



CHOICES IN CHILDBIRTH

Birth Center Case Study

CHOICES Memphis

Executive summary

CHOICES Memphis Center for Reproductive Health (CHOICES) implemented the Choices in Childbirth (CiC) program from January 2023 to June 2024, which involved developing tools to integrate CiC prenatal education resources into the Center's care model. CHOICES staff co-designed the project with Primary Maternity Care (PMC) and shared their implementation experiences with Mathematica.

The clinic's goals were to (1) improve health outcomes for CHOICES patients by helping them identify their preferences and priorities and make informed decisions for their perinatal care and (2) provide relevant and accessible materials, tools, and resources that help CHOICES patients feel more connected to and engaged in their prenatal care. Staff shared that the project is working toward these goals. One of the main successes from this project was the development and wide use of a digital app that improved patient access to prenatal care education. Patients also said the digital app is an important source of information they consult often and find easy to navigate.

In this case study, we describe the CiC project at CHOICES, discuss staff experiences implementing the project and patient experiences of the CiC resources and their care at CHOICES, and highlight insights from birth planning data and lessons learned for other birth centers seeking to integrate the CiC resources into their care model.

Background and methods

[Choices in Childbirth](#) (CiC) is a first-of-its-kind on-demand resource designed to educate people about their pregnancy and birth options; help them take an active role in their maternity care; and remind them that they are not alone during pregnancy, birth, and beyond. The program includes powerful videos and interactive tools to foster informed decision-making, support individualized care planning, and build strong support systems. It was developed through [a year-long, community-centered process](#) led by [Every Mother Counts](#) (EMC) and [Primary Maternity Care](#) (PMC), with developmental research support from [Mathematica](#). In 2022, with funding from the [CVS Health Foundation](#), these three partners sought opportunities to integrate the CiC videos and learning resources into prenatal and primary care settings, and evaluate the experience and impact of these implementation efforts. The goals of the co-designed interventions were to help people (1) navigate to culturally aligned, high-quality prenatal care and support systems; (2) discover and explore evidence-based options, such as group prenatal visits, doula support, and midwifery care; and (3) gain tools and confidence to take an active role in their care during pregnancy and beyond.

CHOICES is an independent, nonprofit community health agency founded in 1974 in Memphis, Tennessee that provides community-based care with a focus on women's health, reproductive care, and

social justice. In 2020, CHOICES opened a brand new, state-of-the-art health and birth center in Memphis. The clinic currently offers patients midwifery-led prenatal care and births, in addition to other full-spectrum reproductive and sexual health care.

CHOICES participated in the CiC project from January 2023 through June 2024 and launched all project components by October 2023. While the project period concluded in June 2024, CHOICES plans to continue using the project tools and resources at the clinic. By participating in the project, CHOICES staff sought to provide relevant and accessible materials, tools, and resources that help patients feel more connected to and engaged in their prenatal care.



Evaluation methods

We conducted data collection for both implementation and patient outcomes at CHOICES. Between December 2023 and March 2024, Mathematica researchers conducted five semi-structured interviews with staff at CHOICES and PMC. The topics covered included how the CHOICES project evolved over time; staff implementation experiences, including facilitators of and barriers to carrying out the project; progress toward goals; and lessons learned.

In addition, 18 CHOICES patients completed a survey focused on their experiences with CiC and CHOICES prenatal care between October 2023 and April 2024. Researchers followed up with five of these patients for in-depth interviews to learn more about their experiences with the CiC resources and their care at CHOICES.

Designing the CiC project

The CHOICES Center for Reproductive Health's project is outlined in its [logic model](#) and includes three main components:

1. An **email drip campaign** comprised of a series of Health Insurance Portability and Accountability Act (HIPAA)-compliant emails featuring CiC resources and CHOICES' own content for prospective patients who opt in following an orientation session.
2. A **digital app** (often called the "digital green folder") featuring CiC resources integrated with digital versions of patient education content that the CHOICES team already uses; the app includes a HIPAA-compliant digital birth planning tool based on CHOICES' previous birth preferences paper form.
3. A **waiting room campaign**, with a TV slide show and QR codes in the birth center waiting room that link to the CiC resources and the CHOICES digital app.

As a result of these project activities, CHOICES anticipated several changes to its staff processes and workflows, as well as impacts on patients' care experiences, as documented in the [logic model](#) and discussed further in the [Results](#) section.

Implementation

Overall, CHOICES staff reported that the intervention was going well, with room for continued improvement. They were pleased that the digital app had **improved the accessibility of prenatal care education to patients** and appreciated the **elimination of paper folders** (and the effort to prepare and update them). The intervention components had been relatively simple to implement, and **staff appreciated being able to provide patients with additional resources.**



Developing tools for implementation

After co-designing its intervention with PMC, CHOICES used the following steps from PMC's Choices in Childbirth Implementation Guide to put it into action:

1. Created a HIPAA-compliant email campaign highlighting key messages from the practice for new or prospective clients
2. Built a digital app using the JotForm app builder
3. Developed a HIPAA-compliant birth planning tool using JotForm

The program has also begun to produce **data that could lead to better insight into patient preferences and priorities.**

From PMC's perspective, CHOICES co-designed and implemented several robust activities throughout the CiC project. One of PMC's staff members described CHOICES staff as receptive, open, and engaged in the project. She also highlighted that CHOICES was highly in tune with patient needs from the beginning, making the clinic a great place to integrate the CiC resources.

Facilitators to CiC project implementation

CHOICES staff and PMC implementers shared several key factors that facilitated project implementation:

■ **The project aligns with CHOICES' goals and values around patient education and empowerment.** An alignment of goals and values across partners helped facilitate implementation of the project. Providers valued sharing information with patients in an accessible way to help patients

make informed decisions about their care, guide the topics they bring up in care, and help plan conversations with people in their support systems. Staff and patients also appreciated that the CiC resources are representative of the Black and Brown patients in the community CHOICES serves.

■ **Dedicated key staff members were essential to maintaining the project.** Although CHOICES experienced some staffing challenges, including turnover throughout the project period, identifying project coordinators with defined roles helped keep CiC active during and despite these challenges. They prepared QR codes and signage for patients in the waiting and exam rooms, administered the survey, set up group prenatal care spaces, and tracked digital birth plans for midwives. These key staff members ensured that the digital content was updated regularly to stay relevant to patient needs and kept the larger CHOICES team updated on what kinds of support the staff members needed.

■ **The transition to digital resources increased patient and provider access to prenatal education.** By moving from paper handouts to a digital app, patients can now easily access the resources from their phones (almost every patient has one) and have prenatal care information available 24 hours a day. This digital shift also addressed the issue of patients forgetting to bring their paper folders to visits. The digital resources are user-friendly, and staff said that patients like the information; also, most patients appreciate digital access, though some prefer paper resources. The digital resources also help fill the education and resource gap for Spanish-speaking patients, because it is more difficult to find Spanish prenatal care resources. Lastly, the digital transition has been helpful for staff, who appreciated eliminating the need to print and organize paper resources and accessing completed birth preferences worksheets in the clinical record.

■ **Group prenatal care was an efficient and effective venue for engaging patients and their support systems in CiC resources.** Since the CiC project began, CHOICES has integrated group prenatal care visits into their care model. So far, this model has proven to be a great opportunity to simultaneously share resources with multiple patients and their support systems. As a result, CHOICES staff plan to continue sharing CiC resources during group prenatal care.



Implementation design methods

PMC used co-design and user experience (UX) research to guide how the CiC resources were integrated at each site. Implementation design involved several steps:

- Conducting UX research with pregnant and postpartum CiC website users to generate ideas for fostering engagement with video content and interactive features
- Mapping the current pregnant patient journey and related operational processes for navigating to and choosing prenatal care, and learning about care options
- Using patient input, co-designing new processes with frontline staff to support patients in three areas: (1) building support systems, (2) understanding care options, and (3) knowing their rights
- Configuring patient-facing tools to access the CiC videos and program
- Co-developing training materials for staff

Barriers to CiC project implementation

Several factors made this work more difficult and kept the project from reaching its full potential at CHOICES. Staff shared four main challenges with implementing the project:

■ **Staff layoffs and competing priorities resulted in capacity constraints.** CHOICES unexpectedly lost its main CiC project lead, several birth assistants, and a midwife since the project began, mostly through layoffs due to financial constraints of the clinic, which faced massive organizational changes imposed by the *Dobbs* decision and closure of most abortion services in Tennessee. These changes posed a significant and unexpected challenge for CHOICES staff, who had to shift project responsibilities to a smaller group of staff members. Having fewer staff share these responsibilities made implementing and maintaining the project components more difficult because they became responsible for turning on the TV in the birth center waiting room, administering the patient survey, sharing resources with patients, and updating the resources. CHOICES also lost the primary staff member who had engaged with the clinic's Spanish-speaking population, widening the gap in sharing resources with these patients. On top of these unexpected staffing changes, CHOICES staff have several other responsibilities and sometimes found it difficult to prioritize an external project. Providers who are used to providing care in a specific way can find it especially hard to prioritize CiC: remembering to use the protocols and share the resources, and also be willing to adopt new processes and tools can be difficult. Staff said they wish they could have engaged the clinic's front desk staff earlier in the project to mitigate some of the staffing challenges they have experienced. Staff also thought it would have been helpful to better engage the midwives at an earlier point, so they felt more ownership over and greater awareness of the project.

■ **CHOICES' individualized care model and the iterative co-design process contributed to inconsistent engagement with the CiC project components.** Although CHOICES staff generally have bought in to the CiC resources, each CHOICES staff member uses them slightly differently. Therefore, staff communication about the CiC project resources is not consistent for patients. Patients see different providers each time they come in for a prenatal visit, which may lead to varied exposure to the resources by visit. One staff member said that unstated and unrealistic expectations (for example, watching CiC videos with patients during a prenatal visit) across the broader CiC team (CHOICES, PMC, Every Mother Counts, and Mathematica) around how to share the resources with patients has been challenging. PMC provided a “cheat sheet” for providers to become familiar with the CiC content, but staff did not consistently use or reference this training resource. Additionally, CHOICES launched the different program components in stages and, in some cases, updated them to reflect rapid-cycle feedback. This model of implementation contributed to inconsistent understanding among staff of the overall program and the most up-to-date resources.

■ **CHOICES staff were frustrated by their inability to independently update the digital resources.** CHOICES had to work through the PMC team to update the content, which made it difficult for CHOICES to keep the digital resources relevant and up to date. Some staff said that PMC updated the resources in a timely manner, whereas others said that revisions were not always made. CHOICES staff would like the ability to incorporate additional resources, including those on breastfeeding and mental health, into the digital app for their prenatal care education tools. In summer of 2024, PMC provided CHOICES staff with back-end access to update the digital app.

Results

Generally, CHOICES staff felt they were making progress toward the goals outlined in the [logic model](#). Staff thought it was **difficult to assess whether the project was improving health outcomes for CHOICES patients** because the project did not measure patient health outcomes in a way that could be definitively associated with the project alone. Most staff members believe they are **providing relevant and accessible materials, tools, and resources that help CHOICES patients feel more connected to and engaged in their prenatal care**. One staff member cited higher patient interaction with birth plans as potential evidence of this engagement. However, another staff member shared that achieving this goal seems to be only an assumption, as CHOICES staff have not heard from patients about whether they feel more connected to and engaged in their prenatal care because of the CiC resources.

Overall, CHOICES staff think the project has worked well and mostly as expected. The email drip campaign and the digital app are strong components of the project that have worked as expected. It has been more difficult to get patients to interact with the waiting room campaign because they usually do not need to wait long for their appointments.

Our review of additional birth planning data illustrates that certain labor and birth preferences are more common than others, and areas of uncertainty may present opportunities for further engagement with CHOICES patients. These data provide additional insight on who CHOICES serves and how best to meet patient needs and preferences for their care, as well as how to further refine its CiC implementation model in the future.

“ **Accountability on our end has been the biggest challenge to really successful implementation.**

– CHOICES staff member

Progress toward staff outcomes

Staff reported some progress toward the staff outcomes identified in the [logic model](#) (under “staff processes”):

- 1. Staff have not been using the video user guide,** which is intended to help providers integrate certain CiC resources into specific prenatal care visits. Some staff were unaware of this resource, whereas others noted that they forget to use it.
- 2. Most staff members reported that the clinic's processes, workflow for educating patients, and navigation to services have improved due to the digital app.** Despite challenges with processes and workflows, patients' ability to access materials and knowledge outside of their prenatal care visits have improved because of the app. For example, when patients contact the non-urgent care line with a question that can be answered by the resources in the digital app, the midwives refer them to the app so patients can access the information there. Additionally, within the digital birth plans, the project team added an “unsure” response option for different birth preferences; this option enabled CHOICES providers to further personalize perinatal education by focusing on the aspects of birth with which patients are less familiar. On the other hand, one staff member has not seen an improvement in staff processes and workflows for educating patients. She said that if this improvement were real, the clinic would see a consistent flow of birth plans coming in from patients as a result of consistent communication across providers.
- 3. CHOICES staff members feel that communication with patients has increased but has not necessarily improved or become standardized.** Staff are trying to make the CiC resources part of their standard care for patients, which increases the frequency of communication with CHOICES patients, but they need to improve

its consistency. One staff member noted that she has not experienced a change in communication beyond bringing up the resources as a tool patients can use.

Progress toward patient outcomes

To understand patient experiences with the CiC resources and care at CHOICES, Mathematica surveyed 18 patients and conducted interviews with five of them, all of whom were in their third trimester. Patients completed the survey while waiting for their appointments to begin. Staff said that getting patients to complete the survey has been one of the more challenging parts of the project because it requires more time than patients typically have available in the waiting room.

We asked patients about their exposure to and use of the resources, how the resources helped them in their care, and feedback on the resources and their care at CHOICES.

- 1. Overall, the CiC resources, along with patient care visits and CHOICES-specific resources, shaped patients' care experiences and reinforced the other supports patients receive at CHOICES.** Most respondents said that the CiC resources, the CHOICES resources, and the care they have received at CHOICES have helped them in their care—for example, by learning about new care options and feeling more prepared for their prenatal care. Patients did not always specify the CiC resources as the sole contributor to their experiences, but because they used the resources, it can be assumed that these reinforced their care experiences.
- 2. Patients engaged with the CiC project resources.** Sixteen of the 18 survey respondents reported engaging with at least one of the three project components. On average, patients reported engaging with two components—most commonly, using the app and the TV slide show.

Ten of the 14 survey respondents who used the app said they relied on this resource as an important source of information; 12 of 14 patients reported referring back to resources in the app.

Nearly all interview respondents said that of the three project components, the app was the most helpful resource.

App (“digital green folder”)

The following CHOICES patients agreed or strongly agreed that the digital app is...

- An important source of information (10/14)
- Easy to navigate (14/14)
- A source of information to which they refer back (12/14)

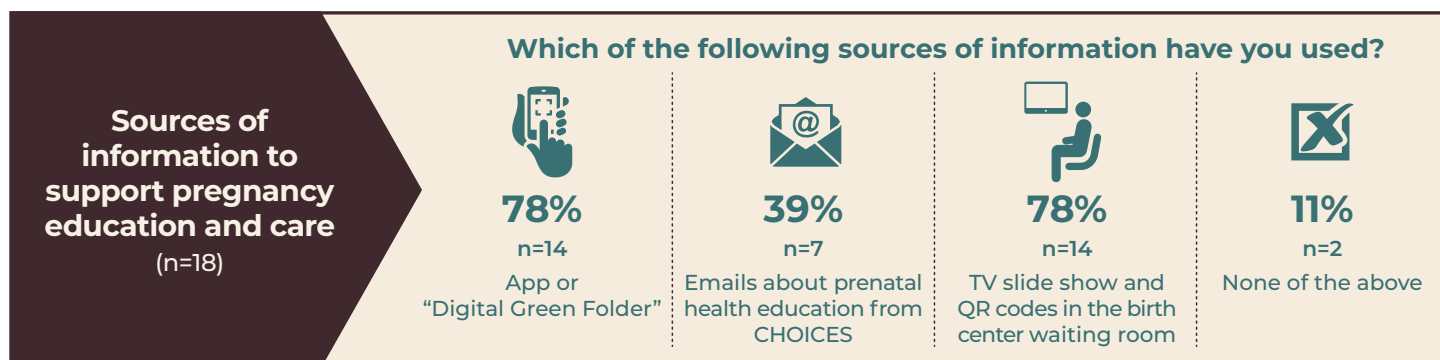


the digital app regarding patient rights around pregnancy, labor, and birth. From speaking with patients about the CiC videos, we learned that patients connected with the video content in different ways. Of the five interview respondents, two named specific videos they remembered watching. Two respondents said that the videos featured information they had already learned about elsewhere, so they did not spend time watching them.

4. Nearly all survey and interview respondents reported that the CiC resources, the care they received at CHOICES, and other resources from CHOICES helped them in their care in the following areas:

- **Learning about new care options:** Twelve of 14 survey respondents agreed that the resources helped them learn about midwifery-led care. One patient told us that she learned more about the difference between midwives and doulas—specifically, that midwives are more medically trained, whereas doulas provide more emotional support. Thirteen of 14 patients agreed that the resources helped them understand other care options, such as safe medications to take during pregnancy, lactation, and other prenatal care supports that CHOICES offers. One patient we interviewed said that the birth plan was new to her and made her consider all of her physical and mental health needs during birth (for example, what music would be played and what she would want to eat).

3. Patients engaged with some resources more than others. Of all the resources, **patients most frequently reported using those from the CHOICES team and the CiC resources about patient rights.** Among the resources from the CHOICES team, respondents most frequently reported using the birth plans, safe medications list, and meal chart/pregnancy plate. They used the videos and graphics in the “know my rights” tab of



– **Feeling prepared for their prenatal care:**

Twelve of 14 survey respondents agreed that the resources helped them feel more prepared for their prenatal care visits. One patient we interviewed said she was scared and nervous with her first baby, but the CHOICES and CiC resources helped her feel more calm, prepared, and comfortable with her current pregnancy. Twelve of 14 patients agreed that the resources helped them learn about their right to make health care choices for themselves and their baby.

– **Confidence in making decisions about their prenatal care:**

Thirteen of 14 survey respondents agreed that the resources confirmed what was important to them in their prenatal care. One patient we interviewed said she had done a lot more research on her own after being introduced to the topics from the resources; as a result, she identified what she prioritized for her birth and her prenatal care. Another patient said that the “stages in labor” resource has been helpful to her in deciding when to start her maternity leave based on signs/timing of labor. Thirteen of 14 patients

agreed that the resources helped them feel confident they can find solutions when problems arose with their pregnancy.

- **Feeling supported in their care:** Twelve of 14 survey respondents agreed that the resources helped them identify their sources of support during pregnancy. One patient said the support she received from CHOICES encouraged her to be more open to new things and seek additional support in other areas (for example, attending a baby shower). Another patient realized that it is also important for her support system to be educated about her care, labor, and delivery so they could advocate for her.

5. Generally, **respondents reported receiving the care, support, and education they needed throughout their pregnancy.** Patients described their experiences as “phenomenal” and “amazing”; one patient said that her midwives made her “feel seen.” Patients had minimal feedback to share on the CiC resources or their care at CHOICES. Nearly all survey and interview respondents who engaged with the project components said they were easy to use. Some patients provided a few suggestions for improvements, including having a physical folder in addition to a digital one, receiving a pamphlet or email with the QR codes, and greater awareness of CHOICES’ prenatal classes and other offerings.

“ I didn’t know I had rights...The information helped me realize that I too am a part of creating this birth plan for my child, I have a voice in it.

– CHOICES patient

The resources have been really important. Without them, I might have consented to something that I actually did not want.

– CHOICES patient

It is important to note that Mathematica spoke with a small group of patients that may not necessarily represent all patients at CHOICES. The patients involved in Mathematica’s data collection were all in their third trimester of pregnancy, which allowed enough time for them to be exposed to the project resources. Researchers did not get perspectives from patients earlier in their care at CHOICES or from those who were postpartum. Due to difficulties in scheduling interviews, researchers were unable to speak with the few patients who reported more negative experiences with the resources and their care at CHOICES in the survey.

“ If I get pregnant again, I would do it again at CHOICES.

– CHOICES patient

Other project insights: birth planning data

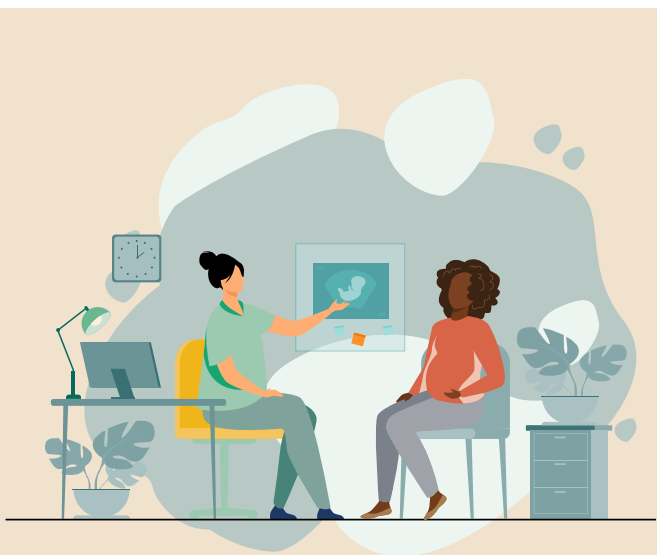
During the pilot period, 27 patients completed a “Preferences for Birth at the Birth Center” form and 14 completed a “Preferences in the Event of a Hospital Transfer” form. Converting these documents from their paper versions to HIPAA-compliant digital forms enabled the CHOICES team to begin exploring trends in their clients’ birth preferences. Certain preferences were common among the 27 patients who documented their birth center preferences, such as playing music, using breathing techniques, and pushing how and when it feels right during labor and birth. Some patients reported uncertainty about certain options, including not being touched, sterile water injections, and catching one’s own baby during labor and birth, indicating potential knowledge gaps and opportunities for further engagement in shared decision-making.

Lessons learned and future considerations

Lessons learned

The CiC project highlighted some of CHOICES’ staffing challenges during a difficult time for the clinic. Staff learned that **(1) designating a point person and (2) allowing time to focus on the project both have been key to its success.** Addressing project needs together during all-staff meetings was helpful for including as many team perspectives as possible because it was important to staff that everyone’s feedback was considered.

The project also highlighted that patients have different learning styles, and staff found it important to **provide information and education in different ways to meet patient needs.** One staff member noted that providing prenatal education in different ways was the biggest takeaway from the project and it can be implemented elsewhere.



Client preferences for birth center birth (n=27)		
Phase	Most Preferred	Least preferred
Labor	<ul style="list-style-type: none"> • Play music (26) • Lights dim (26) • Labor in tub (23) • Birth photography (22) 	<ul style="list-style-type: none"> • Labor in the shower (7) • Video recording (4)
Pain relief/coping	<ul style="list-style-type: none"> • Massage (26) • Breathing techniques (26) • Walking (25) • Meditation (24) • Guided relaxation (24) • Shower or tub (24) 	<ul style="list-style-type: none"> • Not to be touched (18) • Sterile water injections (15) • Alone time/no talking (19)
Pushing/birth	<ul style="list-style-type: none"> • Push how and when I feel my body should (25) • Have support person catch baby (21) • Warm compress on perineum (21) 	<ul style="list-style-type: none"> • Help catch my own baby (11) • Have a mirror when pushing (10) • Touch my baby's head when crowning (10)

“ I would definitely recommend this project to other organizations.

– CHOICES staff member

This project reminded staff that **repetition is important for patients' retention of information**. For example, it was helpful for patients to hear teachings from midwives but also access information from the digital app and have discussions about the resources with their support systems.

CHOICES staff also learned that **the way providers share information with patients strongly impacts how they are exposed to and interact with it**. The project emphasized the important role midwives play in sharing prenatal education with patients; thus, buy-in and engagement from providers is important.

Last, implementation of the CiC project emphasized that **patients need to see people like themselves in the materials providers share with them**. For this reason, the CiC resources were well received by patients.

Advice for other health care providers interested in incorporating CiC resources

CHOICES staff shared several pieces of advice for other sites considering how to integrate the CiC resources into their practices:

- Involve everyone in the project, including patients, to understand their perspectives.
- Ensure the entire team buys into the project and understands the importance of sharing the resources with patients.
- Be clear on goals and expectations to ensure that clinic staff and funders are aligned with the collective goals of the project. This could include

setting specific, measurable, achievable, relevant, and time-bound (SMART) goals for the project, especially around patient outcomes.

- There are many resources, so prioritize the topics/content for which the site wants to see a return on investment.
- Think about the patient population and understand what patients need and what may serve them best.
- Be open to change, including digital change, tweak things along the way, and keep implementing the project.

Next steps

CHOICES intends to continue implementing the project once the grant period ends. Staff will need to consider the resources required to continue the project, including staffing hours and other financial resources to maintain HIPAA-compliant infrastructure for the drip campaign and digital app. The CHOICES team now has direct access to update the forms and app content themselves without working through the PMC team. They plan to remind providers to share the resources with patients and fully use the group prenatal care sessions as opportunities to introduce the CiC resources. The CHOICES team also hopes to better engage patients' families and support systems with the resources as a next step for the project.

Appendix A. CHOICES logic model

Goals and objectives

1. Improve health outcomes for CHOICES patients by helping them to identify their preferences and priorities, and make informed decisions for their perinatal care.
2. Provide relevant and accessible materials, tools, and resources that help CHOICES patients feel more connected to and engaged in their prenatal care.

Inputs	Activities	Outputs	Patient experience outcomes		
			Short-term (immediate)	Medium-term (intermediate)	Long-term (ultimate)
<p>CHOICES staff and clinic resources</p> <p>Educational materials</p> <p>Technology</p> <p>Partner agreements to facilitate collaboration</p> <p>Funding</p>	<ol style="list-style-type: none"> 1. Email drip campaign: A series of Health Insurance Portability and Accountability Act (HIPAA)-compliant emails featuring CiC resources and CHOICES' own content for prospective patients who opt in following an orientation session. 2. Digital app (often called the "digital green folder"): CiC resources integrated with digital versions of patient education content that the CHOICES team already uses; the app includes a HIPAA-compliant digital birth planning tool based on CHOICES' previous birth preferences paper form. 3. Waiting room campaign: A TV slide show and QR codes in the birth center waiting room that link to CiC resources and the CHOICES digital app. 	<p>Staff processes</p> <ul style="list-style-type: none"> • Staff report satisfaction with the project • Staff report utilization of the video user guide • Staff report improved processes and workflow • Staff report improved, increased, and standardized communication with patients <p>Patient experience</p> <ul style="list-style-type: none"> • Patients are exposed to the CiC resource library • Patients engage with the CiC videos and resources • Patients report that they would recommend the project resources to family and friends 	<ul style="list-style-type: none"> • Patients report feeling confident explaining their preferences and priorities for prenatal care decision-making • Patients report feeling prepared for prenatal care visits • Patients report feeling supported by the clinic and their personal support systems • Patients report awareness of resources and prenatal care options available for them to explore • Patients report awareness of their rights as a pregnant person 	<ul style="list-style-type: none"> • Patients have autonomy in making decisions about their prenatal care that are aligned with their preferences and priorities • Patients are confident making decisions about their prenatal care 	<ul style="list-style-type: none"> • Improved health outcomes and experiences for patients and their children