Social Return On Investment

Assessment Of A Baby Friendly Community Intervention In Urban Poor Settings, Nairobi, Kenya

SHORT REPORT **March | 2016**

This report outlines the impact of the Maternal Infant and Young Children Nutrition (MIYCN) project by the African Population Health Research Center (APHRC) that aimed to improve the health and nutritional status of children and inform implementation of the government's Baby Friendly Community Initiative (BFCI). The Kenyan 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. While a healthy mother and child is the primary outcome, BFCI has far reaching advantages to the family and even community. These additional findings presented here are based on Social Return on Investment (SROI) analysis, an accepted method of measuring the social impact of programs

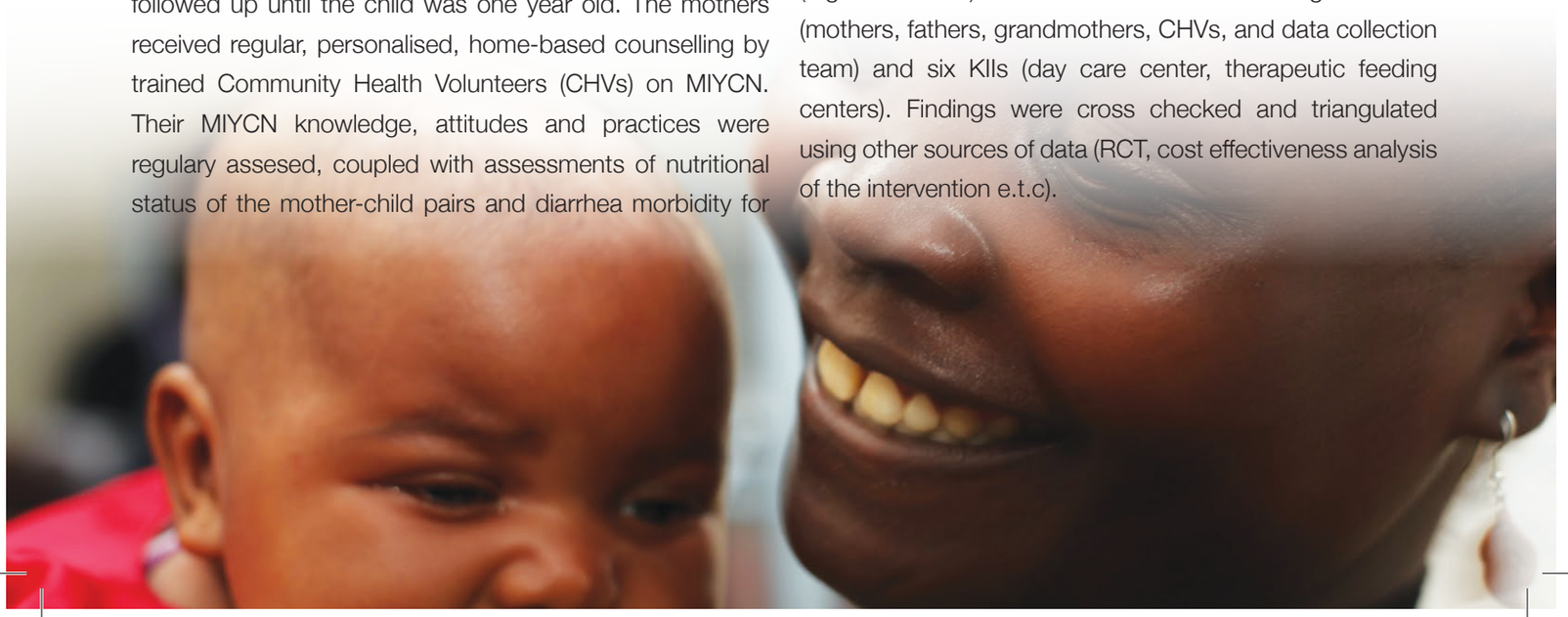
Background

APHRC in collaboration with the Unit of Nutrition and Dietetics and the Unit of Community Health Services, Ministry of Health implemented a Maternal Infant and Young Children Nutrition (MIYCN) research project to assess the effectiveness of the intervention on improving exclusive breastfeeding in urban poor settings. The randomised controlled trial (RCT), involving an intervention and a control group, was funded by the Wellcome Trust from 2012 to 2015 and conducted in Korogocho and Viwandani slums, Nairobi, Kenya (Kimani-Murage et al., 2013). 1100 pregnant women and their children were recruited into the study and followed up until the child was one year old. The mothers received regular, personalised, home-based counselling by trained Community Health Volunteers (CHVs) on MIYCN. Their MIYCN knowledge, attitudes and practices were regulary assesed, coupled with assessments of nutritional status of the mother-child pairs and diarrhea morbidity for the children. The rate of exclusive breastfeeding for six months increased from about 2% at baseline (before the intervention) to approximately 55% after intervention 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.

Methodology

The SROI analysis, carried out from March 2015 to March 2016 intended to establish additional outcomes over and above those established through the effectiveness analysis. The stakeholders (organisations or people who were impacted by the project) included: mothers, children, siblings, fathers, grandmothers, healthcare providers, MIYCN project data collection team and day care centers.

Data collection was by a mixed methods approach; focus group discussions (FGDs), key informant interviews(KIIs), in depth interviews (IDIs), quantitative stakeholder survey, and value games. The qualitative approach explored the impact of the intervention on the different stakeholders using data from eight FGDs, 15 KIIs and 14 IDIs with a total of 161 participants. The quantitative stakeholder survey assessed the level of impact (frequency of people reporting an outcome), assessed measurable values, explored costs, duration and comparison with if the project had not taken place. Data were collected on 281 participants (separate questionnaire for mothers, CHVs, grandmothers, day care centers, business community, health care providers and data collection team). Value games were used to place values on outcomes which did not have a market value (e.g confidence). These were conducted using 16 FGDs (mothers, fathers, grandmothers, CHVs, and data collection team) and six KIIs (day care center, therapeutic feeding centers). Findings were cross checked and triangulated using other sources of data (RCT, cost effectiveness analysis of the intervention e.t.c).



Using SROI analysis, stakeholders identified perceived outcomes and their value using financial proxies. Some of the results were as expected (e.g. having healthier children, mother being healthier), some identified other outcomes that were not expected (e.g. women receiving more support from their spouses) and interestingly, some of the impacts identified were negative (e.g. increased level of stress for mothers who after gaining knowledge from the counselling had to worry about how to apply it optimally in the context of limited household incomes). In total 34 outcomes were identified, 11 of which were negative outcomes (Table 1).

Table 1: Outcomes identified per stakeholder group

Red is negative, black is positive unintended and green is positive intended.

Stakeholders	Outcomes
Mothers	Outcome 1.1: Increased expenditure on nutritious food and/or health care
	Outcome 1.2: More worried mother due to loss in baby weight and poor health
	Outcome 1.3: Less worried mother due to better health of her children
	Outcome 1.4: Decreased expenditure on food and/or healthcare
	Outcome 1.5: Confident mother to take children to health check ups
	Outcome 1.6: Having less burden of care
	Outcome 1.7: Improved relationship at home
	Outcome 1.8: Less stressed mother
	Outcome 1.9: Less income due to job loss
	Outcome 1.10: Healthier mother
	Outcome 1.11: Receiving more support from father
Children	Outcome 2.1: Healthier baby
	Outcome 2.2: Less healthy baby
	Outcome 2.3: Better Cognitive development
Siblings	Outcome 3.1: Improved school performance for siblings
	Outcome 3.2: Healthier sibling
Fathers	Outcome 4.1: Increased support to mother and child
	Outcome 4.2: Increased labour participation
	Outcome 4.3: Improved living standards at home
Grandmothers	Outcome 5.1: Reduced stress
	Outcome 5.2: Happier grandmother
	Outcome 5.3: Decreased healthcare expenditure
Healthcare providers	Outcome 6.1: Decrease in workload
	Outcome 6.2: Increased workload
Community health volunteers	Outcome 7.1: Financial strain
	Outcome 7.2: Increased stress
	Outcome 7.3: Increased confidence
Data collectors	Outcome 8.1: Increased income
	Outcome 8.2: Increased confidence
	Outcome 8.3: Increased stress
	Outcome 8.4: Financial strain
Daycare centers	Outcome 9.1: Increased stress
	Outcome 9.2: Increase in expenditure
	Outcome 9.3: Increased attendance of children

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.

The chain of events described how one outcome led to another to end with the identified outcome. For example, the outcome 'mothers were less worried' was at the end of the following chain of events: "the counselling of mothers on household hygiene resulted in improved knowledge and better household hygiene practices. Babies were reported to have less diarrhoea and increased weight gain. This resulted in fewer hospital visits and reduced expenditure on health care. Mothers were less worried".

A similar chain of events was detailed out for each outcome using participant citations which provided a deeper understanding of how the intervention impacted people's lives. Financial proxies were identified to value the impact of these outcome with or without the market value. For outcomes such as 'increased cost of healthcare and nutritious food', we asked stakeholders in the quantitative questionnaire and used the average cost. For outcomes such as 'mothers were less worried' or 'data collection team members were more confident', we used willingness to pay in value game exercises (see example on page 4). We estimated the number of stakeholders who reported the outcome based on frequency in stakeholder questionnaires with inference to the general population. The duration of the outcome was estimated based on stakeholders' responses in the questionnaire.

In the analysis, skills and health related outcomes with life lasting impacts were limited to 5 years. Assumptions took into account other organisations or people that contributed to the impact (attribution), if the intervention displaced activities (displacement), what would have happened anyway (deadweight), and what would be the decline over time (drop off). Assumptions were also made to determine current and future financial values using a discount rate.

Table 2: Summary data of impact and present value per stakeholder group and year

		Discount rate		6.5%				
		Present value per year						
	Total impact	**Year 0**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total Present value**
Mothers	5,363,010	5,363,010	5,035,690	3,797,333	2,176,684	1,636,006	1,227,893	19,236,616
Children	1,334,900	1,334,900	1,253,428	941,542	707,261	531,276	399,081	5,167,488
Siblings	1,257,541	1,257,541	1,180,790	886,978	666,275	500,488	375,954	4,868,026
Fathers	59,287	59,287	55,669	41,817	31,412	23,596	17,725	229,506
Grandmothers	111,284	111,284	104,492	78,492	58,961	44,290	33,270	430,789
Healthcare providers	-115,969	-115,969	-108,891	-81,796	23,460	17,623	13,238	-252,336
CHVs	49,407	49,407	46,392	34,848	33,850	25,427	19,100	209,025
Data collection team	857	857	804	604	467	351	264	3,347
Day care	-6,346	-6,346	-5,958	-4,476	-1,410	-1,059	1,208	-18,042
APHRC								
Total	**8,053,972**							**29,874,419**
SROI ratio per amount invested	**71**							

So the SROI ratio is USD$ 71:1 meaning that for every one dollar spent on the intervention, there were 71 dollars of social value created after 5 years. The sensitivity analysis showed that the ratio can fluctuate from 34 to 136 depending on new case values.

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. **Each USD$ 1 invested in the project was estimated to bring USD$ 71 of social value for the stakeholders.** 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 USD$ 34 to 136 depending on new case values. The SROI ratio is mostly sensitive to variation in value of outcomes that were based on value game exercises, deadweight and frequency used in key outcomes.

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

Valuing social outcomes

The Value game was used to determine the monetary value of outcomes without market values. In the case presented below, the grandmothers were willing to pay Ksh. 60,000 to be happy and Ksh 90,000 to have a lesser burden of care

Steps in SROI Value Game

1. The grandmothers individually list at least 3-4 material items they can be bought/paid for them that can last at least a year
2. The list is compiled and the grandmothers list the items in order of priority - What would make them happiest to least happy
3. The grandmothers then place the outcome of interest in the ranked outcomes - again in order of priority
4. The material items are then ranked according to their worth in monetary value for one year. From the most expensive to the least expensive
5. The outcomes of interest are then placed back to their original positions and valued.
6. Finally, the grandmothers were asked if they agreed with the value of the outcome of interest.

Policy Recommendations

The SROI evaluation concluded that scaling up MIYCN would be a valuable investment based on the SROI ratio and stressed that unintended negative outcomes would need to be addressed and minimized in future programming.

Here are recommendations for future programming or scale up.

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

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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

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