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Impact Evaluation Endline Report

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Executive summary

About the Bihar Child Support Programme

The Bihar Child Support Programme (BCSP) was a conditional cash transfer pilot undertaken by the Government of Bihar. It targeted pregnant women and mothers of young children, with the aim of reducing maternal and child undernutrition. The BCSP was supported by the UK Department for International Development (DFID)'s Sector Wide Approach to Strengthening Health (SWASTH) programme. After August 2016, the programme was supported by the Children's Investment Fund Foundation (CIFF).

Under the scheme, women enrolled upon completion of the first trimester of pregnancy and received 250 rupees (Rs) per month directly into their bank account upon meeting certain conditions. The beneficiary was eligible for the cash transfer for a period of 30 months (i.e. until the child was two years of age). The programme also designed a bonus of Rs 2,000. In one of the implementation blocks, this would be received if the child was not underweight at age two, and in the other, women were eligible if they had not become pregnant again at the end of two years after birth. Therefore, the potential total maximum value per child was Rs 9,500.

The pilot was implemented in two blocks in Gaya District, Bihar, covering 261 Anganwadi Centres (AWCs) for two years and over 9,000 beneficiaries. In one block, Wazirganj, four conditions were applied, known as 'limited' conditions. In another block, Atri, there were an additional four 'extended' conditions. Thus, in Atri, beneficiaries were expected to meet all eight conditions, whereas in Wazirganj beneficiaries were expected only to comply with four conditions. The terms 'extended' and 'limited' relate to the number of conditions, rather than to the nature of the conditions applied. The conditions are shown in the following diagram, with the limited conditions in the top row:

Figure 1: Conditions

The pilot also had two control blocks: Khizarsarai (a technology only block) and Mohra (a pure control block). The table below summarises the differences across all four blocks:

Table 1: Pilot Design

	Mohra (Pure control)	Khizarsarai (Technology only)	Wazirganj (Limited conditions)	Atri (Extended conditions)
Brief summary	No additional services or technologies provided	Received the same supply side systems as the two treatment blocks (i.e. all Anganwadi Workers (AWWs) got a mobile phone-based monitoring system), but without the cash transfer	AWWs received a mobile phone-based monitoring system. Beneficiaries received the 'limited' version of the cash transfer	AWWs received a mobile phone-based monitoring system. Beneficiaries received the 'extended' version of the cash transfer

The purpose of having two control blocks, one with the supply-side interventions underpinning the cash transfer but without the actual transfer of cash to beneficiaries (technology block), and one with nothing (pure control block), was to separate out the impact of the conditional cash transfer from the independent impact of the supply-side reforms. The midline survey demonstrated that the supply-side reforms had no significant impact on service uptake or outcomes of interest, and therefore that the differences estimated between the treatment block and the technology only block represented the full impact of the cash transfer. Therefore, the pure control block was dropped for the endline.

The pilot aimed to test the **viability** and the **impact** of the conditional cash transfer. The evidence has important implications for the design and delivery of the new Prime Minister's Maternity Benefit Programme, Pradhan Mantri Matritva Vandana Yojana (PMMVY), which will be implemented from 2017 as a conditional cash transfer as part of the National Food Security Act (NFSA).

In terms of **viability**, the pilot tested the feasibility of delivering a complex, conditional monthly cash transfer using government systems. This included systems for continual enrolment and exit, monitoring of conditions, timely and safe payment with minimal leakage, programme monitoring and grievance redressal.

In terms of **impact**, the programme design explored four main pathways through which the cash transfer might improve maternal and child nutrition outcomes:

- A resource effect: whether the additional household income received due to the BCSP was translated into increased expenditure on food (and more nutritious food), health care and other pro-nutrition expenditures;
- A conditions effect: whether beneficiaries changed their behaviours and sought out available services to meet the conditions;
- An empowerment effect: whether the fact that the cash was transferred to the women improved her status within the household and her decision-making power, control over resources and time use; and
- A social accountability effect: whether beneficiaries pressured service providers to improve the accessibility and quality of services to enable them to meet the conditions.

Evaluation design

A prospectively designed, mixed methods impact evaluation was undertaken to analyse the effects of BCSP. Analysis from each chapter has been 'mixed' to present quantitative and qualitative data. Data from each method have been used to triangulate sources and corroborate or refute findings and explain trends where possible. The quantitative and qualitative research teams have worked

closely to analyse and present findings together in the following chapters. The detailed methodology of the evaluation is presented in Chapter 2. The evaluation explores the four pathways to impact outlined in the programme design.

The quantitative evaluation is based on a quasi-experimental design. The survey, with a sample of 1,500 mother-child dyads in each block, is a repeated cross-section of a randomly selected sample of mothers from a panel of AWCs (the primary sampling unit (PSU)). The baseline was conducted in autumn 2013, the midline was conducted in autumn 2015, and the endline was conducted in winter 2016/2017.

This allowed a difference-in-differences (DID) evaluation specification to be undertaken, which is considerably more robust than an evaluation that simply compares levels of key indicators. The validity of the differences-in-differences model still requires assumptions about parallel trends to hold. Whilst controls have been added to the differences-in-differences regressions, this remains a potential limitation. A second limitation arises from changes to the survey instruments made after the baseline to adapt for changes in programme design, which reduces comparability for a small number of indicators.

The first round of the qualitative evaluation began at the midline. The qualitative investigation took place concurrently with the quantitative survey in autumn 2016. The endline qualitative evaluation took place two months after the completion of the quantitative evaluation. This was largely in order to increase the distance from the demonetisation exercise conducted by the Indian government in November 2016.[1] Interviews were conducted with beneficiaries, their mothers-in-law and husbands to garner a holistic picture of the household's experience with the cash transfer programme.

Key findings: Implementation status

The BCSP designed a complex and high-tech delivery model, which could be delivered through government systems with light-touch monitoring from an implementation support team. The Anganwadi Worker (AWW), a government village nutrition worker, was provided with a mobile phone, with a BCSP application pre-loaded. She was responsible for registering beneficiaries, and recording their adherence to conditions, using this application. This made it easier for the AWW to fulfil her responsibilities. This evaluation highlights the value, but also the limitations, of this tool.

Automated payment lists were generated through the management information system (MIS) and verified by government officials, ensuring minimal leakage. Data from the application were automatically transmitted to a server, which generated payment lists. These lists were passed on to the Child Development Project Officers (CDPOs) who signed off on block-level payment lists, and the District Programme Officer (DPO) who was responsible for payment lists. Funds were transferred through direct bank transfers using National Electronic Funds Transfer (NEFT).

The advantage of this system was that calculations were made automatically and instantly based on routine service data captured by the AWW. Other cash transfer programmes in India, such as the pilot Indira Gandhi Matritva Sahyog Yojana (IGMSY), rely on beneficiaries knowing when they have met conditions and pushing payment requests up through the system. Many eligible beneficiaries would not know when to demand cash, and if they did, would receive it with long delays in this model. Under BCSP, beneficiaries automatically received payment, with around 71% of beneficiaries

[1] On 08 November 2016, the Indian government withdrew all notes with a denomination higher than Rs 500 . This annulled over 75% of the currency in circulation. In this situation, it would have been difficult to adequately separate the impact of the cash transfer from the aftermath of demonetisation. Several changes to the quantitative survey were also undertaken to remove questions related to cash that could not be adequately answered at the time. Any question relating to cash would necessarily have been affected by the demonetisation policy.

meeting conditions and being paid every month. **At peak efficiency, payments were made direct to bank accounts within two weeks of the end of every month.**

Ensuring alignment with government officials and bank officers was extremely important in this high-technology environment, and it took a few months to iron out issues within the system. **Scaling such a cash transfer design will require the effort of a dedicated technology team in the first programme phase**, to guarantee that payment lists are easily generated. Over time, this support could be minimised and could focus on monitoring functions.

A further feature of the programme was its **'on-demand' approach to enrolment**, whereby beneficiaries were required to proactively enrol between the fourth and ninth month of their pregnancy (enrolment window). This approach allowed the programme to minimise costs while building on existing government systems, but it did pose some **challenges in terms of programme uptake**. For example, the endline evaluation shows that:

- Only three-quarters of the eligible women surveyed were aware of the BCSP – either by its name or as the '250 rupee programme'. This points to a missed opportunity in terms of 'branding' and 'labelling' to enhance the health and nutrition association of the programme;
- 49.6% of all eligible women surveyed were enrolled under the BCSP. Beyond the issue of awareness, caste-segregated analysis did not point towards any discrimination – rather it pointed primarily to late registration;
- Drivers for late registration also included migration to the natal home during the critical registration period, seasonal labour migration and (to a lesser extent) late awareness of being pregnant (not having sufficient time to acquire documentation, open a new account, etc.);
- Further drivers of exclusion from the programme included challenges with opening bank accounts, such as providing required ID documents (this was particularly problematic for migrant women), high processing fees, and distance/cost of reaching the nearest bank.

These aspects – which are common to on-demand registration systems – would all need to be addressed by any national conditional cash transfer: ensuring a **strong focus on communications, engaging additional actors in supporting enrolment (e.g. self-help groups and Gram Panchayat representatives), an optimal registration window, ensuring portability of benefits across locations and support with bank account opening**.

These findings stress the importance of political, administrative and technical support for any such programme. Risks in these domains – and related mitigation strategies – should be mapped from the onset and would be crucial for the success of any such transfer. Due to administrative and political delays, the BCSP transfer was withdrawn a few months before the original plan, which did not allow time to communicate the withdrawal of the transfer. Programme design must also have a **detailed exit plan that adequately communicates the end of the transfer to all stakeholders**.

Key findings: Resource effect

Results from the midline and endline evaluation indicate that **beneficiaries used the cash in a strongly 'pro-nutrition' manner**, driven by the promotive messages attached to the cash transfer. In general, the cash transfer appears to have had a large impact on food expenditure at the household level, with 91% of the cash being spent on food, and it **allowed households to buy calories that are more expensive** (as measured by Rs spent per 1,000 calories). Beneficiary households saw increased spending on meat, vegetables, and sugar-based products over the life of the programme. Qualitative data also indicated that beneficiaries generally spent the money on fruits, vegetables and milk for their child and for themselves.

Midline findings and qualitative results show a significant impact of the BCSP in **improving maternal diet diversity**. Analysis of quantitative food consumption data highlighted that women in treatment blocks consumed food from a significantly greater number of food groups. Evidence from the quantitative analysis indicates that the BCSP led to small **improvements in child diets, specifically in regard to the introduction of semi-solid foods** for children between six and eight months of age.

Several beneficiaries also reported using the cash transfer for **health care expenses of children**.

This mental labelling of the cash transfer as being reserved for the health and nutrition of the child and mother is likely to have played a key role in determining consumption patterns, given that no additional behavioural change counselling was provided with the cash transfer.

Key findings: Conditions effect

Midline and endline evaluation results show a **strong increase in uptake of services at the Village Health Sanitation and Nutrition Day (VHSND)**. Large effect sizes were seen in the number of women attending the VHSND (increase of 36 percentage points), weight gain monitoring during pregnancy (increase of 17 percentage points), and child growth monitoring (increase of 22 percentage points). These were also the conditions that were **most likely to be recalled** by women who were enrolled in the programme. Furthermore, receipt of iron and folic acid (IFA) tablets by women during pregnancy increased by 14 percentage points.

However, no significant impacts were seen in the uptake of nutrition-sensitive behavioural practices that were incentivised, such as appropriate treatment of diarrhoea with oral rehydration salts (ORS). This points to the need for complementary counselling around nutrition behaviours, without which a conditional cash transfer appears to have limited impact on infant and young child feeding (IYCF) practices. Moreover, enforcement of behavioural conditions was weak, partially due to the difficulty in monitoring these conditions.

There were very significant increases in the rates of exclusive breastfeeding (20 percentage points) in the limited conditions block (where exclusive breastfeeding was not a condition) compared to the control block. However, there was no additional effect in the extended conditions block, where it was a condition, showing that improvement came from the cash transfer (perhaps as a result of increased interaction with frontline workers at VHSNDs) rather than the fact that exclusive breastfeeding was incentivised.

While beneficiaries could recall the bonus conditions and expressed an interest in attaining the bonus money, **the bonus conditions did not have a significant impact on behaviours** related to family planning or nutrition.

There was limited evidence that other VHSND services that were not explicitly incentivised (such as antenatal check-ups or immunisation) increased because of increased VHSND attendance. This suggests that **individual services need to be incentivised, and simple attendance at the VHSND is not sufficient to drive broader uptake of services.**

Overall, the BCSP experience suggests that a small value cash transfer can have large effects on service uptake but limited impact on behavioural practices, unless it is supported by strong counselling services and supportive enforcement.

Key findings: Empowerment effect

The BCSP was designed with the intent of improving women's financial and decision-making status within the household. While it was difficult to see a substantial impact on empowerment within the timeframe of the pilot, qualitative data suggest that the **cash transfer was successful in improving the self-esteem of women** enrolled in the programme. A number of women reported the positive impact of the cash transfer in improving their self-confidence by allowing them to make better decisions around child nutrition and health care. The cash transfer also **increased the physical mobility** of the women through the possession of a bank account and by necessitating visits to the AWC.

However, the cash transfer had no significant impact on changing decision-making patterns within the household. Husbands and in-laws continued to be the primary decision-makers in health expenditure and family planning. The qualitative evidence stressed that this was partly because the amount of cash received was often not sufficient to make a difference to longstanding power dynamics within the household.

Key findings: Social accountability effect

The BCSP design envisaged demand-side pressure on service providers to meet the conditions of the programme, thus improving service quality and availability. In relation to the **supply-side – service delivery – factors**, the evaluation has shown the following:

- The role of BCSP aided AWWs in their existing responsibilities, in terms of attracting more women to the VHSND, increasing compliance with vaccinations, and balancing the demand for take-home ration (THR). Similar benefits were felt by Auxiliary Nurse Midwives (ANMs) and Accredited Social Health Activists (ASHAs), who played an important role in the delivery of BCSP (e.g. awareness raising and supporting VHSNDs).
- The monetary incentive was perceived as insufficient ('lower than a manual labourer's wage') to justify the additional pressure, roles and responsibilities for the AWW. Similar claims were made by Gram Panchayat Mobilisers (GPMs) – whose role was essential in programme delivery, though for both job satisfaction played a role in overcoming this.
- There was limited impact of BCSP on the stock availability at the AWC. For example, the stock of adult weighing machines increased just marginally and insignificantly, and there was no improvement in stocks of medicines, such as IFA tablets and ORS/zinc packets.

On the **demand side**, the evaluation uncovered some interesting trends:

- Limited impact of BCSP in reversing the preference for private services for health consultations. This is due to a series of factors that range from poor availability of doctors to the poor quality of services at government facilities to the distance of the facilities from the beneficiaries.
- Barriers to service uptake were not largely affected by the BCSP, as these were mainly attributed to factors beyond the programme's control: restrictions on mobility, poor road connectivity/distances, migration and the low educational levels of the beneficiaries.
- Lack of any formal grievance redressal system, leading to limited opportunities for addressing issues with programme delivery. The AWW was the institution to whom grievances were most often voiced (which is problematic, as AWWs are not 'independent'), followed by the GPM.

Key findings: Anthropometric and biomedical outcomes

One of the primary aims of the BCSP was to improve the nutritional status of beneficiary children and mothers. Quantitative endline findings point to a significant impact of the BCSP on anthropometric outcomes for children and mothers enrolled in the programme. Difference-in-difference estimates indicate that **the programme led to a 7.7 percentage points decline in the proportion of underweight children.** This translates into a 27% decline from the baseline value. BCSP also led to a **7.7 percentage points decline in wasting** amongst children in the treatment block. This can be interpreted as a 14% decline relative to the baseline level. **No significant impact was detected on stunting**.

The BCSP led to a **9.4 percentage points decline in underweight mothers.** This translates to a 19% decline in the proportion of underweight mothers. This impact was found to be largest for the most vulnerable communities, with the **largest differences being noticed amongst poorer, less educated women (and children) from scheduled caste households.** These households performed significantly worse on the baseline too. **Because of the BCSP, an additional 14 percentage points of women were no longer anaemic at endline, when compared to baseline.** This translates into a 19% decline in the proportion of anaemic women. This decline was largely concentrated in the group of women who were moderately anaemic.

Significant positive impacts can be explained by a few factors. Firstly, the BCSP has had a **significant impact on diet diversity, especially amongst mothers**. The programme also saw **improvements in child feeding practices among children, specifically in the introduction of semi-solid foods** for infants after six months of age and **increases in exclusive breastfeeding**. Lastly, **periodic weight check-ups** of young children provided mothers with regular feedback about the child's weight, allowing them to change nutrition patterns if children were found to be below optimal growth standards. Incentivised by the BCSP, the **increase in the frequency and quality of weight monitoring of children may have played a central role in the observed improvement in outcomes in treatment blocks**.

BCSP's lack of impact on stunting, although unexpected, is not unusual. Stunting is influenced by a number of complex underlying environmental and socio-economic factors, and reflects chronic malnutrition caused by long-term poor health. It is therefore, much harder to prevent/reverse, especially over short periods of time. Many other similar interventions have not achieved a significant impact on stunting (Bastagli F. , et al., 2016).

A second reason for the observed lack of impact on stunting has to do with how stunting rates vary with the age of the child. The full first 1000 days of life (from conception to the child's second birthday) is widely recognized as the "window of opportunity for preventing undernutrition" (Martorell, Khan, & Schroeder, 1994; Black, 2013) Although stunting is virtually irreversible after the children turns two, persistent height deficits across malnourished and healthy children manifest only after the child crosses two years of age (Leroy, Ruel, Habicht, & Frongillo, 2015). Given that BCSP sampled from children under the age of two, it is likely that the survey was underpowered to detect small changes in the differences in height-for-age z scores for this age group.

Policy implications

The findings from this report provide important lessons for the design of conditional cash transfer programmes in India. While the BCSP demonstrates that a small value conditional cash transfer can have a large impact on service uptake and nutrition outcomes, there are several design elements that could be improved upon.

Design checklist for successful conditional cash transfers

- ✓ Simple, comprehensible conditions that are easy to monitor and enforce
- ✓ Robust – and poverty-sensitive – awareness-generation activities
- ✓ Continuous enrolment and flexible programme design which allows for registration by migrant populations
- ✓ Portability of entitlements across geographical locations
- ✓ Incentive system that supports various stakeholders within the programme, focused on enrolment, and allows for a grievance redressal mechanism
- ✓ Dedicated implementation team which conducts light-touch monitoring and handles back-end technology
- ✓ Complementary counselling services to promote behaviour change
- ✓ Clear communication across all levels of programme, with a detailed exit plan

A continuous, flexible enrolment process is necessary to ensure maximum inclusivity of the programme and to reach migrant populations. A longer registration window could help improve enrolment statistics amongst more difficult-to-reach populations. This enrolment process must be complemented by **strong awareness-generation activities** that use multiple avenues to improve information channels about the programme. Community-based enrolment, which relies on the AWW alone, could miss people outside the traditional Integrated Child Development Services (ICDS) service net. It would be important to engage other actors (for example, ASHAs and Self Help Groups), potentially backed by an appropriate incentive structure. **Portability of services** under the programme would help both labour migrants and migrants to the natal home.

Additionally, **support must be provided to create accounts within banks and improve access to and understanding of the financial system**. Initial registration and lack of access to financial infrastructure prevented some eligible beneficiaries from enrolling in the BCSP. In some cases, misconceptions around minimum balance requirements prevented beneficiaries from withdrawing the monthly transfer.

The BCSP evaluation finds that most beneficiaries had a limited understanding of the programme conditions, with the simplest ones being the most recalled. Where these service uptake conditions were applied, the largest improvements in uptake through the pilot were seen. More complicated conditions focused around behaviour change were difficult to enforce and had limited impact. Thus, future conditional cash transfer programmes should focus on **simple, comprehensible conditions** that are easy for beneficiaries to understand and for service providers to enforce. Behaviour change conditions, if any, must be complemented **by strong counselling and communication services**.

This pilot saw minimal leakage in payment transfers and generation of payment lists. This can be attributed to the automated cash transfer through banks and to monitoring by the implementation team. **A small but dedicated implementation team** that monitors service providers, supervises payment process and eases any difficulties within the government system is important for the smooth transfer of payments.

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List of abbreviations

ANC	Antenatal care
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
AWC	Anganwadi Centre
AWW	Anganwadi Worker
BCC	Behaviour change communication
BCSP	Bihar Child Support Programme
BL	Baseline
BMI	Body mass index
BTAST	Bihar Technical Assistance and Support Team
CDPO	Child Development Project Officer
CIFF	Children's Investment Fund Foundation
CMR	Conditions Met Report
DFID	UK Department for International Development
DID	Difference-in-differences
DPO	District Programme Officer
GPM	Gram Panchayat Mobiliser
HAZ	Height-for-age z-score
ICDS	Integrated Child Development Services
IFA	Iron and folic acid
IGMSY	Indira Gandhi Matritva Sahyog Yojana
IYCF	Infant and young child feeding
MIS	Management information system
ML	Midline
NEFT	National Electronic Fund Transfer
NFHS	National Family Health Survey
NFSA	National Food Security Act

ODI	Overseas Development Institute
OPM	Oxford Policy Management
ORS	Oral rehydration salts
PMMVY	Pradhan Mantri Matritva Vandana Yojana
PSU	Primary sampling unit
Rs	Rupees
SC	Scheduled caste
SWASTH	Sector Wide Approach to Strengthening Health
SWD	Social Welfare Department
THR	Take-home ration
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VHSND	Village Health Sanitation and Nutrition Day
WAZ	Weight-for-age z-score
WHZ	Weight-for-height z-score
WHO	World Health Organization

Part A: Background and methodology

1 Introduction

This report presents the findings from the quantitative and qualitative research conducted for the evaluation of the Bihar Child Support Programme (BCSP). It provides an overview of the design and implementation of the cash transfer and an analysis of the impact of the pilot programme. In this chapter, the BCSP is described.

The rest of the report is structured as follows. The evaluation design is presented in Chapter 2. Chapter 3 presents general characteristics of the sample of households and villages covered during the evaluation. Issues of access to and awareness of the BCSP are discussed in Chapter 4. Chapters 5 and 6 explore the impact of the cash and the conditions respectively. Chapter 7 shows the anthropometric impact of the programme. The social accountability effect of the programme is analysed in Chapter 8. This is followed by a discussion of the empowerment effect of the programme in Chapter 9. A short conclusion ends the report.

1.1 Overview of BCSP

The BCSP was a conditional cash transfer pilot undertaken by the Government of Bihar. It was targeted at pregnant women and mothers of young children, with the aim of reducing maternal and child undernutrition. The BCSP was initially supported by the UK Department of International Development's (DFID's) Sector Wide Approach to Strengthening Health (SWASTH) programme and later by the Children's Investment Fund Foundation (CIFF). The pilot was implemented in two blocks in Gaya District, Bihar, covering 261 Anganwadi Centres (AWCs) and over 9,000 beneficiaries.

In recent years, the continued high rate of child undernutrition in India has become an important policy issue at central and state level, and has received significantly greater focus amongst academics and researchers (Haddad, L., 2013). This reflects a renewed interest in the issue globally, culminating in the headline '2013 Series on Maternal and Child Nutrition' published in the *Lancet* (Black, R. E., *et al*., 2013), based around the understanding that child undernutrition has irreversible long-run consequences for mental and physical development.

High malnutrition rates across south Asia, higher than much poorer countries in sub-Saharan Africa, have long posed a dilemma for policy-makers and academics. Data from the latest National Family Health Survey 2015–16 (NFHS 4)[2] places Bihar near the bottom of the nutrition ladder in India, with 39.8% of children under five years reported as stunted; 21.3% of children under five years reported as wasted and 37.5% of children under five years recorded as underweight. Over 60% of pregnant women (between the ages of 15 and 49 years) were found to be anaemic.

Against this backdrop, the results from the **BCSP** become particularly important in assessing:

a) The **viability** of a delivering a cash transfer programme with minimal leakages and maximum transparency; and

b) The **impact** of a cash transfer in improving child and maternal nutrition outcomes.

The evidence has important implications for the design and delivery of the new Prime Minister's Maternity Benefit Programme, Pradhan Mantri Matritva Vandana Yojana (PMMVY), which will be

[2] International Institute for Population Sciences (2016). http://rchiips.org/NFHS/pdf/NFHS4/BR_FactSheet.pdf.

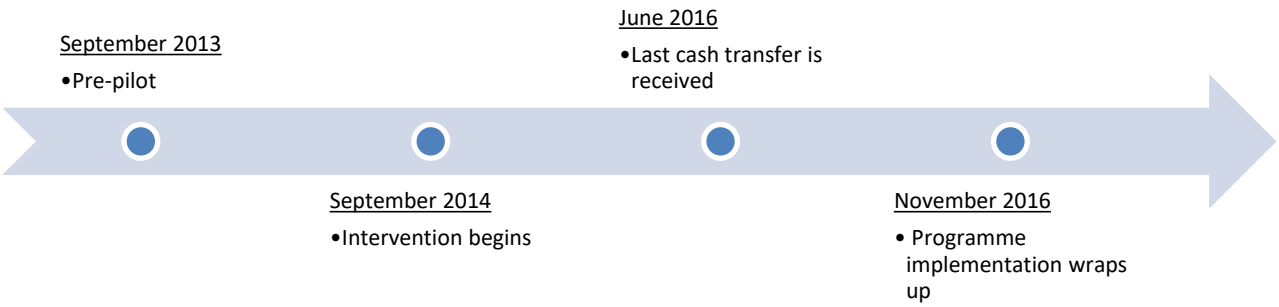
implemented from 2017 as a conditional cash transfer as part of the National Food Security Act (NFSA).

1.2 Design of the cash transfer

All pregnant women were eligible for the scheme from the fourth month of pregnancy onwards. Women needed to register for the programme at the local AWC. Women enrolling in the programme needed to have a bank account in their name: joint accounts with other family members were not accepted. Equity concerns and programme enrolment are discussed in detail in Chapter 4.

The BCSP began as a pre-pilot programme in September 2013, followed by implementation of the pilot in September 2014, which continued until November 2016. OPM undertook data collection for the baseline assessment in July–September 2013, for the midline assessment in July–August 2014 and for the endline evaluation in November 2016 and February 2017. A detailed timeline can be found in the figure below.

Figure 2: Timeline of the Pilot



Two variants of the conditions were tested in the treatment blocks of Atri and Wazirganj. The evaluation design had two control blocks: namely, Khizarsarai and Mohra. The former used only the BCSP technology system with no conditions or cash transfers and the latter was a pure control block. The selection of the blocks was done as part of the quasi-experimental evaluation, as discussed in Chapter 2.

1.2.1.1 Conditions of the programme

Under the BCSP, beneficiaries were eligible for a **monthly payment** of Rs 250 between the end of the first trimester of pregnancy and the child's second birthday (a total of 30 months). In addition, beneficiaries were eligible for a **birth spacing bonus** in Wazirganj. Beneficiaries would get the birth spacing bonus of Rs 2,000 if they had not become pregnant again 24 months after giving birth. Similarly, in Atri, the beneficiaries would receive a **child growth bonus** of Rs 2,000 for the child's weight being normal (i.e. the child not being underweight at the age of 24 months). Therefore, in total the BCSP could have been worth up to Rs 9,500 per beneficiary.

In both blocks, the transfer was conditional on women attending **Village Health, Sanitation and Nutrition Days** (VHSND)[3] every month and fulfilling a set of additional conditions. In Wazirganj, there were 'limited' conditions like weight monitoring during pregnancy, child growth monitoring and oral rehydration salts (ORS) administration. In Atri, there were 'extended' conditions in addition to the 'limited' conditions, with women also required to receive certain services, including iron and folic acid (IFA) supplementation for mothers, and appropriate treatment for diarrhoea. If any of the

[3] The VHSND – a monthly event mandated by the Government of India – is a platform through which critical health and nutrition services are provided. Here, mothers can receive services such as weighing of her child, receiving counselling from a frontline worker, immunising her child, etc.

services were not available at a particular VHSND, the conditions were relaxed so that the beneficiary was not penalised.

The conditions are shown in the figure below:

Figure 3: Conditions associated with the cash transfer

1.2.1.2 Payment systems

One of the pathways to impact assumed in the theory of change of the BCSP is that cash payments can augment the liquidity of households and increase their resource availability. In addition to impacts on aggregate consumption, BCSP was also expected to specifically increase food consumption, in line with the nutrition counselling provided at VHSNDs. For the BCSP, **monthly payments** were chosen over quarterly (or less frequent) payments because the global evidence suggests that small predictable transfers are more likely to be converted into consumption expenditure than less frequent and 'lumpy' transfers (Haushofer & Shapiro, 2013). Crucial to test this assumption is the presence of an effective and regular payments system.

Under the BCSP, the **AWW** was responsible for registering beneficiaries, reporting on the fulfilment of conditions and providing some of the services that the conditions were based on. The AWW was provided with a mobile phone, with a **BCSP application** pre-loaded. Using this application, she was responsible for registering beneficiaries, and recording their adherence to conditions. Data from the application were automatically transmitted to a server, which generated payment lists.

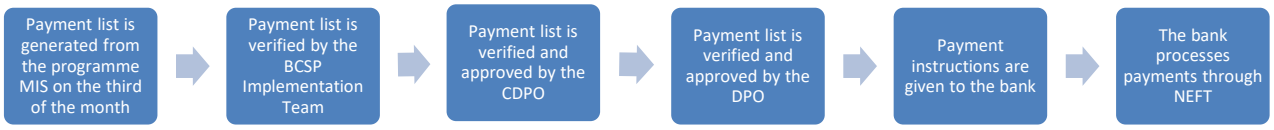
The BCSP staff[4] verified these payment lists, before passing them on to the CDPOs, who were responsible for signing off block-level payment lists, and to the District Programme Officer (DPO), who were responsible for compiling payment lists.

Funds for the programme were held in the DPO's official bank account and instructions were given to the bank to execute the payments, made through direct bank transfers using National Electronic Funds Transfer (NEFT). The State Government transferred funds in advance to the DPO, based on utilisation certificates of previous expenditure. This ensured that cash was delivered on time (within

[4] It is important to note that the BCSP implementation team was hired by OPM for the duration of the project. The team operated out of an office in Gaya, Bihar.

20 days of the end of the month), leakages and fraud were minimised through using the banks' own systems of verification for enrolment and withdrawal, and transaction costs were kept low. Once the concerned officials approved the payment lists, the money was transferred to the beneficiaries' accounts. The entire process is summarised in the following figure:

Figure 4: Payment Process for the BCSP



1.2.1.3 Service delivery and incentives

As mentioned earlier, the AWW was the fulcrum of the BCSP. The AWW received incentive payments (Rs 100 per month for a successful VHSND service availability form, and Rs 5 for every growth monitoring data record) to ensure that she completed her duties under the BCSP.

The incentive structure was designed so that AWWs would be inclined to report truthfully and not overstate service provision. AWW incentives were based on inputs (submitting data) and not outputs (apart from growth monitoring) or outcomes. AWWs were paid Rs 100 for completing service availability forms and Rs 5 for growth monitoring of each registered child. They were not paid any differently based on the number of beneficiaries meeting conditions. No penalties were levied for non-availability of services. Apart from the frequency of weight monitoring of pregnant women and growth monitoring of children, they did not have incentives to overstate outputs or outcomes.

The mobile phone application was also meant to enable the AWW to improve her own service delivery through a case management tool and by having pre-installed behavioural change communication (BCC) messages that could be played to beneficiaries. The programme design envisaged a server which would have the ability to automatically send text message alerts to beneficiaries, either with BCC messages or time specific alerts about the need for or the receipt of services. Unfortunately, this functionality was not implemented in the programme due to procurement and technical delays.

1.3 Implementation status and operational overview

OPM oversaw the implementation of the cash transfer, with a dedicated project team in Gaya, Bihar. This team was responsible for overseeing the implementation of the programme; providing technical support to AWWs; generating payment lists of beneficiaries; and ensuring smooth transfer of payments to beneficiaries. Automated payment lists were generated through the MIS system and verified by the implementation team, ensuring minimal leakage. Data from the application were automatically transmitted to a server, which generated payment lists. These lists were passed on to the CDPOs, who signed off on block-level payment lists, and the DPO who was responsible for payment lists. Funds were transferred through direct bank transfers using NEFT.

The advantage of this system was that calculations were made automatically and instantly based on routine service data captured by the AWW. Other cash transfer programmes in India, such as IGMSY, rely on beneficiaries knowing when they have met conditions and pushing payment requests up through the system. Many eligible beneficiaries would not know when to demand cash, and if

they did, would receive it with long delays in this model. Under BCSP, beneficiaries automatically received payment, with around 71% of beneficiaries meeting conditions and being paid every month. At peak efficiency, payments were made directly to bank accounts within two weeks of the end of every month.

OPM conducted operational reviews in June 2015 and March 2016 to review the data collected in the MIS reports and to conduct a process mapping of the programme stakeholders to understand the challenges and limitations in programme implementation.

The BCSP team worked with government functionaries to generate payment lists and ensure smooth transfer of the cash transfer. Until September 2016, the monthly activities for generating payment lists were performed by the BCSP implementation team. In October 2016, the BCSP team carried out training with government staff to acquaint them with the MIS systems of the cash transfer and to equip them to smoothly carry out implementation and payment activities on their own. The team also provided handholding support over the next few months in the payment list generation and verification process. Follow-up training and coaching from the BCSP implementation team were expected to be carried out between November 2016 and January 2017.

Due to administrate delays, payments for the last few months were not released by the appropriate State Government department. This led to the abrupt withdrawal of the cash transfer, a few months before the expected end of the pilot. This was not adequately communicated to AWWs or beneficiaries, eroding the trust built in the government system and the programme. Addressing this gap would be crucial for the sustainability and replicability of any future cash transfer.

1.4 Concluding remarks

The BCSP designed a complex ‘push and pull’ system that could be delivered through government systems with light-touch monitoring. The AWW was the fulcrum of service delivery within the programme, responsible for registration and service delivery. The use of web applications and phones made it easier for the AWW to deliver her responsibilities under the programme. The impact of this on the workload of the AWWs is discussed in subsequent chapters.

Automated payment lists generation and verification by the implementation team was crucial to implementing a smooth cash transfer and ensuring minimal leakage. Alignment with government officials and bank officers was extremely important, and it took a few months to iron out issues within the system. Scaling such a cash transfer design will require the effort of a dedicated technology team in the first few months, to guarantee payment lists are easily generated.

Political and administrative support is necessary for any such programme. It is important to achieve continuous support for the transfer, through its lifetime. Abrupt closure to cash transfer payments could have implications regarding trust in government programmes and this risk needs to be constantly mapped. Designing and delivering a simple cash transfer system through government channels can be a technically and politically complex process. Mapping the political, administrative and technical risks is crucial for the success of any such transfer.

2 Impact evaluation methodology

2.1 How impact is assessed

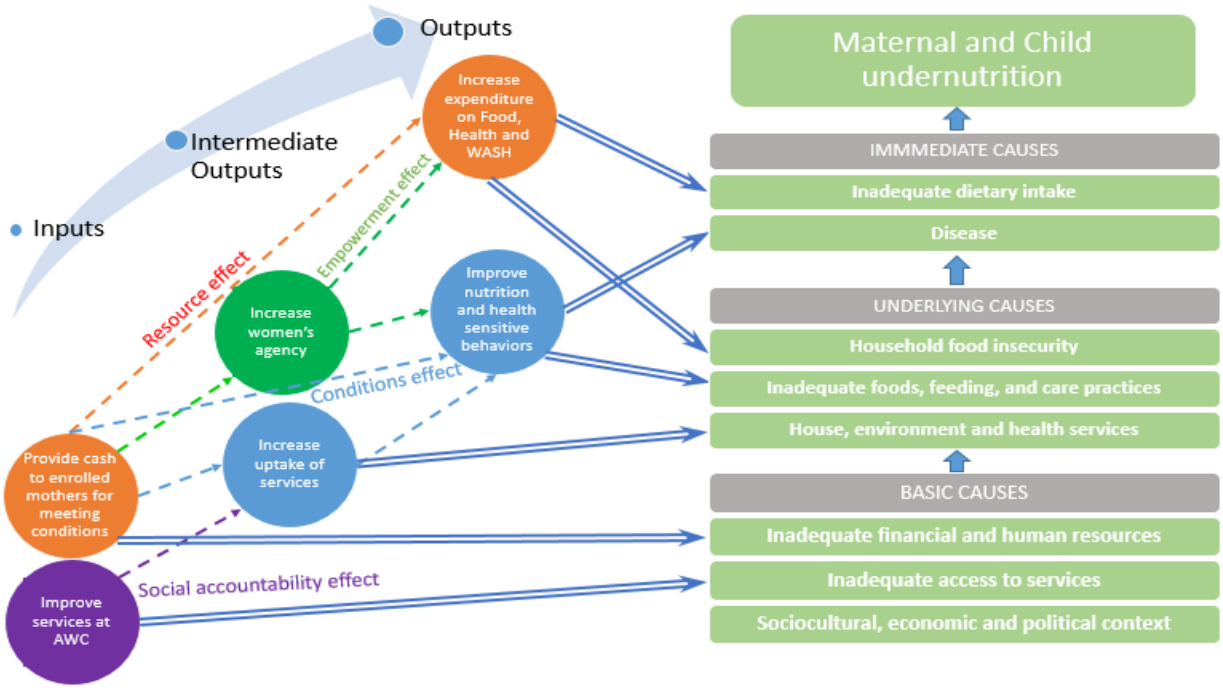
2.1.1 Theory of change

The evaluation of the BCSP takes as its framework a theory of change that recognises the potential of conditional cash transfers to achieve reductions in maternal and child undernutrition. Potential 'pathways to impact' that the BCSP may have had, which have been tested through the evaluation, include:

- **A resource effect**: whether the additional household income received due to the BCSP was translated into increased expenditure on food (and more nutritious food), health care and other pro-nutrition expenditures;
- **A conditions effect**: whether beneficiaries changed their behaviours and sought out available services in order to fulfil the conditions and receive the money;
- **An empowerment effect**: whether the fact that the cash was transferred to a woman improved her status within the household and her decision-making power, control over resources and time use; and
- **A social accountability effect**: whether beneficiaries pressured service providers to improve the accessibility and quality of services to enable them to meet the conditions.

Components of the BCSP design were combined with the envisaged pathways of impact and further mapped to UNICEF's conceptual framework of the determinants of child undernutrition[5] to arrive at a theory of change.

Figure 5: Theory of Change



[5] See https://www.unicef.org/nutrition/files/Unicef_Nutrition_Strategy.pdf

Each of these effects has multiple assumptions underpinning the expected chain from inputs to impact, which are detailed in the relevant chapters. The one overarching assumption is that the mechanics of the cash transfer work smoothly: i.e. that the right amount of cash is disbursed to the right people at the right time, with minimum fiduciary risk, leakage or transaction costs (e.g. expenditure on transport to reach the bank to withdraw the money).

2.2 The likely magnitude of the effect

BCSP may have improved final nutrition outcomes through a variety of direct and indirect transmission mechanisms: although these are all predicated on multiple assumptions that are measured and tested as part of the evaluation. It is also important to note that there are many other determinants of nutrition outcomes that were not covered by the BCSP because they would not be appropriate conditions for, or amenable to influence by, a cash transfer. These confounding factors include, among many others, the age of first pregnancy for mothers, the quality of the sanitation infrastructure and the quality and coverage of health providers.

The international experience of cash transfers suggests that whilst conditional cash transfers tend to be effective at increasing the uptake of health and nutrition services, the extent to which this is translated into improved final outcomes is highly mixed, and tends to be higher in contexts where the quality and coverage of service delivery is relatively strong (Gaarder, Glassman, & Todd, 2010).

Most of the available evidence comes from Latin America, where some of the big success stories include Colombia (Attanasio, Maro, & Vera-Hernández, 2013), which found a 6.9% relative reduction in stunting for children under the age of two; Nicaragua (Maluccio & Flores, 2005), which found a net reduction of 5.5 percentage points in underweight children under five after two years of the programme; and Mexico (Hoddinott & Bassett, 2008), which found that the prevalence of stunting amongst children under three was reduced by 7.3 percentage points[6].

These kinds of magnitudes have been replicated outside of Latin America, although the evidence from south Asia is limited. A recent Impact Evaluation of the Mchinji Social Cash Transfer Pilot in Zambia by the US Agency for International Development (USAID), the UN Children's Fund (UNICEF) and Boston University found that after one year, the difference-in-differences (DID) impact estimates of the Body Mass Index (BMI) for underweight adults was 2.5 percentage points, for wasting in children it was 2.2 percentage points, for stunting it was 4.2 percentage points, and for underweight it was 10.5 percentage points.

There are reasons to think that a similar magnitude of effect may have been realistic for the BCSP, especially given the high baseline rates of malnutrition, suggesting significant potential gains. However, malnutrition rates have been stubbornly high in India and do not tend to show rapid changes; and the confounding factors, especially around sanitation and hygiene, are considerable. The evaluation has been designed around an expected reduction in rates of undernutrition of five percentage points.

2.3 Key research questions and areas of impact

The evaluation measures a range of quantitative indicators across three broad impact areas, following the theory of change:

- Uptake of health and nutrition services;
- Expenditure on food, health and water, sanitation and hygiene; and

[6] The programme in Mexico represents a special case since it also provided nutritional supplements to children.

- Uptake of nutrition and health sensitive behaviours.

These indicators and areas of impact were identified in coordination with programme stakeholders at the inception phase of the implementation of, and evaluation design for, BCSP.

A series of qualitative research questions are also investigated. The qualitative research is not intended to mirror or exactly duplicate the quantitative survey: whilst it does provide some qualitative information on indicators covered by the quantitative survey, its primary aim is to capture impacts and explore contextual factors that are less easy to quantify. A number of key potential impacts are explored consistently throughout the qualitative research:

- Increased access to health care and food.
- Increased decision-making power in the household and access to formal banking system amongst women enrolled for the programme.
- Increased uptake of services and nutrition-related behaviours; and
- Socioeconomic factors leading to a reduced uptake and exclusion from the programme.

The evaluation adopts a **mixed methods** approach in order to provide an assessment of the impact of the BCSP across a range of indicators and impact areas. To answer research questions related to a complex conditional cash transfer programme in the Indian context while tracing the pathways to impact, comprehensive evidence needed to be generated, which was best achieved by a collaboration between quantitative and qualitative methods. In this study, different methods were used to measure the same phenomenon to enhance interpretation and understanding. The quantitative and qualitative research teams have worked closely to analyse and present findings together in the chapters that follow.

2.4 Quantitative methodology

The quantitative component of this evaluation aims to estimate programme impact by comparing information gathered from households living in areas that received the BCSP cash transfer with information from households living in areas that did not receive the transfer, with the across-time difference between these two groups representing the impact of the programme.

The implementation of the BCSP was based on a **quasi-experimental design,** under which different levels of treatment were assigned (non-randomly) to pre-matched blocks. A purer experimental design in the form of a randomisation of treatment at the community or beneficiary level was not possible because of the need to test the ability of government administrative tiers to deliver the programme in the same way that they would have to if it was scaled. Moreover, implementation of an intervention like the BCSP at the household or community level is likely to have substantial spillover effects on surrounding areas, further weakening the case for random assignment of treatment.

The quantitative impact analysis presented in this report is based on the **DID methodology[7].** More information on this methodology can be found in Annex A. Information on how to read graphs and tables, and an explanation of significance levels can be found in section 2.4.7.

[7] DID impact estimates presented in this report have been calculated after controlling for household demographics (caste and religion), socio-economic status (parental education, poverty status, and ownership of assets), and relevant village characteristics.

2.4.1 Selection of blocks

Comparing changes to key indicators between different geographic units across time using the DID method runs the risk of producing biased or misleading results if there are systematic differences between the geographic areas or confounding factors unrelated to the programme that influence the key indicators unequally across the different areas (thus violating the parallel trends assumption).

Implementation of the programme was designed to minimise this bias. At the baseline stage, blocks were selected based on a **matching** algorithm that 'paired' blocks that were as similar as possible. Econometrically, matching was not done on the evaluation indicators: rather, it was done on factors that may have had a confounding effect on these indicators. The number of matching factors was kept limited to avoid over-specification and only continuous scale variables were used. The following variables were considered:

- female literacy;
- population per Anganwadi Worker (AWW) (to proxy service delivery);
- AWW per Lady Supervisor (to proxy supervisory levels);
- average population per village (to proxy population density);
- proportion of socially excluded groups (scheduled castes (SCs)), who may face differential access to services due to discrimination; and
- male:female population ratio as a proxy for migration.

This was achieved using information from the 2011 Census, internal data of the Social Welfare Department (SWD) and manually collected data from the Child Development Project Officers (CDPOs). Analysis at the baseline showed that the matching of the blocks was successful in terms of the statistical equivalence of the key impact indicators.

Based on this matching exercise, the first block, Khizarsarai, became the control block. This block received the same supply-side systems as the two treatment blocks (i.e. a mobile phone-based monitoring system), but without the cash transfer. The best match for Khizarsarai, Wazirganj, received the 'limited' version of the cash transfer (the 'limited conditions block'). The best match for Wazirganj, Atri, received the 'extended' version of the cash transfer (the 'extended conditions block')[8]. Essentially, the three blocks can be characterised as the following:

- **Control block with technology system (Khizarsarai)** – where there was no cash transfer but the AWW used the mobile phone application to improve service delivery;
- **Treatment block 1 with limited conditions (Wazirganj)** – where there was cash transfer conditional upon limited conditions; and
- **Treatment block 2 with extended conditions (Atri)** – where there was cash transfer conditional upon extended conditions

This matching enables the disaggregation of the impact of the cash transfer from the impact of the systems that underpin the cash transfer (by comparing Wazirganj to the Khizarsarai), as well as the marginal impact of adding in the additional four extended conditions in Atri (by comparing Atri to Wazirganj). Given that the control block (Khizarsarai) and extended conditions block (Atri) were not directly matched at the baseline stage, impact estimates that compare this pair of blocks have not been presented in the main report, although they are presented in the annexe.

[8] This characterisation of blocks as 'limited' and 'extended' relates to the number of conditions the cash transfer is conditional on in each block.

Figure 6 is a diagrammatic representation of the step-wise nature of the treatment at the baseline stage.

Figure 6: Characterisation of blocks in the programme design

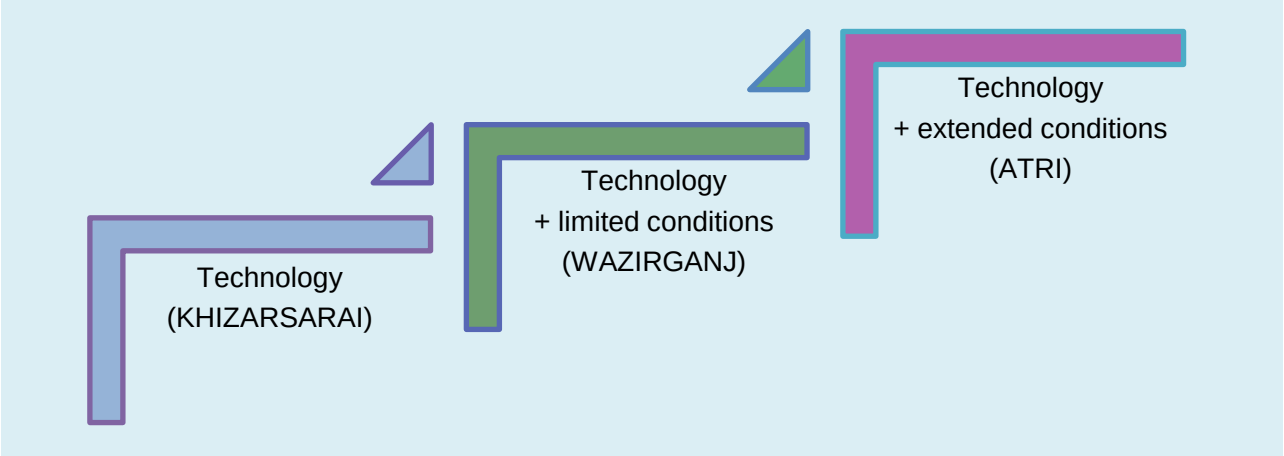
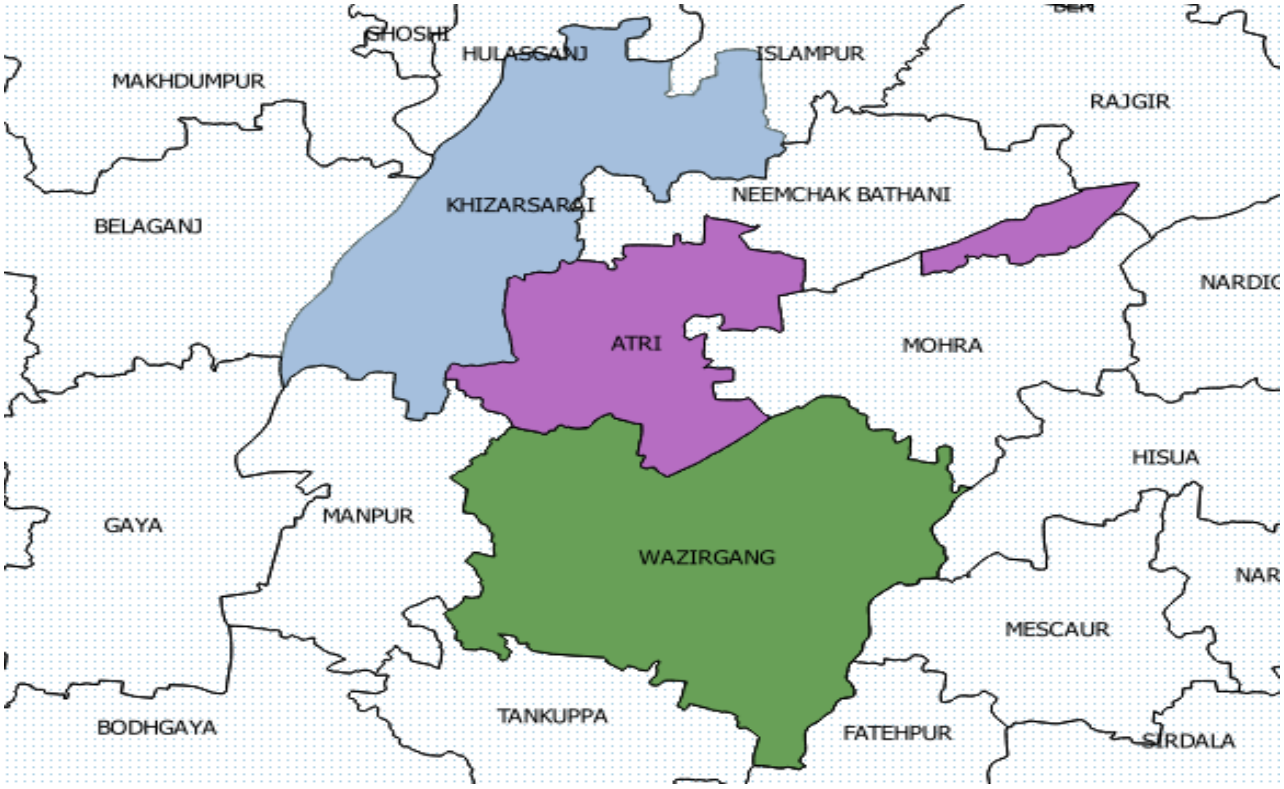


Figure 7: Map of Pilot Blocks



2.4.2 Dropping the pure control block for the endline survey

A fourth, pure control block (Mohra) was also covered at the baseline and midline stages of the BCSP study. Mohra did not receive any part of the BCSP intervention, and was matched to the 'only technology' block at the baseline stage, with the aim of isolating the impact of the supply-side intervention through a comparison of this matched pair of blocks. It was felt to be important to measure the effect of BCSP's technology systems in isolation because if they are proved to have a big effect, they could be introduced without the conditional cash transfer for a much lower cost.

However, DID impact estimates at the midline stage that compared the 'only technology' block to the pure control block indicated that the addition of technology had no significant impact across a range

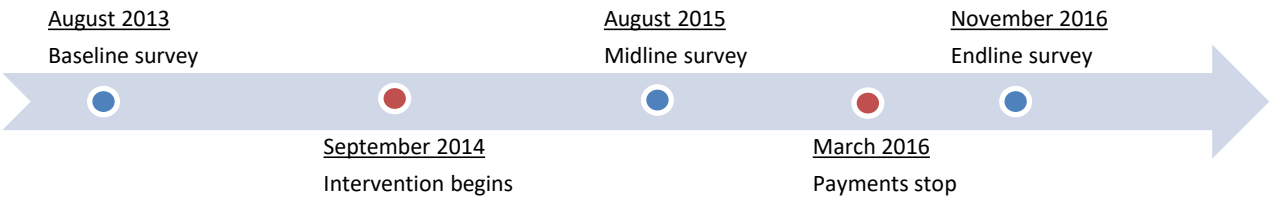
of indicators. This finding was supported by the programme team, who reported low levels of implementation uptake in the 'only technology' block.

As a result, Mohra was dropped, and only Khizarsarai, Wazirganj and Atri were covered at the endline stage. Consequently, this study is not able to isolate the effects of just including a technology system to improve the efficiency of service delivery. The main impact estimates presented in the report are for the marginal impact of adding in the conditional cash transfer on top of the implementation systems: i.e. comparing the 'limited conditions' block with the 'technology only' block (henceforth referred to simply as the control block). Given that the measured impact of the supply-side intervention was very low at midline, this comparison offers a good estimate of the entire BCSP intervention package taken together. Accordingly, Khizarsari is referred to as the 'control block' in the text that follows.

2.4.3 Survey rounds

The quantitative evaluation is based on data collected in **three cross-sectional rounds** of a survey of mothers of children aged two years or younger where households were sampled from the same primary sampling units (PSUs) across the baseline and midline surveys. The survey, with a sample of 1,500 mother-child dyads in each of the four blocks, is a repeated cross-section of a randomly selected sample of mothers from a panel of AWCs (the PSU). The baseline was conducted in July–September 2013, the midline in August–October 2015, and the endline in November 2016 – January 2017.

Figure 8: Timeline of the Evaluation



2.4.4 Respondents and survey instruments

In order to construct indicators to test the pathways to impact, questionnaires were administered to sampled women about the household, themselves, their eligible child (at least one or more), and the programme, and anthropometric measurements were taken for the women and their eligible children. Two additional questionnaires were administered – one to the AWW and one to a village-level representative who could provide general information about the PSU: i.e. the AWC catchment area.

2.4.5 Sampling strategy

The need for comparability across survey rounds called for the design and development of a sampling strategy for the endline stage of the evaluation that was in line with the sampling strategy adopted for the baseline and midline stages. This was in turn based on the evaluation framework, which comprises three different treatment/control blocks. The purpose was to get representative results at the block level for each of them.

2.4.5.1 Selection of blocks

The endline survey was conducted in three selected blocks – two **treatment** blocks, and one **control** block. As mentioned above, the blocks were matched in pairs at the baseline stage according to a

step-wise matching procedure that ensured the most similar blocks were selected as **pseudo-control** and **pseudo-treatment** in order to maximise comparability and therefore reduce bias.

2.4.5.2 PSU: AWCs

The PSU is defined as the coverage area of an AWC, which is equivalent to a village in most cases[9]. The evaluation covers a panel of PSUs across the three survey rounds to control for cluster-level effects. The **PSU** for the survey remained the catchment area of the **AWC**. 165 **AWCs (55 in each of the three blocks) were randomly sampled at the baseline stage** from the compiled list of all functional AWCs from within each block.

2.4.5.3 Secondary sampling unit: Households

Within each PSU, a randomly drawn **repeated cross-section** of households was drawn at each stage of the survey. Households were sampled from each AWC (**35 households after oversampling**) using random sampling based on the eligible household list (based on the existence of at least one eligible woman) drawn from within each cluster. There was an equal probability of households with eligible women being selected but only one woman per household was selected for the survey.

Please refer to Annex A for the sampling protocol used for the endline survey.

2.4.6 Weights

In order to obtain estimates of key indicators that are representative at the block level, data were analysed using sampling weights that were equal to the inverse of the probability of an observation being selected into the sample. This consisted of calculating the probabilities of selection of a household over the two stages of sampling, selecting a PSU within a block, and selecting a household within a PSU. Weights were appropriately normalised for each sub-population under consideration. Annex A provides further explanation of the methods used to calculate sampling weights.

2.4.7 How to read tables

Tables in this report follow a uniform format. Each estimate is shown as the proportion (or mean) of the indicator with the standard error of the estimate and the 'N' value below the estimate, in this order.

For indicators calculated as proportions, estimates are reported as percent, while standard errors are reported as proportions. Results are presented in three standard formats:

1. At endline: These tables present levels of indicators at the midline stage, comparing levels across blocks. The results of pairwise t-tests for differences are presented using significance stars on the estimate in each column with respect to the column on the right.

T-tests at endline between women who moved to their mother's home for last delivery and those who did not: BCSP enrolment levels	
Outcome/indicator	**Overall**

[9] Some large villages have more than one AWC, to service their larger population more effectively.

	Delivered last child in same village	Delivered last child in mother's home
BCSP enrolment		
Eligible women registered under BCSP	53.2	40.7 ***
	(2.13)	(2.33)
	1775	720

Source: BCSP Midline Survey (August–October 2015) and Endline Survey (November 2016–January 2017)

Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where: = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

2. Endline vs Baseline: These tables present levels of indicators in different blocks, across the baseline and endline stages. Significance tests compare proportions or means between the baseline and endline stage for each block.

T-tests at endline: VHSND attendance with the child

	Extended conditions		Limited conditions		Control		Overall	
Outcome/indicator	**BL**	**EL**	**BL**	**EL**	**BL**	**EL**	**BL**	**EL**
VHSND attendance with child								
Children who have attended the VHSND at least once	43.3	53.1**	54.2	61.5*	68.6	37.9***	57.8	41.9***
	(2.75)	(2.49)	(3.06)	(2.80)	(2.54)	(1.76)	(1.79)	(1.50)
	1616	1337	1575	1250	1566	1407	4757	3994

Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017).

Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

From the above table, VHSND attendance for children rates improved significantly in both treatment blocks, while falling significantly in the control block across the baseline (BL) and endline (EL) surveys.

3. DID: These tables present the difference-in-differences impact measures – the difference between endline and baseline for treatment households minus the corresponding difference for control households. We present estimates that reveal impact of the BCSP in a stepwise manner, comparing the extended conditions block to the limited conditions block and the limited conditions block to the control block. Estimates from these comparisons reveal the isolated impact of introducing extended conditions and introducing the CCT with limited conditions, respectively.

DID between baseline and endline: IFA supplementation

Outcome/ indicator	**Extended conditions vs. Limited conditions**	**Limited conditions vs. control**
	Dif 1 – Dif 2	**Dif 2 – Dif 3**
IFA supplementation		
Women who received at least 30 IFA tablets during their last pregnancy	14.48***	2.57
	(3.87)	(4.35)

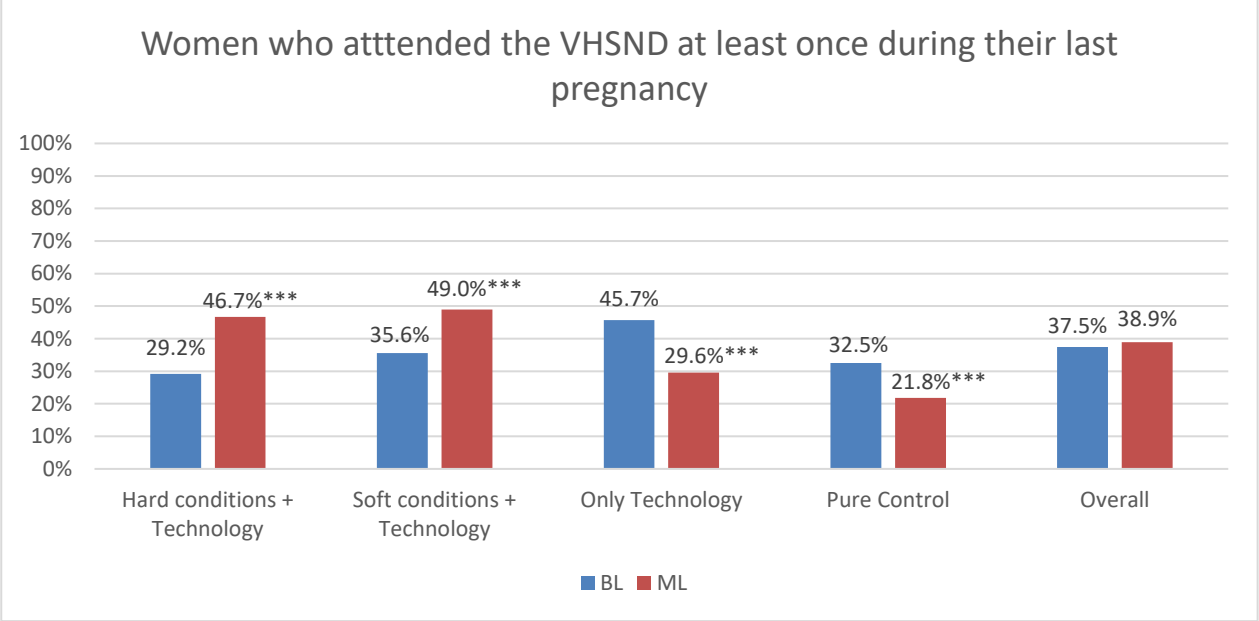
Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017).

Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

All significant differences are denoted in these tables by three (***), two (**) or one (*) asterisks, signifying differences at 99.9 per cent, 99 per cent and 95 per cent confidence, respectively. It is important to note, however, that where results are not asterisked, it does not mean that there is no difference between the groups but rather that any difference cannot be asserted with a high degree of confidence (95 per cent or more). The figures relate to percentage points, so that an estimate of 14.48 equates to 14.48 percentage points.

2.4.8 How to read graphs

The majority of graphs in this report follow the following template:



Source: BCSP Baseline Survey (Jul-Sep 2013) and BCSP Midline Survey (Aug - Oct 2015). For more information, please refer to Annexe G.1.2.

Values at baseline are denoted in blue, and values at endline in red. Asterisks on midline figures denote the usual meaning of a significant difference between the baseline and the midline values at the 95 per cent, 99 per cent and 99.9 per cent level for one, two and three asterisks, respectively. The source at the bottom of the graph points to the annexe table where detailed figures for the indicator under consideration can be found.

2.5 Qualitative methodology

Alongside the quantitative estimate of programme impact, the evaluation used qualitative data, both to provide contextual information and triangulation for the quantitative data, and to capture impacts and explore factors that are not easily quantifiable. Two rounds of qualitative research were completed, one at midline (described in the midline report) and one at endline.

The endline qualitative study design drew from the theory of change and the project's baseline and midline evaluation report. It set out to explore the overarching research questions described in Section 2.1

The qualitative research drew primarily on three data collection approaches. These are:

- **Key Informant Interviews:** Key Informant Interview is a type of an in-depth interview which is done with those who know what is going on within a community and have first-hand knowledge

about the community such as community leaders, teachers in a village, and doctors. These community experts provide an insight on the nature of problems within the community such as motivations and beliefs of community residents on a particular issue. In this study, key informant interviews were conducted with the community leaders.

- **In-Depth Interviews** are interviews in which participants are encouraged and prompted to talk in depth about the topic under investigation without the researcher's use of predetermined, focused, and structured questions, and pre-defined choices. An in-depth interview is unstructured and flexible but with a general plan of inquiry that has specific topics and questions to discuss and probe but not in a particular order so that interview proceeds smoothly and naturally with the respondent doing most of the talking. The interviewer listens, takes notes, probes according to the respondent's answers, and guides the interview accordingly. In this study, in-depth interviews were conducted with the beneficiary, beneficiary's husband, beneficiary's mother-in-law, GPM and AWW.

- **Field Insights:** This involves insights about the respondent and detailed field notes such as the setting of the interview which could be the village or the respondent's house, or insights about non-verbal communication (such as willingness to talk, body posturing, facial expressions) of the respondent, which affects how the interview is conducted. For the study, field insights were noted as part of the field notes.

2.5.1 Sampling

2.5.1.1 Selection of research locations

Community-level sampling was stratified by levels of overall performance, as reported by programme staff,[10] and we randomly selected one high and one low performing community in each district. This was then crosschecked with existing census data on the community's socioeconomic profile, to ensure selected villages were broadly representative of the profile in other communities within the district.

2.5.1.2 Sampling of respondents

The approach to sampling respondents varied for different respondent types.

- Key informants were purposively sampled based on their position.
- Beneficiaries were sampled purposively, using administrative and evaluation data.
- Husbands and mothers-in-law were sampled based on whoever had been sampled as a beneficiary.
- Non-beneficiaries were sampled using a combination of snowballing and criterion sampling. Caste of the woman and the number of children were the two main criteria used to purposively sample.
- The total sample size was 52 persons.

[10] Using the programme's data AWCs for each block were categorised as 'well' and 'poorly' performing. These categories were assigned based on three criteria: the grade given to the AWW by the programme team that was based on her understanding and use of the mobile phone to record the BCSP conditions, the total number of beneficiaries registered in each AWC and the percentage of beneficiaries that were able to meet the conditions from September 2014 to June 2015, as recorded in the programme's MIS. June was the last month for which the most comprehensive details were available on the MIS. These criteria were used as a proxy for overall performance of the programme and sample AWWs and Accredited Social Health Activists (ASHAs) in selected villages.

2.5.2 Timing of, and approach used in, the research

The endline research took place in the month of February 2017 and was spread over a two-week period. The fieldwork was facilitated by nine field researchers, together with two Oxford Policy Management (OPM) full-time staff members. Researchers attended a five-day training session in Patna conducted by the two full-time OPM staff members.

For the fieldwork, two days were spent in each community. The first day of the field research mainly focused on creating a social map of the community and conducting interviews with the key informants, i.e. the Community Leader, the AWW, and the Gram Panchayat Mobiliser (GPM). The same community was revisited on the second day to conduct interviews.

Debriefs were conducted at the end of each day of field study. The debriefs were mainly designed to discuss the direct observations and broad findings that emerged from the day's field study.

2.5.3 Analysis of the qualitative data

Once fieldwork was completed, data were translated and transcribed. The data were subsequently coded adopting an Excel-based Framework Analysis tool developed based on the research questions and expanded to fit emerging findings discussed at the familiarisation stage. This approach has helped to balance and manage the following:

- addressing project objectives;
- producing feasible recommendations;
- allowing findings that do not fit into the framework to emerge and be documented;
- triangulating findings across different respondent types and across different stratifications within our respondent base (e.g. high literacy vs. low literacy); and
- ensuring findings are valid (representing the 'truth' of the situation) and reliable (replicable, if other researchers followed a similar research protocol).

2.6 Limitations

The present study has at least three limitations:

Reduced impact due to irregularity in BCSP cash payments (from March 2016) and late programme entry: The BCSP disbursed regular payments from September 2014 until March 2016, at which point payments became irregular due to a shift in local government. The endline survey took place in November-December 2016, a few months after the withdrawal of the programme. Therefore, it is possible that impact estimates presented in this report (that compare across data collected during baseline and end line surveys) are biased downwards. Moreover, there is some evidence that beneficiaries often registered in the programme late into their pregnancy (see chapter 4). This phenomenon may have also contributed to reduced impact.

Demonetisation: On 8th November 2016, the Government of India announced the withdrawal of currency notes of Rs 500 and Rs 1000 denomination. The withdrawal of currency notes was followed by a series of deadlines to exchange existing notes of the discontinued denominations that individuals/households may possess up to a certain limit. Exchanging existing notes resulted in lengthy cues outside Banks and Automated Teleprompter Machines (ATM)[11]. Conducting the study immediately after the Government of India announcement of currency withdrawal would have risked

[11]Queues get longer at banks, ATMs on weekend (2016) *The Hindu.* http://www.thehindu.com/news/national/Queues-get-longer-at-banks-ATMs-on-weekend/article16443670.ece> Accessed on 30 May 2017

extreme bias against experiences with consumption and financial inclusion. The quantitative survey dropped modules relating to consumption and use of cash as this would have reflected the impact of demonetisation. The midline results conclusively indicated patterns around use of cash and these are used in this report too. However, no additional quantitative data on use of cash was collected in the endline survey.

The endline qualitative evaluation took place two months after the completion of the quantitative evaluation. This was done largely to increase the distance from the demonetisation exercise. Given that the BCSP is a pilot on cash transfer, the qualitative endline study that was initially intended to be conducted in the first week of December but had to be pushed to the first week of February. Though the effect of currency withdrawal is not completely ruled out for the study conducted in February 2017, it is understood that the intensity of respondent bias would have been significantly lesser in February than December 2016, a month after the announcement.

Parallel trends: The DID impact evaluation methodology used in this impact evaluation report relies chiefly on the identifying assumption of parallel trends, which posits that the average change observed in the control group represents the unobserved counterfactual change in the treatment group. In the absence of pre-baseline data however, it is impossible to test this assumption. Still, the following factors provide strong support for its validity:

- At the implementation design stage, treatment blocks were matched to control blocks based on factors like population density, literacy levels and caste make up, among others. Data collected at baseline confirmed that the matching of blocks was largely successful.

- There is no evidence to indicate that exogenous time-varying community-level factors like road access, severity of drought; and supply of education and health facilities affected treatment and control areas to differing extents in the present study.

A brief description of additional possible limitations and biases arising at different stages of collecting and analysing data can be found in Annex A.

3 Characteristics of households and communities

The following section describes the general characteristics of the 165 communities and 3,868 households surveyed during the endline survey of the BCSP study.

3.1 Community characteristics

Community questionnaires were generally answered by one or two prominent members of the community who typically were village officials, health professionals, or community elders. Hence, responses to this questionnaire mainly reflect the knowledge and views of a relatively small sample of educated, powerful and largely male informants from the community.

The table below presents community-level descriptive statistics in terms of population characteristics, infrastructure, and accessibility for villages in each survey block. Based on these characterises, villages across all three blocks appear to be largely similar, although villages in the extended conditions block had a significantly[12] lower proportion of landless labourers compared to other blocks.

Table 2 : Community characteristics

At endline : Community Characteristics				
Outcome/ Indicator	**Extended conditions**	**Limited conditions**	**Control**	**Overall**
Population characteristics				
Average population of village	1246.9*	1319.2	1304.3	1303.5
	(44.13)	(52.14)	(48.42)	(39.61)
	55	55	55	165
Average number of Households	178.5	175.6*	255.1	239.5
	(9.24)	(7.12)	(36.33)	(29.10)
	55	55	55	165
Average proportion of landless labourers	15.9***	33.1*	29.2	29.1
	(2.26)	(3.89)	(3.74)	(3.05)
	55	55	55	165
Proportion of villages where primary occupation is Agriculture/shared agriculture	86.5*	81.2	77.2	78.2
	(4.79)	(5.43)	(5.81)	(4.73)
	55	55	55	165
Proportion of villages where primary occupation is Non-agriculture labour	52.4*	60.9*	38.1	42.2
	(6.90)	(6.71)	(6.75)	(5.53)
	55	55	55	165
Infrastructure				
Proportion of villages with Sewerage facility	54.9*	71.2*	54.0	56.5
	(6.85)	(6.25)	(6.98)	(5.67)
	55	55	55	165
Proportion of villages with electricity	94.9*	98.2*	93.0	93.9
	(2.93)	(1.77)	(3.52)	(2.84)
	55	55	55	165
Accessibility: Facilities within 5km of village[13]				
Nearest town	32.2	30.9*	45.8	42.9
	(6.58)	(6.37)	(6.99)	(5.69)
	55	55	55	165
Nearest bank branch/ATM	54.2	48.2*	61.5	59.1
	(6.85)	(6.90)	(6.88)	(5.61)

[12] Please note that the term 'significant', when used to describe quantitative findings indicates statistical significance. For more details on how to interpret the quantitative results presented in this report, consult Section A.8.1 of the Annexe.
[13] Distances in the community questionnaire use the centre of the village as the point of reference.

At endline : Community Characteristics				
Outcome/ Indicator	**Extended conditions**	**Limited conditions**	**Control**	**Overall**
	55	55	55	165
Nearest Primary Health Centre	37.3*	30.7*	40.6	39.0
	(6.75)	(6.49)	(6.81)	(5.55)
	55	54	55	164
Nearest railway station	4.9***	44.3***	0.0	6.8
	(2.80)	(6.84)	(0.00)	(1.02)
	55	55	55	165
Nearest primary school	100.0	100.0*	98.1	98.5
	(0.00)	(0.00)	(1.93)	(1.54)
	55	55	55	165
Nearest gram panchayat	92.9*	96.9*	92.3	93.0
	(3.50)	(2.19)	(3.77)	(3.04)
	55	55	55	165
Source: BCSP Endline Survey (Nov 2016-Jan 2017).				
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator; *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.				

3.2 Household characteristics

The table below reports descriptive statistics on household characteristics. The average household size was around seven members. While the average age of the household head was 44, the average age of the sampled woman was around 25 years. Nearly all households had a male head of household, with only 10% being led by a female. Over a third of household heads had no formal schooling, with 30% of them having completed secondary school or a higher qualification. A large proportion of surveyed households were Hindu, although the two treatment blocks had a slightly higher proportion of Muslim households as compared to the control block. Surveyed blocks had a similar caste make-up, with nearly half of all households belonging to the OBC category. SC households were the next biggest category, while ST households form a minority of the sample of households.

Table 3: Household characteristics

At endline : Household characteristics				
Outcome/ Indicator	**Extended conditions**	**Limited conditions**	**Control**	**Overall**
Demographic information				
Average Household size	7.3*	7.0*	6.9	6.9
	(0.13)	(0.11)	(0.09)	(0.07)
	1292	1204	1372	3868
Average age of Household head	44.5*	45.2*	43.7	44.0
	(0.68)	(0.60)	(0.59)	(0.49)
	1292	1204	1372	3868
Proportion of Female Headed households	6.8**	10.9*	9.5	9.5
	(0.99)	(1.19)	(0.91)	(0.76)
	1292	1204	1372	3868
Education level of Head of household				
No education	39.8	40.8*	36.8	37.4
	(2.09)	(2.17)	(2.03)	(1.68)
	1289	1202	1371	3862
literate without formal schooling	4.9	5.4	5.3	5.3
	(0.88)	(0.87)	(0.76)	(0.63)
	1289	1202	1371	3862
Primary (1-5)	18.0*	15.3	14.7	15.0

At endline : Household characteristics				
Outcome/ Indicator	**Extended conditions**	**Limited conditions**	**Control**	**Overall**
	(1.04)	(1.20)	(1.03)	(0.86)
	1289	1202	1371	3862
	11.2	11.2*	13.5	13.1
Middle (6-8)	(0.73)	(1.04)	(1.13)	(0.93)
	1289	1202	1371	3862
	16.4*	17.9*	19.7	19.3
Secondary (9-10)	(1.31)	(1.48)	(1.37)	(1.14)
	1289	1202	1371	3862
	9.7	9.4	10.0	9.9
More than secondary	(1.09)	(1.01)	(0.99)	(0.82)
	1289	1202	1371	3862
Religion of Head of household				
	92.7	92.3*	96.1	95.4
Hindu	(2.29)	(2.37)	(1.47)	(1.25)
	1292	1204	1372	3868
	7.3	7.7*	3.8	4.5
Muslim	(2.29)	(2.37)	(1.47)	(1.25)
	1292	1204	1372	3868
Caste of Head of household				
	35.6*	39.9*	35.8	36.3
Scheduled Caste	(3.12)	(3.23)	(3.05)	(2.53)
	1292	1204	1372	3868
	2.4	1.9***	6.9	6.0
Scheduled Tribe	(0.64)	(0.51)	(1.09)	(0.89)
	1292	1204	1372	3868
	55.9*	47.0	47.3	47.7
Other Backward Castes	(3.09)	(3.31)	(3.56)	(2.93)
	1292	1204	1372	3868

Source: BCSP Endline Survey (Nov 2016 - Jan 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Box #: *** = 99.9%; ** =99%; * = 95%. (2) Standard errors clustered by PSU ID are in parentheses.

Part B: Findings and analysis

4 Access and awareness

4.1 Introduction

This chapter discusses issues around access to, and awareness of, the BCSP programme, assessing the ability of eligible beneficiaries to participate in the programme and barriers to uptake.

Access and awareness: Key evaluation questions

- How many women are aware of the BCSP?
- How many eligible women are enrolled under the programme?

Secondary evaluation questions

- What are the reasons certain women are unaware of the programme?
- What are the various reasons why eligible women are not enrolled under the programme?
- Are there any supply-side issues preventing eligible women from being enrolled in the programme?

The structure of the chapter is as follows: Section 4.2 explores the level of awareness of the programme amongst potentially eligible women and the method through which the beneficiaries heard of the programme. Section 4.3 outlines the enrolment levels of the programme, and enquires into the drivers for programme exclusion. In Section 4.3.2, the focus is on demand-side problems, such as socioeconomic status of eligible women, late registrations, difficulties associated with opening bank accounts, migration (either for work, or for delivering a child), previous engagement with the AWC and delays in payments to enrolled beneficiaries. In Section 4.3.3, supply-side issues in enrolling eligible women are also discussed, by exploring the reasons why AWWs were unable to register eligible women.

4.2 Programme awareness

This section delves into three aspects related to the programme. Firstly, it examines awareness of the programme, amongst beneficiaries and non-beneficiaries. Secondly, it digs into awareness of specific programme components. The third aspect analysed is the 'branding' of the programme: i.e., the popular vocabulary with which the programme came to be identified with.

4.2.1 Levels of programme awareness

The endline survey studied a sample of women in the reproductive age group (18–40 years) who had a child below the age of two years. Thus, as was outlined in Chapter 2, these women were either eligible at the time of the survey (if they were pregnant at the time), or had been eligible to enrol at some point after the programme was launched. Thus, all women surveyed are considered 'eligible' women, though some never become programme beneficiaries.

The endline study found that around 76% of the eligible women surveyed had heard of the BCSP – either by its name or based on its description (Table 4 below). This had improved significantly since the midline survey, at a significance level of 95% (Annex B.1.1). Amongst those who were not enrolled under the programme, 53% had heard of the programme (Annex B.1.2). Therefore, a sizeable proportion of women were aware of the programme, yet were unenrolled. To shed light on

this, Section 4.3.2 below discuss issues of lack of awareness among eligible women and its impacts on exclusion.

Table 4: BCSP awareness – either by name or by description

T-tests between midline and endline: Awareness about the BCSP		
Outcome/indicator	**Overall**	
	Midline (ML)	**Endline (EL)**
Sources of BCSP awareness		
Women who have heard of the BCSP – either by name or by description	71.5	76.2*
	(2.16)	(1.93)
	3085	2495

Source: BCSP Midline Survey (August–October 2015) and Endline Survey (November 2016–January 2017)
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where: = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

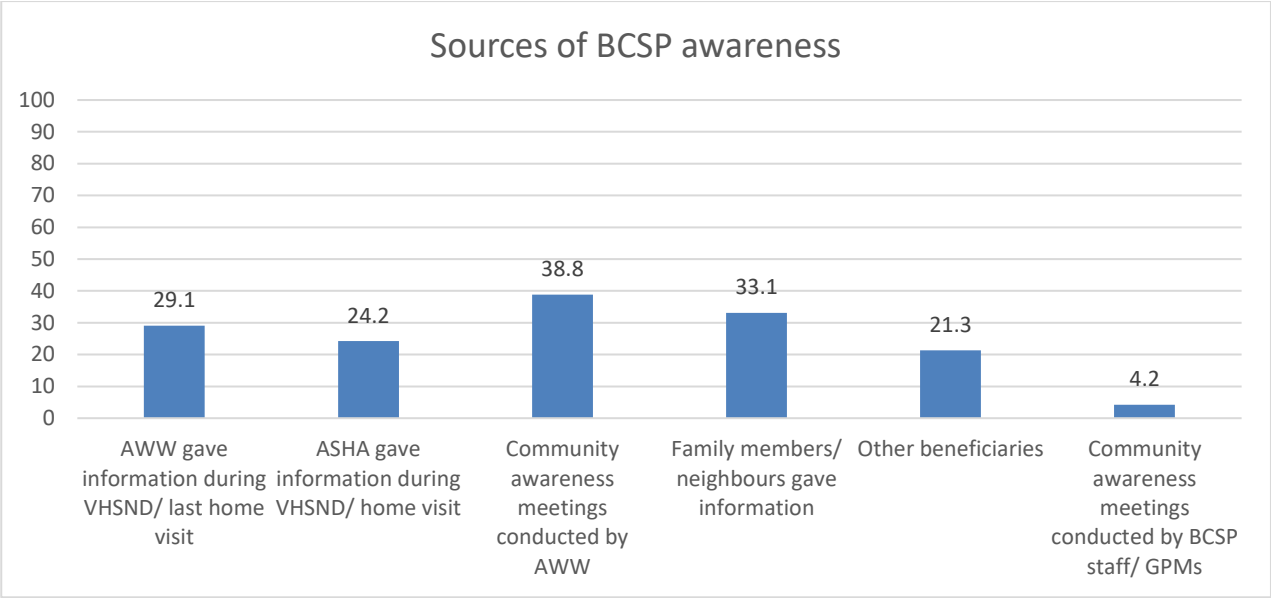
Disaggregating awareness levels amongst different caste groups (for both unenrolled and enrolled women), the endline survey found no differences between these (Annex B.1.3). This is an important improvement compared to the midline survey, where there was a significantly lower proportion of SC women who had heard of the BCSP compared to non-SC women. Similarly, at endline there were no significant differences in awareness between uneducated and educated[14] women (Annex B.1.4), though Section 6.2.1 explores the implications of literacy levels on the understanding of conditionalities.

4.2.2 Sources of programme awareness

The quantitative endline survey asked respondents where they first heard about the BCSP. The responses are summarised in Figure 9 below. The AWW and ASHA appear to be key drivers of information. For example, 68% of respondents reported learning about BCSP from the AWW during VHSND, home visits or community awareness meetings. Interestingly, the qualitative data stressed the important and complementary role played by the ASHA, with whom beneficiaries had a higher sense of familiarity prior to BCSP. A third of respondents (33%) from the quantitative survey had heard about the programme from other community members, highlighting the importance of social networks in spreading information.

[14] 'Uneducated' refers to women who have never attended school at all, whilst 'educated' includes women who have attained some level of schooling.

Figure 9: Sources of BCSP awareness



Additionally, the qualitative research shed light on specific barriers faced by newlywed mothers, who were either not familiar with the ASHA or the AWW, by virtue of being new to the village.

> *"See where will I go by myself, I am new to this place I am newly wedded so how can you expect me to go anywhere and get these details?"*
>
> (BCSP Non-beneficiary, age 24 years, Extended conditions block)

4.2.3 Awareness of specific programme features

Those respondents who answered that they were aware of the BCSP were then asked some questions about the features of the BCSP, in a 'true/false' format. The results – presented separately for unenrolled and enrolled women – are presented in Table 5 below.

A majority of the beneficiaries (more than 80%) believed that the BCSP was aimed at improving the nutrition of infants and pregnant / lactating women respectively, and that it required attending the VHSND and meeting certain conditions. Roughly half the unenrolled women were aware of these features.

Table 5: Features of the BCSP

T-tests between midline and endline : Main features of the BCSP		
	Unenrolled women	**Enrolled beneficiaries**
Main features of the BCSP the respondent is aware of:		
Improving nutrition of pregnant and lactating women	55.7	81.3***
	(2.96)	(2.12)
	696	1212
Attending VHSND	53.8	83.5***
	(2.64)	(1.70)
	696	1212
Improving nutrition of infants	53.8	80.2***

T-tests between midline and endline : Main features of the BCSP		
	Unenrolled women	**Enrolled beneficiaries**
	(3.04)	(1.87)
	696	1212
Meeting certain conditions	48.1	81.1***
	(2.63)	(1.93)
	696	1212

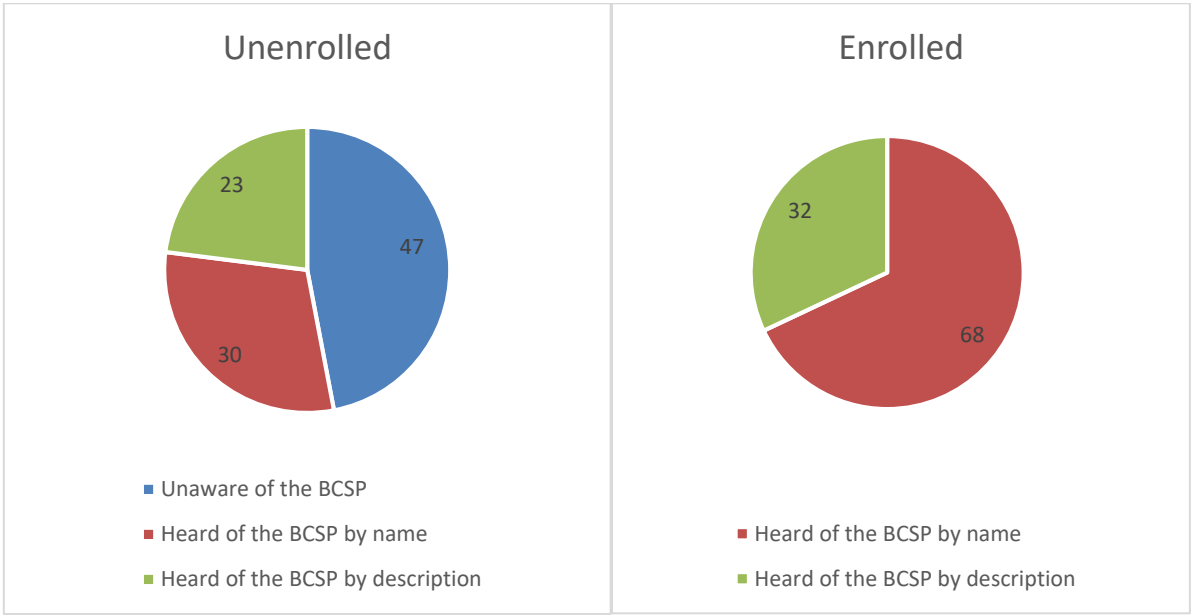
Source: BCSP Midline Survey (August–October 2015) and Endline Survey (November 2016–January 2017) **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where: = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

4.2.4 Programme branding and its impact on awareness

The analysis teased out the type of understanding respondents have of the BCSP, and how they identify the programme. The endline quantitative survey first asked the respondents if they had heard of the 'Bihar Child Support Programme' (worded in Hindi). Those who said they had not were asked whether they were aware of a scheme that paid Rs 250 for fulfilling certain conditions. Figure 10 below shows these results for the enrolled and unenrolled women at the endline.

Amongst the unenrolled women, 30% had heard of the BCSP by its name, and 2% had heard of it by its description. The remaining 48%, as mentioned above, were unaware of the programme. Amongst those enrolled, 68% had heard of the programme by its name.

Figure 10: At endline – BCSP awareness amongst those enrolled and not enrolled



On the other hand, the qualitative data found that, barring the GPMs and the AWWs who had a greater understanding of the intention of the programme to improve mother and child nutrition, most beneficiaries and non-beneficiaries identified the programme as the '250 rupees programme'. This branding of the programme as the '250 rupees programme' means that the programme lost an important opportunity for messaging on the intentionality of the programme. This understanding of the importance of labelling is in line with the growing international literature on the role of 'labelling' in sustaining programme impact (Benhassine, Devoto, Duflo, Dupas, & Pouliquen, July 2013). The

focus area shifted from the importance of behaviour changes based on conditions to focusing mainly on the cash transfer value ('250 rupees').

4.3 Enrolment

Any programme that requires beneficiaries to enrol on demand (i.e. proactively applying rather than being enrolled through a periodic census survey) incurs a set of challenges in terms of ensuring access to eligible categories. On the demand side, this includes lack of awareness, fear of stigma, caste/social status dynamics and illiteracy, among others. On the supply side, it entails technological or logistical problems in registering beneficiaries (Eurofund-European Foundation for the Improvement of Living and Working Conditions, 2015) This section discusses these issues with reference the BCSP.

4.3.1 Enrolment levels

At the time of the endline survey, roughly half the surveyed women (and therefore, half the women eligible) were registered under the BCSP across the two programme blocks (Table 6 below). This was a significant increase from the midline survey, particularly in the limited conditions block, where enrolment increased from 39% to 50% between the two rounds of surveys.

Table 6: BCSP enrolment

T-tests between midline and endline: Enrolment under the BCSP						
Outcome/ indicator	**Extended conditions**		**Limited conditions**		**Overall**	
	ML	**EL**	**ML**	**EL**	**ML**	**EL**
BCSP enrolment						
Eligible women registered under BCSP	46.4	47.6	38.6	50.4***	40.5	49.6***
	(2.78)	(2.68)	(2.40)	(2.37)	(1.94)	(1.87)
	1506	1291	1579	1204	3085	2495

Source: BCSP Midline Survey (August–October 2015) and Endline Survey (November 2016–January 2017) **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where: = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

While a large portion of non-enrolment can be explained by the lack of awareness highlighted above (47% of the eligible unenrolled women were unaware of the programme), the following subsections attempt to shed light on other reasons for the low enrolment rates.

4.3.2 Demand-side issues: drivers of programme exclusion

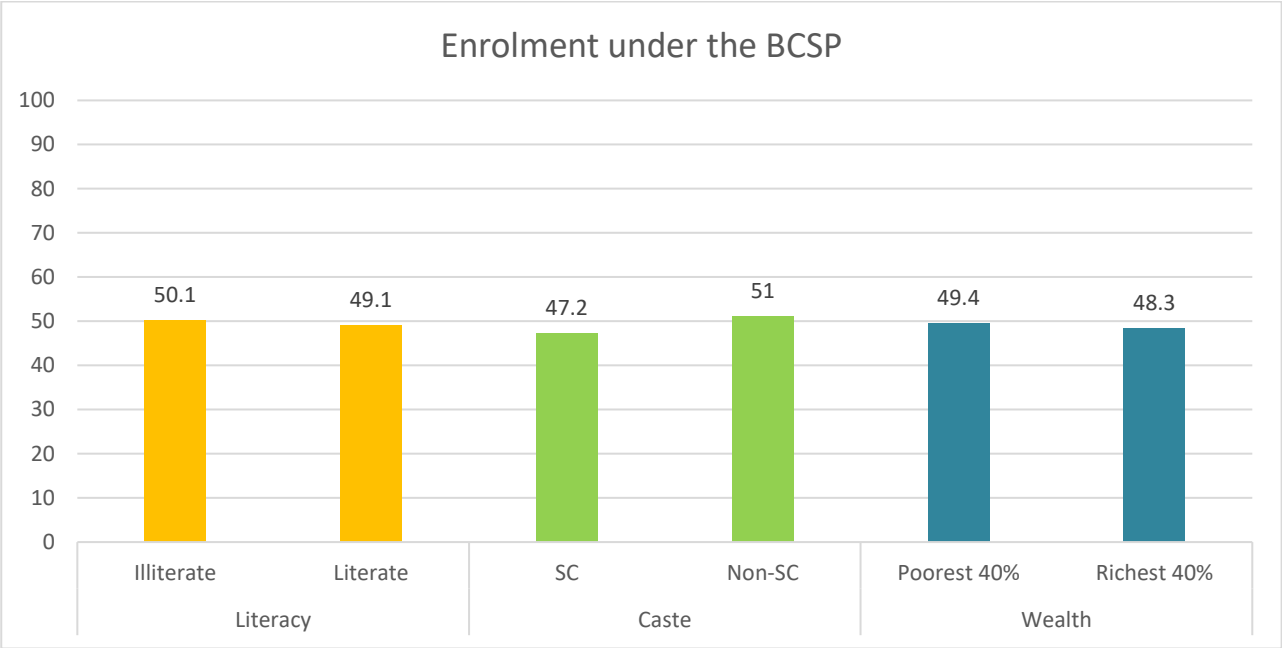
4.3.2.1 Socioeconomic status

To investigate whether certain social or economic groups were excluded from the programme, the quantitative analysis disaggregated the proportion of women enrolled under the BCSP at the time of the endline survey on the basis of the woman's literacy status, the caste of her household, and whether she fell into the poorest 40% or the richest 40% of the sample.

Figure 11 below shows that within each category, the two groups are roughly split equally, with no significant differences. The midline survey, on the other hand, found significant differences in enrolment between SC women and other women, and between women belonging to the poorest and

richest quintiles (Annex B.3.1). This is a positive finding: differences in enrolment between various socioeconomic groups diminished over time.

Figure 11: At endline – Enrolment under the BCSP disaggregated by literacy, caste and wealth



The midline quantitative survey had found that an eligible beneficiary was significantly more likely to be enrolled if she was from the same social group as the AWW; compared to if she was from a different group. The endline survey, however, did not reflect this trend: there were no significant differences in enrolment between those who were the same caste as the AWW, compared to those who were not (Annex B.3.5).

Through more detailed probing, the qualitative study did uncover a couple of cases of inherent bias of the AWWs and the ASHAs in approaching or enrolling women who belonged to a caste lower than theirs, suggesting rare cases of outright discrimination.

> *"ASHA was there but they said we do not assist Ravidas people… we assist only pandits…"*
>
> (BCSP Non-beneficiary, 18, Limited conditions block)

> *"She didn't register my name by saying we will do later after some days or so and then my delivery time came so she said we can't register name now it's too late to receive that benefit."*
>
> (BCSP Non–beneficiary, age 22, Extended conditions block)

4.3.2.2 Late registration due to migration to natal home

The programme allowed for a six-month window for registration of pregnant mothers: i.e. between the fourth and the ninth month of pregnancy. Beyond this window, women were not allowed to enrol. Migration to the natal home, especially during the pregnancy period, was therefore a strong factor for both poor service uptake amongst beneficiaries and for exclusion from the programme.

Most women in Bihar, irrespective of their caste, migrate to their natal home for months at a stretch, especially during the months of pregnancy, often until a month or more after giving birth. This coincided with the period in which women were eligible to register with the programme. Qualitative interviews indicated that women migrated to their natal home since the care and nutrition they received at their in-laws' was inadequate:

> *"These people make me feel weak. There my mother and father take care of all these things. So I went and stayed there. They took me for a check-up, after which they started me on medication… My mother did everything. She did the most. I am here because I trust my mother. Even now that I am here, my mother looks after me. You have mothers-in-law who take care of all the children, there are sisters-in-law (gotni), and I did not have anyone. My mother did everything."*
>
> (BCSP Beneficiary, age 24, extended conditions block)

Respondent: *"I was not aware at that time and was not there."*

Interviewer: *"Where were you at that time?"*

Respondent: *"At my mother's place."*

(BCSP Non-beneficiary, age 20, extended conditions block)

Secondary literature suggests that migrating to the natal home during the months of pregnancy is a common practice across India. While this migration disrupts external perinatal care, it has resulted in significantly reducing perinatal mortality (Pratinidhi , Shrotri , Shah, & Garad, 1989).

The quantitative survey findings also supported this. Table 7 below shows that the enrolment rates amongst women who moved to their mother's home to deliver their last child (41%) was significantly lower than among those who did not (53%).

Table 7: Enrolment and natal home migration

T-tests at endline between women who moved to their mother's home for last delivery and those who did not: BCSP enrolment levels		
Outcome/indicator	**Overall**	
	Delivered last child in same village	**Delivered last child in mother's home**
BCSP enrolment		
Eligible women registered under BCSP	53.2	40.7 ***
	(2.13)	(2.33)
	1775	720

Source: BCSP Midline Survey (August–October 2015) and Endline Survey (November 2016–January 2017)

Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where: = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

Natal home migration was also one of the reasons why women were unable to fulfil the conditions for cash transfer. Most women who migrated to their natal home were unable to visit the AWC at their in-laws' location and therefore were not able to meet the condition for cash transfer.

4.3.2.3 Late registration and further exclusion due to labour migration

The state of Bihar in India has one of the highest out-migration indices. Destinations of migration range from construction sites, textile factories and mines, to stone quarries and brick kilns. It involves either the migration of the male members of the family to urban and semi-urban cities or the migration of the entire family to the work site that need not necessarily be located in an urban environment. Often, these migrations are seasonal – and can last between six to nine months a year.

The BCSP quantitative midline survey had found that the rates of enrolment amongst women who had migrated in the past year (at the time of the midline survey) were significantly lower than amongst those who did not migrate (Annex B.3.6). The endline survey, however, did not reflect such a trend (Annex B.3.7). Firstly, the rates of migration dropped significantly between the midline survey (12% across all blocks) and the endline survey (4%). This may be because at the time of the midline survey, migrants had returned to their home village, and were therefore captured in the data. At the time of the endline survey, the migrants were away from their home village. Secondly, there were no significant differences in enrolment between the migratory and non-migratory groups at the endline.

The BCSP qualitative study, on the other hand, recognised out-labour migration to brick kilns as a significant exclusionary factor in enrolling with the programme. Labour migration disabled the women at multiple levels. At the most basic level, the women were not physically present in the village and were unable to gain any information about the programme. Even if the women were aware of the programme, they were prone to miss the registration window. Moreover, the conditions of the programme required women to physically visit the AWC during the VHSND: this was an active deterrent for migrant women who wanted to register since they were certain of their inability to meet the conditions.

> *"They go there to make bricks. So they used to break the condition. I kept on asking about them whether they attended the nutrition day or not and answer was always a no."*
>
> (GPM, age 24, extended conditions block)

It is worth noting that there is a strong caste overtone to the labour migration. Most respondents who referred to an inability to join the programme due to seasonal migration belonged to the SC category, and within the SC category more explicitly the Manjhi community.[15] The quote below is by a non-beneficiary who belongs to the Manjhi community.

> *Interviewer: "…but under this programme or scheme have you tried to give your name?"*
>
> *Respondent: "No"*
>
> *Interviewer: "Why didn't you try?"*
>
> *Respondent: "At that time I was working on Bhatta (brick kiln)…"*
>
> (BCSP Non-beneficiary, age 27, extended conditions block)

[15] When compared with the broader demography and occupation of the village, we notice that the Manjhi community tend to not own any farming land or work as tenants on the land, thereby forcing them to undertake seasonal migrations to brick kilns.

The qualitative study's interview with the CDPO of both treatment blocks conveyed that the problem of migration is not specific to the BCSP alone. Their recommendation for the issue was two-fold. The first was a relaxation in the registration window for women who had migrated and the second was organisation of temporary camps in areas where women migrate.

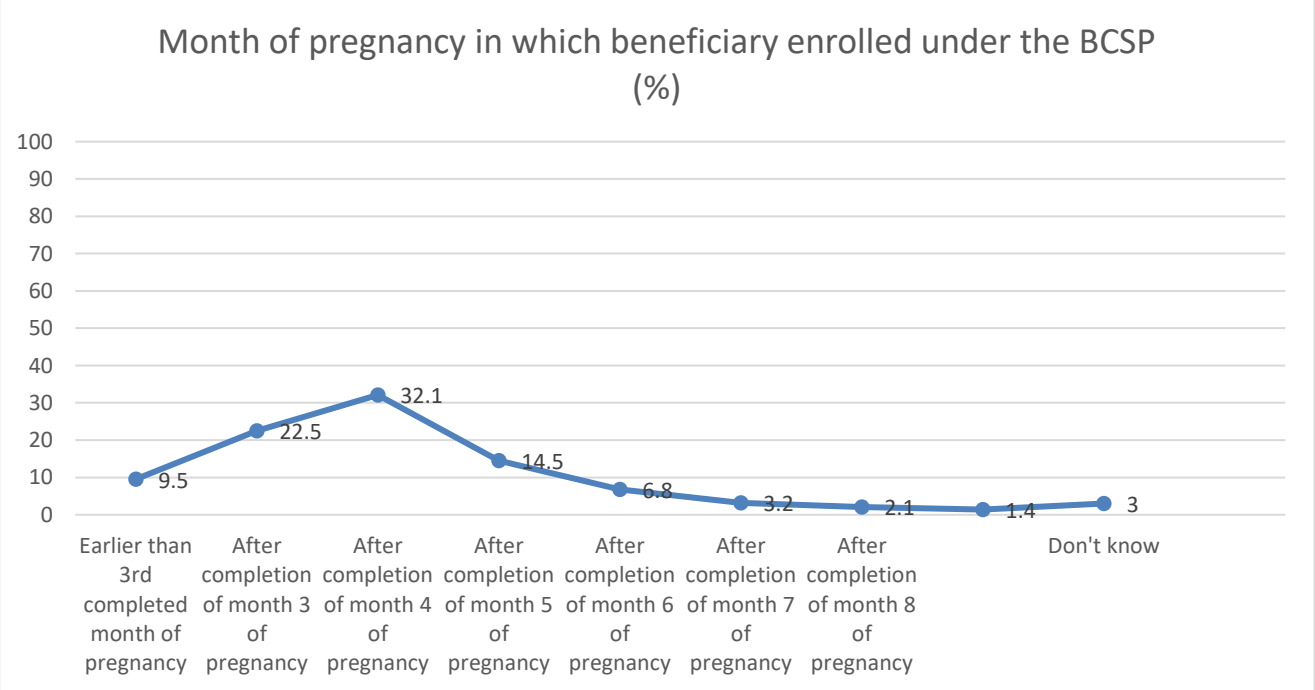
> *"...because from which area they belong, generally they don't go to that brick kilns in that area. Any Sevika links only those people who come under her area; she will not link others who came from another area…arrange temporary camps to include those who have migrated. Cannot rope in the AWW in this because they cannot be hired on a temporary basis and those who migrate also shift areas they migrate to."*
>
> (CDPO, age 34, Limited conditions block)

4.3.2.4 Late registration due to being unaware of being pregnant

The qualitative study's discussion with non-beneficiaries and key informants suggested that a further reason for not being able to register with the programme was women's awareness of their pregnancy in their initial months. Sometimes, the Auxiliary Nurse Midwife (ANM) would identify the pregnancy only in the eighth or ninth month. Therefore, these women missed the window of registration for the programme.

The quantitative survey showed that most beneficiaries surveyed said that they registered before they completed six months of pregnancy, with the largest proportion (32%) saying they registered in the fourth month of pregnancy (Figure 12 below). However, there was still a section of women (12%) that registered after the sixth month of pregnancy and late awareness of being pregnant might have been more of a problem among non-beneficiaries (who were not asked this question).

Figure 12: At endline – Times at which beneficiaries enrol under the BCSP



Taking this statistic and the qualitative evidence into account, there would appear to be (once again) a case to be made for relaxing the deadline for registration under the programme, or to increase women's awareness so that they are able to detect their pregnancy in time (this is also important for

health reasons). Since, according to AWWs (Annex F), most women determined that they were pregnant on their own (based on their last menstrual period), there is a need for generation of awareness on how women can identify that they are pregnant early enough into their pregnancy.

4.3.2.5 Difficulties in opening bank accounts

One of the eligibility criteria for registering under the BCSP was that the potential beneficiary should have her own personal bank account. The quantitative data showed a very large and significant increase in the proportion of women with personal bank accounts between the baseline (17% in the treatment blocks) and the endline (78%). The increase in this indicator in the control block was significantly lower, resulting in the large and significant DID impact estimate presented in Table 8 below. Because of the BCSP, the proportion of women with personal bank accounts increased by 24 percentage points in the Limited conditions block between the two rounds of surveys, compared to the control block. Therefore, it can be concluded that the BCSP spurred the opening of bank accounts, indicating that women were keen to enrol.

Table 8: Women with personal bank accounts

DID between baseline and endline: BCSP's impact on the opening of personal bank accounts for eligible women	
Outcome/indicator	**Limited conditions vs. inly technology**
	Dif 2 – Dif 3
Bank accounts	
	24.82***
Women with personal bank accounts	(3.44)

Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017). **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where: *** = 99.9%; ** =99%; * = 95%. (2) Standard errors clustered by PSU ID are in parentheses. (3) Appropriate Stata 14 commands were used to account for survey design.

Despite the large increase in bank accounts due to the BCSP, the endline qualitative study found the opening of accounts to still be a deterrent for joining the programme. A large number of women in the village reported not having any **valid identity proof**, which is required to open a bank account. Confirming this, the quantitative survey found that 37% of the enrolled beneficiaries who faced challenges while opening a bank account said that they did not have the requisite government IDs (Annex B.3.8). This barrier was especially challenging for communities that migrate frequently. With immunisation cards being approved as a proof of identity for bank accounts, we see only a comparative ease in opening bank accounts.

> *"…the problems were primarily due to the lack of identity cards. At times, we would have pregnant women without immunisation cards, they may have been lost. Getting the number from a hospital takes a month and the time might be passing and crucial for the pregnant mother…"*
>
> (BCSP GPM, age 28, Limited conditions)

Many respondents reported paying a **commission** of around Rs 1,000 to open bank accounts. For those who could not afford it, this sum was large enough to be a deterrent to opening a bank account, and therefore they were not able to register with the programme. Importantly, interviews with key informants clarified this was often perceived as a commission from beneficiaries, but was actually a 'minimum deposit requirement' by the bank (despite BCSP accounts supposedly being zero balance accounts). A section of registered beneficiaries also cited problems related to costs – 35% of the

respondents who faced challenges in opening bank accounts for the BCSP said that they found it difficult to pay the **processing fee** of the bank (Annex B.3.8).

Accessing the banks cost both money and time and thereby acted as a strong deterrent for the women to either open the bank accounts or to be able to do so in the given registration timeframe. 34% of the beneficiaries who faced challenges in opening bank accounts for joining BCSP said that the **bank was too far away**, or that it was **too expensive to reach** the bank. This also had an adverse effect of the role of the GPMs, who then included assistance to opening bank accounts in their duties under the programme.

> *"Everyone gets 250 rupees didi, but I don't have an account. When I had to open an account, I did not have money to open an account... I was not having fare and I had to go to the market by the auto. So how would I go? This is why I did not open the account because I was not having money."*
>
> (BCSP Non-beneficiary, age 30, limited conditions block)

> *"Only one PNB close by and it was difficult to open bank accounts there. It is around three kilometres far in the Utthu village. But women did not want to go there, as it was difficult for them to go there. Then manager was not able to understand the language of these illiterate people. So I had to go there on my own and had to handle two to four people there so that their account could get opened soon and I could register their names in the mobile."*
>
> (BCSP GPM, age 24, extended conditions block)

4.3.2.6 Overlapping exclusionary factors

This subsection does not introduce a new factor that resulted in the exclusion of women who were potentially eligible for the programme. Instead, it identifies an overlap of exclusionary factors for eligible women from certain socioeconomic backgrounds. The qualitative study suggests that women specifically from the Manjhi community faced exclusion on multiple grounds. Exclusion was caused by their migrating to brick kilns, which in effect hindered their ability to acquire an ID proof required to open a bank account. Even if the ID proof was acquired, labour migration did not allow the women to meet the registration window. This exclusion was in addition to possible caste-based discrimination by a frontline health worker. Natal home migration was noticed as an exclusionary factor for women across castes and was not specific to women from the Manjhi community.

4.3.2.7 Lack of prior engagement with the AWC and ICDS

The quantitative data also explored to what extent women had been utilising the services of the ICDS, and whether this determined BCSP enrolment rates. As a proxy for engagement with the ICDS, the receipt of take-home ration (THR) was considered. Table 9 below shows that enrolment amongst those women who had ever received THR from the AWC for their child was significantly higher (63%), compared to those who had never received THR (38%).

Table 9: THR receipt amongst enrolled beneficiaries

T-tests at endline between those who had received THR and those who had not: BCSP enrolment rates	
Outcome/indicator	**Overall**

	No THR	THR
BCSP enrolment		
Eligible women registered under BCSP	38.0	63.2***
	(2.58)	(1.93)
	1362	1133

Source: BCSP Midline Survey (August–October 2015) and Endline Survey (November 2016–January 2017) **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where: = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

There could be various reasons for not engaging with the ICDS, and thereby not enrolling under the BCSP. The qualitative data suggest that women receiving the THR visited the AWC more often, and therefore knew about the BCSP and were more likely to be enrolled. It also may be possible that women who did not receive the THR perhaps did not perceive the ICDS to be of good quality, and hence refrained from using its services. Alternatively, there may be caste- or wealth-based factors that prevent women from receiving the THR. Annex B.3.9 and Annex B.3.10, however, refute this hypothesis. In each of the treatment blocks, there were no significant differences in the receipt of THR between the richest 40% and the poorest 40%. Interestingly, in both treatment blocks, there was a significantly higher proportion of SC women receiving THR for their child, compared to non-SC women.

Therefore, to summarise, women who received other ICDS services, such as the THR, were more likely to enrol under the BCSP, presumably due to their familiarity with the AWC.

4.3.2.8 Delay in payments and lack of trust

The qualitative study explored how a delay in payments to the beneficiaries also contributed towards exclusion. Conversations with the GPMs suggested that it was particularly difficult to convince women from large families[16] to join the programme. If one of the women joined the programme and did not receive the money, at all or inconsistently, it led to a breakdown of faith in the programme by the other women of the family. Thus, they chose not to associate themselves with the programme.

4.3.3 Supply-side issues: Challenges faced by the AWW in registering beneficiaries

The preceding subsections outlined demand-side issues that hindered beneficiaries from enrolling under the programme. In this section, issues faced by the AWW in this regard are discussed. The BCSP quantitative survey asked the AWW about challenges she faced in registering beneficiaries (Table 10 below). A substantial proportion of AWWs reported that they had, at some point, been unable to register beneficiaries. Roughly half of such AWWs (52% of those who had been unable to register a beneficiary in the past) said it were because the beneficiary did not have a bank account. 22% and 17% said that the beneficiaries were not interested in registering, or did not visit the AWC for registration, respectively. A smaller proportion cited supply-side issues: 16% said it was because of difficulties with the BCSP application, and 8% said it was because they did not have a functional BCSP phone.

Table 10: Challenges faced by AWW in registering eligible beneficiaries

T-tests at endline: Registration for the BCSP			
Outcome/indicator	**Extended conditions**	**Limited conditions**	**Overall**
Registering beneficiaries			

[16] In this case, the family was a Muslim family with more than 19 members.

AWWs who have ever been unable to register beneficiaries	36.0	35.3	35.5
	(6.86)	(6.76)	(5.30)
	50	51	101
Reasons for not being able to register beneficiaries			
Beneficiaries do not have bank account	72.2	44.4	51.7
	(10.86)	(12.05)	(9.39)
	18	18	36
Beneficiaries not interested in registering for the programme	5.6	27.8	22
	(5.56)	(10.86)	(8.18)
	18	18	36
Beneficiaries do not visit the AWC for registration	16.7	16.7	16.7
	(9.04)	(9.04)	(6.99)
	18	18	36
Difficulties with the BCSP application	27.8	11.1	15.5
	(10.86)	(7.62)	(6.31)
	18	18	36
Did not have functional BCSP phone	16.7	5.6	8.4
	(9.04)	(5.56)	(4.72)
	18	18	36

Source: BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator: *** = 99%; ** =95%; * = 90%. (2) Standard errors clustered by PSU ID are in parentheses. (3) Appropriate Stata 14 commands were used to account for survey design. (4) The indicators in this table are calculated from the AWW dataset from the BCSP Endline Survey.

4.4 Conclusion

Three-quarters of women surveyed were aware of the BCSP – either by its name or as the '250 rupee programme' (a missed opportunity, in terms of 'branding' and 'labelling', to enhance impact). The AWW and ASHA appeared to be the primary sources of information about the programme, pointing to the **importance of frontline health workers in awareness generation**. While quantitative data did not show a significant relationship between education levels of the women and awareness of the programme, the qualitative data showed that literate women had a better understanding of the programme and its conditions, compared to illiterate women. The qualitative data also found that such women were also more likely to attend the VHSND without having to be reminded by the AWW or GPM.

Less than half of the eligible women surveyed were enrolled under the BCSP. The quantitative and qualitative surveys investigated the reasons why eligible beneficiaries were not able to register. Beyond the issue of **awareness,** (48% of eligible unenrolled women were not aware of the programme), the findings suggest the following conclusions:

- Differences in enrolment rates between various socioeconomic groups (SC and non-SC women; rich and poor women), which were significant at the time of the midline survey, were not found at the time of the endline. This suggests that **discrimination was not a major exclusionary factor** (though limited qualitative evidence provides exceptions to this) at the time of the endline survey.
- **Late registration** – due to the limited programme registration window (between months four and nine of pregnancy) – was the main reason for exclusion beyond lack of awareness. Late

registration was due to several factors, including: **migration to the natal home** during the critical registration period; **labour migration**; and (to a lesser extent) **late awareness of being pregnant** (not having sufficient time to acquire documentation, open a new account, etc.). As an example, the enrolment rates of women who had migrated to their natal home around childbirth were significantly lower compared to those women who delivered their child in the same village.

- The programme requirement to open bank accounts to deliver payments implied a large and significant increase in the proportion of women with personal bank accounts, from 17% at the baseline (in the treatment blocks), to 78% at the endline. However, the qualitative data found that there were **problems with opening bank accounts** that hindered women from joining the programme, such as providing required **ID documents** (this was particularly problematic for migrant women), high **processing fees**, and the **distance/cost** for reaching the nearest bank.
- **Migrant women** especially faced compounding exclusionary factors, including most of the above and the awareness that they would not be able to comply with conditionalities if they were to enrol.
- The qualitative data also suggested that **delays in payments to beneficiaries reduced the credibility of the programme**, discouraging more women from enrolling.

The chapter also discussed supply-side issues by exploring the reasons why AWWs were unable to register eligible women. The most common reasons for this were that beneficiaries were uninterested in the programme, or did not visit the AWC for registering. The AWWs also highlighted certain supply-side issues, such as **difficulties with the BCSP application,** or **not having a functional BCSP phone** to be able to register women.

5 Resource effect

5.1 Introduction

As outlined in Chapter 1, the programme worked through a direct transfer of cash to beneficiaries. This money may have improved the nutritional status of women and children through various transmission mechanisms. Firstly, the cash transfer could have led to an increase in household expenditure on food consumption. This increase in expenditure on food could have taken the form of increased food consumption (food intake), improved dietary diversity, and contributed towards overall food security (such as a reduction in skipping of meals) (Bastagli F. , et al., "Cash transfers: what does the evidence say? A rigorous review of programme impact and the role of design and implementation features", 2016). These could then have led to a rise in caloric consumption, and improvements in macro and micronutrient intake of beneficiaries – outcomes that are directly related to improved health outcomes. A second pathway operated through increasing expenditure on goods and services that improve nutritional outcomes (e.g. health services, improved sanitation etc.) besides food.

Emerging evidence across contexts shows that simply 'labelling' a cash transfer as, for example, a child nutrition transfer is often sufficient to ensure that the cash is used in that way, without attaching formal conditions (Pace, Daidone, Davis, & Pellerano, 2016). It is possible that some of the observed changes in consumption patterns because of the BCSP were not to do with the conditions attached to the cash transfer, but to do with the fact that the beneficiaries were told that the cash was for their health/nutrition and that of their children. This pathway is important since there was no additional behaviour change component in the design of the BCSP (besides regular counselling provided by the AWW during the VHSND).

Resource effect: Key evaluation questions

- How was the cash given under the BCSP spent by beneficiaries?
- What was the impact of the cash given under the BCSP on:
  i. food expenditure patterns of households;
  ii. maternal diet diversity; and
  iii. child food consumption?

Secondary evaluation questions

How was per capita calorie consumption effected?

In this chapter, the direct effects of the BCSP on health- and nutrition-related expenditures, especially on food, are studied. Section 5.2 highlights the use of the cash transfer, as reported by beneficiaries. Section 5.3 studies how households' weekly consumption of various food items changed due to the cash transfer. In Section 5.4, changes in households' caloric intake between the baseline and midline surveys is analysed. Section 5.5 looks at how the cash transfer impacted the dietary diversity of mothers. Finally, Section 5.6 presents the midline estimates for child food consumption, calculated as per the World Health Organization's (WHO's) infant and young child feeding (IYCF) guidelines (WHO IYCF)[17]. Quantitative and qualitative evidence has been used to highlight the trends observed in the BCSP evaluation.

Here, DID impact estimates are presented only for the limited conditions block versus the control block, as this comparison isolates the causal impact of the cash transfer. Since questions on the use

[17] WHO (2010).

of the BCSP cash transfer were dropped for the endline survey[18], the present chapter uses data from surveys conducted at baseline and midline only.

5.2 Self-reported use of BCSP cash

The midline survey collected detailed information on how beneficiaries spent the cash that they received from the BCSP. Table 11 shows that 68% of those who had withdrawn their money at least once said that they usually spent at least a part of the money on the child; 69% said they spent at least a part of it on themselves.

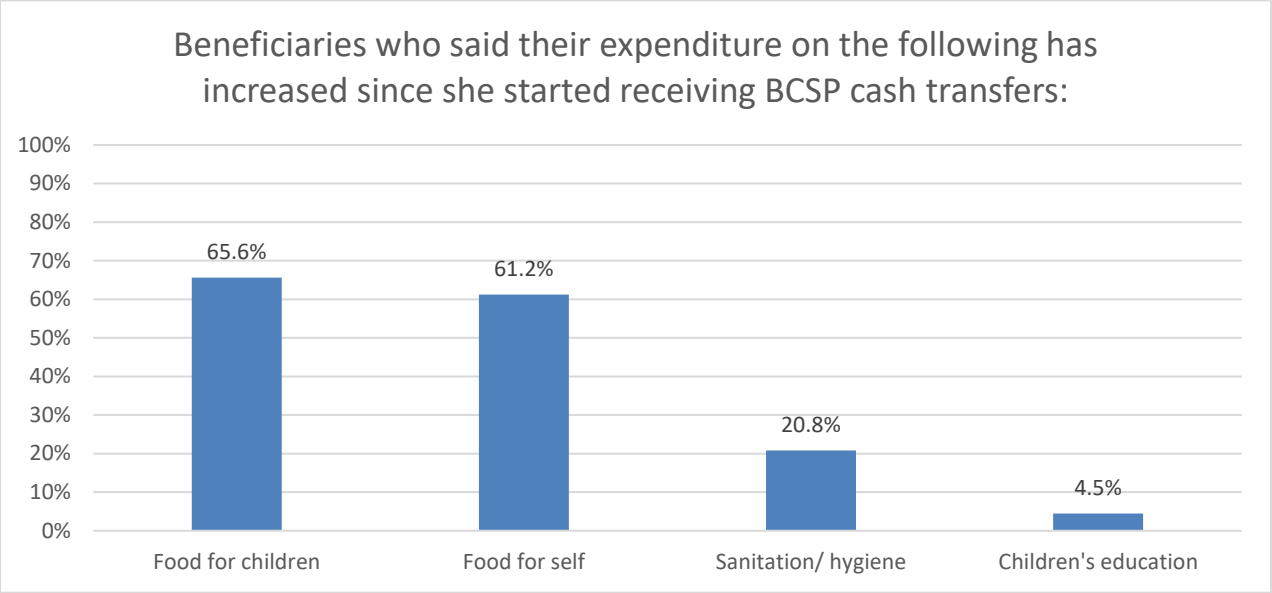
Table 11: At midline: Self-reported use of BCSP cash transfer

At midline : Self-reported use of BCSP cash transfer in treatment blocks	
Outcome/indicator	**Overall**
Awareness	
Beneficiaries who spent at least a part of the cash transfer on the child	68.2
	(2.47)
	789
Beneficiaries who spent at least a part of the cash transfer on themselves	68.7
	(2.62)
	789
Source: BCSP Midline Survey August 2015–October 2015. **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.	

When asked if expenditure on food for their child had increased, decreased or stayed the same because of the BCSP, 66% of all beneficiaries reported an increase. Around 21% reported that their spending on sanitation and hygiene had increased. Only 5% said that BCSP cash had led to an increase in expenditure on their children's education (see).

[18] This was because the programme had not been delivering cash in the few months prior to the survey and because the fieldwork was conducted in the weeks following the large-scale demonetisation of Indian currency on 08 November 2016. See Chapter 2 for more details.

Figure 13: Use of BCSP cash transfer



Source: BCSP midline data.

Very few beneficiaries reported expenditure on categories not related to the health/nutrition well-being of the mother or child. Less than 3% of the sample reported expenditure on jewellery, clothes or footwear, household durables, investment in small business, livestock, alcohol and cigarettes, transfers to friends and family outside the household, utilities or home improvement (See Annex C).

Qualitative data were additionally able to provide a snapshot of the range of non-food expenditures incurred by the beneficiary. Data revealed that **understanding spending preferences was complex because they were often made by various household members** (usually the husband), and were not always entirely up to the 'owner' of the cash. Beneficiaries in the qualitative sample mentioned that they had bought milk, packaged milk, biscuits, Horlicks and dry fruit for their child. Very few beneficiaries reported buying other food items, such as *namkeen* and fish, and non-food items, such as massage oil for their child. This was seen across all caste and social groups, such as Muslims, Yadavs, Musehris, Paswans, and Manjhis in both the treatment blocks.

> Interviewer: "*What did you do with the 1000/- that you withdrew from the account? (….) so you spent it all on medical costs?*"
>
> Respondent: "*Yes, (…) it was not specifically decided beforehand but it was needed then and the money is for the children anyway. It was given to take care of them. For us we can do according to what we have. If we have, we can do more. If not we can do less."*
>
> (BCSP Beneficiary, 35 years, extended conditions block)

Medical expenses emerged as an expenditure bucket in the qualitative survey, with a few women stating that they bought medicines or used the Rs 250 for medical treatment or for repayment of loans for medical treatment for their child. Lack of monetary resources and the readily available money from the BCSP allowed them to utilise the money to pay for medical treatment for their child. Although they knew that the money should be used for the child's diet and food, they felt that this was acceptable if the money was being used for the child's overall health.

While most beneficiaries reported spending BCSP cash on food, a couple of women reported saving the remaining money for other expenses, like education and paying back loans:

"I took loan for treatment of Babu (baby) when he was suffering from jaundice. Then I returned the loan amount…I could return the loan amount. We were not able to repay the loan if we would not have got this amount. The interest on loan amount would have increased."

(BCSP Beneficiary, 23 years, extended conditions block)

"We use it for many things. To educate the children, or save it for their future. That is what we do."

(BCSP Beneficiary's husband, 24 years, extended conditions block)

In summary, results from both quantitative and qualitative data showed that **most women reported an increase in expenditure on food for herself and her child because of the BCSP.** The mental labelling of the cash transfer for child-related expenses appears to have led most beneficiaries to spend BCSP cash on food, nutritional and health-related expenses for their children.

5.3 Changes in food consumption expenditure

The cash amount to be disbursed under the BCSP (Rs 250) was calculated based on the "rule of thumb" that a cash transfer will only have significant effects on outcomes if it is at least one third of per capita consumption expenditure (DFID Cash Transfers Evidence Paper 2013) which was applied to National Sample Survey Organisation consumption expenditure data from Bihar. Data from the baseline and midline surveys reveals that this amount was large enough to cause a detectable shift in household expenditure patterns.

The quantitative survey used a DID model to assess the impact of BCSP on mean per capita weekly food consumption expenditure[19], expenditure on foods belonging to various food groups, caloric intake and maternal dietary diversity. Food consumption is highly sensitive to seasonality, and to ensure comparability data were collected during the same months of the year across the midline and baseline surveys.

The quantitative survey asked households to recall the quantities and value of foods consumed in the seven days preceding the survey date, for 72 items of consumption. The food items were then grouped into 13 food groups[20], and analysed separately. All food items that were purchased, home-produced, or received as a gift by the household were included in the survey. All estimates of food consumption expenditure were adjusted for regional and time variation in prices using Paasche's price index (Deaton & Zaidi, 2002).

Table 12 below presents DID estimates for impact on per capita weekly expenditure on food items for households in the limited conditions block, compared to the control block.

Table 12: DID: Household weekly expenditure on food consumption

DID of baseline vs midline: household weekly expenditure on food consumption (in INR)	
Outcome/indicator	**Limited conditions vs. Control**
	Dif 2 – Dif 3
Weekly per capita food expenditure	

[19] Per capita consumption expenditure is a standard proxy for household welfare. Variation in this measure is easier to measure than that in income. It is also less prone to measurement error and less subject to short-term economic effects. Additionally, consumption expenditure provides an indirect measure of permanent income.

[20] The food groups presented here are the same as the ones recommended by the Food and Agriculture Organization for the calculation of the Household Dietary Diversity Score indicator, except that the cereals and tubers are merged (http://www.fao.org/fileadmin/user_upload/wa_workshop/docs/FAO-guidelines-dietarydiversity2011.pdf).

Weekly per capita food expenditure	36.75***
	(6.83)
Weekly household food expenditure by food group	
Food group A: Milk and milk products	22.40
	(14.84)
Food group B: Meat, poultry and fish	62.72***
	(9.94)
Food group C: Cereals	-4.56
	(16.29)
Food group D: Pulses	-15.23*
	(7.41)
Food group E: Edible oils	-3.53
	(3.40)
Food group F: Fresh fruits	7.51
	(3.87)
Food group G: Dry fruits	2.48
	(3.04)
Food group H: Vegetables	28.50***
	(7.21)
Food group I: Condiments and spices	0.11
	(5.64)
Food group J: Sugar, honey and sugar preparations	16.31***
	(4.69)
Food group K: Non-alcoholic beverages	-0.62
	(1.93)
Food group L: Misc. food items	7.75
	(5.25)
Food group M: tobacco and alcohol	5.13
	(13.16)

Source: BCSP Baseline Survey (July–September 2013) and BCSP Midline Survey (August–November 2015).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Box #: *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

The above analysis provides strong evidence of a positive causal impact of cash received through BCSP on weekly per capita expenditure on food in the limited conditions block. **On average, households in the limited conditions block spent an additional Rs 37 (per capita, per week) on food**, as compared to households in the control block, as a result of the cash transfer.

The BCSP impacted household food consumption expenditure by providing households with i) regular cash payments and ii) messaging about the appropriate use of transfers. While **households bought more of certain types of foods, they reduced expenditure on others**. DID estimates presented in Table 12 reveal that BCSP had a positive causal impact on weekly household expenditure on meat poultry and fish, vegetables and sugar products. Households in the limited conditions blocks spent (on average) an additional Rs 63 on meat, poultry and fish, an additional Rs 29 on vegetables, and an additional Rs 16 on sugar, honey and sugar preparations in the week preceding the survey. This finding is in line with other international studies on the impact of cash transfers on food consumption. For example, (Gitter & Caldés, 2010), and (Hoddinott & Wiesmann, "The impact of conditional cash transfer programs on food consumption in Honduras, Mexico, and Nicaragua." , 2008) both find an increase in consumption, not only of fruits and vegetables, but also an increase in consumption of items such as sugar, biscuits, fats and fizzy drinks, because of similar cash transfers.

On the other hand, the cash transfer had a significant negative impact on household weekly expenditure on pulses and edible oils in the limited conditions block, compared to the control block.

No impact was detected on expenditure on tobacco or alcohol consumption. This is in line with a recent review of global evidence on cash transfers and temptation goods (Evans & Popova, 2014)[21].

Findings from the analysis of qualitative data reveal that beneficiaries in both treatment blocks primarily spent cash from BCSP on milk, biscuits, fruits, dry fruits and vegetables. Many beneficiaries reported purchasing milk supplements such as Horlicks, Complan and Cerelac for their children as they believed that this would improve the health of their child.

Strict socio-cultural norms dictate that women, especially daughters-in-laws, eat only after serving all other family members. As a result, women in rural India often find it hard to receive adequate food and nutrition, especially in larger families. Furthermore, women often continue performing household chores during their pregnancy in their marital home, and do not receive proper care, diet and nutrition as a result. Qualitative data from the BCSP survey revealed that money from BCSP, and nutrition-related advice from the AWW, helped beneficiaries supplement their food consumption, thereby improving their health and nutrition.

Interviewer: *"Where were you staying during your first pregnancy? (…) How was your diet during the pregnancy? (…)"*

Respondent: *"Here, in my in-laws' house…it was a little less (…) there were a lot of family members, 10 or 12."*

Interviewer: *"… Why did you not stay here (marital home) after the birth (of the first child)?"*

Respondent: *"There would have been a paucity of food if I had stayed here. Suppose if I wanted to eat something different, it was impossible to get for a family of 12. (…)"*

Interviewer: *"Did they (AWW) talk to you or give you dietary instructions when you visited the Anganwadi (during second pregnancy)?"*

Respondent: *"Yes, they told me to eat milk and fruits and to take enough nutrition for the kid."*

(BCSP Beneficiary, 21 years, extended conditions block)

BCSP had a disproportionately large impact on food expenditure indicators for the poorest households in treatment blocks (see Annex C). This was expected, since poorer households typically spend higher proportions of their income on food than wealthier households do (Zimmerman & Carle, 1932). The larger increase in food expenditure among poorer households also translated into a relatively larger reduction in the prevalence of underweight women among women (See Chapter 7).

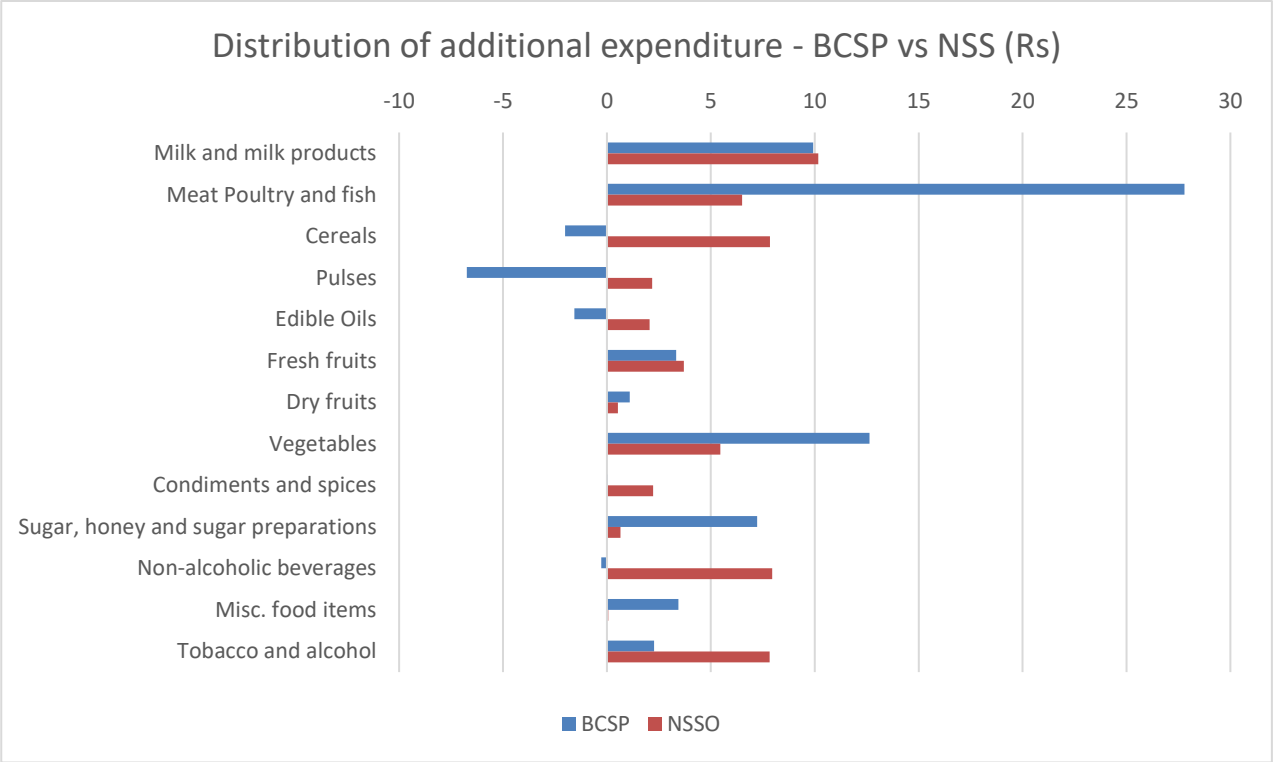
5.3.1 Comparing impacts on food consumption from the BCSP to National Sample Survey Office (NSSO) data

Data from the latest National Sample Survey[22] (2011) offer an opportunity to compare BCSP's impact on the food expenditure patterns of households to a nationally representative dataset. NSSO data

[21] Almost without exception, studies covered in this review find either no significant impact or a significant negative impact of transfers on temptation goods. In the only (two, non-experimental) studies with positive significant impacts, the magnitude is small. This result is supported by data from Latin America, Africa, and Asia.
[22] See http://mail.mospi.gov.in/index.php/catalog/145.

from Bihar were used to calculate how households allocate additional consumption expenditure as they move up the wealth distribution. This is compared with how households were found to allocate the same amount of additional consumption expenditure received under BCSP. Figure 14 plots the estimated changes in expenditure patterns observed for the same increase in consumption expenditure for BCSP and NSSO data.

Figure 14: Distribution of Additional Expenditure



Source: BCSP midline data and NSSO 2011 data for Bihar.

From the NSSO data, households distribute additional consumption expenditure across all different food group types. However, the cash received under BCSP was used very differently. There was a considerable substitution effect towards meat, poultry and fish, vegetables and sugar, and away from cereals and pulses – the consumption of which actually declined. This shows that the cash received under the BCSP – targeted at the mother and with some basic labelling – had considerably different effects on consumption expenditure than occurs when households become wealthier.

5.4 Changes in caloric intake

The quantitative analysis found that calorie consumption (per capita, per day) decreased significantly in all blocks except in the extended conditions block (Annex C) between the baseline and midline surveys. The magnitude of the decrease was smaller in treatment blocks compared to the control block.

The decline in the per capita calorie consumption across blocks is in line with earlier literature on this subject, which has labelled the decline in average calorie intake in India during the last 25 years as the ‘calorie consumption puzzle’ (Chandrasekhar & Ghosh, 2003) (Deaton & Drèze, "Food and nutrition in India: facts and interpretations.", 2009). This decline has occurred despite a steady

increase in real expenditures and incomes, no long-term increase in the relative price of food, and persistently high rates of malnutrition in the country[23].

Directionally positive DID impact estimates from Table 13 possibly indicate that it was the BCSP that softened the decline in calories consumed in the limited conditions block. However, impact estimates are not significant at the 95% level, and carry large standard errors. As such, this is not sufficient to establish that the BCSP significantly improved household calorie consumption in the past year.

Table 13: DID: Calorie consumption

DID of baseline vs. midline: Calorie consumption	
	Limited conditions vs. Control
	Dif 2 – Dif 3
Calorie consumption	
Calories consumed per capita per day	79.69
	(55.98)
Household money spent per 1,000 calories bought	1.81***
	(0.35)

Source: BCSP Baseline Survey (July–September 2013) and BCSP Midline Survey (August–November 2015).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Box #: *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

Given the finding that BCSP caused households to increase expenditure on food, but not increase calorie consumption, **it appears that households did not necessarily purchase calorie-rich foods with the extra cash.** To capture the effect of the cash transfer on changing household food expenditure patterns, money spent per 1,000 calories purchased was calculated. DID estimates show that households in the limited conditions block spent an additional Rs 1.8 (significant at the 99.9% level) on average for purchasing 1,000 calories, as compared to households in the control block.

This increase in money spent per 1,000 calories, combined with the earlier finding that households in the limited conditions block increased food consumption expenditure but cut back on total calories consumed, leads us to conclude that, on average, households belonging to the limited conditions blocks spent cash on relatively more expensive sources of calories, like meat, fruits, vegetables and packaged foods, compared to, say, cereals (vis-à-vis the control block). This hypothesis is supported by data from Section 5.3, which showed that the cash transfer had a positive impact on expenditure on vegetables, sugar products and meat.

5.5 Maternal food consumption and dietary diversity

DID impact estimates in Table 14 summarise the impact of BCSP cash on maternal dietary diversity. Foods were classified into 13 broad groups (as in Section 5.3), and analysed in terms of the percentage of women who reported consuming a food belonging to each group.

Table 14: DID: Maternal dietary diversity

DID: Maternal dietary diversity indicators	
Outcome/indicator	**Limited conditions vs. control**
	Dif 2 – Dif 3
Maternal dietary diversity indicators	

[23] According to National Sample Survey data, between 1983 and 2009-10, average inflation-adjusted monthly expenditure of households increased by 28% but calorie intake declined by 16% in rural India.

DID: Maternal dietary diversity indicators	
Outcome/indicator	**Limited conditions vs. control**
	Dif 2 – Dif 3
Number of food groups consumed by mother (out of 13)	0.53***
	(0.14)
Percentage points of mothers who consumed foods from the following food groups:	
Food group A: Milk and milk products	4.17
	(3.44)
Food group B: Meat, poultry and fish	31.34***
	(3.51)
Food group C: Cereals	-0.06
	(0.19)
Food group D: Pulses	-2.14
	(1.68)
Food group E: Edible oils	0.55
	(0.33)
Food group F: Fresh fruits	7.56*
	(3.40)
Food group G: Dry fruits	3.69
	(1.86)
Food group H: Vegetables	0.43
	(0.38)
Food group I: Condiments and spices	-0.13
	(0.23)
Food group J: Sugar and honey	2.18
	(3.00)
Food group K: Non-alcoholic beverages	-0.48
	(3.29)
Food group L: Misc. food items	9.13*
	(3.94)
Food group M: tobacco and alcohol	-2.77
	(3.23)
Source: BCSP Baseline Survey (July–September 2013) and BCSP Midline Survey (August–November 2015). **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Box #: *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.	

DID impact estimates reveal that women living in the limited conditions block consumed foods from an additional 0.5 food groups on average, when compared to the control block. This increase is significant at the 99.9% level.

Quantitative analysis also provides indicative evidence that women in limited conditions blocks, on average, consumed more meat, poultry and fish, fresh fruits, and miscellaneous items (these included packaged foods, snacks etc.). For example, in the limited conditions block, an additional 31 percentage points of women reported consuming meat, fish and poultry, in the week before the survey, as compared to women in the control block. This increase was significant at the 99.9% level. An additional 8 percentage points of women reported consuming fresh fruits, and an additional 9 percentage points reported consuming foods belonging to the miscellaneous foods category, when compared to control block (significant at the 95% level).

Qualitative data from the midline survey offer additional insight into maternal diet consumption patterns. When asked about the impact that Rs 250 had on their lives, some beneficiaries spoke of a shift in the type of food items that they could purchase: they were able to afford a greater variety and quality of items than before.

Interviewer: *"Since you got [the BCSP] money has there been any change in your eating habits?"*

Respondent: *"We used to eat only rice, daal and all. Now we can eat rice with milk, vegetables also they get."*

Interviewer: *"What about children?"*

Respondent: *"They are also getting milk now. What I eat, [the] same [food] my child will get. We also get juice to drink."*

(BCSP beneficiary, 24 years, extended conditions block)

Thus, both qualitative and quantitative data point to **a strong increase in dietary diversity amongst mothers because of the BCSP cash transfer**. This has significant implications for the improvement of maternal nutritional outcomes, as detailed in Chapter 7.

5.6 Child food consumption

To investigate IYCF practices, indicators related to the child's food consumption were calculated according to the WHO IYCF guidelines[24]. The quantitative study asked women about which foods and liquids she had fed her child in the 24 hours before the survey. Although this question was asked during both the baseline and midline surveys, some food items were not comparable. As a result, for the present study, DID impact estimation could be carried out for only a handful of the WHO IYCF indicators (Table 15).

Table 15: DID: WHO IYCF indicators

DID : WHO IYCF indicators	
Outcome/indicator	**Limited conditions vs. control**
	Dif 2 – Dif 3
Early initiation of breastfeeding	1.14
	(3.57)
Exclusive breastfeeding under six months	-3.91
	(7.75)
Continued breastfeeding at one year	-1.88
	(3.96)
Introduction of semi-solid foods for children between six and eight months of age	13.05
	(8.37)
Source: BCSP Baseline Survey (July–September 2013) and BCSP Midline Survey (August–October 2015).	
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.	

Estimates from Table 15 reveal that the performance of IYCF indicators did not vary between the control and treatment blocks across the two survey rounds. The impact estimate on the indicator related to the introduction of solid, semi-solid or soft foods is large in magnitude (13 percentage points), but not significant at the 95% level (it is significant at 90%). This indicative impact provides some support to BCSP's significant impact on the proportion of underweight and wasted children. See Chapter 7 for more details on anthropometric outcomes.

According to qualitative data, the cash transfer had an unintended consequence in that it improved the diet diversity of children who were not eligible for BCSP. Some women would buy milk, fruits,

[24] WHO (2010).

biscuits, Horlicks, and Complan, and feed not only the child eligible under BCSP but also all the other children. This would bring about a diversity in the diet of non-BCSP children as well.

Interviewer: *"What did you do with this money?"*

Respondent: *"I used to get something for kids."*

Interviewer: *"What did you use to take?"*

Respondent: *"I used to take Complan, biscuits, or whatever children wanted to eat like pomegranate or any fruit."*

(BCSP Beneficiary, 23 years, Limited Conditions Block)

5.7 Concluding remarks

Overall, the analysis shows that **women used the cash transfer in a 'pro-nutrition' manner**. The quantitative study results show that most women in the treatment block reported that cash from BCSP had led to an increase in expenditure on food for both themselves and their child. Qualitative data also indicated that beneficiaries generally spent the money on fruits, vegetables and milk for their child and for themselves.

DID impact estimates show that the cash transfer had a positive impact on weekly household food expenditure – particularly on vegetables, sugar products, meat, poultry and fish, as compared to the control block. A falling calorie intake and increasing food expenditure means that people in general, and especially in limited conditions blocks, are shifting from calorie-rich foods to other, more expensive sources of calories.

By analysing food consumption data for mothers, the quantitative study showed that **women in treatment blocks consumed food from a significantly greater number of food groups**, as compared to the control block. Mothers in the treatment block consumed more meat, fruits and other miscellaneous items. There was **no clear evidence to show that BCSP improved children's diets**, though the indicator related to introduction of semi-solid and solid foods showed some improvement because of the cash transfer. Both treatment blocks did better than the control block based on the indicators that measure minimum dietary diversity and minimum acceptable diet at the midline stage.

BCSP contributed to an increase in household expenditure on a larger variety of food items, and had a **positive impact on maternal dietary diversity**. There was **no evidence that the cash was used to increase expenditure on items like alcohol and cigarettes**. In fact, as compared to non-enrolled households, households with enrolled beneficiaries spent a smaller amount on these items on average.

It is possible that the reason why women spent BCSP cash on supplementing the nutritional intake of the household (particularly for themselves and their child) is because the cash transfers were small and frequent, rather than an irregular lump sum (Beazley & Farhat, 2016). Women understood that the money they were receiving was for them and for their child's nutritional welfare and most of the women spent the BCSP cash on improving their nutritional intake. This mental labelling of the cash transfer as being reserved for the health of the child is likely to have played a key role given that the programme was not advocating the expenditure of cash in a specific area.

6 Conditions effect

6.1 Introduction

International evidence on the use of health facilities mostly shows that cash transfers, both conditional and unconditional, increase the uptake of health services (Bastagli G. , et al., 2016). Of the 15 studies looking at the overall effect on health service use, nine report statistically significant increases (Bastagli G. , et al., 2016). The Overseas Development Institute's (ODI's) rigorous literature review found that out of three studies, two found evidence that the presence of conditions such as attending child health clinics had a sizeable and significant effect on the number of child health visits being made.

The BCSP aimed to improve the health and nutritional status of young children and mothers by (i) incentivising the uptake of certain health and nutrition services by imposing them as conditions in the programme, and (ii) offering a cash transfer upon fulfilment of these conditions, with the aim that the money would be spent on nutritious food and other health services.

While Chapter 5 discussed the utilisation of the cash transfer, this chapter studies the uptake of the various health and nutrition services applied as conditions in the programme. It also attempts to disentangle whether the enforcement of conditionalities may have led to exclusion from the programme (or reduced payments) for those categories of women who are most in need of support. Barca (2014)[25] further discusses the 'conditions for conditionality'.

Conditions effect: Key evaluation questions

- By incentivising the uptake of certain services/ behaviours, did the BCSP increase their uptake?

Secondary evaluation questions

- To what extent do beneficiaries understand the objectives of the programme, and are able to recall its various conditions?
- What were the reasons why certain conditions saw lower levels of compliance?
- What is the impact of having several conditions under the programme?
- Do women uptake services/behaviours that are non-incentivised?

The outline of the chapter is as follows: Section 6.2 discusses whether the beneficiaries of the programme were aware of the conditions under the programme, and whether they understood their benefits. Section 6.3 discusses the conditions related to the uptake of health services. Section 6.4 explores those conditions that were dependent upon certain nutrition-sensitive behaviours (correct treatment of diarrhoea, and exclusive breastfeeding). Section 6.5 outlines the bonus conditions of the programme. Finally, Section 6.6 looks at the efficacy of adding several conditions under one programme, and what happens when certain services are not incentivised.

6.2 Barriers to compliance and enforcement

6.2.1 Awareness

Awareness of the programme and its components was discussed in Section 4.2. In this section, further insights are provided on the awareness of specific programme conditionalities, and how this affected compliance. Most conditions under the BCSP could be fulfilled by attending the VHSND

[25] Barca, V. (2014) 'Does one size fit all? The Conditions for conditionality in cash transfers'. *OPM Working Paper* http://www.opml.co.uk/publications/does-one-size-fit-all-conditions-conditionality-cash-transfers.

regularly, and receiving the services offered therein. Nevertheless, for the programme to work well, it was essential that AWWs and beneficiaries were both well informed about which tasks were conditions under the BCSP.

Table 16 below shows the most common conditions that the beneficiary and the AWW were able to recall at the time of the endline survey (this analysis was supported by evidence from the qualitative interviews). None of these were recalled by more than 50% of beneficiaries, shedding light on the primary challenge to operationalising these conditionalities.

Table 16: Recall of BCSP conditions

At endline: Recall of BCSP conditions by beneficiaries and AWWs		
Outcome/indicator	**Beneficiaries**	**AWWs**
Most common conditions the AWW is able to recall:		
Attend VHSND every month	40.6	86.1
	(2.18)	(3.46)
	1212	101
Weight gain monitoring of woman during pregnancy	37.7	70.3
	(2.26)	(4.57)
	1212	101
Weight / growth monitoring of children	45.5	60.4
	(2.49)	(4.89)
	1212	101

Source: BCSP Midline Survey (August–November 2015) and BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where: *** = 99.9%; ** =99%; * = 95%. (2) Standard errors clustered by PSU ID are in parentheses. (3) Appropriate Stata 14 commands were used to account for survey design. (4) The statistics presented under the 'Beneficiaries' column are derived from the BCSP Beneficiary Endline Survey, and the statistics presented under the 'AWWs' column are from the BCSP AWW Endline Survey.

A reason for lack of awareness especially among younger mothers can be attributed to migration to the natal home during pregnancy and reliance on their mother-in-law or a family elder for information on new schemes.

> *Respondent: "[After I opened my account] I went to my maternal home. My mother-in-law went and got the information, and then she came and told me about it. "*
>
> (BCSP Beneficiary, 20 years, Limited conditions block)

The recall rate was even lower for the more 'behavioural' conditionalities, such as exclusive breastfeeding and consumption of IFA tablets (Annex D.1.1). For example, in qualitative interviews, even the women that were aware of the practice of consuming IFA tablets as supplements and ORS packets in case of diarrhoea were not aware that these were conditions that they needed to fulfil for BCSP. This is further explored in Section 6.4.

Confirming the reason for low awareness even among AWWs (never close to 100%), who had been thoroughly trained, around 50% of the AWWs who said they required further training wanted to learn and understand the conditions better (Chapter 8). This indicates the complexity of the programme and its numerous conditions, which were difficult to remember for beneficiaries and AWWs alike.

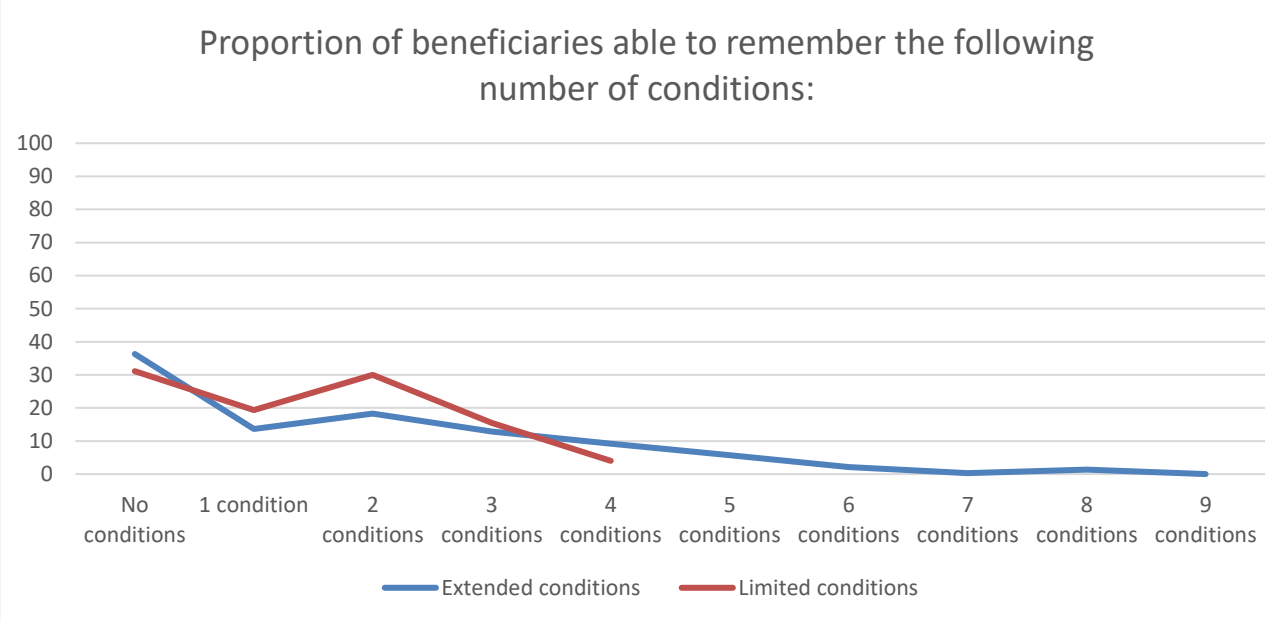
"When meeting is conducted, then ASHA comes to inform that meeting has been fixed on this day and you all come there. Then we all go."

(BCSP Beneficiary, 24 years, limited conditions block)

Given the large volume of beneficiaries enrolled, it was difficult for the AWW to have kept track of individual beneficiaries and to have reminded them of which condition they were due to fulfil. Therefore, to expect the beneficiary to proactively comply with the conditions, it was crucial that she could remember them. However, qualitative data show that beneficiaries were not proactive in attending the VHSNDs at the AWC. Usually the AWW or ASHA would call the beneficiaries to attend.

The following graph (Figure 15) depicts the number of conditions that beneficiaries in the two treatment blocks were able to recall. 36% and 31% of the beneficiaries in the extended and limited conditions blocks respectively could not recall any conditions at all. In the limited conditions block, only 4% of the beneficiaries could recall all four conditions of the block. Less than 10% of the beneficiaries in the extended conditions block could recall more than four conditions.

Figure 15: Number of conditions beneficiaries could recall



6.2.2 Understanding of, and perceived usefulness of, conditions

GPMs and the ASHAs interviewed in the qualitative study suggested that it was easier for educated mothers to understand the conditions of the programme and to follow up on the VHSND days without needing prior information from the AWW or the GPM, compared to uneducated mothers. Educated women understood the details and nuances of the scheme better than uneducated mothers did.

"After getting money for two to three times women who were literate they got to know that on third Wednesday and on second Friday they should come here. They have kept it in their minds. So literate people used to understand the thing that today is second Friday and we should go to the centre. I had explained them through a calendar about second Friday and third Wednesday. So they used to go. But we had to remind scheduled caste people for two to three times for coming here… We had to insist them more and they were more in numbers also. They were less literate as well."

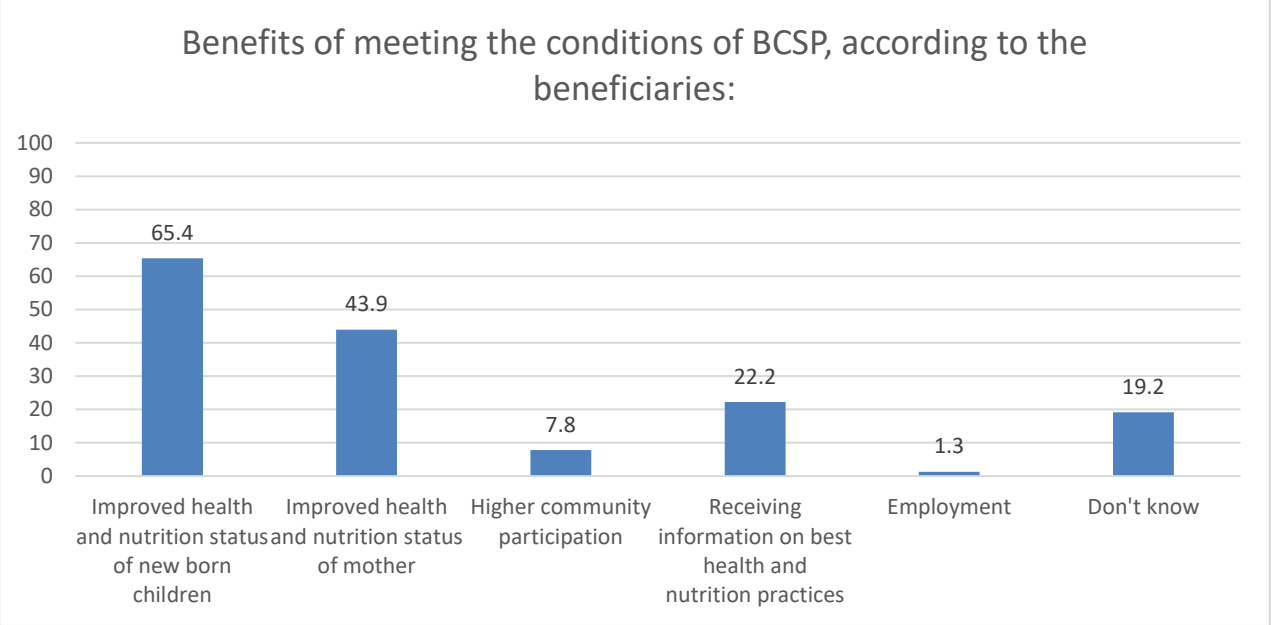
(BCSP GPM, age 24, extended conditions block)

This was partly confirmed through further quantitative analysis: a statistically significant larger proportion of educated women recalled the condition of child growth monitoring, compared to uneducated women (this difference was not as apparent for other conditions) (Annex D.1.2). These findings are also confirmed when disaggregating by caste and education level on awareness of the value of using IFA supplementation (Section 6.3.4) and correct treatment of diarrhoea (Section 6.4.1).

Moreover, to meet the BCSP conditions, the beneficiaries should have been able to see the value in fulfilling the conditions required. They should have been able to perceive their usefulness – besides the monetary incentive attached – and thereby be intrinsically motivated to meet them. This is also important with regards to the sustainability of the programme.

Figure 16 below captures the benefits that the enrolled beneficiaries perceived from the programme. 65% of the beneficiaries said that the programme would help improve the health and nutrition status of newborn children, and 44% it would do the same for mothers. It is worth noting that as many as 19% of the beneficiaries said that they did not know the benefits of meeting the conditions.

Figure 16: Perceived benefits of meeting BCSP conditions



Qualitative data show that while beneficiaries were often aware that the BCSP aimed to improve maternal and child nutrition, this understanding and the perceived usefulness of this was not extended to the conditions. For instance, beneficiaries received IFA tablets but few could recall the benefits of their consumption. This was consistent across caste and social groups in the two treatment blocks.

6.2.3 Other barriers to compliance

The qualitative evidence showed that beneficiaries faced monetary and opportunity costs to comply with conditions. Those who worked had to take out time or miss work to attend VHSNDs. Often the AWC would be far away, making it difficult for them to go while they were pregnant or when they were with a young child. Those who migrated for work, or to their natal home, faced further challenges in complying with conditions as they were not present to fulfil them.

Interviewer: *"Did devraj get a nine-month injection (measles shot)? (…) He is a year and a half old now. Why did you not get that shot?"*

Respondent: *"No we did not get that vaccine (…) it was the time for working in the field. We could not take him to the Anganwadi for his shot."*

(BCSP Beneficiary, 21 years, extended conditions block)

The GPMs also suggested that it was harder to convince newlywed mothers to come to VHSND regularly versus mothers with two to three children. Traditionally, greater restrictions are placed on the physical mobility of younger/ newlywed women, constricting their ability to attend VHSNDs.

6.2.4 Enforcement

Interviewer: *"Were there any major social hurdles faced by new mothers and experienced mothers while taking part in the activities [of the BCSP]?"*

Respondent: *"There are some problems created from the family end of the matter. There is an element of embarrassment and shame for women who are pregnant for the first time. They would sit hidden at the back row of meetings, a little ashamed to take part… In the upper crust of the society, people get arrogant ideas about where the new daughter-in-law can or cannot venture. We explained that if she would not come and sign on the form and then the form be scanned and sent, it was impossible to receive the money."*

(GPM, 28 years, limited conditions block)

VHSND attendance, weight monitoring of pregnant women, and child growth monitoring were the conditions that were most enforced, as these were easy to monitor by the AWW in comparison to behaviour change conditions. Behaviour change conditions, such as exclusive breastfeeding and consumption of IFA tablets, were difficult to monitor as they were dependent on self-reporting. Beneficiaries were aware that if they did not attend VHSNDs then their 'message' would not be sent and they would not receive money.

Interviewer: *"Did anyone keep track of people who did not attend?"*

Respondent: *"Yes. If you were absent, your message was cancelled."*

Interviewer: *"So they used to keep track?"*

Respondent: *"Without attendance, they could not register the weight. They told us that there was no way to send the message without you being there so if you could not attend your message was not sent. They had to keep track of how much weight was gained and lost."*

(BCSP Beneficiary, 32 years, extended conditions block)

The quantitative data shed light on the extent to which the AWWs monitored whether beneficiaries were meeting their conditions. Under BCSP, the AWW was provided with a Conditions Met Report (CMR) each month by the BCSP implementation team. The CMR gave an overview for each

beneficiary, and highlighted which conditions a beneficiary had and had not met for the month. The CMR contained pictorial representations of the conditions, with the intention that the AWW would show the report to the beneficiary and explain to her which conditions she had and had not met. Table 17 below shows that of the 78% AWWs who had seen a CMR, 39% said they used it to discuss with beneficiaries which conditions they had met. 56% of such AWWs said they used the report to understand which conditions the beneficiaries were meeting, and 6% said they did not use the report at all.

Table 17: Use of CMR by AWWs

T-tests at endline: Use of CMR			
Outcome/indicator	**Extended conditions**	**Limited conditions**	**Overall**
CMR			
AWWs who have seen a CMR	84.0	76.5	78.4
	(5.24)	(6.00)	(4.64)
	50	51	101
Use of CMR by AWWs			
Use it myself, to understand which beneficiaries are meeting conditions	47.6	59.0	55.9
	(7.80)	(7.98)	(6.15)
	42	39	81
Use it to discuss with the beneficiaries which conditions they met	45.2	35.9	38.5
	(7.77)	(7.78)	(6.01)
	42	39	81
Do not use the CMR	7.1	5.1	5.7
	(4.02)	(3.58)	(2.80)
	42	39	81

Source: BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Box #: *** = 99%; ** =95%; * = 90%. (2) Standard errors clustered by PSU ID are in parentheses. (3) Appropriate Stata 14 commands were used to account for survey design. (4) The indicators in this table are calculated from the AWW dataset from the BCSP Endline Survey.

Qualitative data suggests that beneficiaries complied because of the fear of not receiving the money, and not necessarily due to the perceived health benefits of complying with the conditions.

6.3 Uptake of services

6.3.1 Attendance at VHSND

a. Attendance during pregnancy

Table 18 below shows the DID estimates for the VHSND attendance at least once during pregnancy. There appears to be a large and significant improvement in VHSND attendance in the limited conditions block compared to the control block, between the two survey rounds.

Table 18: VHSND attendance during pregnancy

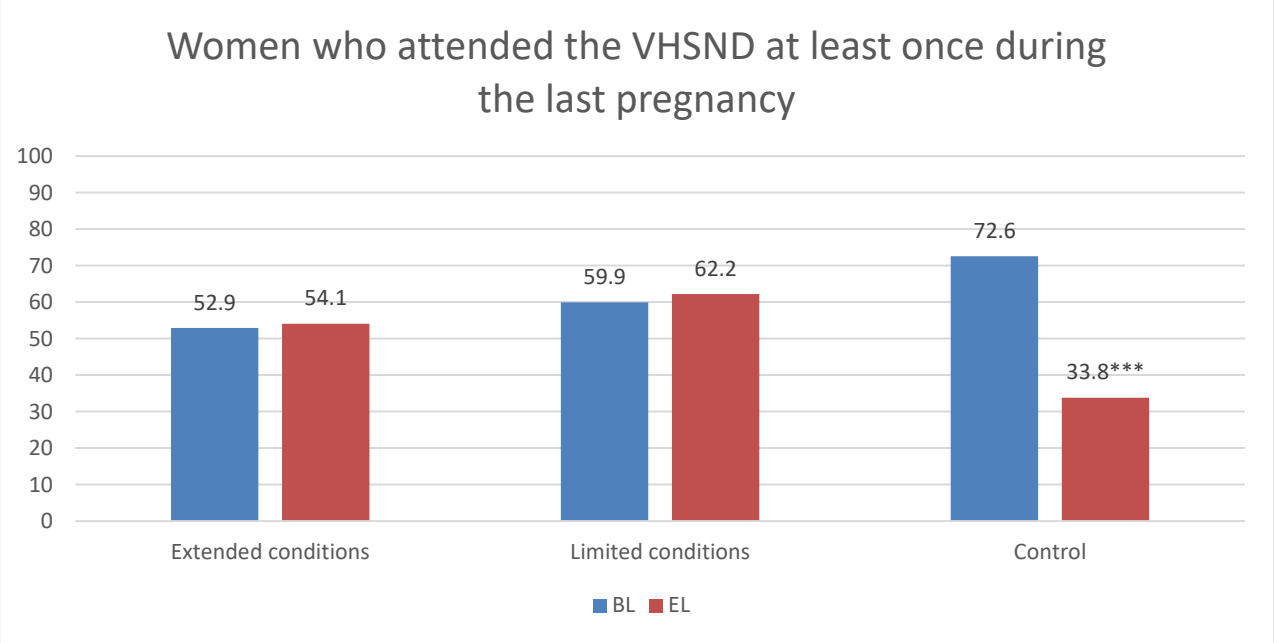
DID of baseline vs endline: VHSND attendance during pregnancy

Outcome/indicator	Limited conditions vs. control Dif 2 – Dif 3
VHSND attendance during pregnancy	
Women who attended the VHSND at least once during their last pregnancy	39.80***
	(4.48)

Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

Figure 17 below sheds some light on this. While VHSND attendance increased marginally (and insignificantly) in the extended and limited condition blocks, there was a large drop in the control block, from 73% at the baseline to 34% at the endline. The quantitative data were unable to capture a reason for this sharp drop, while the qualitative data were not gathered in the control block.

Figure 17: Baseline vs endline – VHSND attendance during pregnancy



For comparison between the baseline and endline surveys, the indicator 'women who attended the VHSND at least once during their last pregnancy' was used for DID estimates. However, it is important to look at the frequency of attendance as well, as women should ideally have visited the VHSND every month during her pregnancy to get her weight monitored, receive IFA tablets, etc. At the time of the endline survey, only 8% of the women in the treatment blocks reported that they had attended the VHSND during most/ all months of their pregnancy (Annex D.2.4). Women in the limited conditions block visited an average of 3.4 VHSNDs during their last pregnancy. Both of these figures were significantly higher in the limited conditions block compared to the control block.

To summarise, the BCSP caused an increase in the proportion of pregnant women attending the VHSND, as well as the average number of visits during a pregnancy in the treatment blocks. However, these statistics are still below optimum levels, as only about 60% of women in the treatment blocks attended the VHSND at least once during their last pregnancy. Those women who had never attended the VHSND during their pregnancy were asked the reasons why this was the case. The most common reasons were that the women did not have any knowledge about the VHSND (37%), or felt that they were unnecessary (25%). Around 17% of such women cited supply-

side issues, such as poor quality services, or indifferent behaviour from the service providers (Annex D.2.6).

b. Attendance with child

Women were advised to attend the VHSND regularly with their child, as the AWC also offers services for the latter, such as growth monitoring, immunisations, etc. Monthly VHSND attendance with the child was also a BCSP condition. Table 19 below presents DID results for VHSND attendance with children between the baseline and endline surveys.

The DID estimates show a large improvement in the limited conditions block, vis-à-vis the control block, between the two rounds of surveys. VHSND attendance increased by 36 percentage points in the limited conditions block as a result of the BCSP.

Table 19: VHSND attendance with child (DID results)

DID between baseline and endline: VHSND attendance with the child	
Outcome/indicator	**Limited conditions vs. control**
VHSND attendance with the child	
Children who have attended the VHSND at least once	36.39***
	(5.13)

Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

This significant result is explained in Table 20 below. There was an increase from 54% to 62% in the limited conditions block between the baseline and endline surveys. However, similar to the case of VHSND attendance during pregnancy, there was a large drop from 69% at the baseline to 38% at the endline in the control block. Again, quantitative analysis is unable to establish reasons for the sharp drop in the control block.

Table 20: VHSND attendance with child (T-tests results)

T-tests at endline: VHSND attendance with the child								
	Extended conditions		**Limited conditions**		**Control**		**Overall**	
Outcome/indicator	**BL**	**EL**	**BL**	**EL**	**BL**	**EL**	**BL**	**EL**
VHSND attendance with child								
Children who have attended the VHSND at least once	43.3	53.1**	54.2	61.5*	68.6	37.9***	57.8	41.9***
	(2.75)	(2.49)	(3.06)	(2.80)	(2.54)	(1.76)	(1.79)	(1.50)
	1616	1337	1575	1250	1566	1407	4757	3994

Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

The above indicators represent those children who had attended the VHSND at least once. Annex D.2.7 depicts the degree to which this attendance was regular. Only 34% of the children above three months in the treatment blocks sample had attended the VHSND twice or thrice in the previous three months. This figure was significantly lower in the control block.

Therefore, similar to the case of VHSND attendance by pregnant woman, the above analysis shows that the BCSP caused a large and significant increase in the attendance of VHSND with children. However, the overall levels of attendance at the time of the endline survey were still low – only 60% of the children in the treatment blocks, and 38% in the control block, had attended the VHSND at least once.

The quantitative survey investigated the reasons for non-attendance (Annex D.2.7). The most common reason for never having attended the VHSND with their child was lack of knowledge (41% across blocks). Around 5% to 7% of women cited reasons related to logistical concerns – they either had no one to accompany them, or did not have time to go, or said the AWC was too far away.

Qualitative findings also show that a few beneficiaries found it difficult to attend the VHSND because they were working or the AWC was far away, and a few were unable to attend as they weren't allowed to travel alone and had to be accompanied by a family member (see Section 6.6). Three per cent of the women said attending the VHSND was not customary for them. These findings are of concern as they highlight areas where the enforcement of conditionalities may have led to exclusion from the programme, as the women facing these challenges were likely to have been the poorest and most vulnerable.

6.3.2 Weight monitoring during pregnancy

Table 21 below presents the DID estimates for weight gain monitoring during pregnancy. Due to the BCSP, there was a 17 percentage point increase in the limited conditions block in the proportion of women who had their weight checked at least once during pregnancy, compared to the control block. Qualitative findings from the two treatment blocks also show that the majority of beneficiaries would get their weight monitored at least once during pregnancy. Annex D.2.8 shows that this indicator increased between baseline and endline for all three blocks, particularly in the two treatment blocks.

Table 21: Weight monitoring during pregnancy

DID of Baseline vs. endline: Weight monitoring during pregnancy	
Outcome/indicator	**Limited conditions vs. control**
	Dif 2 - Dif 3
Weight monitoring during pregnancy	
Women who had their weight checked at least once during their last pregnancy, if at least one antenatal care (ANC) check-up was received	17.23***
	(3.77)

Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

The purpose of weight monitoring during pregnancy is to check whether the pregnant woman is healthy and maintaining a balanced diet, as this has implications for the health of her newborn. Thus, weight monitoring is especially beneficial if the pregnant woman understands her weight monitoring results, and takes steps to improve her health if required. Table 22 below captures findings from the endline in this regard.

The proportion of women whose weight monitoring results during their last pregnancy were explained to them was significantly higher in the limited conditions block (74%) compared to the control block. Almost 80% of women who had been told they were underweight changed their behaviour in various

ways – by eating a greater quantity of food (70% of the underweight women who changed their behaviour), by eating more nutritious food (61%), or by consuming IFA tablets (42%).

Table 22: Weight monitoring and behaviour change

At endline: Weight monitoring and behaviour change				
	Extended conditions	**Limited conditions**	**Control**	**Overall**
Weight monitoring				
Women who reported that the results of their weight monitoring during pregnancy were explained to them	66.1*	74.3***	57.6	60.7
	(3.06)	(2.50)	(2.23)	(1.80)
	1140	1113	1048	3301
Women who were told about negative results from weighing during pregnancy	36.1	33.2	34.7	34.5
	(2.55)	(2.57)	(1.96)	(1.60)
	1055	1055	968	3078
Women who reported that they changed their behaviour, after being told they were underweight	78.2	72.1	80.9	79.4
	(3.10)	(3.52)	(2.69)	(2.20)
	385	355	344	1084
Main ways in which women changed behaviour after understanding weight monitoring results:				
Started eating a greater quantity of food	68.6	67.3	70.2	69.7
	(3.36)	(4.16)	(3.60)	(2.94)
	302	260	274	836
Started eating more nutritious food	66.2	64.3	60.2	61.1
	(4.99)	(4.51)	(3.68)	(3.03)
	302	260	274	836
Started taking medicines/ supplements (e.g. IFA tablets)	37.9	38.5	42.9	42
	(4.43)	(6.07)	(4.66)	(3.85)
	302	260	274	836
Started drinking milk	28.9	24.9	27.7	27.4
	(3.87)	(4.64)	(4.43)	(3.62)
	302	260	274	836

Source: BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

6.3.3 Growth monitoring of children

Women with young children were advised to get their child's weight and height checked regularly in the first few years, in order to determine that he/ she was healthy. The DID estimates presented in Table 23 below show that there was a significant 22 percentage point increase in the limited conditions block in the proportion of children whose weight had been checked at least once after birth, compared to the control block. The estimates comparing the levels of this indicator at the baseline and endline (Annex D.2.10) show that there has been a large and significant increase in this indicator in all three blocks.

Table 23: Child weight monitoring

DID between baseline and endline: Child weight monitoring

Outcome/indicator	Limited conditions vs. control
Weight monitoring of child	
Children whose weight has been checked at least once since birth	22.49***
	(5.08)

Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

At the endline, the average number of times a child (older than three months) had been weighed in the three months before the survey was significantly higher in the limited conditions block (1.7 times) than in the control block (1.2 times) (Annex D.2.11). However, the DID results for this estimate were insignificant (Annex D.2.12).

At the endline, 61% of the children across all blocks had their weight checked at least once since birth (Annex D.2.10). Of the remaining children whose weight had never been checked, the main reasons were that the service was not available (44%), or a lack of knowledge (23%), or that they did not feel it necessary (12%) (Annex D.2.13).

6.3.4 IFA supplementation during pregnancy

a. Receipt of IFA tablets

The receipt and consumption of IFA tablets is crucial to maintain adequate haemoglobin levels for a healthy pregnancy. One of the extended conditions of the BCSP was receiving at least 30 IFA tablets during pregnancy.

Since the receipt of IFA tablets was an 'extended' condition – i.e. only present in the extended conditions block – it is of interest to examine the differences between the extended and limited conditions block. Table 24 below presents DID estimates for this.

There was a significant increase of 14 percentage points in the extended conditions block compared to the limited conditions block, between the two rounds of surveys. On the other hand, there was an insignificant DID result between the limited conditions and control block. These results allow the conclusion that the improvement in IFA receipt in the extended conditions block was due to the conditionality and incentive attached to it.

Table 24: IFA supplementation

DID between baseline and endline: IFA supplementation		
Outcome/ indicator	**Extended conditions vs. Limited conditions**	**Limited conditions vs. control**
	Dif 1 – Dif 2	**Dif 2 – Dif 3**
IFA supplementation		
Women who received at least 30 IFA tablets during their last pregnancy	14.48***	2.57
	(3.87)	(4.35)

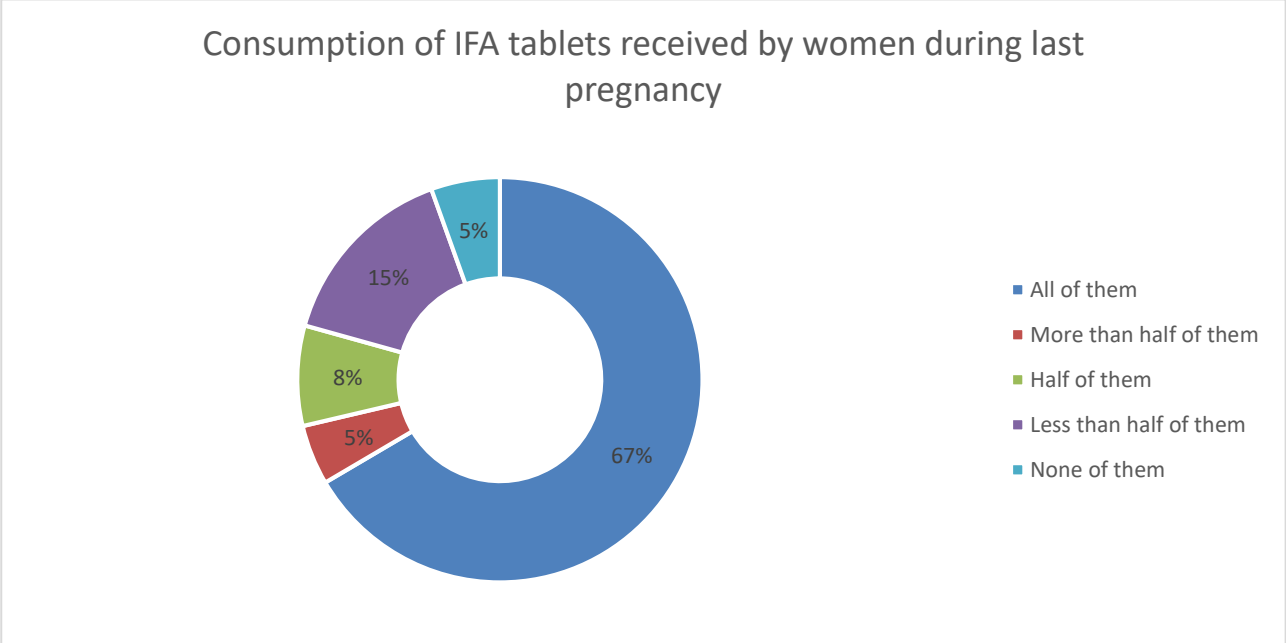
Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

Of those women who reported during the endline survey that they did not receive any tablets during their last pregnancy, Annex D.2.15 shows that the main reason for this was because they went to the ANM/ASHA/AWW but the tablets were not available (60 % of those who had not received them).

b. Consumption of IFA tablets

The BCSP condition was centred on the receipt of IFA, and not the consumption, as the latter is difficult to monitor and verify. The endline survey investigated whether the women who said that they received IFA tablets – and thereby met the BCSP condition – actually went on to consume them. Figure 18 below shows that a majority of the women across all three blocks (67 %) reported that they consumed all the tablets. Around 20% said they consumed less than half, or none of the tablets.

Figure 18: Consumption of IFA tablets



The reasons for consuming none/ less than half are shown in Annex D.2.15. Most women said that the tablets caused nausea and vomiting (67%) and tasted bad (37%). Around 11% of the women said they lacked knowledge of the importance of consuming IFA tablets. Qualitative findings also show that many women received IFA tablets from the AWC but a few did not consume them, as they felt unwell or nauseous after they consumed them.

6.3.5 Child birth registration

Table 25 below presents t-tests between the baseline and endline surveys for each block, and shows that the proportion of children whose birth was registered increased significantly in each block.

Table 25: Child birth registration

T-tests between baseline and endline: Birth registration								
Outcome/indicator	**Extended conditions**		**Limited conditions**		**Control**		**Overall**	
	BL	**EL**	**BL**	**EL**	**BL**	**EL**	**BL**	**EL**
Birth registration								
Children whose birth was registered	56.8	84.4***	64.3	85.3***	60.4	83.0***	61.8	83.4***

	(1.88)	(1.87)	(2.45)	(2.26)	(2.33)	(1.96)	(1.49)	(1.62)
	1601	1332	1566	1242	1562	1398	4729	3972

Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

The registration of a child's birth was a condition only in the extended conditions block. The DID estimates for this showed that the impact estimate in the extended conditions block compared to the limited conditions block was positive – at 9 percentage points – but insignificant (Annex D.2.16). There was also no significance in the DID estimates comparing the limited conditions block to the control block.

The most common reasons for not registering the child's birth was not knowing where to go for such a service (44% of those who did not register their child at birth; Annex D.2.17). The table in Annex D.2.18 shows disaggregation of this indicator by caste status. Overall, 86% non-SC women and 79% SC women had registered their child's birth, significantly different at a 99% level. Similarly, a significantly lower proportion of women belonging to the poorest 40% of the sample (82%) had registered their child's birth, compared to 87% of the top 40% (Annex D.2.19). It may be speculated that the non-SC or richer women had more knowledge about where they could get their child's birth registered, and had better access to such a service.

6.3.6 Measles vaccination

One of the BCSP conditions required that the child receive a measles vaccine between the ages of 10 and 12 months. Table 26 below shows that the proportion of children aged 12–23 months who received the measles vaccine increased significantly from 67% at the baseline to 80% at the endline.

Table 26: Measles vaccination

T-tests between baseline and endline: Measles vaccination								
Outcome/ indicator	**Extended conditions**		**Limited conditions**		**Control**		**Overall**	
	BL	**EL**	**BL**	**EL**	**BL**	**EL**	**BL**	**EL**
Measles vaccination								
Children age 12–23 months who have received measles vaccine	61.7	79.0***	66.2	84.9***	69.1	78.4**	66.5	79.3***
	(2.44)	(2.07)	(2.62)	(1.89)	(2.67)	(2.01)	(1.63)	(1.64)
	986	706	896	671	900	707	2782	2084

Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

Ensuring the child received a measles vaccination was also a condition that was present only in the extended conditions block. However, the DID results for this estimate presented in Annex D.2.20 are insignificant between the extended and limited conditions block, as well as between the limited conditions and control block. Therefore, the improvement in vaccination rates shown in the table above may not be attributed to the BCSP.

6.4 Uptake of nutrition-sensitive behaviour

6.4.1 Correct treatment of diarrhoea

A condition of the BCSP in both the extended and limited conditions block was administering ORS to the child, if he/she contracted diarrhoea. This condition was based on self-reporting, as it is impractical to monitor and verify.

a. Knowledge of treatment of diarrhoea

Before delving into details of the treatment of diarrhoea, analysis of its awareness is presented below. All women surveyed were asked whether they knew the treatment for diarrhoea. Table 27 below shows that between the baseline and endline surveys, the s levels of awareness of ORS as a solution to diarrhoea increased in all three blocks (and significantly increased in the limited conditions and control blocks). However, these levels were still low – less than a quarter of women in each block knew the correct treatment for diarrhoea.

Although the BCSP condition stated that ORS should be administered to a child, the Government of India (as per WHO guidelines) recommends that zinc should also be provided as an adjunct for the management of diarrhoea. The awareness of ORS and zinc as a treatment dropped significantly across all blocks between the two rounds of surveys, and was just around 5% at the time of the endline.

Table 27: Awareness of correct treatment of diarrhoea

T-tests between baseline and endline: Awareness of the correct treatment of diarrhoea								
Outcome/indicator	**Extended conditions**		**Limited conditions**		**Control**		**Overall**	
	BL	**EL**	**BL**	**EL**	**BL**	**EL**	**BL**	**EL**
Women who are aware that the correct treatment for diarrhoea is:								
ORS	14.2	16.7	12.2	23.2***	6.1	18.0***	10.3	18.6***
	(1.73)	(1.78)	(1.56)	(2.18)	(1.06)	(1.41)	(0.89)	(1.19)
	1488	1248	1489	1158	1460	1338	4437	3744
ORS and zinc solution	15.4	4.9***	13.6	10.3	8.8	4.6**	12.1	5.3***
	(1.89)	(0.92)	(1.62)	(1.98)	(1.33)	(0.66)	(0.97)	(0.60)
	1488	1248	1489	1158	1460	1338	4437	3744

Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

Annex D.2.22 shows that the proportion of women belonging to SC who knew that the treatment for diarrhoea is ORS (14%) was significantly lower than the proportion among non-SC women (21%). Similarly, just 9% of women belonging to the poorest 40% of the sample knew this, compared to 31% from the richest 40%. There was also a significant difference between the poor and rich in the knowledge of ORS and zinc as a solution.

The low levels of awareness of ORS, or ORS and zinc, as a treatment for diarrhoea could be explained by the fact that just 21% of the AWWs surveyed at the endline reported stocking ORS/ Zinc packets (Annex F). However, the qualitative findings show that beneficiaries received ORS packets from the AWC. Only a few went to private providers when the ORS packets from AWC were not effective. This was consistent across caste and social groups.

b. Prevalence and treatment of diarrhoea

Table 28 below shows the DID estimates for diarrhoea prevalence and treatment, comparing the limited conditions and control block, between the baseline and endline survey. There were no significant changes in either estimate.

Table 28: Correct treatment of diarrhoea (DID results)

DID between baseline and endline: Correct treatment of diarrhoea	
Outcome/indicator	**Limited conditions vs. Control**
	Dif 2 – Dif 3
Diarrhoea and its treatment	
Children who had diarrhoea in the last 30 days	-1.75
	(2.47)
Children who received ORS treatment for diarrhoea	-2.20
	(8.75)

Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

To deconstruct the above findings, Table 29 below shows the levels of these estimates at the time of the baseline and endline surveys.

The proportion of children who contracted diarrhoea in the 30 days before the survey decreased significantly by 4 percentage points across all blocks. The decrease was particularly significant in the limited conditions block (8 percentage points), followed by the extended conditions block (6 percentage points). Annex D.2.23 shows that a significantly smaller proportion of uneducated women knew that ORS and ORS/zinc (10% and 3% of uneducated women, respectively) was the treatment to diarrhoea, compared to educated women (27% and 8%, respectively), indicating that the knowledge about diarrhoea management was not communicated appropriately to uneducated women.

Overall, there was a significant increase in the proportion of children who received ORS treatment for diarrhoea (from 17% to 36%). This increase was most significant in the control block (23 percentage points), followed by the limited conditions block (14.5 percentage points).

Table 29: Correct treatment of diarrhoea (t-test results)

T-tests between baseline and endline: Diarrhoea and its treatment								
Outcome/indicator	**Extended conditions**		**Limited conditions**		**Control**		**Overall**	
	BL	**EL**	**BL**	**EL**	**BL**	**EL**	**BL**	**EL**
Diarrhoea and its treatment								
Children who had diarrhoea in the last 30 days	17.5	10.9**	17.4	9.5***	15	11.7*	16.5	11.4***
	(1.69)	(1.27)	(1.70)	(1.18)	(1.27)	(1.36)	(0.97)	(1.12)
	1616	1337	1575	1250	1566	1407	4757	3994

Children who received ORS treatment for diarrhoea	17.9	24.6	18.1	32.6*	14.5	37.4***	16.9	36.2***
	(2.65)	(4.55)	(3.05)	(5.47)	(2.62)	(3.78)	(1.84)	(3.22)
	295	145	283	122	242	161	820	428

Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

6.4.2 Exclusive breastfeeding

Another condition of the BCSP, which was based on self-reporting, was that of exclusive breastfeeding for the infant's first six months. This condition was present only in the extended conditions block.

Two sets of indicators are presented for comparison – those children who are older than six months of age, and who were reportedly exclusively breastfed for the first six months of their lives, and those children who are under six months of age and who had reportedly been exclusively breastfed since birth at the time of the survey.

DID results between the baseline and endline are presented in Table 30 below. There was no significance in the DID estimates comparing the extended and limited conditions block in breastfeeding. This is contrary to the expected effect of establishing exclusive breastfeeding as a condition in the extended conditions block. There was, however, a significant positive increase in exclusive breastfeeding in the limited conditions block, compared to the control block. This could possibly be linked to the increased VHSND attendance in the treatment blocks, because of which women there were more likely to receive counselling from health workers on IYCF practices.

Table 30: Exclusive breastfeeding (DID results)

DID between baseline and endline: Exclusive breastfeeding		
Outcome/indicator	**Extended conditions vs. Limited conditions**	**Limited conditions vs. control**
	Dif 1 – Dif 2	**Dif 2 – Dif 3**
Exclusive breastfeeding		
Children who were exclusively breastfed for their first six months, if six months or older	-5.75	13.41**
	(4.20)	(4.82)
Children under six months of age who are presently being exclusively breastfed	-5.43	20.03**
	(6.35)	(7.13)

Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

Annex D.2.24 shows this indicator disaggregated by literacy levels. In the limited conditions block, the proportion of uneducated women exclusively breastfeeding their child under the age of six months was significantly lower (50%) than that of educated women (66%).

The qualitative survey found that few beneficiaries had knowledge of exclusive breastfeeding. In the sample, few beneficiaries would exclusively breastfeed their children until the age of six months,

after which they would introduce foods, such as cow's milk, Complan, Horlicks, and biscuits. Qualitative analysis found the data to be consistent across all caste and social groups.

During the quantitative endline survey, those mothers who did not exclusively breastfeed their child were asked the reasons why this was the case (Annex D.2.25). Almost 36% of the women said that they did not have enough milk to feed, and/ or that it was too hot, and so they had to give the baby water (23%). 22% said that they lacked knowledge about exclusive breastfeeding. Qualitative data also show that the reason most women were not able to practise exclusive breastfeeding was because they perceived they were not producing enough milk for the child.

6.5 Bonus conditions

Under the BCSP, a woman in the extended conditions block received a bonus of Rs 2,000 if her child was not underweight at the age of two years. In the limited conditions block, a woman could receive a bonus condition of Rs 2000 if she had maintained a gap of at least two years between her last two births (see Chapter 2). It is interesting to note these outcome-based bonus conditions have little precedent in the earlier literature on conditional cash transfers. The impact evaluation of the BCSP is therefore amongst the first studies to test if such conditions can effectively impact nutritional outcomes.

Qualitative findings show that most of the beneficiaries were aware of the conditions for the bonus payment or could recall them, on probing, along with other conditions – attending VHSND, weight monitoring of pregnant women and child growth monitoring. On the other hand, the quantitative data showed that less than 30% of the enrolled beneficiaries in the treatment blocks were aware that the BCSP also had bonus conditions. Of these, roughly half actually knew what the bonus condition in their respective block was.

6.5.1 Bonus in the extended conditions block: Child not being undernourished at the age of two

Besides regular cash payments and improving uptake of health services (like weighing of the child) through the conditionality attached to the cash transfer, this bonus condition aimed to provide an additional incentive for mothers to ensure that their child was not underweight by the time he/she reached two years of age.

If the bonus condition of the child not being undernourished at age two in the extended conditions block had worked, we would expect to see an additional impact for children in the extended conditions block when compared to the limited conditions block. However, the DID impact estimates for anthropometric outcomes (presented in Annex E) reveal no significant impacts.

It should be noted, however, that this analysis suffers from two potential drawbacks:

- First, given that the sampling strategy employed by BCSP's quantitative evaluation selects households with at least one child (strictly) under the age of two years, the oldest child in the quantitative sample is aged 23 months. Given the small number of children around 24 months of age, it is not possible to rigorously evaluate the impact of the bonus condition of the child not being undernourished at age two through the lens of anthropometric outcomes.
- Second, besides the bonus condition of the child not being undernourished at age two, the two treatment blocks had many other differences in the intervention package they received. Therefore, it is not possible to isolate the impact of the bonus condition alone.

6.5.2 Bonus in the limited conditions block: Birth spacing of at least two years

In low- and middle-income countries, paying for performance is a strategy used to improve family planning (Blacklock, MacPepple, Kunutsor, and Witter, 2016). Evidence from international studies show that cash transfers can decrease the likelihood of pregnancy and giving birth (Bastagli G. *et al.*, 2016). As shown in ODI's rigorous literature review, 10 studies report on fertility (pregnancy or giving birth) and of the seven studies yielding significant results, five indicate that the transfer decreased the likelihood of pregnancy or giving birth. A systematic review on the impact of cash transfers on the use of contraception in low- and middle-income countries shows evidence of three studies having a positive impact on contraceptive use, and four studies having a decline in fertility outcomes (Khan, Hazra, Kant, and Ali, 2016). Another review shows that paying for performance with conditional cash transfers increased family planning use in one study, and in another increased the use in the wealthy group only (Blacklock, MacPepple, Kunutsor, and Witter, 2016).

To investigate whether women were on track to receive the bonus payment for ensuring that there was a gap of at least two years between their two latest births, two indicators were considered: the proportion of women who had ever used a modern contraceptive, and the average gap between live births.

The DID results for these indicators presented in Annex D.3.1 are insignificant. Therefore, the impact of the programme on birth spacing remains inconclusive. Importantly, the t-tests between blocks at the endline (Annex D.3.2) show that the limited conditions block (where this bonus condition was in place) does not show a significantly higher contraceptive use rate, or birth spacing size, compared to the other blocks. However, the birth spacing size in the limited conditions block at the time of the endline saw the biggest improvement from the baseline, compared to the other blocks.

The analysis below provides a clearer picture of trends in modern contraceptive use and birth spacing in all three blocks. Table 31 below shows that the proportion of women who had used modern contraceptives between the baseline and the endline surveys increased significantly from 16% to 21%, across all three blocks. The average gap between live births increased significantly by 0.1 years between the two rounds of survey.

Table 31: Contraceptive use and birth spacing

T-tests between baseline and endline: Contraceptive use and birth spacing								
Outcome/indicator	**Extended conditions**		**Limited conditions**		**Control**		**Overall**	
	BL	**EL**	**BL**	**EL**	**BL**	**EL**	**BL**	**EL**
Bonus conditions								
Women who have ever used modern contraceptives	14.4	18.1*	16.7	20.9*	16.1	21.4***	16.1	21.2***
	(1.71)	(1.42)	(1.76)	(1.82)	(1.67)	(1.49)	(1.08)	(1.24)
	1558	1292	1534	1204	1515	1372	4607	3868
Average gap between live births	2.5	2.7***	2.5	2.8***	2.7	2.7	2.6	2.7***
	(0.04)	(0.05)	(0.06)	(0.04)	(0.06)	(0.05)	(0.03)	(0.04)
	1206	968	1176	887	1168	900	3550	2755

Source: BCSP Baseline Survey (July–September 2013) and Endline Survey (November 2016–January 2017).

Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Box #: *** = 99%; ** =95%; * = 90%. (2) Appropriate Stata 14 commands were used to account for survey design.

Qualitative data show that most beneficiaries in the limited block conditions were aware of the bonus payment received upon birth spacing. In interviews with husbands of the beneficiaries it was found

that the husbands continue to make decisions regarding family planning and that they desired to have children after a gap of three to four years. This could explain the increase in the gaps between live births between baseline and endline as discussed above. The qualitative data also show that many beneficiaries in the extended conditions block also perceived that the condition to receive bonus payments was birth spacing rather than not having their child underweight. This could be a result of miscommunication by the AWW.

6.6 Impact of conditionalities

The preceding sections of this chapter examined the effect of the BCSP on the uptake of services or behaviours individually. This section looks at the impact of having multiple conditionalities in the programme, and what implications this has for programme design. It also examines the impact of incentivising certain services and not others.

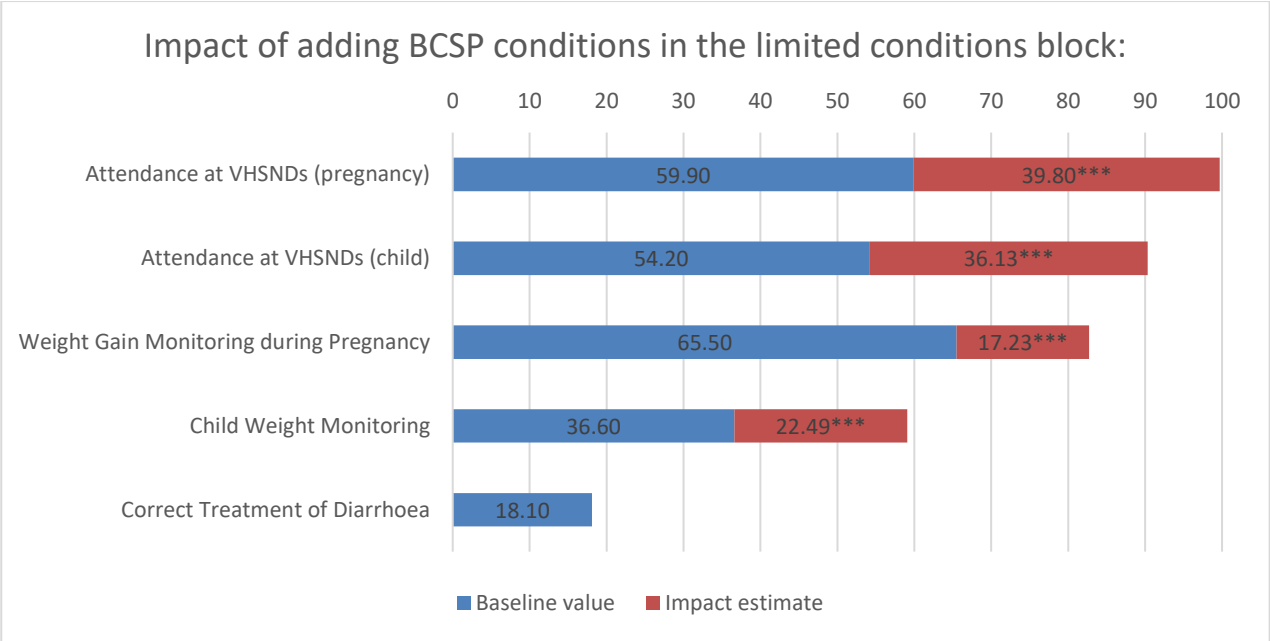
The BCSP was unique in its design, such that its two differing treatment blocks and the control block offer multiple fields of enquiry – was there any effect of incentivising the uptake of certain conditions and behaviours under the programme? Are there any perils in having multiple conditions for one programme? Does increasing the number of conditions under a programme undermine the strength of the remaining conditions? Are services/behaviours that are not incentivised still taken up by women? The following subsections use quantitative analysis from the various survey rounds to answer these questions.

6.6.1 Effect of attaching conditionalities to the uptake of services and behaviours

As was mentioned in Chapter 2, the limited conditions block and the control block were matched to facilitate robust comparisons between them. Comparing the differences between these two blocks shows the effect of attaching conditionalities and cash incentives to the uptake of vital services and behaviours required for maternal and child nutritional development.

Figure 19 below shows the baseline values of the services/behaviours which were conditions in the limited conditions block, and the red bar shows the impact estimate of the BCSP (when compared to the control block). For three out of four of the limited conditions – VHSND attendance (during pregnancy and with child), weight gain monitoring during pregnancy, and child weight monitoring – the impact estimates are large and significant. The treatment of diarrhoea with ORS did not see any improvements.

Figure 19: Impact of adding BCSP conditions



Therefore, it can be established that the BCSP – and, additionally, the incentivisation of certain services and behaviours – may have led to an increase in their uptake.

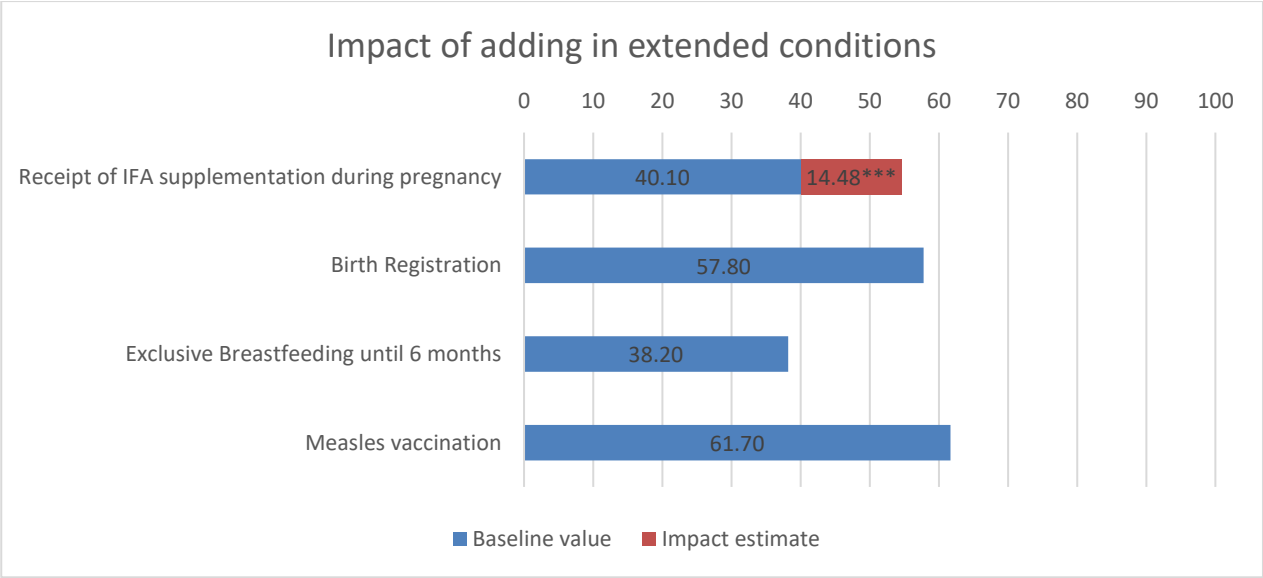
6.6.2 Effect of adding extended conditions

As discussed in Section 3.2.1.1, the specific conditionalities imposed in the different treatment blocks differed, to enable testing of the comparative effectiveness of a smaller set of conditions (the limited conditions block), vis-à-vis an extended set of conditionalities (in the extended conditions block). To see the impact of these extra conditions – i.e. the conditions that existed in the extended conditions block but not in the limited conditions block – Figure 20 below can be considered. These 'extended conditions' were the receipt of IFA tablets during pregnancy, registration of the birth of the child, exclusive breastfeeding of the child for up to six months, and vaccinating the child against measles.

In the chart, the blue bars represent baseline values of these indicators in the extended conditions block, and the red bars represent the impact estimate of adding in the extended conditions (compared to the limited conditions block).

The receipt of IFA tablets saw a positive and significant impact estimate. For the remaining extended conditions – registration of the birth of the child, exclusive breastfeeding, and measles vaccination – no significant impact was detected.

Figure 20: Impact of adding in extended conditions



There may be various reasons for the lack of impact on the remaining indicators. Some of these reasons – usually revolving around low awareness levels, or poor service delivery – have been outlined earlier in the report.

From Figure 19 and Figure 20 above, it is clear that the conditions linked to nutrition-sensitive behaviour (ORS administration and exclusive breastfeeding) failed to have an impact, mainly due to the issue of lack of awareness, as was discussed in Section 6.4.

However, it may be speculated that these conditions failed to achieve an impact because of the existence of four other conditions in the same block. The presence of numerous conditions may have strained the service delivery in this block. The next section investigates this hypothesis.

6.6.3 Effect of extra conditions: Do the positive findings in the limited conditions block disappear in the extended conditions block?

As was discussed earlier, there were numerous conditions in the programme, which may have led to the beneficiaries and AWWs losing track of certain conditions. It can be similarly argued that by having more conditions, there was an additional pressure on the supply side, which it may not have been able to keep up with.

Therefore, to test whether having additional conditions in one block led to a decrease in the efficacy in the other conditions, the DID estimates of the 'limited conditions' between the extended and limited conditions block, over the rounds of surveys, is estimated. If there was any negative significant impact, it would mean that there was a decrease in the uptake of the service in the extended condition block, compared to the limited conditions block, and it could be posited that this was because of the pressure of having additional conditions in the block.

However, as can be seen in Annex D.2.3, the DID estimates that calculate the difference in the estimates between the limited and extended conditions block, over the two rounds of surveys, for the limited conditions – namely, VHSND attendance, weight monitoring during pregnancy, child weight monitoring, and administering an ORS treatment – are insignificant in all cases. Therefore, it may be established that adding extra conditions in the extended conditions block does not diminish the positive impact that the other treatment block experienced, relative to the control block.

6.6.4 Effect of non-incentivised services

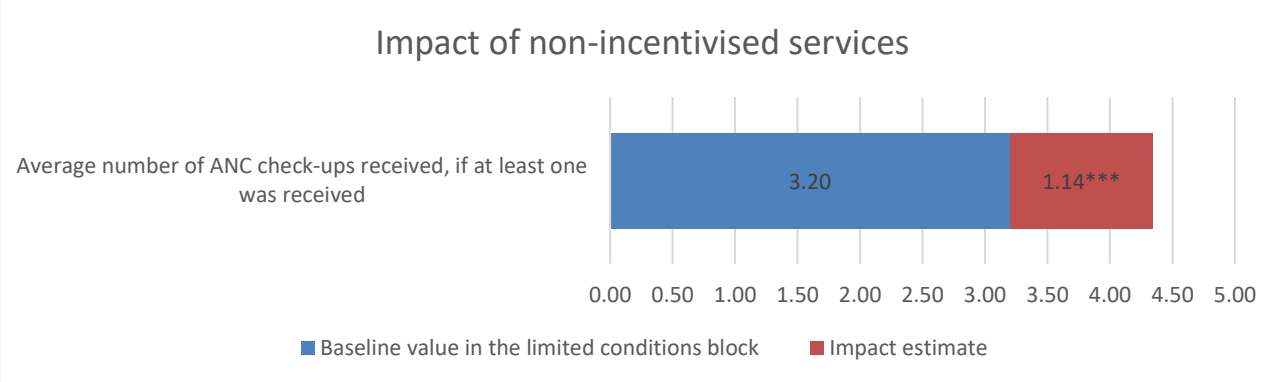
For women enrolled under the BCSP, regularly attending the VHSND helped them meet several conditions under the programme, and thereby to receive the cash transfer. In addition to meeting the condition of attending the VHSND, women could fulfil a range of the remaining conditions at the VHSND, most of which hinged on services generally available there (weight monitoring, receipt of IFA tablets, etc.). However, other services are offered at the VHSND that were not BCSP conditions and women and children were still encouraged to utilise these services to improve their nutrition status.

As has been established earlier, the BCSP led to an increase in weight gain monitoring during pregnancy and an increase in child weight monitoring. While these services may have seen an increased uptake because they were programme conditions, it is also possible that increased VHSND attendance was responsible for driving up their uptake. This is an important policy question – to examine whether incentivising attendance at the VHSND is enough to drive uptake of other services available there; or, whether each service available at the VHSND also needs to be incentivised. To shed light on the question of incentivisation, this section looks at the uptake of certain non-incentivised services (ANC check-ups for pregnant women, and immunisations for children) available at the VHSND.

ANC check-ups – during which pregnant women should ideally have their weight monitored, urine and blood pressure checked, etc. – are essential to monitor the progress of the pregnancy. Annex D.4.1 shows that at the baseline, less than half the women surveyed in the treatment and control blocks had reported having received at least one ANC check-up during their last pregnancy. By the time of the endline survey, this figure had doubled in almost all blocks. However, since this positive trend was reflected to a similar degree in the control block as well, the DID values for this estimate are insignificant (Annex D.4.2). Therefore, there is no evidence that increasing VHSND attendance also increased the proportion of women receiving this core service at the VHSND.

Figure 21, however, shows that of the women who had received at least one ANC check-up, their frequency of receiving such a service at the time of the endline survey had increased significantly since the baseline survey, due to the BCSP. In the limited conditions block, a woman had received, on average, 3.20 check-ups during her last pregnancy. The DID estimate comparing this figure to the control block, between the baseline and endline surveys, was 1.14. Women in the treatment blocks may have received ANC services more frequently because they had started attending the VHSND more regularly (as highlighted in Section 6.3.1 above), in anticipation of the BCSP incentive.

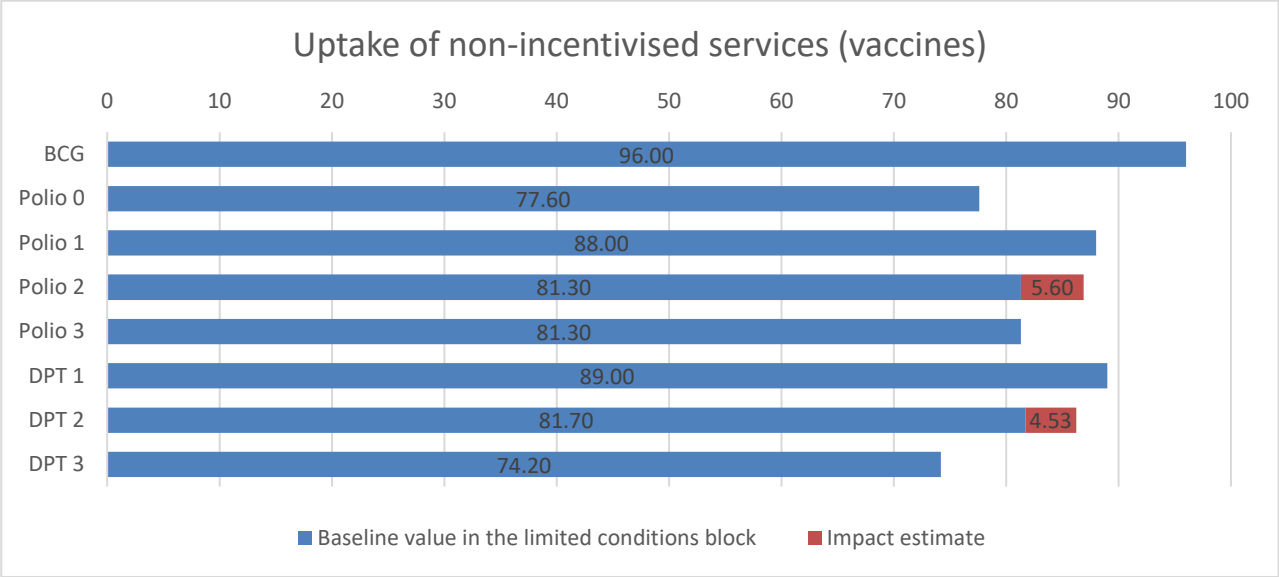
Figure 21: Impact of non-incentivised services (ANC check-ups)



Another service which is generally available at VHSNDs, but which was not incentivised in any of the BCSP blocks, is that of immunisations for the child. Figure 22 below shows the uptake of various vaccinations (barring measles vaccination, which was a condition in the extended conditions block),

and the impact estimate at the time of the midline survey[26]. The only vaccines, which saw an increased uptake due to BCSP, were Polio-2, and DPT-2.

Figure 22: Uptake of non-incentivised services (vaccines)



To summarise, it is seen that amongst the non-incentivised services, the proportion of women who had received ANC check-ups during their last pregnancy did not increase due to the BCSP, despite a significant increase in VHSND attendance due to the programme. The uptake of essential vaccinations for the children did not see much traction either. Therefore, attaching a conditionality to VHSND attendance did not see an increase in the uptake of non-incentivised services, such as receiving ANC check-ups or vaccinations. The VHSND services that were also incentivised (growth monitoring, weight gain monitoring and IFA receipt) saw much stronger effects.

However, the average number of ANC check-ups received by a woman (who had received at least one check-up) increased significantly due to the BCSP, possibly because women started attending the VHSND more frequently (also because of the BCSP, as was discussed in Section 6.3.1).

6.7 Concluding remarks

This chapter has shown that attending VHSND, weight monitoring of pregnant mothers and children were the most common conditions that the beneficiaries were able to remember. However, the **overall levels of recall of the conditions were low**, with less than 50% of the beneficiaries being able to recall each condition. For the programme to operate sustainably, beneficiaries needed to be aware of the mechanisms of the programme, and not have to be reminded by the AWWs to meet conditions.

While a majority of the beneficiaries said that they thought the benefits of the BCSP were improving the health and nutrition status of newborn children, a sizeable proportion said that they did not know the benefits of meeting the conditions.

Despite the low rate of recall of the programme's conditions, the BCSP caused a significant increase in the uptake of several services to which incentives were attached. The programme caused a large and significant improvement in VHSND attendance amongst pregnant women and children, as well as an increase in the average number of VHSNDs attended by a woman during her pregnancy.

[26] The BCSP endline survey only captured information about the measles vaccination. Hence, estimates between the baseline and midline surveys were compared.

However, at the endline, there was still much scope for an increase in the levels of VHSND attendance – as many as 40% of pregnant women and children had never attended the VHSND.

The BCSP also caused a significant increase in the uptake of other services (weight monitoring of pregnant women and children, and receipt of IFA tablets). There was also a significant increase in the proportion of women registering their child's birth and ensuring he/ she received a measles vaccination; however, this was not attributable to the programme.

Thus, overall, the **uptake of several services had significantly increased by the time of the endline**. The **BCSP was responsible for a large proportion of these increases**.

On the other hand, the results for conditions based on adopting nutrition-sensitive behaviour were less promising. The programme did not see any improvement in the levels of women administering ORS when their child suffered from diarrhoea. The levels of ORS as a treatment for diarrhoea were generally low: only about 20 % of the respondents named it as a solution.

The BCSP had a significant effect on exclusive breastfeeding rates in the treatment block where exclusive breastfeeding was not explicitly incentivised. This may have been driven by the basic counselling provided at VHSNDs. Making exclusive breastfeeding an additional condition did not have a further impact on exclusive breastfeeding rates, reinforcing the fact that behavioural conditions have limited impact on practices.

With regard to the bonus conditions, the quantitative evidence found that most women were unaware that such conditions existed. There was a significant increase in the use of modern contraceptives, and in birth spacing; however, these improvements were not attributable to the programme. Anthropometric estimates did not reveal any significant decreases in child underweight cases as a result of the additional bonus condition.

Quantitative evidence found that the AWWs found it hard to monitor that each beneficiary's case and less than 40% of them reported that they used the CMR to discuss with beneficiaries which conditions they were meeting. Beneficiaries surveyed in the qualitative study also reported that they often faced monetary and opportunity costs to comply with conditions, and therefore found it difficult to do so. Often, women migrated to their natal homes during the pregnancy, and were therefore unable to meet their AWW and report whether they were fulfilling their conditions.

The chapter also adopted a wider lens of looking at the various conditions under the programme, by studying what implications multiple conditions have for programme design and sustainability. It found that **incentivising services resulted in their increased uptake**. While the **addition of extra conditions in the extended conditions block did not show significant improvement** in those additional indicators, it **did not diminish the positive impact on the remaining conditions**. However, most services that were also available at the VHSND but were not incentivised did not see an increase in uptake corresponding with an increase in VHSND attendance. This corroborates the strong impact of **incentivising services to increase their uptake.**

7 Anthropometric and biomedical outcomes

A key aim of the BCSP is to improve the nutritional status of beneficiaries, both children and mothers. To assess nutritional status, all three rounds of the BCSP survey included an anthropometric module in which all children under two years of age were weighed and their heights measured. Mothers were also weighed and their height was measured, and haemoglobin tests were undertaken to measure levels of anaemia. Using these measures, standard anthropometric indicators were calculated for women and children, and compared across control and treatment blocks to isolate BCSP's impact on these outcomes across the baseline and endline surveys.

7.1 Anthropometric and biomedical outcomes of women

7.1.1 BCSP's impact on the proportion of underweight women

Adult nutritional status is determined by the BMI, measured as (kg/m^2). Using the BMI classification from the WHO Global Database on Body Mass Index[27], it was found that 43% of all women were underweight at the time of the endline survey, as compared to 49% at the baseline stage. This significant decline in the proportion of underweight women was driven almost exclusively by treatment blocks – no significant decline was recorded in the control block (See Annex).

DID impact estimates presented in Table 32 show that the proportion of underweight women fell by nine percentage points in the limited conditions block because of the BCSP. This decline was significant at the 99% level, and was accompanied by a similar increase in the proportion of women with BMIs in the normal range.

Table 32: Proportion of Underweight Women

DID of baseline vs endline: Proportion of underweight women		
Outcome/ indicator	**Extended conditions vs. Limited Conditions**	**Limited conditions vs. control**
	Dif 1 – Dif 2	**Dif 2 – Dif 3**
BMI class		
Underweight	2.15	-9.43**
	(2.66)	(3.04)
Normal	-1.94	8.13**
	(2.81)	(2.92)
Obese	-0.20	1.30
	(0.98)	(1.02)

Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017).

Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design. (3) Non-pregnant women having BMI less than 18.5 are classified as underweight.

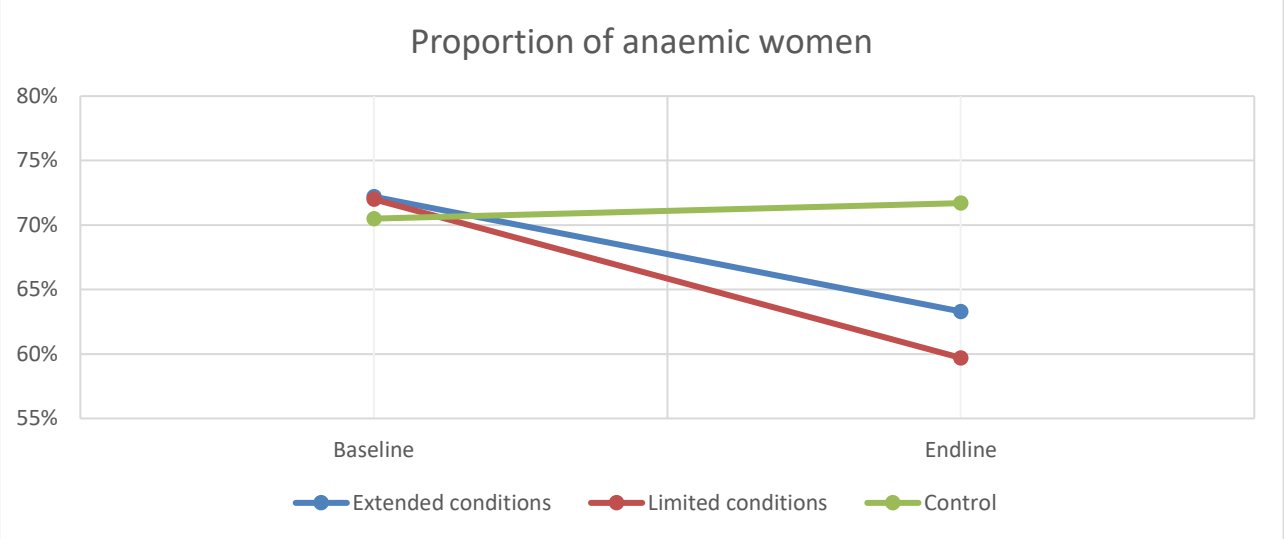
Starting from a baseline value of 48.9, this translates into a 19% decline in the proportion of underweight mothers in the limited conditions blocks as a result of the BCSP. Given the lack of significant estimates in column one (which compares the extended conditions block to the limited conditions block) of Table 32, it can be concluded that adding an additional four conditions to the cash transfer had no significant impact on the proportion of underweight women.

[27] WHO (2004).

7.1.2 BCSP's impact on the prevalence of anaemia

At the time of the baseline survey (2013), around 70%[28] of women were anaemic. Figure 23 below shows how this proportion changed in the three survey blocks across the two survey rounds. While the two treatment blocks saw a large decline in the prevalence of anaemia between the baseline and endline surveys, no such decline was recorded in the control block over the same period.

Figure 23: Proportion of anaemic women across baseline and endline



Source: BCSP Baseline Survey and Endline Survey

DID impact estimates (see Table 33) reflect this difference in trends between the treatment and control blocks – as a result of the BCSP, an additional 14 percentage points of women were no longer anaemic at endline, when compared to baseline. This decline was largely concentrated in the group of women who were moderately anaemic. Starting from a baseline value of 72%, this translates into a 19% decline in the proportion of anaemic women in the limited conditions block. Moreover, this decline was significant at the 99.9 % level.

Table 33: Anaemia Prevalence

DID of Baseline vs endline: Anaemia prevalence		
Outcome/indicator	**Extended conditions vs. limited conditions**	**Limited conditions vs. control**
	Dif 1 – Dif 2	**Dif 2 – Dif 3**
Prevalence of anaemia among mothers		
Mother is anaemic	1.33	-13.66***
	(2.67)	(2.82)
Anaemia status		
Severely anaemic	-1.91	-1.55
	(1.17)	(0.90)
Moderately anaemic	1.85	-14.14***
	(2.70)	(2.53)
Mildly anaemic	0.60	0.93
	(2.89)	(2.60)

Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design. (3) Women with haemoglobin level at sea level less than 120 g/l for non-pregnant women of 15 years and above, and less than 110 g/l for pregnant women are classified as anaemic.

[28] According to the NFHS-4 (2015-16), around 60% of all women aged 15–49 are anaemic in rural Bihar.

One of BCSP's conditions in the extended conditions block relates to the consumption of at least 30 IFA tablets[29] during pregnancy, which was expected to play an important role in reducing the prevalence of anaemia among mothers. However, impact estimates from the first column of Table 33 show no additional reduction in the prevalence of anaemia in the extended conditions block, when compared to the limited conditions block. On the other hand, the impact in the limited conditions block (where consumption of IFA tablets was not a required condition) is significant and large in magnitude. Therefore, the observed impact appears to be driven by the package of interventions in the limited conditions block (i.e. the cash transfer in combination with the four 'limited' conditions), and not by the condition that relates to the consumption of IFA tablets.

What explains this lack of additional impact on the prevalence of anaemia in the extended conditions block? While the condition attached to the consumption of IFA tablets led to a significant increase in the percentage of women who reportedly received at least 30 IFA tablets during their last pregnancy in the extended conditions block, this improved access did not translate into increased consumption. At the endline stage, nearly one-third of all women in the extended conditions block consumed less than or equal to half of all tablets received by them. A major reason for low consumption of IFA tablets was that women often reported feeling unwell after consuming IFA tablets, and stopped consuming them as a result (Chapter 6 discusses these findings in greater detail). The following conversation between a BCSP beneficiary and a qualitative researcher provides greater insight:

Interviewer: *"What else did you get from Anganwadi?"*

Respondent: *"... I got three injections during pregnancy. I also got iron tablets but I did not consume them."*

Interviewer: *"... Why didn't you consume those tablets?"*

Respondent: *"... I did not used to feel good and I used to vomit out everything."*

(BCSP Beneficiary, 24 years, limited conditions block)

A second reason for low consumption of IFA tablets is to do with the fact that this condition was hard to verify for the AWW. Since it was typically self-reported, women had lower motivation to adhere to this condition, especially given that it often led to unwanted side effects.

7.1.3 Drivers of impact on women's biomedical outcomes

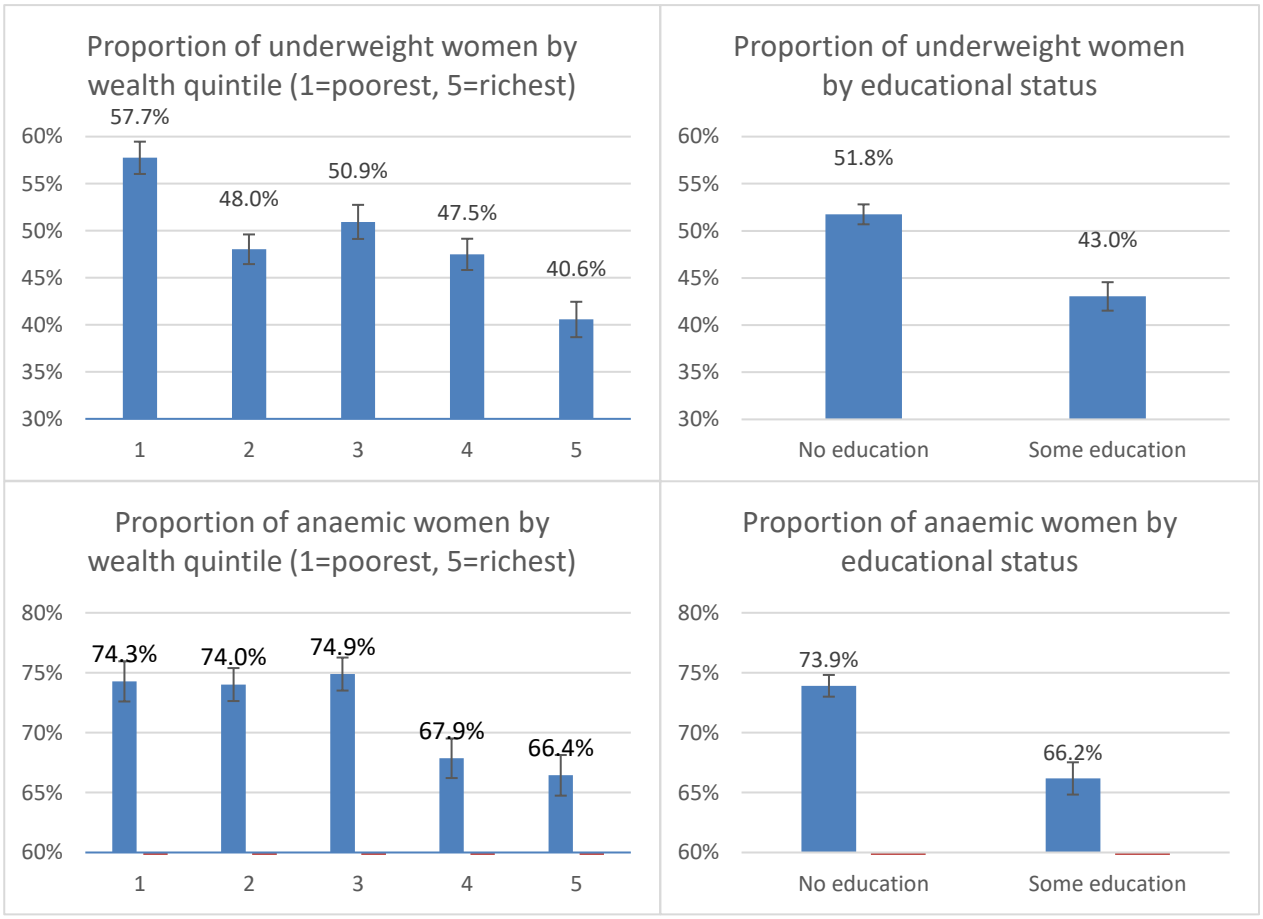
Findings from Sections 7.1.1 and 7.1.2 indicate that women who were exposed to the BCSP cash transfer did significantly better in terms of at least two nutritional outcomes when compared to women in the control block across the baseline and endline surveys. Estimates are highly significant, and large in magnitude. BCSP's impact is unique given that only a handful of studies in the past have found similar impacts on anthropometric outcomes for women through conditional cash transfers[30]. Moreover, there exist no other similar studies in the Indian context with which to compare the present findings.

To provide further support to the causal link between the BCSP and the observed impact on maternal health outcomes in treatment blocks, the prevalence of underweight and anaemic women was disaggregated by wealth quintile and education status at the baseline stage. Figure 24 reveals that the proportion of underweight women varied widely by availability of resources (as indicated by the

[29] Consumption of iron and folic acid supplements is associated with a reduced risk of iron deficiency and anaemia in pregnant women (WHO 2016).
[30] Pérez-Lu *et al.* (2016) find a significant impact on underweight prevalence because of a conditional cash transfer in Peru. See F. Bastagli *et al.* (2016) for a recent systematic review of studies based on cash transfers.

wealth index) and awareness levels (proxied by education status of the woman) at the baseline stage. Thus, it may be hypothesised that lack of money and low awareness about recommended pro-nutrition behaviours are important constraints to achieving better health outcomes among women.

Figure 24: At baseline – proportion of underweight and anaemic mothers by wealth and education status



Source: BCSP Baseline Survey

The BCSP effectively targeted both constraints. First, by providing small, regular payments directly to mothers, BCSP had a positive impact on households' nutrition-related expenditures. As discussed in Chapter 5, households in treatment blocks spent significantly more on food than households in the control block, particularly on items like milk, fruits and vegetables. Maternal diet diversity indicators also show marked improvements – mothers living in treatment areas consumed foods from a significantly higher number of food groups. In particular, they were more likely to consume protein-rich foods, such as meat, poultry and fish, and fresh fruits, as a result of the BCSP.

Second, besides having a positive impact on pro-nutrition expenditure, the BCSP was also very successful in increasing uptake of health services like regular weight check-ups during pregnancy, and attendance at the VHSND. Increased interactions with the AWW may have led to improved awareness about pro-nutrition behaviours through counselling and regular health-related feedback.

Given that improvements in the quality of diet, and increased awareness about nutrition-sensitive behaviours are strongly linked to the observed improvements in health outcomes of women in treatment blocks, it is very likely that the significant positive impacts (as indicated by the DID model) on the proportion of underweight and anaemic women were directly related to the implementation of the BCSP.

In addition to acting on important drivers of undernutrition among women, BCSP had a disproportionately larger impact on social groups who suffered from relatively higher incidence of undernutrition at the baseline stage, thereby improving block-level averages. Disaggregating impact by wealth, education and caste reveals that BCSP was especially effective in improving nutritional outcomes for the poorest and least educated mothers (see Table 34[31]). These findings are in line with the discussion in Chapter 5, which showed that poorer households experienced a relatively larger improvement for food expenditure indicators.

Table 34: Disaggregated Outcomes of BCSP's health impact

DID of baseline vs endline: BCSP's impact on health outcomes of women disaggregated by wealth, education and caste						
Outcome/indicator	**Richest 40% of households**	**Poorest 40% of households**	**Mothers with some education**	**Mothers with no education**	**Non-SC households**	**SC households**
BMI class						
Underweight	-3.79	-12.79*	-3.43	-9.83*	-2.77	-11.35*
	(3.91)	(4.93)	(4.28)	(4.08)	(3.84)	(4.64)
Prevalence of anaemia						
Mother is anaemic	-15.80**	-8.04	-9.53*	-13.57***	-15.21***	-10.84**
	(4.93)	(4.62)	(4.24)	(3.74)	(3.76)	(3.98)

Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator; *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design. (3) Non-pregnant women having BMI less than 18.5 are classified as underweight. (4) Women with a haemoglobin level at sea level of less than 120 g/l for non-pregnant women of 15 years and above, and less than 110 g/l for pregnant women, are classified as anaemic.

Therefore, there is evidence to show that BCSP played an equalising role by having the largest impacts for the most disadvantaged groups.

7.2 Anthropometric outcomes of children

Data on child height, weight and age[32] are used to calculate three standard indices of child anthropometric status – namely, height-for-age, weight-for-age, and weight-for-height. Each of these indices provides different information about growth and body composition, which can be used to assess nutritional status. In order to do this, a child's anthropometric measurements are compared to the new international growth standards published by the WHO in 2006[33].

Each of the three anthropometric indices is expressed in standard deviation units (or a z-score) from the median of the Multicentre Growth Reference Study sample of children of the same age and sex. The estimated nutritional status of the survey population is expressed as the proportion of children with z-scores below a certain cut-off point (WHO, 1995, p. 161). The three anthropometric indices, and corresponding indicators, are further described below.

Height-for-age[34] reflects linear growth of children. Having a low length-for-age / height-for-age is referred to as **stunting**. This index identifies past or chronic malnutrition, which is the effect of long-term poor health, and inadequate diet, which leads to poor linear growth, in particular for children

[31] All estimates presented in Table 31 correspond to the comparison of the limited conditions block with the control block.
[32] At the endline stage, OPM undertook a thorough data quality and cleaning assessment in respect of all collected anthropometric data, which concluded that data were of acceptable quality, and that cleaning and analysis procedures were in line with international standards. See Annex E for more details.
[33] These growth standards were collected in the WHO Multicentre Growth Reference Study that was designed to be used as the gold-standard approach to the assessment of child growth internationally (WHO, 2006).
[34] For children below two years of age, the term used for this index is length-for-age because such young children are measured lying down, whereas the term height-for-age is used children above two years old as they are measured while standing using a stadiometer.

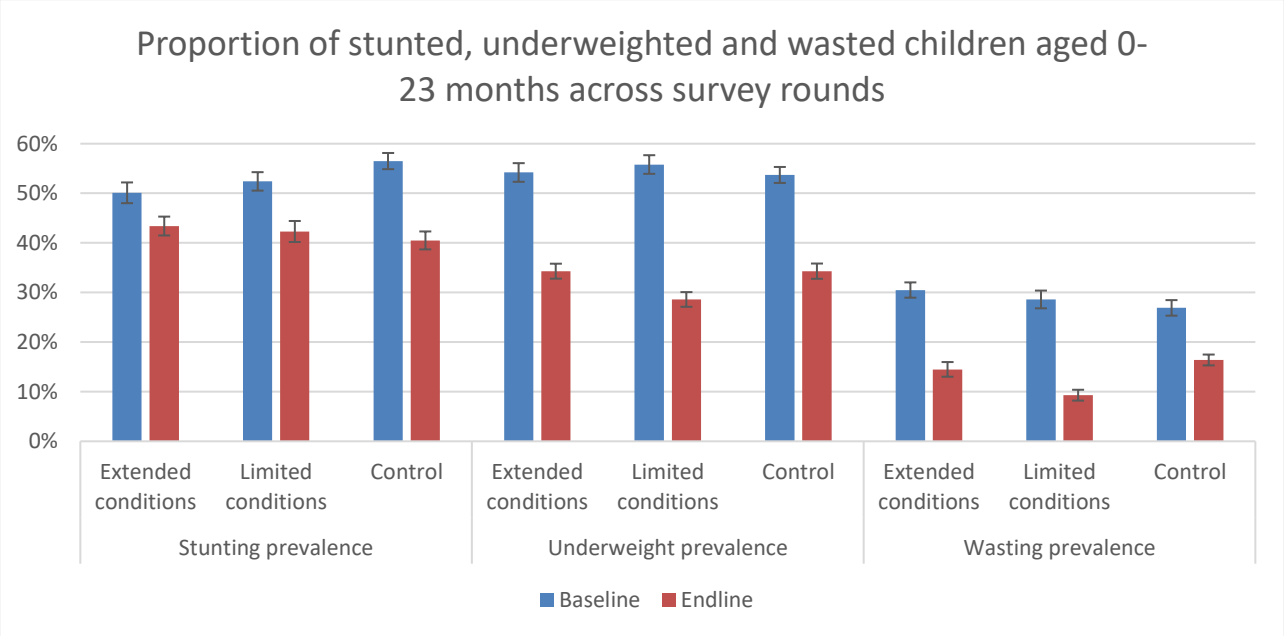
younger than two years old (WHO, 1995, p. 164). Children are classified as stunted when their height-for-age z-score (HAZ) is less than -2, and severely stunted when their HAZ is less than -3.

Weight-for-height reflects body weight relative to length height. Having a low weight-for-height is referred to as **wasting** and is attributed to acute malnutrition, which is a 'recent and severe process that has led to significant weight loss, usually as a consequence of acute starvation and/or disease' (WHO, 1995, p. 165). Children are classified as wasted when their weight-for-height z-score (WHZ) is less than -2 and severely wasted when their WHZ is less than -3.

Weight-for-age reflects body mass relative to chronological age. It reflects both children's height-for-age and their weight-for-height, which makes interpretation complex. Children with a low weight-for-age are classified as **underweight** when their weight-for-age z-score (WAZ) is less than -2, and severely unweight when their WAZ is less than -3. This index reflects both past (chronic) and / or present (acute) undernutrition, although it is unable to distinguish between the two.

Using the above-mentioned definitions, the proportion of stunted, underweighted and wasted children between the ages of 0 and 23 months was calculated for each surveyed block across the baseline and endline surveys. Figure 25 presents a visual summary of block-wise trends across baseline and endline surveys.

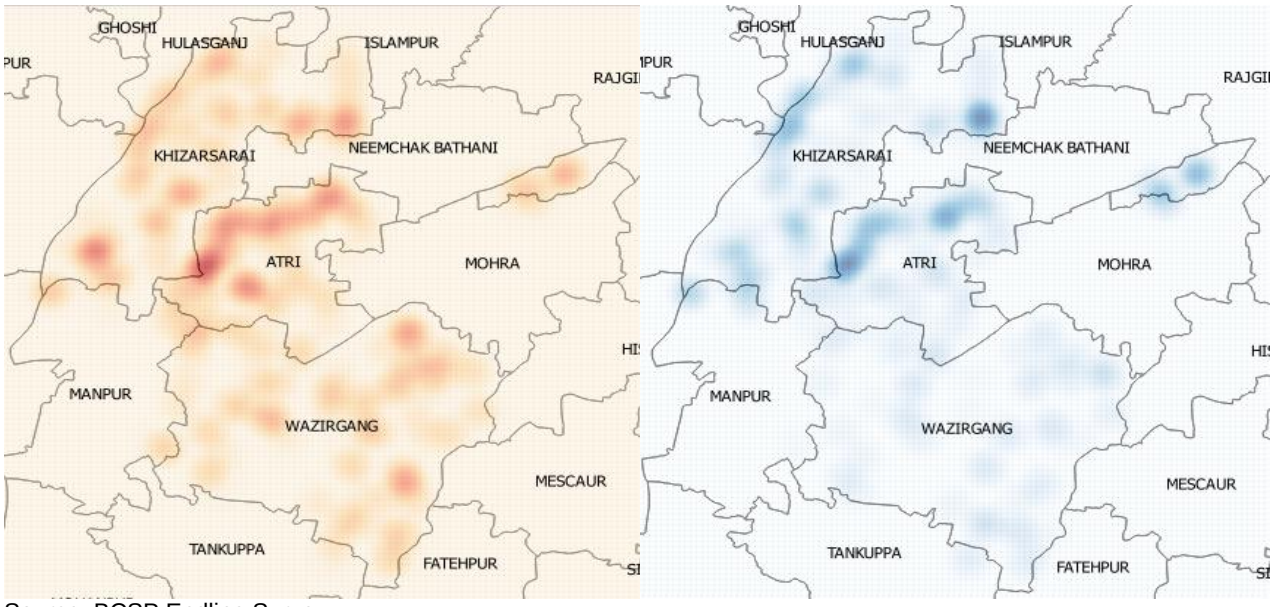
Figure 25: Proportion of stunted, underweight and wasted children across survey rounds



Source: BCSP Baseline Survey and Endline Survey

Clearly, all three blocks experienced a significant decline in the proportion of stunted, underweight and wasted children between the two survey rounds. However, nutritional outcomes were not uniform across all villages in the three survey blocks. Figure 26 shows the spatial concentration of stunted (in red) and wasted (in blue) children at the endline stage through a heat map of the three survey blocks. The map shows that a belt of villages to the northwest of Atri (extended conditions block) and some areas on the eastern tip of Khizarsarai (control block) had a high concentration of stunted and wasted children even at the endline stage.

Figure 26: At endline: spatial concentration of stunted and wasted children in survey blocks



Source: BCSP Endline Survey

A DID impact estimation model (after controlling for socioeconomic factors and village-level fixed effects[35]) was run across the two matched pairs of blocks in order determine how much of the observed improvement in nutritional outcomes in treatment blocks can be attributed to the BCSP. Results from this exercise are presented in Table 35.

Table 35: BCSP impact on rates of stunting, underweight and wasting

DID of baseline vs endline: BCSP's impact on rates of stunting, underweight, and wasting		
Outcome/indicator	**Extended conditions vs. limited conditions**	**Limited conditions vs. control**
	Dif 1 – Dif 2	**Dif 2 – Dif 3**
Stunting		
Stunting prevalence	2.48	2.58
	(3.23)	(3.09)
Severe stunting prevalence	-0.53	4.32
	(2.41)	(2.52)
Underweight		
Underweight prevalence	4.25	-7.69**
	(2.51)	(2.72)
Severe underweight prevalence	2.55	-6.32**
	(2.33)	(2.29)
Wasting		
Wasting prevalence	1.17	-7.70*
	(2.78)	(3.12)
Severe wasting prevalence	0.01	-0.55
	(1.63)	(2.06)

Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where: *** = 99.9%; ** =99%; * = 95%. (2) Standard errors clustered by PSU ID are in parentheses. (3) Appropriate Stata 14 commands were used to account for survey design.

[35] While impact estimates are generally robust across regression specifications and choice of analytical weights, there are some minor issues with age clumping for the baseline survey. See Annex E for further details of a sensitivity analysis and issues related to data quality.

DID impact estimates indicate that BCSP led to a decline of 7.7 percentage points in the proportion of underweight children, and a 6.3 percentage points decline in the proportion of severely underweight children. Both of these estimates are significant at the 99% level. Relative to the baseline levels, these impacts are equivalent to fall of 14% in the proportion of underweight children and a 24% decline in the proportion of severely underweight children, respectively.

BCSP also led to a decline of 7.7 percentage points (significant at the 95% level) in the prevalence of wasting among children living in the treatment block. This translates into a 27% decline from the baseline value. No significant impact was detected for stunting.

Estimates from column one of Table 35 present estimates of the additional impact of attaching a further four conditions to the BCSP cash transfer in the extended conditions block, as compared to the limited conditions block. While estimates in this column are positive, indicating a reduction in the impact of BCSP on child nutritional outcomes (except severe stunting), in the extended conditions block none of them are significant[36].Similar to maternal health indicators, only a few of the large number of studies on nutrition-based cash transfers (mostly from Latin America) have found significant impacts on anthropometric outcomes, especially on stunting rates. A recent systematic review of cash transfers (Bastagli F. , et al., "Cash transfers: what does the evidence say?." A rigorous review of programme impact and of the role of design and implementation features., 2016) found that:

> *'The evidence on anthropometric outcomes is limited to 13 studies (out of 165 analysed from 30 countries and 56 cash transfer programmes), the majority of these do not show a statistically significant effect: just five out of 13 studies for stunting, one of five for wasting and one out of eight for underweight. All significant overall changes were improvements.'*

However, the BCSP was amongst the first nutrition-based conditional cash transfers of its kind in the Indian context, and there is little to compare the present findings against.

7.2.1 Drivers of impact on children's anthropometric outcomes

As discussed at the beginning of this chapter, each measure of child undernutrition (i.e. wasting, underweight and stunting) reflects related but distinct aspects of the child's current or past nutritional environment. It follows that each measure is expected to react in different ways to changes in the external nutritional environment of children. It is also important to note that child undernutrition is an outcome of a host of other factors besides those that fell under the ambit of the BCSP. For example, water, sanitation and hygiene practices, disease environment (Fink, Günther, & Hill, 2011), seasonality and social determinants (Victorino, C., & Gauthier, 2009) play an important role in determining child nutritional outcomes.

Among the three most widely used indicators that measure child undernutrition, two - wasting (low weight-for-height) and underweight (low weight-for-age), are known be relatively sensitive to the short-term nutritional environment of the child since they reflect a combination of chronic and acute malnutrition. In particular, the indicator that measures the proportion of underweight children lends itself to short-term changes in diet and nutrition-sensitive behaviours, which have shown to be improved by the BCSP.

[36] DID estimates that compare the extended conditions block to the control block show significant improvements in child nutritional outcomes. However, since these blocks are not strictly comparable, these estimates have not been presented here.

On the other hand, stunting is a measure of past or chronic malnutrition caused by inadequate diet, poor environmental conditions and long-term poor health, leading to restriction of a child's growth potential[37]. Moreover, recent studies have demonstrated that stunting is determined by a number of complex underlying socio-economic factors, including age at marriage, birth order (Jayachandran & Pande, 2013) and rates of open defecation (Spears, Ghosh, & Cumming, 2013). It is therefore, much harder to prevent/reverse, especially over short periods of time. Paired with the lack of a significant impact on stunting for similar interventions in the past (Bastagli F. , et al., 2016)[38], BCSP's lack of impact on stunting is not surprising.

A second reason for the observed lack of impact on stunting has to do with how stunting rates vary with the age of the child. The full first 1000 days of life (from conception to the child's second birthday) is widely recognized as the "window of opportunity for preventing undernutrition" (Martorell, Khan, & Schroeder, 1994) (Black, 2013) .Although stunting is virtually irreversible after the children turns two, persistent height deficits across malnourished and healthy children manifest only after the child crosses two years of age (Leroy, Ruel, Habicht, & Frongillo, 2015)[39]. Given that BCSP sampled from children under the age of two, it is likely that the survey was underpowered to detect small changes in the differences in height-for-age z scores for this age group.

What led to the observed significant decline in the proportion of wasted and underweight children in treatment blocks across the baseline and endline surveys? Although there are a number of complex underlying factors that influence health outcomes among children, the BCSP was able to influence some key determinants. First, DID impact estimates show that the BCSP led to a 20 percentage points increase in the proportion of children (under 6 months of age) who are exclusively breastfed. Many studies have demonstrated the link between breastfeeding, increased immunity, reduced infections and improved health outcomes (Horta, L., & Victora., 2013). Second, the BCSP may have had a positive impact on the introduction of semi-solid foods for children between six and nine months of age (see Chapter 5 for more details). Following the period of exclusive breastfeeding in the first six months of a child's life, the introduction of other liquid and semi-solid foods plays a key role in the health outcomes of children in the months that follow. At the baseline stage, only about 60% of all children received complementary feeding between six and nine months of age. BCSP seems to have improved this indicator by providing cash and facilitating nutrition-based counselling for mothers.

Moreover, BCSP had a large impact on the i) proportion of children who had ever been weighed after birth and ii) proportion of pregnant women who were weighed at least once during their last pregnancy (see Chapter 7 for more details). Besides increasing frequency, the BCSP also increased the quality of weight check-ups by providing immediate feedback using visual cues through the growth monitoring chart and behavioural videos loaded onto the BCSP application. Therefore, regular, high-quality weight monitoring of children and pregnant mothers may have played a central role in the observed improvement in health outcomes by providing mothers with timely feedback about their child's health (in utero for pregnant mothers), and how to adjust their nutrition if it is found to be lacking.

Lastly - although BCSP aimed to increase beneficiaries' interaction with the ICDS system by making the cash transfer conditional on attending the monthly VHSND at the AWC, it did not include an explicit behaviour change counselling component for mothers. Evidence from a cash transfer programme in Bangladesh (Ahmed, Quisumbing, Nasreen, Hoddinott, & Bryan, 2009) shows that

[37] See http://www.who.int/nutrition/nlis_interpretation_guide.pdf
[38] just five out of 13 studies covered in this systematic review of cash transfer programmes detected a statistically significant impact on stunting
[39] Leroy et. al find a continued decrease in mean HAD (height-for-age differences) between 2 and 5 years using cross-sectional data from 6 Demographic and Health Surveys (DHS) and longitudinal data from the Young Lives and the Consortium on Health-Orientated Research in Transitional Societies (COHORTS) studies.

the greatest impact on child nutritional outcomes come when the cash transfer is combined with extensive nutrition-based counselling. Therefore, it is likely that nutritional outcomes may have been seen larger improvements if such complementary nutrition-based education was also included into the programme's design.

8 Social accountability effect

8.1 Introduction

This chapter looks into the social accountability 'pathway to impact' analysed within the BCSP theory of change (see Chapter 3). It aims to understand whether beneficiaries put pressure on service providers to improve the accessibility and quality of services to enable them to meet programme conditions (demand). It also aims to untangle whether the provision and quality of services (supply) was influenced by any other programme feature, including the incentive payments paid to AWWs and GPMs, and the programme's pre-installed case management tool.

Social accountability effect: key evaluation questions

- Did the BCSP improve service delivery and accountability?

Secondary evaluation questions

- Did the BCSP lead to any improvements to the supply side?
- To what extent did the BCSP support the AWW to perform her duties under the BCSP?
- What type of facilities do beneficiaries generally visit for health care?
- Were there any barriers to uptake of services under the BCSP?

In order to do this, this section first analyses the **supply of services** and the role of key actors involved in service delivery (Sections 8.2.1, 8.2.2, 8.2.3, and 8.2.4). It then focuses in on the issues of stock and equipment availability (Section 8.2.5) and growth monitoring (Section 8.2.6) and explores the role of the BCSP mobile application in the quality of delivery (Section 8.2.7). Section 8.3 explores the **demand side** of the programme. It assesses beneficiaries' perceptions of health care services, barriers to the uptake of services under the BCSP and the experience of beneficiaries with formal channels for grievance redressal (a powerful tool for social accountability if effectively used).

8.2 Supply: Service provision

8.2.1 AWWs

The institution of the AWW was created in 1975 under the ICDS programme[40]. The roles and responsibilities of the AWW are primarily to provide pre-school education, enhance the nutritional intake of children, and other health care services that contribute to countering malnutrition. These, of course, are only the primary responsibilities of the AWW and the qualitative study suggests that the responsibilities of the AWW have been steadily on the rise: in addition to implementing a multiplicity of schemes relating to child welfare, all of the AWWs interviewed suggested an increase in workload due to the requirement to constantly conduct village surveys, and increased paper-work.

> *"Always we have to send this or that report. They keep on demanding this and that always from Anganwadi… When we distribute THR then there would be six vouchers. Then we call a monthly meeting every month. Then we have to send reports regarding newly delivered women or about children or pregnant women. It's not fixed and they can demand it at any time."*
>
> (AWW, age 46, limited conditions block)

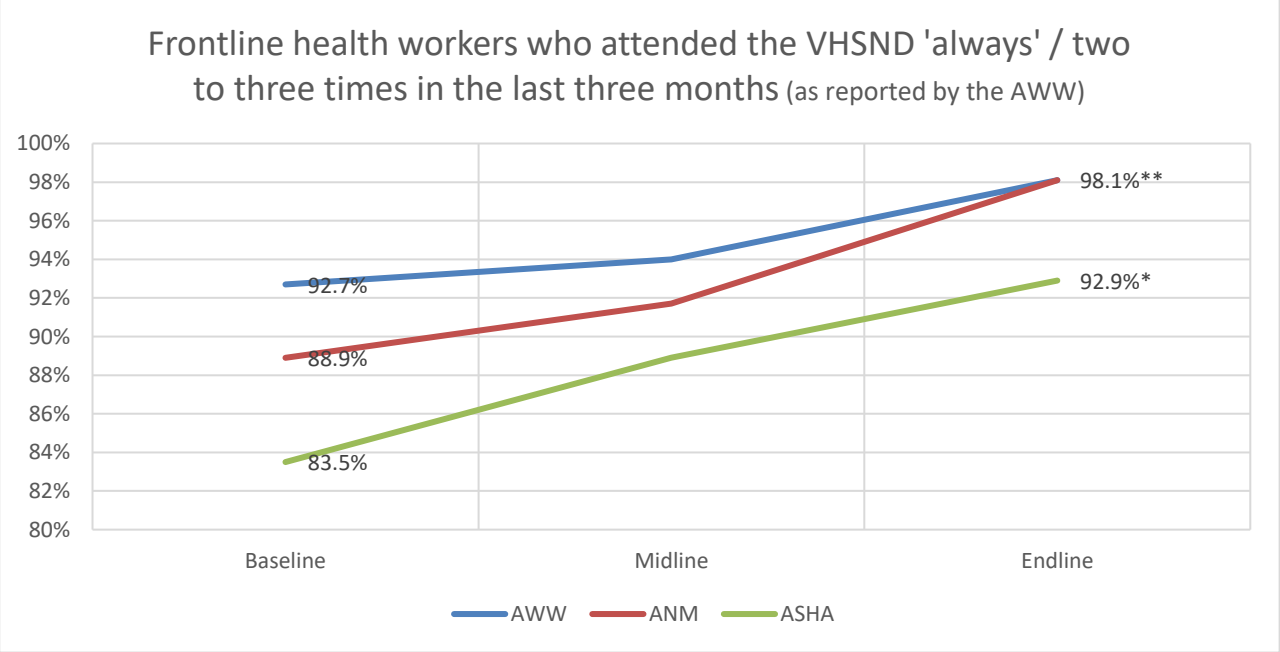
[40] The ICDS is a programme of the Government of India that focuses on pre-school education, nutrition and primary health care of children under the age of six.

> *"I am providing vaccination right from the beginning. Now gradually our responsibilities have been increasing… Like we call women and hold a meeting here to make them aware about giving solid food to the children after six months. Then we celebrate "annprasan diwas". So these things are additional for us… Then we have to conduct "mahila mandal" also… We call woman and tell them about sanitation, about their diets, about the pregnancy and all… And we tell adolescent girls about their hygiene and all during periods… Then we celebrate "bachpan diwas" on Saturdays… Again we have to repeat the same things on this day."*
>
> (AWW, age 39, extended conditions block)

Given the consistent increase in work pressure, the qualitative study reveals that the reaction of the AWWs towards the BCSP was mixed. On one hand, AWWs suggested that the BCSP aided their responsibilities in terms of attracting more women to the VHSND and increasing compliance with vaccinations. The BCSP also helped the AWWs balance the demand for the THR, since enrolling the women in a cash transfer scheme reduced some of the pressure placed on them by the women of the community. On the other hand, the BCSP required the AWWs to learn to operate a 'complex' mobile phone application (see Section 8.2.7), while not providing sufficient incentive to justify the increase in work responsibility[41]. We briefly explore this further below.

The quantitative study substantiates these findings by using the VHSND as a specific instance where there may have been pressure on the frontline health workers to render the services in question. The proportion of health workers conducting or attending the VHSND – as reported by the AWWs – significantly increased for all blocks between the baseline and endline surveys (see Figure 27).

Figure 27: Attendance of frontline health workers at the VHSND



Annex F.1.1 provides insights into the block-wise estimates at the time of the endline survey. In the three months before the survey, the presence of frontline workers in all three blocks was high, particularly in the limited conditions and control blocks, where more than 95% of the frontline workers were reported to have been present each month. However, the DID results between the limited

[41] It must be noted that most of the AWWs were quick to highlight the voluntary nature of their role, after suggesting that the remuneration was inadequate. This could also be a case of respondent bias and therefore has not been included in actual analysis.

conditions and the control blocks presented in Annex F.1.3 are insignificant; therefore, this increase may not be attributable to the programme.

8.2.1.1 Motivation to provide services

To motivate AWWs, the BCSP provided them with incentives: Rs 100 for filling out a VHSND form, and Rs 5 for each beneficiary weighed per month. Within the qualitative sample, all the AWWs barring one suggested that the incentives were not enough to deal with the increased workload under BCSP. There was a strong tendency amongst the AWWs to compare the money they received to the wages of a daily wage labourer:

> *"Government has fixed wages for labourers as Rs 300–350. We are not getting those wages also. We get Rs 100 for a day... if the same amount is given to a sevika then sevika will work with even more enthusiasm. Right now, she is not getting, even then she is working. If she gets that much then she will do the work more willingly…"*
>
> (AWW, age 42, limited conditions block)

The quantitative research appeared to partially confirm such a view, with 42% of AWWs reporting an 'inadequate salary' as the most important reason for not keeping up with their work. However, the AWWs' incentive problem appeared to be very much driven by failed or late payments. These findings may also be skewed because of the programme's abrupt ending, which was not widely communicated (see Chapter 3). For example, only around three-quarters of the AWWs reported having received an incentive for facilitating the VHSND and weighing children.

On average, AWWs were still expecting seven to eight months' worth of incentives. When asked about problems in receiving incentives, a majority of the AWWs said that 'the money does not come on time' (particularly in the limited conditions block, where this figure was 81%). Only 13% of the AWWs across both blocks said that they had received the amount of money they were supposed to have received from the programme. These results are shown in Table 36 below:

Table 36: AWW incentives under the BCSP

T-tests at endline: Incentives received by the AWW under the BCSP			
Outcome/indicator	**Extended conditions**	**Limited conditions**	**Overall**
Incentives			
AWWs who reported having received any incentive for facilitating the VHSND under BCSP	78.0	72.5	73.9
	(5.92)	(6.31)	(4.91)
	50	51	101
AWWs who reported receiving an incentive for growth monitoring of children under BCSP	74.0	70.6	71.5
	(6.27)	(6.44)	(5.03)
	50	51	101
AWWs who reported receiving all the money from the programme they were supposed to have received from the programme	15.2	12.2	13.1
	(5.35)	(5.17)	(3.98)
	46	41	87

T-tests at endline: Incentives received by the AWW under the BCSP			
Outcome/indicator	**Extended conditions**	**Limited conditions**	**Overall**
Average number of months for which payment is pending	6.8	8.0	7.7
	(0.38)	(0.60)	(0.45)
	35	32	67
Problems faced in receiving incentives:			
Money does not come on time	67.4	80.5	76.8
	(6.99)	(6.27)	(4.91)
	46	41	87
No problem	23.9	14.6	35.4
	(6.36)	(5.59)	(5.82)
	46	41	87
Correct amount of money has not been received	26.1	39.0	17.3
	(6.55)	(7.71)	(4.38)
	46	41	87
Bank does not give out small amounts of money	10.9	7.3	8.3
	(4.64)	(4.12)	(3.21)
	46	41	87
Source: BCSP Midline Survey (August–November 2015) and BCSP Endline Survey (November 2016–January 2017). **Notes:** (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Box #: *** = 99%; ** =95%; * = 90%. (2) Standard errors clustered by PSU ID are in parentheses. (3) Appropriate Stata 14 commands were used to account for survey design.			

8.2.2 GPMs

The institution of the GPM was created by the BCSP programme. Initially envisaged as playing only a supportive role in relation to the AWWs, the institution of the GPM eventually came to be crucial to the implementation of the programme. The GPMs interviewed by the qualitative study reported having a wide range of responsibilities, including: assisting women to open bank accounts, assisting women in acquiring necessary IDs, monitoring the expenditure of the money transferred to the beneficiaries, being physically present for each VHSND, assisting the AWW in the usage of the mobile application, fixing technical errors in the mobile application, and speaking to government institutions to ensure a constant availability of supplies. The GPMs also became the reference point for grievance redressal for the AWWs in the case of irregular or non-payments and were regularly mentioned by beneficiaries as a key figure in the BCSP delivery. It is suggested that this dedicated field support, which was separate from the chain of government service delivery, played an important role in enhancing the impact of the programme.

Quantitative data suggested that a majority of the AWWs (98%) were aware of the presence of a GPM in their area, and around 67% said they received help from him/ her (if any external support was received at all) (Annex F.2.4). Only 21% of the AWWs said they received support from the GPM in updating beneficiary records on the BCSP application (Annex F.2.2). However, this may be an underestimation, as qualitative data suggest extensive support from GPMs.

In keeping with the large scope of the roles and responsibilities of the GPMs, the monthly remuneration for GPMs was increased from a sum of Rs 2,500 to Rs 4,000 over the course of the programme expansion. The GPMs without any exception, like the AWWs, compared their salary to

the daily wage received by a labourer under government schemes and reported that it was insufficient given their expected tasks:

> *"With a minimum Rs 200 compensation… at least by government rates… in the next round… maybe 8,000–9,000 minimum? But we kept working with the money provided because we thought that this was an important thing for our scheduled caste communities. This work is for a better future. It is important responsibility to tell these things to the pregnant women. We thought that it was an important opportunity to fulfil an important function."*
>
> (BCSP GPM, age 28, limited conditions block)

A further challenge in conducting their work was communicating with potential beneficiaries in the community – partly because of a gender divide. Some GPMs reported being initially mocked by the women, while other members of the beneficiaries' family were not always comfortable with the woman discussing matters of health and nutrition with GPMs. The GPMs, however, suggested a significant improvement in their capacity to communicate with the potential beneficiaries once some of the women began to receive cash transfers:

> *"People didn't want me to meet me. Even their guardian did not want me to meet them. But when I got a few women's account opened, they started getting money. Then after seeing them all the women started calling by themselves and contacting me."*
>
> (BCSP GPM, age 42, limited conditions block)

8.2.3 ASHAs

The BCSP did not formally institutionalise the role of the ASHA and did not extend added incentives for the services of the ASHAs. Despite this, the qualitative study suggests a significant mutual contribution between the ASHAs and the BCSP. The programme benefitted from the ASHAs, since they played a large role in spreading awareness and mobilising beneficiaries. The ASHAs benefitted from the programme as the cash transfer aided service uptake (e.g. vaccinations) and incentivised women to attend the VHSND.

On triangulating responses between the AWWs, the GPMs and the CDPOs, the qualitative study showed the ASHAs required no monetary incentive as no additional burden was placed on the ASHAs.

8.2.4 ANMs

The ANMs, formalised under the National Rural Health Mission of the Government of India, also played a role in BCSP. The quantitative study shows an increase in the presence of the ANM on VHSND between the BCSP baseline and endline surveys – but not necessarily due to the programme. The qualitative study understands these percentages as being a result of both an increase in demand and of concentrating services on the day of the VHSND.

8.2.5 Stock and equipment availability

While maintaining the stock and equipment at the AWC was not one of the primary focuses of the programme, the implementation of the conditions required such availability (weighing machines, IFA tablets, ORS, etc.) and may have been impacted by increased demand. It is important to note that

the implementation team also supported the stocking of equipment, such as weighing machines, at the start of the programme, by liaising with district-level government officials.

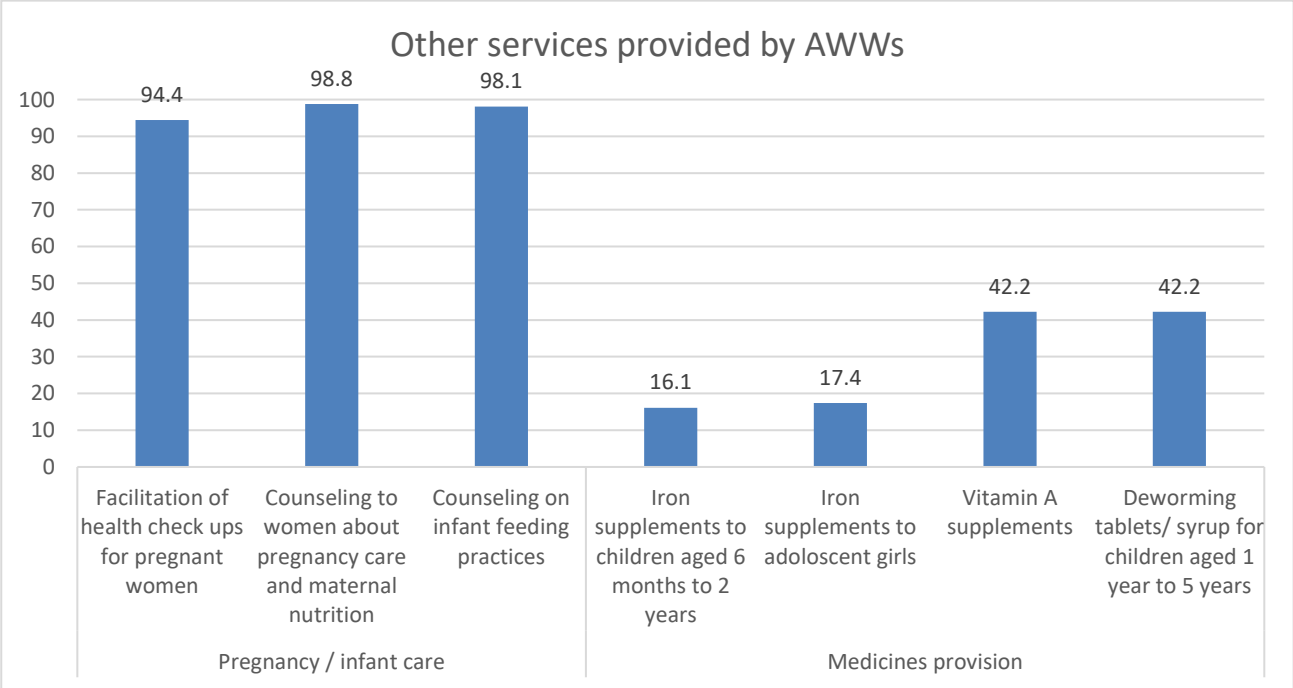
Annex F.1.4 below shows how the stock of child weighing machines changed between the different rounds of surveys. Overall, the proportion of AWWs stocking child weighing machines increased significantly (at the 95% level) between the baseline (47%) and endline (79%).

While the overall trends were promising, DID results show insignificant results (Annex F.15); thus, these changes may not be attributable to the BCSP. However, these DID results should be treated with caution as the sample size is quite small.

Annex F.1.4 also shows that the proportion of AWWs stocking ORS/ zinc packets dropped between the baseline and endline rounds of the surveys in the programme blocks. There is no further evidence from the surveys to substantiate why this may have been the case. Similarly, the BCSP did not lead to improvements in the stock of adult weighing machines and IFA tablets (Annex F.1.6).

Therefore, the evidence does not substantiate any strong and causal impact of the BCSP on the stocking of equipment/medicines. In fact, when probing the AWWs' role in providing other essential services and medicines, similar problems of under-stocking were apparent (Figure 28 below): iron supplements to children and adolescent girls were provided by less than 20% of AWWs, vitamin A supplements by 42%, and deworming tablets by 42%. This highlights a severe shortage of medicines distributed to the AWW by the government and other stakeholders, which limits the potential impacts of programmes such as BCSP.

Figure 28: Other services provided by the AWWs



8.2.6 The role of growth monitoring

As part of her roles and responsibilities, the AWW is required to weigh pregnant women and young children at the VHSND each month. Growth monitoring – an important indicator of nutritional status – was also a condition for both pregnant women and children under the BCSP. Regularly recording a pregnant woman's weight and a child's weight and height over a period of time can determine whether they are healthy, and, if not, prompt action (based on an assessment of what the status of

the under-nourishment is) can be taken. The programme theory of change envisaged an increase in demand for growth monitoring, with beneficiaries exerting pressure on AWWs and others to provide such services. In the medium term, it was envisaged that increased monitoring of growth would lead to early recognition and treatment of early signs of malnutrition, in both pregnant women and children.

The AWWs were asked whether they provided weight monitoring services for pregnant women and children. The responses are summarised in the table below. A majority of the AWWs reported that they weighed pregnant women (97%) and children (98%). On average, AWWs reported that they weighed seven pregnant women and 32 children in a month. There were no significant improvements after the midline survey (Annex F.1.9).

Table 37: Weight monitoring services provision

T-tests at endline: AWWs provision of weight monitoring services				
Outcome/indicator	**Extended conditions**	**Limited conditions**	**Control**	**Overall**
Weight monitoring services to pregnant women				
Weight monitoring services to pregnant women	92.6	98.1	100	96.9
	(3.60)	(1.92)	(0)	(1.37)
	54	52	55	161
Average number of pregnant women weighed by the AWW the previous month, if at all	8.2	7.4	6.6	7.4
	(0.78)	(0.45)	(0.47)	(0.33)
	49	51	54	154
AWWs who reported that they conduct weight/ growth monitoring of children	94.4	98.1	100	97.5
	(3.15)	(1.92)	(0)	(1.23)
	54	52	55	161
Average number of children weighed per month, if at all	34.4	30.7	31.4	32.1
	(3.25)	(2.56)	(2.55)	(1.60)
	49	51	52	152

Source: BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where: *** = 99.9%; ** =99%; * = 95%. (2) Standard errors clustered by PSU ID are in parentheses. (3) Appropriate Stata 14 commands were used to account for survey design.

The AWWs were further asked if they counselled mothers on their child's growth. Around 98% reported that they did, and of these 90% said they used job aids, such as posters/ charts (49% of those who used job aids), and growth charts (46%). Around 33% reported that they used the BCSP growth monitoring tool on the phone, and 22% said they used the BCC videos.

While these numbers are laudable, it is important to keep in mind that these indicators are self-reported by the AWWs, and therefore might be an overestimate. Interestingly, despite the high levels of self-reported provision of weight monitoring services, around 44% of the children who were not weighed cited reasons such as service unavailability (Annex D.2.13).

Table 38: AWWs' provision of child growth monitoring services

T-tests at endline: AWWs' provision of growth monitoring services for children				
Outcome/indicator	**Extended conditions**	**Limited conditions**	**Control**	**Overall**
Growth monitoring of children				
AWWs who reported that they counsel mothers about their child's growth	96.3	98.1	98.2	97.5
	(2.59)	(1.92)	(1.82)	(1.23)
	54	52	55	161
AWWs who reported that they use job aids to counsel mothers about their child's growth	86.5	94.1	90.7	90.4
	(4.78)	(3.33)	(3.98)	(2.35)
	52	51	54	157
Job aids used by AWWs to counsel mothers about child's growth:				
Posters/charts	46.7	35.4**	63.3	48.6
	(7.52)	(6.98)	(6.96)	(4.21)
	45	48	49	142
Growth chart	44.4	54.2	38.8	45.8
	(7.49)	(7.27)	(7.03)	(4.20)
	45	48	49	142
Mother Child Health card	40.0	47.9	30.6	39.4
	(7.39)	(7.29)	(6.65)	(4.12)
	45	48	49	142
Growth monitoring tool on the phone	33.3	35.4	30.6	33.1
	(7.11)	(6.98)	(6.65)	(3.96)
	45	48	49	142
Videos on the phone	28.9	14.6	22.4	21.8
	(6.83)	(5.15)	(6.02)	(3.48)
	45	48	49	142

Source: BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where: *** = 99.9%; ** =99%; * = 95%. (2) Standard errors clustered by PSU ID are in parentheses. (3) Appropriate Stata 14 commands were used to account for survey design.

8.2.6.1 BCSP growth monitoring application

To assist the AWWs in the task of growth monitoring of children, the BCSP mobile phone application was also incorporated with a growth monitoring tool. The AWW feeds the age, height and weight of a child into the application and it calculates the nutritional status of the child. Table 39 below depicts the extent to which the tool was used by the AWWs.

A majority of the AWWs (86%) said they used the growth monitoring tool in their phone. A sizeable proportion of these AWWs also reported that they had actually used the tool to identify a child in the 'red zone' (malnourished) in their catchment area.

Table 39: Growth monitoring tool

T-tests at endline: Growth monitoring tool			
Outcome/indicator	**Extended conditions**	**Limited conditions**	**Overall**
Use of growth monitoring tool			
AWWs who use the growth monitoring tool in the phone	92.0	84.3	86.3
	(3.88)	(5.14)	(3.94)
	50	51	101
AWWs who said a child in their area was identified as being in the red zone by the BCSP	56.5	62.8	61.1
	(7.39)	(7.46)	(5.75)
	46	43	89

Source: BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Box #: *** = 99%; ** =95%; * = 90%. (2) Standard errors clustered by PSU ID are in parentheses. (3) Appropriate Stata 14 commands were used to account for survey design.

This is in stark contrast to other responses given by the AWWs: only 33% said they used the growth monitoring tool when asked how they counselled mothers on their child's growth (Annex F.1.10). This discrepancy is possibly because of the nature of the way in which the question was asked – when asked if they use the tool, most AWWs may have been compelled to say yes.

8.2.7 Role of the BCSP mobile application

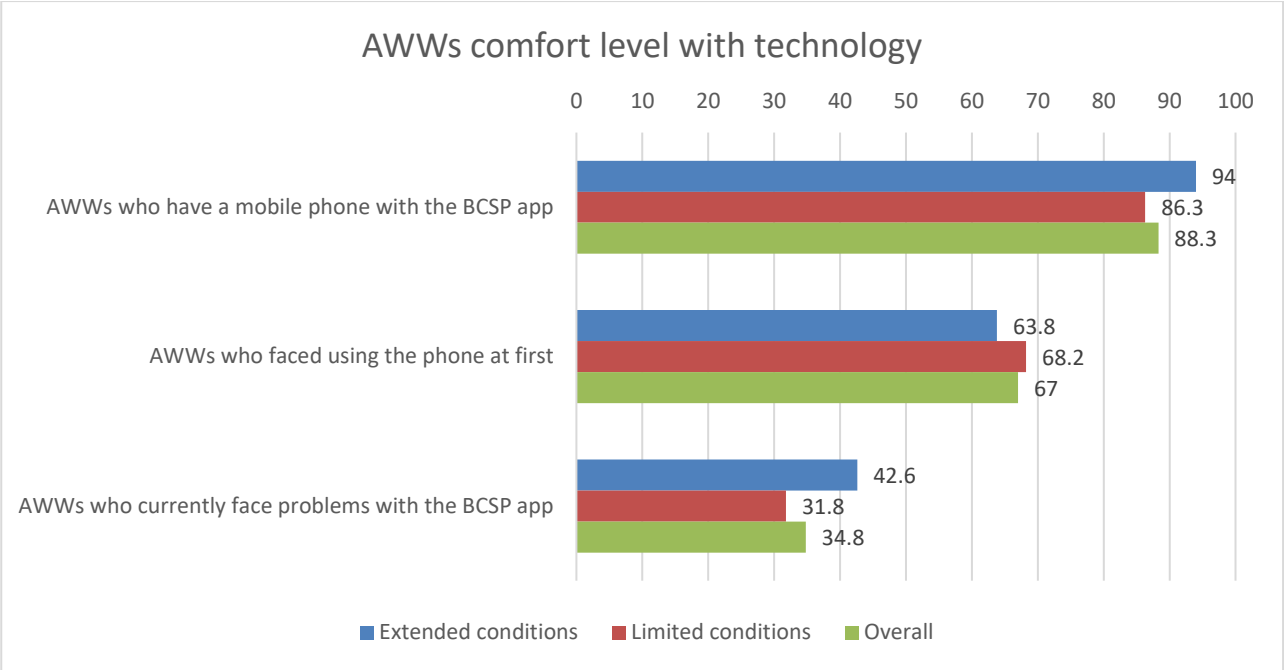
Overall, the quantitative evidence shows that the vast majority of AWWs (94% in the extended conditions block, and 86% in the limited conditions block) had mobile phones with the BCSP application at the time of the survey. These figures raise concerns about the remaining AWWs – without mobile phones, they may not have been able to record and sync data about the beneficiaries.

The quantitative and qualitative surveys both investigated the AWWs' level of comfort with the phones. All AWWs surveyed in the quantitative study had attained some level of schooling (Annex F.2.1), over 90% were literate, and more than 85% of them used mobile phones for purposes besides the BCSP (such as making calls to relatives, health service providers, support staff, etc.). However, the qualitative study did show that more highly educated AWWs faced fewer challenges with the application.

The qualitative interviews with AWWs highlighted strong opinions regarding the usefulness and user-friendliness of the BCSP application. All the AWWs the qualitative study covered suggested that the Commcare app was not user-friendly – thus potentially reducing its role in enhancing the quality of service delivery. The application was designed in English, a language they were not very familiar with. They were required to feed in data by scrolling down to the recipient each time from the name of the first recipient onwards. The application would either not load smoothly given the poor internet connectivity or it would crash. They were required to write down the weight on paper and then later feed it into the app; this according to the AWWs not only increased their workload and was time consuming.

Evidence from the quantitative evaluation confirmed such challenges, as is summarised in Figure 29 below. Of those AWWs with the BCSP application, around 67% said they faced problems while using the phone at first. The proportion dropped to 43% in the extended conditions block and 32% in the limited conditions block.

Figure 29: AWWs' level of comfort with technology



The most common problems faced by the AWWs in using the phone were: phone/ BCSP application not functioning properly (45% of those who faced problems with the application, across both blocks), problems connecting to the network (42%), and not understanding how to use the application (39%) (Annex F.2.2)[42]. There was also high demand for training on how to use the app independently (see section 8.2.8 below).

Qualitative evidence suggested that these issues led to late data entry (not during the VHSND, but in the following days) and data entry by others – mainly the GPM.

> *"This is the only difference. You need to take these many registers and then write. With mobile in hand, you need to press buttons and make entry. You need a copy for weight. Then later you can see and make entry."*
>
> (AWW, age 42, limited conditions block)

The quantitative survey partially supported this. Around 65% of the AWWs said that they filled in the beneficiary records themselves, while around 20% and 12% said they filled them in with the help of the GPM, or friends/ family, respectively (Annex F.2.2).

It must also be noted that there is an inherent contradiction in the preference towards the mobile application. The qualitative study with the AWWs suggests that despite the challenges in using the mobile phones, the AWWs preferred using the mobile phones to paper-based data collection. They indicated that the mobile helped them send messages instantly, it had an in-built mechanism that says 'thank you', which helps them realise that they have done the work correctly. At the beneficiary level, the branding of the BCSP to some extent related to a programme where a 'message' is sent and money is received. *'Message aata hai'* (I get a message) was the understanding that the beneficiary has completed the conditions and will receive the money.

[42] When asked about difficulties faced in updating beneficiary records specifically, around 59% of the AWWs said that they did not face any problems. Around 16% said that synchronising data with the server was often tricky, and around 17% said they found the application difficult to work with (Annex F.2.2).

8.2.7.1 Behavioural change tools

The BCSP application on the phone also had BCC videos outlining IYCF and childcare practices. Data on use of these tools varied depending on the respondent and interview type.

Table 40 below shows to what extent the AWWs reported using these tools, as per the endline survey. The data show that around 82% of the AWWs had BCC materials on their phone, and a large section of them reported that they showed them to the beneficiaries as well. Around 49% of the AWWs in the extended conditions block, and 62% in the limited conditions block, said that they showed them to women who had not enrolled in the BCSP, to motivate them to do so.

Table 40: BCC materials

T-tests at endline: BCC materials			
Outcome/indicator	**Extended conditions**	**Limited conditions**	**Overall**
BCC materials			
AWWs who have BCC materials on their phone	82.0	82.4	82.3
	(5.49)	(5.39)	(4.23)
	50	51	101
Ways in which AWWs use BCC materials:			
Show them to the beneficiaries	95.1	85.7	88.1
	(3.41)	(5.46)	(4.15)
	41	42	83
Show them to the women who have not enrolled, to incentivise them to join BCSP	48.8	61.9	58.5
	(7.90)	(7.58)	(5.98)
	41	42	83
Do not use the videos	0.0	4.8	3.5
	(0)	(3.33)	(2.47)
	41	42	83

Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, as explained in Box #: *** = 99%; ** =95%; * = 90%. (2) Standard errors clustered by PSU ID are in parentheses. (3) Appropriate Stata 14 commands were used to account for survey design.

8.2.8 Training

As was highlighted in the section above, a proportion of the AWWs still faced problems in operating the mobile phone and the BCSP application. The AWWs were also asked about whether they still desired training on any topics. Findings from the endline survey are presented in the table below.

More than half of the AWWs (56%) said that they still required training on topics related to the BCSP. Of these, 55% said they wanted to learn how to solve mobile phone problems independently, without depending upon others. Interestingly, 52% of the AWWs said they wanted training on understanding and learning the conditions of the programme, which indicates its complexity (this was discussed in Section 6.2.1).

8.3 Demand: Beneficiary perceptions of health care services and grievance redressal

8.3.1 Perceptions of key services

In this section, the quantitative study presents an analysis of beneficiaries' preferences for government and private facilities for receiving certain services and how this changed between the baseline and endline surveys. This is used as an approximation of beneficiaries' perceptions of the quality of government services.

As part of a multiple-choice question, households were asked which facilities they generally take household members to for treatment when they fall sick. The DID results in Table 41 below show a significant increase in the use of private facilities for treatment. Annex F.3.2 shows that there was an increase in the preference for government facilities in the treatment blocks (at the 99.9% significance level), as well as an increase in the preference for government facilities (at the 95% significance levels). However, overall, a greater proportion of people preferred private facilities for treatment.

Table 41: Preference for government or private health facilities for treatment of sickness

DID between baseline and endline: BCSP's impact on use of government or private facilities	
	Limited conditions vs. control
Outcome/indicator	**Dif 2 – Dif 3**
Treatment for any sickness	
Government facilities	9.26
	(-5.15)
Private facilities	8.03*
	(-3.66)
	(-2.36)

Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

The quantitative survey further asked mothers about the facilities they prefer to receive antenatal and natal services from. For services such as ANC check-ups, treatment of health problems during pregnancy, and delivery of children, government facilities saw a statistically significant increase in preference in the limited conditions block, compared to the control block, between the two rounds of survey. In particular, the DID estimate for those who preferred government facilities for treatment of health problems during pregnancy was large and positive. This is because the increase in this indicator in the limited conditions block (from 16% at the baseline to 55% at the endline) far exceeded that in the control block (Annex F.3.4).

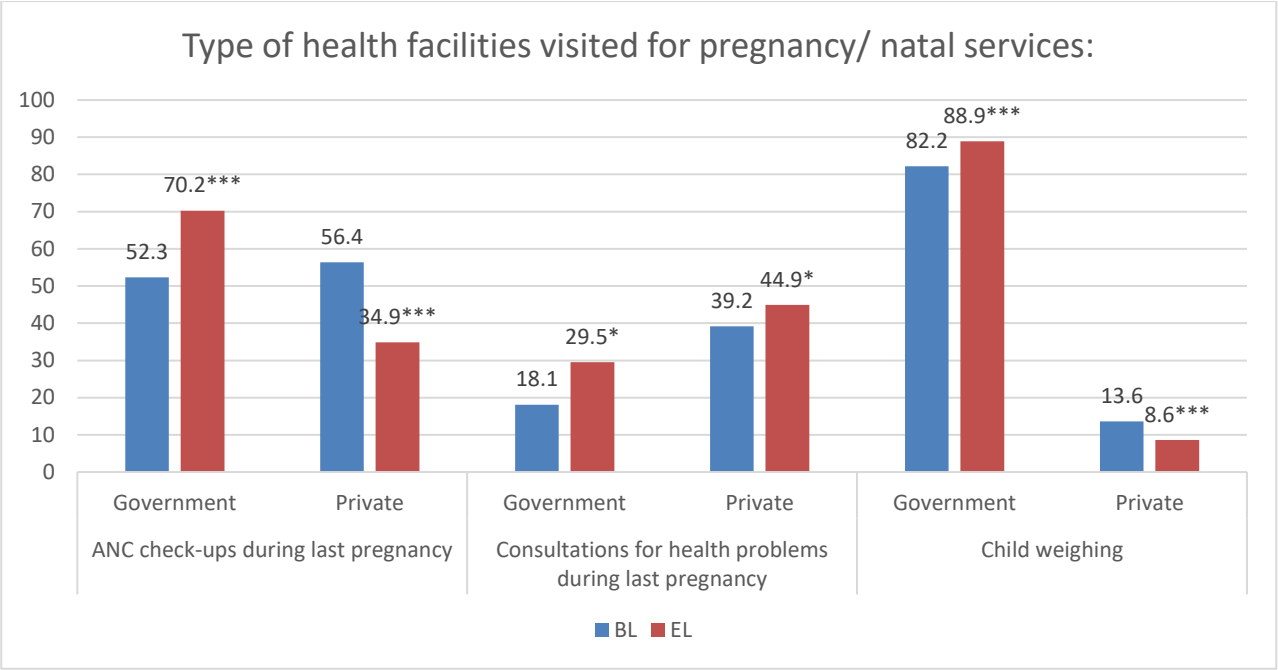
Table 42: Preference for government or private health facilities for ANC and natal care

DID between baseline and endline: BCSP's impact on use of government or private facilities	
	Limited conditions vs. control
Outcome/indicator	**Dif 2 – Dif 3**
Respondents who prefer the following for ANC check-ups:	
	9.99*
Government facilities	(-4.95)
	0.42
Private facilities	(-4.75)
Respondents who prefer the following for treatment of health problems during pregnancy:	
	32.60***
Government facilities	(4.74)
	-8.90
Private facilities	(4.94)
Respondents who prefer the following for delivery of child:	
	8.13*
Government facilities	(-3.14)
	-2.14
Private facilities	(-2.03)
Respondents who prefer the following for weighing child:	
	4.37
Government facilities	(-2.98)
	-3.01
Private facilities	(-2.36)

Source: BCSP Baseline Survey (July–September 2013) and BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

Figure 30 below paints a clearer picture of how these preferences for the different facilities changed between the baseline and the endline surveys.

Figure 30: Type of health facilities visited for pregnancy/ natal services



For services such as ANC check-ups and weighing of children, government facilities were more popular, and the preference for private facilities dropped significantly between the two surveys. For child weighing, in particular, women overwhelmingly favoured government facilities (89% women at the time of the endline survey). This was largely driven by the preference for AWCs for child weighing.

For services such as institutional birth, there was a significant increase in the use of both private and public facilities between the two services; however, government services were still preferred. The qualitative study understands this preference of government services for institutional deliveries as being attributable to the *Janani Suraksha Yojana,* a central government programme that incentivises institutional deliveries with a sum of Rs 1,400 for each delivery.

Private facilities were preferred for services such as seeking treatment for health problems during the last pregnancy. While there was an increase in the use of government facilities (significant at the 99.9% level), and a less significant increase in private facilities (significant at the 95% level) between the two rounds of surveys, overall, private facilities were preferred.

The qualitative study explored this preference for private facilities, especially for treatment and consultations. Responses from the beneficiaries across different income groups and castes attributed this preference to a multiplicity of factors. The first is ease of access: often government services are further off than the nearest private doctor is. Accessing the nearest private doctor then becomes more cost-effective in terms of time and money saved to travel to the government hospital. Moreover, beneficiaries overall reported poor services at the government hospital. This ranged from unavailability of doctors to ill-treatment by the nurses or the doctors and ineffective treatment.

Interviewer: "Then where did you go for her treatment?"

Respondent: "In private hospital."

Interviewer: "Why don't you go to government hospital for treatment?"

Respondent: "The doctor was not available in government hospital on that day. He was not expected to come on that day."

Interviewer: "How did you get to know that doctor is not available?"

Respondent: "I went there and staff said that the doctor will not come today. Then we rushed to private hospital…When I got treatment done in government, I did not get any relief. Then we went to private hospital."

(BCSP Beneficiary, age 23, extended conditions block)

Thus, these findings show that for receiving services (such as ANC check-ups or child weight monitoring) or delivering a child, women preferred government facilities. On the other hand, for treating a sickness or a health problem, respondents preferred going to private facilities. It can be posited that this is due to the better stock of medicines in private facilities.

8.3.2 Barriers to service uptake

The qualitative study identified four broad barriers to service uptake by the beneficiaries:

- **Geography of the village**. In cases where the village was not well connected to the main road, or had *kachcha* roads, the services were disrupted, especially during the monsoons. Flooded roads severely hampered the access of the ASHA and the AWW to the village, thereby leading to a drop in service uptake during these months.
- **Mobility**. Some beneficiaries across caste groups suggested that they were not able to reach the AWC during the VHSND since they either could not have left the house unaccompanied or could not have left the house under someone else's supervision.
- **Availability**. Most beneficiaries who were inconsistent about attending the VHSND suggested that they were working in the fields and either did not get the information about the specific day on which the VHSND was to happen or were not available to attend the VHSND. Some beneficiaries also registered visiting their natal home during the period of pregnancy because of which they could not reach the AWC of their in-laws' village for VHSND.
- **Educational level** of the beneficiary. Responses from the AWWs and the GPMs in the qualitative study suggested that it was easier to explain the intention of the conditions to women who had received some form of school education. The GPMs suggested that women who were educated did not need to be reminded of the VHSND days, they would remember the day and visit the AWC on their own.

8.3.3 Channels for grievance redressal

The quantitative survey asked those beneficiaries who reported that there had been a delay in receiving their cash transfer whether they complained to anyone about the issue. Almost 37% reported that they had, of which most had complained to the AWW (90%). Only 3% of the beneficiaries said they complained to the GPM, and less than 1% complained to other BCSP staff (see Table 43 below). Thus, the AWWs – in addition to being the main functionaries and service providers of the BCSP – also bore the brunt of most complaints related to cash delays. This posed a first challenge to effective social accountability, as effective 'voice' can only be granted if channels for redress are independent from the channels for programme implementation.

Under the BCSP, the AWWs were responsible for recording and submitting beneficiary data to the server, while other members of the implementation team were charged with ensuring that the correct

cash transfer reached beneficiaries. Therefore, it is unsurprising that only half of those who complained to the AWWs about delays in receiving cash also reported that their complaint had been solved, as the AWWs were not equipped to solve such problems.

Table 43: Grievance redressal

T-tests at endline: Grievance redressal			
Outcome/ indicator	**Extended conditions**	**Limited conditions**	**Overall**
Grievances			
Beneficiaries who have complained about delays in cash transfer	27.2**	39.9	36.5
	(2.52)	(3.97)	(3.01)
	422	426	848
People who beneficiaries complained to about cash delays:			
AWW	85.2	91.5	90.2
	(3.80)	(2.65)	(2.28)
	115	172	287
ASHA	7.4	3.8	4.5
	(3.28)	(1.97)	(1.72)
	115	172	287
GPM	4.5	2.8	3.1
	(1.88)	(1.35)	(1.15)
	115	172	287
ANM	0.9	1.4	1.3
	(0.95)	(0.99)	(0.82)
	115	172	287
Other BCSP staff	1.9	0.0	0.4
	(1.34)	(0)	(0.26)
	115	172	287
Other	0.0	0.6	0.4
	(0)	(0.57)	(0.46)
	115	172	287
Beneficiaries who said they got a satisfactory explanation/ their problem was solved	44.2	52.7	51
	(5.66)	(5.18)	(4.32)
	115	172	287

Source: BCSP Endline Survey (November 2016–January 2017).
Notes: (1) Asterisks (*) indicate that an estimate is significantly different to the relevant comparator, where: *** = 99.9%; ** =99%; * = 95%. (2) Appropriate Stata 14 commands were used to account for survey design.

The qualitative survey confirms the findings of the quantitative survey. Most of the beneficiaries covered in the qualitative survey, irrespective of their caste, suggested that they were not aware of a formal structure for grievance redressal. The beneficiaries mainly voiced their grievances on the issue of irregular or non-payments of cash to the AWW. Most of the beneficiaries who reported never having complained even to the AWW belonged to the Manjhi community. This, however, is not true for all the Manjhi women covered by the qualitative study or all women within the SC category. Women from other SC backgrounds registered having complained to the AWW. Other than approaching the institution of the AWW for grievance redressal, some beneficiaries suggested that

they complained to the GPM. However, since the GPMs stopped visiting the village after the programme's roll back, grievances remained restricted to the institution of the AWW.

> *Interviewer: "Did you complain anywhere after the money stopped?*
>
> *Respondent: "Yes, we went to the Anganwadi and spoke to others. I told some women to check in their bank accounts. If they get their money, I will get it too."*
>
> *Interviewer: "Did you complain to anyone?"*
>
> *Respondent: "Yes. We spoke to the man who used to send the messages for us. We asked him why we were not getting the balance even though we were sending the messages."*
>
> (BCSP Beneficiary, age 35, Extended conditions block)

8.4 Concluding remarks

This chapter looked at the social accountability 'pathway to impact' analysed within the BCSP theory of change. It aimed to understand whether beneficiaries had put pressure on service providers to improve the accessibility and quality of services, to enable them to meet programme conditions (demand). It also aimed to untangle whether the provision and quality of services (supply) was influenced by any other programme feature, including the incentive payments paid to AWWs and GPMs and the programme's pre-installed case management tool.

In relation to the **supply-side – service delivery – factors**, the evaluation showed the following:

- The role of BCSP in aiding the existing AWW responsibilities in terms of attracting more women to the VHSND, increasing compliance with vaccinations, and balancing the demand for THR. Similar benefits were felt by ANMs and ASHAs, who also played an important role in the delivery of BCSP (e.g. awareness raising and supporting VHSNDs).
- The perceived insufficient value of the monetary incentive ('lower than a manual labourer's wage') to justify the additional pressure, roles and responsibilities for the AWW. Similar claims were made by GPMs – whose role was essential in programme delivery, though for both job satisfaction played a role in contrasting this.
- Limited impact of BCSP on the stock availability at the AWC. For example, the stock of adult weighing machines increased just marginally and insignificantly, and there was no improvement in stocks of medicines such as IFA tablets and ORS/zinc packets.

On the **demand side**, the evaluation uncovered some interesting trends:

- An increase in government service uptake for ANC and child weighing, statistically attributable to the BCSP (and potentially linked to perceived increases in service quality).
- Limited impact of BCSP in reversing the preference for private services for health consultations. This is for a series of reasons that range from poor availability of doctors to poor quality of services at the government facilities to the distance of the facilities from the beneficiaries.
- Barriers to service uptake were not largely affected by the BCSP, as these were mainly attributed to factors beyond the programme's control: restrictions on mobility, poor road connectivity/distance, migration and low educational levels of the beneficiaries.

- Lack of any formal grievance redressal system, leading to limited opportunities for addressing issues with programme delivery. The AWW was the institution to whom grievances were most often reported (problematic, as not 'independent'), followed by the GPM.

9 Empowerment effect

9.1 Introduction

This chapter discusses the qualitative analysis of the impact of the BCSP on women's empowerment. Women's empowerment is an elusive and complex notion. There are multiple definitions of the concept. The definition offered by the UNICEF Women's Equality and Empowerment Framework is helpful as it is in line with the programme's objectives (reflected in the theory of change presented in Chapter 2). The definition emphasises 'women's access, awareness of causes of inequality, capacity to direct one's own interests, and taking control and action to overcome obstacles to reducing structural inequality' (UNICEF, 2001)[43] .

Empowerment effect: key evaluation questions

- Whether the fact that the cash transferred to the women improves their status within the household, their decision-making power, and control over resources and time use?

Secondary evaluation questions

- How are household decisions on general expenditure and nutrition specifically made in the homes of recipients receiving the money?
- What about wider decisions on health-related behaviour (e.g. access to specific services or choice to breastfeed or use a specific treatment)?
- Who makes these decisions, who with, and why?
- What was the role of the husband and mother-in-law in this decision-making process?
- What factors beyond cost-considerations affect decision-making?
- How, if at all, are decisions linked to BCSP different?
- Does this differ for different types of households and beneficiaries? Why and how is this so?
- What other aspects of 'empowerment' are affected by the programme (e.g. engagement in social networks, etc.).

BCSP was explicitly designed so that the primary beneficiary of the programme was pregnant or a mother of a young child. This was intended to increase the degree of autonomy, decision-making power, and control over resources for women, recognising that households are not unitary but collective entities. However, there was also a risk that the programme could reinforce traditional gender roles (e.g. the woman as home-keeper and carer) and potentially increase tensions and stress within the household (Bastagli *et al*., 2016). Moreover, in India – a society with a deeply entrenched patriarchal social structure – authority and decision-making often rests with the male members or elders of the family. While the programme sought to encourage women to have more autonomy over the cash received through the transfer, access and ownership of the money does not imply that women have authority or control over the money they receive.

[43] UNICEF *Gender Equality, UN Coherence and You.* Gender Training. https://www.unicef.org/gender/training/content/resources/Glossary.pdf.

This chapter addresses these issues, primarily through the analysis of our qualitative data collected at midline and endline – complemented and supported by analysis of the questions within the quantitative questionnaire.

Through qualitative analysis, the following themes in empowerment are explored in this chapter. Section 9.2 discusses general perceptions of change within the household. The impact of BCSP on decision-making on expenditure and health-related behaviour is discussed in Section 9.3. Sections 9.4 and 9.5 discuss the impact of BCSP on fertility and mobility, respectively, while Section 9.6 discusses its impact on financial inclusion.

9.2 General perception of changes within the household

Taking a step back from specific notions of empowerment, evidence from qualitative interviews suggests that the BCSP did not affect households dramatically, partly because the amount of cash received was often not sufficient to make a difference in longstanding power dynamics within the household.

Results from the endline quantitative survey show that 60% of women felt that their lives changed for the better after receiving the cash transfer (36% felt there was no change) – primarily as they were now able to eat more nutritious food (see Chapter 5, Section 1.3).

When specifically probed about negative consequences, a minority of women reported experiencing negative consequences because of BCSP cash transfer (3.9%)[44]. Of these 3.9 %, it was found that the negative consequences were primarily due to having less time for household activities (74%) and experiencing jealousy from other members in the community (78%). 20% reported increased physical or emotional abuse.

> *"Because earlier when money was not given then they (beneficiary women) used to live just like that. Now their way of living, speaking and all has changed. Even illiterate women also, when they visit the AWC they talk to Anganwadi didi very differently. It is like getting an education. They think that since Anganwadi didi speaks like that so we should also try to speak like her. And this is the first effect that we have. Because I was also not able to interact with others like this when I was not going to Anganwadi centre. I did not have the knowledge of this thing."*
>
> (BCSP Beneficiary, 23 years, limited conditions block)

Beyond the cash itself, some women found that by going to the AWC and attending VHSND their knowledge about childcare and nutrition increased. The cash that beneficiaries received from the transfer made them feel they could contribute towards their children's growth and well-being. They felt they no longer had to ask for money from their husbands, allowing them to be self-reliant. This increased their mobility, self-esteem and self-confidence, and enabled them to interact with others in the village and in the bank. However, when the cash transfer stopped, beneficiaries felt they were going backwards as they were unable to provide for their child.

[44] Data on negative consequences have been drawn for 3.9% (37 out of 946) people who said they had faced negative consequences.

9.3 Decision-making

Overall, the decision-making balance within the household does not appear to have been impacted by the cash transfer, though there is some evidence of decisions relating to the cash transfer being primarily taken by the beneficiary woman.

In the treatment blocks, it was observed that women who received the cash transfer more than five times were more likely to make decisions on expenditure using the money received. These women belonged to relatively well-off families in the village. This shows that BCSP achieved its aim of increasing decision-making power by transferring cash directly to the women. However, the consistency of the cash receipt and the socioeconomic status of the household were important factors in determining this.

However, the endline quantitative data show that cash transfers did not have too much impact on women's involvement in decision-making. At endline, a small percentage of women (15.6%) said they had more money and could decide on how to spend it, and only 9.5% said they had more say in household decisions as a result of receiving the cash transfers. A considerable percentage of women (50%) said that on receiving cash from the BCSP, their overall decision-making power within the household stayed the same. Only 23% said that their overall decision-making power changed. This differs from evidence from international studies on the impact of cash transfers on decision-making, which shows results in a positive direction: i.e. they observe greater autonomy over expenditure decisions in certain areas of expenditure as a result of the transfer (Bastagli G. , et al., 2016). Bastagli *et al*. (2016) cite Handa *et al*.'s study on PROGRESA (2009), which showed that a woman in the treatment group was 4.7 percentage points more likely to have autonomy over how her income was spent compared to the control group (Bastagli G. , et al., 2016).

Across different caste and social groups, the endline qualitative data found that multiple actors continued to be involved in expenditure-related decision-making, even though the cash transfer was intended for the beneficiary alone. Although beneficiaries were making decisions on expenditure either by themselves or jointly with their husbands, the findings show that husbands or other family members, such as the mother-in-law, father-in-law, and elder brother-in-law, still exercised control over money intended for the beneficiary. This is consistent with the qualitative findings from the midline report.

> *Interviewer:* *"… Who took the decision regarding how this money is going to be spent? (…)"*
>
> *Respondent:* *"My husband. (…) He knows what the child needs, what is necessary for the diet. "*
>
> (BCSP Beneficiary, 26 years, limited conditions block)

Even regarding a nutritious intake of food and diet for pregnant women and for new-born children, decisions continued to be taken by the husband and mother-in-law, showing that cash transfers did not seem to have made too much impact on women's decision-making on nutritious intake of food. This is consistent across all caste and religious groups.

Through qualitative fieldwork, it was found that the husband made decisions about health expenditure, especially private health care. Many women would use the cash transfer money to pay for hospital bills.

9.4 Fertility

Interviewer: *"… The money that you were receiving, you went with your father-in-law to withdraw it. Who decided how to spend this money? Did you decide? (…)"*

Respondent: *"Father-in-law spent it. "*

Interviewer: *"… So your father-in-law spent it. Did he spent it on his own accord or did you all decide how to spend it? "*

Respondent: *"He did it alone."*

(BCSP Beneficiary, 24 years, limited conditions block)

Evidence from international studies shows that cash transfers can decrease the likelihood of pregnancy and giving birth (Bastagli G. , et al., 2016). ODI's rigorous literature review refers to 10 studies that report on fertility (pregnancy or giving birth) and of the seven studies that yield significant results, five indicate that the transfer decreased the likelihood of pregnancy or giving birth. A systematic review on the impact of cash transfers on the use of contraception in low- and middle-income countries shows evidence of three studies that found a positive impact on contraceptive use, and four studies that found a decline in fertility outcomes (Khan, Hazra, Kant, & Ali, 2016). Quantitative data show that the proportion of women who had used modern contraceptives between the baseline and the endline surveys increased significantly from 16% to 21%. It also shows that 24% of beneficiaries use modern contraceptives, as compared to 17% of non-beneficiaries.

The endline qualitative data do not show a causal link between the possibility of receiving bonus payments and the likelihood of pregnancy. However, from qualitative interviews with the husbands of a few beneficiaries there is evidence that the husbands did desire to have children with birth spacing of three to four years. This is noteworthy as decisions on child bearing are primarily taken by the husband (and sometimes mutually); with women having little say in the number of children they want – especially if they do not have a male child. Thus, the cash transfer appears insufficient to push the needle on fertility decisions.

"Yes, he wants more children. He feels that his self-respect went down when his daughter was born. He wants a son only. He thought that I would have a son. Then he would have got my operation done. Now he wants one more son. But I think that one son and one daughter are enough."

(BCSP Beneficiary, 23 years, limited conditions block)

9.5 Mobility

Physical mobility is a strong indicator of empowerment, reflecting whether women in a household have autonomy with regard to their movement. The BCSP intended to have a positive impact on beneficiaries' mobility by making it mandatory for women to be present at the bank for withdrawal of the money and encouraging women to attend the VHSND at the AWC. However, the qualitative data found that women asked for permission to leave the house and could not travel alone, with the cash transfer having little impact on their mobility. This is in line with midline qualitative data findings.

Interviewer: *"You said that you got Rs 250? "*

Respondent: *"I went to bank to check the account. Then they said that Rs 250 has come. "*

Interviewer: *"Did anybody go with you? "*

Respondent: *"My husband went. "*

Interviewer: *"He went along with you. Why did he go along with you? "*

Respondent: *"I am a daughter-in-law and I cannot go anywhere alone. I need to take somebody along with me. My husband was at home so I went with him."*

(BCSP Beneficiary, 25 years, limited conditions block)

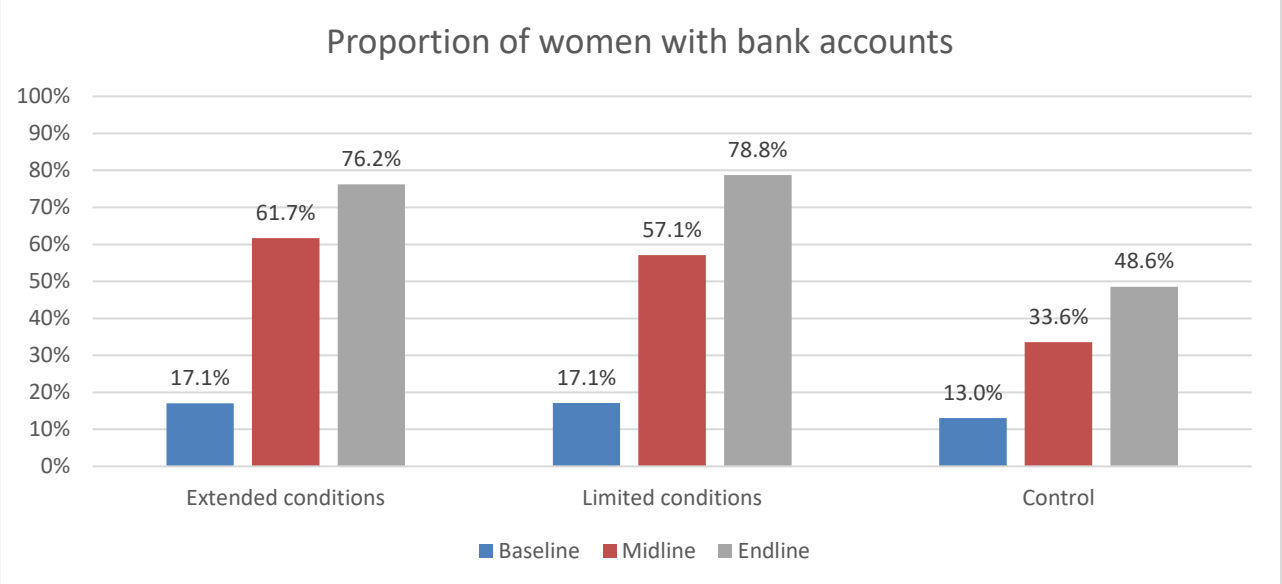
Quantitative findings from the baseline survey show that fewer than 50% of women were able to go alone to the local market or to the local health facility or doctor.

It was also observed that, across all caste and social groups, younger women (and especially new brides) in the villages were not allowed to go out alone, and would always be accompanied by a family member, such as mother-in-law, husband, or sister-in-law. Younger women would also be accompanied by a family member while going to the AWC or to the doctor. Older women, on the other hand, were more mobile and were able to go to the bank or the AWC alone.

9.6 Financial inclusion

Most of the beneficiaries did not have bank accounts before and opened their accounts for the first time through BCSP. Quantitative data show that at baseline 17 % of women, in both treatment blocks had bank accounts, and by endline the percentage of women with bank accounts increased to 76% in the extended conditions block and 78.8% in the limited conditions block.

Figure 31: Proportion women with bank accounts



As the programme made it mandatory for beneficiaries to be present at the time of withdrawal of the transfer, this enabled women to venture out into the market, building their self-esteem. According to a GPM, the BCSP encouraged women to go to the market and to the bank. He observed that

beneficiaries were encouraged by their mothers-in-law and husbands to go and withdraw money. He found that women were leaving their houses and going to the bank for the first time. Although qualitative analysis shows that women were encouraged by their families to go to the banks, they still had to seek permission to leave and could not travel unaccompanied.

> *"Then it has affected in good manner. Now they got chance to go outside. Some women were not so aware and they had never visited bank but they got to go due to this programme. Some women did not have account and now they have opened account for getting this money. Many women had never visited bank and when they went, they got to see many things. They somehow improved their knowledge. So this is good affect."*
>
> (BCSP Beneficiary, 24 years, limited conditions block)

> *"See what happened is earlier women who were not getting Rs 250 or did not have account….we got to smile on their face because they had never seen market before. But their mothers-in-law or their husbands also do not stop them now. In this area, everybody call me master sahib. So they used to tell master sahib conducted meeting and told that money have come. Then their husbands used to tell go and they used to even give Rs 10–20 as fare that you go and bring money."*
>
> (GPM, 40 years, limited conditions block)

9.7 Concluding remarks

BCSP was designed with the intention of increasing the degree of autonomy and the decision-making power of women within a household. The endline survey appears to indicate that a majority of women felt that the cash transfer had positively impacted their life and increased their self-esteem and self-confidence. The programme also appears to have contributed to knowledge of childcare and nutrition practices. Possession of bank accounts was crucial in increasing women's self-esteem.

However, the cash transfer had little impact in changing decision-making power within the household, with husbands and in-laws exercising primary control over money expenditure and nutrition intake for pregnant women. Through interviews with husbands, it was observed that family planning decisions still rested with the husband and showed a preference for male children.

The overall findings show that the BCSP does not appear to have had too much impact on women's mobility, decision-making, or fertility. However, slight changes can be observed, such as an increase in women's self-confidence and self-esteem, and the fact that beneficiaries who have received cash transfers with increased frequency are able to exercise control in expenditure-related decision-making. Given entrenched patriarchal structures, improvement in women's empowerment is a slow process.

Part C: Conclusion

This section provides summary findings and outlines various policy recommendations particularly pertinent for the new national Maternity Benefit Programme, the Pradhan Mantri Matritva Vandana Yojana (PMMVY).

Summary findings

This evaluation has provided an assessment of the impact and viability of the BCSP. This report examined the implementation status of the BCSP and findings from each of the four pathways to impact.

The BCSP was successful in designing a relatively smooth, automated system for conditional cash transfers with light-touch monitoring that **genuinely linked timely payments to adherence to conditions**. This use of routine data recorded on mobile phones by AWWs with automatic calculations undertaken by an MIS overcame the challenges of other cash transfer programmes in India whereby beneficiaries must self-calculate whether they met conditions and are eligible for cash, and 'push' payment requests upwards. The payment system of direct bank transfers worked well.

The presence of a dedicated implementation team was important in ironing out delays related to the transfer of cash. This team facilitated payment systems at the government end, after monthly beneficiary lists had been generated by the MIS.

One of the biggest challenges for the programme was low rates of enrolment. The evaluation indicates that this was due to high rates of seasonal migration amongst these communities and the inability of community-based enrolment to capture those not already engaging with public services. Additionally, traditional practices of migrating to the natal home during pregnancy prevented many women from enrolling and receiving the benefits of the programme. This is a particularly important finding for the design of future cash transfer programmes, which must invest in **more robust enrolment and awareness-generation activities**. Additionally, **a flexible design, which allows beneficiaries to meet conditions across different geographic locations, would be crucial** to improving enrolment rates amongst migrant populations.

The cash transfer appears to have had a positive impact on household expenditure, with **significant improvements in maternal dietary diversity.** In particular, increased spending on meat, vegetables, and sugar-based products was noted. Impacts that are more modest were seen in child dietary diversity, though the programme did increase the introduction of semi-solid foods after six months of age.

Households appear to have understood the pro-health and pro-nutrition messaging of the cash transfer, mostly spending the cash on food- or health care-related expenditure – though there was a missed opportunity in terms of the 'labelling' of the transfer, with a large proportion of eligible women recalling BCSP as the '250 rupee programme', not the *Bihar Child Support Programme*. Better labelling could have helped drive home the pro-nutrition intent of the cash transfer.

The BCSP has shown that a small-scale conditional cash transfer can have **large impacts on service uptake but limited effect on behaviour change.** The programme saw a large increase in VHSND attendance and uptake of services associated with the VHSND.

Overall, the programme saw significant increases in anthropometric and biomedical outcomes for both children and mothers – beyond the average impacts for cash transfers worldwide (Bastagli *et al*., 2016). **The programme led to a 7.7 percentage points decline in the proportion of**

underweight children and a **7.7 percentage points decline in wasting** amongst children in the treatment block. **No significant impact was detected on stunting**. This is line with the literature that shows the difficulty of impacting upon an indicator with complex underlying determinants in such a short period of time.

The BCSP led to a **9.4 percentage points decline in underweight mothers**. This impact was found to be largest for the most vulnerable communities, with **the largest differences being noticed amongst poorer, less educated women (and children) from SC households. Because of the BCSP, an additional 14 percentage points of women were no longer anaemic at endline, when compared to baseline.**

The improvements in anthropometric outcomes can be explained by increased dietary diversity amongst mothers and children and a frequent feedback loop created by the periodic growth monitoring, as required under the programme. This has important implications for the design of future conditional cash transfer programmes.

While the programme design envisaged a demand-side pressure on the health care system, this did not materialise as expected. **No significant improvements were seen on the supply side** and a preference for private health care providers remained. While the Community Monitoring Group was envisaged as a grievance redressal mechanism, it was unable to function because of requests for compensation that could not be accommodated in the programme design. In part, this can be attributed to the lack of an adequate incentive system. GPMs expended effort on awareness generation, bank account registration and grievance redressal but remained unhappy with the lack of sufficient incentives under the programme. With adequate incentivisation, GPMs could play a powerful role in a future programme design.

Modest impact was seen on the empowerment of women, though qualitative data indicate that this cannot be ignored. The cash transfer improved women's self-esteem and allowed mothers to contribute to the health and nutrition of their child. Within the confines of a deeply patriarchal society, such as exists in rural Bihar, this could be very important. The programme design also allowed women to access banks and financial systems, often for the first time. These improvements in financial and physical mobility, even if modest, are important.

The BCSP has demonstrated that it is possible to design and implement a complex, conditional cash transfer with minimal leakage through government systems in India. Such a cash transfer can be impactful in improving service uptake and improving anthropometric indicators for children and mothers. However, such a cash transfer has limited impact in changing nutrition-sensitive behavioural practices. The evaluation points to the importance of investing in multiple enrolment avenues for such programmes, as they run the risk of evading the most vulnerable populations. This study also highlights the importance of accounting for political risk within the programme and designing an exit plan with clear communication channels.

Policy implications

The findings from this report provide important lessons for the design of conditional cash transfer programmes in India. While the BCSP demonstrates that a small value conditional cash transfer can have a large impact on service uptake and nutrition outcomes, there are several design elements that could be improved upon.

A continuous, flexible enrolment process is necessary to ensure maximum inclusivity of the programme and to reach migrant populations. A longer registration window could help improve

enrolment statistics amongst more difficult-to-reach populations. This enrolment process must be complemented by **strong awareness-generation activities** that use multiple avenues to improve information channels about the programme. Community-based enrolment, which relies on the AWW alone, could miss people outside the traditional Integrated Child Development Services (ICDS) service net. It would be important to engage other actors (for example, ASHAs and Self Help Groups), potentially backed by an appropriate incentive structure. **Portability of services** under the programme would help both labour migrants and migrants to the natal home.

Additionally, **support must be provided to create accounts within banks and improve access to and understanding of the financial system**. Initial registration and lack of access to financial infrastructure prevented some eligible beneficiaries from enrolling in the BCSP. In some cases, misconceptions around minimum balance requirements prevented beneficiaries from withdrawing the monthly transfer.

The BCSP evaluation finds that most beneficiaries had a limited understanding of the programme conditions, with the simplest ones being the most recalled. Where these service uptake conditions were applied, the largest improvements in uptake through the pilot were seen. More complicated conditions regarding behaviour change were difficult to enforce and had limited impact. Thus, future conditional cash transfer programmes should focus on **simple, comprehensible conditions** that are easy for beneficiaries to understand and for service providers to enforce. Behaviour change conditions, if any, must be complemented **by strong counselling and communication services**.

This pilot saw minimal leakage in payment transfers and generation of payment lists. This can be attributed to the automated cash transfer through banks and to monitoring by the implementation team. **A small but dedicated implementation team** that monitors service providers, supervises payment process and eases any difficulties within the government system is important for the smooth transfer of payments.

Finally, cash transfer programmes cannot be assessed in terms of their impact on human capital alone - they have an equity goal as well. While the BCSP was not explicitly designed to reduce poverty, or targeted specifically at the poorest households; any government programme in rural India addresses poverty by default. Evidence from the evaluation of the BCSP suggests that low registration levels were caused by lack of awareness and migration during the registration window (often amongst the most disadvantaged social groups) – leading to a less progressive intra-village distribution. Great care must therefore be taken to ensure that implementation of similar programmes in the future include equity considerations.

Design checklist for successful conditional cash transfers

- ✓ Simple, comprehensible conditions that are easy to monitor and enforce
- ✓ Robust – and poverty-sensitive – awareness-generation activities
- ✓ Continuous enrolment and flexible programme design which allows for registration by migrant populations
- ✓ Portability of entitlements across geographical locations
- ✓ Incentive system that supports various stakeholders within the programme, focused on enrolment, and allows for a grievance redressal mechanism

- ✓ Dedicated implementation team which conducts light-touch monitoring and handles back-end technology
- ✓ Complementary counselling services to promote behaviour change
- ✓ Clear communication across all levels of programme, with a detailed exit plan

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