BRIEFING PAPER
March | 2016

Measuring The Value Of A Baby Friendly Community Intervention In Nairobi's Slums

Introduction

Nutrition in the first 1,000 days of life (during pregnancy and in the first two years of life) is critical for a child's growth, wellbeing and survival; undernutrition causes about half of all under-5 deaths, according to the Lancet.

Kenya's Ministry of Health has adopted the Baby-Friendly Community Initiative (BFCI) in its 2012-2017 national nutrition action plan as a strategy to provide comprehensive support to mothers at the community level to improve maternal, infant and young child nutrition and health – with an emphasis on protecting, promoting and supporting breastfeeding. BFCI is a high impact nutrition intervention, with great potential to accelerate reduction in child malnutrition and mortality. Full implementation of the BFCI will not only help to ensure healthy babies have healthy mothers, but can have benefits at the family and even community levels because of its wider social value.

This brief documents a social evaluation of the benefits of a baby-friendly community intervention in two Nairobi slums, using the Social Return on Investment approach. This recognized methodology seeks to value the social impact of a program or intervention by placing a monetary value on outcomes that have a non-financial return such as happiness, understanding or whatever. In this context, we examined the cost of the investments into the intervention (the inputs) and compared them to the financial, social and environmental impacts of the baby friendly initiative (the outcomes). In demonstrating that there was an SROI, we suggest a compelling need/interest for similar community interventions to be replicated and scaled across Kenya to help mothers and children have the healthiest start to life.

7 Principles of SROI

- Involve stakeholders
- Understand what changes
- Value what matters
- Include only what is material
- Avoid over-claiming
- Be transparent
- Verify the result

> "Measure what is measurable, and make measurable what is not so."
> Galileo

The SROI Process

- Establish scope and identify key stakeholders
- Explore the theory of change
- Map outcomes
- Give outcomes a value
- Establish impact
- Calculate the SROI ratio
- Report and disseminate

Background on the Baby Friendly Community Intervention

From 2012 to 2015, the African Population and Health Research Center in collaboration with the Unit of Nutrition and Dietetics and the Unit of Community Health Services implemented a baby friendly community based intervention. It aimed at improving breastfeeding and other infant feeding practices, and consequently nutritional and health outcomes of children in two urban poor settings in Nairobi: Korogocho and Viwandani.

1100 women were recruited during pregnancy and followed up until their babies were one year old. The mothers received regular, personalized, home-based nutritional counseling by Community Health Volunteers trained on Maternal Infant and Young Child Nutrition (MIYCN).The intervention was evaluated for effectiveness using the cluster-randomized controlled study design involving an intervention and a control group. The rate of exclusive breastfeeding for six months increased from about 2% at baseline (before the intervention) to approximately 55% in both groups. The prevalence of stunting for children aged 6-12 months reduced from about 33% at baseline to about 30% in the intervention, while this increased to 38% in the control group. The SROI analysis, carried out between March 2015 and March 2016 aimed to establish additional outcomes over and above the outcomes established through the effectiveness analysis of the intervention.

Estimating the Social Return On Investment

The SROI approach not only gave voices to the mothers but also the grandmothers, fathers and other stakeholders including: community health volunteers, health workers, day care center owners, and community leaders who were indirectly impacted by the intervention. It valued real or 'perceived' changes and identified unintended outcomes, some of which were negative. Examples of key changes reported by the stakeholders are presented below as positive outcomes and negative outcomes

Positive Outcomes

Mothers	
Outcome	**Participant Comments**
Improved infant feeding practices and hygiene	*"Mine is doing well, I didn't know about clinic and breastfeeding the baby till six months, because I have another one whom I started giving milk at two weeks. So it has helped me because this one has not been as sickly as the other one" (FGD, Mothers, Nairobi slums).*
Healthier mothers	*"I was worried because I felt…first of all we were being told that she didn't have enough blood in the body and we were told that she should eat certain fruits and there are some small beans that she was told to eat so that she can have blood in the body… the change that occurred, mostly was she was healthy…By the way it is good because when she (CHV) was there she (mother) became healthy" (FGD, Fathers, Nairobi slums)*
Improved health seeking behavior	*"I didn't know the importance of clinics. Those other four children of mine didn't get all the four required immunizations but this one has got all the immunizations and I started going to clinic early". (FGD, Mothers, Nairobi slums)*
Empowerment •Increased confidence to make appropriate MIYCN related decisions	*"When I gave birth, my husband told me that I should stop working until the baby is 2 years, so my mother-in-law was asking, 'Is the baby an egg that he should be breastfed for 2 years?' She said that when the navel heals, the baby should stop breastfeeding. So based on what we were taught by the CHV, his father refused, so we decided that the baby breastfeeds for 6 months and then he starts eating, and then he continues to breastfeed until 2 years and put my job aside". (IDI, Mothers, Nairobi slums)*
Reduced risky behavior	*"So they also helped us by giving us those teachings on what you should eat while pregnant so that when you deliver you give birth to a healthy child and you avoid some things like operation. Like me I really used to smoke cigarettes while pregnant but when she came and talked to me I wasn't able to stop but I was able to reduce because of caring for him" (FGD, Mothers)* *"you know girls used to hide their pregnancies, when she gets pregnant their girlfriends tell her 'come and remove this thing ' but right now if she gets pregnant she knows that the child is hers and the child has a right to live. So the most important thing is that abortions have reduced" (FGD, Grandmothers, Nairobi slums)*

Fathers	
Outcome	**Participant Comments**
Increased involvement in child care	*"It was excellent because not many people feel that the father should also take care of the baby, people just think it's the mother…" "I was taught…..and I was told to at least be participating also….." (IDI, Father, Nairobi slums)*
Increased involvement in family planning	*You know my child and the other one follow each other so closely so when we were told about family planning… I decided "let me leave them to grow" so I don't have stress of children…right now I have some years before I get another child as I look for a job," (FGD Fathers).*
More productivity and wellbeing and improved living standards •Reduced illnesses •Decreased health expenditure	*"It helps my life because at times if I was going to work, you see if I wake up at eleven o'clock in the night to go to Kenyatta, I will leave there in the morning, so I won't go to work tomorrow." (FGD fathers) (IDI, Fathers, Nairobi slums)*

Children (from their mothers)	
Outcome	**Participant Comments**
Reduced illness and malnutrition	*"We used to go to hospital often and spend money that was not to be spent. Before dawn, we didn't have a net so the child used to fall sick with malaria because of mosquitoes, but we were taught that a net is important. I used ksh.200 to buy a net but it helped me because in a month I would take the child to hospital two or three times and I would pay not less than ksh.500 or ksh.1000, so I feel that it did boost me" (IDI father)*
Better developmental milestones	*"Yes I have seen changes because that child, even people ask me "why is your child growing so fast?" because right now s/he is a half a year and s/he is walking and I told them it is the mother who used to teach me (CHV)" (FGD, Mothers, Nairobi slums)*

Grandmothers	
Outcome	**Participant Comments**
Less burden of care • More responsible young mothers	*"It has helped me too because if it was not for the teachings, I would not being going to my work, I would be there because I am taking care of that child, she doesn't know how to wash her child but she was taught what to do…So it has helped me" (FGD, Grandmothers, Nairobi slums)*
Improved health	*"Even me since the day they (CHV) taught us, even when I go to the rural areas I don't drink water that is not treated or boiled…. there was a cholera outbreak here in our community, people didn't die in our community" (FGD, Grandmothers, Nairobi slums)*

Mothers, Health Workers & CHVs	
Outcome	**Participant Comments**
Improved relationships • Dispelling myths • Improved hygiene	*But after being taught I felt that is stupidity, its diarrhea and if you keep your child clean it can't diarrhea all the time and that will eliminate conflicts of unfaithfulness between a husband and a wife in the house" (FGD, Mothers, Nairobi slums)* *"The changes I have observed on the part of the mother, she knows these things about breastfeeding the baby and maintaining hygiene more than in the past. Therefore, the family has stabilized" (FGD, Mothers, Nairobi slums)*
Increased confidence for CHVs	*"When you advise them and they listen to you it motivates you so much and you know as I was trained, with my training I am giving back to the community and they listen and follow up, you feel happy*"(FGD,CHVs, Nairobi slums)
Increased income for CHVs from the incentives	*"I was earning little doing casual work when MYCN was not there, I used to put pending things that could wait because I didn't have money to buy that thing at that time. But when MYCN came and added me that income, the ones that I had put pending I used to do little by little… (FGD CHVs, Nairobi slums).*
Increased health care staff due to increased referrals	*"Actually right now we have a nutritionist, we never used to have, the nurse was doing everything but due to increased referrals they (NGO) posted a nutritionist here, after seeing our data, they saw that there was a need in Korogocho, somebody needs to support for the figures to stop increasing". (KII, Nurse, Nairobi slums)*

Negative Outcomes

Mothers/Families	
Outcome	**Participant Comments**
Loss of livelihood • Some mothers had to make critical changes stopping to work so that they can optimally breastfeed their children	*So based on what we were taught by the CHV, his father refused, so we decided that the baby breastfeeds for 6 months and then he starts eating, and then he continues to breastfeed until 2 years and put my job aside. (FGD, Mothers, Nairobi slums)*
Increased expenditure on food Due to buying more nutritious food	*"ever since I delivered the economy has to really go up because the baby needs food, you have to prepare its food separately. Previously you never used to cook separately for the baby, but now if the baby wants bananas you buy for it, you buy for it whatever it wants. So if you cook for the baby plus what you will eat, the cost becomes high. It must just go up" (FGD, Mothers, Nairobi slums)*
Stress and difficulties in transitioning from EBF	*"up to six months the baby was fine but when I started giving him/her food, the baby reduced in weight and started being sickly" (FGD, Mothers, Nairobi slums)*
CHVs	
Increased psychosocial and financial stress for CHVs	"you go to counsel a mother and she tells you 'I even did not eat, I slept hungry' So I used to be forced to call (another team leader) because at times I did not have money, …So we were forced to contribute and give her. Maybe the mother has three days since delivery, you cannot tell her to go and work. So you will have to support her…. So it was a big change that I did not expect" (FGD, CHVs, Nairobi slums)

What is the BFCI Investment Worth?

The total intervention cost (including cost to the implementer and stakeholders) was US$ 420,000, while the value of the outcomes (from the stakeholder perspective) was estimated at US$ 8 million. So the SROI ratio (present value of the outcome/total cost of input) is US$ 71:1 meaning that for every one dollar spent on the intervention, there were 71 dollars of social value created for 5 years. Sensitivity analysis was used to test the variables and assumptions with base and new scenarios. The sensitivity analysis showed that the ratio can fluctuate from 34 to 136 depending on new case values.

Conclusion

The baby friendly community intervention demonstrated many benefits, not only in improving breastfeeding practices and nutritional outcomes, but also other unexpected benefits that could only be accounted for and quantified using the SROI approach. There were also key negative outcomes identified, for example women foregoing work in order to optimally breastfeed their children since their workplaces were not supportive. Community health volunteers also underwent psychosocial and financial stress emanating from the level of poverty in the communities they were working in. Future interventions should consider such potential negative outcomes and find measures to mitigate them which may include finding social protection measures for vulnerable populations.

Policy Recommendations

1. National and County Governments and Donors
    - Fund BFCI as a priority health promotion tool. BFCI has many far reaching positive impacts on the health and wellbeing of both family and community members including, mothers, fathers, children and grandmothers.
    - Support the community health strategy by providing incentives for community health volunteers and adequately training CHVs on handling psychosocial issues.
    - Empower the community economically through social protection measures such as job creation and support of mothers who wish to successfully combine work with breastfeeding.
    - Include fathers in BFCI interventions as they are a key determinant to its success
2. Researchers, NGOs, Donors
    - Adopt SROI approach in evaluation of interventions in order to manage unexpected outcomes and value social outcomes.
    - Build the capacity of program implementers to include SROI in their evaluations.

Contributors

Elizabeth Kimani-Murage, Sophie Goudet, Betty Samburu, Caroline Wangui, Teresia Njoki, Milka Njeri, Frederick Murunga Wekesah, Peter Muriuki, Ruthpearl Ngángá, Daniel Adero, and Paula Griffiths

Further Reading

1. Kimani-Murage EW, Kyobutungi C, Ezeh AC, Wekesah F, Wanjohi M, et al. (2013) Effectiveness of personalised, home-based nutritional counseling on infant feeding practices, morbidity and nutritional outcomes among infants in Nairobi slums: study protocol for a cluster randomised controlled trial. Trials 14: 445

2. Kimani-Murage EW, Norris SA, Mutua MK, Wekesah F, Wanjohi M, Muhia N, Muriuki P, Egondi T, Kyobutungi C, Ezeh AC, Musoke RN, McGarvey ST, Madise NJ, Griffiths PL. Potential effectiveness of Community Health Strategy to promote exclusive breastfeeding in urban poor settings in Nairobi, Kenya: A quasi-experimental study. (Developmental Origins of Health and Disease [DOHaD] Journal; 2015 Dec 28:1-13.

3. London Business School, New Economics Foundation and Small Business Foundation (2004). Measuring social impact: the foundation of social return on investment (SROI). Retrieved from http://sroi.london.edu/Measuring-Social-Impact.pdf

4. Nicholls, J., Lawlor, E., Neitzert, E., & Goodspeed, T. (2012). A guide to social return on investment (2nd ed.). UK: The SROI Network. Retrieved from http://www.thesroinetwork.org/publications doc_details/241-a-guide-to-social-return-on-investment-2012

"This research brief is produced with support from the research consortium Transform Nutrition, and is funded by the UK Department for International Development (DFID). The views expressed do not necessarily reflect the UK Government's official policies".

'' The original intervention study was funded by the Wellcome Trust, UK''.

African Population and Health Research Center

Ministry of Health

APHRC Campus, Kitisuru
P.O. Box 10787 - 00100, Nairobi, Kenya
Tel: +254 20 400 1000
www.aphrc.org | @aphrc

transform nutrition

Supported by wellcome trust