Maximizing the Impact of Reproductive Nurture Kits for Expectant Birthers and Families

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Contents

1 Introduction

Maternal Health Background 2
Summer Research Project Overview 3

2 Research Project

Nurture Kits 4
Qualitative Survey 6
Community Engagement Event 8
Quantitative Analysis 10

3 Conclusions

Conclusions and Takeaways. 11

4 References and Acknowledgements

Acknowledgements 12
References 13

1 Introduction

Maternal Health Disparities

Maternal health disparities are a pressing issue in the United States and globally. The National Institute of Health reports that 50,000 women in the United States suffer from pregnancy complications annually, and Black women are at least three times more likely to die due to pregnancy-related complications when compared to white women. One in three US families cannot afford diapers and the price of baby formula and other items continues to increase. The average price of diapers has increased by 14% in a year on top of diaper taxing. These price increases have made it especially difficult for low-income families to afford these kinds of postpartum resources. The pandemic has only exacerbated these disparities. Raising a child is a huge financial burden for a family. In 2018, "the annual price of a child care center for two children under age 5 was estimated at $20,544" (American Progress, 2019). These kinds of price increases disproportionately impact low-income BIPOC families, making it critical that we target this problem.

The Maternal Outcomes for Translational Health Equity Research Lab (MOTHER) strives to address and eradicate the inequities that Black women face through research, advocacy, and mentorship by confronting and dismantling the system that enables and perpetuates racism for Black birthing people. Our mission is to achieve a world where BIPOC-birthing people who want to become mothers can efficiently and comfortably receive equitable access to high-quality healthcare. Our goal is to create a world where black women do not face maternal health complications due to racism, homophobia, and sexism.

During my Laidlaw project, I will specifically be working with the Community Engagement, Advocacy, and Policy Committee (CEAP) of the MOTHER lab, which aims to create and strengthen relationships with community partners and tackle the social structures that are currently failing Black birthing people. The CEAP committee of the MOTHER lab is currently working on creating Nurture kits, which are a postpartum resource that provides necessary supplies to low-income families who may not otherwise be able to afford them. These resources include breast pumps, portable changing pads, and other postpartum resources.

The Nurture Kit initiative is critical as maternal health disparities continue to expand. The purpose of the Mother Lab "Nurture Kits" program is to raise money for expecting mothers and guardians who are low-income while raising awareness about access to essential postpartum resources. These Nurture Kits aim to provide 40 prep packs for expectant families and families with newborns that need these resources. Our main partnership was with SomerBaby, a community-based organization that emphasizes maternal health resources.

Summer Research Project Overview

Throughout my research project, I investigated the impacts of the Mother Lab's Reproductive Nurture Kits on alleviating the burden of pregnancy for low-income families; based upon our survey response from Nurture Kit recipients, I created plans to adjust resource allocation and Nurture Kit design to maximize its benefit for low-income BIPOC families. To conduct this research project, the Mother Lab team first focused on additional funding for our Nurture kits to increase supply for more families. Secondly, we organized a community outreach event in collaboration with SomerBaby as well as several local community-based organizations over the 6-week research period to raise awareness about Nurture Kits and other postpartum resources. The event would also open the opportunity to provide Nurture Kits directly to new families.

Over the summer, we planned to host doulas and other maternal health experts for our community event to provide postpartum support and education for new parents. We had also collaborated with SomerBaby to reach out to potential families and parents that would benefit from the reproductive Nurture Kits. Additionally, in collaboration with SomerBaby, the Mother Lab team designed a survey to ask recipients about their experience with the nurture kits. These surveys were successfully distributed through members involved with Somerbaby. The qualitative survey asked recipients about the most significant benefits of the resource kits and the parts of these resource kits that may need to be improved or adjusted to better suit their needs. Moving forward with the project, we plan to compile the results of these surveys for a quantitative analysis through Stata, which will allow us to adjust our resource allocation, marketing, education outreach, and kits accordingly.

2 Research Project

Nurture Kits

The Mother Lab is still aiming to provide 30 "Nurture Kits" for expectant families as well as families with newborns that are low-income or in need of baby and postpartum essentials. These Nurture Kits are a prep kit that provides resources to be made readily accessible to families.

Figure 1. Essentials Provided in the Nurture Kits

Item	Cost
Diapers	$27.22
Postpartum Recovery Essentials Kit - 1) Labor and Delivery Gown with practical snaps on the back and the front 2) Collapsable Peri Bottle 3) Witch Hazel Healing Foam 4) Non-Slips Socks 5) 4 Instant Ice Maxi Pads 6) 4 Disposable Underwear 7) Cooling Pad Liners 8) Caddy bag	$49.99
Aquaphor diaper cream	$17.97
Wipes	$24.99
Pacifier	$8.29
Haakaa hand pump and medela milk storage bags	$28.99
Silicon Breast Pump	$29.99
Baby Monitor	$49.99
Baby Nasal Aspirator	$16.00
Portable Diaper Changing Pad	$24.99
Baby Healthcare and Grooming Kit-- The baby grooming kit includes a hair brush, hair brush, hair comb, medicine dropper, spoon, nail files, nail clipper, scissors, tweezers, finger toothbrush, case , etc.	$9.99
Baby Bathtime Set-- 3 essential baby skin care products including baby shampoo, lotion, and body wash, for a calming bath time, plus 1 reusable caddy with handle	$12.99

Diaper Backpack	$46.99
Infographic with Resources for New Mothers	--

A critical element of supplying these Nurture Kits included funding as well as assembly. The crowdfunding for 50 kits is equivalent to $18,172, and we are still working towards that goal. In order to accomplish this goal, the Mother Lab aimed to establish a mutual aid format to solicit donations. We also made a partnership with Somerville's Family Learning Collaborative community program, SomerBaby. SomerBaby has been providing resources to support low-income families since 2016. Funding for this project supported a one-year partnership with SomerBaby (July 2023-June 2024).

The Center for Black Maternal Health Reproductive Justice (CBMHRJ) at Tufts University School of Medicine is a leader in Maternal and Child Health research and Community Engagement. MARCH, a student organization at Tufts affiliated with the CBMHRJ, has worked with SomerBaby over the past two years for MARCH's Annual Mother's Day Fundraiser, which has sponsored Diaper Drives to fund over 5,000 diapers for local families.

While SomerBaby has been in existence for 7 years, there is a need to better understand the needs and outcomes of Somerville families. According to their director, Ms. Fernanda Villar, there's still significant room for improvement in parent outreach & engagement. These Nurture Kits were created to expand the reach of SomerBaby's Nurture Kit initiative to provide even more postpartum and baby items to families. This project will also help bridge the gap between research, advocacy, and community engagement. This SomerBaby-Tufts University Partnership is an opportunity for the Tufts community to support this essential mission.

Qualitative Survey

The three main aims of the qualitative survey were as follows:

1. What barriers and challenges are Somerville parents, especially those from non-English speaking and immigrant backgrounds, experiencing when trying to access local family support services provided by SomerBaby (i.e., free home visits by doulas, parent workshops, free diapers, etc.)?

2. What types of support systems and resources do new parents in Somerville report needing the most?

3. How can SomerBaby, a local community program, sustain lasting relationships with community members as well as partnerships with Tufts students, researchers, and academics in the future?

At the start of the survey, there was a consent process that introduced the study, provided contact information for respondents, and listed out the key information that must be considered. Furthermore, it went into depth on why a respondent was being asked to fill out the survey, the reason for the survey itself, and the possible risks and benefits. Additionally, the preface of the survey stated that after finishing the survey, respondents would be given a $15 gift card as payment. The limitations of the survey included age (respondents had to be over 18 years old), that a respondent had to be a parent or guardian of a child younger than 3, and had to live in Somerville, MA, USA

The survey itself had two different options depending on whether the respondent identified as a mother, father, or a different kind of guardian. It asked questions about the worries of the respondents, the resources that they were utilizing, whether or not they had heard about additional resources, and more.

Figure 2. Examples of Questions from the Perspective of Respondents

When you were **pregnant** with your baby, did any of these things happen to you? (Check-all that apply)

- [ ] Not having a way to get to your healthcare appointments.
- [ ] Worrying about having a home or place to sleep.
- [ ] Worrying about keeping your job.
- [ ] Worrying about finding a job.
- [ ] Being afraid of facing racism or discrimination from healthcare providers.
- [ ] Being afraid of facing racism or discrimination from employers.
- [ ] Being afraid of the COVID-19 virus affecting you or your family.
- [ ] Feeling stressed about having a new baby.
- [ ] Having medical problems during pregnancy (like high blood pressure, gestational diabetes, etc.).
- [ ] Having trouble getting health insurance.
- [ ] Other

During the birth of your baby, did you experience any of the following? (select all that apply)

- [ ] Feeling really scared about having the baby.
- [ ] Feeling unsure about how and where I would have the baby.
- [ ] Feeling like my doctor didn't explain how the birth would happen.
- [ ] A doctor (OB/GYN) was there to assist with the birth.
- [ ] A nurse-midwife was there to assist with the birth.
- [ ] A doula (someone who isn't a doctor or nurse) was there to help during the birth.
- [ ] Worries about my immigration status.
- [ ] Other

Towards the end of the summer project, the surveys that were collected on a physical copy were converted to the virtual form as well for the quantitative analysis portion of the research project.

Community Engagement Event

Throughout the majority of the summer, the Mother Lab largely coordinated the "SomerBaby Family Event," which was initially set to take place on August 17th, 2024. The Somerville Family Day was in collaboration with SomerBaby and aimed to be a fun family event that provided the opportunity to give out Nurture Kits and informational pamphlets about maternal health resources. While the project was initially set to take place on August 17th at the Chuckie Harris Playground, there were some logistical difficulties in coordination, so it has now been postponed to November at the latest.

The Somerville Family Day was meant to provide a space for new families and parents/guardians in Somerville to build community and relationships. It also provided opportunities to give out Nurture Kits, ask for survey respondents, and get the community connected with Somerville's resources.

Figure 3. Project INSPIRE Event Room Plan

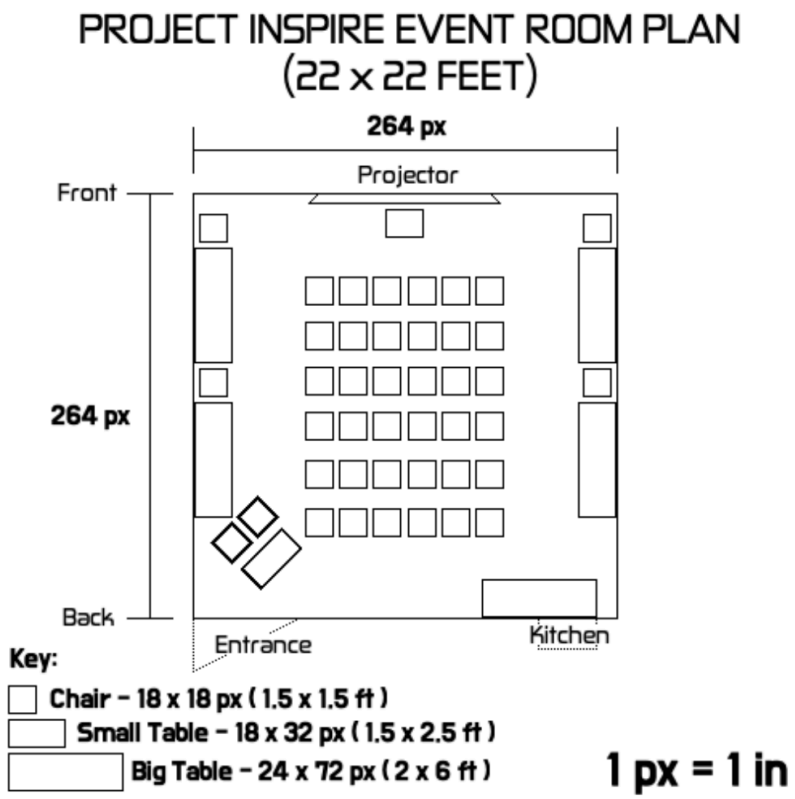

Figure 4. Somerville Family Day Handout

WHY IT MATTERS?

Maternal health disparities are a pressing issue in the United States and globally. The National Institute of Health reports that 50,000 women in the United States suffer from pregnancy complications annually, and Black women are at least three times more likely to die due to pregnancy-related complications when compared to white women. One in three US families cannot afford diapers and the price of baby formula and other items continues to increase. The average price of diapers has increased by 14% in a year on top of diaper taxing. These price increases have made it especially difficult for low-income families to afford these kinds of postpartum resources The pandemic has only exacerbated these disparities. Raising a child is a huge financial burden for a family. In 2018, "the annual price of a child care center for two children under age 5 was estimated at $20,544" (American Progress, 2019). These kinds of price increases disproportionally impact low-income BIPOC families, making it critical that we target this problem.

Would you like to learn more about the Mother Lab?
Follow us @mother_lab

RESOURCE LIST

Somervile Family Learning Collaborative (SFLC)

SFLC offers various programs and services to support families including home visiting programs for infants, multilingual paygroups, and more.

Contact: Ruth Santos, Director
167 Holland St, Somerville MA 02145
(617) 625-6600

Center for Black Maternal Health and Reproductive Justice (CBMHRJ)

Advocating for access to quality care, nutritional guidance, and extended insurance coverage to iimprove health outcomes for black women.

Contact:
Boston, MA 02111
(617) 636-2428
blackmaternalhealth@tufts.edu

DrEaMH Initiative at MGH

This initiative at Mass General Hospital works to expand maternal health access by increasing access to doulas, offering mobile health care, and more.

Contact: Email mpcu@mgb.org and cc: skilic@mgb.org

Kids in Nutrition

Improving food equity and health for at-risk youth and families by boosting food literacy and access, particularly in marginalized communities, to foster lifelong healthy habits and reduce chronic disease risk.

Contact: fikrilina88@gmail.com

Somerville Family Learning Collaborative

SomerBaby

A collaboration of Tufts University School of Medicine and Somerbaby

PROJECT INSPIRE

Tufts University
Jonathan M. Tisch College of Civic Life

Center for Black Maternal Health & Reproductive Justice

MARCH

EVENT AGENDA

- 10 am: DOORS OPEN
- 10:30 am: WELCOME
- 10:45-11:15 am: What is Project INSPIRE?
- 11:15 am - 12:15 pm: REFRESHMENTS AND RESOURCES
- 12:30 pm: CONCLUSION

MEET TEAM INSPIRE:

Dr. Ndidiamaka Amutah-Onukagha *Founder, CBMHRJ*
Nina C. Ashford, *Policy Unit Lead CBMHRJ*
Siwaar Abouhala, CBMHRJ
Elizabeth Timilehin Bolarinwa, *CBMHRJ*
Tyra M. Gravesande, *CBMHRJ*
Chelsea Liu, *CBMHRJ*
Ameya S. Menta, *MOTHER Lab*
Grace Rahman, *MOTHER Lab*
Stephanie Saintilien, *CBMHRJ*
Lena S. Sharara, *CBMHRJ*
Lily A. Snape, *MARCH*
Candace Stewart, *Mother Lab Unit Lead CBMHRJ*
Emily C. Teixeira, *MOTHER Lab*

WHAT'S IN YOUR KIT?

Project INSPIRE is creating Nurture kits, which are a postpartum resource that provides necessary supplies to low-income families who may not otherwise be able to afford them. These resources include breast pumps, portable changing pads, and other postpartum resources.

each Nurture Kit contains .....

You can support the Nurture Kits initiative by...

START HERE

To learn more about maternal health care

MYTH NO. 1

"Doula's are only for home births."

REALITY NO. 1

Doula's can support care in all kinds of birthing environments, including hospital births.

MYTH NO. 2

"Community organizations are not equipped to handle medical emergencies."

REALITY NO. 2

While most community organizations (such as birth centers) don't conduct emergency medical care, many have strong relationships with hospitals and medical providers and can guide you to the appropriate resources.

MYTH NO. 3

"Maternal health resources are only available during pregnancy."

REALITY NO. 3

Many of the resources available for pregnant people also offer postnatal care, parenting support, and resources for transitioning back to school/work.

Quantitative Analysis

Unfortunately, there were several challenges that interfered with the original timeline of this project. The project and the community engagement event has spanned out up until November rather than the initial timeline of June/July. Additionally, there were difficulties with scheduling and availability with the Chuckie Harris Playground. While enough surveys were completed by community members, several of these surveys were also on physical copies and conducted verbally. As a result, we had to take more time inputting these physical copies into the online Qualtrics system.

As a result of these hurdles, the quantitative analysis portion of this study has just begun, and there are no final conclusions to the study.

Nonetheless, the MOTHER lab has coordinated plans to quantify the results of the survey and use the platform, *Stata*, to perform the quantitative analysis. This analysis will be the next steps of this project.

03 Conclusions

Conclusions and Takeaways

My research project sought out to maximize the benefits of reproductive Nurture Kits for new families and parents. This research project emphasized the importance of addressing the holistic needs of new families, especially in the postpartum period. From the survey responses, I discovered that new parents face challenges not only in the physical recovery of birth, but also in mental health, social support, and access to essential reproductive resources.

Our main focus with these surveys was to identify gaps in maternal care and recognize the fact that families struggle with the transition of having a newborn due to inadequate support systems. Further, we need to emphasize comprehensive and accessible resources.

The main component of our project centered around the "Nurture Kits" which are meant to be tailored for new families. During the survey period and the process of garnering the results of the survey, I made several reflections on the state of maternal health resources; it made me realize the significant gap in resources for new mothers. There are various elements that make the postpartum period incredibly challenging and go far beyond the physical strains. Furthermore, mothers pointed out that household chores were incredibly challenging. Mothers/guardians pointed out that they often felt like they had a larger burden for caretaking. They also mentioned feelings of being underappreciated and more upset during postpartum.

Moving forward, it will be interesting to incorporate items that aid with mental health support and provide an access point to childcare services in order to alleviate these burdens. I've definitely found that I've become even more passionate about the topic of maternal health. Moving forward, I hope to pursue a leadership in action project that encompasses maternal health.

04 References and Acknowledgements

Acknowledgements

I would like to express my deepest gratitude to Dr. Amutah-Onukagha, who was an incredible mentor and support system throughout my summer research project. The opportunities she has given me and the experience of the summer has been invaluable. Her expertise in maternal health combined with her dedication to serve the MOTHER Lab's core values has truly inspired me in my own research endeavors. Dr. AO's guidance, insights, and encouragement has been instrumental to my understanding and takeaways of the Nurture Kit project and my summer research. I'm sincerely grateful to be a part of this community and to be a part of the transformative work she leads in the MOTHER Lab.

I would also like to express my sincere gratitude to Siwaar Abouhala, the INSPIRE project, and the CEAP group of the MOTHER Lab, who have largely contributed to the foundations of this research project. Every single person working on this project has displayed their leadership, passion, and determination to improve maternal health. I'm constantly inspired by their drive and their contributions to the lab.

Lastly, I would like to thank the Laidlaw Foundation and Andrew Singleton for organizing this opportunity for all of us Laidlaw Scholars to pursue the research we are passionate about. We wouldn't have this opportunity otherwise.

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