEDGE OF RH/MH SERVICES</p>	<ul style="list-style-type: none"> • Knowledge of specific ANC services increased substantially among WRA. • Knowledge of several FP methods also increased over time, but overall knowledge levels remained relatively low for many modern methods. • Knowledge of services at VHSNDs was high at both time points, and knowledge of services at HSCs increased.
<p>AVAILABILITY OF RH/MH SERVICES</p>	<ul style="list-style-type: none"> • VHSNDs are being held on schedule, but HSCs may not be open as often as needed. • HSCs are providing most non-permanent FP methods and offer referrals for permanent methods.
<p>QUALITY OF RH/MH SERVICES</p>	<ul style="list-style-type: none"> • VHSNDs are providing many core ANC services more frequently than they were at baseline, but provision of the full set of core services remains low. • VHSNDs were more likely to have basic equipment and supplies at endline, but availability of some essential items was low at both time points, leading to some ANC clients being turned away. • HSCs lacked much of the basic equipment, supplies, and infrastructure they are required to have at both time points, although the availability of some basic supplies improved over time. The PHC was relatively well-equipped. • Few VHSNCs and no facilities reported being formally monitored by VPMC or VHSNC members or receiving feedback about their services, but most reported making some changes or improvements, suggesting some degree of responsiveness to the needs and feedback of the people they serve.
<p>RECEIPT, UPTAKE, AND PERCEPTIONS OF RH/MH SERVICES</p>	<ul style="list-style-type: none"> • Most women who delivered in the last 12 months or were pregnant received at least some ANC services during pregnancy; receipt of specific core ANC services increased over time, and satisfaction with services was high. • Receipt of key delivery and postnatal services increased substantially. • Use of modern FP methods was low at both time points and receipt of FP counseling decreased, but satisfaction with FP services increased, from 31 percent to 97 percent. • Women generally reported receiving high-quality care at VHSNDs and HSCs. However, only about 83 percent and 70 percent of WRA respondents reported that they would recommend a VHSND or HSC to a friend, respectively – suggesting that women may have some quality concerns about these service delivery points.

A. Community engagement and participation in CBM activities

Community members' knowledge about VPMCs, VHSNCs, and IVRS improved between the baseline and endline (Table 4.1). At the time of the baseline, few WRA survey respondents were aware of the existence of VPMCs or the phone-based IVRS system introduced by PFI. At endline, after PFI and its NGO partner had been working in Baheri for two years, knowledge of these CBM components had greatly increased. Less than 1 percent of baseline respondents were aware of a VPMC in their communities, but 38 percent of endline respondents were aware of a VPMC. In addition, 45 percent of respondents were aware of a VHSNC in their *Gram Panchayat*. Similarly, awareness of IVRS increased from less than 1 percent at baseline to nearly 50 percent at endline. These large increases in awareness of community bodies and IVRS are consistent with qualitative findings indicating that both VPMCs and VHSNCs were active in Baheri and that members of both committees were actively disseminating information about IVRS.

Participation in CBM-related meetings at the village, Gram Panchayat, and block levels increased substantially (Table 4.1). No baseline respondents reported participating in a village-level community feedback meeting in the previous year, but participation increased significantly at endline (although remained low overall), to 10 percent. Given that VPMCs and VHSNCs in Baheri have been active since the time of baseline data collection and that three *Jan Samwads* have been held in the block in the same timeframe, it is perhaps unsurprising that a much larger percentage of community members reported having participated in such meetings. At both time points, all respondents who reported attending community feedback meetings stated that they found them useful for learning about entitlements, identifying gaps in the availability and quality of health services, and motivating action to address gaps (data not shown). These reports are consistent with the impressions of VPMC and VHSNC members that community members' willingness to engage in community feedback processes has grown over time, and that women are increasingly willing to provide VPMC and VHSNC members with feedback on their experiences with health services in informal ways.

"[Community members] understand what their rights are, which services should be made available to them, and where they should be given. For example, they told us that there was no examination table or curtain available [at the VHSND]. We made these changes."

—Baheri VPMC member

Awareness and use of IVRS has increased (Table 4.1). No baseline respondents reported calling IVRS in the previous year. At endline, about 3 percent reported calling IVRS for any reason; 2 percent called to receive information; and 2 percent called to provide feedback on services. This report is broadly consistent with PFI program data, which indicate that approximately 2,700 calls placed to IVRS between January 2017 and September 2019¹⁵ originated in Baheri—a block with a total population of about 300,000. Program data further indicate a large, steady increase in callers from Baheri during the evaluation timeframe, from nearly 400 calls in 2017, to nearly 1,000 in 2018, to over 1,200 in 2019.

The majority of survey respondents who had heard of IVRS but did not call it (71 percent) said that they had no reason to call. Other common reasons for not calling included thinking that the calls would not be helpful or informative (17 percent) and being afraid to call (14 percent). In contrast to reports from Baheri VPMC and VHSNC members (who generally believed that IVRS callers found the system easy to use and

¹⁵ The most recent program data available provided the number of IVRS calls through September 2019.

reported no concerns about its functionality), nearly half of the small number of survey respondents who said they had called IVRS reported experiencing some connectivity issues with the system.

Table 4.1 Participation in CBM activities (percentages unless otherwise indicated)

	Baseline sample	Endline sample	Baseline mean	Endline mean	Adjusted difference
Report that VPMC exists in their community	547	568	0.2	38.0	37.9***
Report that VHSNC exists in GP	.	568	.	45.0	.
Participated in community feedback meeting	547	568	0.0	10.0	9.8***
Ever seen report from VPMC or VHSNC ^a	.	281	.	51.2	.
Heard of IVRS	547	568	0.8	49.3	45.8***
Called IVRS in last year for information	547	568	0.0	2.1	1.8**
Called IVRS in last year to report on health services	547	568	0.0	1.9	1.9*
Reason for not calling: ^b					
Afraid to call	.	283	.	14.2	.
No access to phone	.	283	.	11.3	.
No reason to call	.	283	.	70.9	.
Calling not helpful/informative	.	283	.	17.4	.
Other	.	283	.	0.9	.
Had trouble connecting to IVRS ^c	.	18	.	43.1	.

Source: Baseline and endline WRA surveys, June/July 2017 and December 2019 – February 2020.

Notes: Endline-baseline differences are adjusted using ordinary least squares regressions with village-level fixed effects.

^a Among those who reported that VPMC/VHSNC exists.

^b Among those who had heard of IVRS.

^c Among respondents who called.

*/**/** Significantly different from zero at the .05/.01/.001 level, two-tailed test.

B. Community knowledge and awareness of RH/MH services and entitlements

Knowledge of specific ANC services increased substantially (Table 4.2). At baseline, knowledge of specific services was low, ranging from 6 percent (abdominal examinations) to 36 percent (registration of pregnancy). Knowledge of all core ANC services increased significantly at endline. For example, 46 percent of endline respondents knew that abdominal examinations should be provided at every ANC visit, and 79 percent knew that a pregnancy should be registered. Knowledge of *Janani Suraksha Yojana* (JSY) and/or *Janani Shishu Suraksha Karyakaram* (JSSK), national programs that provide monetary incentives for institutional deliveries and ensure free provision of key delivery-related services, remained high at both time points (92 percent at baseline and 96 percent at endline). Despite high endline levels of knowledge about specific ANC services, only 20 percent of endline respondents knew that women should receive at least 4 ANC visits during their pregnancy – a small and statistically non-significant difference from the baseline (16 percent).

Knowledge of FP methods also increased substantially, but overall knowledge levels remained relatively low (Table 4.2). With the exception of female sterilization and contraceptive pills, awareness of modern FP methods in the WRA survey was low at baseline; fewer than half of baseline respondents were aware of other methods. While there was a statistically significant increase in knowledge of some methods at endline (including female sterilization, contraceptive pills, intrauterine devices [IUDs], injectables, and emergency contraception), overall levels of knowledge about these methods remained low for many modern methods, including male sterilization (16 percent) and male condoms (30 percent).

Knowledge of services at VHSNDs remained high, and knowledge of services at HSCs increased (Table 4.2). Awareness of VHSNDs and the services they are supposed to provide was high at baseline and increased further at endline. For example, 66 percent of baseline respondents could spontaneously

name at least one service that VHSNDs are supposed to provide; at endline, nearly all respondents could do so.

Knowledge of HSCs was lower at baseline. Less than 30 percent of respondents were aware of an HSC that was accessible to their community, and 45 percent could spontaneously name at least one service that HSCs are supposed to provide. At endline, more than three-quarters of respondents were aware of an HSC in their community, and a similar proportion could name at least one service HSCs are supposed to provide.

Table 4.2 Knowledge of FP and MH entitlements and services (percentages unless otherwise indicated)

	Baseline sample	Endline sample	Baseline mean	Endline mean	Adjusted difference
Aware of the following ANC services (spontaneous):					
Registration of pregnancy	547	568	36.2	78.5	40.7***
Weight measurement	547	568	24.8	81.7	56.0***
Blood pressure measurement	547	568	27.6	53.7	27.0***
Hemoglobin test	547	568	18.0	34.6	16.3***
Test of urine sample	547	568	7.7	26.7	22.3***
Abdominal examination	547	568	6.4	45.8	38.0***
TT injection	547	568	32.3	83.0	50.9***
IFA tablets	547	568	6.6	74.8	68.9***
Aware that women should receive at least 4 ANC visits	547	568	15.9	19.5	2.8
Aware of JSY and/or JSSK schemes	547	568	92.0	96.0	5.0**
Aware abortion is legal	547	568	59.2	36.9	-23.3***
Aware of the following modern methods (spontaneous):					
Female sterilization	547	568	79.2	94.2	17.5***
Male sterilization	547	568	18.7	16.2	-2.7
Mala-D or pill	547	568	50.0	68.7	21.6***
IUD or loop or copper T	547	568	44.8	64.2	19.3***
Injectables	547	568	40.4	67.8	29.2***
Condom or nirodh	547	568	33.5	30.4	-3.5
Female condom	547	568	3.6	4.2	0.2
Diaphragm	547	568	2.3	0.0	-2.3**
Foam/jelly	547	568	3.5	0.0	-3.5***
Emergency contraception	547	568	2.0	11.9	10.0***
Ever heard of VHSNDs	547	568	91.5	99.9	7.8***
Aware of how frequently VHSNDs should occur (monthly)	547	568	85.1	86.3	3.4
Aware of any services VHSNDs are supposed to provide	547	568	65.7	99.8	36.1***
Received information from someone about VHSND in advance	546	568	69.1	79.7	10.7***
Aware of HSC accessible to their community	547	568	28.4	78.4	50.5***
Aware of any services HSCs are supposed to provide	547	568	45.3	99.0	54.0***

Source: Baseline and endline WRA surveys, June/July 2017 and December 2019 – February 2020.

Notes: Endline-baseline differences are adjusted using ordinary least squares regressions with village-level fixed effects.

*/**/** Significantly different from zero at the .05/.01/.001 level, two-tailed test.

C. Availability of RH/MH services at key service delivery points

Consistent with qualitative reports, VHSNDs are being held on schedule. However, HSCs may not be open as often as needed (Table 4.3). ANMs and other health workers were present at all VHSNDs

observed at both time points, and most villages had held the appropriate number of VHSNDs (six) in the previous six months. At endline, no villages had gone more than six weeks without a VHSND. Similarly, ANMs were present at HSCs during most baseline assessments and all endline assessments. All HSCs also reported that their ANM facilitates referrals for high-risk pregnancies, delivery complications, and higher-level FP services. However, only one HSC reported being open at least two days per week at endline—the minimum number of days that HSCs should be open in Baheri. This is a notable change from baseline, when all but one facility reported being open at least two days per week. The Baheri PHC reported being a 24–7 PHC at both time points, as mandated by the NHM. It provides fixed-day FP

services, emergency transportation, and lab services. Although it reported having blood storage capabilities at baseline, it no longer had these capabilities at endline.

Table 4.3 VHSND and HSC operations (percentages unless otherwise indicated)

	Baseline sample	Endline sample	Baseline mean	Endline mean	Difference
VHSNDs					
Number of VHSNDs held in previous 6 months	11	11	6.0	5.2	-0.8
Number of VHSNDs held more than 6 weeks ago	11	11	1.0	0.0	-1.0
ANM was present during VHSND	11	11	100.0	100.0	0.0
Other FLWs or health workers were present during VHSND	11	11	100.0	100.0	0.0
HSCs					
Open at least 2 days per week	5	4	80.0	25.0	-
Provide referrals for FP services	5	4	100.0	100.0	-
ANM identifies and provides referrals for high-risk pregnancies and complications	5	4	100.0	100.0	-
ANM was present during assessment	5	4	80.0	100.0	-

Source: Baseline and endline SDAs, June/July 2017 and December 2019 – February 2020.

HSCs are providing most non-permanent contraceptive methods and offer referrals for permanent methods (Table 4.4). All HSCs reported offering condoms and oral contraceptive pills at

both baseline and endline. All HSCs also began offering injectables—a notable change from baseline, at which time no HSCs offered this method. IUD provision is still limited at these facilities; only one HSC offered IUD insertion at endline. HSCs reported that they do not offer referrals for condoms or oral contraceptives, consistent with the NHM expectation that HSCs should provide all of these methods. Three HSCs offer IUD referrals, and all HSCs offer referrals for permanent methods. The Baheri PHC offers all methods except male sterilization, for which it provides referrals.

Table 4.4 FP services provided at HSCs (percentages unless otherwise indicated)

	Baseline sample	Endline sample	Baseline mean	Endline mean
FP methods offered at HSCs:				
Condoms	5	4	100.0	100.0
Oral contraceptive pills	5	4	100.0	100.0
Copper-T/IUD	5	4	60.0	25.0
Injectable contraceptives	5	4	0.0	100.0
Tubectomy	5	4	0.0	0.0
Vasectomy	5	4	0.0	0.0
FP methods for which HSC provides referrals:				
Condoms	5	4	80.0	0.0
Oral contraceptive pills	5	4	80.0	0.0
Copper-T/IUD	5	4	100.0	75.0
Injectable contraceptives	5	4	60.0	50.0
Tubectomy	5	4	100.0	100.0
Vasectomy	5	4	80.0	100.0

Source: Baseline and endline SDAs, June/July 2017 and December 2019 – February 2020.

D. Quality of RH/MH services at key service delivery points

Quality of service provision at VHSNDs and facilities

VHSNDs are providing most core ANC services more frequently than they were at baseline, but overall provision of ANC services remains low (Table 4.5). Compared with baseline, VHSNDs

observed at endline were confirming that pregnancies were registered, providing hemoglobin checks and BP checks, and weighing pregnant women more frequently. However, only about one-quarter of VHSNDs reported providing abdominal exams to pregnant women at baseline, and this declined to less than a quarter by endline. At both time points, a large share of VHSNDs (about one-third) turned away some clients because of a lack of ANC-related supplies, but no VHSNDs had to turn any clients away for lack of FP supplies.

Table 4.5 Observed provision of core ANC services at VHSNDs (percentages unless otherwise indicated)

	Baseline sample	Endline sample	Baseline mean	Endline mean	Difference
Any pregnant women at the VHSND received the following services:^a					
Check to see if pregnancy is registered	11	11	90.9	100.0	9.1
Abdominal examination	11	11	27.3	18.2	-9.1
Hemoglobin test	11	11	9.1	36.4	27.3
Blood pressure measurement	11	11	45.5	63.6	18.2
Weight measurement	11	11	54.5	81.8	27.3
Clients turned away for lack of ANC supplies	11	11	36.4	36.4	0.0
Clients turned away for lack of FP supplies	11	11	0.0	0.0	0.0

Source: Baseline and endline SDAs, June/July 2017 and December 2019 – February 2020.

^a Some or all pregnant women received each of the services listed.

Consistent with qualitative reports, VHSNDs were more likely to have basic equipment and supplies available at endline, but availability of some essential items was low at both time points (Table 4.6). At endline, VHSNDs had improved availability of basic equipment, supplies, and infrastructure—including soap, oral rehydration salts (ORS), gloves, appropriate sharps disposal containers, a private space for counseling, ANC service provision, and drinking water. They were also more likely to have most of the basic provisions required for RH/MH service provision—including scales, BP machines, condoms, tetanus toxoid (TT) injections, and oral contraceptive pills. In a notable shift from baseline, when no VHSNDs had an adequate number of IFA tablets on hand, all VHSNDs at endline had sufficient IFA tablets. This finding is consistent with VPMC and VHSNC reports that supply chain issues related to IFA tablets seem to have been resolved.

Table 4.6. Availability of key infrastructure, equipment, and commodities at VHSNDs (percentages unless otherwise indicated)

	Baseline sample	Endline sample	Baseline mean	Endline mean	Difference
Availability of adequate hygiene and health provisions					
Soap or alcohol-based hand rub	11	11	9.1	63.6	54.5
Functional waste receptacle with lid and liner	11	11	0.0	0.0	0.0
ORS packets	11	11	0.0	90.9	90.9
Nutritional supplements	11	11	0.0	0.0	0.0
Latex gloves	11	11	0.0	63.6	63.6
Functional sharps container	11	11	54.5	100.0	45.5
Disinfectant	11	11	9.1	0.0	-9.1
Infrastructure available to provide RH/MH services					
Private space for counseling and service provision	11	11	0.0	9.1	9.1
Private space for ANC checkup	11	11	0.0	18.2	18.2
Drinking water	11	11	27.3	63.6	36.4
Toilet	11	11	9.1	0.0	-9.1

	Baseline sample	Endline sample	Baseline mean	Endline mean	Difference
Availability of basic equipment required for provision of RH/MH services					
BP machine	11	11	54.5	90.9	36.4
Scale	11	11	63.6	81.8	18.2
Examination table	11	11	36.4	18.2	-18.2
Urine testing strips	11	11	45.5	81.8	36.4
Hemoglobinometer	11	11	0.0	36.4	36.4
Availability of key commodities for provision of RH/MH services^a					
Oral contraceptive pills	11	11	54.5	81.8	27.3
Condoms	11	11	27.3	100.0	72.7
IFA tablets	11	11	0.0	100.0	100.0
TT injections	11	11	63.6	100.0	36.4

Source: Baseline and endline SDAs, June/July 2017 and December 2019 – February 2020.

^a We assessed the adequacy of VHSNDs' supply of key RH/MH commodities by observing availability throughout the day; a VHSND was said to have an inadequate supply of a particular commodity if it had none to begin with, or if it ran out before the end of the day.

HSCs lacked much of the basic equipment, supplies, and infrastructure they are required to have, both at baseline and at endline, but the PHC was relatively well-equipped (Table 4.7). At both time points, several HSCs lacked key provisions, such as disinfectant, a waste receptacle, and latex gloves. They were also lacking basic infrastructure, such as electricity, a toilet, and drinking water. Only half of HSCs at endline had a private space available for counseling and ANC service provision. Availability of some key RH/MH-related equipment improved over time, with more endline HSCs reporting availability of a BP machine, scale, and urine testing kits. However, availability of some equipment decreased over time, including exam tables and hemoglobinometers. Availability of RH/MH-related commodities also appeared to have improved at endline: all endline HSCs had an adequate supply of condoms, IFA tablets, oral contraceptive pills, and TT injections. Only half of endline HSCs reported having a stockout of ANC or FP commodities in the last month—a reduction from baseline, when four out of five reported having a stockout of each.

Table 4.7. Availability of key infrastructure, equipment, and commodities at HSCs (percentages unless otherwise indicated)

	Baseline sample	Endline sample	Baseline mean	Endline mean
Designated government building	5	4	80.0	100.0
Availability of adequate hygiene and health provisions				
Functional waste receptacle with lid and liner	5	4	0.0	0.0
ORS packets	5	4	20.0	100.0
Latex gloves	5	4	0.0	0.0
Functional sharps container	5	4	80.0	75.0
Disinfectant	5	4	40.0	0.0
Vitamin A syrup	5	4	60.0	25.0
Infrastructure available to provide RH/MH services				
Private space for counseling and service provision	5	4	40.0	50.0
Private space for ANC checkup	5	4	20.0	50.0
Drinking water	5	4	20.0	25.0
Toilet	5	4	40.0	0.0
Electricity or generator	5	4	60.0	0.0
Availability of basic equipment required for provision of RH/MH services				
BP machine	5	4	60.0	100.0
Scale	5	4	60.0	75.0
Examination table	5	4	60.0	25.0
Urine testing strips	5	4	40.0	75.0
Hemoglobinometer	5	4	40.0	25.0
Availability of key commodities for provision of RH/MH services^a				
Oral contraceptive pills	5	4	80.0	100.0
Condoms	5	4	60.0	100.0
IUDs	5	4	80.0	0.0
Injectable contraceptives	5	4	20.0	25.0
IFA tablets	5	4	20.0	100.0
TT injections	5	4	100.0	0.0
Disposable delivery kits	5	4	20.0	0.0
Any stockouts of FP commodities in previous month	5	4	80.0	50.0
Any stockouts of ANC commodities in previous month	5	4	80.0	50.0

Source: Baseline and endline SDAs, June/July 2017 and December 2019 – February 2020.

^a We assessed the adequacy of HSCs' supply of key RH/MH commodities by asking the respondents (typically the ANMs in charge of the HSC) if they believed there was enough of a commodity to last until the next resupply.

The Baheri PHC reported having all of the basic equipment and infrastructure expected at both baseline and endline, including electricity, a toilet, emergency transportation, a phone, and a functional waste receptacle. It also had adequate supplies of basic commodities, such as soap and disinfectant. The PHC did not report any stockouts of FP commodities in the previous month at either time point or any stockouts of ANC commodities at baseline, but it did report having a stockout of ANC commodities at endline.

Monitoring, feedback, and quality improvement efforts at VHSNDS and facilities

Few VHSNDS reported being monitored by VPMC or VHSNC members or receiving feedback about their services, but most of those who received feedback acted on it (Table 4.8). All VHSNDS reported that a VHSNC exists in their community—a prerequisite for being monitored by these committees. However, only 20 percent reported that any VPMC or VHSNC members had observed a VHSND in their village in the previous year, and only 30 percent reported receiving any feedback on the services available at the VHSND. Those who did receive feedback said that it was provided by elected representatives or other VHSNC members. All but one of the VHSNDS that had received feedback said that they had taken action to address it; all reported that the form of action they took was informing higher-level health officials. Almost half of VHSNDS (40 percent) reported making changes or improvements to the services or facilities available at the VHSND since the baseline, regardless of whether they received feedback.

Health facilities did not report being monitored in the last year; nevertheless, some reported making some changes or improvements (Table 4.8). No HSCs reported that a VPMC or VHSNC member had come to observe their facility in the previous year, and none received any feedback about their services from a VPMC member or VHSNC member. Despite the lack of feedback, two HSCs sought and successfully obtained new equipment or infrastructure since the baseline, including a hemoglobinometer, BP measuring device, stethoscope, scale, and exam table. No HSCs reported seeking but not being able to obtain any new equipment or infrastructure. In addition, two sought untied funds to make improvements, and one successfully received them. The other reported that it had not yet received a response on whether the funds would be provided.

Similarly, the Baheri PHC reported that no VPMC or VHSNC members had observed their facility in the last year and that they had not received any feedback on their services in the last year. It reported obtaining building improvements and a new computer since the baseline.

Table 4.8. Quality improvement efforts at VHSNDs, HSCs, and PHCs (percentages unless otherwise indicated)

	Endline sample	Endline mean
VHSNDs		
VHSNC exists in <i>Gram Panchayat</i>	20	100.0
Any VPMC or VHSNC members observed VHSND in previous year	20	20.0
Received any feedback about services provided at VHSND	20	30.0
Took action to address feedback (if received any)	6	83.3
HSCs		
Any VPMC or VHSNC members observed HSC in previous year	4	0.0
Received any feedback about services provided at HSC	4	0.0
Took action to address feedback (if received any)	-	-
Any new equipment or infrastructure	4	50.0
Any new equipment or infrastructure requested, not obtained	4	0.0
Sought any untied funds	4	50.0
All or some untied funds sought were provided (if sought any)	2	50.0
PHCs		
Any ERs or VPMC/VHSNC members observed PHC in previous year	1	0.0
Received any feedback about services provided at PHC	1	0.0
Took action to address feedback (if received any)	-	-
Any new equipment or infrastructure obtained	1	100.0
Any new equipment or infrastructure requested but not obtained	1	0.0

Source: Baseline and endline SDAs, June/July 2017 and December 2019 – February 2020.

E. Receipt, uptake, and perceptions of RH/MH services

Receipt and uptake of RH/MH services

Most women received at least some ANC services, but few women are receiving the recommended four ANC visits over the course of their pregnancy (Table 4.9). A large fraction of women who had given birth or who were more than 3 months pregnant in the baseline WRA survey sample reported receiving at least one ANC visit (76 percent). This proportion increased significantly at endline, to 87 percent. However, the proportion of

“These days, almost all women come to the VHSND or subcenter for vaccinations and other services. Previously, maybe only 50 percent came. They come now because they know the benefits – they know they will receive IFA tablets, they know ASHAs will help them with appointments.”

—Baheri VPMC member

“People are coming to hospitals. They want to be safe and healthy. Since PFI’s program has been operational, people are more aware of health services and more of them are coming to facilities.”

—Baheri block official

women who had given birth in the last 12 months who received at least 4 ANC visits was low at both time points: 12 percent at baseline and 14 percent at endline. The proportion of these women who received most ANC services at the VHSND fell over time (from 55 percent at baseline to 28 percent at endline). Correspondingly, the share of women who received most ANC services at a public health facility (for example, an HSC or PHC) grew over time, from 23 percent at baseline to 59 percent at endline.

Receipt of specific core ANC services increased over time, and satisfaction with services was high (Table 4.9). Endline WRA survey respondents who had given birth in the previous 12 months were more likely to have received a BP check, abdominal exam, hemoglobin test, urine test, weight check, TT injections, and the recommended total of at least 100 IFA tablets. At least 50 percent of endline respondents had received each of these services. Satisfaction with ANC services was nearly universal at both time points (96 percent at baseline and 98 percent at endline). At endline, almost half of respondents reported that they would be comfortable sharing feedback about their experiences with ANC services with their healthcare provider, elected representative, or other community leader.

Table 4.9 Receipt of key ANC services (percentages unless otherwise indicated)

	Baseline sample	Endline sample	Baseline mean	Endline mean	Adjusted difference
ANC visits					
Had at least 4 ANC visits (women who have given birth in previous 12 months and not currently pregnant)	358	354	11.6	14.4	3.4
Had at least 1 ANC visit (women who have given birth in previous 12 months and women who are 3 or more months pregnant)	536	534	76.2	87.0	8.0**
Received most ANC services at: ^a					
VHSND	290	324	54.7	28.2	-25.2***
HSC/PHC/CHC	290	324	22.9	59.2	37.1***
Subdistrict/district hospital	290	324	0.9	0.9	-0.5
Private or NGO clinic/hospital	290	324	21.6	10.4	-12.4***
AWC	290	324	0.0	0.9	0.7
Home visit by ASHA/AWW	290	324	0.0	0.3	0.3
ANC services received (women who have given birth in previous 12 months and women who are 3 or more months pregnant, unless stated otherwise):					
Pregnancy registered	533	534	58.7	86.9	24.9***
BP measurement	529	534	57.7	80.8	21.4***
Abdominal examination	529	532	27.5	50.5	20.5***
Hemoglobin test	528	533	46.6	73.3	24.8***
Urine test	528	534	47.3	65.3	14.5***
Weight measurement	530	534	58.3	82.9	22.4***
Received any IFA tablets during current or most recent pregnancy (women who have given birth in the previous 12 months and women who are 4 or more months pregnant)	516	496	21.8	89.0	63.5***
Received at least 100 IFA tablets during most recent pregnancy ^b (women who have given birth in the previous 12 months and not currently pregnant)	355	354	1.7	34.0	32.7***
TT at VHSND or facility (women with children)	358	354	81.5	92.4	8.8**
Satisfied with ANC services received	428	465	96.1	98.3	2.2
Comfortable sharing feedback about ANC services with provider, ER, or community	.	463	.	48.4	.

Source: Baseline and endline WRA surveys, June/July 2017 and December 2019 – February 2020.

Notes: Endline-baseline differences are adjusted using ordinary least squares regressions with village-level fixed effects.

^a Women not currently pregnant.

^b Refers to the receipt of the equivalent of 100 large tablets (containing 100 mg iron and 500 mcg folic acid per tablet). Women may also have received small tablets; five small tablets equal one large tablet.

*/**/** Significant difference from zero at the .05/.01/.001 level, two-tailed test.

Receipt of key delivery and postnatal services also increased substantially over time (Table 4.10). Among WRA survey respondents who had given birth in the previous 12 months, there was a large increase at endline of the proportion that delivered at a facility (85 percent, compared with 70 percent at baseline). Among women who had a facility delivery, there was an increase in the proportion who reported receiving advice about breastfeeding and those who reported that their provider discussed FP methods with them. There was also a decline in the proportion of women who reported being asked to pay for services or supplies at the time of their delivery, although this change was not statistically significant. At endline, almost all respondents reported that their labor room appeared to have adequate equipment, supplies, and medicines at the time of their delivery. At both time points, women who delivered in a facility reported that their provider treated them with respect.

There was a very large increase in the proportion of women who reported receiving a home visit within one week of their delivery, from 36 percent at baseline to 76 percent at endline. These home visits may be an especially important method of delivering postnatal care, because only a small proportion of respondents at both time points reported visiting a facility for postnatal services (10 percent at baseline and 8 percent at endline). Receipt of advice about immediate and exclusive breastfeeding during a postnatal visit was high at baseline and became near-universal at endline.

Table 4.10 Receipt of delivery and postnatal care services, among women who gave birth in the previous 12 months (percentages unless otherwise indicated)

	Baseline sample	Endline sample	Baseline mean	Endline mean	Adjusted difference
Facility delivery	358	354	70.2	85.2	13.5***
Delivery-related services received:					
Received advice on breastfeeding (BF)	239	298	64.9	81.9	15.7**
Provider discussed FP methods	248	298	12.9	48.2	33.9***
Asked to pay for any services or supplies	248	298	27.7	20.5	-6.1
Labor room had adequate equipment, supplies, and medicines	.	283	.	96.3	.
Provider treated respondent with respect	338	342	99.6	92.9	-7.1***
Received money from government	328	340	21.0	18.7	-1.1
Received money from government after delivery	.	354	.	17.9	.
PNC services received:					
Received home visit within 1 week of delivery	358	354	35.8	76.0	39.8***
Went to facility for PNC services	358	354	9.6	8.4	-1.9
Received advice from initiating BF	358	354	70.9	92.7	21.2***
Received advice about exclusive BF	358	354	73.2	94.4	20.8***
Infant received any vaccinations	358	354	88.4	99.7	8.8***

Source: Baseline and endline WRA surveys, June/July 2017 and December 2019 – February 2020.

Notes: Endline-baseline differences are adjusted using ordinary least squares regressions with village-level fixed effects.

⊖ Excludes respondents who had not heard of JSY or JSSK.

*/**/** Significantly different from zero at the .05/.01/.001 level, two-tailed test.

Use of modern FP methods remains low, and FP counseling became even less common at endline. However, satisfaction with FP services increased significantly (Table 4.11). At both baseline and endline, about one-fifth of WRA survey respondents reported ever having used a modern contraceptive method. The most common methods ever used among respondents at both time points were condoms (8 percent at baseline and 3.5 percent at endline) and female sterilization (5.5 percent at baseline and 2 percent at endline). Of the women who had given birth in the last 12 months, only 7 percent reported that they were currently using a modern contraceptive method at endline. The most commonly used methods were female sterilization (3.5 percent) and oral contraceptive pills (2.4 percent). Although the proportion of women who reported that their provider discussed FP methods with them increased over time, it remained low (11 percent at baseline and 29 percent at endline), and the proportion of women who

reported that their provider discussed side effects with them fell substantially, from 36 percent at baseline to 3 percent at endline. Despite these deficiencies, the proportion of women who reported facing challenges when obtaining their current FP method fell significantly over time. This observation may be related to the fact that FP commodities, especially pills and condoms, were generally available at VHSNDs and HSCs. Satisfaction with FP services grew significantly, perhaps because these commodities were more readily available at VHSNDs and HSCs.

Table 4.11 Use and receipt of FP services (percentages unless otherwise indicated)

	Baseline sample	Endline sample	Baseline mean	Endline mean	Adjusted difference
Ever used modern contraceptive methods	547	568	20.0	17.8	-2.0
Female sterilization	547	568	5.5	2.0	-2.8*
Male sterilization	547	568	0.0	0.5	0.6
Mala D or pill	547	568	2.5	2.7	1.0
IUD or loop or Copper T	547	568	0.0	1.0	0.9
Injectables	547	568	2.8	1.7	-1.1
Condom or nirodh	547	568	8.6	3.5	-5.3**
Female condom	547	568	0.0	0.0	0.0
Diaphragm	547	568	0.0	0.0	0.0
Foam/jelly	547	568	0.0	0.0	0.0
Emergency contraception	547	568	0.0	0.0	0.0
Current use of modern methods (women who gave birth in previous 12 months and are not currently pregnant)	358	354	14.8	7.4	-5.4
Female sterilization	358	354	9.6	3.5	-4.5*
Male sterilization	358	354	0.0	0.0	0.0
Mala D or pill	358	354	0.2	2.4	3.3*
IUD or loop or Copper T	358	354	0.0	0.0	0.0
Injectables	358	354	0.7	0.6	-0.5
Condom or nirodh	358	354	4.5	1.0	-4.1**
Female condom	358	354	0.0	0.0	0.0
Diaphragm	358	354	0.0	0.0	0.0
Foam or jelly	358	354	0.0	0.0	0.0
Emergency contraception	358	354	0.0	0.0	0.0
Receipt of FP services					
Health worker or provider discussed FP methods	547	568	11.4	28.9	15.6***
Provider discussed side effects of FP method (women who used a method in previous 24 months)	116	110	36.3	2.5	-48.0***
Faced challenge in obtaining current/most recent method (women who recently used any method)	105	55	24.9	0.9	-28.5***
Satisfied with services received when last obtained method (women who used a method in the last 24 months and obtained it themselves)	85	41	30.8	97.2	56.9***
Plan to use a method in the next 12 months (women who are not currently using a method)	338	510	50.8	31.0	-17.9***

Source: Baseline and endline WRA surveys, June/July 2017 and December 2019 – February 2020.

Notes: Endline-baseline differences are adjusted using ordinary least squares regressions with village-level fixed effects.

*/**/** Significantly different from zero at the .05/.01/.001 level, two-tailed test.

Experiences with and perceptions of service delivery at VHSNDs and HSCs

Women generally reported receiving high-quality care at VHSNDs and HSCs (Table 4.13). Nearly 90 percent of WRA survey respondents reported attending a VHSND in the previous 6 months—an increase from 80 percent at baseline. At both time points, all or nearly all women who had attended a VHSND reported that an ASHA or AWW was present. At endline, 89 percent of women reported that the ANM was present at the VHSND, a statistically significant increase from baseline, when 81 percent of women reported this. VHSND services were regarded highly at baseline, with the vast majority of women reporting that the VHSND had the necessary equipment and supplies, that they received the services they had sought, and that they were satisfied with services. At endline, these numbers were even higher; for example, 91 percent of women reported being satisfied with the services they received at the VHSND, compared with 97 percent at endline. Nevertheless, a relatively small proportion of women reported that they would recommend the VHSND to a friend (60 percent at baseline and 83 percent at

endline), suggesting that, while conditions have improved over time, women may continue to have some concerns about the quality of care they receive at these sites.

Although attendance at HSCs was much lower than at VHSNDs, women’s experience with services was similar at both service delivery points. At both survey time points, only about one-third of women reported having visited an HSC in the previous 6 months. Among those who had visited, all reported that the ANM was present, and the vast majority reported that they received the services they sought, that the HSC had the necessary equipment and supplies, and that they were satisfied with the services they received. Still, only about 70 percent of women, at both time points, reported that they would recommend the HSC to a friend.

Table 4.13 Experiences with services at VHSNDs and HSCs (percentages unless otherwise indicated)

	Baseline sample	Endline sample	Baseline mean	Endline mean	Adjusted difference
Attended VHSND in last 6 months	547	568	79.9	89.2	9.7
Experiences at VHSNDs (women who attended VHSND in last 6 months):					
ASHA or AWW present	449	512	99.5	100.0	0.3
ANM present	449	512	81.0	88.6	7.1
Had necessary equipment	449	512	88.7	97.3	9.3
Received services sought	449	512	88.0	96.9	9.4
Satisfied with services received	449	512	91.4	97.4	5.6
Shared feedback	449	512	29.3	39.8	10.9
Taken action to address service provision problems	.	37	.	78.3	.
Would recommend to a friend	449	512	60.2	82.6	18.1
Visited HSC in last 6 months	547	568	30.0	33.4	2.3
Experiences at HSCs (women who visited HSC in last 6 months):					
ANM present	166	166	100.0	100.0	0.0
Had necessary equipment	175	162	93.4	98.0	5.7
Received all services sought	175	162	92.4	98.0	6.4
Satisfied with services received	166	161	99.6	99.8	-0.2
Shared feedback	166	161	48.4	46.5	5.0
Taken action to address service provision problems	.	4	.	100.0	.
Would recommend HSC to a friend	166	161	71.1	69.2	2.6

Source: Baseline and endline WRA surveys, June/July 2017 and December 2019 – February 2020.

Notes: Endline-baseline differences are adjusted using ordinary least squares regressions with village-level fixed effects.

*/**/** Significantly different from zero at the .05/.01/.001 level, two-tailed test.

5. DISCUSSION

Findings from our evaluation revealed that PFI's CBM approach was largely implemented as planned and was closely aligned with the NHM's guidelines for CBM. Community engagement and participation in CBM activities increased over time, as did community members' awareness of specific RH/MH services and the services that VHSNDs and HSCs should offer. However, the availability of supplies and services at these key service delivery points was limited, and although receipt of key RH/MH services increased over time, overall levels of uptake remained low.

Key takeaways from the evaluation, as well as implications for sustainability and scale-up, are summarized below.

Process study

- The continued functioning of VPMCs, even after PFI transitioned its support to VHSNCs, points to the importance of planning and monitoring at the village level under CBM models. VPMCs not only continued to function after PFI discontinued its support, but played an ongoing and critical role in CBM, providing VHSNCs with important details about the quality of services in their villages and advocating for specific uses of untied funds. VPMCs also continued to disseminate information about health rights and entitlements in their communities. The experience of these VPMCs indicates that they are both capable of continuing to function without support, and critical for helping VHSNCs understand and make decisions related to health planning and monitoring in their constituent villages. It also points to the importance of planning and monitoring at the village level under CBM models, and, in turn, the importance of the eventual transition from *Gram Panchayat*- to village-level VHSNCs to the success of CBM in Bihar.
- IVRS may be especially useful for supporting the engagement and informed decision-making of high-level health officials, so it is important to ensure that community members engage with the platform regularly. Despite some challenges, CBM stakeholders are generally pleased with IVRS because it has simplified the process of collecting and reporting on feedback, automated the generation of report cards, and allowed VHSNCs and NGO partners to easily present data to the block and district levels. Block-level officials report that they receive and review these data—which suggests that, in a change from the baseline findings, these officials are beginning to use the data the CBM process generates. VPMC and VHSNC members generally regard the data coming into the IVRS system to be valid and useful. About half of WRA survey respondents in Baheri were aware of the system, suggesting that there is likely to be enough knowledge of and support for the IVRS system for it to become a common method of collecting community feedback. However, WRA survey findings revealed that IVRS use by WRA remained fairly low at endline, despite VHSNC members' perceptions that the number has become more popular with women in their community. There were also persistent challenges with navigating the phone menu and responding to automated questions that may ultimately limit the value and representativeness of these data. Given the value of the data to high-level health officials, VHSNCs must continue to provide support and troubleshooting to community members who seek to use the system.

Outcomes study

- Interest and engagement in CBM among community members grew significantly during the evaluation period—a key first step in ensuring that CBM is a community-driven, bottom-up process. Nearly all VPMCs, VHSNCs, and other CBM actors believed that community members’ willingness to engage in CBM activities has increased over time. This perception was borne out in Baheri, where the share of women who reported participating in VHSNC meetings, viewing report cards, and being familiar with IVRS increased, and where VHSNC members reported qualitatively that women regularly shared feedback with them in informal ways. It is likely that sustained engagement in these communities by PFI and NGO partners, over the course of multiple phases of CBM implementation, has helped sensitize community members to this process and made them feel comfortable participating. The “communitization” of health services under the NHM’s vision depends upon this kind of community action and engagement; the information generated through CBM and the issues reported to high-level health officials must originate from community members’ reports of their own experiences. A growing willingness among community members to share their experiences and concerns is a critical first step in achieving this vision.
- Knowledge and awareness of health services and entitlements have grown substantially over time, which may be a testament to VPMC and VHSNC members’ efforts to spread awareness. The WRA survey in Baheri indicated substantial gains in women’s knowledge and awareness of health services and entitlements over time, especially knowledge of ANC services and the services to which community members are entitled at VHSNDs and HSCs. While the design of our outcomes study does not allow us to attribute these gains to PFI’s program, these changes may partly reflect VPMC and VHSNC members’ concerted efforts to raise awareness of these health services in their communities, and their belief that they have been successful at educating women in their communities, reducing discomfort or shame associated with RH/MH topics and encouraging community members to seek more information about services via IVRS. PFI, NGO partners, and other CBM actors have indicated that they believe this kind of awareness-building is critical for ensuring community engagement in CBM and for generating demand. It remains to be seen whether increased knowledge and awareness of RH/MH services and entitlements will lead to sustained increases in the use of these services.
- Findings on the quality and use of RH/MH services are mixed. Availability and receipt of services generally increased during the evaluation period, as did availability of basic supplies and equipment at VHSNDs, with qualitative reports suggesting that CBM contributed to these improvements. However, service delivery assessments revealed that VHSNDs and HSCs continue to experience critical shortages of basic items, including family planning commodities and equipment such as examination tables, leading to some ANC clients being turned away. In addition, most VHSNDs are not providing the full set of core ANC services. Finally, while women generally report being satisfied with services received at VHSNDs and HSCs, a sizable proportion report that they would not recommend the VHSND or HSC to a friend – suggesting that women may have some underlying quality concerns that are not being captured in survey questions about satisfaction.

IMPLICATIONS FOR SUSTAINABILITY AND SCALE-UP

- PFI's CBM approach's close alignment with NHM guidelines—and its active state-level advocacy— sets it up well for institutionalization and expansion across the state. Throughout its many phases of implementation, PFI's CBM approach has aligned well with the NHM blueprint. This remained true during PFI's most recent phase—to the point that very few stakeholders could articulate meaningful differences between Phase 4 of PFI's CBM implementation and the typical CBM process under the NHM—although most confirmed that their communities became much more intensively engaged in CBM once PFI and its NGO partners began implementing their projects. In addition, PFI's close relationship with the Bihar State Health Society through its role as the state's nodal agency for CBM has helped bring PFI's learnings and perspectives on CBM implementation to state-level officials who focus on CBM. This bodes well for future institutionalization and scale-up of PFI's approach across the state—as reflected in PFI's continued work on a streamlined version of the Phase 4 model in other districts across the state. PFI's strong connections at the state level should help ensure that learnings from the Phase 4 model are shared and acted upon across the state. PFI's trainings and orientations for various committee members, coaching and support provided by NGO partners, and implementation of IVRS are likely to be particularly valuable program components that could be scaled up. However, any efforts to scale up this CBM work must be considered in light of the critical workforce shortages across Bihar. For example, nearly half of all available ANM positions and over four-fifths of General Nursing Midwife positions are vacant across the blocks in which PFI is currently working. The impact of any CBM activities will necessarily be limited by these systemic gaps in human resources.
- VPMCs' continued functioning through Phase 4 suggests that VHSNCs (at the *Gram Panchayat* level or village level) may be able to operate independently in the future, although NGO partners will likely still be needed to support some key activities. The fact that VPMCs continued to operate without PFI support is a testament to their willingness and ability to continue to engage in CBM and to make valuable contributions to it. Although most project stakeholders believed that the participation and support of block-level NGO partners are critical for ongoing success at all stages of the CBM process, over time these partners may be able to reduce the intensity of the technical support they provide to VHSNCs. NGO partners have been found to be especially effective at organizing *Jan Samwads* and providing initial training and support to VHSNCs, but much of the more intensive support that NGO partners have historically provided under previous phases of CBM implementation – such as regularly convening VPMC/VHSNC meetings and helping to generate report cards – is now being provided by ASHA Facilitators and thus may require only minimal support from NGO partners moving forward.
- The close relationship between VPMCs and VHSNCs under Phase 4 should facilitate the transition to village-level VHSNCs, but the current existence of these two committees may also create some confusion during the transition. By design, VPMCs and VHSNCs working under PFI's CBM approach are closely connected, with purposeful overlap in members. Close connections between the village and *Gram Panchayat* levels have been critical for thoroughly understanding village-level issues and mobilizing *Gram Panchayat*-level resources to resolve them. These close relationships should facilitate the eventual transition of VHSNCs from the *Gram Panchayat* level to the village level. However, the existence of two similar committees has the potential to create some confusion when this transition occurs; PFI and NGO partners will likely have to provide significant support and guidance as responsibilities shift and redundancies between the two committees are eliminated.

PFI may be able to draw on lessons learned and best practices in other states, where VHSNCs have long been constituted at the village level.

APPENDIX A. PHASE 4 CBM IMPLEMENTATION LOGIC MODEL

