Health Foundation
for Western & Central New York
Investing in Better Health for People and Communities

Maternal and Child Health in Western New York:

A Qualitative Study

Improving the health and health care of the people and communities of western and central New York

Executive Summary

Research indicates that women living in non-metropolitan areas commonly have lower incomes, less education, and limited access to health care services relative to women in larger communities, therefore placing them at an increased risk for poor health outcomes. Rates of poor outcomes, including low birth weight, late or no prenatal care, infant death, and teen pregnancy and birth, are notably high in many rural areas and small urban centers.

Continuing and expanding upon our research in Central New York State, this study utilized qualitative methods to identify and examine factors that may impact on healthy pregnancy and parenting in four high-risk, or "hotspot," communities in Western New York State, located in Cattaraugus, Cattaraugus/Chautauqua, Erie, and Niagara Counties. The ultimate goal of this study is to inform funding decisions by providing data that represent the perspectives and experiences of new parents in the target communities. Communities were selected according to socioeconomic and health indicators associated with poor birth and early childhood health outcomes. The study utilized qualitative research methods consisting of semi-structured interviews with 43 mothers and eight fathers, each of whom had a child under the age of one. The interview focused on physical and mental health status; access to and perceptions of family planning, prenatal care, and parenting programs; parenting readiness; father involvement; social support; and gaps and recommendations regarding programs and services.

The majority of mothers interviewed understood the importance of prenatal care, had accessed care without difficulty within the first trimester of their pregnancy, and were satisfied with the services they received. However, transportation to appointments was commonly a concern for expectant and new mothers. Access to pre- and postpartum supportive services was also adequate for participants. Community health workers

served as an essential source of support for some parents, providing connections to other services, parenting advice, and general social support. Use of community health worker programs was more common in more urban areas. Birth and parenting education was less commonly accessed in all communities, as many of the women interviewed perceived these services to be unnecessary. Appropriate family planning services seemed to be inadequate, resulting in a number of unintended pregnancies—particularly for the youngest women.

Most of the women participating in interviews relied on partners, spouses, family members, or friends to provide material and social support. Despite this support, both men and women reported significant hardships and stress, including housing instability, financial concerns, and relationship disputes.

Unemployment and low educational attainment was common. Those participants who were employed, commonly held low-paying jobs with limited benefits. Access to childcare was difficult and prohibitively costly for many parents, creating barriers to further education or career advancement.

In sum, although participants accessed prenatal and postpartum services and had substantial social support, they reported frequent stressors that may impact pregnancy and early childhood health outcomes. Supportive services should address ongoing needs and life challenges, and provide assistance for parents to achieve social and financial stability.

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Research indicates that women living in non-metropolitan areas commonly have lower incomes, less education, and limited access to health care services relative to women in larger communities, therefore placing them at an increased risk for poor health outcomes. Data confirm these trends among communities in Central and Western New York State. Many rural areas and small urban centers have poor pre- and perinatal health indicators, including low birth weight; late or no prenatal care; and high teen pregnancy and teen birth rates.

In 2010, the Center for Evaluation and Applied Research (CEAR) at The New York Academy of Medicine (NYAM) conducted a study for the Health Foundation for Western and Central New York (HFWCNY) on barriers and facilitators to healthy pregnancy and parenting among low income women in selected rural and small urban centers of Central New York State. Findings indicated that prenatal care was accessible, teen pregnancy was common and acceptable in many communities, and mothers received

social support from friends and family members, and supportive services through local agencies and schools. Despite this support, they reported high rates of hardship, stress, anxiety, and depression.

Expanding upon this research, the Foundation requested that the Western New York Community Health Planning Institute (WNYCHPI) conduct an analysis of maternal and child health in Western New York State. Using demographic and perinatal data focusing on several health indicators (teen pregnancy rates, late or no prenatal care, low birth weight, and infant death rates), WNYCHPI identified four "hotspots" – located in Cattaraugus, Cattaraugus/Chautauqua, Erie, and Niagara Counties – with high poverty rates and significant populations at high risk for poor health outcomes (see Table 1). The identified hotspots included geographically diverse areas.

The Erie County hotspot was located within the City of Buffalo, the most populous city in Western New York State, and the Niagara County hotspot was located in the City of Niagara Falls. The Cattaraugus County hotspot included the city of Olean, a small urban center. The Cattaraugus/Chautauqua hot spot was the most rural, including several towns and villages but lacking a substantial urban center.

The objective of the NYAM study was to utilize qualitative methods to identify and examine factors that may impact healthy pregnancy and parenting in the hotspot communities, with the ultimate goal of informing funding decisions by providing data that represent the perspectives and experiences of new parents.

Methods

Qualitative interviews were conducted with new mothers and fathers residing in the four hotspot communities. Eligibility requirements were: (1) residing in one of the target hotspot communities (see Table 1 for list of all eligible ZIP codes), and (2) having a child under age one.

Semi-structured, in-person interviews were conducted with new mothers and fathers by staff from NYAM between October 2012 and February 2013. All interviewers were trained in qualitative research methods and on the research protocol. Interviews followed a written semi-structured guide that included questions on physical and mental health status; access to and perceptions of family planning services, prenatal care, and parenting programs; parenting readiness; father

involvement; social support from family and friends; factors affecting pregnancy and parenting in non-metropolitan communities; and gaps and recommendations regarding programs and services (see Appendix A: Mother Interview Guide; and Appendix B: Father Interview Guide).

Interviews were conducted in English or Spanish. Interviews were approximately 45 minutes in length and were audio recorded to allow for transcription in full or part. Interviewers also took detailed notes for each interview. A portion of interviews, selected for quality and thoroughness of interview responses were professionally transcribed. Transcripts or interview notes were coded with a hierarchical set of codes using NVivo (Version 8, QSR International), a software package for qualitative research. The coding process facilitated a comprehensive systematic review of all data collected, according to both pre-identified themes derived from literature and experience, as well as themes emerging from the data.

Prior to participation, respondents were informed that participation is voluntary and not participating will not affect services that they are currently receiving or may receive in the future. All participants signed an informed consent form.

Participants were also asked to fill out a brief survey eliciting basic sociodemographic and health data (e.g. age, race/ethnicity, household composition, education, employment, health conditions, substance use, and use of birth control). The research protocol and documents were approved by the NYAM Institutional Review Board (IRB). All participants received a $25 honorarium.

A total of 51 interviews were conducted with 43 mothers (Cattaraugus=6, Cattaraugus/Chautauqua=4, Erie=23, Niagara=10) and eight fathers (Cattaraugus=4, Cattaraugus/Chautauqua=1, Niagara=3). The Erie County hotspot was intentionally oversampled due to its larger population. Respondents were recruited through local community-based and health care service organizations (e.g. home-visiting services, community health centers) serving new mothers. Participating mothers were invited to ask their spouse or partner to be interviewed, and therefore all male participants were partnered with the females. In most cases, mothers and fathers were interviewed separately, but two couples were interviewed together. Six female participants did not meet all eligibility

requirements (e.g. children were over one or they were currently pregnant); however, interviews with these participants were still insightful and therefore included in analyses.

Findings

Participant Characteristics

Demographic characteristics of participants are described below. It should be noted that recruitment processes targeted low-income and high-risk parents (e.g. primarily through programs serving parents with financial hardships), and therefore the sample is not representative of the wider communities. In addition, comparison between hotspots should be interpreted with caution due to the small sample size.

Participant Characteristics: Mothers

Among female participants, age ranged from 17 to 37, with a mean of 24 (see Table 2). The largest proportion of females (44%) were 20-24 years of age. On average, participants from the Cattaraugus County hotspot were the oldest (mean=29 years old), and participants from the Erie County hotspot were the youngest (mean=24 years old). Most participants identified themselves as White (49%) or Black (40%). However, a large number of Erie County (48%) were Hispanic. Most participants were born in New York State (77%), including all of those from the Cattaraugus, Cattaraugus/Chautauqua, and Niagara County hotspots. Three participants from Erie County (13%) were born in the U.S. but out of New York State, and seven participants (30%) were born outside of the U.S., either in Puerto Rico or the Dominican Republic.

Overall, female participants reported low levels of educational attainment. Over 40% had not completed high school; 30% had completed high school or a GED but had not attended college. A small proportion had completed some college (23%), and only two (5%) were college graduates. Most of the female participants were not employed (70%). Eighty percent were insured by Medicaid, and three (8%) were uninsured. Among the four hotspots, a larger proportion of participants from Cattaraugus and Cattaraugus/Chautauqua Counties were working part time or full time and had private insurance. Not surprisingly, participants from the hotspots with the highest poverty

levels, Erie and Niagara Counties, reported the high rates of unemployment.

Approximately half of women interviewed lived with their partner or spouse, and 14% percent lived with their parents. Thirty-five percent of participants lived with neither a partner/spouse nor parents. All participants from Cattaraugus and Cattaraugus/ Chautauqua Counties lived with their partner or spouse; living without a parent or spouse was most common in Niagara and Erie County hotspots. Most participants had one (44%) or two (26%) children. Participants with multiple children commonly reported having children with more than on man.

Participant Characteristics: Fathers

The eight male participants ranged in age from 21 to 35, with a mean of 24 (see Table 3). Similar to the female participants, the largest proportion (5 of 8) were 20-24 years old. Six of the men were White, and two were Black (both from Niagara County). Six of the eight men were born in New York State, and two were born in the United States but outside of New York.

Overall, male participants had slightly higher levels of education than females. One of the eight had attended some college and two were college graduates. Four of the men were working full time and four were unemployed. Four were on Medicaid, two were privately insured, and one was uninsured.

All of the men lived with a spouse (n = 4) or partner (n=4). Like the women, most fathers had one (n=4) or two (n=2) children. Two of the fathers had three or more children.

Maternal and Child Health

Analysis of interview responses focused on barriers and facilitators to positive pregnancy, parenting, and early childhood outcomes among at-risk women and children. The analysis was guided by the study objectives and informed by literature, experience, and the data themselves.

Several significant themes are discussed below: (1) access, use, and satisfaction with prenatal care; (2) access, use and satisfaction with supportive services; (3) access to family planning services; (4) paternal involvement; (5) social support from family and friends; and (6) financial constraints and hardships.

Access, Use, and Satisfaction with Prenatal Care

Access and use: All of the women interviewed were aware of the importance of receiving timely prenatal care and the majority began receiving it within the first trimester of their most recent pregnancy; there were few significant differences in access to prenatal care between hotspots. Most women reported that they were motivated to receive care by concerns for the health of their child. One teenaged mother explained:

Have a healthy baby. See what's up with her. Making sure she's breathing. Making sure she's okay. Because when you're pregnant, you really don't know where the baby's at, basically. The baby's down there, I'm up here. So it's just like I want to make sure my baby's okay. Is she breathing? Is her heart beat regular?

Seven women (16% of the sample) reported late access to prenatal care (see Table 4), most commonly during the fourth or fifth month of pregnancy. Delays in access were attributed to being unaware of the pregnancy, rather than disinterest. The women with delayed care commonly reported using contraceptives, which was among the reasons that they hadn't expected to be pregnant.

I was having symptoms, but I just thought I wasn't pregnant because I was protecting myself and I took pregnancy tests and they both came out negative...[I started care immediately because] Iwanted to know that I was doing the right thing, you know, to make sure I was doing everything right.

Some women reported barriers to accessing prenatal care—primarily related to insurance or transportation. Several were uninsured when they first became pregnant. Although this generally did not prevent them from receiving care, it did result in stress and financial hardship.

I didn't have insurance. That was one thing we weren't prepared for… I was working too much. I wasn't eligible [for Medicaid]…[I was paying for prenatal care] out of pocket...But [at the end of my pregnancy] I did not work as much, so we reapplied and then I could [get Medicaid].

One woman, who began prenatal care at 14 weeks, reported having difficulties scheduling her first appointment due to a long wait time for the Medicaid provider in her area, the Cattaraugus/ Chautauqua County hotspot:

I was upset…It was hard to find somebody else who took [Medicaid]…I couldn't really afford to drive all the way to Olean because the appointments would get more and more [frequent]…We couldn't really afford it at the time to drive that far that often.

Travel to appointments was a concern across locations. Women in the Cattaraugus and Cattaraugus/Chautauqua hotspots either drove themselves or relied on friends and family members to provide transportation to appointments. Reliance on others complicated scheduling.

I always had to plan my appointments for the morning, which fortunately I'm able to [do] because my husband works second shift and we only have one vehicle…[I missed an appointment] because my husband's work schedule changed… he had to work first shift instead of second and there were no other appointments that week.

Women in the Buffalo and Niagara hotspots were able to use public transportation or transportation provided by medical providers or service agencies, including community health worker (CHW) programs. They reported that lack of transportation would have created a barrier to receiving prenatal care, if they did not receive assistance.

When I was pregnant, when I couldn't walk, [the CHW] did take me to my doctor's appointment…As soon as I found out I was pregnant, I called her right up because I knew that she would help.

I can't always afford [transportation]. I just started working, and I have bills and rent. Every week, I have to put money towards bills. I do set money aside for the bus but, sometimes, I have to take money to do something that's more important. So, yes, it would be an issue [if I didn't receive assistance with transportation].

I did before I came [to the CHW], I did [have problems with transportation]. I personally don't own a vehicle…I'm doing everything by myself and so when I do have money come in I don't think, "Oh, put money away for the bus." No. My first priority is [my children] need clothes on their backs, they need food on the table…And then it's like, oh darn, I used all of this for this, and now I need to get somewhere, and it's hectic trying to rely on somebody else to be your transportation to get you places.

Need for specialty care resulted in additional travel-related challenges.

With any issues I had, the only thing [my doctor] could tell me to do is go to Buffalo…She can't do anything. She just told me to go to Buffalo… That's 45 minutes driving [from the Niagara County hotspot] or something…It's about two hours on the bus.

Satisfaction: Overall, participants expressed positive perceptions of the prenatal care they received. Both female and male participants reported that they were comfortable asking questions during prenatal care visits and felt like the medical staff cared about them and their child's health. One woman described having a close relationship with her provider:

I felt, honestly, like my doctor was more like a friend than just a doctor. I didn't have problems talking to her about anything that I was having issue-wise or any questions or concerns.

However, specific complaints did arise in the interviews, focused on impersonal staff, inconsistency and lack of communication among providers, inadequate information, and a lack of empowerment. One woman who was prescribed an opioid replacement therapy throughout her pregnancy was not made aware of the potential health effects for her daughter:

I'm on Suboxone. I had to take that throughout my whole pregnancy. They didn't tell me the consequences of it. They just told me if I stopped it that I could miscarry or she could pass inside me. So they made me stay on it, but I had no idea that it was going to be what it was like after I had her. She was addicted to it. She was in the hospital 25 days after she was born in the NICU. It was just terrible. I wished that they would have told me more about it and not sugar-coated it.

Another mother described receiving insufficient information about a complication during her pregnancy:

It would have been nice if they had paid more attention and let me know what was going on more. Like when they sent me to the hospital about that blood pressure. They didn't tell me why they were sending me to the hospital. They just said, "We can't send you home right now. You need to go to the hospital." They didn't explain anything to me until I got there.

Access, Use, and Satisfaction with Supportive Services

Few of the women interviewed reported utilization of parenting and childbirth classes offered through hospitals or other health care providers. In contrast to their perceptions of medical services, many women did not feel that these services were necessary or helpful, citing prior parenting experience or knowledge of parenting gained through friends and family members ("I knew what I was doing"). One woman cited cultural norms as a barrier to parenting and childbirth classes.

I had a lot of things offered. I just didn't take advantage of everything that was offered…It's so cliché, but they say that – I hate to say it. African-American women don't do all of that…You just get pregnant, you carry your child, you go to your prenatal appointments, and get yourself prepared for labor and have your baby and...I mentioned it to one of my girlfriends and I said, "Oh, you know, I was thinking about going to..." "Girl, you know we don't go to any classes like that."

However, the relatively small number of mothers who received parenting and childbirth education found it to be helpful:

I first was like, "Okay, I'm going to go to parenting classes." I know everything, like I'm a good mom. I know this and this. I've looked up. I've read. I've done my research. I really have. But I actually do learn things here every night that I'm here, new things. And it's nice with real parents sitting in the room with me sharing their experiences. You do learn things, and it's nice to hear a different person's point of view, a different parent's point of view. Yes, they're helpful.

Use of supportive services after the birth of the child was more common than use of services during pregnancy. Participants reported that services for new parents were plentiful in their communities, although outreach regarding their availability was inadequate. Several women reported that they knew about services only because of court mandates to use them.

I would like to do as much as I could to benefit my child, whatever classes… It's for me and my child to be a better parent and to learn about my child and things to do for my child for the better, and I'm not offered anything…I wasn't in this court situation that I'm in going through my custody battle, I wouldn't have known where to go to get – like the Haven House where they have the clothes for kids or like the bassinet or – I wouldn't have known any of that…I didn't have baby supplies. I had some but not the big stuff, and I had no idea until this happened. And now I have all these resources, but it shouldn't take [court involvement] to know it.

Almost all of the women interviewed reported using WIC, which provided nutritional assistance, education and peer counseling. Overall, mothers found these services to be helpful, especially in providing encouragement and support for breastfeeding.

WIC was definitely helpful. They have a nutritionist who helped us figure out what kind of foods would be best for our family… making sure that you're taking your vitamins, that you're giving the proper care for the child. And I was part of the breastfeeding group so my counselor throughout the four months and before, she helped prep me for that. They got me an amazing breast pump and everything.

Participants in the Erie and Niagara County hotspots commonly received services through community health worker programs, which provided wraparound services including intensive case management, home visits, transportation assistance, parenting advice, and referrals and linkages to other services. The disproportionate number of participants receiving these services in the Erie and Niagara hotspots was influenced by recruitment methods (i.e. recruiting through service organizations that offered CHW programs). However, the frequency of service use was also likely due to the greater availability of CHW services in more urban areas and the need for such services among participants from these hotspots, who were more likely to be younger, unemployed, and have less social support. Overall, women reported positive experiences with CHWs. As described in the previous section, CHW transportation services were considered essential. Comfort levels with CHWs was high; they were commonly perceived as a friend or mentor.

[The community health worker] helped me dramatically…It helped a lot because you had that support, someone there if you needed to talk to about anything. Like with my mom, I try and talk to her about things during pregnancy. The last kid she had was me in 1984. A lot of things have changed since then. And she was really not that much of a support. [The community health worker] was, for support, it was great.

She helped me get baby clothes, and she gave me gift cards for breastfeeding… She helped me out a lot….I like her. She's really comfortable to talk to.

Access and Use of Family Planning Services

Limited access to and knowledge of family planning options impacted on participants' ability to determine the timing and spacing of births. At the time of the interview, approximately three-fourths of the women reported that they were using birth control all of the time or that they were not sexually active (see Table 4). However, rates of birth control use were substantially lower prior to their most recent pregnancy. Just eight women (19%) reported that their most recent pregnancy was planned. Only 11 who had not planned their pregnancy (31% of unplanned pregnancies, 26% of total) reported using contraceptives other than condoms. Common reasons for not using more effective contraceptives included lack of knowledge, perceptions of side effects, and lack of insurance. One teenage mother explained:

I didn't know about all the options. I knew about some of them because in school you learn about some of that. But they didn't tell me the effects of them or stuff like that. I didn't know the information on it. I knew it was out there but I didn't know the effects of it, and the time when I want to use it, and where to get it from.

Oral contraceptives were the most common form of birth control among women who reported using birth control at the time they became pregnant. Use of oral contraceptives proved ineffective due to missed doses resulting from chaotic life situations. Participants felt that other types of birth control, such as IUDs or implants, may have been more appropriate.

Yes, [I was using birth control], but it was – it was a pill. It was hard to remember to take it every day at the time. I was young and, you know, I was doing something all the time, always going. It was just hard to remember to take it every day…[Now I'm using] the shot. So I don't have to remember.

I just recently learned about all the different types of birth control there are when I went to Planned Parenthood, but I wasn't informed of the ones that you can get that will keep you for five years…they basically gave me two decisions and it was either getting a shot or taking the pill.

Female participants reported improved knowledge and accesses to birth control following their most recent pregnancy. However, limited availability of services and lack of information created persistent obstacles to obtaining contraceptives in some situations.

The hospital I went to [for the delivery], they don't do birth control because it's a Catholic hospital. So I had to – if I was to get birth control, I'd have to go back to my primary doctor, but they closed that now, so I have to go somewhere else. But you know, going through all of that, I didn't want to go through all of that and start over…

[My doctor talked to me about birth control] at my postpartum appointment, six-week appointment. He said, "Do you want to start birth control?" And I said, "I'd like to discuss what my options are." He just listed them and told me to pick one, didn't tell me anything about them. He said, "Pick one." "Uh, okay."

Father Involvement

The women interviewed reported varying levels of paternal involvement, ranging from none ("He disappeared") to providing consistent help in raising their child ("Everything I do, he does"). Eleven mothers (23%)—primarily from the Erie County hotspot—reported that the father of their most recent child was not involved. Even when the father was involved, mothers reported inconsistent engagement and support during their pregnancy and while raising their child. Women who reported no or limited support from the father often expressed a sense of independence and determination to raise their child alone. One teenaged participant explained:

He was there in the first couple of weeks when I figured out I was pregnant, didn't have to do anything, but then after a while…he just

started acting strange and started disappearing and stuff. But when I figured out I was pregnant, I was ready to do this all myself. And I think that's what a lot of people should, especially if you're not married, I think you should expect to do it by yourself. Even if you might think he might be there, you still, yes, get ready to be by yourself.

Some mothers intentionally distanced themselves from the father of their child and felt that being able to provide a stable single-parent home for their child was more important than receiving irregular support from the father. Yet single parenting was also recognized as being very difficult.

I've gotten used to doing it by myself. I'd just rather have him either be there or not be there. I don't want him to be in and out, so that Eric has to deal with that when he gets older. So he's either going to be there, or he's not going to be there.

I'm a single mother….I got pregnant. He disappeared…He started to make violent threats to my child and he was making violent threats and he didn't show up to any of our child support appointments….I don't need [his] money. I don't want anything from him.

I prefer him not in the picture because we shouldn't even have been dating. But [my daughter] not having a dad is not fair to her, I mean, and stuff like that. And financially, it's been super hard and support is super hard. But, I'm getting through it.

Consistent and sufficient paternal involvement was more commonly reported by women who were in a stable, co-habiting relationships. One mother explained her partner's involvement:

[He is involved] every step of the way. He helps with feedings, he's changing, he's watching, he's involved, very much so. [His relationship with the baby is] wonderful.

A male respondent described how he and his girlfriend divided care giving responsibilities:

A lot of the times, because she works so many hours, I get up at night with him and I do the bottles and everything like that...And then when I get home from school, I help her out and take care of him for a while. When she gets home, I let her relax and everything, and when she's done relaxing and doing whatever she wants to do, she picks him up and I'll do my studying and get my whatever under way.

Some women reported that their current spouse or partner served as a father figure to their children from prior relationships.

Their father doesn't want anything to do with them. So my new baby's father is taking care of his son and my own son, like the baby's father. But they love him. They call him "Daddy," but I'm like, "That's not your father." And they go, "I don't care."

Similarly, one male respondent explained his relationship with his fiancée's children and his acceptance of care-giving responsibilities:

I told him, "I'm your mom's boyfriend, I'm not your dad or anything like that, but if for any reason you do happen to call me that, I'm not going to say, 'I'm not your dad, don't call me that.' If you feel like I show you that much love, and I give you that much security to where, 'I'm going to call you dad,' I'll accept it as – know what I mean - you're my son."…Yes, [he calls me dad now].

All of the men that were interviewed expressed satisfaction and fulfillment in their parenting roles. They saw themselves as providing important emotional support and guidance for their children. One man, although in a difficult relationship with his son's mother, explained his motivation for staying involved in his son's life:

For me, I grew up without my dad. That was a big thing for me, I always said I'd never do my kid like my father did me…It's one of the greatest things in life, being able to bond with your kid and all that good stuff.

Although services for new fathers were rarely available, fathers that were able to access them had positive perceptions.

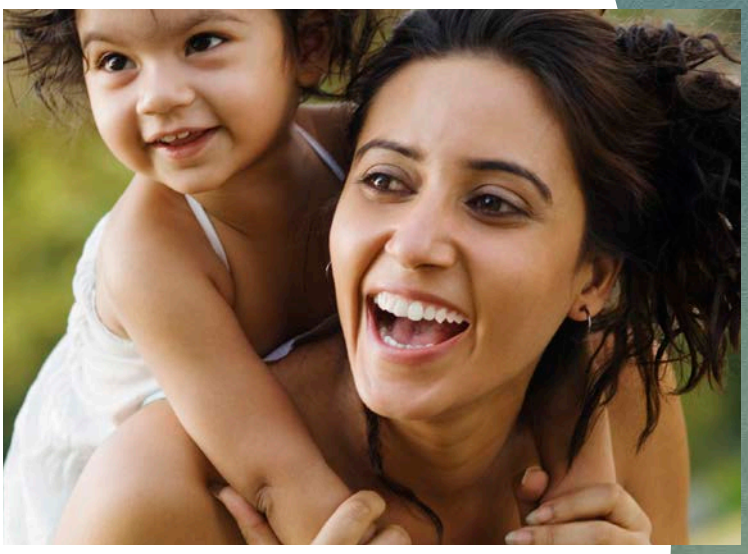
One community-based organization serving at-risk parents in the Niagara County hotspot did provide counseling, parenting advice, and educational and employment assistance to fathers. Men were appreciative of these services in that they helped them to provide social and financial support to their families.

And they are nice because they come and I speak with them sometimes. When they come, they offer me things for jobs …they are really helpful in our situation.

He encouraged me to be more fulfilling. Like instead of just being there, why don't you invest in activities? See what [your children] like to do and try to play with them and associate yourself with them. And I did that and now I connect [my children] even more.

Social Support from Family and Friends

Women participating in the interviews frequently relied on relatives and friends for support during pregnancy and with parenting. Support from family and friends was common in all hotspots, including those areas with higher levels of paternal involvement (i.e. Cattaraugus and Cattaraugus/Chautauqua Counties). Due to limited geographic mobility, mothers were likely to be living near family members and childhood friends. Twenty-four mothers (56%) were born in western New York, and 15 (34%) were born in the community where they were currently living. Although only six mothers currently lived with their parents, most described receiving help from their parents and other family members with childcare, financial assistance, and overall emotional support. One teenaged participant described the support that her mother provided:



House and home…One thing I can say is she's good. I mean, anytime she gets money, she goes out. Instead of me buying what I've got to buy, she'll buy it…Anytime my daughter needs something, and if she has the money, she gets it. And some days, I don't know, I could be in the bed with my baby sleeping, and she'll come in there and get her. And then you get to fall asleep. And I'll wake up like, "Where's my baby at?" And she's like, "I've got her. Go to bed."…I'm thankful.

Women participants also reported having friends and family members with young children, who could provide parenting advice and social support.

[My sister and I] help each other because her [child] is a month younger than mine…Like if I want to go to the gym and I don't feel like dragging [my daughter], I don't take her to a daycare, she'll come over and watch her for that hour while I'm gone. Or we go shopping together, grocery shopping, and we kind of help each other with our babies… [We keep] each other company and, you know, if she's trying to get something done and her baby is crying, then I'll take him, and vice versa.

I have two, three, four best friends and that is my circle…One has a step-child. My other one is my other goddaughter's mom…If I need a babysitter, they are there. If they have the cash for diapers and I don't, they help me. If they know I need it, they will get it. Or they will find a way to get it for me… If I feel down and depressed…they are at my door. "What is going on? I have got ice cream." They will sit with me if I need it.

We've gotten to know a lot of other young families…It's nice having other people who are parenting kids the same age and have the camaraderie of talking about, "Hey, I'm struggling with this with my two year old right now. What did you do with yours?"

Financial Constraints and Hardships

The women and men that participated in the study described individual and structural-level factors that impacted on healthy parenting, pregnancy, and early childhood outcomes. Despite challenges, participants expressed commitment to helping their children lead healthy and productive lives. They spoke about their children with a sense of pride and commitment, and often found parenting to be a positive and rewarding experience.

When I do get stressed out, I'll just hold him. I'll pick him up, and it makes me feel better. It's not him that's stressing me out. It's just everything else that I have going on. He's actually – he's all right. He makes mommy happy.

In all hotspots, a portion of participants described chaotic living situations. Some mothers reported unstable housing and temporarily staying with family members. One mother, who was currently living with her father, explained her struggle to find another living arrangement:

[My dad] wants to sell the house. I don't want to say I'm homeless-homeless because technically right now I still have a roof over my head. But it's to the point now where it's like really, really hard…he [wrote me an eviction notice] yesterday, and now I have to find out who I can go to…A lot of people are like, "No, I don't think you should go stay in a shelter," or, "I don't think you should do this, that and the other because you have kids."

Another participant described temporarily living with her mother because she did not feel safe in her previous housing situation:

My apartment is moldy, and I had a car on fire while me and my son were in the house. So I had to make some tough decisions. And my mom's just like, "Well, you might as well move back in," until I find...my own apartment again, which I'm currently waiting for now.

Financial concerns were common among participants, including those who were employed. Participants who were working commonly had jobs in the service industry, which were low-paying and offered limited benefits; however, these participants did not qualify for some public assistance programs due to their income.

I do get food stamps and I get Medicaid for me and the kids. But I had asked them for cash assistance…I was only working at Burlington, I was hardly working 15 hours a week, and they told me I was making too much at $7.25 an hour. I'm like, "How am I making too much?" And I have three people to feed. I have to take care of three kids plus myself.

One mother explained her struggle to afford childcare while working several jobs. Income limits for receiving childcare assistance created disincentives for employment and barriers for obtaining financial stability.

It would be helpful if there was something to help pay for child care because that's expensive. And since I work all the time, I'm not [eligible] for any help. They won't give it to me because I make too much money which, in all reality, it's really not fair because I have three jobs to pay for what I need to pay for. If not, I wouldn't be able to support my kid. So you can either sit at home and collect welfare and get help with everything, or else you work and work and work and work and don't get anything. There's no happy medium.

Working participants who did not qualify for Medicaid described difficulties obtaining health insurance. Some mothers were able to obtain Medicaid during their pregnancy, but reported losing their benefits after giving birth. Lack of health insurance was a source of constant concern.

It would make me feel more comfortable if I had health insurance, but I don't make enough to get myself health insurance, and I make too much for free health insurance. So it kind of puts me in a position where I've just got to be careful on a constant basis. I can't get sick, I can't do anything.

Conclusion

The women and men that participated in the study described multiple factors that impacted on healthy pregnancy and parenting. Despite these challenges, they were committed to their children and to accessing the supports that helped them address parenting challenges.

Overall, women understood the importance of and accessed timely prenatal health care. Access to care was facilitated by receipt of other supportive services, primarily transportation.

Community health workers served an important role for mothers with limited financial resources and social support by providing linkages to assistance programs and filling the role of a friend and mentor.

Social support from partners, other family members, and friends was essential for many mothers. Mothers often relied on a spouse or partner to provide help with childcare, financial support, and emotional support. For those mothers without an involved or stable partner, family members and friends were often available.

Most parents described substantial hardships impacted by sociodemographic factors, including teenage pregnancy, close birth spacing, and housing and financial instability. Considering these challenges, maternal and child health outcomes may be positively impacted by services that enable women to make informed decisions regarding their reproductive health, provide support for educational and career attainment, and support paternal involvement (including involvement of stepfathers) during and after pregnancy.

Acknowlegements

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Appendix A

Mother Interview Guide

Thank you for participating in this interview. We would like to find out what it's like to be a new parent in this community, the kind of services pregnant women and new mothers need, what you think of the services that are available, and what should be added or changed. Your answers will help us understand more about the programs and services that are most helpful to pregnant women and new parents.

Just to remind you, your participation in this interview is completely voluntary. You do not have to do the interview, and you can skip individual questions if you like. Your answers will be kept private.

Introduction

1. I understand you have a new baby. Did you have a boy or a girl?
   a. How old is s/he?
   b. How are you both doing?

2. Do you have other children?
   a. [If yes] how old are they?
   b. How do they feel about the new baby?

Pregnancy

I'd like to ask you about your recent pregnancy.

3. When did you first start to think you might be pregnant?
   a. What kind of symptoms did you have?

4. What did you do when you thought you were pregnant? (like a pregnancy test, talking to family or friends)
   a. What was the time period for this (days, weeks, months)?

5. How long before you went to a doctor to find if you were pregnant, for sure?

6. Did you have any health or other issues that affected your pregnancy? [Interviewer: Let answer, then ask about each of the following]:
   a. Anxiety, depression, or other mental health issue
   b. Smoking
   c. Alcohol or drug use (alcohol, prescription drug abuse, non-prescription drug abuse)
   d. Weight problems
   e. Diabetes
   f. High blood pressure

7. How about now – do you have any of these issues? I'll review them.
   a. Anxiety, depression, or other mental health issue
   b. Smoking
   c. Alcohol or drug use (alcohol, prescription drug abuse, non-prescription drug abuse)
   d. Weight problems
   e. Diabetes
   f. High blood pressure

8. How did you feel about having a baby?
   a. Were you nervous? Were you happy?
   b. Did you feel ready?
   c. Did you feel that you knew what you'd have to do – both during your pregnancy and once the baby is/was born?

9. Were you looking to have a baby?

10. [If pregnancy was not intentional] Were you using any kind of birth control?
    a. If yes, what kind?
    b. If no, why not? (Difficulty accessing, cost, didn't like side effects, looking to get pregnant, didn't believe in it, didn't have enough knowledge about, etc.).

11. Did you consider having an abortion when you found out you were pregnant? Can you talk to me a little about that?
    a. Do you know - is there anywhere to get an abortion near here?
    b. Do you think many people in this community think abortion is okay?

12. Do you think you'll want to have more children?
    a. [If yes], how long do you think you'll wait?
    b. Will you use birth control in the meantime?
    c. Did anyone talk to you about using birth control after your baby was born?

Prenatal Care

I'd next like to ask you a few questions about prenatal care.

13. When did you start receiving prenatal care (what month were you in)? We're not just talking about a pregnancy test, but regular care.
    a. [If delayed] Why did you wait?
    a. What motivated you to get care when you did?

14. Did you have any problems getting prenatal care?
    a. Were there any cost issues, either for care, medicine, or other things - did you have (or get) insurance?
    b. Can you talk some about how you dealt with any of these problems?

15. Did anyone help you (or encourage you) to get prenatal care (this could be a family member, a friend or a service provider, like a doctor or social worker)?
    a. Who?
    b. What kind of help (or encouragement) did they provide?

16. Where did you go for prenatal care?
    a. How did you find out about [this place]? How did you choose it?
    b. How far away was your prenatal care provider? How did you get there? Was transportation a problem?

17. Did you like the care that you received there?
    a. Did you feel that they care about you and your baby?
    i. Can you describe what made you feel like the place you went was a good (or not so good) place for prenatal care?
    b. Do you feel that they treated you with respect?
    c. Are there some things you wish they had done or would do differently?

18. Besides medical care, did you receive any other special services when you were pregnant, such as parenting education, social worker services, nursing services, home visiting services, etc? Can you tell me about them – including the name of the program?
    a. What was helpful – and what was less helpful?

Parenting

I'd like to change topics now – to parenting, including how things are going, what kind of supports you have, etc.

19. In general, how is it going?
    a. Are you finding it easy or difficult to take care of the baby?
    b. Why? What's been difficult?

20. Is the father of your baby helping you take care of the baby and/or helping you in other ways?
    a. [If so] In what ways?
    b. [If not] Is that hard for you?

21. What's your relationship to him like? (good, difficult, non-existent)

22. How about the relationship between the father and baby? (good, difficult, non-existent)
    a. Is he excited about having a baby?

23. Do you have other family or friends in this area? Are you close with them?
    a. Did they help you when you were pregnant and do they help you now?
    b. In what ways have they helped you?

24. Where do you take the baby for health care?
    a. Does s/he have a regular doctor?
    b. How far away is the doctor? Is it hard to get there?

25. Does your baby see the doctor on a regular schedule?
    a. Is s/he up to date on all the immunizations?
    b. [If not] Why not?

26. Can you tell me about any services you get to help you with parenting, childcare or related topics? These might be educational, social worker services, nursing services, etc. Can you tell me about them – including the name of the program?
    a. In what ways have they been helpful to you?
    b. How far are they from where you live? Is travel ever a problem?

27. Do you have, or have you had, a nurse or social worker come to your home to provide parenting education or services?
    a. What kind of things does s/he talk to you about?
    b. Is this helpful?
    c. What do you think of having someone come to your home?

Background Information

This last set of questions is about you, your life and your community.

28. How long have you lived in [community name]?

29. Do you have a job outside the home – or did you before the baby was born? What kind of work did you (or do you) do?

We're very interested in understanding how pregnancy and parenting might be different in different communities. Particularly, we would like to know in what ways the size of the community makes parenting easy or difficult.

30. Can you talk about how being a parent might be easy or harder here, as compared to other communities?
    For example:
    a. Are all the services you need here? Are they easy to get to? Is travel a problem?
    b. Do you feel there are enough—or will be enough—opportunities for you and your baby? (jobs, schools, other programs)
    c. How about social support – is this a good community to be a parent or not?

Conclusion

31. Is there anything you would like to add – a question we missed or some extra information?

32. Is there anything you would like to ask me?

Thank you so much for your time.

Appendix B

Father Interview Guide

Thank you for participating in this interview. We would like to find out what it's like to be a new parent in this community, the kind of services new parents need, what you think of the services that are available, and what should be added or changed. Your answers will help us understand more about the programs and services that are most helpful to new parents.

Just to remind you, your participation in this interview is completely voluntary. You do not have to do the interview, and you can skip individual questions if you like. Your answers will be kept private.

**If the mother and father are interviewed together, designates questions to ask the father.

Introduction

1. I understand you have a new baby. Did you have a boy or a girl?
   a. How old is s/he?
   b. How are you both doing?

2. What is your relationship with the mother? (e.g. girlfriend, wife, no relationship)

3. Do you have other children?
   a. [If yes] how old are they?
   b. Are they with the same mother as your newborn?
   c. How do they feel about the new baby?

Pregnancy

I'd like to ask you about the time you learned your girlfriend/ fiancée/ wife was pregnant?

4. **How did you learn about the pregnancy?
   a. Did you find out about the pregnancy together – or did she tell you sometime later?
   b. How far along in the pregnancy was she when you found out?

5. **How did you feel about having a baby?
   a. How did you react when you first heard?
   b. Were you nervous? Were you happy?
   c. Did you feel ready?
   d. Did you feel that you knew what you'd have to do – both during the pregnancy and once the baby is/was born?

6. Were you trying to have a baby?

7. [If pregnancy was not intentional] Were you two using any kind of birth control?
   a. If yes, what kind?
   b. If no, why not? (Difficulty accessing, cost, didn't like side effects, looking to get pregnant, didn't believe in it, didn't have enough knowledge about, etc).

8. Did you consider whether your girlfriend/ fiancée/ wife should have an abortion? Can you talk to me a little about that?
   a. Do you know - is there anywhere to get an abortion near here?
   b. Do you think many people in this community think abortions are okay?

9. Do you think you'll want to have more children?
   a. [If yes], how long do you think you'll wait?
   b. Will you use birth control in the meantime?
   c. Did anyone talk to you about using birth control after your baby was born?

Prenatal Care

I'd next like to ask you a few questions about your girlfriend/ fiancée/ wife's access to prenatal care.

10. **Did you go with your girlfriend/ fiancée/ wife to any prenatal care visits?
    a. What was that like? Did you go into the exam room for the visits? Did the doctors talk to you as well as the mother?

11. Besides medical care, did you and your girlfriend/ fiancée/wife receive any other special services when she was pregnant, such as parenting education, social worker services, nursing services, home visiting services, etc?

    Can you tell me about them – including the name of the program?
    a. What was it like? How did you like it?
    b. What was helpful – and what was less helpful?

Parenting

I'd like to change topics now – to parenting, including how things are going, what kind of supports you have, etc.

12. **To start, how involved are you in the care of the baby? Can you talk a little about your role as father?
    a. Do you live with the baby? About how much time do you spend with the baby each day or each week?
    b. What kinds of things do you do with the baby? Like do you play with the baby, bathe him/ her, feed him/ her, dress him/ her, take him/ her to see friends or family?
    c. Do you help make decisions about the baby, like who's the doctor and what kind of health care he/ she needs, what he/ she should eat/ drink, where and how to put him/ her to sleep?
    d. What other responsibilities do you have toward the baby? Like helping with the cost of housing, clothing, food, child care, etc? [If applicable} Do you pay child support?

13. ** In general, how is it going?
    a. Are you finding it easy or difficult to be a father?
    b. Why? What's been difficult?

14. **Do you feel like you have the right amount of responsibility for the baby? (not too much or too little)
    a. Given the choice, what would you do differently?
    b. Is there anything that would make you feel more comfortable taking care of the baby?

15. **What are the baby's mother's expectations regarding your role in caring for your baby?
    c. To what extent are they consistent with yours?
    d. [How do you deal with any differences?

16. What's your relationship with her? (good, difficult, great)
    a. How does that affect your relationship with the baby?

17. **Do you have other family or friends in this area? Are you close with them?
    a. Do they help care for the baby? In what ways?

18. Can you tell me about any services you get to help you with parenting, childcare or related topics? These might be educational, social worker services, nursing services, etc. Can you tell me about them – including the name of the program?
    a. In what ways have they been helpful to you?
    b. How far are they from where you live? Is travel ever a problem?

19. Do you have, or have you had, a nurse or social worker come to your home to provide parenting education or services?
    a. What kind of things does s/he talk to you about?
    b. Is this helpful?
    c. What do you think of having someone come to your home?

19. Do you have, or have you had, a nurse or social worker come to your home to provide parenting education or services?
    a. What kind of things does s/he talk to you about?
    b. Is this helpful?
    c. What do you think of having someone come to your home?

19. Do you have, or have you had, a nurse or social worker come to your home to provide parenting education or services?
    a. What kind of things does s/he talk to you about?
    b. Is this helpful?
    c. What do you think of having someone come to your home?

20. Do you expect to help care for your child when he/she is older?
    a. How will you be involved? (e.g. living together, caregiving responsibilities, making decisions)

Background Information

This last set of questions is about you, your life and your community.

21. **How long have you lived in [community name]?

22. **Do you have a job outside the home? What kind of work do you do?

23. Do you have any health or other issues that might affect your ability to care for your child? [Interviewer: Let answer, then ask about each of the following]:
    a. Anxiety, depression, or other mental health issue
    b. Smoking
    c. Alcohol or drug use (alcohol, prescription drug abuse, non-prescription drug abuse)

24. **Do you pay child support for any of your other children? (where applicable)

We're very interested in understanding how pregnancy and parenting might be different in different communities. Particularly, we would like to know in what ways the size of the community makes parenting easy or difficult.

25. **Can you talk about how being a parent might be easy or harder here in this rural community, as compared to other communities? For example:
    a. Are all the services you need here? Are they easy to get to? Is travel a problem?
    b. Do you feel there are enough—or will be enough—opportunities for you and your baby? (jobs, schools, other programs)
    c. How about social support – is this a good community to be a parent or not?

Conclusion

26. Is there anything you would like to add – a question we missed or some extra information?

27. Is there anything you would like to ask me?

Thank you so much for your time.

Table 1: Hotspot Communities, Characteristics in top Quartile, 2007-2009

County City/Town (ZIP code)	Low Birth Weight	Infant Death Rate	Late/no Prenatal Care	Teen Pregnancy Rate	Poverty Rate (%)
Cattaraugus					
Hinsdale (14743)	X			X	9.6
Olean (14760)		X		X	11.8
Cattaraugus/Chautauqua					
Perrysburg (14129)			X	X	11.6
South Dayton (14138)	X		X		13.6
Gowanda (14170)		X	X	X	10.3
Conewango Valley (14726)	X		X		24.3
Cherry Creek (14723)	X		X		11.3
Erie County					
Buffalo (14210)		X		X	41.9
Buffalo (14204)			X	X	31.9
Buffalo (14207)	X	X		X	21.5
Buffalo (14208)	X	X	X	X	23.2
Buffalo (14209)	X		X	X	25.5
Buffalo (14211)	X	X	X	X	29.9
Buffalo (14212)	X		X	X	32.4
Buffalo (14213)		X	X	X	36.6
Buffalo (14214)	X	X	X	X	16.7
Buffalo (14215)	X	X	X	X	21.6
Buffalo (14218)		X		X	12.2
Niagara					
Niagara Falls (14301)	X			X	22.8
Niagara Falls (14303)	X	X		X	21.2
Niagara Falls (14305)	X	X		X	18.2

Table 2: Participant Characteristics, Mothers

	Cattaraugus n(%) 6	Cattaraugus/ Chautauqua n(%) 4	Erie n(%) 23	Niagara n(%) 10	
Age, mean (SD)	24.3(4.71)	28.5(4.93)	25.5(.58)	23.9(4.77)	24.1(3.93)
≤ 19	7(16.3)	0(0.0)	Total	5(21.7)	2(20.0)
20-24	19(44.2)	1(16.7)	n(%)	(43.5)	4(40.0)
25-29	9(20.9)	3(50.0)	N43	3(13.0)	3(30.0)
30+	8(18.6)	2(33.3)	0(0.0)	5(21.7)	1 (10.0)
Race/ethnicity*					
Black	17(39.5)	0(0.0)	0(0.0)	11(47.8)	6(60.0)
Hispanic	12(27.9)	0(0.0)	0(0.0)	11(47.8)	1(10.0)
White	21(48.8)	6(100.0)	4(100.0)	4(17.4)	7(70.0)
Place of birth					
New York State	33(76.7)	6(100.0)	4(100.0)	13(56.5)	10(100.0)
U.S. outside of NYS	3(7.0)	0(0.0)	0(0.0)	3(13.0)	0(0.0)
Outside of U.S.	7(16.3)	0(0.0)	0(0.0)	7(30.4)	0(0.0)
Language of interview					
English	38(88.4)	6(100.0)	4(100.0)	18(78.3)	10(100.0)
Spanish	5(11.6)	0(0.0)	0(0.0)	5(21.7)	0(0.0)
Education					
Not a high school grad	18(41.9)	0(0.0)	1(25.0)	13(56.5)	4(40.0)
High school grad/GED	13(30.2)	3(50.0)	2(50.0)	6(26.1)	2(20.0)
Some college	10(23.3)	2(33.3)	1(25.0)	4(17.4)	3(30.0)
College graduate	2(4.7)	1(16.7)	0(0.0)	0(0.0)	1(10.0)
Employment					
Working full time	6(14.0)	1(16.7)	2(50.0)	3(13.0)	0(0.0)
Working part time	7(16.3)	2(33.3)	0(0.0)	4(17.4)	1(10.0)
Not working	30(69.8)	3(50.0)	2(50.0)	16(69.6)	9(90.0)
Insurance					
Medicaid	32(80.0)	3(50.0)	1(25.0)	19(95.0)	9(90.0)
Private	5(12.5)	2(33.3)	1(25.0)	1(5.0)	1(10.0)
None	3(7.5)	1(16.7)	2(50.0)	0(0.0)	0(0.0)
Lives with*					
Partner	15(34.9)	2(33.3)	3(75.0)	6(26.1)	4(40.0)
Spouse	7(16.3)	4(66.7)	0(0.0)	2(8.7)	1(10.0)
Parents	6(14.0)	0(0.0)	0(0.0)	5(21.7)	1(10.0)
Neither partner nor parent	15(34.9)	0(0.0)	1(25.0)	10(43.50)	4(40.0)
Currently pregnant	7(16.3)	1(16.7)	0(0.0)	4(17.4)	2(20.0)
Number of children					
1	19(44.2)	1(16.7)	3(75.0)	11(47.8)	4(40.0)
2	11(25.6)	3(50.0)	1(25.0)	4(17.4)	3(30.0)
3	8(18.6)	1(16.7)	0(0.0)	6(26.1)	1(10.0)
≥4	5(11.6)	1(16.7)	0(0.0)	2(8.7)	2(20.0)

Table 3: Participant Characteristics, Fathers

	Cattaraugus n(%) 8	Cattaraugus/ Chautauqua n(%) 4	Erie n(%) 1	Niagara n(%) 3
Age, mean (SD)	25.6(5.24)	24.3(2.87)	21.0	29(7.21)
20-24	5(62.5)	3(75.0)	1(100.0)	1(33.3)
25-29	1(12.5)	1(25.0)	0(0.0)	0(0.0)
30+	2(25.0)	0(0.0)	0(0.0)	2(66.7)
Race/ethnicity*				
Black	2(25.0)	0(0.0)	0(0.0)	2(66.7)
White	6(75.0)	4(100.0)	1(100.0)	1(33.3)
Place of birth				
New York State	6(75.0)	3(75.0)	1(100.0)	2(66.7)
U.S. outside of NYS	2(25.0)	1(25.0)	0(0.0)	1(33.3)
Education				
Not a high school grad	3(37.5)	1(25.0)	0(0.0)	2(66.7)
High school grad/GED	2(25.0)	1(25.0)	0(0.0)	1(33.3)
Some college	1(12.5)	0(0.0)	1(100.0)	0(0.0)
College graduate	2(25.0)	2(50.0)	0(0.0)	0(0.0)
Employment				
Working full time	4(50.0)	3(75.0)	0(0.0)	1(33.3)
Not working	4(50.0)	1(25.0)	1(100.0)	2(66.7)
Insurance				
Medicaid	4(50.0)	1(25.0)	0(0.0)	3(100.0)
Private	2(25.0)	2(50.0)	0(0.0)	0(0.0)
None	1(12.5)	0(0.0)	1(100.0)	0(0.0)
Don't know	1(12.5)	1(25.0)	0(0.0)	0(0.0)
Lives with*				
Partner	4(50.0)	1(25.0)	0(0.0)	2(66.7)
Spouse	4(50.0)	3(75.0)	1(100.0)	1(33.3)
Number of children				
1	4(50.0)	2(50.0)	1(100.0)	1(33.3)
2	2(25.0)	2(50.0)	0(0.0)	0(0.0)
3	1(12.5)	0(0.0)	0(0.0)	1(33.3)
≥4	1(12.5)	0(0.0)	0(0.0)	1(33.3)

*Multiple responses possible.

Table 4: Health Behaviors, Mothers

	Cattaraugus n(%) 43	Cattaraugus/ Chautauqua n(%) 6	Erie n(%) 4	Niagara n(%) 23	10
Current use of birth control					
All the time	23(53.5)	4(66.7)	2(50.0)	12(52.2)	5(50.0)
Some/most of the time	8(18.6)	1(16.7)	0(0.0)	5(21.7)	2(20.0)
None of the time	3(7.0)	0(0.0)	0(0.0)	3(13.0)	0(0.0)
NA/not sexually active	9(20.9)	1(16.7)	2(50.0)	3(13.0)	3(30.0)
Receipt of prenatal care					
Within first trimester	36(83.7)	5(83.3)	3(75.0)	18(78.3)	10(100.0)
After first trimester	7(16.3)	1(16.7)	1(25.0)	5(21.7)	0(0.0)
Drug use during pregnancy					
Cigarettes	8(19.0)	1(16.7)	0(0.0)	4(18.2)	3(30.0)
None	34(81.0)	5(83.3)	4(100.0)	18(81.8)	7(70.0)
Health conditions during pregnancy					
Diabetes	1(2.3)	0(0.0)	0(0.0)	1(4.3)	0(0.0)
Preeclampsia	3(7.0)	1(16.7)	0(0.0)	2(8.7)	0(0.0)
Hypertension	2(4.7)	0(0.0)	0(0.0)	2(8.7)	0(0.0)
Depression/ mental health issues	6(14.0)	0(0.0)	0(0.0)	4(17.4)	2(20.0)
Other	3(7.0)	2(33.3)	0(0.0)	0(0.0)	1(10.0)
Breastfeeding					
None	12(28.6)	3(50.0)	1(25.0)	7(31.8)	1(10.0)
Currently	8(19.0)	2(33.3)	1(25.0)	2(9.1)	3(30.0)
In past	22(52.4)	1(16.7)	2(50.0)	13(59.1)	6(60.0)
Moths breastfed, mean (SD)	2.8(1.83)	7.0	2.5(2.12)	2.6(1.32)	2.5(2.11)

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