

# Designing Early Childhood Development Interventions in Bangladesh

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*Despite significant economic gains in recent decades, Bangladesh lags behind in child malnutrition, contributing to poor human capital development outcomes in the long run.*

In recent decades, Bangladesh has experienced a significant decline in poverty rates from 49 percent in 2000 to 24 percent in 2016, accompanied by improvements in human capital development.<sup>1</sup> Positive trends in child welfare were prevalent, measured by a reduction in child mortality, improvement in food security, and increase in educational attainment.<sup>2</sup> Between 2007 and 2019, child stunting decreased from 43 percent to 28 percent and wasting decreased from 17 percent to 10 percent.<sup>3</sup> Improvements in child mortality and nutrition can be attributed to positive trends in vitamin A supplementation and breastfeeding practices.<sup>4</sup> Exclusive breastfeeding increased from 55 percent in 2014 to 65 percent in 2017, while dietary diversity increased by over 12 percentage points during that same period.<sup>5</sup>

Despite these strides, malnutrition among children under five persists with Bangladesh having some of the highest rates of stunting globally.<sup>6</sup> Low utilization of antenatal services, with only 17 percent of women completing the recommended four visits during pregnancy,<sup>7</sup> might contribute to a high incidence of low birth weight and maternal

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<sup>1</sup> World Bank. 2019. [Bangladesh Poverty Assessment](#).

<sup>2</sup> Ibid.

<sup>3</sup> UNICEF. 2019. Bangladesh Multiple Indicator Cluster Survey.

<sup>4</sup> Bangladesh Bureau of Statistics. 2017.

<sup>5</sup> UNICEF. 2019. Bangladesh Multiple Indicator Cluster Survey.

<sup>6</sup> UNICEF, WHO, World Bank. [Joint child malnutrition estimates \(JME\)](#).

<sup>7</sup> UNICEF. 2017. [An Assessment of Coverage of Basic Social Services in Bangladesh](#).

undernutrition at 28 percent and 24 percent, respectively.<sup>8</sup> Disparities in incidence of stunting are based on maternal education and wealth, with children of mothers with no education having a higher likelihood of stunting compared to those with secondary education.<sup>9</sup> Low income in households reduces food consumption and dietary diversity for children, further increasing their likelihood of being malnourished.

The COVID-19 pandemic exacerbated socioeconomic conditions of vulnerable families with children by disrupting livelihoods and income, leading to a decline in child nutrition and increase in school drop-outs.<sup>10</sup> Estimates show that up to 40 percent of poor households in Bangladesh reduced food consumption when their incomes declined due to the lockdowns and economic slowdown at the start of the pandemic.<sup>11</sup> A year following the initial lockdowns, food expenditures remain lower than pre-pandemic levels. Moreover, a recent World Bank survey indicates that school closures is likely to decrease the learning-adjusted school years for children from six years to five years, translating into substantial economic loss in the long term.<sup>4</sup>

The decline in child development outcomes has long-term implications on the health and productivity of future generations, and consequently the overall economic growth in Bangladesh. Gaps in cognitive development resulting from poverty can be observed among children as young as seven months.<sup>12</sup> Investments made in the first 1,000 days of a child's life are critical in improving their cognitive development, physical well-being, and economic potential. Estimates show that investing in early childhood development (ECD) interventions can generate a 17 percent rate of return,<sup>13</sup> measured by improvements in nutritional indicators such as stunting and productivity in the long run. The rate of return of investing in human capital declines as a child gets older,<sup>14</sup> indicating the importance of programs that target the first 1,000-day period.

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<sup>8</sup> NIPORT, 2013. Bangladesh Demographic Health Survey, 2011.

<sup>9</sup> NIPORT, 2017.

<sup>10</sup> World Bank. 2021. [Bangladesh Overview](#).

<sup>11</sup> Rahman, H., Matin, I., Rahman, A., Das, N., Zillur, U., Ahmed, M., Hashemi, S., Wazed, M., Mozumder, T., Gain, S., Mohammad, F., Khan, T., Tasnim, M., and Jahan, N. 2021. [Livelihoods, Coping, and Support During the COVID-19 Crisis](#). BRAC Institute of Governance and Development.

<sup>12</sup> Hamadani, Jena, Fahmida Tofail, Syed Huda, Dewan Alam, Deborah Ridout, Orazio Attanasio, Sally Grantham-McGregor. 2014. [Cognitive Deficit and Poverty in the First 5 Years of Childhood in Bangladesh](#). Institute for Fiscal Studies.

<sup>13</sup> World Bank. 2017. [Well-Designed Early Childhood Development Programs can Pay Big Dividends](#).

<sup>14</sup> Heckman, James. 2008. [Schools, Skills and Synapses](#). Economic Inquiry, 46(3): 289-324.

*While the National Social Security Strategy in Bangladesh prioritizes programs that address life-cycle risks, early childhood interventions are limited in coverage.*

Bangladesh's National Social Security Strategy (NSSS) and 8<sup>th</sup> Five-Year Plan (8FYP) prioritize investments in ECD, particularly interventions targeting the first 1,000 days of a child's life. The NSSS aims to build an inclusive social security system that addresses human development, economic growth, and life-cycle risks.<sup>15</sup> In the medium-term, the NSSS will expand coverage of programs that focus on mother and children from extreme poor and vulnerable households. It identifies core ECD programming, including grants for households with children under four, school stipends, disability benefits, and strengthening supply-side interventions for immunization, childcare, health and nutrition, and water and sanitation. Between 2021-2025, the 8FYP will focus on improving maternal and child nutrition through education campaigns, nutrition counseling, and expansion of relevant social protection mechanisms.<sup>16</sup>

Despite prioritization of ECD interventions in national policies, social protection programs covering young children remain limited in Bangladesh. The largest portion (72 percent) of the social protection expenditure in Bangladesh targets the elderly, which forms 8 percent of the national population.<sup>17</sup> Meanwhile, only 1.6 percent of social protection expenditure is allocated towards children under five who represent 9 percent of the total population and 13 percent of the poor population. Programs such as the Maternal Allowance Programme for Poor Lactating Mothers, Shombhob, and the Income Support Program for the Poorest-Jawtno have been effective in reaching close to a million households with children under five through cash transfers and complementary interventions such as behavior change communication focusing on nutrition and maternal health. However, NSSS recognizes that there is still a wide gap between the current number of vulnerable households with children and the actual coverage of social protection schemes and aims to increase its investments in ECD programs accordingly.

Investments in basic service delivery, particularly in the health sector, will mitigate some of the challenges in achieving adequate child nutrition and maternal health. Despite a significant increase in the use of skilled birth attendants and a reduction in maternal mortality, Bangladesh lags behind other countries in South Asia and East Asia.<sup>18</sup> While progress has been made in exclusive breastfeeding among infants and feeding practices

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<sup>15</sup> GED, Planning Commission, Government of the People's Republic of Bangladesh. 2015. [National Social Security Strategy of Bangladesh](#).

<sup>16</sup> GED, Planning Commission, Government of the People's Republic of Bangladesh. [8th Five Year Plan \(July 2020-June 2025\)](#).

<sup>17</sup> World Bank. 2021. [Bangladesh Social Protection Public Expenditure Review](#).

<sup>18</sup> UNFPA. 2019

of children aged 6-23 months, nutritional deficiencies continue to be widespread.<sup>19</sup> Government spending in the health sector has been low at 0.7 percent of the GDP, which will be unsustainable as the spread of non-communicable diseases continue and the health system is threatened by new challenges stemming from the COVID-19 pandemic. The Annual Development Programme (ADP) allocation for social protection will increase significantly between FY2019-FY2025 to reflect the government's prioritization of basic service delivery. As a result of the pandemic, the Government of Bangladesh plans to increase public spending in the provision of social protection services from 1.2 percent of GDP in FY2019 to 2 percent of GDP in FY2025.<sup>20</sup>

*Based on global and local evidence, comprehensive social protection programs can improve child development outcomes and improve their long-term economic potential in Bangladesh.*

A holistic approach that promotes socioeconomic development and resilience can provide households with greater resources to invest in children's welfare and address life-cycle risks. Comprehensive social protection programs that include interventions such as nutrition behavior change communication, health access, food transfers, and psychosocial stimulation, have a stronger impact on child malnutrition measures including stunting and mortality.<sup>21</sup> Similarly, economic inclusion interventions can increase the income-generating capacity of vulnerable families and enable them to increase their investments in education and health services for their children, subsequently improving human capital outcomes.

Globally, comprehensive social protection programs that combine multiple interventions have proven to be effective in improving child nutrition, maternal health, and other human development outcomes compared to standalone cash transfers. In the short run, cash transfers can improve food security, nutrition, and health outcomes in a household, which inevitably has an impact on child well-being. When cash transfers are combined with integrated services such as livelihood support and access to health services, the impact on children can be enhanced. The first wave of programs that have demonstrated strong evidence in positive child outcomes include Oportunidades (formerly PROGRESA) in Mexico and Bolsa Familia in Brazil. Both programs require households to conduct regular growth monitoring of children and antenatal care visits during pregnancy. Oportunidades led to a decreased incidence of low birthweight by 45 percent, 17 percent decline in infant mortality, and 5 percentage point decrease in the likelihood of stunting

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<sup>19</sup> NIPORT. Bangladesh Demographic and Health Survey 2017-2018.

<sup>20</sup> Ibid.

<sup>21</sup> Little, M., Roelen, K., Lange, B., Steinert, J., Yakubovich, A., Cluver, L. and Humphreys, D. 2021. [Effectiveness of cash-plus programmes on early childhood outcomes compared to cash transfers alone: A systematic review and meta-analysis in low- and middle-income countries](#). PLoS Med 18(9): e1003698.

and underweight prevalence.<sup>22</sup> Similarly, Bolsa Familia led to a 26 percent decrease in likelihood of being stunted or underweight.<sup>23</sup> In Ethiopia, a nutrition-sensitive pilot integrated with the Productive Safety Net Program (PSNP) provided households with cash transfers and set conditionalities including regular antenatal care visits for pregnant women and immunizations and growth monitoring for children. An evaluation finds that dietary diversity increased by one food group, likelihood of children being breastfed after birth increased by 9.3 percentage points, and attendance in antenatal care sessions went up by 10 percent.<sup>24</sup> These impacts were greater than households that received the cash transfer alone.

ECD programs have demonstrated their ability to sustain health and economic outcomes of children in the long run. In Jamaica, the Reach Up program provided parents of children aged 9-24 months with training on how to engage children and create a stimulating environment to foster cognitive, language, and psychosocial development. An evaluation conducted 20 years after the end of the program found that participating children had higher educational attainment and earnings that were 25 percent higher than those who were not in the program.<sup>25</sup> In Indonesia, Program Keluarga Harapan provided households with cash transfers and co-responsibilities including antenatal care visits, deliveries with skilled birth attendants, and growth monitoring of children. An evaluation, conducted six years after the start of the program, found a 23 percent decline in child stunting, 50 percent decrease in the number of school drop-outs, and 23 percentage point increase in the use of skilled birth attendants.<sup>26</sup>

ECD-focused interventions have a history of positive impacts on child nutrition in Bangladesh. The Shombhob pilot was one of the initial programs to combine cash transfers with conditionalities related to maternal and child health. Findings from the pilot demonstrate an increase in consumption, reduction in wasting and stunting, and improvements in maternal knowledge and practices.<sup>27</sup> Building on the success of Shombhob, ISPP-Jawtno provides mothers with cash transfers, access to antenatal care,

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<sup>22</sup> Cruz, R., de Moura, L., and Neto, J. 2017. [Conditional Cash Transfers and the Creation of Equal Opportunities of Health for Children in Low and Middle-income Countries: A Literature Review](#). International Journal for Equity in Health. 16:161.

<sup>23</sup> Ibid.

<sup>24</sup> Gilligan, D., Arrieta, A., Devereux, S., Hoddinott, J., Kebede, D., Ledlie, N., Roelen, K., and Taffesse, A. [Integrating Service Delivery with Cash Transfers to Improve Nutrition in Ethiopia: An Impact Evaluation of the IN-SCT Pilot Project in Oromia and Southern Nations, Nationalities, and Peoples' Region](#). UNICEF.

<sup>25</sup> Gertler, P., Heckman, J., Pinto, R., Zanolini, A., Vermeersch, C., Walker, S., Chang, S., and Grantham-McGregor, S. 2014. [Labor Market Returns to an Early Childhood Stimulation Intervention in Jamaica](#). Science, 344(6187): 998-1001.

<sup>26</sup> Cahyadi, N., Hanna, R., Olken, B., Prima, R., Satriawan, E., and Syamsulhakim, E. 2020. [Cumulative Impacts of Conditional Cash Transfer Programs: Experimental Evidence from Indonesia](#). American Economic Journal: Economic Policy 2020, 12(4): 88-110.

<sup>27</sup> Ferre, C and Sharif, I. 2014. [Can Conditional Cash Transfers Improve Education and Nutrition Outcomes for Poor Children in Bangladesh? Evidence from a Pilot Project](#). World Bank Group. Policy Research Working Paper; No. 7077.

growth monitoring and monthly cognitive development counseling sessions. Monitoring data from the program shows higher uptake of antenatal care, greater responsiveness among children due to early stimulation activities, and greater savings for children's education and nutrition. Similarly, a pilot led by IFPRI and WFP in Bangladesh found a significant increase in dietary diversity, 7 percentage point decrease in stunting among children under four, and 68 percentage point increase in beneficiary knowledge of hygiene and nutrition practices.<sup>28</sup>

*By drawing on global and local best practices, the Government of Bangladesh can design effective early childhood development interventions that improve the physical and cognitive development of children.*

An inclusive and adaptive design that addresses the unique and evolving needs of children is critical for an effective ECD intervention. The following section outlines program design considerations in the Bangladesh context by drawing on the vast body of evidence and lessons from global and local ECD interventions.

### **Cash transfers**

Cash transfers can protect households against shocks by preventing negative coping practices such as reducing child food intake. A meta-study of cash transfers, including both conditional and unconditional cash transfers, demonstrates their ability to improve household food expenditures, dietary diversity, and nutritional status.<sup>29</sup> In addition, they enable households to increase their uptake of health services, prenatal care, and use of skilled birth attendants. Financial support from cash transfers can also reduce the mental burden on parents by providing them with greater economic stability, and allowing them more time and energy to interact with their children in a positive manner.<sup>30</sup> This has a positive impact on a child's cognitive development as maternal depression has been linked to poor physical and cognitive development of children.<sup>31</sup> Cash transfers provide a buffer against shocks by preventing a household of over-borrowing or acting as

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<sup>28</sup> Ahmed, A., Hoddinott, J., Roy, S., Sraboni, E., Quabili, W., and Margolies, A. 2016.

[Which Kinds of Social Safety Net Transfers Work Best for the Ultra Poor in Bangladesh?](#) International Food Policy Research Institute and World Food Programme.

<sup>29</sup> Bastagli, F., Hagen-Zanker, J., Harman, J., Barca, V., Sturge, G., Schmidt, T., and Pellerano, L. 2016. [Cash Transfers: What does the Evidence Say?](#) Overseas Development Institute.

<sup>30</sup> Ozer, E., Fernald, L., Weber, A., Flynn, E., VanderWeele, T. 2011. [Does alleviating poverty affect mothers' depressive symptoms? A quasi-experimental investigation of Mexico's Oportunidades programme.](#) International Journal of Epidemiology, 40(6): 1565-1576.

Engle, Patrice. 2009. [Maternal mental health: program and policy implications.](#) The American Journal of Clinical Nutrition, 89(3): 963S-966S.

<sup>31</sup> Minkovitz, C., Strobino, D., Scharfstein, D., Hou, W., Miller, T., Mistry, K., and Swartz, K. 2005. [Maternal Depressive Symptoms and Children's Receipt of Healthcare in the First 3 Years of Life.](#) Pediatrics. 2005 Feb; 115(2):306-14.

collateral.<sup>32</sup> In Lesotho, the Child Grant Programme had a positive impact on coping mechanisms for children living in labor-constrained households by preventing child labor or reducing food intake.<sup>33</sup> Similarly, the Child Grant Programme in Zambia indicates that cash received before a shock was more effective in preventing negative coping practices.<sup>34</sup> For cash transfers to be used as a protection against shocks, they must be provided in a timely, regular, and predictable manner to allow households to plan and budget appropriately.

Cash transfers used for productive purposes can enable households to generate sustainable income and invest in a child's education and health. Zambia's Child Grant Programme was able to increase long-term productivity of households by expanding their agricultural and business assets. Through increased income, families were able to invest more in their children's nutritional intake, reducing the frequency of diarrhea and incidence of wasting.<sup>35</sup> For a lump sum cash transfer to be effective, it must be a significant amount to help households jumpstart an income-generating activity such as livestock management or a small business that is suited to the local context. Globally, cash transfers provided for productive purposes can range from US\$ 200 – US\$ 600, depending on the context, and are determined by a market assessment that examines viable livelihood opportunities, projected returns, costs of inputs, level of competition, and market access.

### **Behavior Change Communication**

Integrating interventions such as behavior change communication can enhance a caregiver's knowledge and subsequently improve child outcomes. Majority ECD-focused programs are conditional cash transfers that incorporate interventions to promote behavior change related to maternal and child health. Training and raising awareness can fill information gaps and empower caregivers with information on how to effectively invest in health services during pregnancy, care for infants, and adopt positive nutrition practices. Research shows that integrating financial support with health and nutrition training has a significant impact on a child's physical and cognitive development. In Bangladesh, ISPP-Jawtno provided quarterly cash transfers with the requirement that beneficiaries attend regular antenatal care visits if pregnant, practice regular growth monitoring of children under five, and attend monthly child nutrition and cognitive development counseling sessions. A preliminary assessment indicates that almost 90

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<sup>32</sup> Daidone, S., Davis, B., Handa, S., and Winters, P. 2019. [The Household and Individual-Level Productive Impacts of Cash Transfer Programs in Sub-Saharan Africa](#). American Journal of Agricultural Economics: Volume 101, Issue 5.

<sup>33</sup> Carraro, A. and Ferrone, L. 2020. [How Effective are Cash Transfers in Mitigating Shocks for Vulnerable Children? Evidence on the Impact of the Lesotho Child Grant Programme on Multiple Deprivations](#). Innocenti Working Paper 2020-12.

<sup>34</sup> UNICEF. 2015. [Social Cash Transfers and Children's Outcomes](#).

<sup>35</sup> UNICEF. 2015. [Social Cash Transfers and Children's Outcomes](#).



percent of beneficiaries received antenatal care, which they reported as being helpful for giving birth to a healthy child. The counseling sessions and interactive learning activities were beneficial in boosting children's responsiveness and building their confidence to prepare for primary school.

Training content for behavior change communication interventions must be tailored to meet the needs and profiles of beneficiaries. Successful ECD programs in Bangladesh and other countries incorporate training on topics such as child feeding practices and dietary diversity, immunization, health and hygiene, child social and language development, and effective parenting. Given that majority of the beneficiaries have low levels of literacy, it is critical that training content is designed and delivered in a manner that is easy to access, retain, and apply. A combination of group and individual training can be a powerful tool to ensure cross-learning and sharing of helpful tips and practices related to childcare.<sup>36</sup>

### *Access to basic services*

Linkages to basic services such as health and education are key in reinforcing positive behavior change and sustained use of services. Behavior change communication can only be effective when access to services such as healthcare, immunization, schooling, water, and sanitation are provided to households. In addition to providing access to antenatal care, ISPP-Jawtno in Bangladesh provided households with support to obtain birth certificates for their children as a program requirement. By providing this complementary service upfront, the program can ensure that children are able to enroll in primary school in the future.

Stakeholder coordination across national and local governments, civil society, and private sector can create greater accountability and improve the quality of basic services for children and their caregivers. In the PSNP nutrition pilot in Ethiopia, social workers, school officials, health extension workers and others coordinated to ensure that participants were able to access and benefit from basic services. These partnerships are even more crucial in areas where supply-side and quality constraints persist and pose as barriers to participant success. In South Africa, inter-sectoral cooperation played an important role in increasing funding and access to ECD services related to health, education, water, and sanitation.<sup>37</sup> Similarly, in Cameroon, active engagement of community leaders in providing access to basic services led to increased birth registration and girls' school enrollment.<sup>38</sup>

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<sup>36</sup> Aboud, F. and Yousafzai, A. 2015. [Global health and development in early childhood](#). Annual Review of Psychology, 6:433-457.

<sup>37</sup> Garcia, M., Pence, A., and Evans, J. 2008. [Africa's Future, Africa's Challenge: Early Childhood Care and Development in Sub-Saharan Africa](#). World Bank.

<sup>38</sup> Ibid.



## **Monitoring and evaluating impact**

Regular follow-up and monitoring are critical to reinforce positive behavior change and ensure that households are on track to meet target outcomes. Monitoring entails tracking beneficiary and household performance along a set of key economic and health indicators, such as food expenditures, dietary diversity, application of nutrition and health training, incidence of child diarrhea or other illnesses at regular intervals. By tracking these outcomes, frontline staff are better equipped to guide beneficiaries through challenges and refer them to basic services such as healthcare. The use of a digital platform for monitoring can facilitate real-time data analysis and prevent any delays in linking households to services.

Robust evidence from programs that integrate multi-faceted interventions to promote child health and cognitive outcomes can inform national social protection policies and future ECD interventions in Bangladesh. An impact evaluation can supplement monitoring data from ECD programs and demonstrate the effects of providing holistic support to children from vulnerable households. Such an analysis should take into account the sustainability of impacts and long-term returns such as increased productivity or earnings. A costing analysis can be conducted to shed light on the cost-effectiveness of adding complementary interventions such as behavior change communication to existing cash transfers and inform national policy and scale-up of ECD programs.