

# Final Report for the Northern Manhattan Perinatal Partnership Telehealth Project

April 14, 2023

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Support for this work was provided by the New York Health Foundation (NYHealth). The mission of NYHealth is to expand health insurance coverage, increase access to high-quality health care services, and improve public and community health. The views presented here are those of the authors and not necessarily those of the New York Health Foundation or its directors, officers, or staff.

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# Executive Summary

This report describes the history and achievements of the Northern Manhattan Maternal Action Network (NMPP) Telehealth Project (“the Telehealth Project”) and identifies opportunities for program improvement and sustainability.

## Objective

The Northern Manhattan Maternal Action Network (NMPP) Telehealth Project received funding from the New York Health Foundation (NYHF) in 2021 to build a patient-driven model for perinatal care delivered through telehealth. In particular, the project sought to identify ways to enhance patients’ access to and use of a patient portal, MyChart/Connect<sup>1</sup> and video visits with providers accessed through MyChart.

## Background research on perinatal care via telehealth

A scoping review found that while the existing literature provides some context on the overall topic of telehealth in perinatal care, significant gaps do remain. Studies on perinatal telehealth tend to be conducted from the institutional or provider perspective, with few focusing attention specifically on the acceptance of telehealth technologies by patients or on the satisfaction of patients with communication from providers. However, patients’ perceptions of the telehealth experience are arguably a key contributor to outcomes in this mode of care delivery. Thus, results of the scoping review reinforce the importance and value of the Telehealth Project with its focus on elevating the voices of patients in the experience of technologically mediated perinatal healthcare.

## Goals

The Telehealth Project had service, evaluation, and program development goals. **Service goals** included:

1. Recruit and train six Community Health Workers (CHWs), providers who give direct support to patients and facilitate patients’ access to services, to enroll 150 patients.
2. Enhance perinatal care by facilitating patients’ enrollment in and use of MyChart and video visits, the key telehealth components of this project.
3. Increase access to telehealth services/resources by providing tablets to patients in need.
4. Conduct a virtual version of NMPP THRIVE, a group health program for NMPP clients that provides health, nutrition, and physical fitness education.

### **Evaluation goals included:**

1. Identify ways that telehealth could best meet patients’ needs by facilitating feedback sessions with patients and sessions with their care managers, CHWs, in meetings.

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1 MyChart is the smartphone app that allows access to the online patient portal; “Connect” refers to the browser based interface with the portal. Study participants almost always referred to the portal as MyChart. Therefore, for simplicity’s sake, we refer to the portal hereafter as MyChart rather than MyChart/Connect.

2. Summarize best practices and actionable insights in written summaries containing themes from each type of feedback session (Small Group Listening Sessions, Patient Council Meetings, and CHW Meetings).
3. Identify participants' perceptions of the quality of perinatal care they received and, for those participating in either the Small Group Listening Sessions or the Patient Council Meeting, the extent to which patients were satisfied with their experience and felt that their input had an impact via a survey (the "Telemedicine Survey") and exit interviews.
4. Identify patient participation in the CHW program, video visits, and MyChart via MyChart via client medical record data.
5. Conduct cost analysis using client medical record data.
6. Identify impacts of CHW training on CHW knowledge, attitudes, and planned behaviors surrounding patient MyChart use and video visits.

***Program development goals included using best practices identified through Evaluation Goal #2 to:***

1. Adjust delivery of telehealth services based on best practices identified in feedback session summaries.
2. Create key products: telehealth confidentiality protocols and a telehealth best practice manual.
3. Scale telehealth services by extending telehealth to NMPP clients who are patients of Harlem and Metropolitan Hospitals.
4. Sustain the telehealth program after the grant.

The project faced several major challenges that slowed progress and interfered with the obtainment of project objectives. Despite these setbacks, the project produced important insights for practice, and setbacks offered several lessons learned, which have implications for the sustainability for telehealth services and for efforts to partner with patients on designing these services.

## Method

The primary data source for the data reported on here was video-recorded feedback sessions. The Project Coordinator produced seven video-recorded Zoom-based feedback sessions, including four with the two CHWs who participated in the project, two small group sessions with patients, and one one-on-one patient exit interview. The evaluation team conducted thematic analyses with these summaries.

## Summary of Findings

Patients appear to like MyChart, find it simple and easy to use, use multiple features, and use more features as experience grows. CHWs, on the other hand, initially found MyChart difficult and said it takes time for both them and the patients to learn how to fully utilize it. Patients also reported challenges with MyChart, such as confusing medical jargon in visit summaries, features not working properly (e.g., appointment reminders failing), language barriers for patients whose first language was Spanish, and difficulties changing the language setting from English to Spanish in the app on smart phones (versus the more easily navigated means of changing the language from English to Spanish when accessing the application from a computer).

Patients' reported experiences of video visits is more mixed, with several patients stating a preference for in-person obstetric appointments. In particular, younger patients were more willing to use video visits, and

immigrants less willing. CHWs described patients' experiences with video provider visits more positively. Reported challenges with video visits primarily included issues related to devices and connectivity (e.g., blurry images). Despite some device issues, only four patients appeared to need a tablet to participate in telehealth services, suggesting that the obstetrical patient population that NYP serves is more "tech ready" for telehealth than perceived at the outset of the project. The benefits of video visits identified by CHWs included avoiding challenges like securing childcare and taking time off from work; one benefit of video provider visits CHWs and patients (albeit only two) identified is that it eliminates the burden of travel.

CHWs also reported they were initially limited in the extent to which they could assist patients in accessing and using MyChart at the outset of their tenure but that they became more effective as their familiarity with the portal grew.

Though only four patients reported on their participation in the study in the Small Group Listening Sessions, all were positive about the experience, indicating that they felt they were making a difference, felt heard, and appreciated hearing and learning new ideas from others. Patients and CHWs also provided several specific suggestions for improving MyChart, video provider visits, and for this project, which has implications for future similar projects, all of which are reiterated in the Action Items section of the full report, along with evaluators' recommendations.

## Overall Project Summary

Despite facing significant hurdles that limited obtainment of project objectives, the NMPP Telehealth Project produced insights about telehealth in the context of CHW services for obstetric patients, with the potential to enhance care provision at NYP and NMPP. Findings from the Telehealth Project suggest that telehealth enjoys some measure of acceptance among NYP obstetrical patients, though the specific acceptance of video visits seems less positive. However, at the same time, it is important to underscore that the sample of perspectives obtained directly from patients is small and cross-sectional rather than longitudinal. These data limitations may be significant, given that it appears that with the guidance and support of the supervisory staff to the CHWs and the CHWs to the patients, acceptance of MyChart grows with time. More data is needed to draw more definite conclusions about patients' acceptance of video provider visits especially. Nonetheless, the project made several accomplishments, including convening multiple feedback sessions from both key stakeholder groups (patients and CHWs), the Tech Readiness Assessment, this report, and a guidebook which will be shared and discussed at a conference with project personnel and other relevant provider stakeholder groups.

## Lessons Learned and Future Directions

In addition to insights gleaned from the data collection process, project challenges offered several lessons learned, which have implications for the sustainability of telehealth services and for efforts to partner with patients on designing these services. Lessons include allowing more time in project planning for IRB review, making arrangements to accommodate requirements for double data entry created by mixed funding sources, the importance of developing participant recruitment strategies (in the case of this study, focusing on the patients) that take into account competing demands on patients' time and opportunities for contact. A complete list of recommendations can be found in the full report.

# Introduction

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## Objective

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## Goals

The Telehealth Project had service, evaluation, and program development goals.

### *Service goals*

1. Recruit and train six Community Health Workers (CHWs), providers who give direct support to patients and facilitate patients’ access to services, to enroll 150 patients.
2. Enhance perinatal care by facilitating patients’ enrollment in and use of MyChart and video visits, the key telehealth components of this project.
3. Increase access to telehealth services/resources by providing tablets to patients in need.
4. Conduct a virtual version of NMPP THRIVE, a group health program for NMPP clients that provides health, nutrition, and physical fitness education.

### *Evaluation goals*

1. Identify ways that telehealth could best meet patients’ needs by facilitating feedback sessions with patients and sessions with their care managers, CHWs, in meetings.
  - Patients were to be engaged in 50 “Small Group Listening Sessions,” consisting of five clients per session; “Patient Council Meetings,” consisting of 15 to 20 clients meeting on a bi-monthly basis; and “exit interviews,” consisting of one-on-one interviews with patients aimed at gathering similar information as the group data collection sessions.

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<sup>2</sup> MyChart is the smartphone app that allows access to the online patient portal; Connect<sup>2</sup> refers to the browser based interface with the portal. Study participants almost always referred to the portal as MyChart. Therefore, for simplicity’s sake, we refer to the portal hereafter as MyChart rather than MyChart/Connect.

- As CHWs were tasked with assisting patients' access to telehealth and other services, their insights were also felt to be valuable and thus they were to be engaged in discussions - "CHW Meetings" - every other month.
  - To identify potential enhancements to the virtual version of THRIVE, small group listening sessions with virtual THRIVE participants were also sought.
2. Summarize best practices and actionable insights in written summaries containing themes from each type of feedback session (Small Group Listening Sessions, Patient Council Meetings, and CHW Meetings).
  3. Identify participants' perceptions of the quality of perinatal care they received and, for those participating in either the Small Group Listening Sessions or the Patient Council Meeting, the extent to which patients were satisfied with their experience and felt that their input had an impact via a survey (the "Telemedicine Survey") and exit interviews.
  4. Identify patient participation in the CHW program, video visits, and MyChart via MyChart via client medical record data.
  5. Conduct cost analysis using client medical record data.
  6. Identify impacts of CHW training on CHW knowledge, attitudes, and planned behaviors surrounding patient MyChart use and video visits.

Two data collection components that are not included in the present report include CHW training surveys and client medical record data. The training surveys were completed by five CHWs who originally committed to the project but who later withdrew participation; the two CHWs who eventually committed did not complete surveys as their training occurred months before they joined the project. Evaluation team access to patient medical records were also restricted per a CUMC IRB determination. These data would have provided key information about patients' participation in the CHW program and, critically, video visit activity and activity within MyChart, and were needed to conduct the cost analysis; without these records, these analyses could not proceed.

### ***Program development goals***

The best practices identified through Evaluation Goal #2 were to be the foundational material that informed the Telehealth Project's program development goals, which included

1. Adjusting delivery of telehealth services based on best practices identified in feedback session summaries.
2. Creating key products: telehealth confidentiality protocols and a telehealth best practice manual.
3. Scaling telehealth services by extending telehealth to NMPP clients who are patients of Harlem and Metropolitan Hospitals.
4. Sustaining the telehealth program after the grant.

The project was originally scheduled to run from June 2021 to September 2022, but faced several major challenges that slowed progress and interfered with the obtainment of project objectives (see Appendix A), necessitating a no-cost extension and a new project end date of 12/31/22. These issues and their implications for the project are discussed further in the Lessons Learned and Future Directions section. Despite these setbacks, the project produced important insights for practice, and setbacks offered several lessons learned, which have implications for the sustainability telehealth services and for efforts to partner with patients on designing these services. Additionally, while not all goals were met, project team members produced resources that were not originally identified in project plans, notably the development and implementation of a Tech Readiness

**Assessment:** a tool designed to identify patients' potential device and connectivity barriers so providers can address those barriers and increase telehealth service access. Furthermore, delays in project progress allowed members of the evaluation team to explore topics relevant to the Telehealth Project, including extant knowledge on telehealth-based perinatal care services for at-risk individuals in urban settings, which confirms the need for a study such as the Telehealth Project and provides critical context for the sections that describe key findings organized by theme. The final sections of this report include the Project Summary, Lessons Learned and Future Directions, and Action Items.

## Agencies and the CHW role

### **Agencies**

NMPP was well-positioned to serve as the primary agency. Their Maternal Child Health (MCH) programs annually serve 800 clients ages 14-44 from the three contiguous Northern Manhattan communities of Central Harlem, East Harlem, and Washington Heights/Inwood in programs that utilize CHWs employed by NMPP and funded by various grants. MCH clients are approximately 55% Latina, 40% African American, and 90% are eligible for SNAP/WIC food insecurity programs. The families from the communities MCH programs serve disproportionately experience inequities in social determinants of health (e.g., food and housing insecurity, access to quality health care, education and literacy, trauma and toxic stress), which makes them especially vulnerable to poor maternal health outcomes.

New York Presbyterian (NYP), a long-time NMPP partner, has a large cohort of obstetrical patients from the same communities served by NMPP. NYP was a key collaborator because of their greatly enhanced telehealth capacity achieved during the COVID-19 crisis and their capacity to provide CHW training in technology related to telehealth and transfer technical expertise to the NMPP MCH programs. Columbia University Institutional Review Board approved this study with requirement for written informed consent from the study participants.

A participatory evaluation component was provided by social scientists affiliated with the University at Albany's Center for the Elimination of Minority Health Disparities and the Center for Human Services Research. They contributed expertise in community engaged research, health communication and social impacts of digital technologies, women's reproductive health disparities, community health workers, and qualitative and quantitative evaluation methods.

### **The CHW role**

Community Health Workers are frontline public health workers who are trusted members of the community they serve. CHWs have been identified as a powerful resource in the elimination of health disparities in a variety of health related contexts (Zahn et al., 2012). They function as liaisons between members of underserved communities and health and human service organizations, facilitating access to services and serving as community advocates. CHW programs also help to empower the individuals who serve in these roles, thereby building community capacity. A large body of evidence attests to their effectiveness in varied contexts, including chronic disease management in culturally and linguistically diverse populations (Goris et al., 2013); cancer treatment at federally qualified health centers (Roland et al., 2017); and maternal and child health (Lewin et al., 2010), the topical area of the study reported on here. Recent evidence shows how the COVID-19 pandemic has heightened the value of CHWs (Golden & Williams, 2021; Kangovi, 2020; Peretz et al., 2020).

Currently, there is no standard certification for CHWs in NYS as there is for many other categories of healthcare workers, and indeed there are divergent views regarding the desirability of such, with advocates pointing to this step as a part of a pathway to achieving CMS approval for reimbursement of services, and skeptics pointing to the potential exclusion of those who are best qualified for the positions. However, there are some widely



accepted areas of competency, reflected in the recommendations of the NYS Community Health Initiative for defining a distinctive scope of practice for CHWs: outreach and community mobilization, community/cultural liaison, case management and care coordination, home-based support, health promotion and health coaching, and system navigation (Matos et al., 2011; Zahn et al., 2012).<sup>3</sup>

Different models also exist for the modes in which CHWs interact with clients and their providers. NMPP and NYP employed an integrated care model for this project, which has been previously used by the two agencies in highly successful collaborations. One collaboration has focused using CHWs to support caregivers of pediatric asthma patients (Peretz, et al., 2012). Another focuses on CHWs supporting adults with chronic disease management needs. This project provided the opportunity to expand the integrated care model previously used by NYP and NMPP in order to create a CHW program for obstetrical patients with the CHWs as members of the care team. The project allowed NYP, in collaboration with NMPP, to build the CHW program, educate the care team about this important resource, and provide needed services to obstetric patients.

In the integrated model, the CHWs remain employees of NMPP but are supported through funding from NYP and are co-supervised by a two-person team, including one supervisor from NYP and one from NMPP. A key element of this model is that the CHWs are also credentialed at NYP, enabling them to use the Epic electronic health record (EHR) system. This component means that the CHWs can see the information about their clients that has been entered into the system by NYP health care team members and can document their own interactions with their clients in the system, which are in turn available to NYP providers. The integrated care model creates a more formalized relationship between NYP and NMPP and leverages the resources of both organizations.

## Summary of scoping review on perinatal care via telehealth

A scoping review was conducted to determine the current state of research on patient acceptance of and satisfaction with telehealth for the delivery of perinatal health care to underrepresented populations at risk of adverse pregnancy outcomes in the urban United States. Although not specified as a deliverable in the work plan, nor funded by the project reported on here, a summary of the findings from this review is included here to provide additional context for interpreting the data collected for this project.

This review found that while a significant body of research exists on the use of telehealth, there has been, until recently, very little work exploring pregnancy and the delivery of perinatal care via technology. Until recently, most of the existing research focused on specific areas of care (e.g., pregnancy-related hypertension), and was conducted in rural areas. The Covid-19 pandemic changed this situation, with urban-based obstetric practices across the U.S. adopting telehealth care models to protect their patients from exposure to the virus.

A search of PubMed, the Cumulative Index of Nursing and Allied Health Literature (CINAHL), Web of Science (WoS), and ComAbstracts identified thirty-six relevant studies, most from 2020 onward. Analysis of these studies supports the idea that telehealth can be an effective way to reach high-risk perinatal patients in urban areas of the United States. It reduces the risk of exposure to Covid-19 and overcomes barriers to traditional in-person visits such as transportation and childcare. The stressors associated with the pandemic have also heightened the visibility of the particular support needs of patients during and immediately after pregnancy, with telehealth reported as being successfully implemented for the delivery of mental health services. While the existing literature provides some context on the overall topic of telehealth in perinatal care, significant gaps do remain. Studies on perinatal telehealth tend to be conducted from the institutional or provider perspective, with few

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3 Training recommendations from national organizations such as the National Association of Community Health Workers and MHP Salud, as well as at the state level through NYS DOH sponsored programs and nonprofit advocacy and training organizations like the Community Health Worker Network of New York City, currently attempt to balance the advantages of standardized training with inclusiveness in a way consistent with the spirit of the history and development of CHWs.

focusing attention specifically on the acceptance of telehealth technologies by patients or on the satisfaction of patients with communication from providers. However, patients' perceptions of the telehealth experience are arguably a key contributor to outcomes in this mode of care delivery. Thus, results of the scoping review reinforce the importance and value of the Telehealth Project with its focus on elevating the voices of patients in the experience of technologically mediated perinatal healthcare.

# Method

## Data Sources

**Video-recorded feedback sessions.** The Project Coordinator produced seven video-recorded Zoom-based sessions:

- Four sessions were CHW Meetings, which involved English-based discussions with the two CHWs on the project in each of the four sessions, facilitated by the Project Coordinator. These sessions occurred on August 19th, October 4th, November 14th, and December 16th, 2022.
- Two sessions consisted of patient Small Group Listening Sessions. Sessions occurred on August 3 (three patient participants, conducted in English) and September 15 (three patient participants, conducted in Spanish), 2022. The session conducted in Spanish included a presentation from a Birth Justice Defenders educator and did not include discussion of MyChart; it did include some discussion of telehealth, so NMPP included it as a listening session.
- One session consisted of a Patient Exit Interview with a single patient conducted by the Project Coordinator. The session occurred on November 2, 2022, in English.

**Surveys.** Surveys included responses from five program participants (with two additional surveys obtained after the reporting deadline). Four were complete surveys and one was a partial response. Data from all five of these entries are included. (See Appendix C for a full report on responses to survey questions; this report includes additional responses.)

**Meetings with project team members.** Project team members shared insights and background information in weekly meetings beginning in the summer of 2021 through the end of 2022. The evaluation team took notes from these discussions, which provided context and aided interpretation of feedback session data.

## Analytic approach

**Analysis of qualitative data from feedback sessions.** Pairs of evaluation team members conducted reviews of each video-recorded session. Sessions were reviewed using rapid qualitative analysis (Taylor, Henshall, Kenyon, Litchfield, & Greenfield, 2018; Palinkas, Mendon, & Hamilton, 2019; Nevedal, Reardon, Opra Widerquist, et al., 2021), a qualitative method appropriate for situations when information is already known about the subject and the goal of the analysis is to produce findings within a continuous quality improvement enterprise, such as the Telehealth Project. Analysts produced brief summaries for each video-recorded session - including Listening Sessions, CHW meetings, and the exit interview - to inform project staff on patients' and CHWs' perspectives on MyChart and video visits with providers, suggestions for improvement, and key takeaways. Evaluation team presented results of feedback sessions with patients and CHWs in weekly project team meetings to the staff of both NMPP and NYP. Two members of the evaluation team conducted thematic analyses with these summaries. Themes touch on how patients used MyChart, patients' experiences of video visits with providers, factors that influenced patients' use of and comfort with these visits, CHWs' experience with facilitating their patients' use of MyChart and video visits, and ideas about potential enhancements to MyChart or video visits. A member of the evaluation team retrieved verbatim quotes to illustrate themes by re-watching video recordings. Because three types of data were collected- patients' self-reporting on their experiences using MyChart and telehealth,

CHWs' reporting on the experiences of their patients using MyChart and video provider visits, and CHWs' self-reporting on their experiences guiding patients in the use of MyChart and video provider visits – the summary of findings distinguishes between CHW and patient perspectives. As sessions also included discussions about the study itself, with CHWs offering suggestions for improving recruitment, these perspectives are also shared to inform future similar studies. Appendix B also includes tables produced during analysis to organize information sessions and themes and facilitate interpretation of potential contrasts in perspectives.

***Analysis of data from Telemedicine Survey.*** Descriptive statistics were calculated within the online platform hosting the survey (Qualtrics) and findings were integrated with qualitative themes where relevant.

# Findings

## **How are patients using MyChart?**

Patient responses on the survey (N=4) indicated that they were satisfied with MyChart, liked MyChart, found it simple and easy to use, and that they can do everything they want within the app. Patients reported using multiple MyChart features, with viewing test results, refilling medication, and reviewing my health summary the most frequently selected. Similarly, in the listening sessions, patients reported using MyChart for pre-appointment check-ins, messaging their providers, receiving appointment reminders, requesting prescription refills, checking lab results, and reviewing appointment summaries.

In comparison, CHWs in their video recorded meetings initially reported that their patients are using fewer features, mainly messaging providers and checking lab results. In the August 19 CHW meeting, the CHWs said that patients did not use MyChart to make appointments, preferring instead to set a new appointment at the end of their current visit or to make appointments by phone. In the November 14 CHW meeting, however, the CHWs did report that patients were using MyChart for appointment setting, and two survey respondents also indicated they scheduled appointments through MyChart; patients may have thus become more comfortable with the use of MyChart for this purpose over time. In the December 16 CHW meeting, CHWs reported that their patients were requiring much less help with using MyChart and particularly liked the messaging feature.

“*My patients are new, so a lot of things are new to them, and so even to understand appointments is hard for them. They say that they would prefer to make appointments by phone, but that is difficult because they have to wait for long periods of time and they get tired.*”

- CHW in the August 19 CHW Meeting

Video provider visits can also be conducted through MyChart. It is unclear from the data available if all the patients who participated in video provider visits did so through the MyChart portal or app, or if another program was used. For this reason, patient and CHW descriptions of video provider visits are discussed in a later section of this summary.

Patients felt that MyChart was easy to use, conveniently permitted request refills without having to call the doctor's office, allowed check-in to appointments remotely, provided reminders of upcoming appointments, and shared detailed summaries of their visits.

“*MyChart is user friendly and if I need a refill, there is a section where you can request a refill without calling the doctor, so that is very convenient for me. As of now, when I need it, it helps me. I'm not sure if everything that's in MyChart is useable for me, but it works.*”

- Patient in the August 3 Patient Exit Interview

Challenges associated with the use of MyChart included a slow response rate from providers from the messaging feature (or in some cases, no response at all), but this situation appeared to improve over time, at least as reported by the CHWs. Confusing medical jargon that patients do not understand in visit summaries was

a persistent issue reported throughout the CHW Meetings. Patients also reported that sometimes features of MyChart did not work properly; for example, sometimes it fails to send out appointment reminders. For non-native English speakers, there can be a language barrier. Patients have found that is difficult to change the language setting, especially if MyChart is being accessed via the smartphone app. The CHWs echoed these comments, adding that some patients have very basic phones with limited functionality, which can also create a barrier to accessing the MyChart app.

### ***What are patients' experiences using video provider visits?***

The most significant concern expressed by patients—and brought up in both of the patient listening sessions and the exit interview—was that video provider visits are not adequate for perinatal care. One patient reported that she was happy with a video visit she had with a nutritionist, but when it came to prenatal visits with her doctor, she wanted a physical exam. Another patient who experienced a difficult pregnancy was left feeling like her questions and concerns were not fully addressed via video provider visits. The two survey respondents who indicated they did not use video visits selected that they preferred to see their provider(s) in person as the reason for not having any.

*“ I don't feel like they're taking care of me the way they are supposed to . . . [when the doctor asks me questions] I can say that everything is fine, but I don't know if everything is fine. ”*

- Patient from the November 2 Small Group Listening Session

*“ When I had visits over Zoom, how was anyone to know what was going on with me? Unless it was an emergency, all my visits were virtual. ”*

- Patient from the September 15 Small Group Listening Session

Patients' comfort level with video provider visits appears to depend upon the nature of the appointment: some needs are easily handled via video, while others are not. Offering patients a choice between video and in-person, as well as having a willingness to be flexible with a patient who expresses dissatisfaction with video, is an important consideration for providers.

Patients reported some issues related to devices and connectivity; for example, one said that the blurry image received affected communication. Some patients did not know how to use a computer or did not have a smartphone at the beginning of the pandemic (when perinatal video provider visits became more of a norm) and had to learn. One patient said that video provider visits were actually less convenient for her, because the pandemic forced her to rearrange her home and family life and the family's devices were always in use for schoolwork. Despite these reported issues, the number of clients who accepted tablets was far fewer than expected. The NYP and NMPP team reported that CHWs used the Tech Readiness Assessment to identify patients who could benefit from using one of the 25 tablets purchased for this project, but that only four appeared to need one. It was reported that the four who received tablets, however, found the tablets were helpful for video visits and accessing MyChart. Additionally, one patient stated she used it to play music for the baby.

*“ Most patients with children prefer telehealth because they don't want to travel with their kids to their appointments. Regarding transportation, I know when it's about time for them to give birth they do not feel like traveling as much as they would more often like to. ”*

- CHW in the August 19 CHW Meeting

“*My patients, they all prefer the telehealth, especially when it's a follow-up appointment with their OB, just because every time they go to apointments, they get told the same thing, the same procedure, it's just checking up on them and the baby. Pregnant women don't like to travel much so it's more convenient for them, especially when they have kids already, for them to take the appointments at home or at their job, because some of them are still working. Telehealth is more convenient for most of my patients.*”

- CHW in the November 14 CHW Meeting

CHWs perspectives on patient experiences reported in their listening sessions were markedly more positive than those reported by the patients themselves. According to the CHWs, patients like video provider visits because they did not want to leave their houses while pregnant. Video provider visits also let them avoid challenges like securing childcare, transportation, and taking time off from work. *Saving time traveling to a hospital or clinic* was also the most frequently selected MyChart benefit among respondents on the survey.

None of these benefits of video provider visits were mentioned by the patients. In the August 19 CHW Meeting, the CHWs acknowledged that the reason for the appointment will influence whether a patient prefers video or in-person care; however, in that same listening session, the CHWs reported that none of their patients have complained about not having a physical exam.

The data collected does not make it possible to definitively account for the differences in perspectives, but the following observations can be made:

- Sessions with patients represent the views of only 7 patients, who agreed not only to receive CHW services but also to participate in the study; however, the 2 CHWs were working with a total of 31 patients, who may have had more varied experiences of using MyChart and video provider visits.
- Given that the CHWs were positioned as promoting the use of MyChart and video provider visits in relation to this project, it is not surprising that they would be more enthusiastic about those tools in the context of their recorded meetings. For the patients, on the other hand, MyChart and video provider visits were just two pieces of their perinatal healthcare experiences and a smaller point of focus in their lives more broadly.

***What other factors influence a patient's use of or comfort with video provider visits?***

In addition to the nature of the appointment, demographic factors appear to influence patients' experiences with video provider visits. CHWs reported that younger patients are more interested in using video provider visits than are older patients. Also, immigrant patients were less willing to use video provider visits; one CHW suggested that immigrants tend to feel isolated and see in-person as an opportunity for human interaction.

“*The new immigrants feel lonely, and the American provider or the community health worker is somebody that they get really attached to. It's that human part, so they may prefer that human contact.*”

- CHW in the November 14 CHW Meeting

Additionally, those who do not speak fluent English may not feel comfortable using technology that is primarily English-based.

***What are the CHWs' experiences with guiding their patients in the use of MyChart and video provider visits?***

CHWs must contend with a learning curve in adopting and then teaching MyChart to others, even with support from technical trainings. As such, they were less able to help patients fully utilize MyChart at the outset of the CHWs' MyChart use. For example, the CHWs were initially not aware that the language setting in MyChart could be changed, and so they were unable to relay that information to their patients. One CHW struggled with MyChart early on, but her level of comfort with it increased over the four listening sessions. She suggests having CHWs shadow someone who is proficient in MyChart might help to overcome these challenges. Clearly, though, the CHW listening sessions reflect a growing level of confidence on their part.

*“ My level of confidence is very basic so I would appreciate if someone holds my hand and helps me. ”*

- CHW in the October 4 CHW Meeting

The CHWs reported that getting consent from patients to set them up with MyChart is easy and straightforward in person if they can meet with their patients at the clinic or hospital, but that this process can be much more difficult over the phone or through email. The intake process is time consuming, and many patients, especially those who do not speak much English or have a low literacy level, do not have the time or patience to complete it on their own. Some patients don't have an email address, and some have an email address that was set up by the hospital or pharmacy and the patient does not know how to access it. It was noted that almost all the patients, though, already had completed the enrollment process into using MyChart but simply had not used it. As such, it may be useful in the CHW job trainings to focus more attention on the configuration and use of MyChart for patients, and the benefits of using the patient portal, rather than the enrollment process. In the third CHW Meeting, both CHWs said that patients had been able to complete more goals over the previous month than in the past. (Goals may include such actions as connecting with social service agencies to obtain benefits, initiating a housing application process, achieving medication adherence for managing chronic health conditions like hypertension and type II diabetes, enrolling in a GED completion program, among others.) One CHW said that patients can figure out what their goals are and what their greatest needs are, and that she is able to work step-by-step with them to accomplish their goals. The other CHW agreed and says that she is seeing patients go “from contemplation to preparation, action, and completion,” allowing more time to set new goals and instilling a sense of satisfaction. Goal-setting appears to be largely conducted in the Epic EHR system in use at NYP. At this time, the goals that are entered into the EHR are not transferred automatically into MyChart, where the patient can readily see them. In discussions with the NYP/NMPP research team, it was thought that data integration that allowed transfer of goals would enhance the current system and could be provided in the future. However, the CHWs expressed concerns: if goal-setting were part of MyChart, they could detract from the personal interactions between clients and CHWs. One of the CHWs expressed strongly that the interaction between the CHW and client, in which they verbalize the goals, is key to the process of keeping clients motivated and taking concrete steps toward achieving their goals.

*“ The hardest part is completing the intake, only because it takes a little longer than signing the consent. The consent is pretty easy, especially when I get to meet the patient at the clinic or the hospital or the hospital. ”*

- CHW1

*“ In order to get the time and the place to do the intake, we have to chase them. It's extremely difficult. ”*

- CHW2

- CHWs in the October 4 CHW meeting



### ***How might MyChart or video provider visits be more beneficial to perinatal patients?***

From CHWs. CHWs suggested offering instructional materials in both English and Spanish, creating instructional materials that use pictures and other visual cues for non-native English speakers, and organizing information in MyChart in a more user-friendly manner. PowerPoint tutorials were not felt to be well received by patients, so perhaps videos (in both English and Spanish) would be better. One CHW suggested that providers' practices have a staff member dedicated to monitoring MyChart messages to ensure that patients are getting responses in a timely manner. Having the MyChart system send automated messages to patients that provide positive feedback or encouraging words might make them more interested in using it. Although patients take a technology readiness assessment and often claim to understand MyChart going in, the CHWs have found that the level of readiness to use the program varies. They felt that it might be best to have patients show their CHWs how they're using MyChart. The ability to share screens would also be very helpful in walking patients through the use of MyChart during video provider visits.

**From Patients.** Patients would appreciate appointment summaries to be written in layman's terms, and for CHWs to be encouraged to walk them through medical information. One patient asked that providers talk more with patients about the various features of MyChart, as such conversations might encourage more people to use it.

“ I feel like the physicians and the doctors' offices, they're really not trying to educate you on MyChart. They just want to give you the code, and say scan the code, and send you on your way. ”

- Patient in the August 3 Patient Exit Interview

Perhaps most important are the suggestions from patients asking that they be given more of a choice in determining whether their appointments are video or in-person, and that providers realize that pregnancy is different for everyone and not all patients are a good fit for video provider visits.

“ First, the doctors have to identify what the person needs before they go into a video or in-person visit, and based on that, they can determine if that person needs a video visit or if that person needs more attention. It's more like what the person needs in that moment. ”

- Patient from November 2 Small Group Listening Session

### ***What are patients' and CHWs' experiences with the study?***

Patients' experiences in Small Group Listening Sessions. All survey respondents who completed the entire survey said they had also participated in a Small Group Listening Session; they indicated that the experience was enjoyable, they felt like they were making a difference, and were heard. Open-ended responses indicated that patients appreciated being able to hear from others and that they were able to learn new ideas. One patient stated that she believes the researchers are hearing her and are asking the right questions, and that she enjoys being able to share her opinions.

**CHWs' feedback about the study.** One of the greatest challenges encountered in conducting this study has been the recruitment of patient participants. CHWs discussed ideas for attracting more people to the project, including foregrounding the financial incentive when discussing the study with potential participants, offering a greater financial incentive, and educating patients on the benefits of being a part of the study. It was also suggested that perhaps some kind of certification be offered upon completion; this might be especially attractive to teen patients who could use the certification in their job searches.

Both CHWs reported that time is a major issue for patients, and that they are hesitant to commit to taking part in six listening sessions of the Patient Council. As evidence of how pressed the patients are for time, one CHW said she only has one patient who has other children because most working moms cannot even fit the sessions with CHWs into their schedules, much less add on the time commitment required to participate in the study. The other CHW said that her teen patients are busy with school and have complex lives.

Both CHWs expressed gratitude for being given an opportunity to voice their opinions and share their experiences.

### ***Additional Topics Discussed***

Though not specific to MyChart or video provider visits, there were two points that arose in the listening sessions that are also worth noting. One came from the Spanish language patient session, in which patients described their experiences with discrimination and insensitivity on the part of health providers and expressed mistrust of the healthcare system. One said, *"many of us are experiments for medicine."* Another said that she'd had a negative experience with a translator who did not convey her statements correctly to her doctor, while another was unclear about whether she had the right to ask for a different doctor. It is possible that the fear of discrimination is a factor in whether a patient may be receptive to or satisfied with video provider visits.

The second point was raised by the CHWs, who said that there are instances in which patients will decline the help of a CHW if patients do not understand the benefit of having a CHW. From the perspective of the CHW whose caseload included the larger number of younger clients, this situation was often the case with teenaged clients. It may be harder to reach patients with the potential for video provider visits if they are not working with a CHW who can guide them toward that option.

## **Summary of Findings**

Patients appear to like MyChart, find it simple and easy to use, use multiple features, and use more features as experience grows. CHWs, on the other hand, initially found MyChart difficult and said it takes time for both them and the patients to learn how to fully utilize it. Patients also reported challenges with MyChart, such as confusing medical jargon in visit summaries, features not working properly (e.g., appointment reminders failing), language barriers for patients whose first language was Spanish, and difficulties changing the language setting from English to Spanish in the app on smart phones (versus the more easily navigated means of changing the language from English to Spanish when accessing the application from a computer).

Patients' reported experiences of video visits is more mixed, with several patients stating a preference for in-person obstetric appointments. In particular, younger patients were more willing to use video visits, and immigrants less willing. CHWs described patients' experiences with video provider visits more positively. Reported challenges with video visits primarily included issues related to devices and connectivity (e.g., blurry images). Despite some device issues, only four patients appeared to need a tablet to participate in telehealth services, suggesting that the obstetrical patient population that NYP serves is more "tech ready" for telehealth than perceived at the outset of the project. The benefits of video visits identified by CHWs included avoiding challenges like securing childcare and taking time off from work; one benefit of video provider visits CHWs and patients (albeit only two) identified is that it eliminates the burden of travel.

CHWs also reported they were initially limited in the extent to which they could assist patients in accessing and using MyChart at the outset of their tenure but that they became more effective as their familiarity with the portal grew.

Though only four patients reported on their participation in the study in the Small Group Listening Sessions (via the Telemedicine Survey), all were positive about the experience, indicating that they felt they were making a difference, felt heard, and appreciated hearing and learning new ideas from others.

Patients and CHWs also provided several specific suggestions for improving MyChart, video provider visits, and for this project, which has implications for future similar projects, all of which are reiterated in the Action Items section (below), along with evaluators' recommendations.



# Lessons Learned and Future Directions

In addition to insights gleaned from the data collection process, project challenges offered several lessons learned, which have implications for the sustainability of telehealth services and for efforts to partner with patients on designing these services.

## IRB Issues

Before the study could begin, the Columbia University Institutional Review Board (IRB) required review of the planned research approach. Generally, IRB review is a required, integral part of research and ensures that participants are treated ethically. In this case, the lengthy IRB review timeline, which was further complicated by the fact that three agencies, one with its own IRB (UAlbany) and one without its own IRB (NMPP) were participating in the project, delayed progress, both for the overall project at its outset and for specific project activities during the IRB's review of modifications. Given that the planned Telehealth Project period was only 16 months and included an ambitious data collection agenda, it was unavoidable that the project would fall short of data collection targets. Additionally, the IRB required clear separations between researchers and evaluators, CHWs, and patients, preventing these stakeholders from forging bonds that could have facilitated greater patient engagement.

While this report does not intend to argue that the Telehealth Project should not have undergone IRB review, we hope to raise this concern so similar future projects conducted within the purview of the CUMC IRB have a potential pathway to shorter IRB reviews (e.g., limited or expedited etc.; see Office for Human Research Protections (OHRP), 2021), or include significantly more time for the review process before data collection is planned to begin.

## Difficulty recruiting CHWs

The project recruited two CHWs, four short of its target of six. Five CHWs had initially agreed to participate in the project but withdrew commitment upon learning that they would be required to enter data into two separate electronic health record systems: the EPIC system managed by NYP and the data entry portal for the Maternal and Infant Community Health Collaborative program, the program in which the original CHWs worked. The CHWs from the MICH program were then replaced with two CHWs already credentialed in the EPIC system and who were not part of the MICH program, eliminating the double data entry burden.

Double-data entry is often an unfortunate requirement of providers participating in demonstration or pilot projects, which exacerbates an existing burden of healthcare documentation. Resistance to this requirement is understandable. In addition to general solutions to documentation burden published online (e.g., see Office of the National Coordinator, 2020), a potential solution for managing double-data entry in pilot projects may be to assign data entry duties to a specific project team member (i.e., a "medical scribe"; see Bates & Landman, 2018); this person could coordinate with providers to enter data into one of the systems. Project team members working on the proposal could factor an estimate of the level of effort data entry poses into the salary of the project team member and make sure this is reflected in the project budget.

## Turnover at the critical project coordinator position

Two project coordinators worked on this project. While the second coordinator joined the project before most of the major evaluation activities began, recruiting and training a new coordinator required effort and posed additional disruptions at a time when the project was contending with several challenges (e.g., IRB review). The challenge of recruiting and retaining project leads for time-limited, grant-funded positions is formidable, but members of the team seemed to weather this challenge as best as could be expected. Resilience in this area may have been because multiple project team members continued to hold weekly meetings to stay connected with each other and remain familiar with the status of project activities. Preventing future turnover for temporary grant-funded positions may not be possible in all scenarios, but staying connected, as Telehealth Project team members did, may ease the strain of transitioning to a new project coordinator.

## Challenges enrolling clients into study components

The Telehealth Project faced difficulties enrolling patients into study components. Of the 31 patients who had agreed to receive CHW services as of December 12, 2022, six participated in a listening session (19% of enrollees), one participated in an exit interview,<sup>4</sup> and seven completed a survey (23%<sup>5</sup>). Project team discussions of possible causes of low patient study enrollment surfaced several possibilities, including the project's tendency to conduct separate service and study enrollments; the effectiveness of the recruitment script; and a missed opportunity to use the Tech Readiness Assessment.

**Separate service and study enrollments.** Several patients were enrolled in CHW services and then the Project Coordinator attempted to follow up with them separately for study enrollment. Divorcing these enrollment efforts may have led to several issues. Contacting patients is sometimes challenging (i.e., 10 of the 35 patients who were referred for CHW services could not be reached and thus were not enrolled); thus, in-person service-enrollment meetings with patients may represent precious occasions to present the opportunity to join the study. Furthermore, conducting study enrollment in the context of service enrollment alongside a CHW, who endeavors to build rapport and trust with the prospective enrollee, benefits from the CHW's goodwill and trust-building efforts. If this opportunity is missed, recruitment becomes more challenging as efforts then shift to conducting "cold calls" in the absence of the CHW. In these scenarios, the Project Coordinator's offer to join a study may be viewed with suspicion, particularly among individuals from black and brown communities who are rightfully suspicious of "research" studies, given their history of exploitation in this context (Scharff, Mathews, Jackson, Hoffsuemmer, Martin, & Edwards, 2010), and as noted by one patient participant. Alternatively, the Project Coordinator could endeavor to meet the patient at subsequent meeting(s) with the CHW, but this option requires ongoing coordination with the CHW.

**The effectiveness of the recruitment script.** Video-recorded sessions suggested that the incentive associated with participation may not have been mentioned or emphasized during contacts with patients. Additionally, patients may have been informed of the Patient Council option, which entailed commitment to multiple sessions, but mention of the possibility of participating one-time Listening Sessions and the online survey may have been omitted. The latter two options are far less burdensome; thus, some patients may have opted to participate in these study components even if they could not commit to the longer-term Patient Council.

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4 The number of patients who completed CHW services is unknown; thus, an exit interview response rate cannot be calculated. The patient who participated in the exit interview at service discharge did not participate in a Small Group Listening Session. It is unknown whether this patient completed a survey.

5 Five survey responses are included in analysis in the report and two were completed after the reporting deadline. Four respondents who completed the survey, and thus answered the question about whether they participated in a Small Group Listening Session, indicated that they participated in a Session.

**Tech Readiness Assessment.** Individuals receiving CHW services are eligible for those services because they face social determinants of health factors that interfere with service access. These same factors could impede participation in the Telehealth Project. One solution for future similar studies would be to use the Tech Readiness Assessment developed by NYP. Because the Telehealth Project data collection procedures relied on use of the same technologies that telehealth services rely on, the Tech Readiness Assessment could have identified which patients were ready to participate at the outset and which participants needed additional assistance before they could join.

Future projects would be well-served to develop an enrollment script in which incentives are emphasized and the patients' availability and interest are matched to their expected level of participation. Recruitment efforts should be coupled with CHW encounters wherever possible.

These recruitment challenges for the study also should be contextualized within the success rate reported by NYP and NMPP in enrolling obstetrical patients into CHW services after they were referred by members of their care team. Of the 86 cumulative referrals that were reported as of December 9, 2022, 31 were enrolled in CHW services, 11 were in pending status (i.e., CHWs were in the process of following up and attempting to complete the enrollment process), and 44 were considered "closed cases" (i.e., referred for CHW services but did not enroll). The project team staff and the CHWs who participated in the project and the video-recorded sessions offered various reasons for referred patients declining CHW services, including scheduling conflicts created by unstable work schedules, being unready to accept that they could benefit from services, feeling that services were not relevant because they were experienced parents with other children, complexities in combining school and healthcare services for teen parents. Given this context, which staff indicated was similar to their experiences with other CHW programs they conduct, it is not surprising that recruiting patients to participate in the study was challenging. We might therefore conclude that if a project's goal is to elevate patients' voices in the process of providing and receiving healthcare services, and more specifically telehealth services, it may be more feasible to do so through CHWs as a conduit for patient voices. At the same time, as noted above, it should not be assumed that the CHWs' representations of patient experiences with MyChart and video based provider visits will be perfectly aligned with patients' actual experiences.

## Challenges with Virtual THRIVE

Two virtual THRIVE sessions were held but the program was suspended due to a lack of participation. NMPP staff suggested that virtual THRIVE sessions received less interest from patients because key THRIVE activities do not translate well to the virtual environment. For example, food demonstrations, which include instructions on introducing the food to the child and taste-testing and attending farmer's markets together, are not possible via telehealth. It was also suggested that entering the physical space where THRIVE sessions occur allows patients to focus on program activities without the distractions of the home and to build a community with other attendees.

As such, some programs or components of programs may not be suited for virtual participation. Such programs could benefit from continuing to conduct sessions in person while exercising virus-spreading preventive measures or operating a hybrid program in which some activities are delivered in person while other, perhaps more educational, components are delivered virtually.

# Action Items

## MyChart enhancements

- In CHW job trainings, increase attention on the configuration and use of MyChart for patients, and the benefits of using the patient portal. CHW training currently appears to focus more on enrolling patients in MyChart versus using and configuring the portal, but CHWs report that almost all of their patients come to them already enrolled.
- Require new CHWs to shadow someone proficient with MyChart.
- Create and offer MyChart instructional materials in both English and Spanish and use pictures and other visual cues for non-native English and Spanish speakers.
- Organize information in MyChart in a more user-friendly manner. Also consider creating videos (in both English and Spanish) to provide instructions on how to use MyChart.
- Designate a clinic's staff member to monitor MyChart messages to ensure that patients are getting responses in a timely manner.
- Consider installing a MyChart function that sends automated message to patients that provide positive feedback or encouraging words to heighten their interest in engagement.
- Encourage patients to show their CHWs how they're using MyChart so CHWs could walk patients through the use of MyChart. Adding a screensharing feature would be particularly helpful in during video provider visits.
- Consider rewriting appointment summaries in layman's terms, or support CHW's efforts to walk patients through medical information.
- Encourage providers to talk about the various features of MyChart with patients.

## Enhancing use of video

- Offer patients a choice between video and in-person provider visits and be flexible with a patient who expresses dissatisfaction with video.
- Explore whether a program, or some of its components, is (are) suited for virtual participation. Such programs could benefit from continuing to conduct sessions in person while exercising virus-spreading preventive measures or operating a hybrid program in which some activities are delivered in person while other, more educational components are delivered virtually.

## Optimizing future similar studies

- Emphasize the financial incentive with potential study participants.
- Consider increasing the incentive.



- Consider creating a certification for participating in groups like the Patient Council; certifications might be especially attractive to teen patients who could highlight these in job searches.
- Explore whether similar projects have a pathway to IRB review exemption, or plan for additional time for an extended review process.
- While working on a proposal for a project where double entry is anticipated, consider discussing the requirement with the entity that requires the data and see if requirements can be moderated or possibly a data entry requirement waiver can be granted during the project period. Alternatively, the project could assign data entry duties to a project team member (i.e., a “medical scribe”); this person could coordinate with providers to enter data into one of the systems. Project team members working on the proposal could factor an estimate of the level of effort data entry poses into the salary of the project team member and make sure this is reflected in the project budget.
- Conduct study enrollment in the context of service enrollment alongside a CHW (or similar provider).
- If future studies have multiple components, develop an enrollment script in which the patients’ availability and interest are used to determine their expected level of participation.

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## Appendix A: Timeline and delays

As a result of significant challenges, the project fell short of its original objectives. The table below identifies the project's achievements relative to its goals (as of 12/9/2022).

**Table 1.** Summary of project achievement of objectives

Goal	Achieved (% of target, where applicable)
<b>Service Goals</b>	
<b>1</b> Recruit and train six CHWs...to enroll 150 patients	Recruited and trained two CHWs (33%) Enrolled 31 patients (20%)
<b>2</b> Enhance perinatal care by facilitating patients' enrollment in and use of MyChart; and video visits	All patients had successfully enrolled in MyChart before enrollment into the study.  Unclear whether the video visits increased due to efforts of Telehealth Project CHWs' efforts. <sup>6</sup>
<b>3</b> Increase patient access to telehealth services/ resources by providing tablets to patients in need	Of 25 tablets purchased, 4 distributed (16%)
<b>4</b> Conduct a virtual version of NMPP THRIVE	Held 2 sessions
<b>Evaluation Goals</b>	
<b>1</b> Identify ways telehealth can best meet patients' needs by facilitating discussions, including:	
50 Small Group Listening Sessions, each with 5 patients	Conducted 2 Sessions (4%), each with 3 patients
bi-monthly Patient Council Meetings, including 15-20 clients	None <sup>7</sup>
One-on-one exit interviews with patients	Conducted 1 interview
Engage CHWs in bi-monthly CHW Meetings	Held 4 meetings (80%) <sup>8</sup>
<b>2</b> Develop best practices through dialogue based on discussion of summaries	Evaluation team produced a summary for all six of the group feedback sessions and a summary for the exit interview.  Opportunities for sharing feedback among the groups were constrained by the timeline on which data was collected, and the limited number of interactions with participants. <sup>9</sup>

6 Changes in video visit attendance frequency is unknown due to the fact that the continuous quality improvement component for this study had very little time to develop and because the evaluation team did not have access to patient MyChart use data.

7 Although the Spanish-speaking Small Group Listening Sessions was intended to serve as the first Patient Council Meeting, this group never progressed beyond the first session; thus, all group feedback sessions with patients for this report are considered Small Group Listening Sessions.

8 Based on an estimate: CHW Meetings were planned to occur on a bi-monthly basis starting in August of 2021 and ending before 6/1/2022, for a projected total of five. Although the actual number of meetings held were close to the target, these meetings occurred between August and December of 2022, thus occurring over a shorter period than planned, and starting well after they were scheduled to begin.

9 These summaries were to be shared with each of the groups participating in feedback sessions to foster dialogue between each of

Goal	Achieved (% of target, where applicable)
<b>3</b> Identify participants' perceptions of the quality of perinatal care they received and identify Small Group Listening Sessions and Patient Council Meeting participants' level of satisfaction with their experience and sense that their input had an impact via a survey	Obtained 7 surveys (26% of enrollees) <sup>10</sup> Conducted 1 exit interview
<b>4</b> Identify patient participation in the CHW program, video visits, and MyChart via MyChart via client medical record data.	Evaluation team access to patient medical records were restricted per a CUMC IRB determination; without these records, analyses could not proceed.
<b>5</b> Conduct cost analysis using client medical record data.	
<b>6</b> Identify impacts of CHW training on CHW knowledge, attitudes, and planned behaviors surrounding patient MyChart use and video visits.	Insufficient data obtained for meaningful analysis. <sup>11</sup>

#### **Program Development Goals**

<b>1</b> Adjust delivery of telehealth services based on best practices identified in feedback session summaries	Unclear whether adjustments were made <sup>12</sup>
<b>2</b> Develop a best practice manual	Draft completed
<b>3</b> Scale telehealth services by extending telehealth to NMPP clients who are patients of Harlem and Metropolitan Hospitals	Currently unachieved. NMPP plans to conduct listening sessions with NMPP program participants who are not NYP patients and will provide an addendum to this report that describes findings from these sessions.
<b>4</b> Sustain the telehealth program after the grant	NYP has committed to ongoing support for the CHW program serving obstetric patients. NMPP is pursuing additional funding opportunities to sustain the program in additional settings. <sup>13</sup>

the groups (i.e., themes from the discussion of members from Small Group Listening Sessions would be shared with Patient Council Meeting members and CHW Meeting members; themes from the discussions of members of Patient Council Meeting members would be shared with the other two groups, etc.); however, this sharing of summaries did not appear to materialize.

- 10 The survey administration protocol was also modified to increase responses. The deadline for survey administration was pushed back to October 31st, 2022, and patients were scheduled to receive surveys two months (instead of three) into their enrollment into services (instead of their enrollment into the evaluation). As survey completion remained low even after implementing these new parameters, the team decided to offer surveys to patients as early as possible following at least one encounter with their CHW. Additionally, the evaluation team created an automated report within the online platform hosting the survey - Qualtrics - allowing for surveys collected after the 10/31 deadline to be included in simple automated summary reporting. Though these surveys obtained past the 10/31 deadline are not reflected in the findings section of the current report, complete data are included in Appendix C.
- 11 The training surveys were completed by five CHWs who originally committed to the project but who later withdrew participation; the two CHWs who eventually committed did not complete surveys as their training occurred months before they joined the project.
- 12 Because the first feedback session occurred in August, and the end date for the project extension was 12/31/2022, there was not enough time to initiate the continuous quality improvement process as intended.
- 13 In partnership with the New York City Housing Authority and the New York Academy of Medicine, NMPP will submit a proposal to the National Institute of Health; proposal tentatively titled "Bridge the Digital and Communication Divide in Healthcare: NYC Mothers and Older Adults Develop the Blueprint".

## Appendix B: Summary of Qualitative Findings Organized by Session, Topic, and Perspective

Note: Not all topics were discussed in all sessions.

Features of MyChart Used by Patients (as self-reported by patients):

Date	Making Appointments	Appointment Check-In	Messaging Providers	Appointment Reminders	RX Refills	Tests/Lab Results	Appointment Summaries
8.3.22		X		X	X	X	X
9.15.22							
11.2.22			X	X	X	X	

Positive Patient Experiences with MyChart (as self-reported by patients):

Date	Ease of Use	Detailed, Useful Information	Convenience
8.3.22	The app was easy to find and install; one patient reported finding the phone app easier to use than the web portal	Patients report appreciating the detailed summaries of their appointments	Not having to call the doctor's office for refills Being able to check-in before appointments Text and email reminders
9.15.22			
11.2.22			

Positive Patient Experiences with MyChart (as self-reported by patients):

Date	Communication Problems	Features Not Working Properly	Language Barrier
8.3.22	Use of medical jargon can make summaries and test results hard to understand	Sometimes the app will fail to remind patients of appointments	
9.15.22			Patient whose first language is Spanish sometimes has a hard time with individual words in MyChart Patient was not aware that she could change the language setting in MyChart; it is not an obvious option
11.2.22	Poor response rate from providers; patient was told she would get responses within 24 hours but it often takes several days		

### Positive Patient Experiences with MyChart (as self-reported by patients):

\*While several patients discussed their use of video provider visits, it was unclear if the video provider visits they were participating in were being delivered via MyChart or another program. For that reason, patient comments about video provider visits in general have been separated from patient comments about MyChart.

Date	Convenience and Scheduling	Technological Savvy	Nature of Appointment	Ability to Choose Video provider visits	Quality of Connection
8.3.22			Some patients are concerned about not having a physical exam during pregnancy. One patient was happy with her video provider visits with a nutritionist but would prefer to see a doctor in person for other appointments	Patients want to be able to make the choice for themselves as to whether or not to use video provider visits	
9.15.22	The pandemic affected how families scheduled their time, especially with regard to the use of devices, and so this sometimes makes scheduling video provider visits a challenge or inconvenience	Some patients did not know how to use a computer or had to purchase a smart phone to use video provider visits	Patient who had a difficult pregnancy was not happy with video provider visits; did not feel her questions were answered adequately and worried about not having a physical exam		Blurry images can make communication difficult
11.2.22			Patient felt that her provider answered questions and heard her concerns but was overall unhappy with virtual visits and concerned about the lack of physical exams.	Patient reports that when she asked her doctor for more in-person visits, the doctor scheduled them for her. Having the choice was important to her.	

### Features of MyChart Used by Patients (as reported by CHWs):

Date	Making Appointments	Appointment Check-In	Messaging Providers	Appointment Reminders	RX Refills	Tests/Lab Results	Appointment Summaries
8.19.22			X				
10.4.22							
11.14.22	X		X			X	

### Patient Experiences with MyChart (as reported by CHWs):

Date	Communication Problems	Device Issues	Features Not Working Properly
8.19.22	Patients don't always hear back from providers when messaging via MyChart	Some patients have very basic phones without a lot of features which can make using the app difficult	Appointment-setting function does not always work and instead prompts patients to call; this can be a problem for non-native English speakers
10.4.22		It is difficult (maybe not possible?) to change the language setting from the phone app but easy to do from the web portal.	
11.14.22	Patients don't always hear back from providers when messaging via MyChart	Most patients are using phones to access MyChart and they can't always see everything they need to on their phones	

### Patient Experiences with Video provider visits (as reported by CHWs):

\*While the CHW discussions included patients using video provider visits, it was unclear if the video provider visits they referenced were being delivered via MyChart or another program. For that reason, CHW comments about video provider visits in general have been separated from CHW comments about MyChart.

Date	Convenience and Scheduling	Nature of Appointment	Ability to Choose Video provider visits	Demographic Influences	Quality of Connection
8.19.22	Pregnant patients do not like to leave the house and find video provider visits more convenient and comfortable	Whether a patient prefers video provider visits or an in-person appointment will depend upon the reason for the appointment  CHWs report that none of their patients have complained about not having a physical exam	Patients appreciate having the choice of video provider visits		Sometimes the image is blurry or the connection is weak
10.4.22	Patients find being at home more convenient and comfortable. In some cases, they are using video provider visits more than traditional health care.  Patients sometimes need an extra level of guidance to walk them through video provider visits appointments when they first start.				
11.14.22	Patients prefer video provider visits because they don't have to worry about childcare, transportation, or taking time off from work	Patients don't mind going in for occasional in-person visits but for things that can be done at home (like glucose testing) they prefer video provider visits.		Immigrants are often isolated and lonely and crave in-person connection; for this reason, they often prefer traditional appointments.  Immigrants are often less tech-savvy and do not like video provider visits for this reason  Age is also a factor, as younger patients are more receptive to video provider visits than older patients	



# Appendix C: Qualtrics Report on Patient Telemedicine Survey

Access the report [here](#).<sup>14</sup>

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<sup>14</sup> If the report does not load, copy and paste the url into your browser: <https://albany.az1.qualtrics.com/reports/public/YWxiYW55LTYzNTAzNmY3MzVkMzc5MDAwZjFjZDAwNy1VUI9la1I5RDExME1adGp5ZjM=>

# Final Report for the Northern Manhattan Perinatal Partnership Telehealth Project

April 14, 2023

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