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Sarah DiGirolamo

# The Development of a Prenatal Education Toolkit for Prenatal Educators in the State of Georgia: A Special Studies Project

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# The Development of a Prenatal Education Toolkit for Prenatal Educators in the State of Georgia: A Special Studies Project

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Boston College
2016

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An abstract of a thesis submitted to the Faculty of the Rollins School of Public Health of Emory University in partial fulfillment of the requirements for the degree of Master of Public Health in Global Health 2020

## Abstract

The Development of a Prenatal Education Toolkit for Prenatal Educators in the State of Georgia: A Special Studies Project

By: Sarah DiGirolamo

**Background:** The state of Georgia ranks poorly for a number of maternal and neonatal health outcomes in the United States. Moreover, there are significant racial and ethnic disparities in these maternal health outcomes within the state. Prenatal education has the power to improve maternal and infant outcomes. Healthy Mothers, Healthy Babies Coalition of Georgia conducted *An Evaluation of Current Prenatal Education Availability and Receptivity to Online Education in the state of Georgia* in 2018. This evaluation found that prenatal education curriculums in Georgia were not covering important prenatal topics in classes.

**Purpose:** The purpose of this project was to develop, evaluate, and disseminate a prenatal education toolkit for prenatal educators throughout the state of Georgia. The topics covered in the toolkit intend to cover common gaps in prenatal education as identified by the HMHB 2018 report. The goal of this project is to inform prenatal educators on vital, yet overlooked prenatal topics, as well as guide and encourage educators in the distribution of this information to women in Georgia.

**Methods:** The content of this toolkit was informed by Healthy Mothers, Healthy Babies Coalition of Georgia's 2018 report. Toolkits from other renowned organizations served as a guide for the structure of this toolkit. The toolkit underwent review by HMHB staff and by prenatal educators throughout Georgia via focus group discussions.

**Results:** The final toolkit can be retrieved with the following link http://hmhbga.org/wp-content/uploads/Final-Toolkit-HMHBGA-02122020.pdf. The content is published on Healthy Mothers, Healthy Babies Coalition of Georgia's website. HMHB's program coordinator, research & policy analyst, and I presented the toolkit at an HMHB conference and webinar. The toolkit was emailed to the HMHB listserv and prenatal educators who were contacted during focus group recruitment.

**Discussion:** Maternal and infant health organizations in other regions of the United States should carry out evaluations similar to that of HMHB in order to identify and act upon prenatal education gaps within their areas. Prenatal education toolkits for educators across specific regions or states can improve the knowledge base of prenatal educators, motivate educators to teach on overlooked yet important topics, and potentially improve maternal and infant health outcomes.

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# Chapter 1: Introduction

## Introduction and Significance

### *Poor Maternal Health Outcomes in the United States*

The United States has one of the highest maternal mortality rates among the developed countries, ranking 46$^{th}$ among 181 countries in 2015. Although maternal mortality rates have decreased by about 44 percent globally from 1990 to 2015, the US maternal mortality rate has increased (US Department of Health and Human Services Health Resources and Services Administration, 2019). Maternal mortality rates are an effective reflection of the state of maternal health globally. Numerous factors contribute to this high rate, including the increasing prevalence of chronic health conditions, lack of access to high quality prenatal and maternal care services, and lack of knowledge among pregnant and postpartum women regarding early warning signs of obstetric emergencies. Those living in rural areas are disproportionally affected by these factors (US Department of Health and Human Services Health Resources and Services Administration, 2019). Additionally, there are significant racial disparities in the United States. For example, Black women are 3 to 4 times more likely to die of pregnancy complications than White women (National Partnership for Women & Families, 2018).

Chapter 3 will discuss specific maternal health outcomes throughout the United States. As an overview, the United States has one of the highest cesarean section rates globally, with a rate of 31.9% in 2018 (Hamilton BE, 2019). While cesarean sections are often vital procedures, they pose a greater risk of maternal morbidity and mortality when compared to vaginal deliveries (Caughey et al., 2014). The United States has also reached a record high of combined cases of syphilis, gonorrhea, and chlamydia as of 2018 (Centers for Disease Control and Prevention,

2019d). Sexually transmitted infections have the potential to cause poor maternal and neonatal health outcomes. Moreover, the US has a history of poor maternal outcomes in the postpartum period. Over 60% of pregnancy-related deaths in the US were deemed preventable (Building U.S. Capacity to Review and Prevent Maternal Deaths, 2018).

### *Poor Maternal Health Outcomes in State of Georgia*

Georgia has some of the worst maternal health outcomes in the nation. Whereas the national maternal mortality ratio for pregnancy-related deaths in 2016 was 19.9 per 100,000 births; Georgia's maternal mortality ratio for pregnancy-related deaths in 2016 was 39.3 per 100,000 births (America's Health Rankings, 2018). The Georgia Maternal Mortality Review Committee found that 58% of pregnancy-related deaths in Georgia were preventable (Georgia Department of Public Health, 2019b) . Moreover, as of 2017, Georgia ranks 5$^{th}$ highest in the nation for preterm birth rates and 9$^{th}$ highest in the nation for infant mortality rate (Centers for Disease Control and Prevention, 2017).

Significant racial and ethnic disparities in maternal health outcomes exist in Georgia. In 2014 in Georgia, 49% of all pregnancy-related maternal deaths were Black, non-Hispanic women. The risk of preterm birth among Black women in Georgia is 46% higher than that of all other racial categories (March of Dimes, 2018). Furthermore, Black mothers in Georgia breastfeed significantly less than White women (Anstey, Jian, Elam-Evans, Perrine, & Chen, 2017). The highest rate of infant deaths for all races from 2011 to 2013 in Georgia was among black infants (March of Dimes, 2019b).

As of 2017, Georgia ranked 9th in the United States for highest rates of cesarean sections. This high rate of cesarean sections leads to increased risk of poor maternal and neonatal outcomes (March of Dimes, 2019a). Georgia also has some of the highest rates of STI's and ranks second nationally for its rate of HIV diagnoses among individuals 13 years and older (Centers for Disease Control and Prevention, 2018b). These high rates can lead to complications in the women and fetus during pregnancy. Georgia furthermore has high rates of poor maternal outcomes during the postpartum period. Of pregnancy related deaths between 2012-2014, 73% happened 42 days at the end of pregnancy (Georgia Department of Public Health, 2019b). Chapter 3 will further examine these specific maternal and neonatal outcomes in the state of Georgia.

***Healthy Mothers, Healthy Babies Coalition of Georgia 2018 Report***

Healthy Mothers, Healthy Babies Coalition of Georgia is a non-profit organization whose mission is to improve maternal and infant health through advocacy, education, and access to vital resources. They have been the strongest statewide voice for improved access to healthcare and health outcomes for mothers and babies in Georgia since 1974. Furthermore, their focus on a full range of maternal and child health concerns makes them especially unique in Georgia (Healthy Mothers Healthy Babies Coalition of Georgia, 2019a).

From 2017 to 2018, HMHB conducted an evaluation to assess the accessibility and scope of prenatal education in the state of Georgia. The study examined the content and format of prenatal education curriculums offered by public and private educators across Georgia. The study also evaluated prenatal education referral practices by providers in Georgia, and assessed providers'

beliefs surrounding the need to include certain topics in prenatal education. Moreover, focus groups were conducted with pregnant and postpartum women to evaluate their personal experiences with prenatal education (Healthy Mothers Healthy Babies Coalition of Georgia, 2018a).

### *Key Findings from 'An Evaluation of Current Prenatal Education Availability and Receptivity to Online Education in the State of Georgia'*

Of the 216 providers surveyed across Georgia, about half of the providers refer their patients outside of their practice for prenatal education. The other half report providing prenatal education through their practice; however, many of these providers considered informational pamphlets as a means of prenatal education. Among the 204 providers who responded to the question, "Which of the following topics should be included in prenatal education?" 93.13% of providers felt newborn care should be included, 99.01% felt breastfeeding should be included, and 93.62% felt postpartum care should be included. In contrast, only 63.72% believed health insurance literacy should be included, 68.62% believed HIV/STI prevention should be included, and 72.54% felt oral health should be included (Healthy Mothers Healthy Babies Coalition of Georgia, 2018a).

The examination of the content of prenatal education curriculums showed similar prioritization of topics. Of the 105 prenatal education courses across Georgia surveyed, 60% included information on breastfeeding, 52.38% included information on infant care, and 50.48% included information on birthing options. In contrast, 8.57% included Planning for Healthy Babies Program, 10.48% included information on the Special Supplemental Nutrition Program (SNNP)

for Women, Infants, and Children (WIC) Program, 9.52% included information on HIV/STI prevention, and 10.48% included information on dental care during pregnancy. While many educators assumed these topics were being discussed with public health professionals or providers, others assumed it did not apply to their client base. Other educators are not familiar with these topics and are uncomfortable teaching them. Finally, the survey found that many prenatal educators only conducted course evaluations measuring client satisfaction rather than measuring impact and knowledge gained (Healthy Mothers Healthy Babies Coalition of Georgia, 2018a).

The focus groups with pregnant and postpartum women also identified gaps in prenatal education. Many of the participants had delivered via cesarean section and felt unprepared for the procedure and for the postpartum changes after the surgery. Many felt the current availability of education on cesarean sections to be insufficient. Moreover, many participants desired more information on recovery during the postpartum period (Healthy Mothers Healthy Babies Coalition of Georgia, 2018a).

Problem Statement:

For years, Georgia has ranked at the bottom of maternal and fetal health outcomes in the United States (Midwives of Georgia, 2017). There are known disparities and inequities with these health outcomes in Georgia by race, age, ethnicity, education, region, and insurance status. Black and African American women in Georgia experience worse maternal and infant outcomes than all other races and ethnicities (Healthy Mothers Healthy Babies Coalition of Georgia, 2019b). Prenatal education plays a significant role in improving maternal and infant health outcomes.

However, quality prenatal education is a frequently overlooked intervention for improving birth experience and outcomes.

In 2019, Healthy Mothers, Healthy Babies Coalition of Georgia published *An Evaluation of Current Prenatal Education Availability and Receptivity to Online Education in the State of Georgia***.** The study found that prenatal educators frequently included information on breastfeeding, infant care, and birthing options in their classes. However, other important prenatal topics, such as health insurance and Medicaid programs, oral health care during pregnancy, and STI prevention/treatment, were often left out. There is a need to fill the gaps in prenatal education throughout Georgia. Prenatal educators in Georgia must effectively cover a wide array of topics during their classes. There is a need to make prenatal educators aware of the importance of teaching on vital, yet frequently forgotten, topics.

### *Importance of Covering Missing Topics*

The topics that were less prioritized in prenatal education are extremely important for the health of mothers and babies in Georgia. Many of these topics, such as health insurance literacy and cultural competency, strongly apply to pregnant and postpartum women enrolled in Medicaid in Georgia. In 2017, Medicaid births accounted for 58% of births in the state of Georgia (Healthy Mothers Healthy Babies Coalition of Georgia, 2018b). Only 38.2% of women enrolled in Medicaid who delivered live births had almost all their expected prenatal visits. This is below the national median of 61.7% (Healthy Mothers Healthy Babies Coalition of Georgia, 2018b). Other topics, such as cesarean sections and postpartum care, strongly apply to both the Medicaid and privately-insured populations. For example, Georgia's rate of cesarean sections is above that of the national average (Centers for Disease Control and Prevention, 2018a) .

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Finally, it is essential that prenatal educators assess pre- and post- knowledge to ensure they are effectively communicating topics in class. Additionally, monitoring maternal and infant health outcomes of the clients and their babies can indicate behavior change as a result of the prenatal education course. Further explanation and justification of the need to educate on the topics covered in the toolkit can be found in the Methodology section.

Purpose Statement

The purpose of this special studies project is to develop and evaluate a prenatal education toolkit for prenatal educators throughout the state of Georgia. The topics covered by this toolkit intend to cover common gaps in prenatal education as identified by the Healthy Mothers, Healthy Babies 2018 report *An Evaluation of Current Prenatal Education Availability and Receptivity to Online Education in the State of Georgia.* These topics include:

-Cesarean sections
-HIV and STI's
-Oral health and pregnancy
-Postpartum care
-Health insurance literacy
-Cultural Competency
-Evaluating Prenatal Education Curriculums

This toolkit will be evaluated through four focus group discussions with prenatal educators from each of the six perinatal regions of Georgia. Feedback from these focus group discussions will be incorporated into the toolkit. A finalized version of the toolkit will be published on Healthy Mothers, Healthy Babies Coalition of Georgia's website Pickles & Ice Cream, a site that

provides quality prenatal education to women in Georgia. Furthermore, the Healthy Mothers, Healthy Babies Coalition of Georgia team will host a webinar to inform prenatal educators about the toolkit. The toolkit will be presented at the annual HMHB conference and will be directly sent to HMHB's network of prenatal educators throughout the state of Georgia.

In developing and evaluating this toolkit, several key objectives should be met:

*Objective 1:* Use findings from Healthy Mothers, Healthy Babies 2018 report *An Evaluation of Current Prenatal Education Availability and Receptivity to Online Education in the State of Georgia* to inform a comprehensive and effective prenatal education toolkit for prenatal educators throughout the state of Georgia

*Objective 2:* Evaluate the content and quality of the prenatal education toolkit through four focus group discussions with prenatal educators from each of the six perinatal regions of Georgia

*Objective 3:* Create an improved version of the prenatal education toolkit based on feedback received from the four focus group discussions

*Objective 4:* Disseminate the toolkit by publishing it on HMHB's website Pickles & Ice cream, presenting it at Healthy Mothers, Healthy Babies Annual Conference, presenting it via a webinar with prenatal educators, and directly emailing it to HMHB's network of prenatal educators.

The stated key objectives should serve to improve the knowledge base of prenatal educators throughout the state of Georgia. This gained knowledge should motivate educators to teach on a more comprehensive array of prenatal education topics. This, in turn, should improve maternal and infant health outcomes throughout the state of Georgia.

## Definition of Terms and Abbreviations

**Toolkit:** "A collection of authoritative and adaptable resources for front-line staff that enables them to learn about an issue and identify approaches for addressing them." (American Library Association, 2019)

**Maternal Mortality Rate:** "The annual number of female deaths per 100,000 live births from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes)." (Central Intelligence Agency, 2015)

**Maternal Mortality Ratio:** "The number of maternal deaths during a given time period per 100,000 live births during the same time period." (UNICEF, 2017)

**Perinatal Region:** Georgia has six perinatal regions as designated by the Georgia Department of Public Health. These include Atlanta, Savannah, Augusta, Columbus, Macon, and Albany. The purpose of perinatal regionalization is to coordinate access to optimal and appropriate maternal and infant healthcare with the goal of achieving optimal and equitable outcomes for Georgia mothers and babies (Georgia Department of Public Health, 2019c).

**Pregnancy-related deaths:** "the death of a women while pregnant or within 1 year of the end of a pregnancy- regardless of the outcome, duration or site of the pregnancy-from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes." (Centers for Disease Control and Prevention, 2019d)

**Maternal deaths:** "The annual number of female deaths from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of pregnancy, expressed per 100,000 live births, for a specified time period." (UNICEF, 2017)

**Abbreviations**

Healthy Mothers, Healthy Babies Coalition of Georgia: HMHB

Planning for Health Babies: P4HB

Special Supplemental Nutrition Program: SNNP

Women, Infants, and Children Program: WIC

Sexually Transmitted Infection: STI

Sexually Transmitted Diseases: STD

## Chapter 2: Review of Literature

This special studies project seeks to enhance prenatal education across the state of Georgia, by promoting the inclusion of important prenatal topics. In creating the toolkit, the impact of prenatal education on maternal and infant health outcomes was explored. Additionally, the importance of seven frequently overlooked prenatal education topics, which are included in HMHB's toolkit, was investigated.

Prenatal Education

### *Prenatal Education in the US*

*History of Prenatal Education:* Prenatal education has played an important role in improving maternal outcomes throughout history in the US. In 1960, Elisabeth Bing and Marjorie Karmel held the first formal childbirth education classes. Bing's *Six Practical Lessons for an Easier Childbirth* outlined the content of classes and became a staple for childbirth educators and pregnant women (Lothian, 2008). These classes empowered women to have a voice in their birth process and provided women with relaxation and breathing techniques to cope with pain during a natural birth. Throughout subsequent decades, childbirth education became institutionalized in the United States, with many taking place in hospitals. The purpose of the majority of these classes was to provide women with the appropriate information to make informed decisions regarding their birth (Lothian, 2008). Additionally, many childbirth classes began incorporating information about maintaining a healthy pregnancy prior to birth. The rise of prenatal education in conjunction with childbirth education classes allowed for dissemination of crucial information for sustaining a healthy pregnancy.

*Prenatal Education Initiatives:* There are an abundance of childbirth and prenatal education classes offered throughout the United States. While many take place in birthing hospitals, there are other organizations that offer classes. For example, Lamaze International is a non-profit organization whose mission is to advance safe and healthy pregnancy, birth, and early parenting through evidence-based education and advocacy. Lamaze offers an abundance of local classes across the US (Lamaze International, 2019).

Moreover, the Bradley Method is a popular type of childbirth class, with sessions held throughout the United States. Topics covered by the Bradley Method include nutrition in pregnancy, expected anatomical and physiological changes during pregnancy, the labor process, and postpartum care (The Bradley Method, 2019). Other childbirth and prenatal education classes in the US can also be found through doulas, pregnancy centers, physicians, and community resource centers.

The March of Dimes plays a significant role in prenatal education in the US. They have partnered with health departments, community-based organizations, perinatal collaboratives, and many other stakeholders to carry out widespread prenatal awareness and education campaigns. March of Dimes additionally utilizes educational materials, web content, videos, and social media outreach strategies that are easily adaptable to many cultural backgrounds. Many prenatal education programs use the March of Dimes curriculum and resources as a basis for their course (March of Dimes, 2019c).

### *Overview of Prenatal Education Classes in Georgia*

In Healthy Mothers, Healthy Babies Coalition of Georgia's *An Evaluation of Current Prenatal Education Availability and Receptivity to Online Education in the State of Georgia* study, prenatal education curriculum responses were collected for 120 prenatal education courses at 52 hospitals and health centers throughout the state of Georgia. Of the 120 courses, 5% occurred in the Albany Perinatal Region, 40.83% occurred in the Atlanta Perinatal Region, 15% occurred in the Augusta Perinatal Region, 12.5% occurred in the Columbus Perinatal Region, 10% occurred

in the Macon Perinatal Region, and 16.67% occurred in the Savannah Perinatal Region (Healthy Mothers Healthy Babies Coalition of Georgia, 2018a).

Instructors for these classes were often labor and delivery nurses who were also trained as lactation consultants and counselors. A number of nurse practitioners and midwives also taught courses. Class participants were of diverse racial and ethnic backgrounds. They were often in their late second and third trimesters. Class sizes in Georgia ranged from one individual to 40 individuals at a time (Healthy Mothers, 2018; Healthy Mothers Healthy Babies Coalition of Georgia, 2018a) .

Common curricula used were Lamaze, Injoy, Centering Pregnancy, and Customized Communications Inc. In regard to class pricing, 53.3% of courses were free, 12.5% cost between $1 and $25, 21.7% cost between $26 and $50, 8.3% cost between $51 and $75, and 4.2% cost between $76 and $100. The time of day these courses were offered varied, although most were held on weeknights. The number of classes per course also varied—while most consisted on just one session, others consisted of up to eight sessions (Healthy Mothers, 2018; Healthy Mothers Healthy Babies Coalition of Georgia, 2018a) .

### *Healthy Mothers, Healthy Babies Coalition of Georgia Prenatal Education Program*

The Healthy Mothers, Healthy Babies Coalition of Georgia's Prenatal Education program seeks to provide families who are at higher risk for poor birth and postpartum outcomes with crucial information and resources. Their comprehensive curriculum covers a variety of topics including perinatal HIV prevention, oral health, maternal mental health, and family planning. This

curriculum is based on evidence-based practices from the American College of Obstetricians and Gynecologists, the Centers for Disease Control, the Georgia Department of Public Health, and the National Institutes of Health. HMHB prioritizes serving low-income and diverse populations. Their prenatal education program helps women access birth support professionals and public services such as Babies Can't Wait and the Newborn Screening Program (Healthy Mothers Healthy Babies Coalition of Georgia, 2019c) .

### *Prenatal Education as Tool for Improving Maternal Knowledge, Maternal Health Behaviors, and Maternal and Newborn Health Outcomes*

By providing women with vital information on prenatal care, birth, and the postpartum period, prenatal education has the potential to improve maternal and infant outcomes during and after pregnancy.

The impact of prenatal education on behavior change and gained knowledge was explored in a 2015 evaluation of a community-based prenatal education program *Becoming a Mom* designed by the March of Dimes. This program was implemented in a rural community-based location of Salina, Kansas. The curriculum included six sessions on prenatal care, basic health during pregnancy, healthy eating, stress management, tobacco and alcohol use, labor and birth, caring for an infant, inter-conception health, postpartum care, and community support services (Woods & Chesser, 2015). The program served 103 women, ranging from 21-30 years of age. A pre/post evaluation tool was delivered to participants during the first and last prenatal education sessions. Health outcome data was retrieved by medical record abstraction (N=98). Statistically significant knowledge improvements were seen in the topics of preterm labor, postpartum symptoms, and

safe sleep. Participants used tobacco at a statistically significant lower rate during pregnancy than regional averages. However, limitations of this study include that the majority of participants was Caucasian, English speaking, and employed fulltime. Breastfeeding initiation, cesarean delivery rates, low birth weight, and premature birth rates were better than the regional averages but were not statistically significant (Woods & Chesser, 2015) .

The *Becoming a Mom* program was later implemented in seven rural counties of Texas, with the purpose of addressing health disparities in regard to birth outcomes among rural minorities. The majority of participants were 16 to 25 years old and experiencing their first pregnancy. Furthermore, the majority of participants were of low-income and diverse backgrounds (Ramsey & Mayes, 2018). Participants were given a pre-assessment (N=382) and a post-assessment (N=326) to evaluate knowledge gained. Participants were also given a follow-up assessment (N=149) to document their birth outcomes and health behaviors during the postpartum period. Statistically significant improvements were seen in knowledge of postpartum health, safe sleep for newborns and infants, and symptoms of preterm labor. There was additionally a significant positive change in the intention of participants to breastfeed, and a majority of participants indicated that the classes had led directly to positive changes in one or more health behaviors (61.74%). There were no statistically significant differences in rates of low birth weight or preterm birth rates (Ramsey & Mayes, 2018). Because the population studied was predominantly rural, results may not be applicable to urban populations.

Numerous other studies show a strong correlation between attending prenatal education classes and positive maternal/infant health behaviors and outcomes. For example, a 2012 evaluation

investigated the impact of prenatal education on behavioral changes among participants enrolled in Indianapolis Healthy Start. Case managers provided education on the health benefits for mothers and infants on breastfeeding and smoking cessation to all clients. Data was analyzed for differences between participants and other Marion County births. Participants were more likely to initiate breastfeeding and were less likely to continue smoking during the third trimester of pregnancy (Caine, Smith, Beasley, & Brown, 2012).

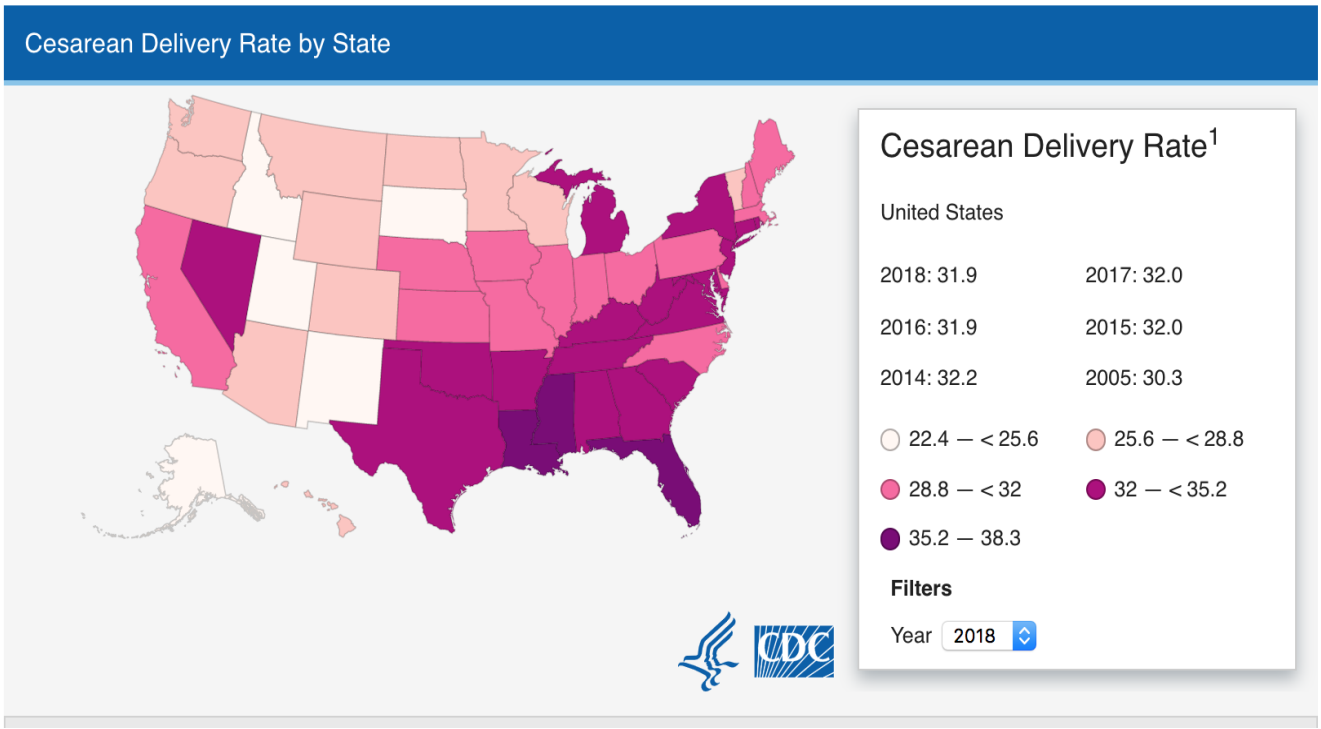
A cross sectional evaluation study published in 2019 investigated an antenatal education program in rural Tanzania that intended to improve birth preparedness and maternal-infant birth outcomes. Pregnant women and their families learned about nutrition and exercise, danger signs, and birth preparedness during the program (ShimpukuYoko, Madeni, Horiuchi, Kubota, & Leshabari, 2018). A cross sectional survey was conducted one year later and found the intervention group had less bleeding or seizures during labor and birth, fewer cesarean sections, and less neonatal complications. The intervention group was more able to identify a health facility for emergencies, had more family accompaniment for antenatal visits and facility birth, and demonstrated more involvement in decision-making (ShimpukuYoko et al., 2018). Limitations of the study include the possibility of selection bias from use of convenience sampling and the inability to eliminate potential baseline differences between groups as a result of the use of a cross-sectional survey.

Significance of Frequently Overlooked Prenatal Education Topics

Healthy Mothers, Healthy Babies Coalition of Georgia's research project *An Evaluation of Current Prenatal Education Availability and Receptivity to Online Education in the State of Georgia* found that topics such as STI prevention, cultural competency, oral health, and WIC and Planning for Healthy Babies were widely absent from prenatal education curriculums in Georgia or believed to be less important by educators. However, these topics are extremely important to the health of pregnant mothers and infants in Georgia. They are particularly applicable to the Medicaid population, who account for 58% of births in Georgia, and for black pregnant women who suffer worse maternal health outcomes than white pregnant women in Georgia (Healthy Mothers Healthy Babies Coalition of Georgia, 2018a).

***Cesarean Sections***

# Cesarean Delivery Rate by State




(Centers for Disease Control and Prevention, 2018a)

*Cesarean Sections in US:* According to 2015 data from 150 countries, 18.6% of all births occur by cesarean delivery (Betrán et al., 2016). The United States has one of the highest cesarean section rates globally. The cesarean delivery rate in the US had increased every year from 1996 (20.7%) to 2009 (32.9%). In 2018, the cesarean delivery rate had decreased slightly to 31.9%. Although the cesarean delivery rate decreased for both non-Hispanic white women and Hispanic women from 2017 to 2018, rates for non-Hispanic black women remained unchanged (Hamilton BE, 2019).

*Cesarean Sections in GA:* The total cesarean delivery rate has increased in Georgia from 31.2% in 2006 to 34.2% in 2017, the 9$^{th}$ highest rate in the United States (March of Dimes, 2019a),

(Healthy Mothers Healthy Babies Coalition of Georgia, 2019b). While the 2019 low-risk cesarean delivery rate was 26% in the United States, the low-risk cesarean delivery rate in Georgia was 27.9%. The low-risk cesarean delivery rate for black women in Georgia was 29.7%, for Hispanic women in Georgia was 24.9%, and for white women in Georgia was 27.2% (United Health Foundation, 2019).

*Factors Associated with Rise in Cesarean Section:* Several factors play into the global rise in cesarean sections. The increase in chronic illnesses among pregnant women, the increase in maternal age at first birth, professional practice styles, increasing malpractice pressure, as well as economic, social, and cultural factors all play an important role in this rise (Betrán et al., 2016). The rise can also be attributed to maternal preferences and increased desire for an "elective" cesarean delivery (Caughey et al., 2014).

*Importance of Reducing Cesarean Sections**:*** The rates of cesarean deliveries have been rising globally. These rates, excluding those of least developed countries, are higher than what is considered medically justifiable by current research (Betrán et al., 2016). Reduction of cesarean deliveries can improve both cost of health care and obstetric quality of care (Caughey et al., 2014).

While a cesarean section is a vital procedure for when serious complications arise during pregnancy and labor, it is a major surgery associated with immediate maternal and perinatal risks. For low-risk pregnancies, cesarean deliveries have a greater risk of maternal morbidity and mortality than vaginal deliveries (Caughey et al., 2014) .

Immediate maternal risks include endometritis, postpartum hemorrhage, reactions to anesthesia, deep vein thrombosis, pulmonary embolism, cesarean scar infection, and surgical injury to bladder or bowel. Increased risks during future pregnancies include risk of placenta previa and uterine rupture. Moreover, increased perinatal risks include respiratory difficulties in newborns and accidental nicks to the newborn's skin (Mayo Clinic, 2019). Additionally, cesarean deliveries are associated with extended hospital stays and extended recovery times. Long-term effects are under investigation (American Pregnancy Association, 2015).

*Cesarean Deliveries and Poor Maternal Outcomes**:*** A retrospective population-based cohort study of all women in Canada who delivered from April 1991 through March 2005 was conducted using the Canadian Institute for Health Information's Discharge Abstract Database. The study found that the risk of severe maternal morbidities increased threefold for cesarean deliveries compared with vaginal deliveries (2.7% vs. 0.9% respectively) (Liu et al., 2007) .

Furthermore, a 2017 systematic review and meta-analysis sought to determine the risks of severe acute maternal complications associated with cesarean sections without medical indications. Eight publications that met the study objective and inclusion criteria were selected, providing information on 1,051,543 individuals. Six of these studies were conducted in high-income countries; however, studies based in low- and middle-income countries contributed to 25% of the population included in the review. Results indicated that women with cesarean sections have a higher chance of maternal death and postpartum infection (Mascarello, Horta, & Silveira, 2017).

*Cesarean Deliveries and Poor Neonatal Outcomes:* A retrospective cohort study examined New York City birth data from 1995 to 2003. Data was limited to singleton (single birth), live born, cephalic (head first) neonates delivered between 24 and 34 weeks. After controlling for maternal age, ethnicity, education, primary payer, pre-pregnancy weight, gestational age, diabetes and hypertension, the study found that cesarean delivery was not protective against poor outcomes. Instead, cesarean delivery was associated with increased risk of respiratory distress and low Apgar scores compared with vaginal delivery (Werner, Han, Savitz, Goldshore, & Lipkind, 2013).

A 2014 systematic review and meta-analysis reviewed the impact of cesarean sections on placental transfusions and iron-related hematological indices in term neonates. Fifteen studies were eligible for meta-analysis. It was found that neonates delivered by cesarean section may be more affected by iron-deficiency anemia in infancy (Zhou, Zhu, & Liu, 2014)

*Current Initiatives to Reduce Cesarean Sections:* Healthy People 2020 objective MICH-7 is "reduce cesarean births among low-risk women". Under this objective are two sub-objectives. Sub-objective MICH-7.1 is to "reduce cesarean births among low-risk women with no prior births". Sub-objective MICH-7.2 is to "reduce cesarean births among low-risk women giving birth with a prior cesarean birth" (U.S. Department of Health and Human Services, 2019b). Numerous organizations are working to reduce the rate of cesarean sections in the United States. The World Health Organization proposed in 2015 the use of the Robson Classification system as a global standard for assessing, monitoring, and comparing cesarean section rates. This system

allows analyses of cesarean section rates according to important maternal and fetal variables (Vogel et al., 2015) .

Since 2016, the American College of Nurse-Midwives established the *Healthy Birth Initiative: Reducing Primary Cesareans Project*. Through this collaborative, 25 multi-disciplinary hospital teams nationwide have implemented models aimed at reducing preventable cesarean deliveries. Moreover, the National Accreta Foundation recommends five steps hospitals should carry out to safely reduce their cesarean section rate. This includes, provider education, support from academic centers, quality improvement, and use of the *Safe Reduction of Primary Cesarean Birth* safety bundle (Healthy Mothers Healthy Babies Coalition of Georgia, 2019b).

*Prenatal Education as Tool to Improve Cesarean Section Outcomes and Rates:* Given the high rate of cesarean sections in the state of Georgia, it is extremely important for prenatal educators to review risks and benefits of the procedure, as well as self-care before and after the procedure. Additionally, prenatal education has the strong potential to promote self-efficacy among pregnant women when choosing a delivery method. Prenatal educators have the power to empower women to discuss all available delivery options with their providers. They also have the ability to address the social and cultural factors that have contributed to a rise in the cesarean section rate in the US, and therefore have the potential to reduce elective cesarean section rates among women with no risk factors.

### *Oral Health and Pregnancy*

*Oral Health and Pregnancy in the United States and Georgia:* In the United States, approximately 56% of pregnant women did not visit a dentist in 2017. In Georgia in 2017, only 39% of women surveyed by the Pregnancy Risk Assessment and Monitoring System of the Georgia Department of Public Health had their teeth cleaned during their last pregnancy (Healthy Mothers Healthy Babies Coalition of Georgia, 2019b). Significant differences in maternal dental cleaning rates exist among racial groups in Georgia. Whereas 46.4% of non-Hispanic White pregnant women and 41.7% of non-Hispanic Black pregnant women received dental cleanings in 2017, only 20.7% of Hispanic pregnant women received dental cleanings in 2017. A disparity in this rate is also present among insurance groups. In 2017 only 2% of Georgia Medicaid patients received dental cleanings while pregnant (Healthy Mothers Healthy Babies Coalition of Georgia, 2019b).

*Importance of Oral Healthcare during Pregnancy**:*** Normal physiologic changes during pregnancy lead to an increased susceptibility to oral health problems, including dental caries, gingivitis, periodontitis, gingival hyperplasia, and pyogenic granulomas (Hartnett et al., 2016), (Vt, T, T, Nisha V, & A, 2013). Pregnant women's oral health can affect both her overall health and the health of her fetus. Research suggests that maintenance of oral health may have a positive effect on diabetes, cardiovascular disease, and other disorders (The American College of Obstetricians and Gynecologists, 2013). Some studies show a possible association between periodontal infection and preterm birth, although more evidence is needed to support this theory. Regardless of the lack of evidence of a relationship between periodontal disease and adverse pregnancy outcomes, the treatment of maternal periodontal disease is considered safe during pregnancy (The American College of Obstetricians and Gynecologists, 2013).

Approximately 60 to 75% of pregnant women have gingivitis (Hartnett et al., 2016). Elevated levels of circulating estrogen in the pregnant women cause increased capillary permeability, predisposing them to gingivitis (Vt et al., 2013). Several studies have confirmed this predisposition, including a 2013 systematic review which found the "existence of a significant increase in gingivitis throughout the pregnancy" (Figuero, Carrillo-de-Albornoz, Martín, Tobías, & Herrera, 2013).

About 40% of pregnant women have a form of periodontal disease (The American College of Obstetricians and Gynecologists, 2013). Although pregnancy does not cause periodontal disease, it can worsen an existing condition (Vt et al., 2013). Additionally, recent studies have demonstrated a possible association between periodontitis during pregnancy and low birth weight, very low birth weight, gestational diabetes mellitus, and preeclampsia (Hartnett et al., 2016); (Guimarães et al., 2012).

Nausea and vomiting during pregnancy can lead to erosion of enamel on the surface of teeth, as gastric acids are present in vomit. Moreover, the increased level of estrogen in saliva, a common finding in pregnancy, leads to a suitable environment for bacterial growth, predisposing pregnant women to dental caries (Vt et al., 2013). An increased risk of cavities may also be related to changes in eating habits of pregnant women (Centers for Disease Control and Prevention, 2019b).

*Current Initiatives to Improve Oral Health in Pregnancy:* Healthy People 2020 objective OH-14 is "increase the proportion of adults who receive preventative interventions in dental offices" and objective OH-3 is to "reduce the proportion of adults with untreated dental decay" (U.S. Department of Health and Human Services, 2019a). Although these objectives do not specifically mention pregnant women, improving the oral health of and utilization of oral healthcare among pregnant women can greatly contribute to the achievement of this objective. The US Surgeon General, American College of Obstetricians and Gynecologists, and the World Health Organization have all recognized that oral health is a vital part of preventative health care for pregnant women and infants (Hartnett et al., 2016).

There are several initiatives throughout the US that are making strides to improve the oral health of pregnant women and their newborns. Protect Tiny Teeth is an oral health communications resource, designed by the American Academy of Pediatrics through an agreement with the CDC, that raises awareness regarding oral health as apart of prenatal care. Moreover, in 2013, the Health Resources and Services Administration's Maternal and Child Health Bureau launched the Perinatal and Infant Oral Health Quality Improvement national initiative. The goal of this initiative is to improve access to quality oral health care and increase utilization of oral health services to reduce the prevalence of oral disease in pregnant women and infants (National Maternal and Child Oral Health Resource Center, 2015).

Healthy Mothers, Healthy Babies Coalition of Georgia convenes an Oral Health & Pregnancy working group on a quarterly basis with the goal of increasing access to adequate oral healthcare for pregnant women covered by Medicaid in Georgia (Healthy Mothers Healthy Babies Coalition

of Georgia, 2019d). Additionally, the Georgia Department of Public Health will soon unroll a media campaign to raise awareness regarding oral health for pregnant mothers and young children (Barefoot, 2019).

*Prenatal Education as Tool to Improve Oral Health:* Inclusion of oral health in prenatal education classes has the potential to improve the oral health of pregnant women during their pregnancy and beyond. The American College of Obstetricians and Gynecologists considers pregnancy a "teachable" moment when women are motivated to adopt healthy behaviors. Therefore, teaching on positive oral health behaviors during pregnancy can lead to improved oral health both during and after pregnancy (The American College of Obstetricians and Gynecologists, 2013). Research suggests that prenatal counseling on oral health behaviors is highly correlated with observance of teeth cleaning during pregnancy. Moreover, pregnancy offers a unique opportunity for women of lower socioeconomic status to obtain dental care because of Medicaid insurance with prenatal dental coverage (The American College of Obstetricians and Gynecologists, 2013). It is important these patients are aware of the importance of dental care during pregnancy and the resources available for them.

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### *Health Insurance Literacy*

*Medicaid and Medicaid Programs in Georgia:* In 2017, Medicaid births accounted for 58% of births in the State of Georgia (Healthy Mothers, 2018). Therefore, information surrounding Georgia Pregnancy Medicaid and Medicaid programs is highly relevant for the majority of pregnant women in Georgia. Georgia's Medicaid program offers a wide variety of prenatal services including case management, genetic counseling, substance abuse treatment, childbirth

education classes, infant care/parenting education, birth center deliveries, prenatal and postpartum home visits, breastfeeding education, and electric breast pumps. Planning for Healthy Babies, a family planning demonstration waiver through Georgia Medicaid, offers a variety of services with the goal of reducing low birthweight and very low birthweight babies in Georgia. Involvement in the program has been associated with a decrease in unintended pregnancies, a decrease in inter-pregnancy intervals less than 6 months, and an increase in age at first birth (Georgia Department of Community Health, 2017; Healthy Mothers Healthy Babies Coalition of Georgia, 2019b). Additionally, the Women Infants and Children Special Supplemental Nutrition Program (WIC) provides assistance to pregnant women and children with the goal of improving health behaviors and nutrition. WIC services include nutrition education, breastfeeding promotion and support, growth monitoring, and food for low-income pregnant or postpartum women, infants, and children less than 5 years of age (Georgia Department of Public Health, 2019a).

*Prenatal Education as Tool to Improve Health Insurance Literacy:* Despite the vast amount of prenatal and postpartum services provided by Medicaid, a lack of knowledge surrounding Medicaid programs and the enrollment process can lead to limited utilization or lack of enrollment. For example, as of 2017, 109,373 women were eligible for Georgia's Planning for Healthy Babies' family planning services. However, only 19.4% of this eligible population was enrolled in the program. Similarly, of the 3,354 women who were eligible for Planning for Healthy Babies' inter-pregnancy care and Resource Mother program services, only 58.9% were enrolled in the program. Moreover, the WIC program served 81.9% of those eligible in Georgia in 2014. There was an 8% decrease in women enrolled in the WIC program from 2017 to 2018

(Healthy Mothers Healthy Babies Coalition of Georgia, 2019b). Including information on Medicaid, its programs, and the enrollment process in prenatal education classes can lead to increased enrollment and utilization of these programs among pregnant women. By empowering pregnant women with health program information, they can more easily navigate complicated health systems and subsequently achieve better health outcomes.

### *HIV/STI's*

*HIV/STI's in the US and GA:* According to Centers for Disease Control's annual *Sexually Transmitted Disease Surveillance Report,* combined cases of syphilis, gonorrhea, and chlamydia reached a record high in the United States in 2018. From 2017 to 2018, gonorrhea rates increased 5% to more than 580,000 cases, now the highest number of reported cases since 1991. Chlamydia rates increased 3% to more than 1.7 million causes—the most ever reported to CDC. The number of primary and secondary syphilis cases increased 14% to more than 35,000 cases, the highest number of reported cases since 1991 (Centers for Disease Control and Prevention, 2019e).

Georgia has some of the highest rates of HIV and STD's nationally. As of 2017, Georgia has the 7$^{th}$ highest rate of chlamydia (624.2 per 100,000) and the 10$^{th}$ highest rate of gonorrhea (217.3 per 100,000). Additionally, Georgia has the 5$^{th}$ highest rate of primary and secondary syphilis (14.3 per 100,000). Most notably, Georgia has 2$^{nd}$ highest rate of HIV diagnoses for individuals 13 years and older, with rate of 29.7 per 100,000 (Centers for Disease Control and Prevention, 2018b).

In 2016, nationally, there were 2,225 children (13 years or younger) living with HIV, 81% of which were attributed to perinatal transmission. In 2016, in Georgia, there were 122 individuals living with HIV due to perinatal transmission. In 2017, 51.2% of Georgia mothers were tested within 12 months prior to pregnancy (Healthy Mothers Healthy Babies Coalition of Georgia, 2019b).

*Importance of treatment and prevention during pregnancy**:*** Sexually transmitted infections can complicate a pregnancy and pose serious health risks for both a pregnant woman and her fetus. In addition, transmission of HIV from mother to infant is possible during pregnancy, labor, birth, and breastfeeding (Healthy Mothers Healthy Babies Coalition of Georgia, 2019b). However, early treatment of STI's and HIV can reduce these potential risks.

If a mother is infected with hepatitis B, her infant has a 90% risk of becoming carriers. Hepatitis C can lead to preterm delivery, low birth weight, and an infant that is small for gestational age. Chlamydia can also lead to premature labor and low birthweight, as well as eye infections and pneumonia. Similarly, gonorrhea can lead to eye infections and pneumonia, as well as blood and joint infections. Genital herpes and syphilis additionally can have severe health effects. Genital herpes can lead to brain damage, blindness, and organ damage (Mayo Clinic, 2018). Syphilis can cause preterm birth, miscarriage, low birth weight, complications with the placenta and umbilical cord, and stillbirth (March of Dimes, 2017). With proper and timely treatment of STD's, these risks will be greatly reduced.

Women should be screened for HIV as early as possible in pregnancy (Healthy Mothers Healthy Babies Coalition of Georgia, 2019b). Screening for Hepatitis B, syphilis, and chlamydia should be provided to all pregnant women. Screening for gonorrhea should be given to all pregnant women at risk (American Academy of Pediatrics, 2020).

*Current Initiatives to promote treatment and prevention during pregnancy**:*** The Centers for Disease Control works to spread information to the public regarding sexually transmitted infections during pregnancy via various forms of media. Other entities such as the Mayo Clinic and the American College of Obstetricians and Gynecologists also work to disseminate information on this topic. To address and reverse the nation's STD epidemic, the U.S. Department of Health and Human Services is developing a Sexually Transmitted Infections Federal Action Plan (Centers for Disease Control and Prevention, 2019e).

*Prenatal Education as Tool to Improve Prevention and Treatment of HIV/STI's:* It is vital that pregnant women are aware of the risks of sexually transmitted infections during pregnancy and understand appropriate prevention. Additionally, it is crucial that women are generally aware of routine STI screening recommendations during pregnancy. Therefore, prenatal educators should be including this information in their prenatal classes in order to promote positive maternal and infant health outcomes. Healthy Mothers, Healthy Babies Coalition of Georgia's *An Evidence Informed Toolkit for Comprehensive Prenatal Education* provides the appropriate resources and information prenatal educators need to teach on this topic.

***Postpartum Care***

*Postpartum Health in United States:* In the United States between 2008 and 2017, 60.6% of pregnancy-related deaths happened between 1 to 365 days postpartum (Centers for Disease Control and Prevention, 2019a). Postpartum hemorrhage is a major contributor to this percentage, impacting 21.1 per 10,000 births nationally (Building U.S. Capacity to Review and Prevent Maternal Deaths, 2018). It is estimated that over 60% of pregnancy-related deaths in the United States were preventable (Building U.S. Capacity to Review and Prevent Maternal Deaths, 2018).

*Postpartum Health in Georgia**:*** According to the Georgia Maternal Mortality Review Committee, 73% of pregnancy-related deaths from 2012-2014 occurred within 42 days at the end of pregnancy. Between 2012 and 2014 in Georgia, 66% of pregnancy-related deaths occurring while pregnant or within 42 days postpartum were found to be preventable. Of pregnancy-related deaths occurring 43 days to 365 days postpartum, 52% were found to be preventable (Georgia Department of Public Health, 2019b). Lack of access to postpartum care places women at risk for maternal morbidity and mortality. In 2017, only 52.5% of women enrolled in Medicaid were receiving timely care compared to the national median for Medicaid patients of 60.1% (Healthy Mothers Healthy Babies Coalition of Georgia, 2019b). Among women in Georgia covered by Medicaid during pregnancy, 34.6% became uninsured during the postpartum period in 2017 (Georgia Department of Public Health, 2019b).

*Importance of Post-birth Warning Sign and Postpartum Health Education:* The leading causes of death among pregnancy-related deaths in Georgia in 2014 were cardiovascular and coronary conditions, embolism, cardiomyopathy, hemorrhage, preeclampsia and eclampsia, and amniotic

fluid embolism (Georgia Department of Public Health, 2019b). Pregnant individuals should be educated on warning signs of these conditions to receive timely and appropriate care in an event of emergency. Prenatal educators are able to educate on these warning signs in order to reduce maternal and morbidity, especially in the postpartum period. Prenatal educators should additionally educate women on health behaviors, such as appropriate exercise and diet during the postpartum period, to reduce maternal mortality and morbidity.

Through a comprehensive literature review, review of postpartum discharge materials, and focus group discussions with nurses, Suplee et. al found that inconsistent information was provided to women about post-birth warning signs and actions they should take in event of an emergency. In order to streamline and improve education that all postpartum women receive regarding warning signs of complications, Suplee et al. designed evidence-based educational materials and discharge teaching for nurses to use (Suplee, Kleppel, Santa-Donato, & Bingham, 2016). These materials are provided in Healthy Mothers, Healthy Babies' prenatal education toolkit.

*Importance of Perinatal Mood and Anxiety Disorder Education:* Pregnancy and the postpartum period are associated with both the onset of mental illness and mental illness relapse (Building U.S. Capacity to Review and Prevent Maternal Deaths, 2018). Several Perinatal Mood and Anxiety Disorders, including perinatal depression, perinatal anxiety, and obsessive-compulsive disorder, affect women during these periods. Perinatal depression is the most commonly diagnosed, affecting up to 20% of new mothers (Healthy Mothers Healthy Babies Coalition of Georgia, 2019b). Between 2008 and 2017 in the United States, 8.8% of pregnancy-related deaths were caused by mental health conditions (Building U.S. Capacity to Review and Prevent

Maternal Deaths, 2018). According to the Georgia Maternal Mortality Review Committee, 6% of pregnancy-associated deaths in Georgia were due to suicide in 2013. Moreover, 13% of pregnancy-related deaths for individuals less than 25 years old were caused by mental health conditions between 2012 and 2014 (Georgia Department of Public Health, 2019b).

The Consensus Bundle on Maternal Mental Health developed by the Council on Patient Safety in Women's Health Care emphasizes the importance of providing perinatal anxiety and depression awareness education to women and their family members. Early identification of Perinatal Mood and Anxiety Disorders has been shown to improve outcomes. This education has also been shown to reduce stigma surrounding these mental illnesses and empower women to seek help when needed (Kendig et al., 2017).

*Physical therapy and postpartum doula awareness:* While educating on postpartum healthy behaviors, prenatal educators should take the opportunity to educate on the option of physical therapy during the postpartum period. Physical therapy is an often overlooked tool to recovery from common postpartum complaints, such as diastasis recti and postpartum stress incontinence (Litos, 2014) (Dumoulin et al., 2013) . Moreover, postpartum doulas are another overlooked tool for recovery in the postpartum period. Postpartum doulas provide families support and information on emotional and physical recovery from childbirth, infant feeding and soothing, and coping skills for parents (Postpartum Support International, 2020b). Research has suggested that involvement of a doula in the postpartum period can help reduce postpartum mood disorders as well as improve breastfeeding rates (DONA International, 2016).

*Initiatives for Improving Postpartum Health**:*** The Georgia Perinatal Quality Collaborative launched the Alliance for Innovation on Maternal Healthcare hemorrhage bundle initiative in April 2018. The goal of this initiative is to increase readiness, recognition, and response to hemorrhages (Healthy Mothers Healthy Babies Coalition of Georgia, 2019b).

Postpartum Support International-Georgia Chapter works to increase social support among pregnant and postpartum women through providing support, information, and resources. This organization also connects mothers, fathers, and families to local providers trained in treating perinatal mood and anxiety disorders (Postpartum Support International, 2020a).

Moreover, several organizations, including Healthy Mothers, Healthy Babies Coalition of Georgia are advocating for the extension of Medicaid coverage during the postpartum period to one year, instead of 60 days, after delivery. The Georgia Maternal Mortality Review Committee also recommends this extension. Additionally, the Georgia Maternal Mortality Review Committee has developed numerous recommendations to prevent maternal morbidity and mortality. For all pregnancy-related deaths in 2012-2014, the Georgia MMRC identified recommendations that can be found in the Maternal Mortality Case Review of 2014 (Georgia Department of Public Health, 2019b).

### *Cultural Competency*

*Importance of Culturally Competent Prenatal Education Classes:* Many disparities and inequities, especially surrounding maternal and infant health, exist in Georgia by age, education, ethnicity, race, region, and socioeconomic status. Prenatal educators must be aware of the

accessibility of their courses, ensure that their clients are centered and represented in their classes, and understand and accommodate their clients' health literacy levels. Moreover prenatal educators have the responsibility of ensuring health equity by understanding their own biases and raising awareness regarding disparities among colleagues. They additionally have the ability to empower clients to have open discussions with their providers. Healthy Mothers, Healthy Babies Coalition of Georgia's prenatal education toolkit provides resources and tips on how to ensure they are providing culturally competent classes.

*Diversity and Health Disparities in Georgia:* Countless racial disparities in maternal and infant health outcomes exist in the state of Georgia**.** These racial disparities exist even after controlling for poverty, education, and unemployment (Yale Global Health Justice Partnership, 2018). Over the last 10 years, Black women have accounted for over half of all maternal deaths in Georgia. Implicit bias among healthcare providers was found to be a factor that contributes to this disparity (Wilkins, Efetevbia, & Gross, 2019). Moreover, in Georgia, risk of preterm birth among Black women is 53% higher than that of all other racial categories. The highest percentage of low birthweight births in Georgia is among black women. From 2013-2017, the highest rate of infant deaths was among Black infants (Healthy Mothers Healthy Babies Coalition of Georgia, 2019b).

In addition to racial disparities, socioeconomic disparities are also present in maternal and infant health outcomes. Georgia is the fifth poorest state in the United States and ranks in the lowest quintile of states for socioeconomic disparities (Yale Global Health Justice Partnership, 2018); (Gazmararian et al., 2014). Georgia has the second highest uninsured rate and is ranked 50$^{th}$ for

health insurance coverage. One of the largest barriers to prenatal and postpartum care is affordability. Cost sharing, out-of-pocket costs for treatments and prescriptions, and services not being covered are all barriers to appropriate care during pregnancy and postpartum. Among women enrolled in Medicaid, only 38.2% had almost all their expected prenatal visits, compared to the national median of 61.7%.

Gender non-conforming individuals face many unique challenges during and after pregnancy. Pregnancy can be a time of loneliness, gender dysphoria, and other internal struggles for gender non-conforming individuals. Baseline depression and suicide rates are higher for transgender individuals than the adult average, placing them at risk for postpartum depression. Gender non-conforming individuals also face external challenges imposed by societal gender norms. For example, these individuals are at risk for poorer health outcomes related to discrimination and lack of awareness in the healthcare system and among clinicians. Unfortunately, there is a gap between health professionals' training with transgender people and the transgender individuals' needs (Obedin-Maliver & Makadon, 2016).

*HMHB's Findings on Prenatal Education Course Accessibility:* In order to better understand the current state of prenatal education in Georgia and gauge interest in online and/or mobile app-based prenatal education, Healthy Mothers, Healthy Babies' conducted two focus groups in Valdosta and Augusta with local mothers. Both Valdosta and Augusta participants reported inadequate transportation to and from prenatal classes and inconvenient class timing as barriers to prenatal education accessibility. Mothers in Augusta view their work schedules as barriers to prenatal education**.** As apart of this 2018 evaluation, HMHB also collected surveys for 120

prenatal education courses at 52 hospitals and health centers throughout the State of Georgia. Of these courses, 53.3% were free, 12.5% cost between $1 and $25, 21.7% cost between $26 and $50, 8.3% cost between $51 and $75, and 4.2% cost between $76 and $100. The majority of courses were held on weeknights and the number of sessions varied between 1 and 8 sessions.

### *Evaluation*

Healthy Mothers, Healthy Babies Coalition of Georgia's prenatal education course surveys revealed that the majority of prenatal educators in Georgia were only evaluating participants' satisfaction rates, instead of evaluating overall impact of the courses and measuring knowledge gains. HMHB recommends evaluating and tracking both satisfaction and knowledge gained after prenatal education courses through follow-up with participants at the 2-week, 3-month, and 6-months. Evaluating both satisfaction and knowledge gained has the potential to improve the curriculum content and delivery and will allow for more focused efforts on class outcomes (Healthy Mothers Healthy Babies Coalition of Georgia, 2018a).

## Chapter 3: Methodology

Step One: Beginning Steps in Toolkit Creation

In 2018, Healthy Mothers, Healthy Babies Coalition of Georgia conducted a research project evaluating prenatal education across the state of Georgia. It was discovered that many important topics were being overlooked in prenatal education curriculums. To address these missed topics, HMHB decided to create a toolkit for prenatal educators in Georgia (Healthy Mothers Healthy Babies Coalition of Georgia, 2018a). I was hired as HMHB's graduate student intern in February 2019, and one of my main responsibilities was the development of this toolkit.

Throughout my internship, I had weekly meetings with the program coordinator and research and policy analyst to review my progress on the toolkit and make revisions as needed.

Having never created a toolkit before, I had several meetings with the program coordinator to discuss a general vision for the toolkit. We discussed the general topic areas to include based on results of the 2018 research project. The original topic areas were as follows:

- Cesarean Sections
- Oral Health & Pregnancy
- Health Literacy and Pregnancy Benefits
- HIV & STI/STD's During Pregnancy
- Postpartum Care and Post-Birth Warning Signs

Upon later review of the toolkit, we decided to include two more sections—a cultural competency section and an evaluation section. We realized that many of the prenatal educators we had connections with were of similar backgrounds. Most were white, highly educated, cis-gender women. In contrast, information in this toolkit is intended for all pregnant people in Georgia, with a specific focus on black pregnant women. HMHB determined it was extremely important to assist prenatal educators in providing appropriate and applicable education to people of various backgrounds and encourage educators to be hyperaware of implicit biases in healthcare.

We added the evaluation section after discussion surrounding the importance of evaluating both satisfaction and knowledge gained. These types of evaluations can improve both curriculum content and delivery and allows for focused efforts on class outcomes. However, the majority of prenatal educators in Georgia only evaluate for patient satisfaction, instead of knowledge gained (Healthy Mothers Healthy Babies Coalition of Georgia, 2018a). Please refer to the *Internal Revisions* section below for more detail.

We chose these topics based on findings from both Healthy Mothers, Healthy Babies Coalition of Georgia's 2019 State of the State: Maternal and Infant Health in Georgia Report and HMHB's research project *An Evaluation of Current Prenatal Education Availability and Receptivity to Online Education in the State of Georgia*. Please refer to the introduction and literature review sections of this report for a more detailed explanation of the decision to focus on these seven prenatal education topics.

To have a starting template for the toolkit, I had researched and reviewed several toolkits from various maternal and infant health organizations. I found the American College of Obstetricians and Gynecologists had well-organized toolkits that made for a guide on appropriately structuring a successful toolkit. The Centers for Disease Control and Prevention and the March of Dimes also had toolkits that served as starting models. I created a table to track the toolkits I used as guides (see Appendix A for this table).

Step Two: Creation of Sub-sections

For each prenatal education topic, I decided to break the topics further down into the following sub-sections:

*"Why this Topic is Important"*

I used this sub-section to explain to prenatal educators the importance of educating on these topics. I included vital statistics from HMHB's 2019 State of the State of Maternal & Infant Health report, findings from the 2018 prenatal education research project, and findings from trusted organizations and journal articles. Explaining the importance of these topics to prenatal educators is a crucial first step to disseminating this education to pregnant women.

*"How to Include [Toolkit Topics in Prenatal Education Classes]"*

I discussed ideas on how to incorporate these topics into prenatal education classes. In this sub-section, I included links to materials that educators can disperse in their classes, certain education points to emphasize, and specific recommendations for pregnant women. The goal of this section is to provide concrete advise, recommendations, and materials for the prenatal educators to directly provide their participants.

I used a variety of trustworthy sources to compile content for this section, including March of Dimes, the National Maternal and Child Oral Health Resource Center, the Center for Disease Control, and the Georgia Department of Human Services.

*"Topics to Include in [Prenatal Education Toolkit]"*

Although I had originally intended on making "Topics to Include" a standard subsection for each prenatal education topic section, I only used this sub-section for Cesarean Sections. The "How to Include" section was sufficient for the other topics. However, it helped organize the section on

Cesarean Sections, as this is a very broad topic that required further breakdown for both practical and aesthetic purposes.

*"Additional Resources and Handouts"*

After I had researched and compiled various resources, the program director, program coordinator, research & policy analyst, and I decided which resources were most applicable and useful to our target population. Resources included educational pamphlets, ACOG FAQ pages, fact sheets, and toolkits.

Overall, each of the six prenatal education sections took approximately 10-15 hours to draft.

Step Three: Creating the "How to Use Toolkit" Section

Because this toolkit is lengthy, we decided to begin the toolkit with a "How to Use" section, which briefly reviewed the purpose of the toolkit and emphasized that the toolkit should be used and adapted for the unique needs of the organization and service population. The expectation was not that educators would implement every tool or concept introduced in this toolkit, but educators would implement what is most useful and applicable to their curriculum and population.

This section moreover contains questions to prompt prenatal educators to reflect on how they are currently incorporating these education topics into their curriculums. This can help guide educators to focus on certain topic areas of the toolkit.

Step Four: Internal Revisions after Initial Draft

Before we sent the toolkit draft externally for review and revisions, several HMHB staff, including the program director, program coordinator, research & policy analyst, and interns reviewed and edited the toolkit. The following revisions were made:

1. Discussion Questions

   Discussion questions were added to each prenatal education topic section. We decided to make the toolkit more interactive by providing a concrete way for educators to engage their participants in active learning. We believed the questions could also help educators gauge both the participants' understanding of the topics and personal experiences related to these topics. The discussion questions include teach-back questions on informational content and personal reflection questions.

2. Cultural Competency Section

   A cultural competency section was added to the toolkit. Although cultural competency was not a topic addressed in the 2018 research project, HMHB staff deemed it as extremely important to include in the toolkit. HMHB places a large emphasis on promoting improved access to healthcare and health outcomes particularly among the black, Medicaid-enrolled pregnant women, mothers, and infants in Georgia. We decided cultural competency was extremely important to include as apart of the toolkit in order for prenatal educators to appropriately provide education to pregnant women from backgrounds that may be very

different from their own. It is important for prenatal educators to be hyper-aware of the notion that implicit bias among healthcare practitioners is a contributing factor to the very high rates of maternal deaths among black women in Georgia (Healthy Mothers Healthy Babies Coalition of Georgia, 2019b).

3. Evaluation Section

   Furthermore, we decided to include a section regarding the importance of implementing both satisfaction and knowledge evaluations of prenatal education curriculums to improve future curriculums. HMHB's 2018 research project found that the majority of prenatal educators in Georgia were only evaluating for participant satisfaction, instead of knowledge gained (Healthy Mothers Healthy Babies Coalition of Georgia, 2018a). I additionally included HMHB's prenatal education program post-test evaluation and course evaluation for prenatal educators to use as a model.

4. Knowledge Assessment

   The "Testing Your Knowledge" section was added for educators to assess their knowledge on the prenatal education topics covered in this toolkit. It can help educators gauge which sections of the toolkit are most applicable for their use.

5. Appendix

   I added the appendix mainly to include charts from the 2018 research project. These charts visually demonstrate the cost of prenatal education courses, the spread of class timing, and the extent various prenatal education topics were missing from curriculums across the state

of Georgia. They provide background to the toolkit and can motivate prenatal educators to both increase accessibility of their classes and increase teaching on frequently overlooked topics.

## Step Five: Focus Group Discussions

### *Decision to Use Focus Group Discussions*

I decided focus group discussions would be an appropriate avenue for obtaining external feedback regarding the quality and content of the toolkit, as they would allow for in-depth discussions of the toolkit and detailed, thorough feedback. The feedback would be incorporated into the toolkit to make for an improved intervention.

### *Recruitment Process*

I recruited prenatal educators through purposive sampling (Hennink, Hutter, & Bailey, 2012). Prenatal educators include providers and clinicians within the field of maternal health, prenatal class instructors, certified prenatal educators, and doulas (March of Dimes, 2019c) . I recruited prenatal educators from all six perinatal regions of Georgia (Atlanta, Augusta, Columbus, Macon, Savannah, and Albany). Carrying out focus groups with educators throughout the six perinatal regions allowed for diversity in feedback and helped the toolkit become more generalizable within the state.

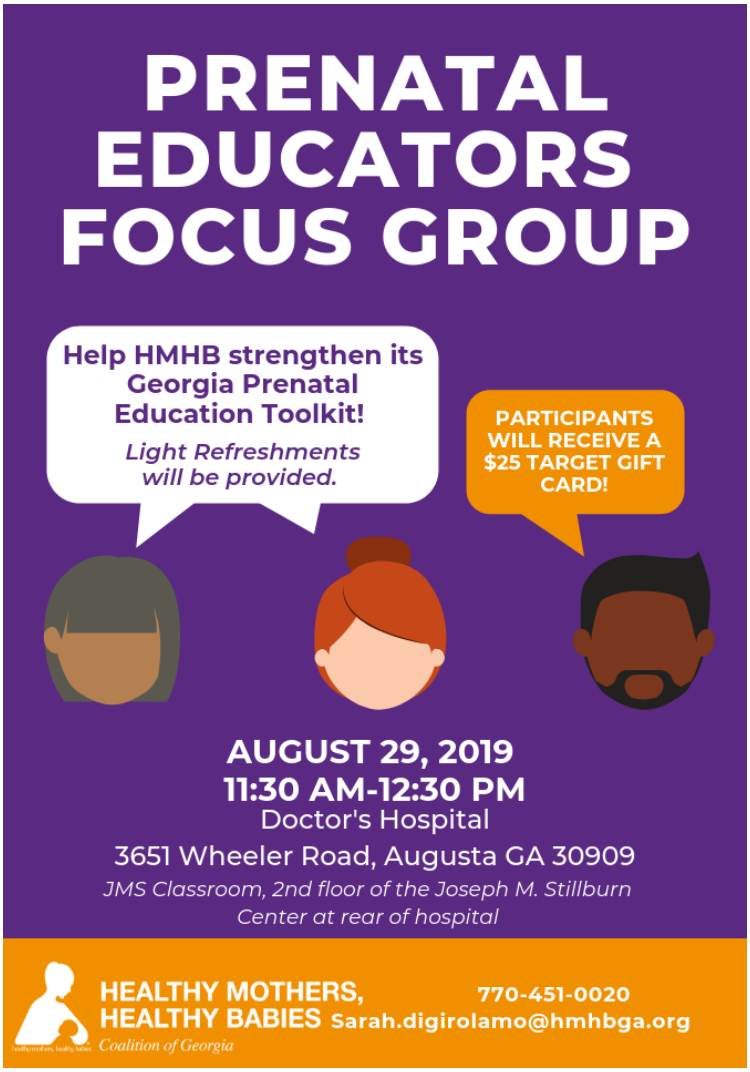
I recruited via phone calls and emails containing recruitment flyers HMHB's Communications Associate created (see flyer below). I recruited the majority of participants through Healthy Mothers, Healthy Babies Coalition of Georgia's current network of healthcare organizations and

individual prenatal educators. I additionally recruited prenatal educators by emailing the American College of Nurse-Midwives listserv, maternal health professors in the nursing school, and prenatal educators and prenatal education organizations I found via online searches. Furthermore, I recruited via snowball sampling, as many of the prenatal educators knew of other educators who were willing to participate (Hennink et al., 2012).

I aimed to conduct six one-hour focus group discussions, one in each perinatal region of Georgia, with 6-8 prenatal educators per group. However, given the scarcity of prenatal educators throughout the entire state of Georgia—especially in rural areas—the recruitment process was lengthy and challenging.

Unfortunately, only two of the six scheduled participants showed up to the Atlanta focus group discussion. Learning from this experience, I aimed to recruit over 12 participants for the remaining focus groups to allow room for no-shows. Four prenatal educators participated in the Columbus focus group, 11 educators participated in the Augusta focus group, and 5 educators participated in the Savannah focus group. Due to a hurricane in Savannah, the focus group was completed virtually through Zoom, and many of the scheduled participants were not able to participate. Only two prenatal educators were recruited from the Albany perinatal region and only two were recruited from the Macon perinatal region. All four of these prenatal educators participated virtually during the Augusta focus group.

*Example of Recruitment Flyer:*




***Establishing meeting location and times***

The focus groups took place during August and September 2019. I worked with the local prenatal educators to establish a meeting place. The Atlanta focus group took place in the Healthy Mothers, Healthy Babies Coalition of Georgia's office. The Columbus focus group took place at the Columbus Public Library, and the Augusta focus group took place at the Doctor's Hospital. Although the Savannah focus group was set to take place at St. Joseph's Hospital, it was moved to a virtual Zoom meeting due to a hurricane.

### *Consent Forms*

Each participant signed a consent form prior to participating in the focus group discussion. The consent form included a description of the purpose of the focus group, a detailed description of participants' rights, and the consent to participate (see Appendix B for the informed consent form).

### *Focus Group Budget*

Healthy Mothers, Healthy Babies Coalition of Georgia funded all costs of the toolkit creation with the support of the Dobbs Foundation, Anthem Foundation, and the Fulton-DeKalb Hospital Authority. The budget included $25 gift cards for each focus group participant, $35 for each focus group refreshment cost, and a hotel cost for the Savannah focus group. However, due to last minute changes in the number of participants and the hurricane in Savannah, the cost of the focus groups was much less than anticipated. A total of $810 was ultimately spent (see Appendix C for Focus Group Budget).

### *Focus Group Discussion Guide*

I developed and utilized a discussion guide for all four focus groups. I included warm up questions, questions related to each section of the toolkit, questions regarding the toolkit as a whole, questions regarding the presentation/delivery of the toolkit, and closing questions (see Appendix D for the Focus Group Discussion Guide).

### *Use of Feedback Survey for Atlanta Prenatal Educators*

Given the low number of Atlanta participants, the HMHB program coordinator sent out a draft of the toolkit to Atlanta prenatal educators who did not attend the focus group to provide them an opportunity to provide feedback directly onto the toolkit with the Microsoft Word "track changes" feature. An incentive of $10 tar gift cards was established. Three prenatal educators returned the toolkit with feedback.

Step Six: Incorporation of Focus Group Feedback

For each focus group discussion, I created tables to organize and best visualize all feedback received. The program coordinator, research & policy analyst, and I collaborated in reviewing these tables, identifying common themes, and deciding which feedback to incorporate (see Appendix E for the feedback tables). We provided focus group participants the option of including their names in the acknowledgement section of the toolkit.

Step Seven: Final Internal Review

After incorporating feedback from the focus groups, HMHB staff performed a final review of the toolkit. The program director, program coordinator, research & policy analyst, the educational programs associate, and I all reviewed the toolkit.

Step Eight: Graphic Design

Finally, the toolkit was sent to a graphic designer to develop the overall layout, visual content, and production of the toolkit. After a few versions, the toolkit was finalized.

IRB Approval

In July 2019, I had sent a "Not Human Subjects Research" Determination Request to Emory University's Institutional Review Board. Based on their review, it was determined that this special studies project did not require IRB review because it does not meet the definition of

"research" with human subjects or "clinical investigation" as set forth in Emory policies and procedures and federal rules.

## Chapter 4: Results

Focus Group Discussion Results

### *Atlanta Focus Group Discussion:*

The Atlanta focus group discussion brought up several points of feedback for every section of the toolkit. For the topic of cesarean sections, participants suggested we incorporate ways to reduce cesarean sections, the topic of vaginal births after having had a cesarean section (VBACs), recovery and breastfeeding post-cesarean section, and myths surround cesarean sections. We incorporated all suggestions into this section.

For the topic of oral health, participants suggested we incorporate use of marijuana during pregnancy, increased risk of cavities during pregnancy, importance of a "dental note" from the physician, and oral health for the infant during the first year of life. We included all suggestions except oral health during first year of life as we felt this topic was not as applicable to the prenatal period. Additionally, while we listed marijuana as a substance that has detrimental effects on oral health, we did not further go into the negative effects of marijuana during pregnancy as it was not pertinent to this section.

Atlanta focus group participants had fewer suggestions for the health literacy section. They suggested shortening this section by removing information about Care Management Organizations. They also recommended getting feedback from employees of organizations we discussed in this section (Planning for Healthy Babies, Women Infants and Children Program, etc.). We abbreviated the information on Care Management Organizations, instead of removing it completely, as we felt this information is important for Medicaid-enrolled pregnant women. We were unable to connect with employees of the mentioned Medicaid programs; however, we utilized information we found important and relevant on their websites.

We received an abundance of feedback for the STI's/STD's section, including discussion of Hepatitis C, Hepatitis B, and HPV. Participants furthermore suggested we include information surrounding stigma and routine STI/STD testing. They recommended discussing suppression therapy for HSV and the use of erythromycin ointment in infants' eyes to reduce blindness from gonorrhea and chlamydia after birth. We incorporated information on Hepatitis C, Hepatitis B, stigma, routine screening, and HSV suppression therapy. We did not include discussion of HPV, as evidence is limited on its effects in the prenatal period. We did not discuss the use of erythromycin ointment as we felt this information was less relevant information for the postpartum period.

The Atlanta focus group also yielded an abundance of suggestions for the postpartum care section. Participants suggested we include the importance of discussing of weight gain, anemia, gestational diabetes, pre-eclampsia, pelvic physical therapy and postpartum exercises, breastfeeding, and support groups. We incorporated all these topics.

We made the cultural competency section more aesthetically pleasing based on feedback from Atlanta participants, as this section appeared overwhelming with lengthy sentences and a large quantity of information. We additionally incorporated the benefits of allowing children to attend classes and the importance of acknowledging different pain relief strategies across cultures based on feedback from the group.

Finally, for the evaluation section, the focus group simply suggested we talk about the significance of assessing health outcomes. We incorporated this feedback and added the HMHB health outcome evaluation used as an assessment after HMHB prenatal education classes.

***Columbus Focus Group Discussion:***

The Columbus focus group discussion additionally yielded rich feedback for each section of the toolkit. Similar to the Atlanta focus group, participants also suggested incorporation of the topic of VBACs and recovery and breastfeeding post-C-section. This focus group contributed several other ideas for the topic of cesarean sections. One participant described a "mock c-section day" her class carries out at the hospital. We added this anecdote into the toolkit to provide an example of class session surrounding cesarean sections. Per this focus groups recommendations, we also added information on post-cesarean section risks, c-section consent and shared decision making, and family-centered/gentle c-sections. We did not include the suggested topics of vertical vs. horizontal c-sections and family planning after c-sections. We felt the type of

cesarean section was not a priority to discuss in the toolkit and the topic of family planning was discussed in a later section.

Like the Atlanta focus group, the Columbus focus group suggested adding marijuana to the list of substances that can negatively impact oral health. We also added the act of vaping to this list per their suggestion. We moreover incorporated the suggested topic of gingival hyperplasia during pregnancy.

This focus group only had one suggestion for the health literacy section. One participant shared how lots of her military clients who hold full-time are unaware that they are eligible for Medicaid. She recommended the toolkit discuss Medicaid eligibility for military personnel. Given the length of this section already, we decided our general section on Medicaid eligibility was sufficient for the purposes of this toolkit.

In terms of the STI/STD section, the group recommended we add a resource for information on HIV and pregnancy and HIV and breastfeeding. Based on this feedback, we incorporated a CDC statement on HIV and breastfeeding and an ACOG pregnancy and HIV patient education FAQ sheet. The group also suggested we discuss transmission of RSV to infants; however, we felt this was less relevant for this section.

The Columbus group had several recommendations for the postpartum care section. Feedback we received but did not incorporate for the sake of conciseness was discussion of infant feeding "right and wrongs" and caring for infant's genitals (vagina vs. circumcised penis vs.

uncircumcised penis). We incorporated information on stillbirth/bereavements and postpartum doulas based on their feedback. Additionally, we incorporated the suggested topics of preeclampsia and postpartum anxiety, rage, and psychosis as suggested topics to discuss in class.

The Columbus focus group brought up the important point of including the topic of gender within the cultural competency section. We were very appreciative that this was brought to our attention, as we felt it is extremely relevant and crucial for providing culturally competent prenatal education. This group also spoke on the impact of familial biases, familial myths, and "old-fashion" OBGYNs on the health of pregnant women. While we agreed these notions should be addressed by healthcare providers, we felt it would best be addressed in a separate toolkit or educational piece.

In terms of the evaluation section, the focus group brought to our attention some discrepancies in the tables which we addressed and fixed.

***Augusta Focus Group Discussion***

The Augusta focus group, being our largest focus group of the four, produced rich feedback for the toolkit. Like the previous focus groups, this group recommended we discuss VBACs, family-centered/gentle c-sections, importance of consent for cesareans, and breastfeeding post-cesarean section. We added a bullet on emotional and physical healing after cesarean sections per the focus groups advice. We also added a link to the International Cesarean Awareness Network for finding local support groups and the ACOG: Approaches to Limit Interventions during Labor

and Birth article to our resource list per the group's advice. The group suggested we give Perinatal Mood Disorders its own section in the toolkit; however, given the length of the toolkit, we decided it was best to eventually dedicate a separate toolkit to mental health in the pregnancy and postpartum period.

Like other groups, this group discussed the importance of addressing the value of a doctor's note for dental visits. The group also suggested adding resources to help women attain oral health. We added a link to HMHB's Resource Portal to the oral health section of the toolkit.

The group did not have any feedback for the health literacy section.

In terms of the STI/STD section, the group suggested we include the importance of universal screening for STD's/STI's to counteract the effects of bias among healthcare providers. While this is extremely important, we felt our discussion of stigma and routine screening of STI's/STD's was sufficient for our target audience and the purpose of this toolkit. We added information on syphilis and Hepatitis C per this group's recommendation. The Augusta group suggested adding information on HPV like the Atlanta group. Again, we did not include this because evidence is limited on the effects of HPV during the prenatal period.

The Augusta group had very similar feedback for the postpartum care section as other focus groups. For example, they suggested we discuss postpartum doula, pelvic floor therapy, and postpartum mental health. However, this group also had many new suggestions which we incorporated. We added the suggested resources of La Leche League, Zip Milk, Human Milk for

Human Babies, postpartumprogress.com, and doulamatch.net.

This group additionally provided valuable advice for the cultural competency section. Like the Columbus group, they also suggested discussion of gender issues. This group recommended we include the topic of birth plans within this section, so we added a discussion question on this topic. We also added information on empowering women to have open discussions with their healthcare providers per the group's advice. We added a suggested subsection regarding respect for religious differences in this topic section. This group did not have feedback for our evaluation section.

A general suggestion that arose during this focus group was finding a way for HMHB to relay this information within this toolkit directly to pregnant women and mothers. While the target audience of this toolkit is prenatal educators, HMHB has been working on other methods to portray this information to pregnant women and mothers throughout Georgia.

### *Savannah Focus Group Discussion*

While the Savannah focus group provided valuable feedback for the toolkit, it yielded fewer recommendations and suggestions than the other three groups. The recent hurricane in the area and the Zoom-format of the discussion likely contributed to this. The group had no feedback for the topic of cesarean sections and the evaluation section. During our discussion of the oral health section, one participant suggested we create a separate section for recreational drug and tobacco

use during pregnancy. However, given the scope of this toolkit, we decided that was best for a separate toolkit or educational piece.

For the health literacy section, the group suggested we discuss information and resources for people without health insurance that do not qualify for Medicaid. Given the length of this section and scope of the toolkit, we decided not to add this information. For the STI/STD section, like the other groups, the Savannah group suggested we add information on hepatitis C.

For the postpartum care section, we added postpartum anxiety to the list of postpartum mental illness per the Savannah group's advice. The group suggested we further breakdown post-birth warning signs into specifics and discuss referrals to cardiology in the postpartum period for women with preeclampsia. However, we felt it was best to leave this information out to maintain the conciseness of the toolkit. The Savannah group suggested we discuss specific terminology for different genders/sexual identities. To address this, we added the Amnesty International's extensive glossary for LGBTQ+ terminology and discussed the importance of respectfully asking the client which terms they are comfortable with.

Toolkit Product

The final toolkit can be retrieved with the following link http://hmhbga.org/wp-content/uploads/Final-Toolkit-HMHBGA-02122020.pdf. It is currently published on Healthy Mothers, Healthy Babies Coalition of Georgia's website in the "Programs" tab, under "Resources & Referrals". The toolkit will eventually be published on HMHB's mom-focused

website Pickles & Ice Cream. The development of the Pickles & Ice Cream website is currently in progress.

The final content of the toolkit includes an executive summary, "how to use this toolkit" section, 6 prenatal education topic sections, an "evaluating prenatal education" section, a "testing your knowledge" section, and an appendix. The following is an overview of each section. I noted the sections written by individuals other than myself; although I played a role in the review of these sections. The program director, program coordinator, and research & policy analyst at Healthy Mothers, Healthy Babies Coalition of Georgia reviewed all sections.

**Executive Summary (developed by the Program Coordinator**): This section reviews the importance of prenatal education in the state of Georgia and HMHB's research project *An Evaluation of Current Prenatal Education Availability and Receptivity to Online Education in the State of Georgia* which prompted the creation of this toolkit.

**How to Use this Toolkit:** This section reviews the purpose of the toolkit and provides advice for best usage of the toolkit. Furthermore, it provides 2-3 reflection questions for each of the prenatal education topic areas covered in the toolkit. These reflection questions help educators assess how they are currently incorporating these topic areas into their curriculums and serve as a guide for improvement.

**Cesarean Sections:** This section discusses the high prevalence of cesarean sections in Georgia and the risk they pose during the postpartum period. It provides cesarean section information and

handouts for all pregnant women to review prior to delivery. It reviews c-sections sub-topics that should be covered in class, such as having vaginal birth after a cesarean birth and care post-cesarean. A wide range of resources and handouts is provided at the end of this section.

**Oral Health during Pregnancy:** This section emphasizes that dental care is an essential part of health management during pregnancy. It reviews advice for pregnant women when scheduling and attending dental appointments and summarizes important dental hygiene practices to review during prenatal education. It provides several oral health resources, including HMHB's Resource Portal where women can find local dental providers.

**Health Literacy and Public Benefits:** This section provides general information on the services provided by and the application process for Georgia Pregnancy Medicaid, Planning for Healthy Babies Program, and the Special Supplemental Nutrition Program (SSNP) for Women, Infants, and Children (WIC) Program.

**STI's/STD's During Pregnancy:** This section provides information on several STI's/STD's and their potential effects on the fetus. It additionally advises how to teach on this frequently stigmatized topic and provides resources from the Centers for Disease Control and Prevention, the Mayo Clinic, and the American College of Obstetricians and Gynecologists.

**Postpartum Care and Post-Birth Warning Signs:** This section emphasizes the criticality of the postpartum period for long-term health and wellness of mother and infant and reviews findings from the Georgia Maternal Mortality Review Committee. This section lists important postpartum

topics to cover in curriculums, provides post-vaginal and post-cesarean section handouts, and advises the use of postpartum doulas when accessible/affordable. Other topics reviewed in detail within this section are the grieving process post-stillbirth, reproductive life planning, social support, and post-birth warning signs.

**Cultural Competency (written by Educational Programs Associate):** This section begins by defining cultural competency and emphasizes its significance when providing prenatal education. It provides an abundance of information on how to implement cultural competency in classes and workshops.

**Evaluating Prenatal Education:** This section underlines the importance of providing knowledge and satisfaction evaluations post-prenatal education class/workshop in order to improve future curriculums. It discusses HMHB's evaluation process and advises using it as a model when feasible. Additionally, it advises how to frame evaluation questions and interpret the findings.

**Testing Your Knowledge (written by Research & Policy Analyst):** This 10-question quiz allows prenatal educators to test their own knowledge on the topics covered within this toolkit.

**Appendix:** The appendix has visual representations of data collected through HMHB's 2018 research project. Additionally, table IV demonstrates pregnancy-related deaths in Georgia by race and ethnicity in 2014 to underscore the disparities for black women. The appendix additionally includes sample evaluations from HMHB's prenatal education courses.

Presentation at Healthy Mothers, Healthy Babies Coalition of Georgia's 45th Annual Meeting & Conference

The program coordinator, research & policy analyst, and I presented the final toolkit *What's Missing: An Evidence Informed Toolkit for Comprehensive Prenatal Education* on October 29, 2019 at HMHB's 45th Annual Meeting & Conference in Savannah, Georgia. We presented to a group of about 30 maternal and infant health professionals, including certified nurse midwives, nurses, and other prenatal educators. The presentation lasted about 40 minutes and the audience asked questions during the remaining 20 minutes of the presentation. We reviewed the need and purpose of the toolkit, the contents of the toolkit, and discussed tips for best usage. After delivering the presentation, we provided the audience with the link to the toolkit.

Further Dissemination of Toolkit

The program coordinator, research & policy analyst, and I presented the final toolkit again on February 12, 2019 via a Healthy Mothers, Healthy Babies Coalition of Georgia webinar. We presented to a group of about 50 maternal and infant health professionals. Similar to the conference, the presentation lasted about 40 minutes and 20 minutes were spent answering audience questions. The purpose of the toolkit, the toolkit contents, and tips for best usage were reviewed. Webinar participants were provided with a link to the toolkit. A recording of the webinar was later emailed to the HMHB listserv.

Additionally, the link to the toolkit was emailed to the HMHB listserv and the contacts of prenatal educators contacted during focus group recruitment.

## Chapter 5: Discussion

Georgia has consistently ranked at the bottom of maternal and fetal health outcomes in the United States over the years (Centers for Disease Control and Prevention, 2017). Although prenatal education is a vital tool to improving these outcomes, important topics are often left out of prenatal education curriculums. By creating, evaluating, and disseminating *An Evidence Informed Toolkit for Comprehensive Prenatal Education*, the HMHB team and I aimed to cover common gaps in prenatal education as identified by the HMHB 2018 report *An Evaluation of Current Prenatal Education Availability and Receptivity to Online Education in the State of Georgia*. We sought to improve the knowledge base of prenatal educators throughout the state of Georgia, motivate educators to teach on a broader scope of topics, and subsequently improve maternal and infant health outcomes throughout the state of Georgia.

### Strengths

There are numerous strengths when reviewing the creation of this project. Using HMHB's 2018 research project as a basis for the toolkit content is a notable strength. Because the topics covered in the toolkit were based on the evaluation of the Georgia providers' and educators' beliefs surrounding prenatal education and the scope of prenatal education curriculums specific to the state of Georgia, the content of the toolkit is extremely applicable to the target population of prenatal educators in Georgia.

Another significant strength of this project was the diversity of prenatal educators within the focus groups. This allowed for a wide range of perspective and feedback making the toolkit generalizable within Georgia. The focus groups included prenatal educators from a wide variety of backgrounds. Providers and clinicians within the field of maternal health, prenatal class instructors, certified prenatal educators, and doulas were all apart of the focus groups. Additionally, prenatal educators from all six perinatal regions of Georgia (Atlanta, Augusta, Columbus, Macon, Savannah, and Albany) participated in the focus groups. Recruiting among a wide array of entities (through HMHB's vast network of healthcare organizations and individual prenatal educators, the American College of Nurse-Midwives listserve, maternal health professors in the Emory nursing school, and other prenatal education organizations) allowed for further diversity.

The Healthy Mothers, Healthy Babies Coalition of Georgia 45th Annual Meeting & Conference provided a solid platform to disseminate the toolkit to a large audience of maternal and child health experts across Georgia. Additionally, HMHB's large network of prenatal educators and maternal health organizations provided a convenient channel for the dissemination of the toolkit. HMHB frequently hosts webinars for maternal health providers, clinicians, and educators, giving a strong basis for our February 12th webinar where we described the creation and purpose of the toolkit.

Moreover, these prenatal educators were made aware of other prenatal education services HMHB has to offer. Prenatal educators can relay this information to the women they serve. For

example, HMHB offers online prenatal education classes. Additionally, HMHB recently launched Pickles & Ice Cream Georgia. This is HMHB's Perinatal Education Program that includes an online platform aimed at empowering and educating women and families in the perinatal period. It has articles, blog posts, videos, and quizzes for pregnant and postpartum families in Georgia. It also has prenatal education and provider referral guides. Moreover, HMHB operates the Georgia Family Healthline, Children 1st high-risk screening line, and Help Me Grow Georgia to provide information on resources and referrals throughout the state of Georgia. HMHB provides various other resources and programs, and hosts numerous events to advance the health outcomes of mothers and babies throughout Georgia.

## Limitations

It is also important to note the limitations of this project. Firstly, I was unable to recruit enough prenatal educators in the rural perinatal regions of Macon and Albany to host focus groups in each of these regions. The few participants I recruited from these regions reported they were not aware of many other educators in the area. Additionally, they voiced to me the concern that they, as well as other maternal health professionals in the region, were extremely busy. Only two prenatal educators were recruited from the Albany perinatal region and two were recruited from the Macon perinatal region. These participants joined virtually during the Augusta focus group. Ideally, hosting focus groups in each of these regions would have allowed for greater diversity in perspective and feedback.

Moreover, only two of the six scheduled participants of the Atlanta focus group attended the session. Learning from this first focus group experience, I aimed to over-recruit 12 or more participants for the remaining three focus groups. Having over five participants for the Atlanta focus group would have allowed for more feedback from urban providers, clinicians, and educators.

Additionally, the Savannah focus group was rescheduled to a virtual Zoom group instead of in person as a result of Hurricane Dorian. Attendants and I were unable to attend in person due to the severe nature of this storm. Although we had numerous scheduled participants for the original focus group, several were unable to attend even virtually due to this storm. A total of five participants joined the Zoom focus group.

It was clear that these Zoom participants were not as apt to speak and required more prompting to obtain in-depth responses. Ideally, all focus groups would have been held in person to foster a sense of comfort and connection to allow for easier participation.

In terms of implementing this toolkit, it is important to note that it is not generalizable outside the state of Georgia. Although some of the content may be applicable for prenatal educators in other states, this was not confirmed by the HMHB 2018 research project. All focus groups took place within the state. Furthermore, because the toolkit was disseminated via email and is on HMHB's website, it is not as available to prenatal educators that may not have access to computers or the internet.

Recommendations

### *Areas for Future Research*

Maternal and infant health organizations in other regions of the United States should carry out evaluations similar to HMHB's 2018 research project. This would allow other areas to identify and act upon prenatal education gaps within their region. Moreover, within the next several years, Healthy Mothers, Healthy Babies Coalition of Georgia should conduct another research project similar to the 2018 project to allow for an up-to-date needs assessment of prenatal education across Georgia.

### *Development of Toolkits*

Like this toolkit, all subsequent toolkits should be developed with the input of key informants. HMHB should continue to form collaborations and partnerships with maternal and infant health organizations and prenatal education entities throughout the state of Georgia.

In terms of the focus groups, it is recommended that, when possible, all focus groups should be conducted in person. When comparing in-person versus virtual focus groups, the in-person participants more frequently participated without the need for much prompting. Furthermore, there were many scheduled participants that did not show up to the focus groups. Around 25-50% of scheduled participants did not attend. Therefore, it is recommended to recruit more individuals than necessary.

Unfortunately, *An Evidence Informed Toolkit for Comprehensive Prenatal Education* is only applicable to prenatal educators in Georgia. As mentioned above, it is recommended that other

regions throughout the US carry out evaluations of prenatal education curriculums within their state. Based on these findings, maternal and infant health organizations across the United States should create prenatal education toolkits for prenatal educators. These toolkits should work to cover common gaps in prenatal education by providing information on frequently overlooked, yet important prenatal education topics.

### *Delivery of Prenatal Education*

From the recruitment process of prenatal educators in the Albany and Macon region, it appears there is a scarcity of prenatal education courses in these areas. Throughout rural Georgia as well as rural areas of the United States, there is an overall lack of access to adequate prenatal care and education, leading to poor maternal and infant health outcomes (Yale Global Health Justice Partnership, 2018). One possible way to address this is through the implementation of affordable online prenatal education classes. Healthy Mothers, Healthy Babies Coalition of Georgia is one organization that provides this service. Although those without access to Internet or computers will not be able to access these classes, it is a small step towards increasing access to prenatal education in rural areas.

During our focus group discussions, several participants voiced the idea of creating a similar prenatal education toolkit with pregnant women as the audience. This way, pregnant women can directly receive information and resources on important prenatal education topics. Although HMHB has a vast amount of prenatal education tools and resources for pregnant women in Georgia, creating a concise prenatal education toolkit for the use of pregnant and postpartum women has the potential to further enhance maternal and infant outcomes throughout the state.

### *Conclusion*

In developing, evaluating, and disseminating this toolkit, I achieved all four objectives of my project. I used the findings from HMHB's 2018 report *An Evaluation of Current Prenatal Education Availability and Receptivity to Online Education in the State of Georgia* to inform the content of the toolkit. I evaluated the content and quality of the toolkit through four focus group discussions with prenatal educators from each of the six perinatal regions of Georgia. I created an improved version of the prenatal education toolkit based on feedback received from the four focus group discussions. Finally, I disseminated the toolkit by presenting it at HMHB's Annual Conference and through an HMHB webinar. HMHB staff additionally published the toolkit on their website Pickles & Ice Cream and directly emailed it to HMHB's network of prenatal educators. These objectives served to improve the knowledge base of prenatal educators throughout the state of Georgia with the hope that educators will teach on a more inclusive range of prenatal education topics.

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# Appendices

## Appendix A

Table of Toolkits from External Sources

| Organization | Title of Toolkit | URL |
|---|---|---|
| American College of Obstetricians and Gynecologists | ACOG Postpartum Toolkit<br><br>(The American College of Obstetricians and Gynecologists, 2018 ) | https://www.acog.org/-/media/project/acog/acogorg/files/pdfs/publications/2018-postpartum-toolkit.pdf |
| | Optimizing Support for Breastfeeding<br><br>(The American College of Obstetricians and Gynecologists, 2016) | https://www.acog.org/-/media/project/acog/acogorg/files/pdfs/publications/breastfeedingtoolkit2020.pdf |
| Centers for Disease Control and Prevention | Pregnancy and Vaccination: Toolkit for Prenatal Care Providers<br><br>(Centers for Disease Control and Prevention, 2019c) | https://www.cdc.gov/vaccines/pregnancy/hcp-toolkit/index.html |
| | Responding to Influenza: A Toolkit for Prenatal Care Providers<br><br>(Centers for Disease Control and Prevention, 2016) | https://www.cdc.gov/flu/pdf/freeresources/updated/2011_influenza_prenatal_toolkit.pdf |
| March of Dimes | Elimination of Non-Medically Indicated (Elective) Deliveries Before 39 Weeks Gestational Age<br><br>(March of Dimes, 2011) | https://www.marchofdimes.org/professionals/less-than-39-weeks-toolkit.aspx |

## Appendix B

Informed Consent Form

**Informed Consent**

Principal Investigator: Sarah DiGirolamo
Phone: (973)-647-7497

**Purpose**
This focus group is to gain feedback on Healthy Mothers, Healthy Babies Coalition of Georgia's prenatal education toolkit for prenatal educators in Georgia. HMHB will incorporate this feedback into the toolkit before publishing. Additionally, Graduate Student Intern Sarah DiGirolamo is basing her "Special Studies Project" for her Master of Public Health program on the development and evaluation of HMHB's toolkit.

This focus group will likely take between 60-90 minutes.

**Participants' Rights**
I understand that my responses will be kept in the strictest of confidence and will be available only to the Healthy Mothers, Healthy Babies Coalition of Georgia team. No one will be able to identify me when the results are reported and my name will not appear anywhere in the written report. Please do not share other people's identities or responses from the focus group with others to maintain the anonymity of the participants outside of the focus group. I also understand that I may skip any questions or tasks that I do not wish to answer or complete. I understand that the consent form will be kept separate from the data records to ensure confidentiality. I may choose not to participate or withdraw at any time during the focus group without penalty. I agree to have my verbal responses tape-recorded and transcribed for further analysis with the understanding that my responses will not be linked to me personally in any way. After the transcription is completed, the tape recordings will be destroyed.

If I am uncomfortable with any part of this focus group, I may contact Mica Whitfield, Director of Programs at Healthy Mothers, Healthy Babies Coalition of Georgia, at (678)-302-1130.

I understand that I am participating in a focus group of my own free will.

**Consent to Participate**
I acknowledge that I am at least eighteen years old, and that I understand my rights as a research participant as outlined above. I acknowledge that my participation is fully voluntary.

Electronic Signature: _____

Date: _____

## Appendix C

Focus Group Budget

| Region | Total # Participants | Hotel Cost | Refreshment Cost | Total Gift Card Cost | Total Cost of Group |
|---|---|---|---|---|---|
| Atlanta Perinatal Region | 7 | $0 | $35 | ($25 x 7)=$175 | $210 |
| Augusta Perinatal Region | 5 | $0 | $35 | $125 | $160 |
| Columbus Perinatal Region | 4 | $0 | $35 | $100 | $135 |
| Macon Perinatal Region | 1 | $0 | $0 | $25 | $25 |
| Albany Perinatal Region | 1 | $0 | $0 | $25 | $25 |
| Savannah Perinatal Region | 5 | $100 | $35 | $125 | $260 |
| | | | | | |
| Total | 23 | $100 | | | $885 total cost |

## Appendix D

Focus Group Discussion Guide

**Warm Up**

1. What are some topics you all think are crucial to discuss during your classes/workshops?
2. What are some challenges you all encounter in covering all the topics you want to discuss?

**For each Toolkit**

Now we will go through each section of the toolkit together.
Please read through ____ section.

1. What are some things you like about this section?
2. What are some things you think should be changed?
3. What are some things you think might be unnecessary or inappropriate?
4. What is some information you think might be missing from this section?

*Go through toolkit and ask these questions for each section*

**General Toolkit Assessment:**

1. What are some topics you think might be missing from the toolkit that are important?
    a. How do you think these topics would best be incorporated into the toolkit (separate sections, into existing section)
2. How do you like the order of the topics?
3. What does everyone think about the length of the toolkit?

**Presentation/ Delivery of Toolkit:**

1. What are some ways you think we can better present this toolkit to educators? (Different formatting techniques?)
2. How can we make this toolkit more useable for educators? (ex: getting more or less specific with how to portray information in class)
3. How can we best encourage educators to use this toolkit?

**Closing:**

1. Does anyone have any last thoughts or feedback regarding the toolkit?

## Appendix E

Feedback Tables

### Atlanta Focus Group

| Section-specific feedback | New sections suggested | Other General Feedback |
|---|---|---|
| **Cesarean Sections:**<br>-Ways to reduce C-sections<br>-VBACs: why want to avoid; risk factors; criteria for successful VBAC<br>-Breastfeeding after a C-section<br>-Recovery post-C-section<br>-Myths surrounding C-sections (perception that it could be a positive experience) | Immunizations | One educator can get in touch with Georgia Affiliate of ACNM for funding |
| **Oral Health:**<br>-Stating marijuana use in listed drugs/alcohol<br>-Discussing risks of self-medicating with marijuana<br>-Leaching of calcium from mother's bones during pregnancy increases her risk of cavities<br>-Getting a "dental note" from your MD<br>-Oral health for baby during first year of life (when to start brushing teeth, etc) | | |
| **Health Literacy**<br>-Seems like a long section…maybe cut down<br>-Take out CMO piece<br>-Talk to women who work for these programs to get feedback | | |
| **STI's/STD's**<br>-Hepatitis C (becoming more common, transmission during pregnancy)<br>-Hepatitis B immunization<br>-HPV<br>-HPV immunization?<br>-Stigma<br>-Routine times that women are tested (new OB and 28 weeks; covered by insurance)<br>-Erythromycin administered to baby's eye (reduce blindness from gonorrhea and chlamydia)<br>-Suppression therapy for HSV (reduces risk of C-section, start at 26 weeks) | | |

| | | |
|---|---|---|
| **Postpartum Care**<br>-Discussion of maintaining healthy weight before and after pregnancy (uncomfortable and not talked about)<br>-Likes that we talked about chronic diseases involving cardiovascular and renal system.<br>-Add anemia to list of diseases<br>-Add gestational diabetes<br>-Add pre-eclampsia<br>-Discuss pelvic physical therapy<br>-Education on appropriate exercises<br>-Breastfeeding/breast health<br>-Support groups/social support | | |
| **Cultural Competency**<br>-Make more aesthetically pleasing (looks overwhelming)<br>-Allowing children in prenatal education classes<br>-Pain relief and management | | |
| **Evaluation**<br>-Assessing health outcomes<br>(adding HMHB health outcome evaluation) | | |

## Columbus Focus Group Feedback

| **Section-specific feedback** | **New sections suggested** | **Other General Feedback** |
|---|---|---|

| | | |
|---|---|---|
| **Cesarean Sections:**<br>-"Mock C-section day" (St. Francis prenatal education classes)<br>-Brief discussion on anesthesia<br>-Post-cesarean section risks<br>-Consent form<br>-VBAC's and risks<br>-What to expect during postpartum period after C-section<br>-Information on family-centered cesareans/gentle C-section<br>-Vertical vs. horizontal C-sections<br>-Immediate recovery post-C-section (skin-to-skin, use of clear drapes)<br>-Breastfeeding after a C-section<br>-Family planning (sex easier after C-section?) | -Family planning | |
| **Oral Health:**<br>-Hyperplasia of gums during pregnancy<br>-Adding marijuana to list*<br>-Adding vaping<br>-Add "some" or "most" pain medications instead of all | | |
| **Health Literacy**<br>-Lots of military clients have FT jobs and do not think they are eligible | | |
| **STI's/STD's/HIV**<br>-Include herpes and not allowing people to kiss your baby (don't realize they have cold sores)<br>-More about breastfeeding and HIV<br>-Add link for HIV and pregnancy specific resource<br>-Transmission of RSV | | |
| **Postpartum Care**<br>-Infant feeding "right and wrongs"<br>-Pre-eclampsia and what it looks like for women of color<br>-Postpartum anxiety and rage<br>-Postpartum psychosis<br>-Postpartum doula<br>-How to care for baby's genitals (vagina vs. penis circumcised vs. uncircumcised)<br>-Postpartum stillbirth/bereavements | | |

| | | |
|---|---|---|
| **Cultural Competency**<br>• Education on gender: non-binary, transgender, LGBTQ+ community<br>• Discussing those who have familial biases and overcoming myths. Many patients whose OBGYNs are older and not abiding to updated research and new standards | | |
| **Evaluation**<br>• Tables numbered incorrectly<br>• "is to if" typo<br>• Did not think Columbus statistics were correct. (better discussion on where these tables came from/how data collected | | |

**Augusta Focus Group Feedback**

| **Section-specific feedback** | **New sections suggested** | **Other General Feedback** |
|---|---|---|
| **Cesarean Sections:**<br>-Family-centered C-sections/gentle C-sections (clear drape)<br>-VBACs: risks, difficulty finding provider<br>-Importance of Informed Consent<br>-Breastfeeding difficulties after C-sections<br>-Add to resource list: ACOG minimizing interventions in labor (empowers women to have conversation with provider)<br>-Bullet point on emotional and physical healing after C-section<br>-Add link to ICAN and how to find local support group | Perinatal Mood Disorders its own section | -How can we make sure this reaches the patients? Can we give this info directly to patients in different format , such as short educational videos on each section? |
| **Oral Health:**<br>-Adding list of physical resources for being able to attain oral health (not just saying "bad is bad")—HMHB Resource House?<br>-Doctor's note discussion | | |
| **Health Literacy**<br>-None | | |

| | | |
|---|---|---|
| **STI's/STD's/HIV**<br>-Importance of screening for everyone (do not judge based on person)<br>-Add syphilis<br>-Add hepatitis C<br>-Add HPV (not pregnancy related, but this is one of few times women is coming to OBGYN and can catch during screening) | | |
| **Postpartum Care**<br>-Postpartum doula<br>-Talk more about postpartum depression<br>-Add Perinatal Mood Disorders<br>-Pregnancy Spacing<br>-Support groups, such as ICAN<br>-Trouble coping after traumatic birth<br>-Mention La Leche League<br>-Add more specific prenatal and postpartum diet information<br>-Add Zip Milk as a resource<br>-Add Human Milk for Human Babies as resource<br>-Postpartum birth plan<br>-Add doulamatch.net as resource<br>-Add postpartumprogress.com as resource (have downloadable form mental health checklist)<br>-General sexual health<br>-Pelvic floor therapy | | |
| **Cultural Competency**<br>-Giving tools to women on how they can best communicate to providers and have sense of empowerment<br>-Religious, cultural, social norms and rituals<br>-Newborn care<br>-Importance of informed consent (empowerment—circumcision)<br>-Sexual identity<br>-Birth Plan use | | |
| **Evaluation**<br>-None | | |

**Savannah Focus Group Feedback**

| Section-specific feedback | New sections suggested | Other General Feedback |
|---|---|---|
| **Cesarean Sections:**<br>-None | | |
| **Oral Health:** | -Recreational drugs, marijuana, tobacco as its own section<br><br>-Resources for quitting tobacco/marijuana or ending drug addiction | |
| **Health Literacy**<br>-Talk about what happens to people without health insurance that do not qualify for Medicaid | | |
| **STI's/STD's/HIV**<br>-Add hepatitis C to STD table | | |
| **Postpartum Care**<br>-Add postpartum anxiety in addition to postpartum depression<br>-Further breakdown post-birth warning signs<br>-Mention referral to cardiologist in postpartum period for women who had preeclampsia | | |
| **Cultural Competency**<br>-Adding terminology for gender/same-sex couples | | |
| **Evaluation**<br>-None | | |