



Inspiring Married Adolescent Girls to Imagine New Empowered Futures

Economic Evaluation of the CARE IMAGINE Project in Niger and Bangladesh

Part 2: Findings on Cost effectiveness

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To learn more about CARE's IMAGINE project and obtain reference materials please visit: https://www.care.org/our-work/health/adolescent-health/imagine/

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Executive Summary

Overall, the Inspiring Married Adolescent Girls to Imagine New Empowered Futures (IMAGINE) project was found to be reasonably cost efficient and cost effective, although costs were on the high side, largely driven by income generating activities (IGAs) that comprised more than three quarters of the total budget. In terms of effectiveness, for Niger the increased use of contraception resulted in a cost per DALY of £552, which is deemed cost effective according to WHO guidelines. Moreover, for both countries there have been some reasonably good secondary benefits at the qualitative endline, achieved by all IMAGINE activities, at an annual cost per beneficiary of \$379 and \$398 for Bangladesh and Niger respectively. Based on external benchmarking these figures are on a par with other similar programmes.

Going forward for future funders, cost efficiency can be improved by streamlining costs for incoming generating activities and integrating health worker transformation within the broader health system. Effectiveness can be improved by modifying the theory of change to target unmarried girls, increasing the timespan of the project (outcomes take time to materialise), and changing the emphasis of outcomes – instead of birth delay using the outcome of birth spacing instead for example. This will collectively improve cost effectiveness.



Introduction

This report is the second part of a two-part economic evaluation of the Inspiring Married Adolescent Girls to Imagine New Empowered Futures (IMAGINE) program implemented in Niger and Bangladesh. The overall objective of this economic evaluation is to understand costs, efficiency and results in order to inform potential future funders for similar programming at scale.

Part 1 evaluated the costs and efficiency of the IMAGINE program and part 2 (this report) evaluates costs against effectiveness findings from the quantitative and qualitative endline evaluation. This report bring all the findings together to recommend a cost structure for a future program benefiting from IMAGINE's cost efficiency and cost-effectiveness lessons.

Evaluation Questions

The following evaluation questions have formed the basis of Part 1 and 2 of this economic evaluation:

- 1. What is the cost of implementing IMAGINE?
- 2. Which IMAGINE program components are the most cost-efficient?
- 3. What is the cost-effectiveness ratio for the IMAGINE program (e.g., cost per month of pregnancy delay)?
- 4. How could the cost of implementing IMAGINE change at scale?

The first report answered questions 1 and 2 and drew overall conclusions. This report will seek to answer questions 3 and 4. Question 3 is adapted to the findings of the endlines, as there were no results on the primary outcomes of a delay in pregnancy.

Scaler Perspective

This evaluation is taken from the standpoint of an implementing agency that wishes to replicate and scale up IMAGINE in a similar country contexts. These user or adopting organizations could be the governments of Niger and Bangladesh, or other non-government actors, that may wish to widen and roll out elements of this programming and understand the costs and benefits of doing so. For this reason, the cost analysis only includes costs that would be relevant for a government or other user organization in replicating, institutionalizing or otherwise scaling elements of the programming. With this in mind, the following types of costs were excluded, as it was determined that they would not be incurred by future scalers or replicators and/or are not critical to operationalization of the IMAGINE program:

- Design costs (e.g., costs for formative research, human-centered design process, curriculum and tool development).
- Evaluation costs (e.g., data collection sub-awards, evaluation and research design and management).



- Knowledge management and dissemination costs (e.g., costs of attending international, regional conferences, developing briefs and learning materials).
- Grants management and donor relations costs (e.g., costs associated with regular calls and updates to the donor, annual reporting etc.).
- International NGO overhead.
- Costs donated in-kind (e.g., private-sector partner's time to coach entrepreneurs).
- Costs incurred by the end-user (e.g., girls', Fada members' and community members' time to participate), although it should be noted that these costs likely are marginal.

Methodology and Analytical Framework

This paper takes a quantitative and qualitative approach with the aim of understanding whether the programme as a whole was cost effective, and whether certain elements of it were cost effective. It will explore how much was spent to achieve the positive results observed, and a judgement on whether this is deemed cost effective or not. Judgements are based on expert analysis of the data, and benchmarking with similar programmes and their costs (data permitting). Specifically the following steps are taken:

- a) **Quantifying** or further qualifying/**isolating** the benefits from the quantitative and qualitative endline into DALYs or narrative format. So for Niger the quantitative benefits are: Current contraceptive use, Modern contraceptive use, Ever use of contraception. These can be converted into CYPs and then DALYs. The Niger narrative benefits are changes in attitudes to birth spacing and income generation. For Bangladesh the narrative attitude changes were: Ideal timing of first birth Expectations about FP use, Expectations about delaying childbirth.
- b) Exploring which specific **interventions** most likely **caused** the benefits in (a)
- c) **Assigning costs** to those interventions or the programme as a whole in (b) (already done in the activity based costing exercise in part 1). Costs are in various formats, annual cost per beneficiary, or cost per girls collective etc.
- d) Bringing (a), (b) and (c) together in a meaningful way, e.g. cost per DALY or , £x per beneficiary was spent, which delivered y and z expectations about FP use in Niger. With narrative explanation for all estimates benchmarking the findings where possible.

Data permitting the paper aims to recommend ways on improving cost effectiveness, e.g. improving intervention intensity, or dropping certain interventions, or modifying the design.

Please refer to the part 1 economic evaluation (efficiency report) for the cost effectiveness framework that underlies all the analysis.

Data sources

The following data sources were the most relevant in the analysis:

- Part 1 cost efficiency study which has a detailed analysis of expenditure incurred by IMAGINE activities.
- Endline qualitative and quantitative research reports



• Interviews with project staff

Analysis

This section goes through each of the steps of the methodology as explained above.

a. Isolating the Quantitative and narrative benefits from endline

For effectiveness data, the data is taken from the endline qualitative and quantitative findings of the (Reports by Dr G. Samandari and Far Harbour respectively). The findings relevant to this this economics report from the endlines are summarised below for the two countries.

Niger

In Niger, in terms of primary outcomes - the use family planning amongst beneficiaries was significantly greater in treatment group compared to control group. A greater percentage of respondents in the treatment group (34.1%) endorsed ever using contraception than in the control group (19.1%). Likewise, more respondents in the treatment group reported currently using contraception (29.4% treatment v. 17.7% control) and using a modern method of contraception (24.7% treatment v. 13.6% control).

There were fewer impacts of the intervention on secondary outcomes (e.g., personal agency and social expectations constructs) in Niger than in Bangladesh. However, respondents in the treatment group in Niger reported greater health service utilization, social and economic mobility, and engagement in income-generating activities than respondents in the control group.

The qualitative research found for Niger that health benefits and birth spacing was a key driver to changing attitudes on birth delay in Niger. The girls also implied that they wanted both, income generating activities and (early) births, they didn't see income generating activities as a reason to delay birth. Girls agency to make decisions has not changed much, consent from family and husband was still necessary at the endline.

Key informant interviews suggest that the results could have been different if the theory of change was different. Central to the theory of change was the focus on married girls. In Niger, it was perhaps too late to target married girls, as decisions had been taken and girls had less agency to change life plans. This can be seen by the fact that pregnancy was already in train for married participants during the IMAGINE programme. Many married girls dropped out of programme. They were following husbands in migrating communities, and some husbands were suspicious and would not let them attend the Girls Collectives. Towards the end of the programme 969 out of 1318 girls (63%) in the girls collectives' were unmarried. These were the most actively engaged in the IGAs, and performed the best. They were also the ones who said in the focus groups that the project had the most impact, and they will discuss with future husbands about having money, and then delay birth.



So targeting unmarried girls by default (not part of the IMAGINE theory of change) was the main success in changing attitudes of the project for Niger. This can be classed as an unintended positive consequence.

Bangladesh

In Bangladesh, there were no intervention differences in primary family planning use outcomes, including rates of current or lifetime use of contraception, and few differences in health and economic indicators. Significant impacts of the IMAGINE intervention were observed for many of the secondary outcomes. Respondents in the treatment group showed greater improvements in family planning perceptions, reproductive health knowledge, and psychosocial outcomes (e.g., social cohesion, collective efficacy) than respondents in the control group.

The qualitative report found that the majority of respondents in Bangladesh mention money or financial stability as a key factor in supporting delaying birth. Respondents link early birth with increased poverty and see girls' work outside the home as a positive contribution to the overall well-being of the family. Husbands in particular cited economic reasons as a major incentive to support girls delaying and pursuing work outside of the home.

The married girls themselves attributed this shift to a positive reinforcement loop occurring in communities: The more people see girls learning and working outside the home, the more acceptable it becomes for girls to do so. However there still remain barriers and ambivalence.

Participants themselves attribute this ambivalence to certain demographic characteristics, noting that those in more rural areas, people with less education and older generations are less likely to support delaying birth or girls' pursuit of work outside the home compared with more literate and younger groups. This might suggest that being against delaying birth is increasingly considered an "old" or "backward" way of thinking in these communities.

In Bangladesh there is a definite drive towards less children overall, unlike Niger, where birth spacing appears to be the main driver for change.

b. Determining causality between the interventions and benefits

The quantitative endline did not specifically explore the causality between specific IMAGINE components and the results observed. The qualitative research however shed some light on this. For Bangladesh when asked where the changes in attitudes toward early birth stem from, nearly all participants cited either the IMAGINE project or the Kishori Clubs (Girls' Collectives) as sources of education and learning (with more than 200 independent mentions). For Niger when asked about the reasons for positive norm change around allowing girls to delay birth and pursue IGAs, nearly every single participant cited community training or sensitization activities as the source. Furthermore, there were 150 independent mentions of CARE or the IMAGINE project as contributing to change. In particular for Niger the unmarried girls were the most vocal.

Key Informant interviews suggested that for Bangladesh, all the interventions were necessary and relevant for the results observed. Key informant interviews for Niger suggested that the IGAs were attractive to the girls, especially unmarried ones, and played a huge role in bringing



the girls together and further discussing their issues. Whilst they were there to do the actual incoming generating work, they used the time to discuss social norms etc. so the IGA activities supplemented the objectives and benefits of the Girls Collectives – an unintended positive consequence.

To sum up, from the evidence available, all the interventions appear to be necessary to achieve the results observed, there is no strong evidence on which ones were the most influential. So for the purposes of the cost effectiveness analysis no exclusions of activity cost categories can be made (see next section). However the cost efficiency report suggests some ways of making some of the interventions more cost efficient (see final section).

c. Assigning costs to the interventions and programme as a whole

The efficiency report estimates the costs of interventions, which will be used in this report. Annex 2 displays the unit costs for each of the activities.

Table 1 below shows the average annual cost per beneficiary for both countries.

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	Number of beneficiaries	Total expenditure	Duration of programme	Annual cost per beneficiary for the
				programme as a whole
Bangladesh	1430	\$1,082,749	2 years	\$379
Niger	1318	\$873,715	1.67 years	\$398

Table 1: Annual cost per beneficiary for the programme as a whole

c. Findings on Cost effectiveness

This section sums up all the findings from above, i.e. costs and results data.

Findings on primary outcomes

Primary outcomes for Niger - Cost per Daly

As stated above, for Niger there was an increase in contraceptive use for covered girls in the RCT. From this result, using data on method mix, assumptions on CYPs resulting from the different methods, discontinuation rates and assumptions on DALYs averted per CYP, the number of DALYs¹ averted is estimated for the full cohort IMAGINE girls in Niger. The DALYs averted represent the reduction in mortality and morbidity due to the IMAGINE programme (because of increased contractive use). Using the total budgets for Niger we can estimate the cost per DALY averted. Such a metric allows us to determine how cost effective the IMAGINE Niger programme was.

The Niger IMAGINE programme caused an increase in the use of contraception and thus averted 1584 DALYs. Based on a Niger IMAGINE expenditure of \$873,715, this results in a cost per DALY of \$552. To determine whether this is cost effective, we can use the World Health Organisation

¹ The overall burden of disease is assessed using the **disability-adjusted life year** (DALY), a time-based measure that combines years of life lost due to premature mortality (YLLs) and years of life lost due to time lived in states of less than full health, or years of healthy life lost due to disability (YLDs).



(WHO) threshold as a guide to determining cost-effectiveness of health interventions. This threshold is defined as three times (3x) gross domestic product (GDP) per capita. So any cost per DALY lower than 3 X GDP per capita is deemed cost effective.

The GDP per capita of Niger is \$594, so it can be clearly concluded that the IMAGINE programme is cost effective for Niger, with the additional contraception use that it created. Even if the Niger component produced no more benefits than the additional contraceptive use it can be deemed cost effective.

Primary outcomes for Bangladesh

For Bangladesh there are no significant quantitative findings on primary outcomes from the endline. It is not possible to estimate a cost per DALY figure.

There were findings on secondary outcomes in the form of attitude changes.

d. Cost effectiveness for secondary outcomes for Bangladesh and Niger

To recap, in Niger there were some contributions to secondary outcomes as discussed above, in terms of attitudes to birth spacing and income generation. The impact on secondary outcomes was greater in Bangladesh than in Niger, with greater improvements in family planning perceptions, reproductive health knowledge, and psychosocial outcomes (e.g., social cohesion, collective efficacy).

There are two ways to judge whether IMAGINE as a whole across both countries was cost effective:

- 1. Assessing how strongly effective the secondary benefits were, and whether the effects are sustained ie. whether such attitude changes are enough to translate to actual sustained behaviour changes.
- 2. Assessing how low the costs are by benchmarking with other similar programmes.

There are each considered in turn.

(1) Strength of secondary benefits

The qualitative evidence indicates that without a doubt, there has been a change in the way people in these communities consider and support delaying birth. Numerous participants, from girls to husbands to community members, not only express support for delaying birth, but they also note changes in acceptance in use of modern contraceptive methods. Healthcare workers in particular note a shift both in community norms for girls using methods to delay as well as in raw figures of SRH service attendance and method uptake. Through the multi-pronged IMAGINE approach, more people across population segments in the community are discussing delaying and method use than ever before. Nearly everyone agrees that it is essential to ensure that a girl is of a mature enough age (typically 17 and older) before her first birth to avoid complications such as fistula. However, delaying birth still is not as normalized in these communities as birth spacing. There is no wavering among respondents that spacing is important for the health of the mother, child and family; but delaying birth still comes with the stigma of infertility for the girl



or her husband, and this stigma may be creating pressure to give birth even if the couple themselves would rather delay.

Both married and unmarried adolescent girls in these communities are able to imagine lives beyond rote childbearing – something that was barely present in the formative research that took place in these same communities just a few years ago. Girls describe having more knowledge of work opportunities, more education on family planning methods and more agency to discuss fertility with their husbands and make decisions in their own lives. These richer lives include work opportunities, ownership of businesses, education and participation in activities like IMAGINE.

Girls also feel more confident and capable around SRH services. They notice and appreciate the way in which healthcare workers treat girls now, and those who have gone to facilities for family planning are satisfied with the services. A small number of girls mentioned healthcare workers who required a husband's approval or verification to provide contraceptives.

In summary, based on the above evidence of secondary outcomes from the quantitative and qualitative research there are some promising contributions to sustainable changes in social norms.

It is questionable whether the objective of delaying first birth is realistic, even less so for married girls in the programme. Behaviour change takes time, IMAGINE only had 2 years. Perhaps a more realistic and attainable objective would have been to achieve other benefits like birth spacing, fewer children overall and the permission and ability to generate income. For these outcomes IMAGINE has made some promising contributions.

(2) Benchmarking IMAGINE costs

A useful benchmark is that from the Adolescent Girls Initiative–Kenya (AGI-K). This programme was relatively similar, delivering multi-sectoral interventions to over 6,000 girls ages 11–15 in two marginalized areas of Kenya: 1) the Kibera informal settlement in Nairobi and 2) Wajir County in Northeastern Kenya. These interventions were carried out for two years (2015 to 2017) and comprised a combination of girl-level, household-level, and community-level interventions, including cash transfers for school attendance and income generating activities.

The average annual cost per beneficiary for Kibera was \$412 and for Wajir was \$695. These figures are higher and comparable to the IMAGINE figures for both Niger and Bangladesh (*Table 1*), driven largely by cash transfers which IMAGINE did not have.

The costs for IMAGINE are on the high side, largely driven by the vocational training component. This was acknowledged in the cost efficiency report as can be reduced by streamlining that component if the project was rolled out again.

Summing up from the evidence on costs and effectiveness, we can conclude that the IMAGINE programme as reasonably cost effective, with some room for improvements discussed below.

Ways to improve cost efficiency



Streamlining interventions and costs

From the cost efficiency report, the key finding was that the vocational training and market linkage components were the most expensive (comprising 79% and 64% of total budgets for Bangladesh and Niger respectively). Although staff felt that these activities were theoretically relevant and contributed to outcomes (see above), they were found to be the least efficiently delivered given both their high cost and the significant challenges in linking adolescent girls to markets, maintaining their engagement, and elevating their earnings to more meaningful thresholds. The relative value of these activities, at least as implemented in IMAGINE, merits re-examination (except the Habbanye model which was cost effective). There are likely to be opportunities for reducing the costs of these activities without losing their benefits.

Adapting the theory of change

As discussed above, targeting married girls was not the most effective way to achieve the objectives of the programme. Married girls had already made irreversible decisions, whereas unmarried girls were better placed to influence future husbands and in-laws, and have more agency. In addition, delaying first birth is a difficult and potentially unattainable objective, whereas other outcomes such as birth spacing are more realistic, though difficult to measure. For future programming donors and implementors should consider these adaptions to theory of change and outcomes.

Overall findings on cost efficiency and cost effectiveness

In terms of cost efficiency, all activities of the IMAGINE program were found to be relevant in achieving overall objectives. However, there were challenges with practical execution and costs particularly for the vocational training and market linkage components. These components were the strongest cost drivers comprising 79% of the total budget for Bangladesh and 63% for Niger.

In both contexts, the girls' collectives (13% to 14% of total budgets) appear to be the most efficiently delivered, and deemed cost efficient when benchmarked externally. Likewise, couples counselling and Fada groups were both found to be relatively efficiently delivered with a reasonable cost basis.

The health worker transformation component, while not a significant cost driver in either setting (3% of total budget in Niger and 10% in Bangladesh), could benefit from efficiencies by integrating more firmly in the broader health system or larger health-system strengthening-focused programs. Social Analysis and Action (SAA) community groups in Niger (3% of budget) were thought to be important for community engagement and buy-in.

Overall we can conclude that the costs for IMAGINE are on the high side, largely driven by the vocational training component. This can be reduced by streamlining that component if the project was rolled out again.

In terms of cost effectiveness, the endlines indicated some promising results – for Niger the increased use of contraception resulted in a cost per DALY of £552, which is cost effective



according to WHO guidelines. Moreover, for both countries there have been some reasonably good secondary benefits at the qualitative endline, achieved by all IMAGINE activities, at an annual cost per beneficiary of \$379 and \$398 for Bangladesh and Niger respectively. Based on external benchmarking these figures are on a par with other similar programmes. We can conclude that IMAGINE has displayed some reasonable cost effectiveness.

Going forward for future funders, cost effectiveness can be improved streamlining and reducing the costs of incoming generating activities, integrating health worker transformation within the broader health system, modifying the theory of change to target unmarried girls, increasing the timespan of the project (outcomes take time to materialise), and changing the emphasis of outcomes – instead of birth delay using the outcome of birth spacing instead for example.



Annex 1: Methodology for cost effectiveness metrics for contraceptive use – Niger

The aim is to convert the additional contraceptive use as found in Niger into DALYs, so we can estimate the cost per DALYs. The endline found in the control group incremental impacts in:

- Positive intervention impact on family planning (FP)
- Current contraceptive use
- Modern contraceptive use
- Ever use of contraception

Convert the above to CYPs.

Using these forecasts of FP methods over the programme timescale, they are converted to CYPs. Different methods give rise to differing numbers of CYPs, depending on the length of their impact on the woman in terms of providing birth control.

Table 1 provides a schedule of conversion factors agreed by USAID for each FP product or service that is relevant for the region of East Africa, which we use as a proxy for the Niger and Bangladesh, in the absence of more accurate data. Marie Stopes International (MSI) use a global agreed schedule of conversion factors, which are less likely to be relevant to Niger compared to regional conversion factors because of their broad average global nature.² MSI's figures have the effect of overstating their resulting CYPs, given that they use a figure of 12.5 for tubal ligation and vasectomies, compared to 8 as in table 1. Given that the median age of sterilisation in the East Africa is 33.3 the figure of 8 is likely to be a more accurate proxy (because women aged 33 are likely to have roughly up to 8 years of fertile life left).

Table 1: The time horizon of each	method over which it is effective

Method	No. years
Tubal Ligation	8
Vasectomy	8
IUD Insertions	5.50
Implants	3.50
Injectables	0.25

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² The differences are only relevant for Long acting and permanent methods. In countries where women get married early and have their desired number of children early, the length of time a LAPM is effective is likely be much longer, because they have relatively more years of fertility left. For these conversion factors, the age at which fertility is assumed to stop is 45. Thus the average age for a woman having a LAPM is 37,giving her 8 CYPs. For somewhere like Indonesia, the average age of take up of LAPMs is 26, giving almost 20 CYPs per user. So the conversion factor in Indonesia would be 20. ³ Source: DHS data



Contraceptive pills	0.06
Condoms	0.01
Emergency Contraception	0.10

The benefits are calculated by first estimating the FP products demanded by the intervention, and second estimating the CYPs resulting from these products demanded. These CYPs are then adjusted for a proportion of client discontinuation of services. The CYPs are then converted to DALYs averted (which represent welfare impacts in the form of avoided pregnancies, avoided maternal mortalities, avoided abortions and better maternal and infant health).

Discontinuation rates

The proposals assume full effectiveness, i.e. that all end users that take up FP products continue to use them for their full term. This is a fair assumption for permanent irreversible methods, but not so for short term and other long acting methods, as a proportion of end users will discontinue for various reasons such as the onset of side effects, they forget to take the pill, etc. A proportion of those that discontinue will switch to another method, we are not concerned about these users. However, a proportion of those will discontinue completely, they will not have their FP needs met, so the CYPs are adjusted to account for these users. Thus discontinuation rates have to be factored in to show a true picture of the number of CYPs that are achieved. To do this, MSI empirical evidence⁴ on discontinuation and switching behaviour among four modern methods (IUD, pills, injectables and condoms) is used as a proxy. Research from 14 countries indicates probabilities of discontinuation for IUDs after they have been inserted (table 2).

% users that are likely to discontinue	Time after insertion of IUD
13.2	12 months
27.5	24 months
41.5	36 months

Table 2: probability of IUD discontinuation

A simple average of the above figures is taken for discontinuation to be applied across the programme of 27.4%. The research also indicates that 49% of those users that discontinue are likely to switch to another method. So the discontinuation rate is adjusted by 49%, to give rise to a final discontinuation rate of 13%. This is applied to all CYPs except those from permanent methods.

⁴ http://www.mariestopes.org/documents/publications/Long-term-contraceptive-protectiondiscontinuation-and-switching-beahviour-FINAL.pdf



In the case of family planning, standardised calculations indicate that the numbers of deaths and so on from CYPs in Uganda are equivalent to a single weighted average figure of 0.2470 DALYs per CYP.5 CYPs are thus converted to DALYs using this coefficient.

Cost per DALY

This is a standard cost effectiveness ratio, and is useful to benchmark against the equivalent figure from other interventions. The total economic cost is divided by the total (adjusted number of DALYs) delivered by this programme. The resulting cost per DALY estimate provided here should be put into context of other interventions aimed at reducing health impacts (Table 3).

Table 3: Cost per DALY for various health interventions

Intervention	Cost per DALY saved \$
Insecticide treated bed nets	13 - 20
Malaria prevention for pregnant women	29
Tuberculosis treatment (epidemic situations)	6 -60
Family Planning	30-49
Anti- retroviral therapy	
India	150
SSA	252-547
BCG vaccination	48-203
Oral rehydration therapy	1268
Cholera immunisation	3516

*South Asia, sub Saharan Africa, Middle East and North Africa

Source: Guttmacher Institute (2009) and Levine et al (2006)

It must be noted that comparing cost effectiveness ratios with those from other programmes is risky because they may have all been constructed using different methodologies.

As a general rule of thumb, if the cost per DALY is less than the GDP per capita the intervention is considered very cost effective^{6.}

⁵ Source: DALY Translational Model - PSI 2009

⁶ The Commission on Macroeconomics and Health and WHO recommends that an intervention should be considered very cost-effective if the cost-effectiveness ratio does not exceed the GDP per capita of the country in question, and cost-effective if the Cost effectiveness ratio is less than three times greater than GDP per capita.



Annex 2: Unit cost data

Table 2 and Table 3 summarises the annual unit costs of the key interventions.

Table 2: Annual Unit Cost Metrics for Niger for each activity

Unit	Number of units or participants	Annual Cost per unit or per participant
Girls' Collective and VSLA Group	55	\$1,333
Girls' Collective Participant	1318	\$56
Habbanye Training Participant	713	\$113
Feed/Fodder Training Participant	67 trained 164 non- trained	\$1,110
Cowpea Training Participant	193 trained 164 non- trained	\$523
Fada Group	55	\$874
Fada Group Participant	1,079	\$45
Community SAA Group	41	\$421
Community SAA Participant	1256	\$14
Health Center	8	\$7,341
Health Worker Transformation Participant 117	117	\$502

Table 3: Annual Unit Cost Metrics for Bangladesh for each activity

Unit	Number of units or participant s	Annual Cost per unit or per participant
Girls' Collective Group	60	\$1,173
Girls' Collective Participant	1430	\$ 49
Couples Counseling Session	3,043	\$8
Couple	353	\$72
Mobile Phone Retail and Repair Training Participant	353	\$1,035



Digital / IT training Participant	Cohort 1: 75 trained Cohort 2: 41 trained Cohort 1+2 = 116 trained.	\$2,298
Handicraft Training Participant	419 trained	\$739
Health Center	2 Union Health Centres	\$14,574
Health Worker Transformation Participant	22	\$1,030



References

CARE USA. "Improving support for delaying early childbearing among newly married adolescent girls Qualitative Evaluation of the CARE IMAGINE project in Niger and Bangladesh". Cooperative for Assistance and Relief Everywhere, Inc. , 2022.

CARE USA, Far Harbor Analysis, Research. IMAGINE Endline Analysis Report Methodology and findings from CARE IMAGINE programs in Bangladesh and Niger. 2023.