Bihar Child Support Programme

Executive Summary

Oxford Policy Management

About The Bihar Child Support Programme

According to the National Family Health Survey-4 (2015-16), nearly half of all children under the age of five years were stunted or underweight, and 60% of all women were anaemic in Bihar. To reduce the stubbornly high levels of maternal and child undernutrition in the state, the Government of Bihar started a conditional cash transfer pilot called the Bihar Child Support Programme (BCSP) in 2014. 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).

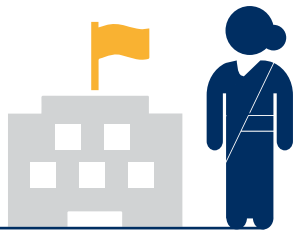
Women enrolled themselves under the scheme at the end of the first trimester of pregnancy and **received 250 rupees (Rs)** per month directly into their bank account upon meeting certain conditions.

30 Months

Each beneficiary was eligible to receive 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 2,000 Rs.** 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 9,500 Rs.**



The pilot was implemented in two blocks in Gaya District, Bihar, covering **261 Anganwadi Centres (AWCs)** for two years. In one block, Atri, the beneficiaries were expected to meet eight ("extended") conditions. In Wazirganj, beneficiaries were expected to comply with only four ("limited") conditions. The eight conditions are shown in the following diagram, with the limited conditions in the top row.

Conditions

Extended Conditions

Limited Conditions

Monthly Attendance at Village Health Sanitation and Nutrition Days

Weight Gain Monitoring during Pregnancy

Child Growth Monitoring

Correct Treatment of Diarrhoea (ORS and Zinc)

Receipt of IFA Supplementation during pregnancy

Birth Registration

Exclusive Breastfeeding under 6 months

Measles Vaccination

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

	Brief summary
Mohra (Pure control)	**No additional services or technologies provided**
Khizarsarai (Technology only)	**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**
Wazirganj (Limited conditions)	**AWWs received a mobile phone-based monitoring system. Beneficiaries had to meet four conditions to receive the cash transfer**
Atri (Extended conditions)	**AWWs received a mobile phone-based monitoring system. Beneficiaries had to meet all eight conditions to receive the cash transfer.**

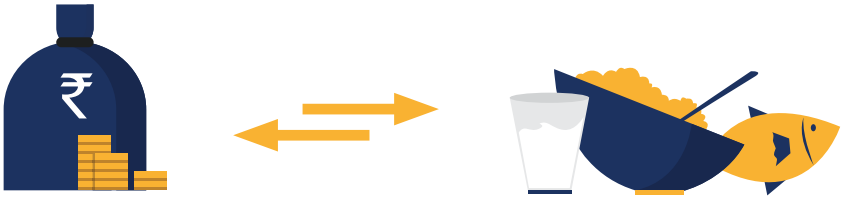
The purpose of having two control blocks, one with the supply side interventions but without the actual cash transfer but without the actual transfer of cash to beneficiaries (technology block), and one with nothing (pure control block), was to separate the impact of the conditional cash transfer from 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 the differences estimated between the treatment block and the technology only block represented the full impact of the cash transfer. Consequently, 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:

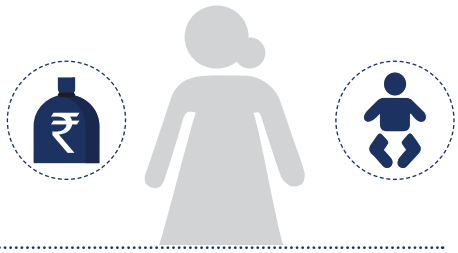


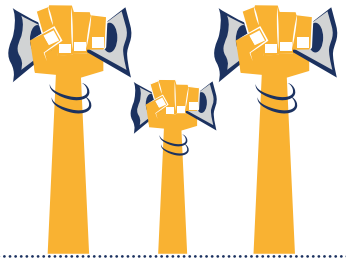
Resource effect:

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.

Conditions effect:

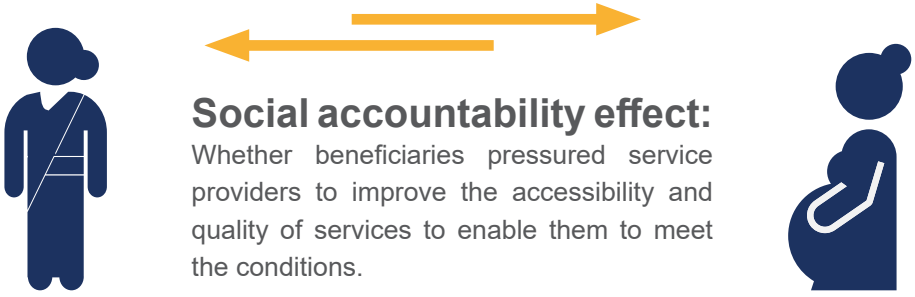
Whether beneficiaries changed their behaviours and sought out available services to meet the conditions.





Empowerment effect:

Whether the transfer of cash to the woman improved her status within the household and her decision-making power, control over resources and time use.



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 study was undertaken to analyse the effects of the BCSP. Quantitative and qualitative data were used to triangulate sources, and corroborate or refute findings and explain trends where possible. 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 baseline was conducted in autumn 2013, the midline was conducted in autumn 2015, and the endline was conducted in winter 2016/2017.

This allowed for a Difference-in-Differences (DID) evaluation specification to be used, which is considerably more robust than methods that simply compare levels of key indicators. The validity of the DID model requires the assumption about parallel trends to hold. Given that this assumption is untestable by definition, this remains a potential limitation. A second limitation arises from changes made to the survey instruments after the baseline to adapt for changes in programme design, which reduced 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 done 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.

[1]On 08 November 2016 the Indian government withdrew all notes with a denomination higher than 500 Rs. 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.

Key Findings: **Implementation Status**

The BCSP designed a complex and high-tech system 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 the government officials, ensuring minimal leakage. Data from the application was 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).

This system allowed automatic calculations, 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 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, **labour migration** (for example: for seasonal work in brick kilns) 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 problems 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.**

> **I was not aware at that time and also was not there at my home. I was at my mother's place.**

> **I could not register my name under this programme as I was working on Bhatta (brick kiln).**

- BCSP non-beneficiaries

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, 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 which 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 children and for themselves.

> **Earlier, we used to eat only rice, daal and all. Now we can eat rice with milk and vegetables also.**

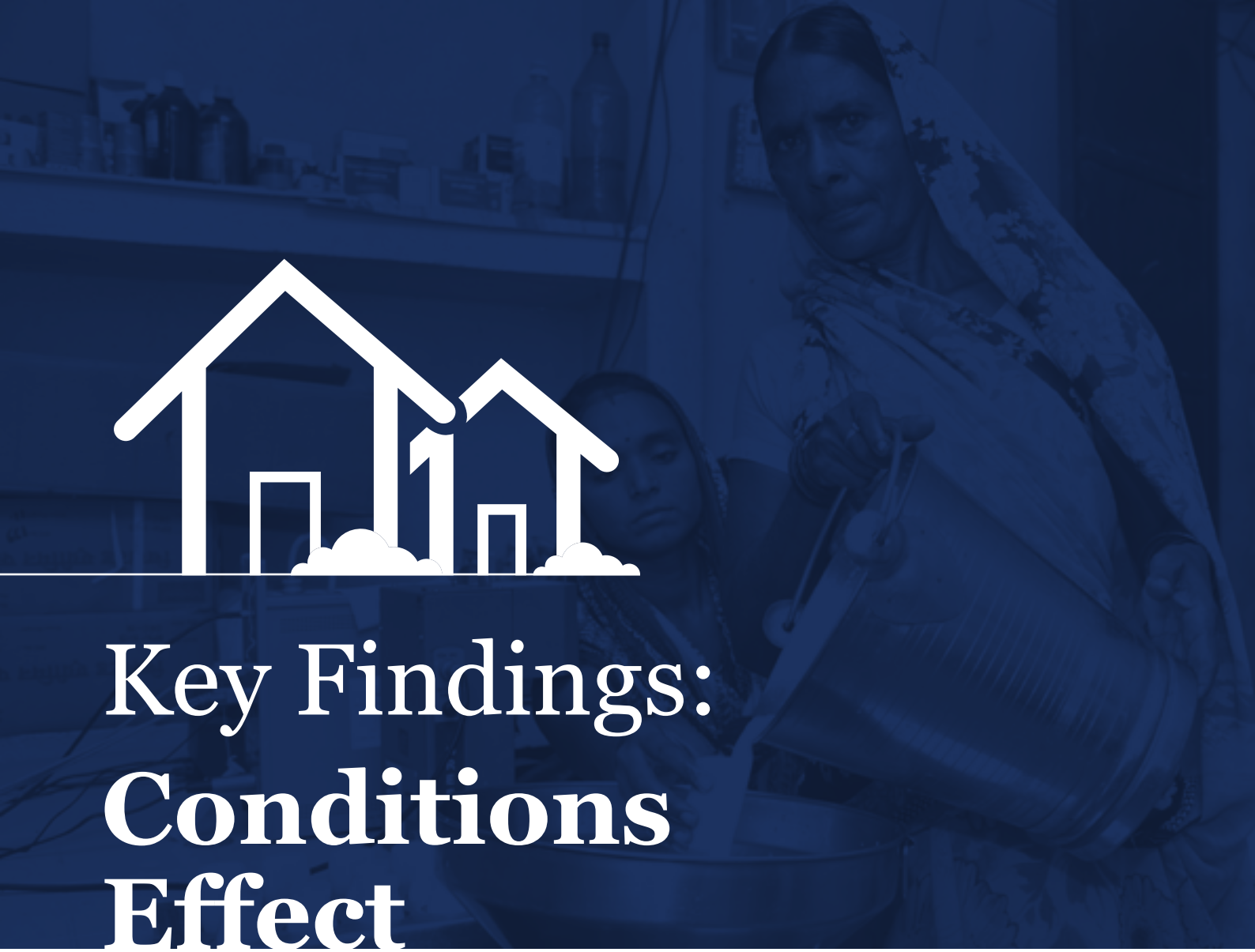
> **I spent Rs 250 on food. I would eat fish, gari and chohara (dry fruits), and fresh fruits.**

- BCSP Beneficiaries

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 diet diversity, 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)

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.

> **Women were not able to come for nutrition day. But from the time BCSP programme has started, every beneficiary in my village knows that they need to go on every Friday for Nutrition Day and for getting the weight of the child checked. Earlier, I'd to be behind them. Now, they are behind me.**
>
> - An Anganwadi Worker

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 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.**

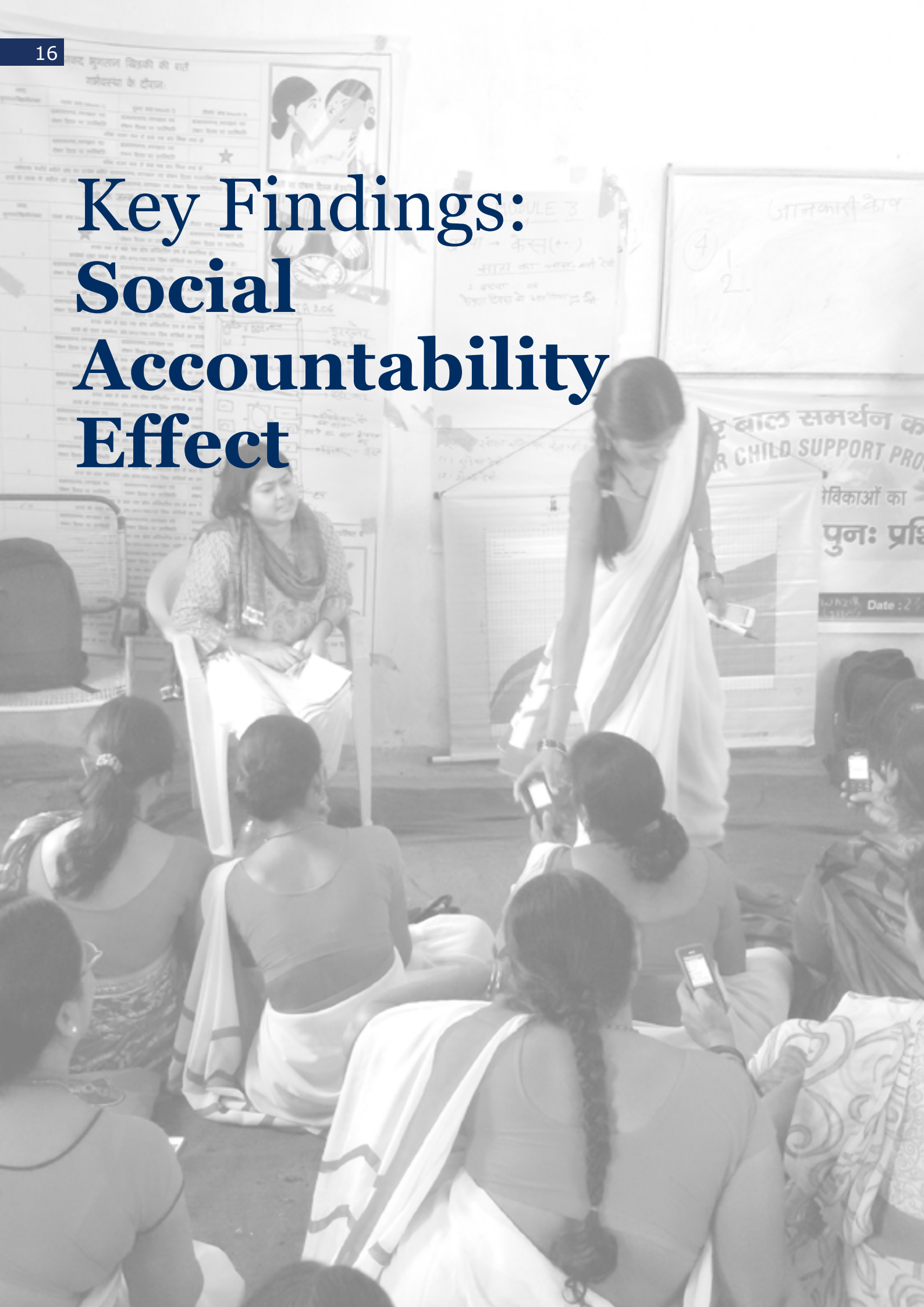
Overall, the BCSP experience suggests that a small value cash transfer can have large effects on service uptake but limited impact on behavioural practices, unless it is supported by strong counselling services and supportive enforcement.

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 long-standing 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 the 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 also played an important role in the delivery of the 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 the 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 the 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 14% decline from the baseline value of 56%.

BCSP also led to a **7.7 percentage points decline in wasting** amongst children in the treatment block. This can be interpreted as a 27% decline relative to the baseline level of 29%. **No significant impact was detected on stunting.**

The BCSP led to a **9.4 percentage points decline in the proportion of underweight mothers.** This translates to a 19% decline. 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.

> **I was able to feed my children, bring them up. The only advantage was that if there was ever a shortage of money, because of this money I was able to take good care of my child. They said his weight should not be less than 10 kg and he is 11.3 kg.**

- A BCSP Beneficiary

At the baseline, nearly 70% of women were anaemic. **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.

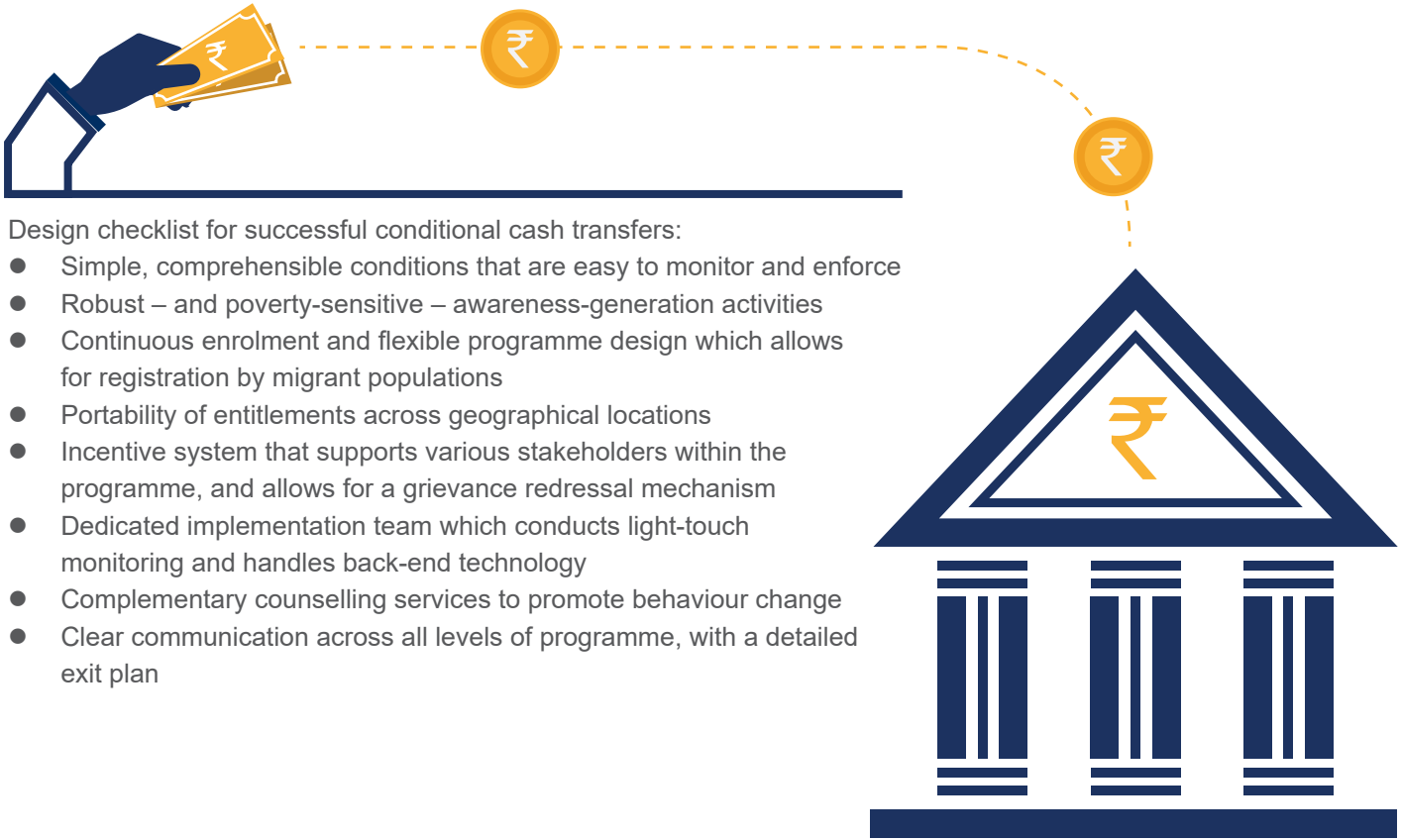
Significant positive impacts on health outcomes can be explained by a few factors. Firstly, the BCSP has had a **significant impact on diet diversity, especially amongst mothers.** The programme also saw **improvements in child feeding practices among children, specifically in the introduction of semi-solid 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 health, 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 health 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.

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 1,000 days of life (from conception to the child's second birthday) is widely recognized as the "window of opportunity for preventing undernutrition". Although stunting is virtually irreversible after the child turns two, persistent height deficits across malnourished and healthy children manifest only after the child crosses two years of age. 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, 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** which 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 the payment process and eases any difficulties within the government system is important for the smooth transfer of payments.

Oxford Policy Management in India

Since 2009, our India office has been based in New Delhi, and works closely with colleagues in the Oxford office and other select partners to provide public policy analysis, advice and support. It is supported by satellite offices in six states – Assam, Bihar, Chhattisgarh, Kerala, Maharashtra and Odisha – and a full-time presence in Goa, West Bengal and Rajasthan.

We have a staff of over 100 people, including tenured and project staff, and up to 400 data-collection staff engaged at any one time. Most of our technical staff are social scientists with strong academic backgrounds from leading international universities, who blend analytical rigour with extensive practical experience of working with and for government. Our senior technical staff are recognised as sector experts nationally and internationally. We can also draw upon expertise and insight from our global colleagues and project experience as necessary.

To know more about the Bihar Child Support Programme, please contact:

Shruti Viswanathan
Tel: (011) 4808 1111
Email: shruti.viswanathan@opml.co.uk

OPM India
4/6 First Floor,
Siri Fort Institutional Area
New Delhi - 110049

twitter.com/OPMglobal
youtube.com/opmglobal
facebook.com/OPMglobal
linkedin.com/company/opmglobal

For further information about OPM, visit our website at **www.opml.co.uk**