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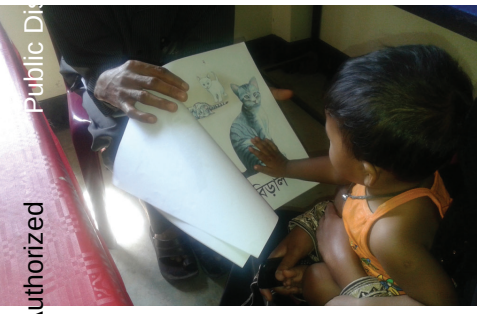
BANGLADESH: Can child stimulation messages be added to an existing platform for delivering health and nutrition information?

EARLY CHILDHOOD DEVELOPMENT

Development institutions and governments agree on the need to start early when it comes to children's healthy development. Early childhood is a critical time for both the brain and body, and it's important that children receive appropriate nutrition, health, stimulation and socio-emotional support in this period. But child development programs can be expensive and complicated to deliver—especially when they include home visits to show caregivers how to stimulate healthy development—and it's still not clear how best to design and deliver cost-effective programs in low-income areas. For example: Can information about best practices for keeping children healthy and stimulated successfully be delivered through established programs, like cash transfers or health services? What sort of training and mentoring is needed for successful home visits and can these be made cost-effective?



The Government of Bangladesh is working with a variety of partners on initiatives to improve early childhood development and provide the country's youngest citizens with a good start. Save the Children, an international non-governmental organization, designed and implemented a pilot program to provide new mothers with child development information during their visits to community health clinics and during regular home visits by health workers and family welfare assistants. The World Bank's Strategic Impact Evaluation Fund (SIEF) supported an evaluation to test the impact of adding this child stimulation component to a national nutrition program. The evaluation found that almost all families that received the additional services, including informational cards on child development and picture books, reported using them, and their children showed small to modest gains in cognitive, linguistic and physical development compared with children whose families were not offered the program. The results show that it is possible to supplement existing health and nutrition programs with an additional component to improve children's cognitive development in the early years, before they start any formal school program. However, almost 50 percent of households didn't get the materials as expected, underscoring the challenges of using an already existing system of government community clinics and community outreach to deliver additional services. As policymakers in Bangladesh and in other countries seek successful approaches for supporting healthy child development, this evaluation provides promising evidence that the health sector can be used to improve young children's development but also a cautionary lesson in the challenges of broadening existing health programs to include other components.

Context

Bangladesh has made considerable economic and social progress in the past decade, and as poverty rates have fallen, health, nutrition and education services have become increasingly accessible. But the country continues to have one of the world's largest populations of malnourished children, with 36.4 percent of children under age 5 showing signs of stunting, according to 2014 World Bank figures, a rate that is higher among the country's rural poor. Stunted children aren't just very small for their age; stunting also often results in cognitive delays that can harm their ability to learn and reach their full potential.

The government's National Nutrition Services was launched in 2011 to promote healthy nutrition for young children and pregnant women and to better integrate services into health and family planning activities. This program relies on routine home visits by community health assistants and family welfare assistants, along with women's visits to community health

clinics, as platforms for delivering information on nutrition, micronutrient supplements and deworming medications. Save the Children's pilot sought to use this existing infrastructure to deliver additional messages on child stimulation—why it's important and how to do it—and give mothers special cards and booklets on child development and picture books for the children. The cards and booklets were illustrated so they could easily be used by illiterate mothers. The plan was that women would receive the materials and verbal information on child stimulation when they visited clinics and when community health and family planning workers visited their homes. Health clinic staff and these community workers were given extra training by Save the Children on how to incorporate the early stimulation messages into their visits and events. By integrating the program into the government's existing community health infrastructure, Save the Children hoped to create a low-cost program that would be scalable nationwide. As designed, the program would cost less than $7 per child. The program ran from 2013 through 2015 and targeted mothers with children under age three.

Evaluation

With support from the Strategic Impact Evaluation Fund, a randomized control trial was built into Save the Children's pilot program to understand the impacts on child development and measure the effectiveness of integrating the program into an existing government service. The program was implemented in three rural subdivisions where the National Nutrition Services program had already started: Satkania, in Chittagong region; Muladi, in Barisal region; and Kulaura in Sylhet region. In these three areas, 78 community clinics and the households in their catchment areas were randomly assigned either to receive the Save the Children program or to be the control group, which didn't receive anything apart from usual government services and the National Nutrition Services program. The research team conducted the baseline survey between November 2013 and January 2014, before the clinics were randomized into the two groups. Endline data was collected between September and December 2015.

The research team used several tools to evaluate children's development, including the Bayley Scales of Infant and Toddler Development, specifically the subscales which assess cognitive and language skills. They used as the Wolke Behavioral Rating Scale, which assesses children's socio-emotional development, and they used a modified version of the Home Observation for the Environment tool (HOME) to measure the frequency and quality of early stimulation in the home. In addition, the team collected monitoring data from a random set of service providers and households, including information on the delivery and use of child development materials.

Recommendations for program implementation

- Laminate child development cards so they can't be easily damaged
- Make it possible for the child development card to be hung on a wall to reduce the chance it gets lost

Results

The program had positive impacts on the cognitive, linguistic and socio-emotional development of children in families that were supposed to receive the materials and information on child stimulation and development.

Children in the treatment group showed better cognitive and linguistic development at the end of the program period when compared with children in families who were receiving only the usual health and nutrition services. They also scored better on measures of socio-emotional development and other behavioral-related skills. The program impact was twice as good

This policy note is based on Chinen, M. & Bos, J.M. (2016). *Final Report for the Impact Evaluation of the Save the Children Early Childhood Stimulation Program* in Bangladesh. Washington, DC: American Institutes for Research.

when comparing families who actually received the materials and messages—about half of those eligible—with children in the control group.

Children in families eligible for the program also had better physical development, perhaps because their families were more likely than families in the control group to take advantage of the government's nutrition support program.

Children in families that were supposed to receive the stimulation messages showed anthropometric improvements in terms of weight for age and also in terms of weight for height when compared with children in families that did not live in program areas. In addition, there was a drop in the percent of children severely underweight, wasted and severely wasted.

The changes weren't expected because the program didn't include a component to encourage better nutrition or health. But after the program, households in the treatment group were more likely to utilize services provided to families through the government's National Nutrition Services program, which may be the reason behind their children's better growth. This program uses health clinics and regular home visits by community health and family planning workers to promote and support nutrition services for pregnant women and young children. The Save the Children pilot program on child stimulation used the same clinics and community health workers—both groups received special training on the new messages and materials—and perhaps informing families about healthy child development strengthened their use of the nutritional services. Families that had at least one of the four early stimulation materials were significantly more likely to have the growth monitoring card and more growth monitoring check-ups, part of the National Nutrition Services program, than families in the treatment group that didn't receive any of the materials. Moreover, households in the treatment group also were more likely than those in the control group to report that they fed their children eggs, fish, chicken, or meat.

Community health workers, including those who handled family planning, were supposed to distribute the cards, booklets and picture books when they made their routine home visits and when mothers visited health clinics, but almost 50 percent of eligible families didn't remember receiving anything.

Parents were supposed to receive these materials during their visits to the local health clinic or during home visits by community workers. During these visits, mothers were also expected to receive special counseling sessions on the importance of early stimulation and how to provide it. However, only 53 percent of families recalled receiving one or more of the four materials—a development card, a booklet and two picture books—that were supposed to be handed out. In most cases, people reported that they received the materials during routine health visits to community clinics and to the immunization centers; 18.5 percent reported that they received the materials during routine home visits from community workers. Mothers and others caregivers also received far fewer counseling sessions on how to use the materials than the program expected: Save the Children intended that women with children would get at least three sessions, whether in the home or clinic, while pregnant women would get 15 over the course of the program. Forty-four percent of women recalled having only one session, 41 percent said they had two and 12 percent said they received three. However, because the messages were being delivered as part of the regular activities of

health assistants and family planning assistants, it's possible some women received the stimulation information and didn't identify it as a separate activity.

There was no statistically significant difference in the number of visits women made to clinics or the number of visits they received from community workers when compared with the control group: about one visit over the prior six months to the health clinic, and one visit each from a health and a family planning assistant. But women did spend almost two minutes more per visit in the clinic and they were more likely to report that that community workers they met spoke about early childhood development and how to use the materials they were handing out.

The materials were widely used by households that received them.

Households that received the program materials—whether special cards with key messages or picture books—reported using

the materials and about 95 percent said they used them three to seven days a week. Almost all mothers reported using the materials, as did 30 percent of fathers and 15 percent of mothers-in-law, according to what program participants reported. About half of mothers also used the materials with their other children. And mothers continued to use the materials over the course of the program—at the endline survey, 90 percent of mothers said they were still using the picture books and development cards.

Apart from the problem of getting all materials distributed and ensuring women received the expected number of conversations with health workers on child development, the program faced other implementation issues that could have affected the impact.

The program was supposed to run for 20 months, but in practice it was implemented over a 12-month period, largely because of delays in getting various government permissions. This meant community workers had a shorter period of time in which to distribute materials and hold informational sessions; and this also reduced the period in which women could be expected to visit a health clinic.

The other possible problem was that in more remote areas, families may infrequently visit clinics and there may be some who don't regularly attend community meetings. So if they didn't get the materials during a routine home visit by a community health worker, they were less likely to receive the information at all.

Conclusion

Giving parents the tools they need during a critical window in their children's development can create real change in the lives of those who need it most and as the evidence underscores, it's also possible without creating large and expensive new programs from scratch. Meeting parents where they already are—in this case, the health clinic or in their homes—and providing them supplementary information can go a long way in making sure that children have the tools early on to reach their full potential. It can also be a cost-effective way to support child development messages because a new program doesn't need to be created to deliver the information. However, wrapping a new program into an existing one can pose some problems, as this evaluation found, and it's important to understand the challenges when devising such an approach. For example, it's important to ensure those delivering the program have the capacity—not only knowledge, but time and incentive—to take on additional responsibilities.

The Strategic Impact Evaluation Fund, part of the World Bank Group, supports and disseminates research evaluating the impact of development projects to help alleviate poverty. **The goal is to collect and build empirical evidence that can help governments and development organizations design and implement the most appropriate and effective policies for better educational, health, and job opportunities for people in developing countries.** For more information about who we are and what we do, go to: http://www.worldbank.org/sief.

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