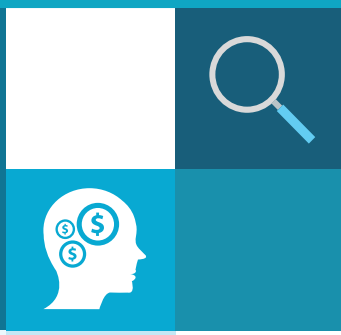
TRANSFORMING HEALTH THROUGH E-PAYMENTS IN INDIA

Finance in Focus

Knowledge Notes



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Project Impact: Headline Results (as of June 2017)	
Health clinics and other sites offering health payments	617 sites offering health payments in Bihar[1]
Payments processed	1,730,058 payments
Volume of payments to date	Rs 2.8 billion, or US$43.3 million
People trained	73,210 people, including more than 71,000 community health workers plus health center staff across 617 sites
Bank accounts registered	834,025 accounts for new mothers
People expected to benefit	Approximately 2.3 million people annually

BACKGROUND

The World Bank Group (WBG), in collaboration with the Government of Bihar, is implementing a government-to-person (G2P) health payments project with cofunding from the Bill & Melinda Gates Foundation (BMGF).[2] Complications during delivery are one of the main causes of newborn and maternal mortality. Receiving prenatal care and facility births reduces the mortality risk. Offering pregnant women modest monetary incentives to receive prenatal care and deliver in approved clinics can help increase those women's access to health services and reduce mortality and health complications. The timeliness and integrity of these monetary incentives are key to their effectiveness. In late 2009, WBG began discussions with the State Health Society of Bihar (SHSB) and BMGF about delays and inefficiencies related to conditional incentive payments to health program beneficiaries and health workers. On the basis of those initial discussions, WBG conducted a diagnostic with SHSB on health payments in Bihar in 2010–11. WBG found that health programs in Bihar experienced significant delays (ranging from two months to two years) in making incentive payments and that health officials

[1] In Bihar, there are 663 total payment units operating across the state. However, payments for health workers and women beneficiaries are processed at only 617 units and the remaining units are medical colleges, district health offices, and state level units. The project's direct support is provided for the 617 payment units.

[2] The BMGF cofunds this project with WBG and the Government of Bihar. Initial BMGF funding of US$ 331,000 led to two subsequent amounts, US$2.5 million and US$9 million. WBG has contributed US$596,000, and the Luxembourg Trust Fund contributed US$17,000. Of these resources, the total budget spent as of June 2017 is US$6.3 million. In parallel, the Government of Bihar has contributed approximately US$762,000 to activities supporting the project.

spent nearly 30 percent of their time administering payments instead of providing health care services.[3] To address those challenges, WBG recommended that SHSB modernize its health payment system by (a) automating the calculation, verification, and recording of payments; (b) enabling centralized payment processing; and (c) making payments using electronic funds transfers directly into beneficiary bank accounts. Subsequently, WBG and SHSB signed a memorandum of understanding in August 2012 to develop the G2P health payments system in Bihar.

Launched in 2012, the G2P health payments project focuses on the following key areas of work:

- **Development of a web-based payments engine:** WBG worked with a specialized team within the Ministry of Finance managing the Public Financial Management System (PFMS) to design and develop the PFMS Health Module (HM). WBG strategically selected PFMS as a basis for the health payment module rather than creating a stand-alone payment processing engine.[4]
- Linking the health module with PFMS was a critical decision because it increased ownership among relevant state and central government departments, building on an existing government information technology (IT) platform. Longer-term sustainability of the system, including security reviews and server maintenance, is more likely because PFMS is hosted in the National Informatics Centre. The health module was rolled out in June 2014 in selected pilot districts of Bihar. Enhancements were made on the basis of user feedback, and the revised version was launched in July 2016.

- **Capacity building**: To help health workers use PFMS HM for processing payments, the project has worked intensely to build the capacity of the finance staff, medical officers, and other personnel using the system. In addition to providing ongoing training, WBG deployed IT agents to train and support system users at the 617 payment units across the state.

- **Financial awareness:** The baseline study conducted in 2013 revealed that nearly 90 percent of women beneficiaries of health programs in Bihar did not have bank accounts. Having a bank account is a prerequisite for receiving e-payments through PFMS HM, so the low level of bank accounts presented a significant challenge to the project. To address this issue, the team designed a statewide financial awareness program to enhance banking penetration among women beneficiaries. Trainers organize financial awareness events for frontline health workers to empower them to become change agents who help women open bank accounts. The program aims to train all 85,000 frontline health workers across the state; 71,700 workers have received training as of June 2017.

- **Monitoring and evaluation:** The team designed the monitoring and evaluation framework, and an evaluation firm has been on board since the beginning of the project. The baseline and midline studies conducted thus far have been useful in guiding and adjusting project activities. An end-line study is planned for 2017.

In August 2016, building on the project's positive experience in Bihar, the Ministry of Health and Family Welfare (MoHFW) decided to use PFMS HM to process all health payments nationwide. That decision aligns with the Government of India's plan to implement PFMS for a broader range of government-to-person payment programs.

For the project's first stage, as of November 2016, all 617 payment units (mainly primary health centers) across Bihar were using PFMS to process health payments. Uptake of the health module—the second stage of the project—continues to rise swiftly. As of June 2017, 72 percent of payment units are using the health module, and more than 1,730,058 transactions—worth Rs 2.8 billion (approximately US$43.3 million)—have been processed through digital payments using PFMS.

The project continues to implement e-payments across Bihar. A team of more than 150 people—including the staff, consultants, and vendors—supports the project. This note explains the lessons WBG learned from implementing PFMS HM in Bihar over the past five years and from designing the ongoing national expansion.

LESSONS FROM BIHAR

Lesson 1: Empower State Ownership Through Effective Communication

Building state ownership in Bihar has been challenging; yet it is essential to implementing the program. Ownership and commitment at the senior level were achieved by establishing close communication channels with SHSB leadership and by creating broader stakeholder involvement and

[3] Jennifer Isern, Hemant Baijal, Vishal Goyal, Vandana Kumar, Harish Natarajan, Caroline Pulver, Huyen Pham, and Peter Relich, "Government to Person Health Payments in Bihar, India: Diagnostic and Recommendations," International Finance Corporation, Washington, DC, June 2011.

[4] In earlier project documents, the payment module was called the Health Operations Payments Engine. During the life of this project, PFMS has evolved and expanded to become the Government of India's central payment platform for all government-to-person payments nationwide.

accountability through a steering committee. In particular, WBG implemented the following strategies:

- The project appointed a **single contact person** at the state level, who worked closely with the SHSB executive director and coordinated all communication among stakeholders. Building a trust-based relationship with every new executive director helped ensure critical support at key junctures to keep the project moving forward.

- The SHSB and WBG formed a **steering committee** to bring together the diverse stakeholders involved in payments in Bihar. The committee included representatives from the national identity agency (Unique Identification Authority of India), the State Level Bankers' Committee, telecommunications agencies, prominent banks, and the regional office of the central bank (Reserve Bank of India). During periodic meetings, WBG briefed the steering committee on progress and sought guidance on project implementation, which helped coordinate efforts and achieve joint commitments.

- WBG encouraged senior government leaders to issue **official communications** about project activities. In hierarchical institutions as found in the health sector in Bihar, official communications help ensure that health workers cooperate with project activities. Having a single contact person and the steering committee became instrumental in securing approvals and issuing official communications, which were essential to project implementation.

Lesson 2: Ensure The Basics

The limited availability of basic IT infrastructure has been a major challenge in implementing this project. After encountering infrastructure challenges during the initial pilot activities, WBG conducted a statewide infrastructure readiness assessment in December 2015. The assessment revealed a lack of basic Internet connection, electricity, and working computers, as well as insufficient computer literacy for staff at many payment units. The team also assessed availability of key staff members at the payment units and submitted recommendations to SHS on ensuring requisite staffing and training. The assessment revealed that only 64 percent of the payment units were ready for implementation of PFMS, and the remaining 36 percent lacked basic IT infrastructure. Initial rollout started with the centers that were well equipped, and WBG worked with SHSB to improve IT infrastructure in the remaining payment units, introducing a color-coded rating system to track the units' readiness. Within a year, all payment units were ready and were using PFMS to process health payments.

- **Assess the basic conditions.** Determine whether the basic conditions for implementation exist before rolling out the project, even when they seem obvious, and address any gaps from the beginning.

- **Phase implementation.** If an initial assessment of basic conditions uncovers substantial gaps, do not delay rollout of the project. The "perfect" context rarely exists, especially in remote rural areas such as Bihar. Instead, phase implementation by starting with centers that are ready for rollout while simultaneously addressing any gaps where they exist.

Lesson 3: Avoid Reinventing The Wheel

The initial project design included creating a stand-alone payment platform for health payments in Bihar. Shortly after the project started, the Ministry of Finance expanded its existing payments platform called PFMS. After significant internal analysis, WBG changed its strategy and negotiated with the PFMS team to link the health module to PFMS.

- **Build on an existing system, if possible.** Building on PFMS facilitated project implementation by providing a broader government platform, extensive future support for maintenance, and long-term sustainability of the system. This strategic decision had trade-offs, including a loss of autonomy and a need to negotiate with the Ministry of Finance for each system change. This change of strategy also delayed the project by approximately six months in initial design of the payments platform.

- **Invest in relationship building.** To be successful, WBG had to invest time in building its relationship with the Ministry of Finance, including adjusting to the Ministry of Finance's time schedule, system capacity, and availability for system improvements. The investment paid off, and in the end PFMS provided important government links and an excellent platform for eventual national rollout.

Lesson 4: Change Mindsets

Paper registers, cash, and checks are king, especially in rural India. However, paper- and cash-based systems are more easily mishandled. Introducing a web-based system for electronic payments that go directly into bank accounts met with significant skepticism from many stakeholders. The initial assessment in 2010–11 suggested that beneficiaries received less than their entitled payments, often with long delays. The primary health center staff managing those payments may have been skeptical about the new automated system, given the likely reduction in "leakages" that they once received. **Changing mindsets requires time, patience, persistence, incentives, and investment in terms of training and capacity building.**

- **Encourage early adoption.** Early adopters of the new system were identified, encouraged, and promoted, and they became useful change agents to convince their peers about the benefits of the new system. The project tracks progress in number and volume of payments, and payment units are ranked in terms of implementation. This gamification of monitoring introduced more competition among payment units to use PFMS and HM. The project started with quick wins by first registering health workers who receive regular monthly routine payments. After adopting the system themselves, those individuals could then encourage other program beneficiaries to register.

- **Use a familiar platform, if possible.** Adding the health module to a broader familiar platform such as PFMS may have helped more people adopt it. Building on a larger platform helped reduce the learning curve investment and increased the perceived value of implementing the health module, given that payments for many other government programs are disbursed through PFMS.

- **Work with leadership.** Convincing administrators higher up the hierarchy was also instrumental to successful implementation. Field coordinators were given responsibility for specific geographic areas and worked closely with IT agents to train and support district health staff. In districts where the project's field coordinators and IT agents developed a rapport with district leaders and convinced them of the benefits of the system, PFMS HM was used more extensively. Furthermore, giving the field coordinators ownership and responsibility of specific areas helped track results and motivate the project team.

Lesson 5: Build Capacity

Rolling out a new IT system is challenging in most environments, and it was especially challenging in this case because some people were not even familiar with computers or bank accounts. Building stakeholder capacity to process and solve operational issues improves ownership, speeds project implementation, improves project sustainability, and frees the team to focus on other aspects of project implementation. WBG adopted the following strategies to build capacity:

- The project started with classroom training, and, on the basis of participant feedback, periodic **refresher sessions** were provided. Nearly 1,700 users across 617 payment units were provided classroom training on PFMS. Refresher sessions were offered as needed, and the total number of trainings per center ranged from a minimum of one session to three or four sessions. Trainers from SHSB were used for these sessions so that they could be available later as resource people within the state. For some, including many medical officers in charge,[5] the project provided basic computer literacy.

- More than 130 IT **agents** were deployed across the state's 617 payment units to work closely with finance staff and health staff, explaining how to use the system and assisting in making initial transactions.

- The project worked with SHSB to set up a **help desk** with two IT staff members, computers, and phone lines for users to call with questions about PFMS HM.

- **Standard operating procedures** for PFMS HM were written and refined based on user feedback, and they were made available to users.

- A statewide **financial awareness program** informed and empowered frontline health workers to interface with banks and banking correspondents and to help women beneficiaries open accounts. Senior frontline health workers were trained as trainers to impart financial awareness information; the objective was to build a pool of skilled resource people who would be available to SHSB for future training programs. Through June 2017, 71,700 health workers across Bihar have participated in financial awareness training.

Lesson 6: Stay Flexible

During implementation, several operational issues arose, and the project team needed to respond with practical solutions. Challenges included lack of bank accounts for the majority of women health beneficiaries, marginal initial interest in the program from banks working in Bihar, low capacity of vendors procured for software development and other services, and decentralized government fund management. In addition, the initial scope of the project focused on incentive payments for health beneficiaries, and over time government counterparts requested that the scope be expanded to include other payments.

Once PFMS was live in most payment units, uptake remained low because many women beneficiaries did not have bank accounts. The initial diagnostic in 2010–11, sample interviews, and focus group discussions indicated that very few women health beneficiaries held bank accounts, and the baseline survey in three selected pilot districts[6] in January 2013 indicated that only 10 percent of women health beneficiaries had bank accounts. The subsequent formal and broader statewide baseline survey conducted in October 2015 revealed that 26 percent of women beneficiaries had bank accounts. This hurdle of bank accounts threatened the

[5] Medical officers in charge manage public health centers and approve transactions in PFMS HM.
[6] The three initial pilot districts were East Champaran, Patna, and Sheikhpura.

motivation that had been building among users after they were trained and understood the system benefits. To open bank accounts and register more women in the system, the project team used a variety of approaches.

- **Iterate to find practical solutions.** The team tested a series of practical solutions incorporating feedback from users. Initially, the project tried community outreach through billboards with broad messaging, street plays, and responsible finance workshops for program beneficiaries. As a next step and to focus efforts, frontline health workers were trained in financial awareness, and the SHSB executive director approved a small monetary incentive of Rs 5 (US$0.08) per account for the health workers to help women open bank accounts. Despite these efforts, many women reported onerous requirements and even requests for bribes from bank representatives to open accounts. In response, the project contacted local banks, their business correspondents, and representatives of the Reserve Bank of India (the central bank) to clarify requirements for opening bank accounts, and project staff members documented cases where bank officials resisted opening accounts. A statewide financial awareness program was conducted to facilitate the opening of bank accounts for women beneficiaries. As of June 2017, given this ongoing effort, 834,025 women beneficiaries have successfully registered a bank account in PFMS.

- **Adapt to external changes.** Initially, three banks were procured through a competitive call for proposals to provide health payment services. However, the largest bank withdrew from the project after a few months, and the two smaller regional rural banks did not have the capacity to deliver payments to such a large number of people across the state. In response to this setback, the project team changed its strategy and advised the SHSB to work with all banks that had a presence in the state. The IT vendor also posed challenges, including an attempt to switch the proposed team after winning the procurement bid, and that issue was factored into the selection and contracting conditions for future procurements. Given the need to coordinate closely with PFMS for design of the payment system, the software development team was shifted from Mumbai to New Delhi and housed within the PFMS offices.

Lesson 7: Manage The Political Economy

The SHSB director has changed five times throughout project implementation, and each change had the potential to slow or derail the project. To overcome those critical leadership changes, the team did the following:

- They **documented project achievements and decisions** to help secure agreements and build a foundation for new leadership to understand progress already achieved.

- Instead of depending only on top leadership, the WBG team gradually built **good relationships with mid-level officials**, who were relatively longer lasting in their positions and who proved tremendously effective in achieving project objectives.

- At the national level, WBG (a) **engaged early and often** in talks with MoHFW to obtain approval for PFMS HM and (b) kept the ministry well informed of progress in Bihar. After a thorough review in 2016, the ministry decided to adopt the health module developed by WBG for nationwide health payments.

Lesson 8: Maintain Perspective

There is a t**rade-off between expedient project needs and the overall impact** of the program. Asking health officials to take on additional tasks might have facilitated project implementation in Bihar. However, those requests would have taken the officials' time and effort away from providing health care, which would have countered the BMGF health project's overall goal.

- **Prioritize the overarching goal of the project.** In this case, the goal to improve health outcomes required the team to minimize and simplify requests to health officials. For example, when brainstorming for ideas to open bank accounts for women beneficiaries, one idea would have required auxiliary nurse midwives (ANMs) to supervise frontline workers' efforts to open bank accounts for beneficiaries. However, ANMs have a very tight schedule and directly provide health care to mothers and families. Therefore, the project decided to target community health workers (who have lighter workloads) and block accountants (who do not directly provide health care) as key change agents to encourage women to open bank accounts.

Lesson 9: Ensure Sustainability

Devising an exit strategy well in advance is crucial. Because the health module is now running successfully across the state, the team is planning to transfer full operations to the two key stakeholders—SHSB and PFMS. PFMS and WBG are working on a roadmap for complete integration of the health module within PFMS, which has been the strategy since early in the project.

CONCLUSION

The project team developed these approaches through educated trial and error, while listening closely to the system users and adapting as necessary. Perseverance and clarity of objectives helped the team reach its goals to improve health payments in Bihar.


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