

Increasing Adherence to MMS among Pregnant Women in Haiti

Experiences using *Sight and Life's* process for designing behavior change programs

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Key messages

- > Vitamin Angels, the Haitian Ministry of Public Health and Population (MSPP), the Johns Hopkins Bloomberg School of Public Health (JHSPH) and the Haitian Health Foundation are collaborating to implement social and behavior change communication (SBCC) strategies and tools to support the uptake of, and adherence to, multiple micronutrient supplements among pregnant women in Haiti.
- > To achieve this, an SBCC strategy is being developed and tested with guidance from *Sight and Life*, utilizing

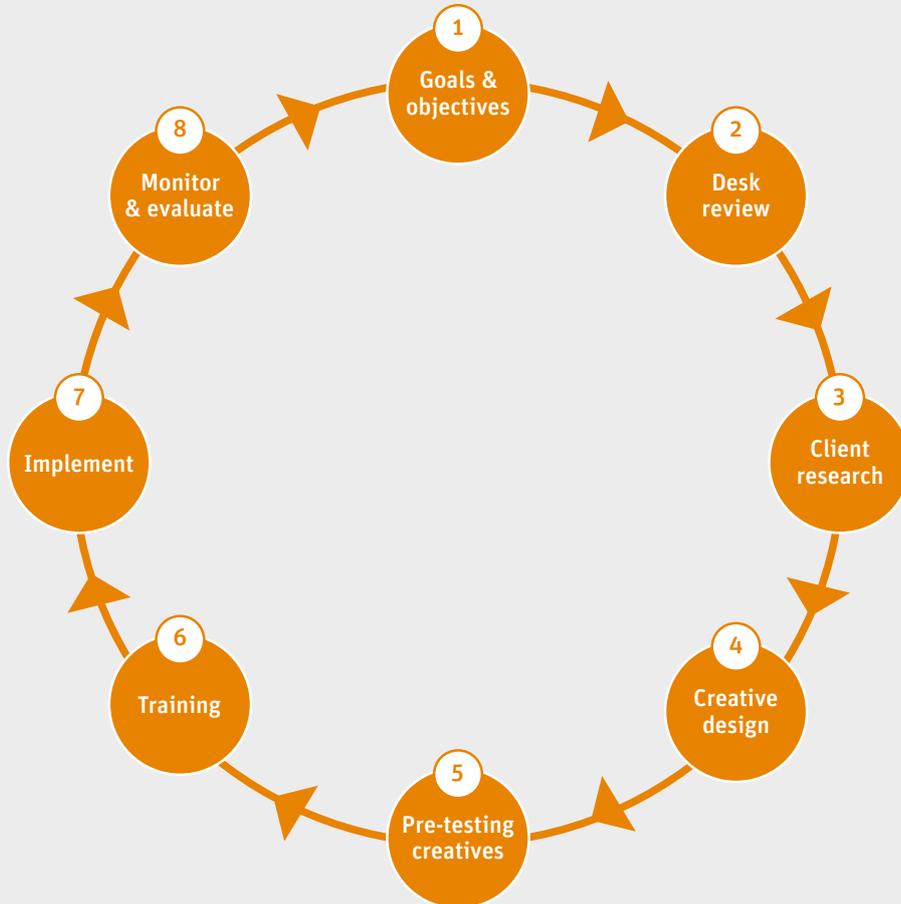
an evidence-based and participatory methodology.

- > As we have worked through the systematic methodology, it has become clear how important it is that the process should be an iterative one – always allowing the insights gained from one step to inform the next.
- > Through this process, we have found that it was important for us not only to understand pregnancy and supplementation in Haiti, but also to broaden our perspective to include all areas of a woman's life to illuminate what is driving the behavior.

Introduction

Micronutrient deficiencies remain a major public health problem in low- and middle-income countries and are of particular concern during pregnancy because of the increased nutrient demands of both the mother and the fetus.¹ Supplementation with iron and folic acid (IFA) is the current standard of care for pregnant women in low- and middle-income countries. However, strong evidence from efficacy trials shows that taking a daily multiple micronutrient supplement (MMS) (containing IFA, and 13 other micronutrients) during pregnancy reduces the risk for low birth weight and being born small for gestational age, above the improvements achieved with IFA alone.^{2,3}

While the World Health Organization (WHO) did not recommend MMS use in place of IFA in its 2016 Antenatal Care Guidelines, it noted that, where appropriate, governments may choose to explore the use of multiple micronutrient supplementation: (1) in programs where significant nutritional deficiencies exist among pregnant women, and (2) after weighing the risks and

FIGURE 1: *Sight and Life's* 'Process that culminates in a strategy to change behaviors'

Credit: *Sight and Life*

benefits.⁴ Following the publication of WHO's 2016 Antenatal Care Guidelines, an MMS Task Force was formed (sponsored by the Bill & Melinda Gates Foundation and hosted by the New York Academy of Sciences) to address WHO's concerns. The MMS Task Force conducted and presented follow-on analyses that were not available at the time of the development of WHO's Antenatal Care Guidelines.⁵ Currently, a technical advisory group (i.e., the MMS TAG), a successor to the MMS Task Force, is working to develop operational guidance to: (1) help national health officials interpret the existing evidence including the results of the MMS Task Force's follow-on analyses, and (2) advise those working to introduce multiple micronutrient supplementation as a nutrition-specific intervention for pregnant women.

One finding of this technical advisory group is that supplementation programs for pregnant women have struggled to ensure coverage and adherence to the daily supplementation regimen since their initiation. Both IFA and MMS programs rely on women taking the supplement frequently enough throughout their pregnancy for it to have an effect on their nutritional status. However, establishing and maintaining this daily behavior

can be challenging. To address this challenge, Vitamin Angels (a nonprofit organization dedicated to the global alleviation of micronutrient deficiencies), the Haitian MSPP, the JHSPH and the Haitian Health Foundation are collaborating to implement SBCC strategies that are intended to support MMS uptake and adherence among pregnant women in Haiti. To achieve this, an SBCC strategy is being developed and tested in an evidence-based and participatory method. It will be implemented and scaled up in Haiti to help pregnant women overcome existing barriers and establish daily supplementation behaviors.

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Partnership with *Sight and Life*

The collaborators sought guidance from the consumer insights and behavior change team at *Sight and Life* and utilized their Behavior Change Communication webinar series.⁶ This webinar series provided a comprehensive background on the importance of behavior change in influencing health behaviors, plus an eight-step process for developing, implementing and evaluating new behavior change strategies and tools (Figure 1).

“*Sight and Life* is providing technical consultation as we move through the steps of the behavior change communication process”

Sight and Life is providing technical consultation as we move through the steps of the behavior change communication process, and has been integral in reviewing findings after each step to ensure that we move through the process in an iterative manner.

Step 1: Establish program goals and objectives

BOX 1: Key elements of Step 1

- 1) Involve stakeholders early in the SBCC process
- 2) Distinguish your SBCC goals and behavior objectives as distinct from program goals
- 3) Identify barriers to, and opportunities for, SBCC

Credit: *Sight and Life*

Using *Sight and Life*'s 'key elements' of Step 1 as a guide (Box 1), Vitamin Angels and the MSPP hosted a workshop in Haiti in September 2018 with key government stakeholders from all 10 geographic departments of Haiti. Participants included representatives from the nutrition, monitoring and evaluation, and pharmacy units of the MSPP. The objective of the workshop was to understand the existing micronutrient supplementation programs for pregnant women in Haiti. During this workshop, an opportunity was identified to explore the implementation of an MMS program for pregnant women. Based on the existing challenges of low uptake of, and adherence to, prenatal micronutrient supplementation, the desire to implement an MMS program provided an additional opportunity to address these behaviors by incorporating an SBCC strategy. During this workshop and



Participants from the stakeholders' workshop in Haiti come together in September 2018 to discuss maternal micronutrient supplementation in Haiti, and also the potential barriers and enablers for increasing MMS uptake and adherence in the country

subsequent meetings, the following program and SBCC goals and objectives were developed:

- > Program goal: Improve nutrition in pregnant women.
- > Program objective: Provide MMS to pregnant women.
- > SBCC goal: Increase uptake of, and adherence to, MMS.
- > Behavior objective: Take supplement every day for 180 days.

Step 2: Desk review

BOX 2: Key elements of Step 2

- 1) PESTLHE and stakeholder analyses
- 2) Working hypothesis/model: What do we know about our audience and their behaviors?
- 3) Recent efforts to change behaviors, and their effectiveness
- 4) Key program indicators: coverage, utilization, quality, satisfaction with services
- 5) Overall capacity in country to design and execute communication campaign

Credit: *Sight and Life*

The goal of the desk review was to continue to identify the constraints, barriers and enablers for daily adherence to supplementation during pregnancy by completing *Sight and Life*'s 'key elements' (Box 2). We engaged relevant stakeholders who were familiar with the antenatal care system in Haiti to conduct:

- > a PESTLHE analysis (analysis of **p**olitical, **e**conomic, **s**ocial, **t**echnological, **l**egal, **h**ealth and **e**nvironmental factors that may affect MMS provision, uptake and adherence);
- > a stakeholder analysis to systematically gather and analyze information in order to understand who holds power and influence and who supports or opposes the maternal behavior changes needed for adherence to the daily supplementation; and
- > a program context analysis to outline current coverage rates and service provision/utilization for our selected geographic area.

Also during the desk review, we completed a comprehensive literature review on supplements for pregnant women to understand: **(1)** the common barriers and enablers in supplementation across different contexts, **(2)** the existing behavior change communication strategies that have been tested to increase supplementation uptake and adherence, and **(3)** the lessons learned from each strategy.

The information consolidated during Step 2 provided a strong foundation for the development of our client research protocol, including highlighting the respondent groups of interest, the themes and topics to explore, and the assumptions to test. Throughout this process, it was important that we consistently challenged or reassessed any assumptions made about factors that might influence pregnant women in Haiti. While experiences from other contexts provided useful background knowledge, we had yet to ascertain whether these ideas or thoughts resonate within the Haitian context.

Step 3: Client research

BOX 3: Key elements of Step 3

- 1) Select inquiry framework (RAP, acceptability trial, etc.)
- 2) Choose methods (qualitative)
- 3) Develop insights (hooks, windows, narratives)

Credit: *Sight and Life*

Utilizing the findings from Step 2, we developed a protocol for our client research (in line with the key elements outlined in **Box 3**). The objective was to understand: our audience; the barriers and enablers for seeking antenatal care; the uptake of, and

adherence to, supplementation during pregnancy; and the channels through which SBCC could be delivered. The development of the client research methodology and assessment tools was an iterative process, and was completed in consultation with *Sight and Life*. Ethical approval for this research was obtained from the JHSPH Institutional Review Board and the Haiti Ethics Board.

Following the completion of virtual research skills training from *Sight and Life*, a 1-week training event was conducted with an experienced data collection agency in Haiti in July 2019. The training included an overview of SBCC, qualitative research, the study protocol and tools, and best practices for conducting interviews (e.g., human subjects ethics training). All data collectors practiced conducting interviews through role-play and piloting activities.

Following this training, representatives from the MSPP, the Haitian Health Foundation, Vitamin Angels and the JHSPH accompanied the data collection team to manage the client research, including participant recruitment, daily debriefings and data management. Client research included in-depth interviews with pregnant women and mothers with a child less than 6 months of age ($n = 14$), influential family members ($n = 10$) and community leaders ($n = 10$). We conducted focus group discussions ($n = 9$) with healthcare professionals about their experiences of providing antenatal care and micronutrient supplements to pregnant women. Interview topics included views on pregnancy, antenatal care, perceptions and experience with supplementation, communication channels, and general motivators and barriers to a healthy pregnancy.

Additionally, we enrolled 25 women in a 2-week at-home acceptability trial to assess: maternal satisfaction, perceived positive or negative effects of supplementation, their desire to continue use, and the barriers and enablers for daily MMS adherence. The trial allowed us to identify the differences between doers and non-doers (i.e., women who took the supplement and women who did not), and strategies that women had used to help them remember to take the supplement – for example, putting the MMS by their bedside table or having their husband remind them to take it.

“The trial allowed us to identify strategies that women had used to help them remember to take the supplement”

The team is currently planning a workshop with relevant stakeholders in Haiti to review the findings from the client research and develop insights to inform the creative design strategy (Step 4).

Summary and next steps

In summary, the overall objectives of this project are: **(1)** to design an SBCC strategy to increase MMS uptake and adherence, and **(2)** to evaluate the coverage (dose, reach, fidelity) and effectiveness of the MMS SBCC intervention in Haiti.

To date, we have completed a comprehensive desk review to inform site selection and the client research that will inform the development of our SBCC strategy and tools.

As we completed these steps, it became clear how important it is that the process is an iterative one – always allowing the insights gained from one step to inform the next. Throughout this process, we have discovered that it was important for us not only to understand pregnancy and supplementation in Haiti, but also to broaden our perspective to include all areas of a woman's life to illuminate what is driving the behavior.

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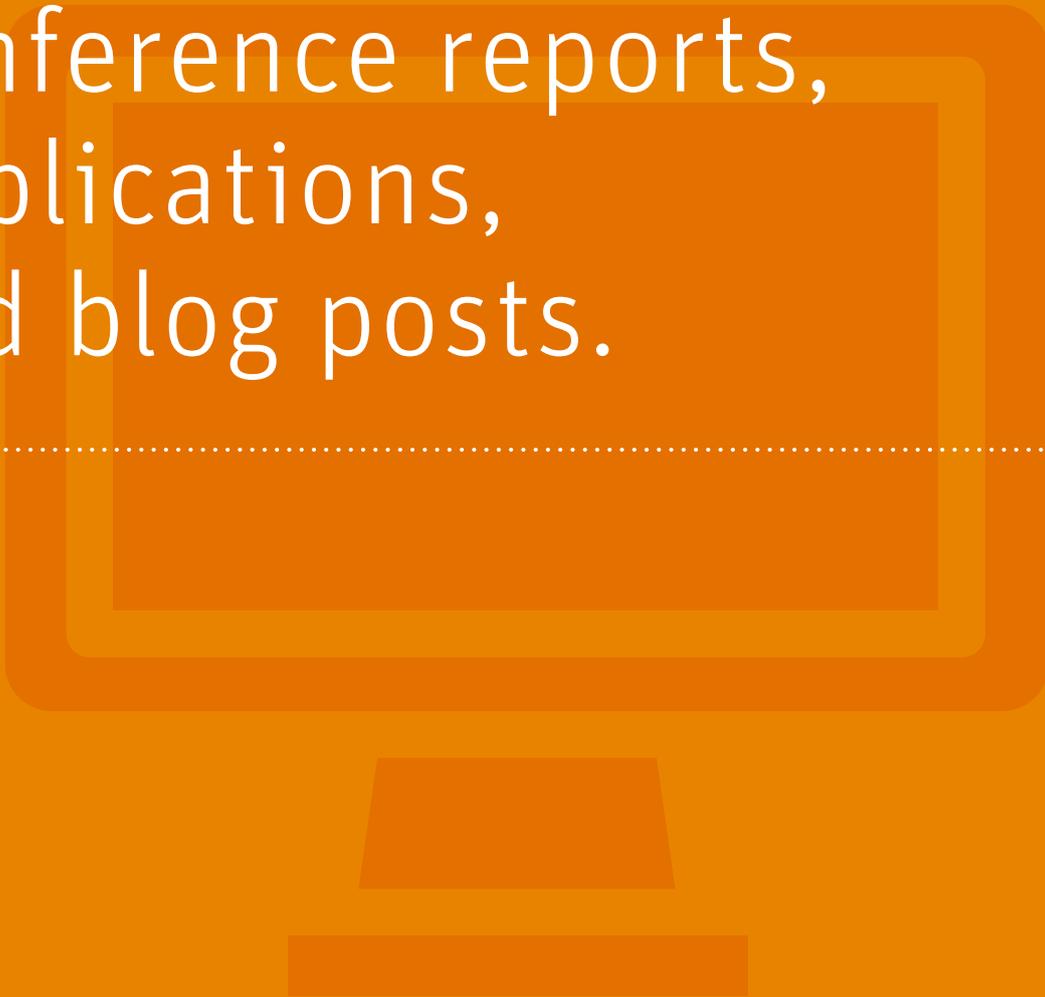
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A stylized, minimalist illustration of a computer monitor. The monitor is represented by a large, rounded rectangle with a thick orange border. Below the rectangle is a trapezoidal shape representing the base of the monitor, also in orange. The entire graphic is centered at the bottom of the page.