

# POSTPARTUM FAMILY PLANNING

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**RECOMMENDED**

# Research Report:

## Postpartum Family Planning Services (2020 Recommended Idea)

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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.

This is a summary report about postpartum family planning services, 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**.

For questions about the content of this research, please contact Juliette Finetti at [juliette@charityscience.com](mailto:juliette@charityscience.com). For questions about the research process, charity recommendations, and intervention comparisons, please contact Karolina Sarek at [karolina@charityscience.com](mailto: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 here**). These methodologies include a **cost-effective 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.

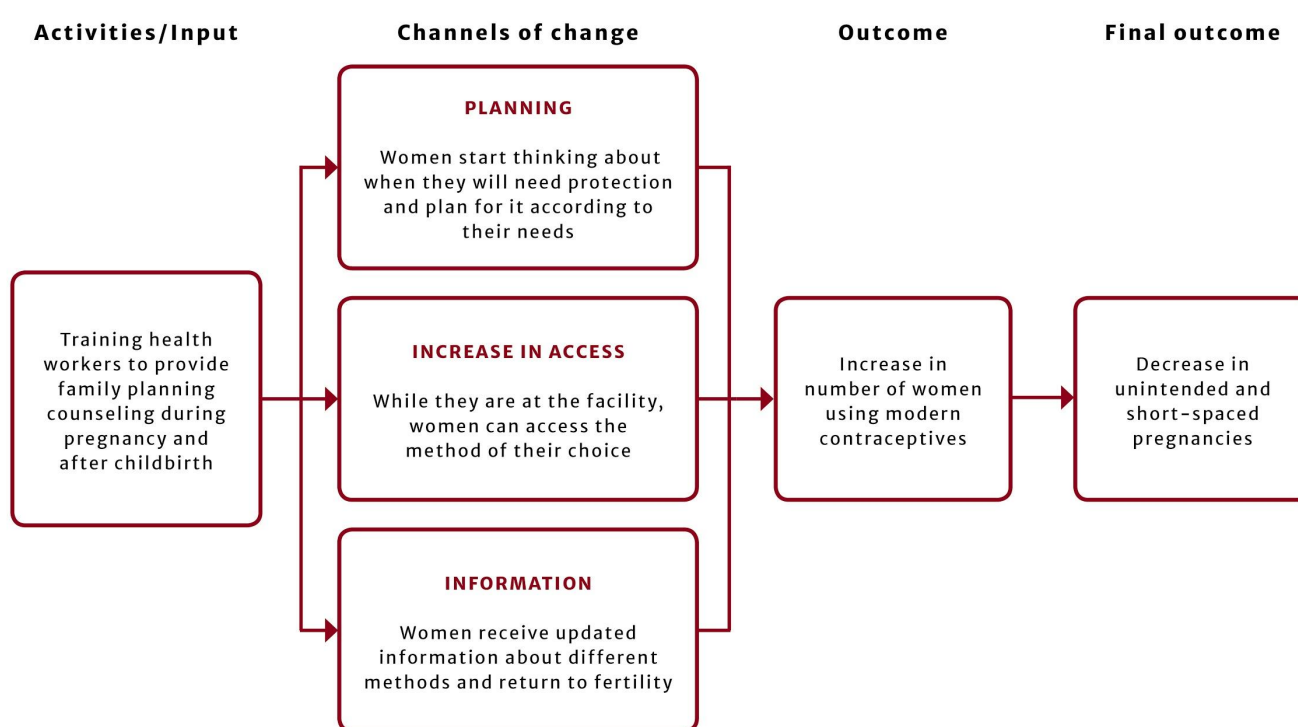
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## Description of the intervention

This intervention consists of advocating for, and supporting the integration of family planning services to postpartum care, at a time when women are in most need of contraception. This includes the immediate postpartum period (right after having given birth), and in their extended postpartum (~within one to two years after having given birth). These are critical times for women to think about contraception, as short-spaced pregnancies lead to higher risks of infant mortality and maternal health conditions. However, data shows that contraceptive use among postpartum women is lower than average, counseling and contraceptive options are not systematically offered as part of postpartum care, and women have misconceptions about their return to fertility. This intervention would therefore consist of partnering with the government to support the integration of family planning services as part of health workers' and midwives' responsibilities during postpartum care.

Below is a short theory of change for this intervention:



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

- \* Contraceptives supplies are available at the facility
- \* Either women are able to make decisions around family planning independently from their partner or their partner is at the hospital to make a decision with them.
- \* The main barriers are that women lack information about contraceptive methods and return to fertility, lack access to contraceptive supplies, or fail to plan using contraception after having a child.
- \* Social or cultural norms are not the main barriers to using contraception.



## 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 the perspective of evidence base, cost-effectiveness, and execution difficulty. We believe a strong country for the implementation of this program is Ghana, based on our research at this stage; however, we will explore more geographies further at the implementation research stage. Our final decision will also depend on our further exploration of government partnership opportunities, as we have remaining concerns about the difficulty of obtaining a government partnership in the current policy environment focused on COVID-19.

Our informed consideration, expert interviews, and cost-effectiveness research led us to have positive views of the impact a new nonprofit could have in this space. Despite this being targeted to a more narrow population of women of reproductive age – women giving birth that year – it represents a larger proportion of the problem than it appears: unmet needs for family planning one year post-delivery are very high, with just a little over 10% of women using contraception 6 months after birth. Experts and crucial considerations research highlighted barriers including misinformation and lack of planning to use contraception. We think we would be in a good position to tackle these barriers through ensuring counseling and contraceptives options are provided after delivery. We estimate the cost-effectiveness of this intervention to be \$67 per unintended births averted, which is stronger than most interventions researched this year.

The weighted factor model highlighted other strengths of this intervention, such as its strong evidence, funding availability, short feedback loops, and positive externalities on maternal and child health. However, it also pointed us to a limitation that we think could undermine the promise of this intervention: it relies on government buy-in, and the probability of obtaining this sort of partnership for a new actor in the field might be low. This is especially true because the partnership would rely on adding to health workers' regular duties, which depending on the context might be a challenging ask. We think the policy environment is favorable to the integration of family planning and postpartum care. However, this is still a concern and could undermine our recommendation of this idea.

We also remain uncertain about our cost-effectiveness estimate for different reasons. Firstly, though we heavily discounted the evidence to account for heterogeneity in results, it does leave a lot of uncertainty around what effect we can

expect to find in a different context. This was reinforced by one of the experts pointing out several case studies where postpartum family planning was replicated to West African countries and did not lead to impact. Secondly, we are uncertain about the amount of training and support needed to ensure high quality implementation, and think this could vary across contexts. Some of the studies report just three days of training being provided before the rollout of the intervention, but some experts emphasized the importance of having a minimum amount of support and supervision throughout the implementation. There is also uncertainty around the amount of supervision, engagement with health managers, and data tracking support needed to maintain the impact of the program in time and at scale. We did not model these inputs in our cost-effectiveness analysis and this could make the intervention overall less cost-effective and more difficult to implement than expected. Finally, we have remaining uncertainties as to the number of actors actively working on postpartum family planning and more research should be done to identify neglected geographies in this space.

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 report                             | During the idea sort, this idea showed promise: it was in the top 10 of 188 total ideas, scoring well in all areas.   | Full report<br>Process |
| Idea prioritization report                   | After two hours of researching postpartum family planning using expert views, it was the 3rd highest priority for more in-depth research.   | Full report<br>Process |
| Prior view<br>( <a href="#">section 1.</a> ) | 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 our conversations with experts at the previous stage who highlighted postpartum women as a target population for their specific intervention. At this stage, we had a lot of uncertainties around the cost-effectiveness of this intervention and were concerned about its potentially limited scalability, but thought it would be well perceived | Process                |

|  |  |                                 |
|--|--|---------------------------------|
|  | by experts. Our likelihood of recommending this idea was then between 3–30%.   |                                 |
| 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 explored the forms this intervention could take. We considered a wide range of programs including targeting women during post-abortion care. From this, we concluded that post-abortion family planning has much more constraints and limiting factors such that we excluded it from the scope of our report. Overall from this perspective, postpartum family planning looked very promising. | Process                         |
| Expert view (section 3.)                 | After examining crucial considerations, we discussed the intervention with experts including leaders of NGOs in this field (Jhpiego and IntraHealth), a manager of a coordinating body, and a researcher. During these conversations, 100% of the experts held positive views. There was a consensus that the most evidence-based intervention within this space is immediate postpartum, that providing ongoing messaging throughout antenatal care is considered best practice, and that government buy-in will be necessary.  | Process                         |
| Cost-effectiveness analysis (section 4.) | In our cost-effectiveness analysis, we quantify impact in terms of dollar cost per unintended birth averted. Our findings suggest that postpartum family planning is among the most cost-effective ways to prevent unintended births compared with other interventions we are researching in 2020, at a cost of \$67 per birth averted.  | Supplementary report<br>Process |
| Weighted factor model (section 5.)       | The next stage of our research involves a weighted factor model. We scored the intervention based on preset criteria and weightings. In this case, PFP overall scored well with 31/50 as an intervention. The score can be broken down as follows, with the weighting of each criterion in parentheses: 7/10 for strength of the idea (2), 4.8/10 for limiting factors (1.5), 6/10 for execution difficulty (1), and 6.3/10 for externalities (0.5). Its main weakness is that it targets a low percentage of the population, limiting its potential scale.            | 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  | Process                         |



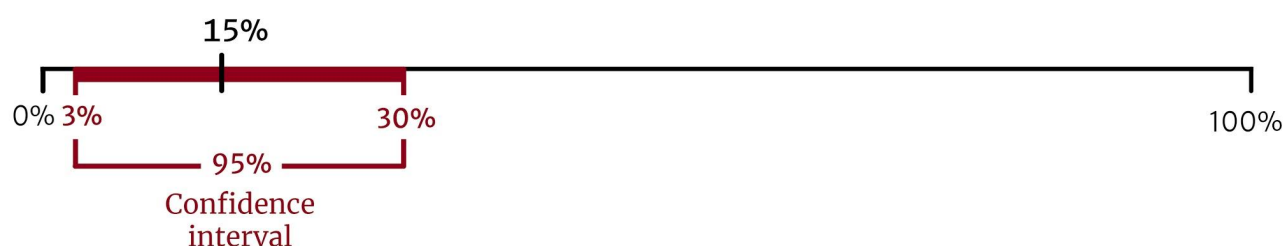
|                   |  |                               |
|-------------------|--|-------------------------------|
|                   | thoughts on PPFP as an intervention. <b>PPFP is a recommended intervention in our family planning cause area in 2020.</b>  |                               |
| Supporting report | We conducted deeper research into the range of outcomes affected by an increase in contraceptive use to model these effects consistently across interventions. Our approach and reasoning are explained in this supplementary report for all CEAs. | Supplementary report for CEAs |

# 1 Prior view

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

Overall, we think there is a reasonable chance that we recommend this intervention for a new nonprofit. As we are highly uncertain, we have wide confidence intervals around our estimated probability. At the time of writing this section, we have not yet conducted a literature review of postpartum/postabortion family planning, nor do we have a good sense of what the exact service provided would be. We think the intervention's promise will depend on factors we will research during informed consideration around the difficulty of reaching pregnant women and the type of service it would be useful to provide. We suspect its cost-effectiveness could be competitive with other top interventions depending on the expected effect size. Experts will likely be positive about this intervention since conversations with them at the previous stage are what led us to prioritize it. Finally, we expect this intervention to be relatively easy to implement but limited by the scale of the problem given that it targets a particular group of women. It is likely to have positive externalities on maternal and infant health and potentially some negative externalities due to redirecting health workers' and patients' attention away from other issues.

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



## 1.1 Informed consideration

We expect this intervention's promise will depend on the frequency and nature of the interaction between women and the health system during and after pregnancy, as these determine how easy it is to reach them at the right time. We will also look at whether abortion laws and access influence the promise of this intervention, as abortion, too, could be a point of contact to reach women and the incidence of abortions an indication of the size of the problem of unintended pregnancies.

At this stage, we expect to do more research into what services we could actually provide to women in postpartum and post-abortion, as the focus of our research up until this point has been the intervention's target population and the point of contact, not the actual service. We expect the most promising services to be either information or contraceptives provision.

## 1.2 Expert view

We suspect expert opinions will be positive about this intervention, as they were at the previous stages of the research. We think it might be difficult to find experts specialized in postpartum family planning but that a lot of family planning experts will have a view on this particular approach of delivery. They may be more in favor of formally integrating certain services with existing family planning compared to having an independent actor providing their own family planning services alongside public postpartum health.

## 1.3 Cost-effectiveness analysis

This intervention will be promising only if the expected effect size is large, as we suspect this could be more expensive to implement than other interventions. Our intuition is that it would have a large effect per woman reached. This is based on experts' views that the population targeted consists of women who are most likely in great need of family planning, either because they do not have access to contraception or because they do not use it consistently enough. However, we are uncertain because we have not conducted a literature review yet and so do not have a good sense of the evidence base for this intervention at this stage.

## 1.4 Weighted factor model

We expect this intervention to be middling. It could have positive externalities on maternal and neonatal health through improving birth spacing. However, it could also have negative externalities if it were to overwhelm women with information at a time when they need to remember key appointments for their health and that of their child (e.g. immunization). We suspect the scale of the problem could be a limiting factor for this intervention, as it will mostly concern women who have delivered a baby in the last year. In terms of execution difficulty, we suspect this could easily be started independently but would benefit greatly from a partnership with the government in the country since the intervention would be delivered in an existing health facility.

## 2 Informed consideration: Crucial considerations

**Summary:** At this stage of the research we were unsure whether integrating family planning with postpartum care and post-abortion care could be considered together as one intervention targeting women in need. We decided to explore this and potentially narrow down the form this intervention could take by looking into the size of the problem for each population and the barriers to using contraception for these different groups of women. As a result of this research, we decided to exclude post-abortion care from the scope of our report due to updates on its limited scalability and tractability in countries with high abortion restrictions. In this section we only report on key factors that led us to deprioritize it.

We relied heavily on the USAID High Impact Practices Briefs around these topics, as we thought they touched upon a lot of crucial considerations and were very comprehensive. These include:

- Immediate Postpartum Family Planning: A key component of childbirth care
- Family Planning and Immunization Integration: Reaching postpartum women with family planning services
- Postabortion Family Planning: A critical component of postabortion care

### 2.1 How large is the gap in postpartum family planning uptake?

According to the HIP briefs, 61% of women who are in the 24 months postpartum worldwide are not using effective contraception. In low- and middle-income countries, less than 20% of women leave post-abortion care (PAC) with a modern method of contraception.

As a result, 25% of births occur within 24 months of the preceding birth in low- and middle-income countries, according to a cross-country study using data from 1990-1997 [1]. Another study using more recent data (2005-2012) found that “[i]n 9 of 22 surveys, 50% or more of non first births occur at interpregnancy intervals that are too short” [2]. Besides, it could be that counseling women on family planning at that particular time in their reproductive life has long-term effects on contraceptive use later on. On the one hand, women might be much more receptive to information about contraception after having undergone a pregnancy and a delivery. On the other hand, it could be that they have a lot of information to absorb

with regards to their child's health and would not pay a lot of attention to family planning in comparison.

## 2.2 What are the causes of the problem?

Although the briefs list potential reasons women do not use contraception after a pregnancy or a birth, they do not necessarily refer to the evidence demonstrating it. The main theories are that:

- Women do not plan their contraception because they do not think the need will come so soon after their last pregnancy. This is illustrated by the fact that *“the return of menses during the postpartum period often serves as a prompt for women to initiate family planning. However, women can become pregnant prior to the return of menses and timing of return to fertility is unpredictable.”*<sup>[3]</sup>
- There is a stigma around using contraception right after birth, because it implies the woman is sexually active.
- Similar reasons to those explaining why unintended pregnancies happen in the first place, women do not have access to family planning because of economic, informational, or social norm related barriers.

When looking at a cross-country review of factors most often and most significantly associated with short birth intervals <sup>[4]</sup>, we noted that the following were most likely to explain repeated pregnancies:

- Not breastfeeding, which was consistently significant across studies. This point highlights potential positive externalities if we were to focus on breastfeeding promotion as well, as this would improve protection for the first six months and have benefits for the infant's health.
- The fact that the first child is a girl, which was consistently significant across studies.
- Young age, which we suspect could be due to the higher “natural fertility” of younger women although we are not well informed about this particular factor.
- Contraceptive use, which was not consistently associated with pregnancies. This could be a result of noise in the self-reported data. It could also be the fact that more studies had analyzed association with this factor so it is less likely that 100% of studies find an association.

Although it highlights some important barriers, this study did not research the reason women do not use contraceptives as much, which is the factor we would be most able to influence. This was of interest to be able to understand which services

could be most useful to provide between information only vs supplies at a discounted cost or just supplies.

Finally, there could also be cost barriers, either for postnatal care, for which treatment could not be fully subsidized, or for contraception itself.

We also wondered if some methods could not be used after a pregnancy. The briefs highlighted that, after an abortion, should a woman choose an IUDs or a permanent method of contraception, the risk of infection must first be ruled out. After delivery, women who are breastfeeding cannot use injectables but can safely use almost any other method.

Overall, there seems to be limited evidence of the underlying issues of repeated pregnancies postpartum. Many factors come into play that could explain the desire for another child or the lack of contraceptive use.

## 2.3 What kind of services would be most impactful?

In face of these barriers, it seems unclear what would be the most impactful program between counseling, referrals, or actual contraceptives provision.

It seems that immediate postpartum family planning usually includes comprehensive services (i.e. counseling and contraceptives provision). When integrated with immunization during the extended postpartum, family planning more often consists of same-day services or a referral. There seems to be less evidence for providing services during prenatal/antenatal care (ANC), though experts in the past had mentioned the benefit of starting this conversation earlier on to make sure it is on their mind. The brief also notes that *“counseling earlier during a pregnancy may be particularly helpful if introducing IUD or sterilization as women often need more time to consider and discuss these options with their partners.”*

[5]

Offering family planning during immunization sessions could be particularly useful since women often have to wait to get their child immunized. There is a question of whether this could be something done in an isolated way or whether it would only add value if integrated in the health system and implemented alongside other health services. Integrations between maternal and child health services and family planning services would be most promising if it is a policy supported by the government [3]. Doing this through the public health system, using time and resources from government health staff, could affect the quality of child health



service provision. This is something we discuss further in the [externality section](#) of our weighted factor model research.

A testimony from FHI seems to argue that this might be well received: *“In Ghana and Zambia, immunization providers overwhelmingly reported being motivated to provide mothers with family planning information and referrals and felt that providing this kind of information was a part of their job (FHI, 2010).”* [3]

Overall it seems that depending on the context, both information about contraception and cost reduction or direct provision could increase uptake for family planning after a pregnancy. Deciding which approach is best will depend on what the evidence says and the needs in priority countries.

## 2.4 How many women are in postpartum every year compared to abortions?

Given the different needs, approaches, and potentially evidence base for postpartum vs post-abortion family planning, we wanted to explore the scale of these issues to better understand which might be most promising to work on.

Immediate and extended postpartum:

- [Birth rate \(per 1,000 people\) in sub-Saharan Africa](#) = 35.7
- [Population of sub-Saharan Africa](#) = 1.07 billion
- Total number of women in their postpartum per year who are not using contraception (based on the data reported above) =  $1.07B * 0.0357 * 0.61 = 23$  million women

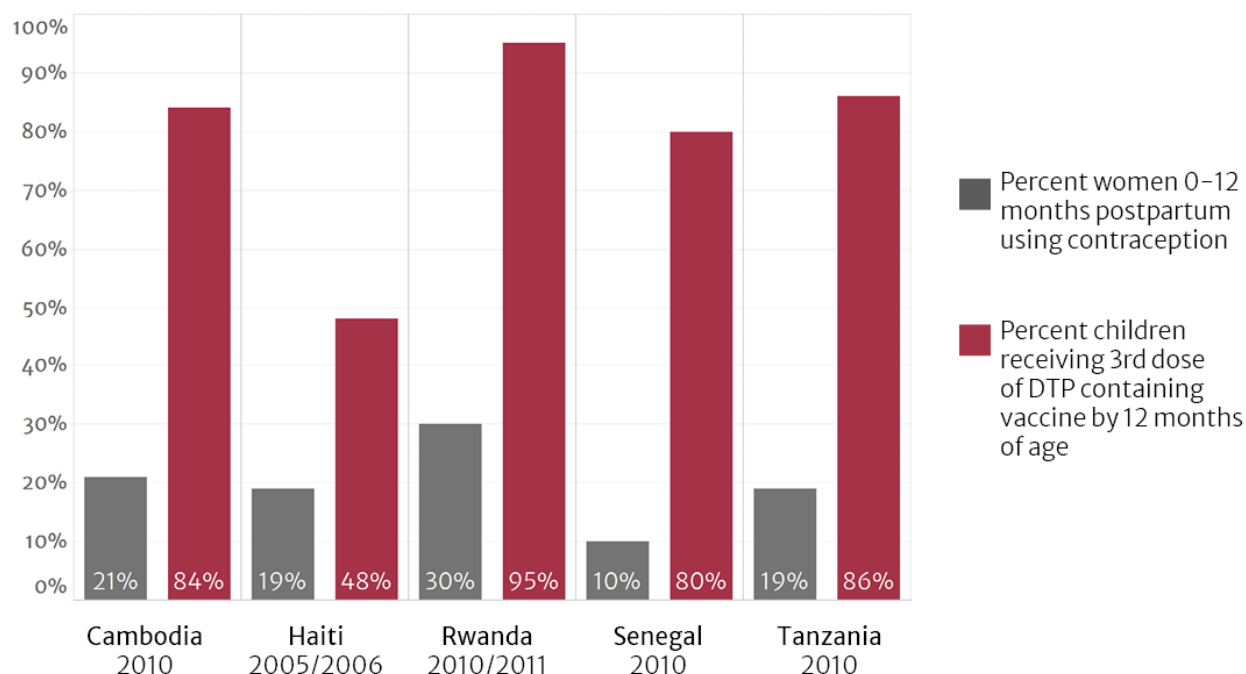
Post-abortion:

- [Number of abortions per year in all of Africa](#) = 8.2 million
- Total number of women post-abortion who are not using contraception (based on the data reported above) =  $8.2M * 0.8 = 6.5$  million women

At first glance, it seems like postpartum is a larger problem and would allow us to reach a larger number of women per year. This simplification does not take into account the percentage of women who would be reachable through the channels described above such as immunization and post-abortion care, though it seems more likely that a greater percentage of women would have access to basic childhood immunization which is provided for free by all government, compared to abortion care which is illegal in many contexts where unmet needs for family

planning are high [6]. Figure 1 below taken from the related brief illustrates this point:

Figure 1: Percentage of women postpartum using contraception compared to percentage of children receiving the 3rd dose of DTP vaccine [3]



The [Guttmacher report on abortion worldwide](#), and in particular the section on “How Is Abortion Practiced and How Has It Changed?” shows that in most contexts where abortion is highly restricted, only well-connected women in urban areas will have access to safe services by a trained provider. Poorer women will most likely undergo unsafe abortion by either getting help from an untrained provider or through traditional methods that do not require being in touch with the health system. The fact that women are undergoing such unsafe techniques to hide that they are terminating their pregnancy highlights that it will probably be very hard to locate and reach these women with family planning advice. Though this seems important and should be further explored when working on integrating family planning with postpartum care, the rest of the report does not cover post-abortion family planning due to questions of scale.

### 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 (Elaine Charurat and Stembile Mangore), one manager from a coordinating body (Alison Gatto), and two researchers (Kate Rademacher and Gwyneth Austin).

**Summary:** Overall, there was a great deal of consensus among experts on this intervention. All five agreed that there is a lot of work to be done given high unmet needs, and space for more actors. Alison and Elaine cautioned us to first look at what others are doing to identify the gaps and make sure we add value since there might be a lot of stakeholders involved in each context. Practically, Kate mentioned this could mean joining technical advisory groups and communities of practice in the country of implementation. All four experts highlighted that government buy-in will be a requirement for training and supporting health workers to deliver postpartum family planning services.

In terms of implementation approach there is again very clear consensus that immediate postpartum is the ideal and most evidence-based intervention. Four experts said that evidence was strong enough to be generalizable. Alison mentioned the caveat that immediate postpartum is the easiest point of contact to measure impact for, which might overstate its comparative effectiveness. Gwyneth, who has conducted research on integrating immunization and family planning, highlighted that although the evidence on integrating family planning during the extended postpartum period is more mixed, there is still a lot of promise. She urged that it is important to make sure women are provided with opportunities to take up contraception at different points in time. This view was generally shared, although Elaine also cautioned us about negative connotations associated with the history of integrated immunization and family planning programs.

While she agreed with the hierarchy of the evidence-base for different types of PFP interventions, it is worth noting that only one expert (Stembile) was skeptical of the generalizability of the evidence. In her experience, what we see in the impact evaluation literature is different from the actual scale-up or replication of programs in new countries, which has been far from successful to date. She mentioned that in West African countries, actors find that making a difference in unmet PFP needs is challenging due to a lack of understanding of contextual barriers to contraception.

## Alison Gatto

**Profile:** Alison is the manager for Postpartum Family Planning at FP2020 (United Nations Foundation). We contacted her to learn about actors in this space, best practices when it comes to implementing this intervention, and the evidence of its effectiveness.

**Summary:** Alison shared very positive views about PPFP as an intervention, and was optimistic about the idea of a new actor entering the space. From an effectiveness perspective, she highlighted that there is evidence demonstrating that it works. The evidence is strongest for integrating family planning with immediate postpartum care, pre-discharge from a facility as opposed to up to one year following a birth, although this could be because this intervention is easier to track than integrating family planning with other services. Alison expressed that there are a lot of strong arguments for PPFP.

- As care during pregnancy and especially delivery is often the only time some women are in contact with the health system, providing quality counseling and contraceptives at this time takes advantage of the client's contact with the health system. It also increases the chance that they later come back to seek family planning services.
- It is one of the least controversial ways to improve family planning uptake since a woman's fertility has already been demonstrated, and in that sense is one of the best opportunities to reach clients who live in more conservative societies.

In terms of implementation approach, Alison described the gold standard to be the situation in which each new mother has access to family planning services during the immediate postpartum, provided she previously received counseling on family planning methods during antenatal care and had the opportunity to talk to her partner about it. This situation is ideal because the new mother is already in the facility, which is stocked with all the necessary supplies for providing quality PPFP services. She also noted that government buy-in and partnership will be necessary to implement this program. She shares the view that there is space for more actors to do work on PPFP.

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

## Gwyneth Austin and Kate Rademacher

**Profile:** Gwyneth is an independent consultant and Kate is a technical advisor for FHI360. Both have authored studies on family planning and immunization integration. We contacted them to learn about the results of Gwyneth's study in

Ghana and Zambia, the evidence and effectiveness of postpartum family planning interventions, and their general opinion on a new charity working in the space.

**Summary:** Overall, Kate and Gwyneth shared the view that the evidence for immunization and family planning integration is mixed but points in the direction of effectiveness, and agreed that there is more evidence for immediate postpartum. Their opinion is that there is a lot of work to be done in this space despite many actors being involved, and that making sure women have the opportunity to take up contraceptives at different points in the postpartum period is an impactful approach. To make sure the entrepreneurs are as effective as possible, they advised us to engage with the existing community of practices in this space, and think carefully about the design of the intervention. Indeed, the main lesson from Gwyneth's study in Ghana and Zambia was that the intervention did not provide the support that health workers needed to follow the instructions on how to deliver the message, which led to a different implementation than planned and less change on women's uptake for the services.

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

## Elaine Charurat

**Profile:** Elaine is Project Director of the Family Planning and Reproductive Health Unit at Jhpiego, a leader in the field of postpartum family planning programs. We contacted her to learn about Jhpiego's work in postpartum family planning, their experience with different PFP's approaches and tips for implementing this successfully.

**Summary:** Elaine shared insight into Jhpiego's history and current work in PFP in multiple countries. She highlighted the need for government buy-in and coordinating with existing stakeholders when implementing this type of very integrated program. One way to do that at the start is to get in touch with the family planning technical group housed by the ministry of health that exists in most countries. She suggested that immediate postpartum with multiple contacts during the antenatal care period is the most effective approach to address unmet needs. She had a positive view of this program having an impact in Ghana and West Africa generally, but highlighted that it is not often a donor priority because of the smaller size of these countries.

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

## Stembile Mangore

**Profile:** Stembile is a Senior Advisor for Health Sector Performance and Sustainability on Evidence at IntraHealth International. We contacted her to learn about her views on the evidence from impact evaluation and implementation research and get her recommendation on promising implementation strategies.

**Summary:** Overall, Stembile agreed about the promise of immediate postpartum family services, if implemented along with ongoing messaging throughout the antenatal care period. She pointed at a few limitations in the literature around PFP, in particular the lack of evidence that the effect replicates from one region to another and even sometimes when a program is scaled up through a policy change. She noted that this highlights the importance of having people on the ground to follow up on the implementation, and that there are still gaps in research.

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



## 4 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 result of the sensitivity analysis, and the model's limitations.

### 4.1 Overview

Overall, our analysis suggests that providing postpartum family planning services is promising from a cost-effectiveness perspective. We modeled the implementation of an immediate postpartum counseling session that health workers would be trained for based on a partnership between the nonprofit and the government, in Ghana. Under this model, we estimate the **cost per additional user of contraception to be \$39** and **the cost of preventing an unintended birth to be \$67**. When taking all counterfactual costs into account, the cost-effectiveness amounts to \$122 per unintended birth averted. Key parameters of this analysis include the effectiveness of the intervention, estimated to be a 4.6 percentage point increase in contraceptive use, and the yearly budget, amounting \$500,000.

The key assumption underlying this model is that the entrepreneurs would have the ability to scale this intervention to about 50% of the health facilities under a government partnership with a probability of success of 75%. The likelihood of obtaining the government partnership itself is 70% if approached through existing nonprofit partners. Combined with the probability of fundraising success, we estimate the odds of successfully scaling this intervention alongside the government to be 13%.

The factors that most affected this estimate and for which we have remaining uncertainties relate to the total scale, the probabilities of success, and the intensity of the training and support needed for the intervention to be as effective as modeled in the analysis.

Table 2: Summary of CEA models

| Model   | \$ per additional user of contraception | \$ per unintended birth averted |
|---|---|---------------------------------|
| Google Sheets CEA Model (link)                | \$39                                    | \$67                            |
| Taking into account all counterfactual costs* | N/A                                     | \$122                           |

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

## 4.2 Models

To estimate the cost-effectiveness of this intervention, we model the implementation of immediate postpartum family planning counseling in Ghana. Below we discuss our reasoning and other models we considered.

### Country of implementation

As a first step, we prioritized shortlisted countries where we thought the least number of actors were working in this space (see [section 5](#) for more detail). We identified Ghana, Senegal, Angola, Benin, and Cameroon as promising countries with fewer actors and significant postpartum contraception needs. Angola was deprioritized after an [expert conversation](#) conducted to assess another intervention led us to believe it would be quite hard to set up an organization there. We then looked at the size of the population we could reach if we were covering 100% of the problem in the remaining four countries (table with calculations in the input tab of the [sheet](#)), and then assessed contraceptives stock-out as this could be an important limiting factor.

Out of the four countries, Ghana was the largest in terms of scale of the problem (over 500,000 women per year could be reached) and Senegal the smallest (a little over 300,000 women per year). This was calculated using the number of births per year and the percentage of women delivering in a health facility.

Looking at the FP2020 [indicator on stock-out as well as Track20 analysis](#), we observed that supply is an issue in Cameroon and Benin, which have over 40% stock-outs on their preferred method. This could substantially limit the impact of providing family planning counseling postpartum since women would often not have access to the method of their choice. Ghana on the other hand has almost no

stock-out for its preferred method (injectables), and 10% and 7% respectively for implants and IUDs.

Though it seems to be the most promising country to model for this intervention at this stage, deeper research into country prioritization will be conducted at the implementation research stage.

### Implementation strategy

The studies reviewed on this intervention have implemented a variety of strategies to increase postpartum family planning, from offering counseling throughout prenatal care to integrating family planning services with immunization during the extended postpartum. The implementation of this intervention could also differ in the role of the nonprofit in the delivery of these services: we could aim for a government partnership to train health workers in providing the services, thereby institutionalizing the integration of family planning in postpartum care; or we could seek government buy-in to appoint our staff in these facilities to provide counseling ourselves.

To decide on the implementation strategy, we looked at which interventions were most successful from the literature on the effect of postpartum family planning. We found that immediate postpartum informational sessions and access to contraceptives was the approach proven to be the most effective. Below is a table summarizing this analysis.

Table 3: Summary results of impact evaluations by intervention type

| Implementation strategy                            | Number of studies/Results  |
|--|--|
| <b>Only one session after delivery</b>             | <b>4 studies +2 SRs averaging 28 pp</b><br><b>P, SS+ (+pamphlet)</b><br><b>N, SS+</b><br><b>P, SS+</b><br><b>DRC SS+</b>   |
| Prenatal + after delivery                          | 1 study 2 pp<br>SL, NSS+   |
| Prenatal + after delivery<br>+ extended postpartum | 4 studies averaging 14 pp<br>DRC, NSS+ (+invitation cards and service<br>providers training)<br>U, NSS+ (+home visits)<br>I, SS+ (+home visits)<br>E, SS+ (+info material) |
| After delivery + extended postpartum               | 1 study -3.7 pp<br>N, NSS-   |
| Integration immunization<br>and FP services        | 2 studies averaging 6.6 pp<br>GZ, NSS+<br>R, SS+   |

Depending on the context, we found that most studies' inputs were training health workers, midwives, or vaccinators rather than adding on staff.

The approach that we thought most realistic is to partner with a government and train health workers to provide these services in immediate postpartum. We have not researched the exact setup in terms of oversight but suspect heavy support will be necessary at an early stage to create habits among overworked health staff. Scale-up considerations, cost-effectiveness intuitions, and conversations with experts favor integrating the intervention with existing health systems. At the initial stage of the nonprofit, this intervention could be tested at a small scale by partnering with a private clinic to build a track record, and increase the likelihood of partnering with the government. This is an option we will research further at the implementation research stage.

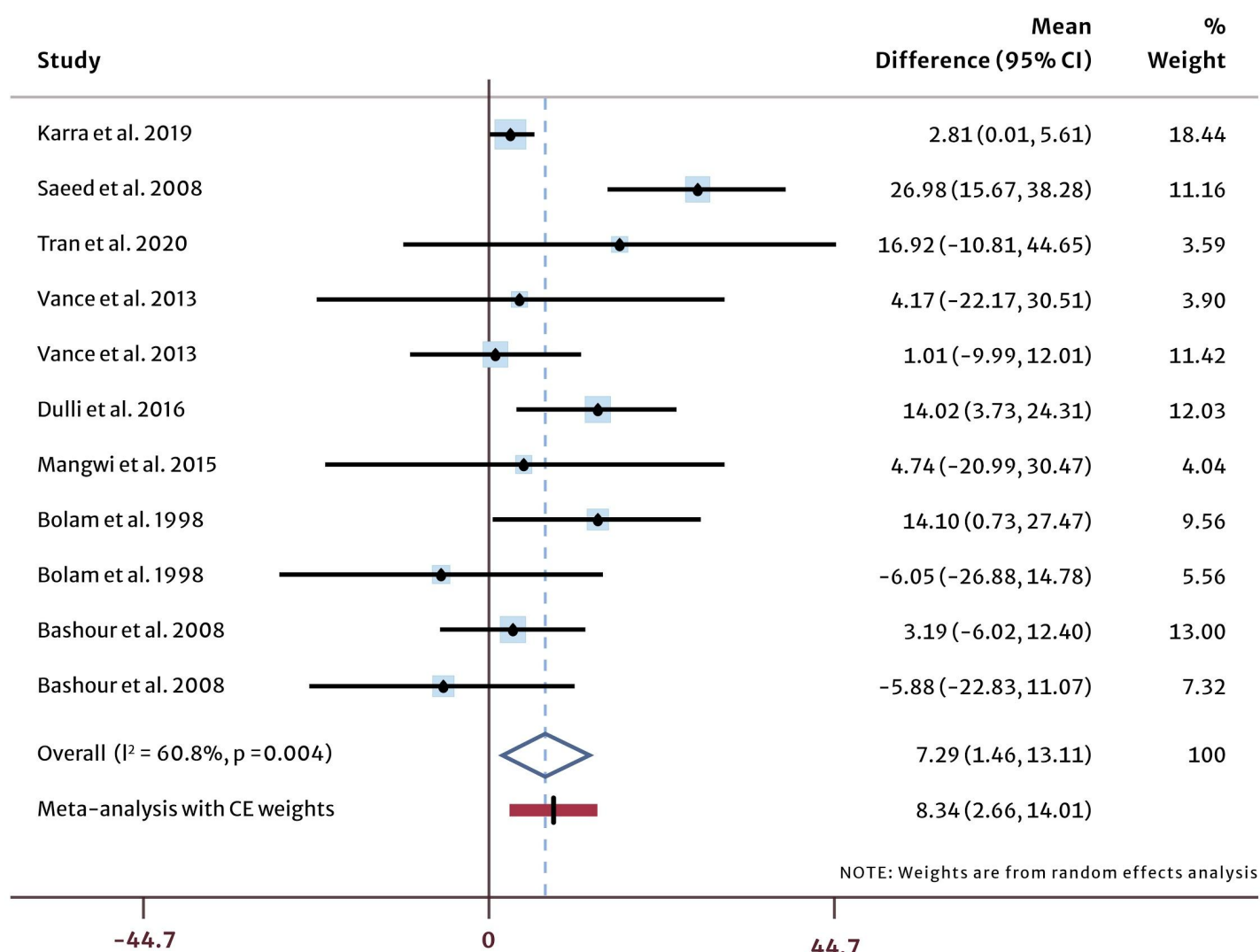
## 4.3 Effectiveness

### Effectiveness of PFP services on contraceptive use

The effect of PFP programs on the use of a modern method of contraception is the channel through which the program is modeled to have an impact on final outcomes. To calculate its size, we have conducted a weighted average, pooling the effects found in impact evaluations of PFP programs and weighted them by the quality of the study. Below are the steps we followed to reach our final effect size (the detail of our analysis can be found in the evidence summary sheet [here](#)):

1. To search for studies, we used two systematic reviews ([Lopez et al, 2014](#) for non-randomized studies and [Lopez et al, 2015](#) for RCTs), the High Impact Practices Briefs' evidence review of [immediate PFP](#) and [integrations with immunization](#), [3ie's evidence portal](#), and Google searches. We found 27 studies in total, among which nine could not be exploited either because the paper was not published, because the groups were not comparable, or because the outcomes reported were different (see more detail in the [evidence summary sheet](#)). A detailed overview of this evidence is presented in the [weighted factor model section](#).
2. We took any relevant point estimate from eight RCTs, which we considered to be higher quality than the rest of the evidence, measuring change in use of contraceptives, which included outcomes focusing on specific methods if the study only reported that, or use of any contraceptive use.
3. We used baseline or control 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 it is adaptable to the baseline level of contraceptive use in the targeted country.
4. We then ran a traditional meta-analysis weighting each study by inverse variance. Using either confidence intervals or p-values reported in these studies, we computed the standard errors associated with each point estimate to allow us to run this analysis.
5. Using the strength of the estimate but also the quality of the study design and statistical analysis, comparability between groups, and external validity, we rated the quality of each estimate separately. We then assigned our own weight to each study based on this score, and whether there was one or more than one estimate taken from each study such that one study using the same control group for four different treatment arms did not get more weight than others.
6. We computed a final weighted average. We found that the average reduction in contraceptive use gap across all impact evaluations of PFP programs is **8.3%** (95% CI: 2.7–14). See Figure 2 below illustrating our analysis.

Figure 2: Manual and stata generated meta-analysis of effects of PPFP on contraceptives use gap (from RCTs)



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. It tells us about the strength of the pooled estimate and the heterogeneity of the findings across studies.

- We found a standard deviation of **2.9** so decided to apply a **discount of ~35%**  
 $GD = 1 - SD/ES = 1 - 2.9/8.2 = 65\%$



Application: when applied to baseline prevalence of postpartum contraceptive use in Ghana, the country modeled in this CEA, we found that the percentage point increase in contraceptive use is estimated to be:

- $\text{Gap in contraceptive use} * ES * GD = (100 - 13.5) * 0.83 * 0.65 = 4.7 \text{ percentage points}$

## Effectiveness of contraceptive use on unintended pregnancies and births

We used evidence from four RCTs implemented in Rwanda, Pakistan, Sri Lanka and the DRC, to know the proportion of the effect on modern contraceptive use coming from permanent methods, Long-Acting Reversible Contraceptives (LARCs), and short-term methods. We weighted each study based on how close it was to **Ghana's method mix**, as we expected the proportion to depend on contraception preferences in the country (details of these calculations can be found in the input tab of the **sheet**). We estimate that 51% of the effect is driven by uptake for LARCs, 44% by uptake for short-term methods, and ~5% by permanent methods. We estimate the impact of short-term methods to start at the end of breastfeeding – since some methods like injectables cannot be used while breastfeeding – and last for the duration between the end of the intervention and when outcomes were measured in the studies. Overall, this leads us to model 2.7 additional months of protection through short-term methods. This is quite a conservative estimate as it assumes almost no continuation after the end of the study. The duration of LARCs and permanent methods, and the efficacy rates of all methods used to estimate the impact on unintended pregnancies are detailed in the cross-applicable parameters document (**Supplementary Report for all CEAs**).

The final effect of the intervention on unintended births averted takes into account the percentage of unintended pregnancies ending in abortion, using the Guttmacher Institute's **regional estimates**.

We think that depending on fertility level in the context, a discount could be attributed to the impact on births to account for it being a delay rather than a counterfactual birth averted. We discuss this further in the **Supplementary Report for all CEAs** and our rationale for not including it in our model.

## Endline outcomes and externalities

The parameters related to the impact of contraceptive use on the range of endline outcomes we care about were researched and estimated once, and will be applied consistently across family planning interventions. These parameters are therefore not specific to the analysis of family planning integration to postpartum care. The

details of how they were modeled are reported in the [Supplementary Report for all CEAs](#). 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 postpartum integration on endline outcomes

|                    | Effects on income<br>(\$ generated per \$ spent) | Effect on health<br>(\$ spent per DALYs averted) |
|--------------------|--|--|
| Cost-effectiveness | \$105  | \$984  |

We found that this intervention has two kinds of externalities. It positively affects climate change, with three tonnes of CO<sub>2</sub> emissions per dollar spent. It also positively affects animal welfare, with 377 welfare points gained per dollar spent.

## 4.4 Costs

Since the main input of this intervention is training, most of the costs in the budget are staff salaries of people who would be assigned to different facilities to train, support, and monitor the implementation of the program by health workers. The average yearly budget for this nonprofit is around \$500,000 at a scale that we think the nonprofit could reasonably reach with this kind of program.

### Staff costs

Since we had good knowledge of the salary structure for similar roles the organization would hire in India, we used a ratio to the average salary in India to the salary at different positions and applied this to the context. The needs for certain staff depended on the scale of the project, in terms of number of people reached and number of partner facilities.

- Co-founders from the CE Incubation Program
- Senior advisor to manage national government relations
- Program officer: needed to build and maintain partnerships with health facilities at early stages, and local health authorities at the scale-up stage. Given that they would be managing staff based in multiple partner facilities,

we estimated the number of program officers needed for the program to run at full scale to be four. Each would manage around seven field staff and could support clinic training when needed.

- Training and support officer: needed for the ongoing training and monitoring of health workers to deliver postpartum family planning and data collection, estimated to manage 50 facilities in total. Under this model, one training and support officer would be able to conduct quarterly training for each facility that partners with us. We found that the intervention evaluated in [the literature](#) varied from a one-day training [7] to quarterly refresher training [8]. We erred on the side of more support to ensure high quality implementation and good data tracking on uptake for contraceptives.
- M&E assistant: for monitoring the implementation of the program through analyzing the data collected in facilities.

## Other costs

Travel expenses: We estimated the daily travel reimbursement to be \$10 on average for facility based staff, and the same amount for program officers, who may travel only half the time. We also counted 30 visits a year for program officers to manage the relationship and training with the facilities.

Office costs: We added the cost of office space (~\$250) based on a quick search of the cost of a fixed desk per person per month in Accra, Ghana, and multiplied it by eight, the number of team members based at an office at scale. \_\_\_\_\_

## 4.5 Assumptions

### Scale of the program

To estimate the reach of our program per health facility, we first searched for the total number of health facilities of different types and levels in the country, and eliminated those that are not appropriate for child delivery. We then calculated the total number of births in the country per year and divided that number by the number of health facilities to get an average number of women we could reach in each facility.

It would be impossible for us to cover 100% of these women:

- 76% of women deliver in health facilities in Ghana
- There might be implementation failures e.g. due to stock-outs or time constraints for health workers. We estimated that this could happen in 10% of cases and reduced our reach per hospital to account for this.

Overall, this led us to estimate that ~200 women would be reached per health facility per year, and ~300,000 women could be reached per year at scale.

## Probabilities

Overall, the odds of this nonprofit idea succeeding to scale up country-wide is 13%. 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 (further details in [section 5](#) of this report) of the difficulty of running this intervention well enough that the nonprofit would decide to scale up. It is estimated to be 82%. The main input is training a small number of health workers and tracking the progress on contraceptive uptake. Depending on the level of resources and staff available in the context, we learned from the expert interviews that getting health workers to follow the instructions can be a challenge (see [expert interview with Gwyneth Austin](#)). 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 incubees' seed grant and a relatively small budget.

The probability of fundraising success at scale up was estimated to be 30% based on the budget needed per year and the availability of funding for this kind of program. We expect it will be slightly higher than other interventions researched in 2020 for equal budgets because of its overlaps with maternal and newborn health funding pools.

Finally, the probability of execution success at the scale up stage is estimated at 75% based on our understanding of the difficulty of implementing this at a large scale, especially taking into account potential logistical constraints making it harder to manage when the scale increases. We think once tested it should be slightly easier to implement this training, though there are some logistical difficulties related to coordinating with other stakeholders (here, the government facilities and health workers) at a larger scale. Besides, there might not be a one-size-fits-all training

that can be standardized across facilities, and there might be some adaptations required while scaling to new geographies.

We also inputted a probability of getting a government partnership. We estimated it to be separate from execution success as it would determine whether the project continues passed the testing stage period, but is independent from how difficult it is to execute or fundraise for. Given that we would ask public health workers to take on additional tasks, even with the support of our staff, this would be quite a big ask. We estimate the probability of the nonprofit getting a partnership with the government to implement training for health workers to deliver immediate postpartum family planning services to be 20% if we had no support from other NGO actors. However, we believe based on conversations with experts that integrating technical groups working on the issue alongside the ministry of health in the country would be both feasible, and a good path to obtaining government partnership. With this in mind, and with the possibility that the partnership would be done under a different large NGOs with whom the entrepreneurs could partner, we think that the probability of getting the partnership would be around 70%.

## 4.6 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 have occurred if the funding received would have gone 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 nonprofits, 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 family planning incubated 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 to the total number of unintended births averted throughout the project. We end up with a cost-effectiveness of \$117 for our best scenario instead of \$67.

## 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. Informed by GiveWell's review of different ways to account for government funding's counterfactual impact, we decided to discount these costs by 25%, and added it to the total budget of the nonprofit. The final cost-effectiveness did not change almost at all, and ends up at \$69 instead of \$67 per unintended birth averted, which 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 \$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 \$67 to \$70.

When accounting for all the counterfactual costs, the final cost-effectiveness of the intervention is \$122 per unintended birth averted.

## 4.7 Affecting factors

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

- Number of facilities reached per year, and number of women delivering per facility per year:** due to economies of scale for managers and training officers, the intervention would be more cost-effective if the nonprofit partnered with more health facilities and reached more women in total. Though we are confident in the number of women delivering per year per facility on average, there could be gain from targeting women in their extended postpartum period. If this were possible and the number of women increased from ~200 to ~500 women reached per facility per year, our estimated cost-effectiveness would go down to \$28 per unintended birth averted. Additionally, the number of facilities at scale is currently modeled as being 50% of all, which is an uncertain estimate.



- **The probability of obtaining a government partnership:** we expect it to be high in theory, from our understanding of the space and environment around postpartum integration policies, but could be challenging in the context of COVID-19 as government priorities shift to preventing the spread of the pandemic. This would not have implications for the cost-effectiveness of the intervention though, as the entrepreneurs would not be able to spend a high budget without this kind of partnership. It could be possible to test the program at a small scale with a private clinic beforehand, in which case some resources would have to be invested without the certainty of scaling the program.
- **The intensity of training support provided to health workers, nurses and midwives:** also an area of uncertainty that could influence the cost-effectiveness of this intervention. Although we relied on estimates from what was implemented in the studies that found the strongest results, we suspect this will be dependent on the context's resources in terms of number of health staff per patient. More research at the implementation report stage will focus on prioritizing context based in part on this criteria.

## 4.8 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, if we had not.
- 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 [9], 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](#).

## 4.9 Other cost-effectiveness studies

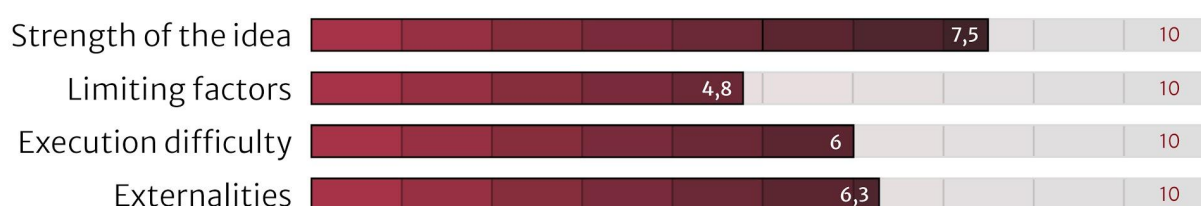
One of the RCTs on immunization and family planning intervention [8], which we expect to have similar cost structures to immediate postpartum family planning, conducted a cost-effectiveness analysis and found that their intervention cost \$32 per additional user of modern contraception while we found an estimate of \$39. We think this could reflect the fact that our analysis was conducted using an effect size discounted for generalizability as we are making assumptions about effects replicating to a new context, whereas this existing study is analyzing the data for a context-specific evaluation for which they had data to rely on.

## 5 Weighted factor model

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

**Summary:** Overall, this intervention is promising according to our weighted factor analysis, as it scored 31 out of 50 in total. It scored well on strength of the idea (7.3/10) and externalities (6.3/10), and scored averagely on limiting factor (4.8/10) and execution difficulty (6/10). Its main strengths are its evidence base, cost-effectiveness, funding availability, short feedback loops, and positive externalities on infant mortality and maternal health. The most challenging aspect of this intervention relates to limiting factors. Its main weaknesses are its difficulty to scale due to the size of the target population, and the logistical bottleneck of training health workers as the implementation approach may vary across health facilities. The need to obtain a government partnership also makes this intervention harder to found, though we are optimistic about co-founders working through existing organizations or to obtain such partnership.

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



### 5.1 Strength of the idea

Score: 7.5/10

The evidence on the integration of family planning with postpartum care is strong. We found eight high- to medium- quality randomized controlled trials (RCTs) evaluating its effect on uptake for contraceptive use in a variety of contexts ([summary evidence sheet here](#)). One of the RCTs had a large sample size of over 30,000 women as it evaluated an at-scale program, while the remaining studies had sample sizes ranging from 520 to 2,000 participants. The evidence comes from countries in various regions in sub-Saharan Africa (4), South Asia (3), and the Middle-East (1). Additionally, we found supporting evidence from four quasi-experimental designs and six observational studies pointing to the same

direction in various contexts. There are also two Cochrane systematic reviews on educational strategies to improve immediate postpartum family planning uptake. The results of the RCTs generally point in the same direction, though with some heterogeneity in effect sizes ranging from 1 to over 50 percentage points, and one negative nonsignificant finding. In terms of strength of findings, half of the RCTs found a statistically significant increase in contraceptives use. Overall, the studies that we put the most confidence in are:

- Karra et al. 2019 in Sri Lanka found a 2.7 pp increase in IUD uptake which was precise but non statistically significant (95% CI: 0–5.4).
- Saeed et al. 2008 in Pakistan found a 50.5 pp statistically significant increase in use of any contraceptives (OR: 19.56, 95% CI: 11.65– 32.83).
- Tran et al. 2020 in DRC found a non statistically significant effect on use of any contraceptives but a statistically significant result on increase in LARCs (OR 4.47, 95% CI: 2.05–9.74).
- Dulli et al. 2016 found a statistically significant increase of 15 pp (95% CI: 4–26) in use of any modern contraceptives.
- Mangwi et al. 2015 found a non statistically significant increase of 3.4 pp (p-value= 0.8)
- Vance et al. 2013 in Ghana and Zambia found a non statistically significant 1 and 4 pp increase in use of non-condom contraceptives.
- Bolam et al. 1998 in Nepal found a statistically significant 10.4 pp increase in use of contraceptive method.

It is worth noting that there is heterogeneity in contexts as well. Intervention types range from adding prenatal counseling, a short information session after delivery, and more intensive follow-up throughout the postpartum period. Follow-up periods for outcome measurement range from right after delivery, at six weeks, or up to one year after birth. There is some evidence of change in fertility from two out of four studies reporting an effect on pregnancy rates [10][11]. *The only RCT that measured this outcome found a positive but insignificant result on both contraception use and on pregnancy rates [12].*

There is some more dated historical evidence that integrating postpartum family planning counseling immediately after birth has led to a reduction in unwanted pregnancies. A lot of governments also have policies to this effect as part of their health system [13].

Our findings from the CEA method highlights that even when modeling an average effect size discounted for evidence (4.7 pp), this is a promising intervention – the second most cost-effective researched this year.

## 5.2 Limiting factor

Score: 4.8/10

**Scale of the issue:** The biggest limiting factor for this intervention is the scale of the issue. This intervention can only reach women after a birth, which limits its reach to a maximum of ~3% of the total population every year. Moreover, only women that are in contact with the health facility can be offered this intervention. This means they would either have to be delivering in a health facility setting or bring their child for immunization, depending on the implementation strategy, to be receiving family planning counseling during the postpartum period. This applies for 76% of women giving birth in Ghana, for example [14], but can be much lower in other countries in the same region (e.g. 60% in Cameroon [14]).

**Logistical bottleneck:** The issue of scale could further be compounded by logistical bottlenecks such as the need to have government and health facilities buy in to be able to appoint staff to conduct regular training at the facility. The training officer themselves would have to be well trained which slows down the scale-up process, though we suspect one training officer could cover a fairly large amount of health facilities (~50).

**Counterfactual replaceability:** Overall, counterfactual replaceability does not seem to be a major issue. Although the field is more crowded than behavioral change interventions, few organizations focus solely on postpartum women. The main nonprofits specializing in this kind of program are Jhpiego and IntraHealth. The other organizations in this space tend to work on a variety of issues within family planning. Priority countries that seem to receive a lot of attention are Nigeria, DRC, and Uganda. Less work is being done in Ghana, Benin, Angola, Senegal, and Cameroon, though it could be that governments in these countries have already set up national policies to integrate family planning with their maternal and reproductive health services. However, we do not see evidence that the gaps in unmet needs are filled, with still only 14% of women in Ghana [14] using contraception at six months following birth and 23% at 12 months, and 10% and 16% in Benin [14]. These numbers indicate that more work could be done to address unmet needs.

We dived deeper into our country of interest, Ghana, and looked at whether Jhpiego had a strong presence there for postpartum care and family planning. The expert we talked to from Jhpiego, Elaine Charurat, shared a document outlining the work of a USAID project run by MCHIP and her organization between 2009 and 2014 that

aimed to train nursing and midwifery students in schools across the country in various aspects of maternal and child health including postpartum family planning. According to the report, out of the \$5 million invested in this project, about \$450,000 were dedicated to family planning training. Though they only assessed the knowledge and skills of the students after the program, this was an at-scale capacity building training aiming to be handed over to the government afterwards, which could mean that PFP is now part of the guidelines and systematically provided. Now that the project has ended, it is not clear whether its impact was sustained and the training of nurses and midwives continued at scale. Even if it did, it does not rule out this intervention as a high-impact idea, but it could change our estimated cost-effectiveness if we were to target a different country or adjust our expectations of counterfactual impact to be lower given what is already being done.

**Funding availability:** In terms of funding availability, this nonprofit idea could be easier to find support for than other interventions because its goal overlaps closely with maternal and reproductive health care goals. This means that entrepreneurs could find funding from different pools outside of family planning donors. We found three foundations that have invested in postpartum family planning which might be easier to reach than bilateral donors: [The Merck for Mothers](#) initiative, the Susan Thompson Buffett Foundation, and the Packard Foundation.

**Talent:** For this nonprofit idea, team members should be well-connected and able to coordinate with government health actors. Indeed, postpartum care and family planning integration is very integrated into the public health system and could not be implemented without government buy-in. Although it is not a specific skill, it could be hard to find talent fulfilling these requirements. Looking through the Jhpiego and FHI360 websites, we found that a few leadership positions within postpartum family planning programs were vacant for a month or more. We believe this could be an important limitation. We have uncertainties about this limiting factor, and though it would be best to hire for this role internally, one alternative for the co-founders could be to work through an existing nonprofit who works closely with the government.

### 5.3 Execution difficulty

Score: 6/10

We believe the best implementation approach would be a form of counseling session and contraceptives provision by health workers in the immediate postpartum period. This means that the intervention would rely on the government facilities'

supplies of contraceptives. The co-founders will have to focus operations on training staff to deliver the counseling and tracking data on the woman's contraceptive choice such that the health system can provide quality follow-up. This does not seem to be complex to implement. The main input would be training, which means the co-founders can focus a lot of their attention on this component. Despite the input being rather simple, there could be several challenges when implementing this intervention, in particular for health workers that the training may not be able to overcome:

- It could be challenging to get women to stay longer at health facilities, as [this study](#) points out.
- The health facilities could be understaffed, meaning that health workers do not have time to provide family planning services on top of their usual duties.

An advantage of this intervention is that it would have short feedback loops. The number of women choosing contraceptives after discharge can be tracked immediately by the person conducting counseling, and collected by the training officers when they visit the facility. The number of women who receive counseling at all, which would inform on the implementation fidelity of the intervention, could be monitored as well by conducting random samples of interviews with women exiting the facilities. For following up on contraceptive use during the postpartum period, data could be collected either through phone surveys or through tracking women when they come back for postnatal care or immunization visits. Overall, co-founders would have access to tools to get feedback on their program and track their progress.

However, it could be difficult to found an organization focused on this because of the need to get the government buy-in to implement the program. Experts emphasized the fact that although having an integrated policy in place is not necessary to provide postpartum family planning counseling support in health facilities, it will be important for credibility to have an agreement with public authorities. This may be hard to get at first. One solution could be to partner with private health facilities that do deliveries, even if it might not reach the most in-need population at first, and so build a track record before approaching the government. Another solution that we think could be the most promising at this stage of the research is to find a nonprofit that already works closely with the government and implement the project in partnership with them. Because of these potential pathways, and the fact that there seems to be open technical groups that the co-founders could join when starting their nonprofit, we think the chance of obtaining a partnership could be quite high and estimate it to be around 70%. We have uncertainties about this estimate in the context of COVID-19, as it could be



that governments deprioritize new partnership at this time and more exploration on opportunities will be needed to refine our views on this probability. Without such a partner to help us obtain an agreement with the government, we think the probability of success would be quite low at around 20%.

## 5.4 Externalities

Score: 6.3/10

Within family planning, this intervention is neutral or positive, as it could enhance the impact of existing supplies and services in clinics by creating demand at a critical time. It was indeed mentioned by an expert that postpartum family planning in conservative societies is one of the least controversial ways to increase demand (see [conversation with Alison](#)). For these reasons, women and relatives might be quite receptive to information. Because the intervention relies on training health workers, it could also improve regular family planning messaging and benefit counseling given outside the postpartum period. This would be true if the same health workers who work in maternal care also deliver regular family planning services, which may not be the case in every facility.

Outside immediate family planning outcomes, our main concern with externalities of this intervention is that postpartum women might be overwhelmed with information about contraception at a time when they have to absorb a lot of key information related to their newborn child. If this had a negative impact on a woman's knowledge of other good health behaviors, this could ultimately be detrimental to her own health as well as her child's. The [HIP brief](#) on integrating immunization and family planning lists the studies which looked at immunization outcomes and did not find a negative and statistically significant effect. This is not generalizable to post-delivery but is still a good sign. There does not seem to be data on the impact of immediate postpartum counseling and child health outcomes which means we are still uncertain about this, but one of the studies we are most confident in did not observe an effect despite a large statistically significant increase in uptake for contraceptives and a light touch support for health workers [\[8\]](#).

When it comes to the positive effect of birth spacing, however, there are several reviews and many studies, which show that it has beneficial effects on infant mortality and maternal health. Indeed, the WHO recommendation and several pieces of evidence point to the increased risk of infant mortality for pregnancies occurring less than 18 to 24 months [\[15\]](#), or even 36 months apart [\[16\]](#). Given the

evidence of health benefits, we suspect overall the externalities on other aspects of health to be positive and larger than for other interventions. When modeling the impact of this intervention on health (DALYs) in our CEA, we have not included these externalities, but we think there could be overlap in conditions affecting all women and postpartum women.

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 gains 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 [here](#)). The application of this view depends a lot on the approach taken to add happiness and suffering, 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 or 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](#).

## 6 Informed consideration: Internal contemplations

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

### 6.1 Crucial considerations

This stage of the process informed us that the unmet needs for postpartum and post-abortion family planning are greater than for the average population of women of reproductive age, making this intervention an ideal opportunity to increase uptake for contraceptives. We found little rigorous evidence as to why women do not use contraception after these events. However, one study informed us of common reasons for short-spaced births, including the existence of barriers other than those we could hope to tackle with this intervention (e.g. desire to have another child when the sex of the newborn child is a girl), which are important to keep in mind when prioritizing the geography for this intervention.

The main update at this stage came from exploring the scale of the problem for these two different populations. Though the unmet family planning needs for post-abortion women are very high, a quick calculation of the scale of the problem led us to believe that the impact of targeting this population would be quite small. Information about access to post-abortion care and abortion services in countries where abortion is highly restricted updated us negatively on our ability as a nonprofit to reach women in these situations. For these reasons we decided to rule out post-abortion care family planning from the scope of our research into this intervention.

We explored narrower variations of this intervention for specific periods within postpartum but did not see clear signs that we should rule out or focus on one in particular at this stage.

### 6.2 Expert views

At this stage, which occurred simultaneously with the weighted factor model and the cost-effectiveness analysis, we reached out to practitioners leading NGOs, managers of coordinating bodies, and researchers who have evaluated postpartum

family planning services. Our goal was to get experts' opinions on the promise of this idea from the perspective of evidence base and execution difficulty.

We found a very high level of consensus among actors in this field, which was also aligned with our informed consideration research and our understanding of the issues described in the HIP briefs. With relation to the evidence, all experts agreed that immediate postpartum was the most effective and evidence-based intervention in this area compared to antenatal care of immunization integrations. Only one expert ([Stembile](#)) expressed more skepticism towards the generalizability of the research. All others shared the view that this is a highly proven program which can be replicated in most contexts. In light of our weighted factor model on the strength of the evidence we found our views to be closer to Stembile's, given the heterogeneity of results.

There was also a consensus among all experts that there is space for more actors. They recommended collaborating with existing actors to fill the gaps and obtaining government buy in.

This stage of the research helped us narrow down a way of modeling this intervention in our cost-effectiveness analysis as well, through discussion around NGOs' experience and researchers' intervention design. We took away from these conversations that the ideal scenario is to train and support health workers in providing counseling for family planning in the immediate postpartum period. They advised us to add on messaging throughout the antenatal care period to ensure women have time to process the information about their options and have made a decision by the time they deliver. Two experts also emphasized the importance of having the right amount of input to ensure impact and a rigorous monitoring system on the ground to follow up on the implementation (Gwyneth and Stembile). Though we did not model exactly how many times throughout the pregnancy and postpartum period health workers would provide the service as it depends on context, this led us to ensure that a large number of dedicated staff for training and support were modeled in our CEA (one full staff managing 50 health facilities).

### 6.3 Weighted factor model

Overall, this intervention performed well under this methodology. Our weighted factor model confirmed that the intervention's strongest points are its evidence base, its positive externalities on maternal and child health, as well as its immediate feedback loops (measurement of contraceptive take-up right after birth). More research into funders also led us to believe we might find more opportunities in this

space compared to other interventions, especially given its overlap with maternal and child health funding.

The main weaknesses of this intervention relate to the scale of the issue and potential difficulty of founding this charity idea. The total number of women we could reach at scale is also limited by the number of women giving birth per year in a facility, a smaller population overall than interventions looked at in the past. In our CEA, this corresponded to a maximum of 300,000 women reached every year after accounting for expected logistical bottlenecks and implementation challenges. We found that our CEA estimate was particularly sensitive to this parameter too. It is worth noting that though this limits the scale of this intervention, if the intervention's scope broadened to women up to 12 or even 18 months after delivery, the total number of women reached could be larger and this would also lower the cost-effectiveness estimate.

Although experts reassured us that training health workers to conduct family planning counseling after delivery does not require a policy change and that there are entry points to get in touch with ministries of health in countries of implementation, it could still be challenging to get the necessary government partnership to run this intervention. Even with a relatively high probability of obtaining the partnership, at 70%, the overall odds of success for this project is lower than interventions that do not require a partnership (<20% overall when accounting for funding and execution success). We have remaining uncertainties about the ease of hiring for in-country leadership positions as well, which might reduce this probability of success. Two experts did point out progress in understanding the importance of postpartum family planning and the increase in political will for these sorts of integration which means this could be easier to push for than we think if it is in a concrete governments' interest. However, given the COVID-19 context, it could be perceived as a low priority.

## 6.4 Cost-effectiveness analysis

Overall, our analysis suggests that providing postpartum family planning services is promising from a cost-effectiveness perspective.

We modeled the implementation of an immediate postpartum counseling session that health workers would be trained for based on a partnership between the nonprofit and the government in Ghana. We think this model could easily be adapted to an integration with immunization services instead in the extended postpartum if it was more relevant in the context. Under this model, we estimate

the cost of preventing an unintended birth to be \$67. When taking all counterfactuals into account, the cost-effectiveness amounts to \$122 per unintended birth averted.

The factors that most affected this estimate and for which we have remaining uncertainties are the probabilities of success for this intervention, which in the case of execution success is a guess of how likely it would be for entrepreneurs to obtain a partnership with a government; and the number of health facilities a field-based staff would be capable of coordinating with/providing training for.

## 6.5 Overall thoughts

All our research methodologies led us to have positive views of the impact a new nonprofit could have in this space, and we recommend it for an incubated nonprofit in 2020. Misconceptions about fertility and contraception needs after childbirth lead postpartum women to use significantly less contraception than other women in reproductive age on average. Strong evidence shows that integrating family planning services with postpartum care reduces these unmet needs. According to our analyses, this is the second most cost-effective way to reduce unintended births out of our top interventions. The implementation of this program will be facilitated by its focus on a relatively simple input: training and supervision; and can be supported by a strong monitoring and evaluation system. The main factors that may undermine the success of scaling this program are uncertainties around the obtention of a government partnership, fundraising success, and the health workers' capacity to absorb additional tasks. Co-founders can find their way in by collaborating with existing nonprofits in the space, and find gaps where they could add the most value.

## Supplemental information

Supplementary Report for All Family Planning CEAs: Cross-applicable parameters

Postpartum Family Planning – Cost-effectiveness analysis

Postpartum Family Planning – Evidence Review and Meta-analysis



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