

Identifying Barriers and Facilitators to Prenatal Care for Spanish-Speaking Women

Kimberly Fryer, Ginny Lewis, Chris Munoz, Alison M. Stuebe

BACKGROUND Early access to quality prenatal care is an essential component of improving maternal and neonatal outcomes as it allows for early intervention and risk stratification. Women who receive late or infrequent prenatal care are at high risk for complications including preterm birth, infant death, and stillbirth. We sought to better understand the barriers Spanish-speaking women face in accessing quality prenatal care and to identify facilitators in obtaining timely quality prenatal care.

METHODS We recruited a homogeneous group of 11 women with Spanish as their primary language who were pregnant or had given birth within the last six months. We then conducted two focus groups in Spanish. The focus groups were recorded, translated, and transcribed, and then coded using grounded theory.

RESULTS In our cohort of participants, the three major themes included desire for psychosocial support, health care system logistics, and barriers due to Latinx ethnicity.

LIMITATIONS Our study has several limitations, including a small sample size and single site design.

CONCLUSION Latinx women experience unique barriers to care including language barriers, a lack of cultural competency on the part of health care personnel, and ethnic discrimination. Additional research is needed to develop patient-centered interventions to address these barriers.

Early access to quality prenatal care is an essential component of improving maternal and neonatal outcomes as it allows for early intervention and risk stratification [1]. Women who receive late or infrequent prenatal care are at high risk for complications including preterm birth, infant death, and stillbirth [2, 3]. The Healthy People 2020 campaign and American College of Obstetricians and Gynecologists have identified early and adequate prenatal care in the first trimester as an important quality metric in the United States [1, 4], with the goal of 83.2% for all women by 2020 [5]. In 2016 in North Carolina, 77.8% of women had adequate prenatal care while 16.0% had inadequate prenatal care [6]. For Latinx women, 23.7% had inadequate prenatal care while only 11.6% of white women had inadequate care [6]. While no group has met the 2020 goal, a large health inequity is present for Latinx women in North Carolina.

In order to meet the goal as defined by Healthy People 2020, women must have first trimester access to prenatal care and return for the recommended number of prenatal visits during the pregnancy [5]. Multiple studies have found that common barriers to obtaining timely, adequate prenatal care for all women include lack of access to transportation and child care, unmet needs for work leave to attend appointments, lack of knowledge of pregnancy, inability to find a clinic or obtain a timely appointment, difficulty obtaining insurance, and the inability to pay for care [7, 8]. Not only can accessing prenatal care be challenging, finding culturally competent, quality prenatal care is challenging for women of color specifically. Several studies of Latinx women have been conducted in several states including Texas, Florida, California, Kentucky, and Tennessee which found barriers

including long wait times, dislike of exams, transportation, language barriers, cultural sensitivity, and undocumented status [9-14]. One study was performed in North Carolina, but it was more than 10 years ago [15].

Several theoretical frameworks have been adapted to fit prenatal care. Phillippi adapted the prenatal care models of Aday and Anderson [16] to form the motivation-facilitation theory of prenatal care access [17]. Phillippi's model states that maternal motivators + health care facilitators = access to prenatal care. This allows for a clinically applicable theory to explore access to prenatal care and novel innovations to increase access. Sword and colleagues adapted Donabedian's quality of care model of care: structure, process, and outcomes to prenatal care with three categories, including structure of care (including access, physical setting), clinical care processes (screening, health promotion) and interpersonal care processes (emotional support, respectful attitude) [18].

Every state has a different health care system for prenatal care, and North Carolina is no different. As North Carolina does not participate in Medicaid expansion, non-pregnant, non-parenting, low-income women do not have access to Medicaid prior to pregnancy and must apply for Medicaid with each pregnancy [19]. Moreover, North Carolina does not participate in the "Unborn Child" option which allows

Electronically published May 21, 2020.

Address correspondence to 2 Tampa General Circle, 6th Floor, Tampa, FL 33606 (kfryer@usf.edu).

N C Med J. 2020;82(1):XXX-XXX. ©2021 by the North Carolina Institute of Medicine and The Duke Endowment. All rights reserved. 0029-2559/2021/82101

for coverage of prenatal care for undocumented women, so undocumented women are not eligible for the Children's Health Insurance Program (CHIP) or Medicaid funding for prenatal care [20, 21]. Additionally, North Carolina's Medicaid system is unique in that it has created Pregnancy Medical Homes throughout the state to address quality of care in prenatal care [22]. This has occurred since the last study of prenatal care quality in North Carolina [15].

By conducting focus groups of Latinx women who were pregnant or recently pregnant, we investigated the barriers that Latinx women in North Carolina face in obtaining prenatal care and elicited patients' desires and expectations for prenatal care. As each state's prenatal care system is unique, and literature has noted that Latinx women face unique barriers to prenatal care, we aimed to explore the systemic barriers to accessing quality prenatal care for Spanish-speaking women in North Carolina.

Methods

In order to better understand the barriers and facilitators for Spanish-speaking Latinx women in accessing quality prenatal care, we conducted two focus groups. Institutional Review Board approval was obtained from the University of North Carolina prior to recruitment.

Recruitment

We recruited a purposeful sample of a homogeneous group of Spanish-speaking women in the Raleigh-Durham area of North Carolina, in the catchment area of the University of North Carolina Hospital, through the use of Spanish language flyers in multiple obstetric and prenatal clinics in the area, as well as in-person recruitment in the clinics. Participants were asked to contact the bilingual study coordinator via telephone if interested. Brief telephone interviews were conducted to collect basic demographic information and to screen for study eligibility. Incentive payments of \$50 per session were provided to participants for participating in a single focus group. Additionally, on-site child care and meals were provided to participants and their children.

Eligibility

Participants were eligible for the study if they were currently pregnant or had an infant less than six months old, obtained prenatal care in the United States, primarily spoke and read Spanish as opposed to English, and were more than 18 years old.

Demographic Information

At the time of the telephone interview, we obtained basic demographic data including age, country of origin, and prenatal care clinic location and type. We also assessed acculturation via the Short Acculturation Scale for Hispanics (SASH) questionnaire [23, 24], which includes four questions: "In general, what language do you read and speak?",

"What language do you primarily speak in the home?", "In what language do you usually think?", and "What language do you usually speak with friends?" All participant data were captured onto a REDCap secure database [25], which was not linked to focus group transcripts to protect participants' anonymity.

Focus Groups

Both focus groups were conducted in Spanish at a community church, facilitated by the two bilingual authors (GL, KF). Focus groups lasted approximately 1.5 hours each. No participant was included in both focus groups. Participants provided written and oral consent prior to the study, and we utilized a focus group guide consisting of open-ended questions (Table 1).

Analysis

We performed univariate analysis on the demographic data collected at focus group enrollment with Stata 14.1 software (College Station, TX: StataCorp LP). After each focus group was completed, a third-party transcription and translation service performed a word for word transcription and translation into English of the focus group audio recording. The transcripts were then uploaded into MAXQDA (VERBI Software, 2017) for qualitative analysis. Two of the authors (KF, GL) coded each interview using grounded theory to identify emergent codes. Conflicts were adjudicated between the two coders through discussion and clarification of the codebook. We then sorted the transcript segments by codes and identified main themes. We built themes by identifying patterns in the emergent codes. Throughout the process of developing themes, we returned to the original transcripts to ensure that the themes reflected the totality of the focus groups. An audit trail was maintained with recordings, transcripts, codebook with memos, study protocol, and interview guides.

Results

Recruitment and Participation

We screened 17 potential participants and all 17 were deemed eligible. A total of 11 women participated in the

TABLE 1.
Focus Group Guide Questions

In your opinion, what is the biggest barrier or problem facing Latinx women seeking prenatal care?
What was difficult for you to obtain prenatal care?
What helps women obtain/get prenatal care?
What helped you obtain prenatal care?
In your experience, if you could change one thing about the prenatal care you received or are receiving what would it be?
What do you like about your prenatal care?
What do you not like about your prenatal care?
What do you wish your healthcare provider knew about your life when you are not at the clinic?

two focus groups. Seven participants were in the first focus group and four in the second.

Demographics

In our cohort, the mean age was 31 (S.D. ± 7.1) and the median score on the SASH questionnaire was 1.4 (IQR 1.3, 2) signifying that they mostly speak, read and think in Spanish rather than English (Table 2). Most women (55%) obtained prenatal care from a public health department. The most common country of birth was Guatemala.

Coding and Themes

A total of 10 codes emerged from coding of the two focus groups, which were organized into three themes: desire for psychosocial support, health care system logistics, and barriers due to ethnicity (Table 3). The participant dynamic in both groups was one of rolling consensus-building, with women echoing similar experiences and building upon each other's experiences. Many of these codes were both facilitators, when an element was present, and barriers, when a need was not met. For example, on the code of language, some women experienced difficulties with communication during clinic appointments, while others had providers who spoke their primary language, which was a facilitator to their care.

Desire for psychosocial support. Throughout the focus groups, an overarching theme arose that women wanted more psychosocial support during pregnancy from partners, mental health counselors, providers, or family. Many of the participants felt alone during the pregnancy and desired a strong provider-patient relationship. They strongly desired that providers be consistent throughout the prenatal period to help establish this relationship. They also wanted providers to know about their life at home. This was experienced as a facilitator for some participants with a strong relationship with their provider. Other participants described patient-provider relationships as a barrier when they perceived impersonal care or miscommunication about plans of care (Table 4).

TABLE 2.
Participant Demographics

		(N = 11)
Age, mean (SD)		31.1 (7.1)
SASH Questionnaire, median (IQR)		1.4 (1.3, 2) ^a
Obstetric Clinic Type	Public Health Department	6 (55%)
	Academic OB	2 (18%)
	Private OB	2 (18%)
	Midwifery	1 (9%)
Country of Birth	Guatemala	4 (36%)
	USA	1 (9%)
	Ecuador	1 (9%)
	Mexico	1 (9%)
	Unknown	4 (36%)

^aOne participant excluded due to error in data collection

I always changed doctors. I said no, because who knows who's going to be in the hospital that day. We want to talk with all the doctors. And I always liked one that treated me very well, but to the rest, I was just a pregnant lady. I mean, that's what it felt like. But the doctor I liked always asked me, "How are you? How's it going? How is your other daughter?" So, I would like to have just one doctor and not get switched around. That's the only thing I would change. – Focus Group #1, Speaker #3

Mental health and family social support also played major roles, with several participants experiencing depression during the pregnancy. Many also expressed the desire for their partners to be more involved in their care and pregnancy.

And aside from the expenses, also the situation in the community that - you're alone. Your family isn't here. Your friends aren't here. You don't have anyone who supports you, because during this time of the pregnancy, we feel very emotional. So, we need the support. In my case, especially, it's because I was suffering from depression, so I was getting treatment and during that time, I got pregnant so it was more difficult. So, now I had that pressure about the fact that I have this illness, but I wanted to get well for my baby, for my other child, for my husband. But I couldn't put all the load on my husband either, because he's busy going to school and working. And I didn't want to be another burden for him. – Focus Group #2, Speaker #2

Health care system logistics. The theme of health care system logistics included multiple barriers and facilitators including transportation, child care, clinic logistics, insurance, and awareness of pregnancy that affected timely access to and ability to continue to participate in prenatal care. Some participants experienced difficulties obtaining an initial appointment or knowing where to obtain prenatal care, while other participants found clinic resources that assisted them in obtaining prenatal care. Clinics created barriers due to inconvenient clinic hours.

I was worried and trying to get an appointment and looking for doctors and no one wanted to take me at first. – Focus Group #2, Speaker #3

Then they told me, "Well, we can't see you. Come back when you are three months pregnant." – Focus group #1, Speaker #1

They told me, "Well, if you don't remember how to breast-feed, here's this person who can help you with this. If you don't remember what the symptoms are, you can talk to this person." And they - they told me there was help for everything there. If you want to speak in Spanish or if you want to speak in English. Yes, it was very easy. – Focus Group #1, Speaker #6

Finances and issues obtaining insurance during pregnancy to pay for care were significant barriers to coming to care or obtaining all necessary tests for many participants.

So, for me it was very difficult because I am a single mother. I had a job that barely allowed me to live, so for me, it was really difficult to know that I had an ultrasound that cost over \$1,000 because it was a vaginal ultrasound, not one over the belly. So, it was too much for me. – Focus group #2, Speaker #1

**TABLE 3.
Codebook**

Themes	Codes
Desire for Psychosocial Support	1. Provider-Patient Relationship
	1.1 Wanting providers to know about their life outside the clinic
	1.2 Preference for having the same provider
	1.3 Impersonal care
	1.4 Miscommunication about care
	2. Social Support
	2.1 Not having any family support
	2.2 Partner support
	3. Mental Health
	4. Clinic Setting and Logistics
Navigating the Health Care System	4.1 Obtaining info about prenatal clinics
	4.2 Ancillary clinic support
	4.3 Available clinic hours
	4.4 Travel time to clinic
	4.5 Wait time for getting initial appointment
	4.6 Wait time for interpreter
	4.7 Wait time to be seen while in clinic
5. Insurance/Financial	
6. Unintended/Unplanned Pregnancy	
7. Child Care	
8. Transportation	
Barriers due to Ethnicity	9. Discrimination/Racism/Undocumented Status
	9.1 Denied care because of racism
	9.2 Undocumented status barrier to care
10. Language Barrier	
10.1 Family members having to interpret	

Other barriers to continued quality care included transportation and child care. Participants voiced that they had no access to transportation or no one to care for their children during appointments.

I have had a very hard time getting to my appointments. I can't drive and I don't know the area around here too well. I had to ask as a favor for someone to come with me. - Focus group #1, Speaker #7

That is a challenge for me, because I have no one else to leave my daughter with and I have to take her with me. A lot of times, I know, right, I am aware that when you go, if possible, don't take children. That's what they've said. - Focus group #1, Speaker #4

Latinx ethnicity. Two codes arose from the data that were unique to Latinx women: language barriers and experience of discrimination. Language barriers included the lack of bilingual health care professionals, clinics not providing sufficient interpreters, or providers using family members to interpret.

First of all, it's the language because sometimes it's a bit complicated to communicate or understand what the doctors are telling you. There are obviously translators, right? Sometimes if you ask for one, they'll help you, but sometimes, you want to say something and you can't. - Focus Group #2, Speaker #2

Participants also experienced discrimination due to undocumented status as well as denial of care due to racism. Participants experienced longer wait times than English-speaking patients due to lack of timely interpreter services. Issue also arose getting insurance coverage (Medicaid) for prenatal care due to documentation status.

For me, the hardest part was - I'm an illegal Hispanic, undocumented person, whatever you want to call it. So, we qualified for Medicaid for the ultrasound, but only for one. - Focus Group #2, Speaker #1

One participant had an episode where a health care provider refused to provide her with a medication to prevent preterm birth due to her documentation status and inability to obtain Medicaid.

So, then the nurse came and she told me, "Do you have Medicaid?" And I told her no. And she tells me, "Do you have any insurance?" And I said, "No, I just applied to [a hospital coverage for undocumented patients]." And she told me, "Oh, well, I can't give you the injection [17-hydroxyprogesterone] then." And I said, "What do you mean you're not going to give me the injection? I know that I can pay for it, at least make payments." She says, "No, I can't," she said. "It's my duty not to give it to you because you don't have any of that [insurance]." And I - I left really sad. I said, "Mom, I may lose the baby again." - Focus Group #2, Speaker #4

TABLE 4.
Codes, Definitions, and Representative Quotes

Desire for Psychosocial Support

Code	Definition	Representative Quote:
Provider-Patient Relationship	Encompasses issues with impersonal care, miscommunication about care, desire to have the same provider throughout prenatal care, and wanting the providers to know more about their lives outside of the clinic. Facilitator when a positive relationship.	“What I didn’t really like is that I didn’t have a specific doctor at this clinic that would see me all the time. So, sometimes when I would go, there would be one doctor and then the next week, it was another doctor. And it was a different one and a different one, and they always asked me the same questions, the same questions, so I would say, ‘But I already said that.’” - Focus Group #2, Speaker #2
Social Support	Includes not having support from partner or having little family nearby to provide emotional support or assistance during pregnancy. Also includes positive experiences of family support. Barrier when support is low.	“But the hardest part was this whole thing about being alone, feeling alone, that you’re here alone. I don’t know, in my case, we’re used to having our family around to support us. We’re all together. But here, I was alone.” - Focus Group #2, Speaker #2
Mental Health	Issues such as depression or anxiety creating a barrier to reaching out for care. Barrier when present.	“I don’t have time for depression. I don’t have time for sadness. I don’t even have the space to be able to shed a tear and say, ‘Oh, I’m doing terrible today. I want to let it all out today.’ I can’t do that because when I’m trying to close my eyes and let a tear come out, that’s when my son comes over and tells me, ‘Mommy, you okay?’” - Focus Group #2, Speaker #1

Navigating the Health Care System

Clinic Setting and Logistics	Includes issues with inability to get a prenatal appointment when calling a clinic, long wait times, clinic hours. Also difficulties with locating a prenatal care clinic. Barrier when present.	“And they told me that they weren’t going to give me an appointment until I was three months.” - Focus Group #1, Speaker #4
Insurance or Financial Costs of Care	Encompasses issues obtaining insurance coverage, paying for visits, or other financial difficulties. Barrier when cost is high.	“And they asked me, ‘Well, how are you going to pay?’ I told them, ‘I can make payments.’ But they didn’t want to take me. They told me, ‘It’s going to be more than \$3,000.00,’ and I mean I understood, but at the same time, I needed to see someone.” - Focus Group #2, Speaker #3
Unintended or Unplanned Pregnancy	Pregnancy was not planned or unexpected. Barrier when present.	“Well, it wasn’t my plan to get pregnant, you know, but oh well. Before I knew it, I was already pregnant with my baby and I said, no, well, I’m going to look for prenatal care.” - Focus Group #1, Speaker #1
Child Care	Difficulties finding child care during visits or issues with clinics not welcoming children at visits. Barrier when child care unavailable.	“Well, I’m talking about those of us who have more kids. A lot of times, there’s no one to leave them with. We have to take them to the appointments.” - Focus Group #1, Speaker #4
Transportation	Issues traveling to clinic or obtaining transportation. Also includes issues with appointment tardiness due to travel time. Barrier when transportation unavailable.	“For example, I have had a very hard time getting to my appointments. I can’t drive and I don’t know the area around here too well. I had to ask as a favor for someone to come with me.” - Focus Group #1, Speaker #7

Barriers due to Ethnicity

Discrimination, Racism, and Undocumented Status	Racism experienced during visits or with interaction with the health care system. Includes perceived discrimination of any kind, also discrimination based on undocumented status. Barrier when present.	“Prenatal care is hard to find sometimes though. Why? Because a lot of times, they look at - I don’t know if it’s - what’s that called? Like with Americans and some people have papers and some people don’t.” - Focus Group #2, Speaker #1
Language	Difficulties obtaining care or understanding plans of care during visits due to not speaking the same language as the providers. This includes family members being asked or expected to interpret. Also includes interpreter services provided by clinics. Barrier when no Spanish speaker in the clinical setting.	“In this clinic, the girl that would make the appointments also spoke Spanish, so it was easier for me to talk to her and say, ‘Hi, could you please help me make an appointment with such and such person?’ So, yes, I think that it was very easy. It wasn’t as complicated as I thought it was in the beginning.” - Focus Group #2, Speaker #2

Discussion

In order to better understand the barriers to prenatal care for Spanish-speaking women in North Carolina, we performed a qualitative analysis of two focus groups using grounded theory. For our cohort of participants, the main themes included desire for psychosocial support, health care system logistics, and barriers due to Latinx ethnicity.

Our results were similar to other studies of barriers and facilitators of care for Latinx women and added new insights. Similar to a review by Phillipi and a meta-analysis by Downe of all women, we found barriers and facilitators including financial, mental health, social support, transportation and clinic logistics [7, 8]. Latinx women in our study also cited barriers such as lack of cultural competency on the part of providers and clinic staff, and language, similar to other studies [8, 9, 14]. Additionally, our study noted barriers not just with poor cultural competency on the part of clinic staff, but also with experiencing discrimination and denial of care at the clinic level. Other studies have also noted themes of racism in the prenatal clinic setting [26, 27]. As noted by Zaid and Conrad, we also found that lack of resources due to insurance status and provider perception of undocumented status create barriers to care [9, 28]. Our findings also align with the Donabedian's quality of care model modified by Sword and colleagues, as we identified a theme of structure of care (our health care system logistics theme) and interpersonal care processes (our psychosocial support theme) [18].

Strengths

Although our sample size was small, we were able to capture many different barriers and facilitators to prenatal care in North Carolina that echoed the existing data on barriers to care for Latinx women. Our study was also able to capture unique barriers that Latinx women face due to their ethnicity and examples of how language barriers and discrimination interplay with access to quality prenatal care and overlay on the health care system in North Carolina. We also have identified several different areas of potential interventions at the clinic and policy levels to mitigate these barriers to care. These potential interventions include adjusting clinic scheduling practices and adopting the "Unborn Child" option in North Carolina to allow for coverage of all low-income women irrespective of documentation status [29, 20].

Limitations

Our study has several limitations, including a small sample size and single site design. Due to difficulty with recruitment, we only were able to include a total of 11 participants, each attending one focus group. Enrollment decreased for the second focus group held in May 2018, following local Immigration and Customs Enforcement raids in April 2018 [30] that resulted in participants not responding to any phone calls for several weeks. Our sample included mainly women of Guatemalan and Mexican origin, relevant primar-

ily to the Latinx population in North Carolina, where 60% of the Latino population is of Mexican origin [31]. As the term Latinx can be applied to women of varied national origins, our study cannot be transferred to the experiences of other women of different national or territorial origins, such as women from Puerto Rico who are more represented in Latinx populations in areas of the United States outside of the Southeast. An additional limitation was the lack of funding to return our themes and conclusions to our participants for comment and correction. Additionally, postpartum women may have an issue with recall bias, with the circumstances around delivery coloring their recollection of prenatal care.

Conclusion

In order to provide access to quality prenatal care to all women in the United States, the experiences of Spanish-speaking Latinx mothers must be included in analyses of access to prenatal care. In the United States, Latinx women experience unique barriers to care, including not speaking the same language as most health care providers, low levels of intercultural competency amongst health care professionals, and ethnic discrimination. To achieve health equity, health care systems must adapt to meet the needs of Spanish-speaking women from the clinic level to the state health policy level. Additional research is needed to develop patient-centered interventions to address these barriers as well as to strengthen the facilitators of care for Latinx mothers. NCMJ

Kimberly Fryer, MD, MSCR assistant professor, Division of General Obstetrics and Gynecology, Department of Obstetrics and Gynecology, University of South Florida, Tampa, Florida.

Ginny Lewis, MSW program manager, Expanding Networks for Latinos through Community Engagement, The North Carolina Translational and Clinical Sciences Institute, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Chris Munoz, MD associate professor, Division of General Obstetrics and Gynecology, Department of Obstetrics and Gynecology, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Alison M. Stuebe, MD, MSc professor, Division of Maternal-Fetal Medicine, Department of Obstetrics and Gynecology and Department of Maternal and Child Health, Gillings School of Global Public Health, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Acknowledgments

We would like to thank the University of North Carolina Center for Maternal and Infant Health for their financial support of this study, as well as the ENLACE group of the North Carolina Translational and Clinical Sciences Institute for their logistical assistance. We would also like to thank Claudia Rojas for her hours of tireless study coordination that made this research project possible.

Financial support. This work was funded by the Bowes Cefalo Young Researcher Award from the University of North Carolina Center for Maternal and Infant Health and North Carolina Translational and Clinical Sciences Institute NIH Grant# UL1TR002489.

Institutional Review Board approval was obtained from the University of North Carolina at Chapel Hill prior to recruitment.

Potential conflicts of interest. The authors have no relevant conflicts of interest.

References

1. American Academy of Pediatrics and American College of Obstetricians and Gynecologists. Guidelines for Perinatal Care. 8th ed. Elk

- Grove Village, IL; Washington, DC: American Academy of Pediatrics and American College of Obstetricians and Gynecologists; 2017.
2. Partridge S, Balayla J, Holcroft CA, Abenheim HA. Inadequate prenatal care utilization and risks of infant mortality and poor birth outcome: A retrospective analysis of 28,729,765 U.S. deliveries over 8 years. *Am J Perinatol*. 2012;29(10):787-793. doi: 10.1055/s-0032-1316439
 3. Krueger PM, Scholl TO. Adequacy of prenatal care and pregnancy outcome. *J Am Osteopath Assoc*. 2000;100(8):485-492.
 4. Office of Disease Prevention and Health Promotion. Healthy People 2020: Maternal, Infant, and Child Health. ODPHP website. <https://www.healthypeople.gov/2020/topics-objectives/topic/maternal-infant-and-child-health/objectives>. Accessed March 8, 2017
 5. Office of Disease Prevention and Health Promotion. Healthy People 2020: MICH-10.2 Increase the proportion of pregnant women who receive early and adequate prenatal care. ODPHP website. <https://www.healthypeople.gov/2020/data-search/Search-the-Data#objid=4834>; Published 2018. Accessed January 27, 2020
 6. Healthy Moms Strong Babies. Early prenatal care by race/ethnicity North Carolina, 2016-2018 Average. March of Dimes website. <https://www.marchofdimes.org/Peristats/ViewSubtopic.aspx?reg=37&top=5&stop=24&lev=1&slev=4&obj=1>. Accessed January 29, 2020.
 7. Phillippi JC. Women's perceptions of access to prenatal care in the United States: a literature review. *J Midwifery Womens Health*. 2009;54(3):219-225. doi: 10.1016/j.jmwh.2009.01.002
 8. Downe S, Finlayson K, Walsh D, Lavender T. "Weighing up and balancing out": a meta-synthesis of barriers to antenatal care for marginalised women in high-income countries. *BJOG*. 2009;116(4):518-529. doi: 10.1111/j.1471-0528.2008.02067.x
 9. Zaid A, Fullerton JT, Moore T. Factors affecting access to prenatal care for U.S./Mexico border-dwelling Hispanic women. *J Nurse Midwifery*. 1996;41(4):277-284. doi: 10.1016/0091-2182(96)00030-4
 10. Tandon SD, Parillo KM, Keefer M. Hispanic women's perceptions of patient-centeredness during prenatal care: a mixed-method study. *Birth*. 2005;32(4):312-317. doi: 10.1111/j.0730-7659.2005.00389.x
 11. Byrd TL, Mullen PD, Selwyn BJ, Lorimor R. Initiation of prenatal care by low-income Hispanic women in Houston. *Public Health Rep*. 1996;111(6):536-540.
 12. Wheatley RR, Kelley MA, Peacock N, Delgado J. Women's narratives on quality in prenatal care: a multicultural perspective. *Qual Health Res*. 2008;18(11):1586-1598. doi: 10.1177/1049732308324986
 13. Fitzgerald EM, Cronin SN, Boccella SH. Anguish, yearning, and identity: toward a better understanding of the pregnant Hispanic woman's prenatal care experience. *J Transcult Nurs*. 2016;27(5):464-470. doi: 10.1177/1043659615578718
 14. Shaffer CF. Factors influencing the access to prenatal care by Hispanic pregnant women. *J Am Acad Nurse Pract*. 2002;14(2):93-96. doi: 10.1111/j.1745-7599.2002.tb00097.x
 15. Bender DE, Harbour C, Thorp J, Morris P. Tell me what you mean by "s": perceptions of quality of prenatal care among immigrant Latina women. 2001;11(6):780-794.
 16. Aday LA, Andersen R. A framework for the study of access to medical care. *Health Serv Res*. 1974;9(3):208-220.
 17. Phillippi JC, Roman MW. The motivation-facilitation theory of prenatal care access. *J Midwifery Womens Health*. 2013;58(5):509-515. doi: 10.1111/jmwh.12041
 18. Sword W, Heaman MI, Brooks S, et al. Women's and care providers' perspectives of quality prenatal care: a qualitative descriptive study. *BMC Pregnancy Childbirth*. 2012;12:29. doi: 10.1186/1471-2393-12-29
 19. The Henry J. Kaiser Family Foundation. Status of State Medicaid Expansion Decisions | The Henry J. Kaiser Family Foundation. The Henry J. Kaiser Family Foundation. <https://www.kff.org/health-reform/slide/current-status-of-the-medicaid-expansion-decision/>. Published 2017. Accessed November 5, 2018.
 20. The Henry J. Kaiser Family Foundation. Medicaid and CHIP Income Eligibility Limits for Pregnant Women as a Percent of the Federal Poverty Level. KFF website. <https://www.kff.org/health-reform/state-indicator/medicaid-and-chip-income-eligibility-limits-for-pregnant-women-as-a-percent-of-the-federal-poverty-level/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D>. Accessed April 13, 2020.
 21. Jarlenski MP, Bennett WL, Barry CL, Bleich SN. Insurance coverage and prenatal care among low-income pregnant women: an assessment of states' adoption of the "Unborn Child" option in Medicaid and CHIP. *Med Care*. 2014;52(1):10-19.
 22. Berrien K, Ollendorff A, Menard MK. Pregnancy medical home care pathways improve quality of perinatal care and birth outcomes. *N C Med J*. 2015;76(4):263-266. doi: 10.18043/ncm.76.4.263
 23. Marin G, Sabogal F, Vanoos Marin B, Otero-Sabogal R, Perez-Stable EJ. Development of a short acculturation scale for Hispanics. *Hisp J Behav Sci*. 1987;9(2):183-205.
 24. Hamilton AS, Hofer TP, Hawley ST, et al. Latinas and breast cancer outcomes: Population-based sampling, ethnic identity, and acculturation assessment. *Cancer Epidemiol Biomarkers Prev*. 2009;18(7):2022-2029. doi: 10.1158/1055-9965.EPI-09-0238
 25. Harris PA, Taylor R, Thielke R, Payne J, Gonzalez N, Conde JG. Research electronic data capture (REDCap) -- a metadata-driven methodology and workflow process for providing translational research informatics support. *J Biomed Inform*. 2009;42(2):377-381. doi: 10.1016/j.jbi.2008.08.010
 26. Bergman AA, Connaughton SL. What is patient-centered care really? Voices of Hispanic prenatal patients. *Health Commun*. 2013;28(8):789-799. doi: 10.1080/10410236.2012.725124
 27. Novick G. Women's experience of prenatal care: an integrative review. *J Midwifery Womens Health*. 2009;54(3):226-237. doi: 10.1016/j.jmwh.2009.02.003
 28. Conrad JK, Hollenbach KA, Fullerton JT, Feigelson HS. Use of prenatal services by Hispanic women in San Diego County: a comparison of urban and rural settings. *J Nurse Midwifery*. 1998;43(2):90-96. doi: 10.1016/S0091-2182(97)00155-9
 29. Green T, Hochhalter S, Dereszowska K, Sabik L. Changes in public prenatal care coverage options for noncitizens since welfare reform: wide state variation remains. *Med Care Res Rev*. 2016;73(5):624-639. doi: 10.1177/1077558715616024
 30. Gallagher N. ICE Raids in Orange and Chatham Counties Swept Up Ten People This Week - Including Immigrant Rights Organizer Maria Peralta's Stepfather. *INDYWeek.com*. <https://www.indyweek.com/news/archives/2018/04/13/ice-raids-in-orange-county-swept-up-ten-people-including-immigrant-rights-organizer-maria-peraltas-stepfather>. Published April 13, 2018. Accessed April 2, 2020.
 31. Pew Research Center. Demographic and Economic Profiles of Hispanics by State and County, 2014. Pew Research Center website. <http://www.pewhispanic.org/states/state/nc/>. Published 2014. Accessed August 29, 2018.