



MASS MEDIA CAMPAIGN

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RECOMMENDED

Research Report:

Family Planning – Mass Media Campaign (2020 Recommended Idea)

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This is a summary report about mass media campaigns, a potential intervention in the field of family planning. In our five-step **research process** this report corresponds to step four, the drafting of an in-depth, 80-hour report on a potential intervention. All the ideas considered for family planning are listed in this **spreadsheet**.

Thanks to Karolina Sarek for her guidance and support throughout this research; to Erik Hausen and Judith Rensing for reviewing the research; and to Antonia Shann, Urszula Zarosa, Fin Moorhouse, Nicoleta Faina, and Patrick Stadler for their contributions. We are also grateful to the four experts who took the time to offer their thoughts on this research: Sarah Castle, Roy Head, Victor Pouliquen, and Joanna Skinner.

For questions about the content of this research, please contact Juliette Finetti at juliette@charityscience.com. For questions about the research process, charity recommendations, and intervention comparisons, please contact Karolina Sarek at karolina@charityscience.com.

*Charity Entrepreneurship is a research and training program that incubates multiple high-impact charities annually. Our mission is to cause more effective charities to exist in the world by connecting talented individuals with high-impact intervention opportunities. We achieve this through an extensive research process and through our **Incubation Program**.*

Research Process

Before opening the report, we think it important to introduce our **research process**. Knowing the principles of the process helps readers understand how we formed our conclusions and enables greater reasoning transparency. It will also clarify the structure of the report.

Our research process incorporates elements that are well established in some fields but uncommon in others. This is partly because of the unique goals of our research (i.e. finding new areas for impactful charities to be launched) and partly because we incorporate lessons and methodologies from other fields of research, primarily global health and medical science. Below is a quick overview of some of the key elements.

Iterative depth: We research the same ideas in multiple rounds of iterative depth. Our goal is to narrow down our option space from a very large number of ideas (often several hundred at the start) to a more workable number for deeper reports. This means we do a quick **20-minute prioritization**, a longer **2-hour prioritization**, and finally an **80-hour prioritization**. Each level of depth looks at fewer ideas than the previous round.

Systematic: The goal of our research is to compare ideas for a possible charity to found. To keep comparisons between different ideas consistent our methodology is uniform across all the different ideas. This results in reports that consider similar factors and questions in a similar way across different interventions, allowing them to be more easily compared. This is commonly used in other **charity evaluations** and **encouraged in other fields**.

Cluster approach: Comparing different intervention ideas is complex. We are not confident that a single methodology could narrow down the field, in part due to **epistemic modesty**. To increase the robustness of our conclusions, we prefer instead to look at ideas using multiple independent methodologies and see which ideas perform well on a number of them (**more information**). These methodologies include a **cost-effectiveness analysis**, **expert views**, **informed consideration**, and using a **weighted factor model**. We explain the merits and disadvantages of each method, as well as how we apply it, in the linked documents. Each methodology is commonly used in most fields of research but they are rarely combined into a single conclusion.

Decision relevant: Our research is highly specialized and focused. We only research topics that are directly related to the endline choice of what charity to found. Sometimes cross-cutting research is needed to allow comparison between different ideas, but all our research aims to be directly useful to getting new charities started. This level of focus on target practical outcomes is rare in the research world, but is necessary to our goal of generating more charity ideas with minimal time spent on non-charity idea related concepts.

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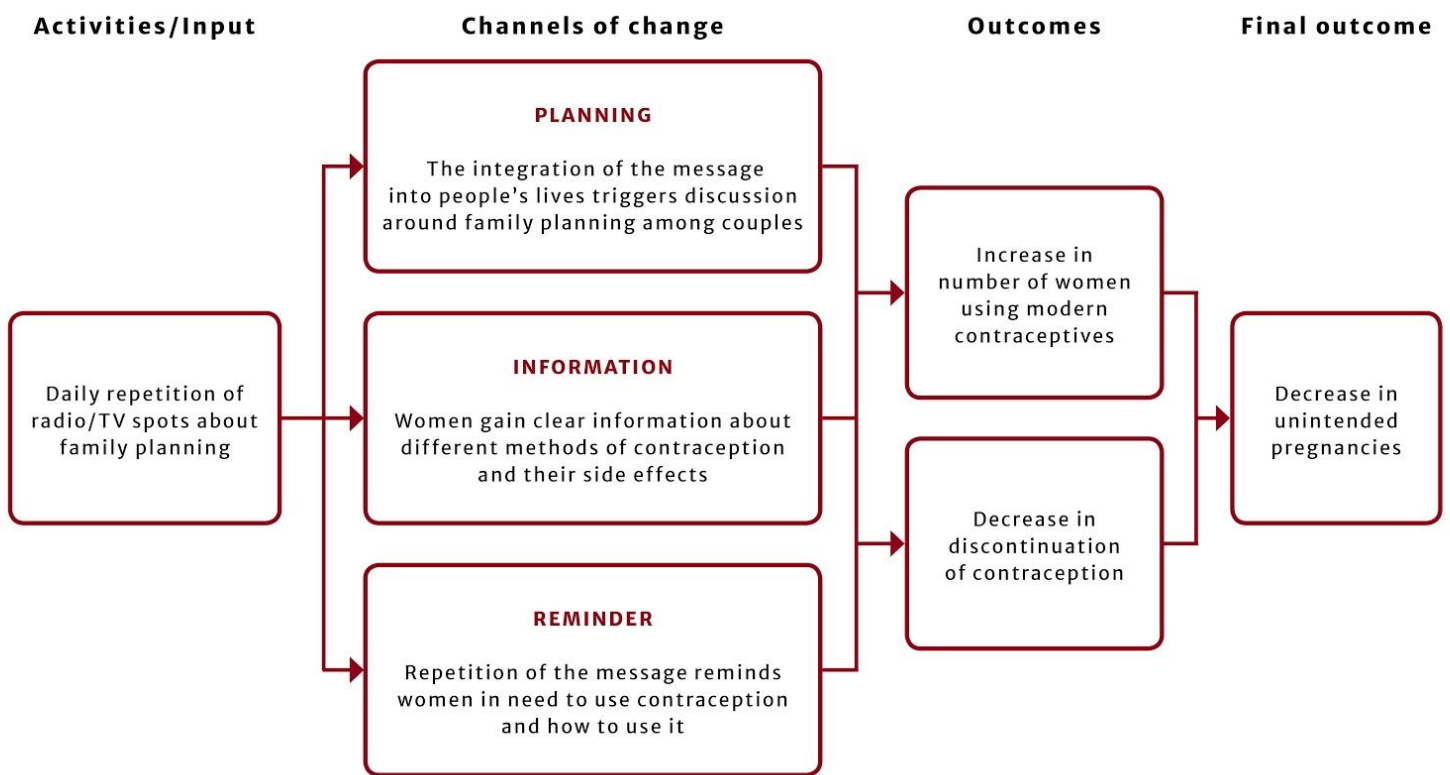
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Description of the intervention

This intervention consists of running mass media campaigns to improve people’s knowledge of and behaviors towards family planning. Such campaigns are included in a broader category of interventions focused on social and behavioral change (SBC) communication. The intervention takes the form of advertisements on the radio, television, or other media channels, and delivers key messages about family planning and contraception. The exact media, format, and content of the ads can vary based on the context’s level of exposure to and use of different media. By making information about family planning accessible to everyone, and integrated into people’s daily lives, this intervention aims to overcome misconceptions or attitudinal barriers preventing women from using contraception.

Below is a short theory of change for this intervention:

Figure 1: Theory of change for mass media campaign for family planning



Assumptions required for some of the channels of change to work:

- * Women discontinue or do not use contraception because of information barriers (misconceptions about how to use and side effects), or the perception of others if they were to use it.
- * Family planning services and supplies are available at the clinic.
- * A large proportion of the population is exposed to this media at least once a week

Summary conclusion

Ultimately, **we recommend this intervention in 2020 as a way to improve access to family planning and reduce unintended births.** Through our research, we found that this idea is among the strongest from a perspective of evidence base, cost-effectiveness, and scalability. Our final decision will depend on further conversations with actors in the space.

Overall, our research suggests that family planning media campaigns is a strong intervention. It has the potential to reach a very large number of people with key information, allowing them to use contraception consistently. Our analysis suggests this is the most cost-effective intervention out of all our top ideas researched in 2020, at around \$43 spent per unintended birth averted. It is flexible and does not require managing large field operations. Although it has less funding available than service delivery interventions, social and behavioral change communication is getting more and more attention from funders.

Two main factors could undermine our confidence to recommend this charity idea at this stage. First, a successful campaign requires strong media and advertisement skills, which may be hard to recruit for in the nonprofit sector. Advertising skills are particularly necessary to achieve impact, as trial and error does not work for this sort of intervention with no feedback loops and longer outcome time frames. For the same reason, a high investment into content creation might be necessary at the start, making the minimum scale at which one needs to implement this intervention to have an impact quite high. We expect this to be at minimum \$500,000 per year. However, if it is possible to use publicly available or shared content from organizations that have successfully run this intervention, this would be less of a limiting factor. The second limitation is that media campaigns are already being done well by Development Media International (DMI), a strong and like-minded organization.

In the face of these limitations, we recommend this idea if it can be implemented with as much support as possible from existing organizations in this space. The expected value of this nonprofit idea could be lower than if other actors eventually came to targeted countries to implement it, since their expertise would make them more successful in scaling it up. However, we have found that some promising countries with high unmet needs are not considered in their current and future work plans. The fact that their expansion is limited in the medium term leads us to believe it would be valuable for a new actor to replicate their approach in more places.

The table below offers a step-by-step summary of our research process for this intervention and the main takeaways from each stage. Color-coding reflects how well the intervention performed at each stage. The idea sort report, idea prioritization report, supporting reports, and related reports involve background research prior to this report that will not be considered in the final decision on the promise of this intervention.

Report type	Summary results	Deeper reading
Idea sort	During the idea sort, this idea showed promise: it was in the top 24 of 188 total ideas, scoring well in all areas. We had several interventions relating to different media communication in the top list (radio, pamphlets, posters, mobile phones). We therefore broadened the scope of this intervention to explore campaigns run through a variety of channels, but separated mobile-based interventions due to differences in the evidence base and nature of the messaging for these programs.	Full report Process
Idea prioritization	After two hours of researching media campaigns using expert interviews, it was the top priority idea for more in-depth research.	Full report Process
Prior view (section 1.)	This 80-hour report begins with a prior view, which summarizes the lead researcher's expectations before starting in-depth research. Prior knowledge of this area was mostly informed by one conversation we had about media campaigns with a panel of experts at the previous stage, and a quick literature review. At this stage, media campaigns had a high chance of becoming one of our recommended charity ideas (10-40%) , but we were concerned about counterfactual replaceability.	Process
Informed consideration (section 2.)	Informed consideration occurs at two stages of our research process: the start and the end. Two sections in the report reflect this chronology. At this first stage, we explore considerations that could undermine the promise of this intervention. This reinforced our view that this intervention has a strong theory of change, and that Ghana would be a promising country for implementation. We negatively updated our views on the duration of effects based on a GiveWell's review and have concerns about the quality of the evidence from non-randomized studies in this field. Overall from	Process

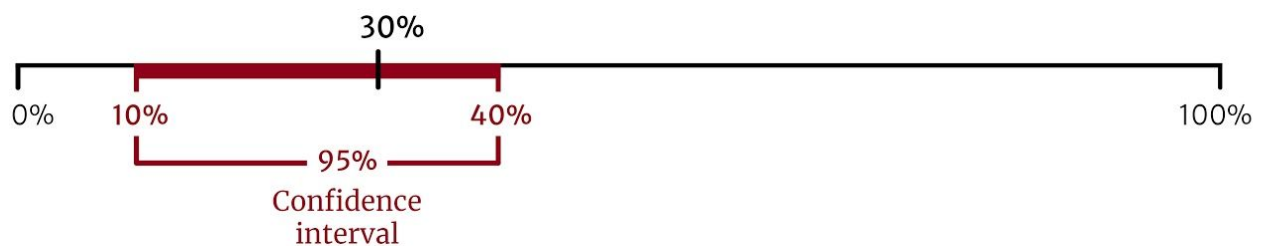
	this perspective, we have mixed views about the intervention and would be cautious to recommend it.	
Expert view (section 3.)	After examining crucial considerations, we discussed the intervention with experts including leaders of NGOs implementing this program and researchers. During these conversations, all experts (4/4) held strong positive views about new actors implementing this intervention. Although they differed on the best approach, they generally agreed that repetition and multiple communication channels leads to greater impact. They recommended investing efforts into formative research, and cautioned us on talent bottlenecks.	Process
Weighted factor model (section 4.)	The next stage of our research involves a weighted factor model. We scored the intervention based on preset criteria and weightings. In this case, media campaigns overall scored 31/50 . The score can be broken down as follows, with the weighting of each criterion in parentheses: 8/10 for strength of the idea (2), 5/10 for limiting factors (1.5), 4.3/10 for execution difficulty (1), and 5.7/10 for externalities (0.5). We updated positively on the strength of the evidence from DMI’s RCT, but with important factors limiting its scale and making it difficult to execute.	Process
Cost-effective ness analysis (section 5.)	In our cost-effective analysis, we quantify impact in terms of dollar cost per additional user of contraceptives and per unintended birth averted. Our findings suggest that media campaigns are a highly cost-effective way to promote family planning, at a cost of \$8.60 per additional contraceptives user and \$43 per unintended birth averted.	Supplement ary report Process
Informed consideration (section 6.)	The second part of our informed consideration closes the report. This internal contemplation allows researchers to reflect on the data and evidence gathered throughout the process. In this writeup, the lead researcher summarizes key conclusions and offers overall thoughts on media campaigns as an intervention. Mass media campaigns is a recommended intervention in our family planning cause area in 2020.	Process
Supporting report	We conducted deeper research into the range of outcomes affected by an increase in contraceptive use, in order to model these effects consistently across interventions. Our approach and reasoning are explained in this supplementary report for all CEAs.	Supplement ary report

1 Prior view

This brief section summarizes our team’s thoughts on this intervention before starting in-depth research.

Overall, we have a positive view of this intervention and would not be surprised if it became our recommended charity idea for family planning as it has been a front-runner idea since the start of the process. It seems to be well perceived by experts in this field, as there is evidence of its impact at a large scale. Because mass media campaigns can have a very large reach, we believe this could be a very scalable intervention too, which we suspect will be a strong advantage compared to other top ideas. We have uncertainties regarding several aspects that could be crucial in the promise of this intervention, such as the difficulty in finding media partners, the strength of the evidence base, and counterfactual replaceability (given that a very EA-aligned nonprofit is already implementing this).

At this stage of the research, our subjective likelihood of recommendation was:



1.1 Informed consideration

The promise of this intervention will depend on whether the demand gap and behaviors are important barriers to contraceptive use in our priority countries. It will also depend on how easy it is to find media partnerships.

1.2 Cost-effectiveness

We expect the cost-effectiveness of this intervention to be very competitive with other ideas. We have uncertainties about the strength of the evidence, but a good sense that the effect size will be comparable to other top interventions. Besides, we expect mass media campaigns to have economies of scale in terms of cost, making this one of the most cost-effective interventions we will research in 2020.

1.3 Expert view

We suspect experts will be generally positive about media campaigns. Although there might be concerns with replicability of the impact outside the evaluation contexts given that it relies on behavior change, we suspect there will be a consensus that it works well. However, we expect diverse opinions on the best implementation approach/media through which the message should be disseminated. We are hoping to talk with someone at Development Media International (DMI), a pioneer of the **saturation+ approach** to media campaigns, to better understand if there is space for more actors to do this kind of intervention.

1.4 Weighted factor model

There are two factors that we suspect could undermine the promise of this intervention. The presence of well equipped and impact-oriented actors already implementing it in our priority countries would make this intervention worse in terms of counterfactual replaceability, depending on their expansion plans. The lack of rigorous evidence compared to other interventions, due to the difficulty of constituting a good control group when using mass media would weaken the strength of the idea. We expect this intervention to score exceptionally well on cost-effectiveness and limiting factor, due to its large reach per dollar spent.

2 Informed consideration: Crucial considerations

This section summarizes our research into crucial considerations for this intervention. It covers topics we have updated positively or negatively about at this stage, as well as remaining uncertainties.

Summary: Overall, we remained positive toward the strength of the theory of change as we found theoretical papers and case studies for its use and its contribution to fertility changes in the past. The literature seems very positive about the cost-effectiveness of this intervention when looking at the cost per additional user of contraception. We updated negatively on funding availability at this stage as there seems to have been systematic bias against funding this type of program in the past. We also negatively updated our views on the duration of effects of campaigns on behaviors based on GiveWell's in-depth review of DMI's work on child survival campaigns [1]. We are uncertain as to how to interpret the current literature given selection bias in non-randomized studies, and challenges to disentangle the effect of mass media from that of other program components. We identified countries where there seem to be gaps in the implementation of this kind of program, but remain uncertain about counterfactual replaceability at this stage.

2.1 Positive updates

During the first stage of the informed consideration research, we have learned and updated positively on the following aspects of mass media campaigns:

Historical evidence

Reading some theoretical papers and reviews of case studies on mass media campaigns that were cited in a systematic review [2], shed light on their role in social and behavioral change in history and the strength of its theory of change. Mass media is not new, and has been a useful tool to shift norms and adopt healthy behaviors in the past. For example, [one paper](#) talks about past mass media campaigns including in high-income countries and highlights that there is a long history of using media channels to promote a particular lifestyle. Moreover, media advertisement is a very common tool used to change consumer behavior.

An empirical review of the literature with broader inclusion criteria than impact evaluations review, concludes that studies have consistently shown changes that campaigns affect individuals and even population behaviors, even when

confounding factors are controlled for: “1. There is credible evidence that short-term campaigns affect individual behaviors, which may relate to shortening the time lag between intention and behavior for those who are ready to act. The evaluations of those campaigns have been successful in establishing that they produce detectable, population-level changes in behavior over time. 2. Access to mass media is substantially related to fertility (or fertility-related behavior) at three levels of aggregation: individual, municipal, and national. Further, this is true even when other likely causes of the relation are statistically controlled.” [3]

Cost-effectiveness

A lot of work has been done to model the effect of social and behavioral change interventions to increase contraceptive use, and media campaigns in particular. We have come across at least three estimates of its cost-effectiveness ranging from \$1.5 to \$25 per additional contraceptive user [4], which would make this intervention overall more competitive than other interventions we have researched in 2020.

Update based on COVID-19

The family planning sector will likely be affected by COVID-19 as more funding is allocated to responding to the crisis. Depending on the duration of the crisis, this could last or have consequences on the funding available for several years. Media campaigns are likely to be less affected than most interventions implemented in this field because they could continue even in countries where lockdown is implemented. It is a flexible intervention as well so it could temporarily be focused on contributing to responding to the crisis, as DMI is currently doing through its mass media campaign for COVID-19 prevention.

2.2 Negative updates

We have learned and updated negatively on the following aspects of the program:

Funding

Funders historically neglected the space of SBC compared to other domains within family planning. It seems that this neglect has not been because it is a new field that NGOs have been focused less on in the past, but because of **specific challenges with SBC**:

- The effects of SBC programs usually occur in the longer term than other service delivery interventions, so it is less attractive for funders who seek short-term results;

- Funders are worried about ethnocentrism because SBC interventions aim to push for social norm change;
- There is an expectation that SBC campaigns are expensive because they require multiple channels of implementation.

These perceptions work against supporting SBC media campaigns. When looking more closely at DMI's funding, it seems like their funders are mostly foundations aligned with effective altruism ideas, such as Unorthodox Philanthropy and Global Innovation Fund (GIF), highlighting that it might be hard to get support from traditional and less counterfactually impactful funders. The family planning work of Johns Hopkins University's [Center for Communication Programs](#) is funded by USAID through a partnership and the Bill and Melinda Gates Foundation, though these could be historical partnerships and do not confirm that a small organization could easily receive support from them.

Diminishing long-term effect

We have not found studies looking at the effect of family planning media campaigns in the medium- or long-term. Most outcomes in the literature are measured one or several years after the start of the campaign, but they do not measure the effect for a long period of time after the campaign has ended. This makes it hard to assess how long the effect on contraception adoption lasts, and how often the campaign would have to be run to ensure that the impact continues. GiveWell's review of DMI highlighted some weaknesses to the evidence on their child survival mass media campaign, suggesting a lack of longer-term behavioral change effects: *"The preliminary endline results did not find any effect of DMI's program on child mortality, and it found substantially less effect on behavior change than was found at midline"* [5]. This translated in the effect the second year being almost half that of the first year as discussed in [a conversation](#) between GiveWell and DMI's CEO Roy Head: *"a mortality reduction of 9.7% in year one and 5% in both years two and three (calculated using the Lives Saved Tool)."*

This is an important update because whether our campaign would lead to additional users for less or more than one year will affect the cost-effectiveness of our intervention. It could imply that these campaigns need to be ongoing rather than implemented as a one-time event. Even if this evidence is for maternal health, it is informative and we could expect the effect to be even weaker for family planning since in this same conversation, it was shared that *"increasing uptake of family planning is a more difficult behavior change to accomplish than, for example, increasing health facility visits to improve child survival."*

2.3 Remaining uncertainties

We have learned but remain uncertain about the following aspects of the program:

Interpreting the non-RCT evidence

Apart from one rigorous RCT, the literature on the effect of media campaigns relies on quasi-experimental designs that are more challenging to interpret. We were uncertain about how to interpret these findings because on the one hand, as explained above, there is a large literature and historical evidence of these programs implemented at a large scale, reporting consistently positive effects on family planning behaviors. On the other hand, the studies often use designs that are still subject to selection bias such as propensity score matching [6]. We came across a study that had examined the mechanisms of change in mass media campaigns, and it highlighted how different people who listen to the radio or television might be from people who do not. Indeed, people make time and cost trade-offs when deciding to consume media, and that might make them different from others. If people listen to the media, they spend less time on other socializing activities that may affect marriage, dating, and sexual activity [3]. This existing relationship between fertility preferences and consumption of media should make us more skeptical of the findings from studies that used exposure to the campaign as a treatment effect.

Another issue with this literature is the difficulty in disentangling the effect of different program components. Programs often combine different media channels, sometimes even service delivery, and rarely isolate the effect of each [4]. This is important for us when deciding which mass media campaign implementation strategy is most promising. The literature seems divided between programs focused on one media with an intensive approach (DMI's *saturation+* approach) vs disseminating a message on a multitude of channels including in-person interpersonal communication activities (multipronged approach).

Are there contexts that could benefit from a new actor?

We have remaining uncertainties about the space for new actors in this field, as it seems generally more crowded than other interventions we explored in the past. For this reason, we looked at our most promising countries to recommend a new charity to be founded in, to see if the two leaders in this space are present. Among our countries of interest, DMI is currently present in the DRC and Cote d'Ivoire (and has a historical presence in multiple other countries), while John Hopkins University (JHU)'s Center for Communication Programs is present in many countries through partnership for their Breakthrough Action projects or through their HC3 capacity

building initiative. A lot of SBC media campaigns for family planning happen through Breakthrough Action, while HC3 was a capacity strengthening project that ended in 2017. We also looked at the [Ouagadougou Partnership project map](#) and checked projects happening in West African countries.

Combining these sources, it seems like a few countries are not of high focus from other actors, such as Senegal, Cameroon, Uganda, and Nigeria. These priority countries were identified based on family planning indicators such as high unmet needs, high fertility rates, or low contraceptives use. Although they seem more neglected when it comes to mass media campaigns, we are uncertain about the theory of behavior change being applicable to these contexts and more research would have to be done to identify where the highest value can be added. Ghana seems to be particularly relevant, being located in West Africa where the only RCT was conducted.

After a quick look at FP2020 data dashboard on the method information index¹, a proxy for women's knowledge of their contraceptive options at health facilities, it seems like a little less than half of the population of women in reproductive age are given comprehensive information about contraceptive methods in Ghana [7], which is one of the main barriers these campaigns help overcome.

¹ An index measuring the extent to which women were given specific information when they received family planning services. The index is composed of three questions: 1) Were you informed about other methods? 2) Were you informed about side effects? 3) Were you told what to do if you experienced side effects? The reported Method Information Index value is the percent of women who responded “yes” to all three questions.

3 Expert views

This section summarizes conversations between the lead researcher and a range of experts. We interviewed two leaders of NGOs implementing this type of program (Roy Head and Joanna Skinner), one researcher (Victor Pouliquen), and one monitoring and evaluation specialist (Sarah Castle).

Summary: Overall, all experts were very positive about this intervention and the idea of a new actor coming into the space. The unique advantages mentioned by Roy, Victor, and Joanna include its large reach and cost-effectiveness. In terms of implementation, the experts differed on the best approach. Sarah emphasized the promise of social media, while Victor shared positive views on the impact of running it through radios. Generally, they agreed that repetition and multiple communication channels lead to greater impact. Three of the expert opinions also converged on the importance of tailoring the message to contextual barriers, with Joanna recommending formative research for this purpose, and Victor and Sarah highlighting misconceptions around contraception as key barriers to contraceptive use.

According to three out of four experts, the main weaknesses of SBC media campaigns include the difficulty of rigorously measuring its impact (this was mentioned by Roy, Joanna, and Sarah for some media), and the need for advertising skills, which was mentioned by Roy and had also been mentioned by experts at the [previous stage of the research](#). They also raised challenges related to the implementation such as coordinating a large number of media partners (Victor) and combatting opposition and rumors (Sarah).

Finally, Sarah and Joanna shared positive views about funding availability, while Roy cited mixed experiences finding funding for media campaigns for different sectors.

Roy Head

Profile: Roy Head is the CEO and founder of [Development Media International \(DMI\)](#), an organization implementing mass media campaigns in the field of child survival and family planning. We contacted him to know more about their expansion plans, and his opinion about a new actor coming into this space.

Summary: Roy shared that DMI has expanded its family planning media campaigns to eight countries in West Africa, and East and Southern Africa, and in the future

hopes to expand even more. They are mostly supported by DFID for this expansion. In West Africa, their priority is with francophone countries given the extreme need in the Sahel region and the availability of a lot of resources already being invested in content production in French. He was generally positive about the idea of a new actor implementing the DMI approach to family planning media campaigns. He agreed that Ghana could be a promising location given its prevalence rates of modern contraceptive use, and that at a time where DMI is not so focused on COVID-19, they would consider supporting this work. However, Roy highlighted that to achieve the kind of behavior change observed in their study, a range of specific skills will be necessary, in particular advertising and a good understanding of the media, which might be hard to recruit for. The project will have to hire a minimum number of staff and therefore reach a reasonable scale to be cost-effective, because the team will have to combine these skills with research, creative, managerial, and other skills necessary to run operations.

More information can be found in the [conversation summary](#).

Joanna Skinner

Profile: Joanna Skinner is the Population and Reproductive Health Technical Lead, Breakthrough ACTION at [Johns Hopkins Center for Communication Programs](#) (JH CCP). We contacted her to learn more about the work of CCP and Breakthrough ACTION in the space of social and behavioral change communications, and her opinion about family planning media campaigns.

Summary: Joanna shared very positive views of mass media campaigns focused on SBC, describing it as a cost-effective intervention that can lead to long lasting change in behaviors. She highlighted the existing evidence behind the effectiveness of this intervention, and noted that a multi-channel approach can lead to the greatest impact by increasing the message's dose response and exposure. She thought the *saturation+* approach was also promising, as it is straightforward to implement well, but that there are great benefits to adding on other channels of communications and it can be cost-effective. She explained that SBC does not usually get allocated a big part of the funding, but the attention towards it is growing and so is the evidence base that can help make the case for it. For the entrepreneurs, it will be key to conduct formative research before starting the campaign, and assess the availability of service delivery in the context.

More information can be found in the [conversation summary](#).

Victor Pouliquen

Profile: Victor Pouliquen is a Postdoctoral Research Fellow at the University of Oxford and author of the upcoming paper on the impact of DMI's family planning campaign in Burkina Faso. We contacted him to discuss the findings of the study.

Summary: Victor explained the overall results of the study in Burkina Faso. He noted that the campaign's impact of 5.9 percentage points increase in contraceptive use is a strong result, and holds when taking into consideration administrative data and the effect found on fertility. It seems to be generalizable to settings with at least a similar level of education and radio listenership. In terms of mechanisms of change, the evidence shows that the program had an impact through overcoming misinformation and rumors about family planning methods, ensuring continuation for women who are not opposed to contraception but struggle to use it consistently. This program has the potential to work in any context with similar barriers to contraception. Finally, he noted a few challenges with the implementation of this intervention, in particular managing various radio partners at once, and dealing with cultural opposition and electricity shortages.

More information can be found in the [conversation summary](#).

Sarah Castle

Profile: Sarah Castle is a Monitoring and Evaluation Specialist and an independent consultant in sexual and reproductive health and family planning. We contacted her to learn about her knowledge of the evidence base and impact of media campaigns, and more specifically the findings of her literature review ([Castle & Silva, 2019](#)).

Summary: Sarah shared the view that a multipronged approach is most effective at ensuring a high exposure to campaign messages, and therefore having an impact. She expressed that although mass media such as radio and TV have more evidence of their effectiveness, social media should be included in these programs to reach youth. The most important challenges to implementing such a program will be combating rumors, false information, and male opposition. She thinks that there is space for more actors to do this in countries like Mali or Niger, and targeting neglected populations such as unmarried women. She recommended that our work be informed by talking to other organizations who have implemented successful campaigns or collect data on them such as the NGO African Network of Health Education (RAES: Réseau Africain d'Education en Santé) and [Johns Hopkins Centre for Communication Programs](#).

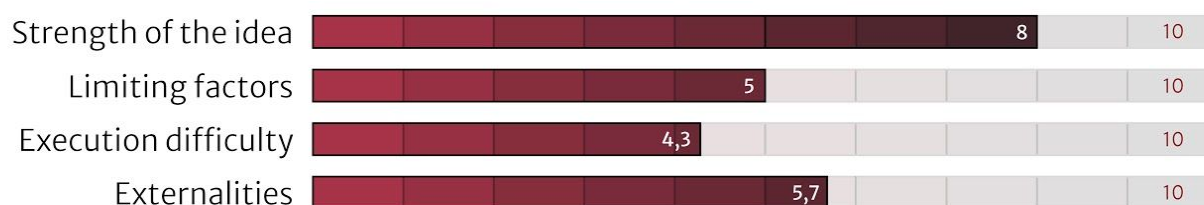
More information can be found in the [conversation summary](#).

4 Weighted factor model

This section summarizes the strengths and weaknesses of this intervention according to its scores from the weighted factor model.

Summary: Overall, mass media campaigns is a promising intervention according to our weighted factor model, as it scored 31 out of 50 in total. It scored well in strength of the idea (8/10), and average in terms of externalities (5.7/10), but was not as promising from the perspective of limiting factor (5/10) and execution difficulty (4.3/10). Its main strengths are its strong evidence base from programs scaled to millions of women, the large target population it could reach, and a very competitive cost-effectiveness. Despite these, it has major limitations. Its main weaknesses are talent availability, difficulty of founding partnerships with radio stations, lack of feedback loops to track impact, and counterfactual replaceability.

This graphic shows the score of the intervention in each area:



4.1 Strength of the idea

Score: 8/10

Overall, the evidence base for this intervention is broad and of relatively high quality. There seems to be a lot of moderate quality quasi-experimental studies on this intervention, several systematic reviews, and a rigorous RCT all demonstrating consistently positive impact. Although we could not review the entire literature on the impact of family planning media campaigns due to its breadth, we reviewed the most cited papers (see [a summary of our literature review](#)). The effect size was generally lower on average but with less heterogeneity than other interventions. There is also more historical evidence that this has been tested at the scale of thousands of women and implemented at the scale of millions of women, with the example of DMI's scale-up in various countries and various projects initiated by the Johns Hopkins Center for Communication Programs.

The RCT of DMI's Burkina Faso campaign is one of the most rigorous pieces of evidence we have come across in the literature on family planning programs, increasing our confidence in the evidence base.

The only limitation when it comes to the strength of this idea is the uncertainty around the replicability of the research findings to other contexts. Indeed, its **theory of change** relies on the assumption that information leads to behavior change, which is much harder to predict from one context to the other compared to the direct delivery of a service. Even if the study is rigorous, it is based on only one context while other interventions may have evidence from a variety of contexts.

4.2 Limiting factors

Score: 5/10

Prima facie, one could think this intervention has the most potential for scale of all the interventions we are researching in 2020. Indeed, the reach of a radio or TV campaign is massive as it addresses the whole population of women of reproductive age, and does not require in-person field teams to reach remote locations. Even if the scale were limited by the number of women accessing a particular type of media, this could be overcome by using multiple media channels. Our research of the cost-effectiveness analysis was not extensive enough to estimate the trade-off between scale and cost of disseminating the campaign through a multitude of channels. With further research, this can be examined and prioritizing countries with high exposure to certain media can be a solution to this trade-off.

Although funding has been neglected in the space of social and behavioral change communication in the past, it seems like it receives more attention now, which means this would not be more of a limiting factor compared to other interventions. However, since it is something that would need to be implemented at a large scale for it to become worth its costs, it might be hard to convince funders at the initial stage and get funding for a small scale pilot. This was confirmed by **Roy Head**.

The main bottlenecks for this intervention seem to be talent availability and logistics of radio partnerships. Finding people with the skills necessary to run a successful SBC media campaign will be difficult. The charity will need people with advertising skill and experience with media (which may be hard to recruit for as a nonprofit), creativity to produce the content of the campaigns, and at the same time good research skills since it is a hard program to measure the impact of. This limiting factor will be a challenge if new content has to be created. We think with

support and authorization to use the content from existing organizations to run campaigns in new geographies, the certainty around the campaign's impact would be higher and it could be implemented cost-effectively at a lower scale.

Finally, counterfactual replaceability is a concern for this charity idea. DMI, a leader in this space, seems very EA aligned and has selected a cost-effective implementation strategy (the *saturation+* approach). Although there are gaps in terms of countries identified as promising where DMI does not plan to expand at the moment, there is still a chance that they would run a campaign there eventually if a new charity were not created. This also limits the geographical options available to the co-founders to start their nonprofit in. We think that Ghana, Senegal, and Nigeria could be promising geographies based on their unmet needs and the fact that they are absent from DMI's expansion plans.

We also believe that in a scenario where we are successfully scaling up this intervention and another organization had the hope to expand to our country of target, they would change their plans and expand to another country instead. Taking into consideration the delay in impact if other actors were to implement this intervention in our top countries, the uncertain probability that this would actually happen given their current plans, and the counterfactual impact they would have switching to a neighboring country if we existed, we think this is not a big enough limitation to undermine our recommendation.

4.3 Execution difficulty

Score: 4.3/10

The fact that behavior change media campaigns can be run without field operations makes it easier to manage and execute. It also makes it flexible and resistant to shocks. Overall, the probability of success of this intervention once the campaign is running is high (we estimate this to be 85% in the CEA), with only minor potential disruptions such as electricity shortages preventing broadcasting, or the potential pushback from local groups. An expert mentioned that local groups can be resistant to this kind of messaging, depending on local norms around contraception.

Factors that make it difficult to found and run well include the difficulty in finding radio partners who would be willing to allocate a large amount of radio time to the campaign, and coordinating with all these partners at the same time. For example, during its scale-up, DMI partnered with a total of 32 different local radio stations. This is representative of a campaign using only one channel of communication, but

one could imagine an ideal implementation strategy to be using multiple channels which would increase this coordinating issue. Though this could be a challenge, we do not think this is a major limitation.

The main limitation of this intervention with regards to execution difficulty is its feedback loops: there are none and the effects do not happen immediately but in the medium term (six months to a year after the beginning of the campaign). It makes it difficult to test at a small scale in a short period of time, which is a necessary step to scaling the campaign countrywide. Past this point, it will not only be hard to evaluate the impact with a viable control group, it will be hard to have signs that the intervention is working at all. Relying on some monitoring data such as clinic-level data on whether contraceptive demand has increased over the period, and survey data on whether women have heard the program and understood its message, could help with the lack of feedback loops.

4.4 Externalities

Score: 5.7/10

Media campaigns are by definition a more public and visible intervention. This makes it more vulnerable to criticism, and could lead to reputational effects. The evidence from the RCT run in Burkina Faso demonstrates that contraceptive use has increased among women who had unmet needs for family planning, but did not shift fertility preferences. Even though the message does not intend to change women's fertility preferences, it is likely doing more than providing information about family planning and contraceptive methods. By making it part of people's daily life through popular stories, it may also shift norms around the use of contraception. This could lead to pushback in conservative contexts.

It seems like because of the lack of feedback loops, there are risks that if the messaging is not appropriate to the information needs of the population, it might be hard to detect this negative effect. This could lead to confusion and decrease in uptake for contraceptives. However, if the campaign has its intended effect, it would have positive externalities on the activity of other family planning actors by increasing demand for their services.

Starting a SBC media campaign charity would not create a lot of information value, but could have a number of positive externalities on other aspects of health. According to the results of the RCT on DMI's program, it seems that by addressing unmet needs for family planning and breaking down misconceptions about

contraception, this campaign had a positive impact on women's subjective well-being. Moreover, one could imagine that after a few years of running the campaign and having built the infrastructure for it, the organization will have the capacity to run campaigns easily about other health messages.

Family planning outcomes could also affect economic growth. By reducing the population, it could negatively affect the total productivity of the country. However, at the individual level, there are income and productivity gains from having fewer children. We have not investigated these externalities in depth and remain uncertain at this stage about their direction, but we may research them further at the implementation report stage. As of now, we suspect there are household income benefits of having fewer children, which we have modeled in our CEA.

Additionally, this intervention would prevent a life from coming into existence, which has very different implications depending on one's population ethics views. For example, one may think that the value of preventing a life from coming into existence is equal to the addition of all the happiness and suffering that this being would have experienced if they existed (see [an application](#)). The application of this view depends a lot on the approach taken to add happiness and suffering, with some views putting more weight on one or the other for instance. However, according to a [person-affecting view](#), one cannot compare non-existing and existing individuals, and the good and bad experienced throughout one's life only have value for someone who already exists. Under this view, preventing a life from coming into existence would neither be good nor bad; it would be neutral. We have not investigated these externalities in depth and remain uncertain at this stage about their direction, but we may research them further at the implementation report stage.

Finally, we believe this intervention could have important positive externalities on animal welfare. Increasing uptake for contraception and preventing unintended births would reduce family sizes and their overall consumption in animal products. A lifetime of consumption of these products leads to an considerable amount of suffering for animals raised in factory farms. Preventing unintended births therefore indirectly decreases demand for these products, thereby decreasing the number of animals raised for food. We have modeled these effects using CE's [welfare points system](#) in our CEA.

There are other outcomes we did not model. We listed those along with our rationale for deprioritizing them in [the supplementary report](#).

5 Cost-effectiveness analysis (CEA)

This section summarizes the method and findings from the cost-effectiveness analysis of this intervention. It goes over the scenarios we have modeled, our estimation of costs and effects, the main affecting factors, and the model's limitations.

5.1 Overview

Overall, our analysis suggests that running a media campaign on family planning is very promising from a cost-effectiveness perspective. We modeled here the implementation of a radio campaign through the *saturation+* approach used by DMI in their RCT, if implemented in Ghana. Under this model, we estimate the **cost per additional user of contraception to be \$8.6 and the cost of preventing an unintended birth to be \$43**. When taking all counterfactual costs into account, the cost-effectiveness amounts to \$72 per unintended birth averted. Key parameters of this analysis include the effectiveness of the intervention, estimated to be a 4.2 percentage points increase in contraceptive use, and the yearly budget, amounting \$1,900,000.

The key assumption underlying this model is that we would not be able to use content that has been used and tested by strong organizations. This assumption affects both the cost structure and the probability of fundraising success as a fixed investment of \$600,000 in production will be required. Combined with the probability of execution and fundraising success, we estimate the odds of successfully scaling this intervention under this scenario to be 5%. Under an alternative scenario where the cost of content production would be covered, the total budget per year for this intervention to be cost-effective would be lower and the overall odds of successfully scaling it up would be 17%.

The factors that most affected the final cost-effectiveness estimate and for which we have remaining uncertainties relate to the total scale of the campaign and the total costs, which we suspect could be overestimated.

Table 2: Summary of CEA models

Model	\$ per additional user of contraception	\$ per unintended birth averted
Google Sheets CEA Model (linked)	\$8.6	\$43
Taking into account all counterfactual costs*	N/A	\$72

*Counterfactual costs include donor funding, government spending, and co-founders' counterfactual impact.

5.2 Models

To estimate the cost-effectiveness of family planning media campaigns on contraceptive use and unintended births, we considered the following models, varying in implementation strategy:

1. **DMI's saturation+ approach** focusing on one media (e.g. radio) and intensive messaging.
2. Multipronged approach focusing on a variety of media and less intensive messaging (an example of this approach can be found in [this study](#) in India using brochures, in-person shows, radio and TVs).

We decided to model the impact of **a saturation+ approach SBC media campaign in a promising country where DMI does not yet implement their program**. This decision was based on the fact that the *saturation+* approach has the most rigorous evidence, and seemed equally promising according to experts. It is important that this intervention in particular is modeled as close as possible to the evidence given that running a behavior change communication program involves few feedback loops. We are unsure about the cost implications of delivering the campaign through a variety of media. Experts mentioned that content can be cross-applicable, but our intuition is that this would increase costs (e.g. having a field team distributing pamphlets, having a staff dedicated to monitoring uptake on social media and moderating responses). These strategies could be explored at the implementation research stage depending on exposure to different media in the targeted context. However, we strongly recommend that the messaging approach remains similar to the one rigorously tested.

In terms of geography, we decided to model the cost-effectiveness of running such a campaign in Ghana. It seems to be a country with high needs for family planning

and fewer social and behavioral change actors compared to other countries in the region.

5.3 Effectiveness

Effectiveness of the campaign on contraceptive use

The effect of mass media campaigns on the use of modern contraception is the channel through which the program is modelled to have an impact on final outcomes. Below are the steps we followed to reach our final effect size:

1. To search for studies, we used a systematic review (Naugle and Hornik, 2014), the High Impact Practices Brief's evidence review of mass media, Jie's evidence portal, Google searches, and the Breakthrough ACTION evidence database focused on behavioral change in health. We found a multitude of studies and were able to summarize 13 in total (see a summary of the evidence).
2. We found only one RCT on the effect of a radio campaign, in Burkina Faso. Although we take the rest of the literature into consideration as supporting evidence (see more detail in the weighted factor model's strength of idea section), we only used the point estimate from this RCT in our cost-effectiveness analysis. We believe it is the study that most rigorously estimated the causal impact of this kind of program.
3. We used the baseline level of contraceptive use to express the outcomes in terms of reduction in the use gap. This allowed us to apply this evidence based effect size in a way that is adaptable to the baseline level of contraceptive use in the targeted country.
4. The final check that we conducted when applying the effectiveness of the program to a new context regards the radio listenership. Indeed, one would expect a country with a lower proportion of women listening to the radio at least once a week, to have a lower effect. We found that Ghana has a similar proportion of listenership (slightly higher) than Burkina Faso where the most rigorous study was conducted and a statistically significant positive effect was found, so we decided not to discount the effect based on this.

Findings: The Burkina Faso RCT found a 5.9 percentage points increase in modern contraceptive use. This translated into a reduction in contraceptive use gap of 8.4% (95% conf. interval: 2.5%–14.3%).

Generalizability discount: when estimating the effect of a program using the literature, we always apply a generalizability discount in order to account for the potential lack of generalizability of the effect when our program is running in a

different context at scale. For this discount, we decided to use the ratio of standard deviation to effect size. We considered using the average quality of study score but were worried about subjectivity of this score across interventions. The standard deviation has the advantage of being based on the data we found rather than being a subjective judgment, and is easily standardizable across interventions. In terms of what it captures, the standard deviation tells us about the strength of the pooled estimate and the heterogeneity of the findings across studies.

- We found a standard deviation of 3 so decided to apply a **discount of ~36%**:
 $GD=1-SD/ES=1-3/8.4=0.64$

Application: when applied to baseline prevalence of contraceptive use in the countries modeled in this CEA, we found that the percentage points increase in contraceptive use varies indeed by context and is estimated to be:

- Gap in contraceptive use*ES*GD = $(100-22)*0.54*0.64=4.2$ **percentage points**

Table 3: Summary of indicators from Burkina Faso and Ghana

Country	Percent of women of reproductive age using modern contraceptives (2019)	Percent of women of reproductive age listening to the radio at least once a week.	Total number of women of reproductive age in the country
Burkina Faso	29.5	45.2	5.1 million
Ghana	22	50.2	8.5 million

Effect of an increase in contraceptive use on unintended pregnancies

To model the effect of an increase in contraceptive use on unintended pregnancies, we modeled the average protection efficacy rate and duration of implants, injectables, and oral contraceptive pill (OCP), which were reported to have increased in the main paper. We then adjusted the proportion of the effect coming from each contraceptive type to be consistent with method preferences in Ghana [8]. Overall, this leads us to model 35% of the effect coming from implants, 47% coming from injectables, and 17% coming from OCP. The duration of each method, and their efficacy rates used to estimate the impact on unintended pregnancies are detailed in the cross-applicable parameters document ([Supplementary Report for all CEAs](#)). For this particular intervention, we have assumed a duration of effect of one year as

an average of all methods. This based on the assumption that the effect on short-term contraceptive use lasts as long as the campaign lasts. Since it is continuous, we are assuming that the effect on short-term contraceptive use is also continuous. For long-term methods such as implants, though the average duration is usually more than a year, we estimate that it will also be only for a year to simplify the model. This is a way to discount for further years when a portion of the population would have already taken up implants. As the campaign continues, we cannot expect the same impact on long-term contraceptive users, given that the same population is targeted every year.

The final effect of the intervention on birth rate takes into account the percentage of unintended pregnancies ending in abortion, using the Guttmacher Institute's [regional estimates](#).

When accounting for efficacy and duration of methods, percentage of unintended pregnancies ending in abortion, and discounting for births that may be delayed rather than averted, we found that **the program averts 0.5 unintended births per 100 women reached**. In the main study, authors found that the increase in contraceptive use translated into a number of births in the last year reduced by 1.5 pp (se=0.006, p=0.094). Given that we have applied a discount to the effect on contraceptive uptake and took a conservative estimate for the efficacy of these contraceptives' protection, it is consistent with our estimate of 0.5 births per 100 women reached although it appears our model is still quite conservative.

Endline outcomes and externalities

The parameters related to the impact of contraceptives use on the range of endline outcomes we care about were researched and estimated once, and are applied consistently across family planning interventions. These parameters are therefore not specific to the analysis of media campaign. The details of how they were modeled are reported in the [supplementary report](#). It includes the effect of one unintended birth averted on income, health benefits in DALYs, and positive externalities on climate change and animal welfare. Note that the outcomes deriving from unintended births are more uncertain parameters as we have not researched them in a similar level of depth. However, we expect the causal chain from unintended birth to endline outcomes to be the same across family planning interventions. The effects on income for example are likely an overestimate at this stage as we relied on a simplistic model. More research on this outcome would focus on estimating the real proportion of the household income allocated to raising a child, including opportunity costs.

Table 4: Cost-effectiveness of media campaign on endline outcomes

Effects on income (\$ generated per \$ spent)	Effect on health (\$ spent per DALYs averted)
\$163	\$560

We found that this intervention has two kinds of externalities. It positively affects climate change, averting 4.3 tonnes of CO₂ emissions per dollar spent. It also positively affects animal welfare, with 588 welfare points gained per dollar spent.

5.4 Costs

To estimate the cost of this program, we used the budget of DMI's campaign evaluated during the RCT, and their projected budget for the country scale-up. These were found in the study paper (forthcoming). We believe these costs are systematically higher than the ones estimated for other interventions. To ensure consistency, we have applied a 40% discount to the budget. We are still uncertain as to whether this is a high enough discount for it to be comparable to other interventions.

From our conversation with Roy Head, it appears that one third of the cost of running the campaign goes to staff costs, one third to production, and one third to distribution (broadcasting). Given that the content was created and tested during the RCT, we have assumed that a large production cost that a new charity would have to incur is not included in the scale-up budget of DMI. Therefore, we have added this as a onetime investment of \$600,000 (\$1M before discount). This is based on the data from the RCT budget.

We made further modifications to this cost structure. The 1/3rd rule excludes administration costs, which we assume to be about 20% of the total cost of running the campaign, so we added this on top of these costs. The scale-up budget is expressed for a two-year campaign, but we expressed our impact yearly so we divided it by two. The population reached by the campaign in a country like Ghana would be larger, so we estimate a linear relationship here between costs and reach by creating a ratio of the number of women reached in Burkina Faso to the number of women reached in Ghana, and multiply the budget by this ratio.

Under this model, the cost of running this campaign at maximum scale per year is about ~\$2M. Assuming that we would not be able to use content that has been tested before, the fixed investment in production would make the cost structure

such that only at a scale of about \$1.4 million would the charity be able to reach a similar level of cost-effectiveness. However, the minimum scale needed to be cost-effective would significantly reduce if this content only needed to be adapted. We estimate this could be done for a budget of less than \$600,000 per year.

5.5 Assumptions

Scale and duration of the program

To calculate the number of women reached by this campaign, we looked at the expected percentage of the population reached with the scale-up in Burkina Faso, which corresponds to 74%. For this, they estimated the number of women from the target population who were within the reach of each radio station they will partner with for the scale-up. Given similar rates of radio listenership in the two countries, we estimated the same percentage of women would be reached by the campaign.

Although experts shared positive views of the longer term effects of behavior change communication, we do not have evidence of the impact lasting longer than the campaign itself. We estimated that the campaign would run continuously and that the effect would last for a year for each year it runs.

Probabilities

Overall, the odds of this nonprofit idea succeeding to scale up countrywide is 5% under the most pessimistic scenario. In a scenario where co-founders collaborate with existing organizations, the odds are estimated at 17%.

We modeled this intervention at two stages:

- The testing stage, which is estimated to last one year and focus on obtaining the government partnership, and designing and piloting the intervention;
- The scale-up stage, which is estimated to last eight additional years in this case based on the current contraceptive use and prediction of how much longer this intervention can have an impact.

We assigned different probabilities of success to these two stages to more precisely reflect the difficulty of implementation, fundraising, and logistical constraints. The probability of success for the testing period was based on our assessment at the weighted factor model stage of the research (discussed in [section 4](#)) of the difficulty of running this intervention well enough that the nonprofit would decide to scale up. It is estimated to be 80%. This stage will be mostly conducting formative research and testing to either inform the design or the campaign or the adaptation of existing material. We think it is unlikely the charity will fail to pass this stage.

Though fundraising success was accounted for in this probability of success, we assume that at an early stage, this will not vary very much across interventions because the amount needed will be the difference between the incubatees' seed grant and a relatively small budget.

The probability of fundraising success at scale-up was estimated to be between 8% and 25% depending on the scenario, which affects the budget needed per year. This was informed by our interview with Roy Head. DMI was not able to scale up their child survival work as much as they wanted due to funding constraints even with positive RCT results, but were able to for family planning campaigns.

Finally, the probability of execution success at the scale-up stage is estimated at 85%. We think once funding is secured and content has been tested, it should be easier to implement this program. Potential bottlenecks at this stage include coordinating with radio stations but we suspect this is unlikely to be a constraint in the program's success. Additionally, there might not be a one-size-fits-all training that can be standardized across facilities, and some adaptations might be required while scaling to new geographies.

5.6 Accounting for counterfactual impact of funding

Funding counterfactual impact loss

At the end of our analysis, we also calculated the cost-effectiveness of this intervention when taking into account the counterfactual impact of funding. This refers to the impact that would occur if the funding received went to another organization working in this space. To estimate this, we have first estimated the cost-effectiveness of a medium-impact family planning intervention, using the average cost-effectiveness among the top 50% of all the interventions considered in the first stage of our research. This led us to estimate the cost of an unintended birth averted to be on average \$350 for these charities. We assumed that if this nonprofit were created, it would take 50% of its funding away from these existing charities, and 30% from ineffective projects. For the remaining 20%, we model that the funding would come from high counterfactual EA donors. We assume that they would have otherwise been given to opportunities that are ~10% more cost-effective than a CE-incubated family planning charity (\$40 per unintended birth averted). This is a simplification to express the counterfactual in terms of family planning impact, though in practice the funding may have otherwise come from a different cause area. We deducted the impact that would have occurred in this counterfactual scenario from the total number of unintended births averted

throughout the project. We end up with a cost-effectiveness of \$60 for our best scenario instead of \$43.

Government spending counterfactual impact loss

As a demand side intervention, its cost-effectiveness is only relevant as an add-on to existing family planning services and supplies. Without these, the intervention would not have any impact, which makes it less comparable to interventions providing or paying for these supplies (e.g. vouchers). We estimated the cost-effectiveness once government spending to provide contraceptive supplies is taken into account. We first added the average cost of contraception multiplied by the expected additional users of contraception per year to estimate costs on the government's side. GiveWell proposes different ways to account for government funding's counterfactual impact. Informed by [their review](#) on the topic, we decided to discount government costs by 25%, and added it to the total budget of the nonprofit. This is one of the simpler methods thus was easier for us to incorporate in our analysis, and it takes the middle point between 0 and 50% in terms of how much government spending could be discounted. The final cost-effectiveness did not change almost at all, and ends up at \$45 instead of \$43 per unintended birth averted. This does not change its promise compared to interventions for which supply side costs would be covered by the nonprofit such as vouchers.

Co-founder counterfactual costs

We estimated that each co-founder working on this nonprofit has a counterfactual impact amounting to \$10,000 to \$50,000 worth of donations to highly impactful organizations working in the relevant cause area. Here, we used our estimate of the most cost-effective nonprofit working in family planning, averting an unintended birth for every \$40 spent. We therefore discounted our final estimate from \$43 to \$44.

When accounting for all the counterfactual costs, the final cost-effectiveness of the intervention is \$72 per unintended birth averted.

5.7 Affecting factors

Our model was most sensitive to a few variables which we remain uncertain about:

- **Scale of the campaign:** we estimated the campaign to reach about 74% of the population. Bringing this estimate down would affect the cost-effectiveness as the production costs would be split across a lower number of women.

- **Size of the investment in content production:** whether existing content would be accessible would also affect the cost-effectiveness as described in the cost section above.
- **Cost of distribution:** this accounts for a third of the budget and we have uncertainties as to whether it would be similar for a new nonprofit, and in a different country from DMI's Burkina Faso budget.
- **The duration of the effects:** there are uncertainties as to whether the impact of a behavior change campaign fades away with time even if the campaign is continuously running. One could argue there are diminishing returns to running such campaigns and messaging is less effective with time. We have discounted the impact by 20% to account for this but remain uncertain about how the impact would be affected with time.

5.8 Limitations

Given the time constraint for conducting this CEA and writing the report, our analysis is incomplete and suffers from the following limitations:

- **Counterfactual replaceability:** The CEA does not discount for potential counterfactual replaceability, which is the event that some other organization would have implemented this intervention in this particular context. Though there is a possibility that existing media campaign organizations such as DMI would expand to Ghana at some point, this is very uncertain based on their current plans and priorities. We also think they would potentially switch to a different country with expected impact in a similar range if we were to successfully scale before them in Ghana.
- **Trends in contraceptive use:** the CEA does not take into account a potential upward trend in modern contraceptive use among women in reproductive age in these contexts throughout the nonprofit's life. Since the effect size is estimated from the gap in contraceptive use, this could mean that the real effect could vary with time. If the use of contraceptives among postpartum women increased by 10 percentage points in the next 10 years, which would be a faster increase than the past trends [7], the cost-effectiveness would worsen by 10%.
- **Limitations with regards to cross-applicable parameters** such as the impact of contraceptive use on averting birth are listed in the [supplementary report](#).

5.9 Other cost-effectiveness studies

Our model assumes a cost per additional user of contraception of \$8.6. As stated in the informed consideration section, we have come across estimates of its

cost-effectiveness ranging from \$1.5 to \$25 per additional contraceptive user [4]. Other studies mentioned in [this business case](#) report a cost-effectiveness ranging from \$1.9 to \$8.5 per additional user depending on the context and whether the service delivery costs are included. In a multi-approach campaign scale-up in Zambia, the cost-effectiveness was \$30 per additional user and \$84 per unintended birth averted. The analysis conducted by the research team on the DMI campaign (forthcoming) found it costs \$6.5 per additional user. In light of these results, one could say our estimate falls in the average of estimates found, being slightly more conservative than the DMI analysis. We think this could reflect the fact that this analysis was conducted on a context-specific evaluation for which they had data to rely on, while we are making assumptions about effects replicating to a new context.

6 Informed consideration: Internal contemplation

In this stage, we analyzed all the data and insights gathered through previous steps in the research process. The most important conclusions from each are summarized here, as are our team's overall thoughts on mass media campaigns as a family planning intervention.

6.1 Crucial considerations

As social and behavioral change communication is getting more attention in various fields of health and family planning, we believed it was important at this stage to explore the theory of change and historical evidence behind the use of SBC media campaigns, outside the main literature. We found theoretical papers and case studies for its use and its contribution to fertility changes in the past, and initial signs from the literature that it is a cost-effective intervention when looking at the cost per additional user.

At this stage, we had negative views on the funding availability as there seems to have been systematic bias against funding this type of program in the past. GiveWell's in depth review of DMI's work in child survival campaigns shed light on the potential limits to the duration of effects. It led us to believe it might be necessary to run campaigns on an ongoing basis rather than as a one time event, for the effect to be maintained.

We identified countries where there seems to be gaps in the implementation of this kind of program, such as Ghana. We were uncertain at this stage about which studies to rely on to estimate the effect of SBC media campaigns, given potential selection bias in existing studies and the fact that they evaluated multiple components whose effects are difficult to disentangle.

6.2 Expert views

Our main goal when talking to leaders in the implementation and advocacy for SBC media campaigns was to get a sense of their opinion of a new actor entering the space and geographies they already operate in, the challenges they may face in implementing this intervention, and funding availability. They shared positive views about a new actor coming into this space. They highlighted that conducting formative research to determine the best channel, format, and content for the campaign, as well as learning from successful actors in this space, is necessary for

this intervention to succeed. This is especially true since they also shared that it will be very challenging to evaluate the effectiveness of this intervention. Although they agreed that dose response (the number of times the message is heard by the population) is the most important criterion for success, they slightly differed on the ways to ensure it is met. Some experts promoted multiple channels, including social media and in-person communication, while others emphasized intense repetition of the messages. One expert cautioned us to think about the difficulty of implementing this at scale without specific skills such as advertising. Overall, this stage slightly changed our view about the funding landscape, as DMI shared they received a large grant from DFID and a leader at Breakthrough ACTION from CCP shared that this space is getting more and more attention.

When talking to researchers, we were hoping to get a sense of the strength of the results and the generalizability of the evidence. Experts refer to the evidence on mass media as being strong, although generalizability depends on exposure to mass media and information barriers in the context. Combatting local opposition to the campaign was also mentioned as an implementation challenge.

6.3 Weighted factor model

This method allowed us to examine mass media campaigns as a nonprofit idea from all possible angles, and broaden our perspective to better identify its strengths and weaknesses. Overall, this intervention performed well due to its very high score on the strength of the idea and the overall weight we put on this criterion. It has a broad evidence base, the existence of a high quality RCT, systematic reviews and a competitive cost-effectiveness.

However, it scored poorly on limiting factors and execution difficulty for reasons that could undermine its recommendation. Despite being highly scalable through the use of mass media, this intervention's limiting factors are the difficulty of finding talent with advertising skills and media experience, and the fact that a very strong EA-aligned organization is already expanding this work in multiple countries.

The implementation of this intervention can be challenged by the lack of feedback loops, making it hard to know its impact, and the difficulty of establishing partnerships with radio stations.

6.4 Cost-effectiveness analysis

Our research up until this point had suggested a promising cost-effectiveness for this intervention, which was confirmed by our CEA estimate of \$43 per unintended birth averted and \$8.6 per additional user of contraception. This corresponds to a model of DMI's style of family planning media campaign implemented in Ghana. We feel confident in this estimate as it appears to be in the range of costs per additional user of modern contraception found in other studies. However, there are remaining uncertainties around the effect we can expect to see in a country like Ghana and the number of radio stations the charity would be able to partner with.

Our work on structuring the cost of this intervention highlighted clear economies of scale. Indeed, as the content produced can be used for a very large population of women, the number of radio stations a charity is able to partner with will influence its cost-effectiveness greatly. If the entrepreneurs invest just as much in production but can only reach 30% of the population instead of 74%, for example, the intervention might get closer to \$109 per unintended birth averted. (To contextualize this figure, media campaigns would still appear to be more cost-effective than vouchers.) Population reached and the chance of getting radio stations to partner with a new charity are somewhat captured by ranges of our estimates and probabilities of success.

However, previous stages of the research cautioned us about the lack of feedback loops, the need and difficulty in hiring for advertising skills and media experience, and counterfactual replaceability. These are all limitations to this intervention which we do not think were fully captured by the cost-effectiveness estimate at the CEA stage.

6.5 Overall thoughts

Overall, family planning media campaigns is a strong intervention. Most of our research methodologies led us to have positive views of the impact a new nonprofit could have in this space. It has the potential to cost-effectively reach a very large number of people with key information, allowing them to use contraception consistently. The evidence behind its effect comes from a rigorous RCT conducted in a context relevant to where the nonprofit would operate. Running a mass media campaign is flexible and does not require managing large field operations.

Its main weaknesses are that it requires advertisement skills to design an impactful campaign given its lack of feedback loop, and the fact that a strong organization is

already implementing it in multiple geographies. Furthermore, fundraising difficulty could be significant if content is to be produced from scratch. We believe this would still be a very strong intervention to start if existing organizations were able to support the entrepreneurs in the development of the campaign. This would help both reduce fixed investment costs, and increase the chance of successfully changing behaviors by using tested content. We believe despite the existence of strong actors, this is a program that has proven to be very successful, and having new actors replicating it to new geographies would be valuable.

Supplementary information

Supplementary Report for all CEAs: Cross-applicable parameters for family planning CEAs

Mass Media Campaign – Cost-effectiveness analysis

Mass Media Campaign – Evidence Review

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