Barriers and Solutions Pertaining to Pradhan Mantri Matru Vandana Yojana (PMMVY) Implementation in A Block of West Bengal: A Mixed-Methods Approach

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Abstract:

Introduction: Improvement of maternal health care services will not only put a positive impact on maternal health, but also on the health of the new born. **Objectives:** This study was conducted to estimate the proportion of eligible beneficiaries who received the benefits provided by the scheme, to identify the barriers faced by the beneficiaries and health providers related to the scheme and to find possible solutions to overcome the barriers found as suggested by them in a block of West Bengal. **Method:** A cross-sectional study with sequential explanatory mixed-method approach was conducted in a block of West Bengal from January-December 2021. Quantitative data was collected from the digital portal of PMMVY. All beneficiaries who had their Last Menstrual Period (LMP) on and after 1st March 2020 up to 31st December 2020 were included. To identify the barriers faced and suggest possible solutions, Focused Group Discussions (FGDs) were held with the beneficiaries, ANMs and ASHAs and Key-Informant Interviews (KIIs) with the Block Medical Officer and Data Entry Operator. Data were analyzed using SPSS version 25.0. Descriptive statistics were used to summarize quantitative data while qualitative data were analyzed in the form of themes, codes and verbatim. **Results:** Total eligible beneficiaries for the three installments were 1066, 917 and 708 respectively. About 95.5% beneficiaries received the first installment, 93.0% received the second and 98.3% had received the third installment. The broad themes [codes] generated from the FGDs were challenges during antenatal care [ANC refused, home visit preferred, home ANC difficult, lockdown], challenges related to the PMMVY scheme [documents unavailable, incomplete forms, payment issues], possible solutions [prepare pre-requisites beforehand, provide cash]. Widely two main themes emerged from the KIIs: Form related issues and Payment issues. **Conclusion:** Coverage of PMMVY scheme in the block was satisfactory. However, speeding the payment process and stricter monitoring of the scheme is required.

Keywords: Antenatal Women, Benefit, Cash Transfer, Maternal Health Program.

Introduction:

The Pradhan Mantri Matru Vandana Yojana (PMMVY) is a maternity benefit transfer scheme launched by the Government of India in 2017 under the Ministry of Women and Child Development. It aims to incentivise nutrition and health-seeking behaviour and provide cash benefits to pregnant and lactating women for their first live birth.[1]

The PMMVY scheme transfers benefit through Direct Benefit Transfer to improve efficiency and reduce leakage within the scheme. A total incentive of INR 5000 in three instalments (1000, 2000 and 2000) is credited directly into the beneficiary's bank account or post office account upon verification of the prerequisites. Registration of pregnancy within 150 days from the start of pregnancy as specified on

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the Mother and Child Protection (MCP) card is required for the first instalment. For the second, receipt of at least one antenatal check-up within six months of pregnancy must be shown and registration of childbirth along with receipt of the first round of immunisations is needed for receiving the third instalment. The account must be in the name of the female beneficiary and not a joint one. Also, the account must be linked to Aadhar, that is the Unique Identification Number issued by the Government of India to all citizens. This ensures that the lady has greater power over expenditure related decisions on the money. [2]

West Bengal has a Maternal Mortality Ratio (MMR) of 103 as per Sample Registration System (SRS) 2020and is still striving hard to reach the Sustainable Development Goals target of less than 70.[3] In spite of a number of programmes for maternal health, our country still suffers from the problem of maternal morbidities and mortality. Some of the factors contributing to poor maternal and child health are poverty, inadequate nutritional intake during pregnancy, low awareness of ante-natal care including various benefit schemes and limited access to reliable healthcare. Further, owing to economic and social distress many women continue to work to earn a living for their family right up to the last days of their pregnancy and return to work shortly after childbirth.[4] According to the recent National Family Health Survey-5 survey, only 73.8% women received at least 4 Antenatal Checkupsin their last pregnancy in rural areas of West Bengal.[5]

There is considerable global evidence on the effectiveness of cash transfers in improving health and nutrition outcomes; however, the evidence from South Asia, particularly India, is limited.[6] The PMMVY scheme has been under implementation in West Bengal since its launch where it is known as Bangla Matri Prakalpaand is under the Department of Health and Family Welfare. Improvement of maternal health care services will not only put a positive impact on maternal health, but also on the health of the new born.[7] Compared to studies on other maternal health programmes, very scarce literature is available on PMMVY, even though this is one of the most important on-going maternal health programmes. With this background, study was conducted mixed-methods approach in a block of West Bengal to estimate the proportion of enlisted beneficiaries who received the benefits provided by the scheme, to identify the barriers faced by the beneficiaries and health providers related to scheme and to find possible solutions to overcome the barriers found as suggested by them.

Method:

It was an observational study, cross-sectional in design following explanatory sequential mixed-methods approach. The study was conducted in Budge-II block of South-24 Parganas district, West Bengal for a period of twelve months (January 2021 to December 2021).

The quantitative strand of the study was conducted by collecting secondary data from the digital portal of the PMMVY scheme. All beneficiaries who had their Last Menstrual Period (LMP) on and after 1st March 2020 upto 31st December 2020were included. For the qualitative strand, eight Focused Group Discussions (FGDs) were conducted, four with the beneficiaries who had been enrolled into the scheme but had not received the first installment, twowith the Auxiliary Nurse Midwives (ANMs) and two others including Public Health Nurses (PHNs). The Block Medical Officer (P1) and Data Entry Operator (P2) were also interviewed. These health care workers were important stakeholders directly related to scheme related activities in the area.

For the quantitative strand, total enumeration was done. Data of a total of 1066 beneficiaries was taken from the PMMVY_Common Application Software (PMMVY_CAS) portal. Participants for qualitative part were selected purposively. Eight FGDs were held with 32 beneficiaries, 16 ANMs, 16 ASHAs and two Key Informant Interviews (KII) were conducted with the Block Medical Officer and Data Entry Operator.

A pre-designed, pre-tested, structured data abstraction form was used for quantitative strand. Focused Group Discussion (FGD) guide and Key Informant Interview (KII) guide were used for the qualitative strand. The content validity of the data abstraction form and guides were evaluated by public health experts.

Quantitative data were collected from details of beneficiaries from the digital portal of PMMVY and entered into the form. Three FGDs comprising of 8 beneficiaries each were planned initially. One beneficiary was selected from each subcenter and was invited for the discussion on monthly meeting days. Later, one more FGD was conducted after which data saturation was observed. Among ANMs and ASHA, initially four FGDs were planned (two with ANMs and two with ASHAs). Three FGDs were conducted in the sequence- ANMs, ASHA and ANMs after which similar responses were recorded. Hence the last FGD was conducted as planned and no more seemed necessary.

FGDs and Interviews were conducted in the Rural Health and Training Centre (RH&TC) and each of them lasted for around 20 minutes.The study variables were broadly dependent variables and independent variables; Dependent variables: Payment of 1st, 2nd and 3rd installment where as Independent variables:Socio-demographic variables, pregnancy and scheme related variables,

Domains under qualitative strand: Challenges faced during antenatal care of woman, problems in enrolment in PMMVY scheme, reasons for return of forms back to the sub-center, payment related issues and solutions to those barriers

Quantitative data were tabulated in Microsoft Excel 2019 (Microsoft Corp, Redmond, WA, USA) and then imported to Statistical Package for the Social Sciences (SPSS for Windows, version 25.0, SPSS Inc., Chicago, USA) for interpretation and analysis. Descriptive statistics were used to summarize the data. Qualitative data were first transcribed into Microsoft Word 2019. Atlas.ti version22 software was used for coding. Final representation of data was tabulated as themes, codes and verbatims.

Institutional Ethics Committee permission was obtained prior to start of the study (Institute name/IEC/2021/130 dated 06.02.2021). Informed written consent was obtained before each Focused Group Discussion and interview and all ethical principles were strictly adhered to throughout the course of the study.

Results:

Profile of the beneficiaries:

A total of 1066 beneficiaries were found. All 1066 beneficiaries were claimants of first installment (Form 1A), while 917 beneficiaries were eligible for the second installment (Form IB). Out of 1066,708 beneficiaries had submitted Form 1C for third installment as they had completed their pregnancy and delivered. The mean age of the beneficiaries at the time of provision of Maternal and Child Protection (MCP) Card was 21.4±1.5 years with a range of 19 to 26 years. About 78.4% were Hindus, 84.3% belonged to General category and 17.7% to Other Backward Classes (OBC). About 99.4% of the beneficiaries were in their first pregnancy (primigravida). Out of 708 beneficiaries who had delivered, nearly 40% of the deliveries took place at private nursing homes. The delivery hub distance was less than 5km from their residence in only 16.9% beneficiaries. Average duration between Last Menstrual Period (LMP) and date of pregnancy registration was 94 ±22 days. Average duration between date of pregnancy registration and entry into the scheme was 28±10 days.

Figure 1 shows distribution of the beneficiaries according to the different installments they had received. A total of 1018 (95.5%) of the beneficiaries had received the first installment, 853 (93.0%) had received the second and 696 (98.3%) had received the third installment.

Reasons for non-receipt of installments by the beneficiaries are shown in Table 1. Most common reason for non-receipt of first installment was 'Aadhar not linked to bank account' while for second and third installments it was 'rejected by bank, as account number is invalid.'

Data from the Focused Group Discussions were analyzed thematically in Table 2 and 3. The broad themes were challenges during antenatal care, barriers related to the PMMVY scheme, possible solutions and thoughts on the scheme.

Widely two main themes emerged from the In-depth interviews: Form related issues and Payment issues.

Table 1 : Reasons for not receiving Installments (n_1=48, n_2=64 and n_3=12)*

Installment	Reasons for not receiving Instalments	n (%)
1st installment (Rs 1000)	Aadhar not linked to bank account	16 (33.3)
	Beneficiary name does not match with Aadhar	11 (22.9)
	Beneficiary created based on UID but account is blocked	8 (16.7)
	Husband's name does not match with Aadhar	6 (12.5)
	Customer refer to branch (Beneficiary needs to provide	4 (8.3)
	correct documents in the branch)	
	Beneficiary's Aadhar is suspended	1 (2.1)
	Husband's Aadhar is suspended	1 (2.1)
	Rejected by bank, as account number is invalid	1 (2.1)
2nd instalment (Rs 2000)	Rejected by bank, as account number is invalid	19 (29.7)
	Customer refer to branch (Beneficiary needs to provide	15 (23.4)
	correct documents in the branch)	
	Beneficiary name does not match with Aadhar	14 (21.9)
	Husband's name does not match with Aadhar	7 (10.9)
	Aadhar not linked to bank account	6 (9.4)
	Beneficiary's Aadhar is suspended	2 (3.1)
	Husband's Aadhar is suspended	1 (1.6)
3rd installment (Rs 2000)	Rejected by bank, as account number is invalid	9 (75.0)
	Customer refer to branch (Beneficiary needs to provide	3 (25.0)
	correct documents in the branch)	

*n_2 and n_3 are subsets of n_1

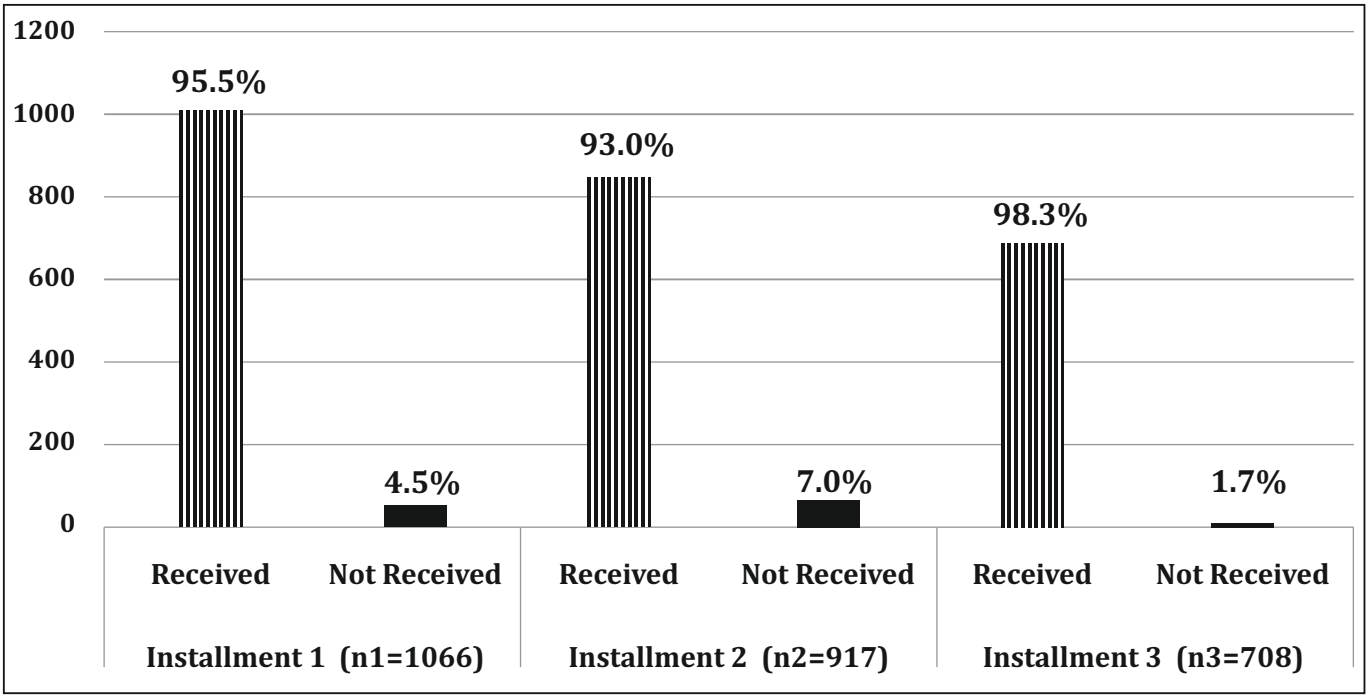
Table 2 : Thematic analysis from the FGDs with the Beneficiaries (n=32)

Themes	Codes	Verbatims
A. Barriers related to PMMVY scheme	**1. Lack of awareness**	"…know that mother gets money on delivery but don't know about the scheme."
	2. Documents not available	"…don't have Aadhar card"
		"Aadhar card is on my surname before marriage."
	3. Bank account	"…don't have bank account on my name"
	4. Payment related issues	"I did not get money but from office they said money has been sent."
B. Possible solutions	**1. Pre-requisites for payment**	"...ASHA should tell us soon after marriage about updating Aadhar details."
		"… bank account with surname before marriage should be allowed for receiving payment."
	2. Provide cash instead of bank transfer	"…they can give cash."
		"…we will be less harassed"

Table 3 : Thematic analysis from FGDs with ANM and ASHA (n=32)

Themes	Sub-themes	Verbatims
A. Challenges during Antenatal care	**1. Refused by lady**	"Pregnant ladies in my area say their husbands/families don't allow them to go outside"
		"They prefer to spend their antenatal period at home and be looked after by elder ladies at home and neighbourhood"
		"One lady, after coming to know she is pregnant, refused to get registered."
	2. Home visit preferred	"Some ladies prefer antenatal check-up at home."
	3. Home visit difficult	"It is not possible to do check-up at home. We have other work at sub-centre. Home visits take time."
		"We have to travel great distance on foot to visit their homes"
		"It is difficult to carry the weighing machine all the way to the house of the pregnant lady."
	4. Lockdown	"Aadhar updating centres are far and the ladies could not travel."
		"Payment was delayed during lockdown.
	5. Non-compliance to medicines and others	"They don't take IFA tablets regularly due to acidity problem."
		"They don't come on time for ANC."
		"…. don't come on the 9th of every month even after repeated reminders."
B. Barriers related to PMMVY scheme	**1. Problem with documents**	"They don't have Aadhar card and other ID proofs."
		"Sometimes the Aadhar card has the maiden name and address."
		"Many don't have bank account in their own names."
		"Some bank accounts are not linked with Aadhar."
	2. Incomplete forms	"Forms cannot be filled up if relevant documents are not available."
		"I joined a few months back. The in-charge before me did not fill the forms properly and did not submit required documents. Now the lady has come to me.
		Her LMP date has crossed beyond the eligibility criteria."
	3. Payment related issues	"The bank says money credited. But the lady says she did not receive any money."
		"Many times, the payment gets credited to the account which they used prior to marriage as that is linked to Aadhar."
		"Some ladies have doubted that we have taken their money."
C. Possible solutions	**1. Pre-requisites for payment**	"Ladies should change their Aadhar details soon after marriage."
		"Create new bank account in their own name soon after marriage."
		"Every bank account should be allowed for receiving payment."
	2. Provide cash instead of bank transfer	"Providing cash instead of bank transfer is better. The lady can immediately get the money and use it during her pregnancy."
		"Payments should not be delayed."
D. Thoughts scheme	**1. Beneficial scheme**	"It is a very good scheme. It provides money to some very poor women
		who don't have enough to eat."
	2. Unsatisfactory	"The objective is to provide money to the woman so that she can eat well and improve her nutritional status. But this is not happening. Because the payment takes time the lady is unable to utilize it."
		"Sometimes, by the time a lady receives the money her pregnancy is nearly over."
		"ASHA workers should get some incentive per beneficiary."

Figure 1 : Distribution of the beneficiaries according to the different Installments they had received (n_1=1066, n_2=917 and n_3=708) *



*n_2 and n_3 are subsets of n_1

Form related issues:

P1 said, *"We believe in team work. We take feedback and discuss all problems during the monthly meetings."*

P2 mentioned, *"We don't accept incomplete forms. Data is uploaded only from complete forms. Whenever there is a cue, we immediately contact the sub-center and send back the forms for revision or change of any documents."*

Payment related issues:

According to P1, the delay in receiving benefits of this scheme is less than other schemes. *"...Bangla Matri Prakalpa is going fine. Little bit problems occur in all schemes. We ensure the cues are resolved immediately so that the beneficiary can utilize the money."*

P2 pointed, *"One reason why payment has been delayed this particular year is COVID-19. But usually, the payment is not so delayed if correct documents are provided."*

P2 also stated that the beneficiaries report non-receipt of payment even through the portal shows "paid". According to him, *"There may be political reasons as to why the scheme is not fully covered in some areas of West Bengal. It may be because this national programme is known as Bangla Matri Prakalpa here."*

P2 continued, *"We are often blamed by the beneficiaries for taking away their payments. This saddens us a lot. We want to help them and we are doing our duties sincerely."*

P2 expressed that providing cash incentives instead of digital mode of money transfer may be opted for schemes targeting maternal health. *".... Although digital mode of payment is better, in this case cash can be given. To ensure no wrong doings, they can keep accounts of the cash disbursed."*He also felt, *"Money provided in this scheme is inadequate."*

Discussion:

Over the years, India has implemented several programmes to overcome the issue of poor maternal and child health. The PMMVY is another milestone Programme having similar objectives. However, it has not been successful in covering 100% of its beneficiaries.

An article by Gautam A has elaborated the ground reality of the scheme, from its implementation to its execution including highlighting the challenges being faced by the authorities and the beneficiaries. According to him, the scheme has not been able to capture the exact number of mothers under it. The challenges stated by him are corroborative to our findings such as slow process since its launch, delay in verification process, no integration between Financial Management System and Aadhar, lack of monitoring and delay in disbursement of payments. Another striking resemblance with his article is the fact that the Programme lacked objectives to evaluate quality care to the mother.[8]

As already stated, there is a scarcity of studies on coverage of PMMVY scheme. The findings of the present study were compared with studies involving evaluation of other cash transfer schemes. One such Programmeis the Janani Suraksha Yojana (JSY) aims to accelerate institutional deliveries. Unlike PMMVY which is for all pregnant women and lactating mothers, JSY focuses on poor and marginalised women. This study found over 93% of the beneficiaries had received all three installments. An assessment of JSY utilization in selected districts of West Bengal by Mukhopadhyay*et al.* revealed 96.3% of scheme coverage among the eligible beneficiaries.[9]

The Mamata Scheme, a cash transfer scheme in Odisha, provides wage compensation to working mothers. The scheme provides mothers with INR 5000 via two installments, each installment on fulfilling certain requirements. In these aspects, the PMMVY closely resembles the Mamata Scheme.[10]

The PMMVY scheme also complements Janani Sishu Suraksha Karyakram (JSSK) which aims at "zero out of pocket expenditure" with objectives to abolish financial obstacles for the mother and overall improving maternal health. Mitra *et al.* conducted a similar mixed-method study on utilization of JSSK in Gangajalghati block of Bankura district, West Bengal reporting only 20.5% utilization of services by the beneficiaries.[11]

One noticeable finding in the current study was the high number of deliveries conducted in private nursing homes. This was an unexpected finding concerning the rural setting of the study. Also, what is more striking is the far distance of the delivery hub (>5kms) in nearly 83% of the deliveries.

It was also observed that receiving the previous installment did not always pave the way to easy receipt of future installments. Even if the lady has received the first installment and all her details are available in the portal, she might again have to go through the whole Aadhar-bank link verification process. In this study, high number of non-receipts of the second installment might be due to the fact that the beneficiaries provided a different bank account number, not linked to Aadhar. Another pre-requisite for the benefits is verification of husband's documents. This may not be made mandatory as the programme has the objective to incentivize only the mother.

'The Focused Group Discussions revealed several barriers pertaining to antenatal care. One such is the resistance that the lady faces from her home where either her husband or in-laws don't allow her to go outside. This is one of the major reasons why India still does not report high antenatal care coverage. Many ladies prefer home visits, but this is not always feasible and practicable.

On payment issues, similar difficulties were reported faced from all sub-centers, that is, the beneficiary has only one bank account usually made before her marriage which is linked to Aadhar. This is why the most common reason for not getting the payment was Aadhar linkage issues with the bank account. Also, the fact that many beneficiaries have accused the health care providers for taking away their money, points towards low awareness and trust on such schemes.

Limitations:

Utilization of the benefits was not focussed upon in the study. Also, we did not evaluate any significant delay in receipt of the payments from date of enrolment.

Conclusion and Recommendations:

Coverage of PMMVY scheme in the block was satisfactory. Problems faced by beneficiaries in not getting their due payments were mainly Aadhar and bank account related. Challenges faced by the ANMs and PHNs were non-availability of documents of beneficiaries and as a consequence incomplete form fill up.

For bank account name related issues, either ladies should be encouraged to get their names changed/updated soon after marriage or all her bank accounts should be allowed for receiving payment. Payments should not be delayed so that the lady can use the much-needed money during her pregnancy period. Also, access to the PMMVY portal should be given to the beneficiaries (preferably as beneficiary login ID) to check her payment status from time to time.Based on the study findings it may be suggested thatverification of husband's Aadhar should not be kept mandatory, if possible.Last but not the least, intensive community-based awareness campaigns about the scheme and widening its scope across the nation is also strongly recommended.

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