Mitchell and Yancey Counties Perinatal Survey Assessment

Fall 2021

Mission Health closed the Labor & Delivery (L&D) Department at Blue Ridge Regional Hospital (BRRH) in October 2017. L&D services were sourced to their other hospitals in Marion (McDowell County) and Asheville (Buncombe County). Mission Health hospitals were sold to Hospital Corporation of America (HCA) on February 1, 2019. The impact of this closure is the topic of this research report.

This research was funded by a grant through AMY Wellness Foundation to Mountain Community Health Partnership, who contracted with Blue Ridge Partnership for Children to carry out the work. The researchers were Molly Rouse, Natalie Monaghan and Heather Dawes.

A survey was posted on a local community Facebook group and received responses from 176 mothers. Also surveyed by telephone were eleven non-medical providers and eight medical providers. There was strong agreement among mothers and providers about the effects of the L&D Department closure.

Common challenges and recommendations from the respondents are listed below. Following these are a brief description of survey limitations and a summary of findings, as well as the list of appendices.

Challenges

Increased distance to L&D services causing:

- Increased stress and anxiety (uncertainty of travel, birthing center and medical personnel)
- Long travel time to care settings and/or lack of reliable transportation
- Lack of personal connection with care providers (providers are scheduled for minimal medical assessments only)
- Mothers released from hospital too quickly following birth

Postpartum care and support are “falling through the cracks” due to:

- Local medical providers are not involved in perinatal care
- Distant pregnancy care providers are not easily accessible
- Insufficient number of non-medical providers (caseloads are unmanageable)
- Insufficient coordination of perinatal work/needs between agencies

- Lack of social connection with peers/other mothers
- Lack of mental health counseling

Deficiencies in:

- Childbirth education, including information about interventions such as induction, epidural, and C-section
- Maternity and infant supplies
- Reliable, low-cost transportation
- Safe, affordable housing

Recommendations

Local labor and delivery services and/or a birthing center, plus:

- Alternative options like home birth and a mobile well-woman/obstetrics (OB) unit
- Bilingual comprehensive binder given at first prenatal visit, with complete list of local resources updated every six months
- Effective communication methods for Latinx community, including written materials and in-person bilingual advocates during visits and birth
- Ample time for medical providers to converse with patients in-person before and after delivery; preservation of family doctors in perinatal care

Postpartum care:

- Continuity of care/support person from prenatal through delivery and postpartum
- In-home postpartum support with breastfeeding, household chores, someone to talk to, and time for personal care
- Better mental health support and resources, free or low-cost

Resources:

- Local childbirth, breastfeeding and parenting classes with transportation and childcare provided (which also builds peer community for parents)
- One-stop shop, pregnancy education and resource center providing classes, counseling, supplies, support groups, etc.
- Location providing clothes, food, diapers, showers and other material needs free of charge, with transportation provided
- Affordable, quality housing (increase in United States Department of Housing and Urban Development [HUD] housing as well as a watch group to ensure livable conditions)

Basic Needs:

- Women's shelters/safe houses
- Affordable, quality childcare
- Reliable, affordable (or free) transportation[1]
- Increased availability of financial support for transportation, medication, childcare, phone service, housing

Limitations

The research survey was completed voluntarily by mothers who largely learned of the survey through a social media platform or by word of mouth. As a result, there are groups of mothers that are underrepresented in the survey sample, such as teenage mothers (only one survey respondent; in 2019 there were six mothers 15-17 years of age, see App. B). Latinx mothers are also likely underrepresented in the survey sample (in 2019, there were 47 Hispanic mothers, see App. B). Six survey respondents completed the survey with the aid of a Spanish-language interpreter. However, since the online mothers' survey did not collect racial demographic information, it is not clear whether other Latinx mothers completed the survey. Similarly, mothers with substance use disorders are likely underrepresented in the survey sample.

Summary of Findings

The closure of L&D at BRRH has increased the risk for poor birth outcomes in Mitchell and Yancey counties, particularly for mothers experiencing poverty, substance use disorders, alienation or isolation. Mothers and infants lack support from local care providers as these connections have been, in effect, erased from the continuity of care. The loss of local services, including prenatal education classes, lactation support, and OB care, that were connected to BRRH L&D and thereby local medical providers, have resulted in mothers being less prepared for labor and becoming a parent; less empowered to advocate for their and their baby's needs; and less likely to receive comprehensive, coordinated perinatal services.

Barriers to accessing services that existed before the loss of the BRRH L&D are exacerbated by the need to travel longer distances to receive them. These barriers have structural dimensions, such as lack of transportation or means to afford gas, lack of childcare during appointments and hospital stays, and also individual dimensions, such as the absence of a trusting relationship with non-local physicians who deliver their child, and the lack of social support to cope with the

[1] Yancey and Mitchell Transportation Authorities Mitchell endeavor to meet the community needs of reliable, affordable transportation. Mothers, however, report that scheduled trips have been canceled and that Asheville trips have to accommodate the needs of all the passengers. This can add significantly more time away from home.

changes necessitated by pregnancy and having a newborn in geographically isolating landscapes. With no one agency assuming responsibility for monitoring county-level birth outcomes and coordinating reparative efforts, mothers and babies are falling through the cracks of the existing array of services.

A broader, holistic vision of the perinatal system of supports is needed to provide a stronger safety net of care that is protective of birth outcomes extending beyond the medical aspects of pregnancy. To be accessible, this system must be geographically local, with a protocol in place between agencies to ensure mothers who must be served non-locally are returned to their local community for nested care. For our mothers and babies to thrive, the system must increase access to high quality, comprehensive preventative care, use an equity lens, be relationship-centered with access to social support, and empower families with the knowledge and skills to take an active role in the care provided them.

List of Appendices

Appendix A: Mothers' Survey Responses

Process and Population

Survey

The Mothers' Survey was created using Google Forms. A QR code link to the survey was printed on posters that were distributed around Burnsville and Spruce Pine. The response to the posters was negligible. Later, a link to the survey was posted on the Facebook group *Burnsville Hub*. Over 120 people filled out the survey within the first day the link was posted. While *Burnsville Hub* is targeted to Yancey County residents, almost an equal number of survey respondents were from Mitchell County. Head Start interpreter Rachel Weir helped collect some Spanish-language surveys through her work. In the end, 176 mothers completed the survey.

Survey Respondents

The survey population is comparable demographically with the 2020 US Census Bureau data. The Census Bureau data indicates that Mitchell and Yancey counties are very similar. This report views the two counties as one region. The following table however, shows certain demographics of the survey population that differ from the Census Bureau data.

Population Demographic	Mother Survey	2020 Census Bureau (avg. of Y/M)
% Non-English speaking[2]	3.4%	5.4%
Some High School	9.6%	15.1%
High School and up to Two Years of College	58.5%	62%
Bachelor's Degree or Higher[3]	31%	20.4%
Living in poverty[4]	48.8% (Pregnancy Medicaid)	14.45%

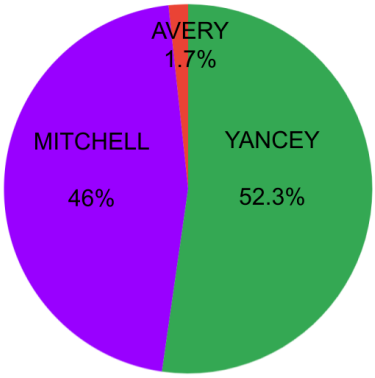
[2] Latinx mother surveys were completed in Spanish and/or with the help of an interpreter.

[3] The survey population showed a higher rate of college-educated women than the general population. This may be due to the younger average age of survey respondents compared to the community as a whole, as well as the avenue of access to the survey.

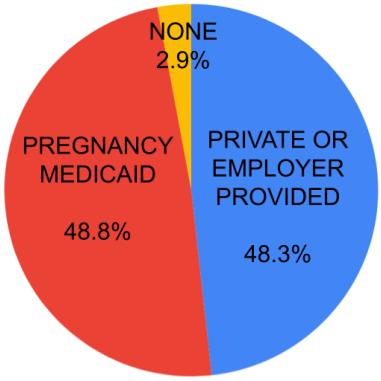
[4] To qualify for Pregnancy Medicaid mothers must be at 196% of the Federal poverty guideline, whereas the 2020 Census Bureau percentage is based on 100%. This is not a direct comparison but is worthy of note, especially when considering the survey population are 16 to 44 years in age.

The following charts provide additional information about the survey population.

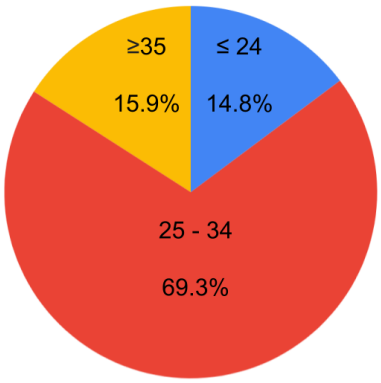
County of Residence:



Insurance Type:

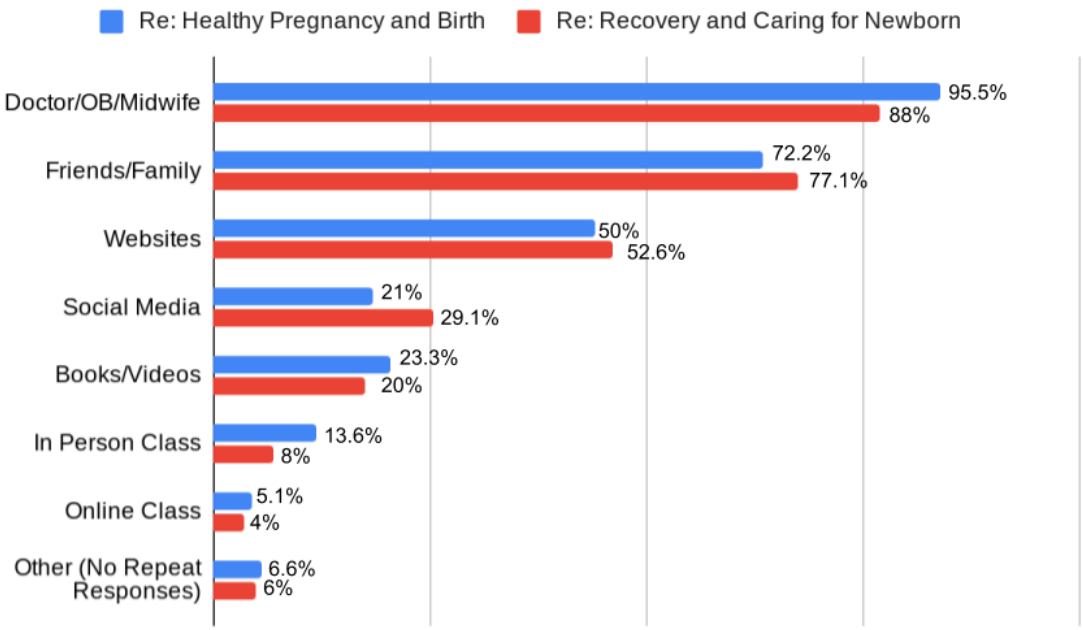


Age in Years:



Education and Outreach

How People Learn about Pregnancy, Childbirth, and Parenthood:
Respondents were asked to choose their top three sources of information.



Information Received during Prenatal Visits:
In the survey, mothers were given a list of topics and asked to rate them by how much information they received during prenatal visits with their provider. Response options were:

Plenty of information; Some information; No/little information, and I would LOVE more information on this topic; or No information, but that is OK.

A majority of mothers selected an option other than "Plenty of information" for the following topics. The percentages listed below represents the summation of all the other choices and roughly estimates how many mothers would welcome additional learning/help.

- 67.0% What support you will need after giving birth (making sure other people can help with cooking, cleaning and laundry to keep household running)
- 59.7% Support options during labor (what support is available for pain management, emotional comfort)
- 58.5% How to talk with health providers about what you want (how to communicate effectively so that your wishes are respected and honored)
- 56.2% The importance of sleep/rest, diet, and calm during postpartum recovery
- 56.2% Caring for your newborn (diapering, dressing, bathing, soothing, bonding, etc.)
- 54.0% Infant feeding (breastfeeding and/or bottle feeding)

Over 71.2% of mothers who selected options other than "plenty of information" indicated they would be interested in learning more about those topics. For those mothers that did not find more information online themselves, 40% wanted in-person learning and 60% wanted online learning. A small number of mothers specifically requested in-person classes.

Helpful Resources:
The education portion of the survey ended by asking what specific resources mothers found most helpful or supportive. The responses largely aligned with the top sources of information. There were two important additions: lactation consultants were listed second after Doctors/Midwives, and Apps were as popular as books. Appendix C is a list of specific helpful resources mothers volunteered.

Challenges

Increased Travel Time:
The following information highlights challenges caused by the increased travel time, as reported by the surveyed mothers.

- 80.7% traveled over 45 minutes to give birth.
- Over 66% experienced increased stress and anxiety about travel and birth, and fear of delivering in the car. Mothers managing high risk pregnancies or other health issues experience even greater stress/anxiety.

- **35% had scheduled inductions**[5] (One provider suggested this may be a defensive posture for physicians who have not met their client and recognize a greater travel time may present complications.)
- 11% had scheduled C-sections
- Lack of reliable transportation
- Being away from older children for a longer period of time
- Discomfort with unfamiliar medical providers

Being Prepared for Childbirth and Postpartum Period:
When asked what they wish they had learned during pregnancy, mothers described these challenges.

The most mentioned challenges were during the postpartum period. This included breastfeeding education and support; general postpartum education; social and in-home support; physical recovery; and specific mental and emotional challenges.

- *"How hard postpartum would be. The emotional toll it takes on a new parent. By far the hardest part."*
- *"I suffered from postpartum depression with both of my pregnancies. I wish it was more talked about and normalized."*
- *"I wish I had learned more about breastfeeding. My baby had a tongue tie and wasn't getting enough milk. We didn't find out until I had already given up."*

Many mothers also mentioned challenges regarding childbirth education. This included topics such as stages of labor, what is normal, options/choices in the hospital, pain management techniques, and information about specific interventions such as induction, epidural, and C-section.

- *"I was never told the pros and cons of actual [natural] childbirth. As well as what to do and what not to do."*
- *"That there are several pain-control options before an epidural."*
- *"I would have liked to have been educated on what an emergency C-section would be like and entail, prior to going for my induction. I ended up in a very traumatic, postpartum hemorrhage C-section."*

[5] The national induction rate is 24.5%. The World Health Organization states, "Induction of labor should be performed only when there is a clear medical indication for it and the expected benefits outweigh its potential harms." Induction was cited as something people wished they had learned more about during pregnancy approximately 10 times in the survey.

- *"I would like to have known more about being induced vs. letting the baby come on his/her own."*

Continued Care:
When asked what they wish they could do or have for themselves or their babies as new mothers, these are the topics that came up.

Home support during the postpartum period was the most common topic. This included: wishing for more in-home postpartum help or social support in general, help with household chores or childcare, hands-on breastfeeding support and learning to care for their new baby.

- *"A postpartum doula or family help for the first week or so."*
- *"Lots of support, meals provided to me."*
- *"Better support at breastfeeding. I got none from the hospital, who released me less than 24 hours after giving birth when I could barely even walk."*
- *"I wish lactation consultants would reach out every so often to moms. It was such a hassle to get in touch with one. I also wish they would've made home visits for moms that were nursing."*
- *"Information about bathing and feeding the baby, crib, baby bath, etc."*

Material and social resources are significantly lacking for many of the mothers surveyed. This includes financial stability, material goods, personal healthcare, medical resources closer to home, social connections with peers and childcare.

- *"I would like to have a place to live."*
- *"Affordable and reliable childcare available to parents who work second and third shifts."*
- *"Not to be stressed and in a toxic home."*
- *"Women's circles for learning and sharing. I'm very isolated on the mountain. Seems like there are limited places to gather after the pandemic."*
- *"Diapers. More unemployment money or other kinds of financial support."*

Hopes and Dreams

80% of the mothers responded to the question: "If you had all the time and money in the world, what would you create to support the happiness and health of new babies and families in Yancey and Mitchell counties?" This was by far the greatest response rate to an open-ended question on the survey. Listed here are the topics mentioned in order of frequency.

1. Local Labor & Delivery or Birth Center

(This response was given three times more frequently than the next popular response.)

- *"I would love to see experienced and passionate OBs to serve the Yancey County community, as well as a safe place for delivery. Driving at least 45 minutes to receive competent prenatal care is a disservice to the women of this community, not to mention an added stress when it comes time for delivery."*

2. General postpartum support: in-home, household, doulas, etc.

- *"Extra help during the postpartum period. Not everyone has a huge support system, spouses have to continue going to work, or of course there are single moms. I think someone to just check in a few times a week. Maybe help with housework, let mom take a shower, or just be someone to talk to during a time you really aren't able to be out and about or do all the things you're used to."*
- *"I would create an option for new mothers to have a team of … women to come in and clean and organize new mothers' homes, to help out them once a week with whatever they need done. The women will provide support and words of encouragement to the new mother and provide anything the mother needs for her baby that she may not have the time or energy to go get that week."*

3. Childbirth and parenting classes.

- *"General information sessions regarding caring for baby, breastfeeding, important things to watch for before/during/after birth, preparation for trying to conceive, etc."*
- *"A space where new parents could come and learn about healthy parenting styles."*

4. Financial and material resources: housing/shelter, diapers, clothes, food, etc.

- *"A place that was open 24/7 where mothers with little to no resources could come and get food, clothes, take a shower, or sleep, if they had nowhere else. Children's items would also be available, such as clothes, food, help with homework and studies… and transportation to school and appointments would be included."*

5. Peer parent support groups

- *"Better support networks with local mothers. Getting information from professionals is great but sharing experiences with other new or established mothers would be wonderful."*

6. Good quality childcare, preschool

7. Breastfeeding education and support

8. Education and resource center, a 'one-stop shop' for supplies and information.

- *"Pregnancy center with lactation consultants, postpartum support, therapy, options for new mom and baby support with care, classes for expecting families."*
- *"A pregnancy center at Bald Creek School to help single moms / struggling moms or with anything in general new moms and dads need help with! Classes before and after pregnancy! Especially focusing on the first two years but offer services to age 5."*

Appendix B: General Population Pregnancy Statistics

Avery, Mitchell and Yancey Counties prepared by Shannon Dowler, DHHS							
Time period	**Total Births**	**Low Birthweight Births <5.5#**	**% LBB**	**Preterm <37 weeks**	**% Preterm**	**C-Section Deliveries**	**% C-Section**
CY2019	436	32	7.3	46	10.6	130	29.8
2017-2020 avg	446	39	8.7	53	11.9	138	30.9

2019 NC Resident Pregnancy Rates for Mitchell and Yancey Counties from NC Center for Health Statistics				
Pregnancies	Total	White non-Hispanic	Black, non-H	Hispanic
Mitchell 2019, 2020	134, 149	117, 138	0, 0	15, 10
Yancey 2019, 2020	184, 196	164, 170	1, 0	32, 24
Ages 15-17	6	4		2
Mitchell	4*	3		1
Yancey	2	1		1
Ages 18-19	25	22		3
Mitchell	8	7		1
Yancey	17	15		2
Ages 20-34	249	218		21
Mitchell	105	94		11
Yancey	134	124		10
Ages 35 +	43	37		6
Mitchell	15	13		2
Yancey	28	24		4
Infant Deaths				
Mitchell 2019, 2020	1, 1	1, 1		
Yancey 2019, 2020	0, 1	0, 1		

*Note: Red is used to denote significant differences in numbers between Mitchell and Yancey counties.

Appendix C: Helpful Resources Mothers Found

Care facilities:	Classes at MAHEC, Asheville
	County Health Departments
	County WIC office
	Harmony Center for Women, Boone
	Homegrown Babies, Asheville
	Infant CPR Class
	Mauzy-Phillips Center, Spruce Pine
	Tri-County Pregnancy Center, Burnsville
Internet/Purchased:	Hypnobabies
	Kelly Mom (Website)
	Lactation Link
	Mama Bees (Facebook page)
	Survivor Services (Creating a birth plan)
	The Bump (App)
	Thompson Breastfeeding Method
	What to Expect (Book and App)
	YouTube

Appendix D: Mothers' Survey Questions

1. First Name
2. Age
3. County of Residence
4. Choose the highest level of education you have completed
5. When was your baby born?
6. Where did you give birth?
7. What type of insurance did you have for your pregnancy and birth?
8. If you had a baby at Blue Ridge Regional Hospital before the closure of the Labor and Delivery in October 2017, how did that experience compare to your most recent birth?
9. How much time (minutes) did it take you to get to your birthing location?
10. How did you get to your birthing location (your car, rental car, friend or family car, county transportation, ambulance, etc.)?
11. What sorts of challenges did you face because you have to travel farther than Spruce Pine to your birthing location?
12. What were your top 3 sources of information for how to have a healthy pregnancy and birth?
13. What are your top 3 sources of information about recovering from birth, caring for your newborn, and breastfeeding?
14. What information, classes, websites, doctors, nurses, community organizations, etc., have been most supportive during your pregnancy and after birth? What made them helpful or useful?
15. Did you take a childbirth education class?
16. During pregnancy, did you receive information about the following topics? [Healthy Pregnancy, Warning Signs, Medicine Use during Pregnancy, Effective Communication with Medical Providers/ Advocating for Self in a Medical Setting, Support Options during Labor, Postpartum Recovery, What Support You Will Need After Birth, Caring for Your Newborn, Infant Feeding]
17. If you had the chance to learn more about these topics, would you?
18. If you answered "No" to the question above, please tell us why.
19. Is there anything you wish you had learned during your pregnancy to better prepare you for birth or parenthood?
20. What do you wish you could do or have for your baby or yourself as a new mom?
21. If you had all the time and money in the world, what would you create to support the happiness and health of new babies and families in Yancey and Mitchell counties?

Appendix E: Non-Medical Provider Responses

Eleven non-medical providers gave their perspectives on the issues for pregnant and postpartum mothers and their infants. Their jobs range from: Peer Support Specialists to a Nutritionist and Breastfeeding Peer Counselor to a Care Coordinator for Children. The surveys were conducted by phone. Appendix F provides an index of the respondents. Appendix G is the Non-Medical Provider Survey. Phone surveyors were unable to get in contact with the Department of Social Services or Mitchell County Safe Place. Yancey County no longer has a shelter for women and children.

Note: This summary was shared and reviewed by Cassie Burleson, MCHP; Nickey Stamey, Blue Ridge Healthy Families; and Rachel Towler, Toe River Health District – Avery County.

About the Non-Medical Providers

All non-medical providers are involved in education and/or resource support guidance for families. They are also involved with outreach to moms who are experiencing poverty, diagnosed with a mental illness, and/or experiencing substance use disorders. The range of clients for these providers is 3-120 per month.

Note: While there was a tremendous response to the Mothers' Survey posted via a link on the Burnsville Hub (Facebook), there is no way to discern whether mothers experiencing substance use disorders or abject poverty[6] were among the respondents. The non-medical providers deliver services to these mothers.

Communication/Education

Provider outreach is primarily by phone or in-person visits. Resources and education materials are shared with clients during these interactions in a variety of ways. The most common modes of sharing are verbal, through online links, and handouts given in-person or mailed in packets. Text messaging is also stated as a useful tool.

Disparities in reaching clients were cited as: technology access, transportation access, poverty and/or substance use disorders, and language barriers. In the case of crisis intervention, these

[6] Abject poverty is severe poverty defined by the United Nations (UN) as "a condition characterized by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education and information."

providers are often the only people who respond to the needs of the low-to-no resources community.

Challenges

The mothers seen by these non-medical providers are observed to be the hardest hit by the lack of local L&D services. The issues they experience stem from unreliable transportation, increased anxiety/stress/depression, lack of support in acquiring new skills (such as breastfeeding, obtaining a driver's license), and an inability to access limited resources (due to transportation or knowledge). Additionally, Pregnancy Care Managers, one for each county, have been unable to accompany their clients to their medical appointments due to COVID-19 restrictions. Care Managers are often key supports to provider communications with their clients.

Note: One provider said Mission McDowell does a really good job with breastfeeding. They promote kangaroo care and anti-pacifier use, while the mothers are at the hospital.

Abject poverty and/or substance use disorders greatly exacerbate the problems. There is a need for childcare, HUD housing, safe houses and local substance use treatment. In addition, these mothers have increased fear of encountering the Department of Social Services and the police in other counties. In crisis, mothers reach out to the non-medical providers first, by phone.

Note: A watch group is needed to monitor existing HUD housing landlords. Women fear eviction if they complain or fail to comply with landlord demands. (Ex. conditions of faulty wiring, roaches, mold, etc.)

A few new side effects believed to be due to the lack of a local L&D Center include an increase in scheduled inductions and mental health instability.

Reflections from the survey:

- *"The anxiety and nervousness are probably the biggest change. There are fears of traveling to give birth and barriers regarding transportation. . . Some women struggle with the idea of an induction altogether, but feel they're not left with much of an option."*

- *"There is a lot of anxiety and depression. One client had suicidal ideation. There was no one to call in, so I (the provider) talked them through it. . . For another family, I rented a car for them to make it to Asheville for delivery."*

- *"I see an increase in anxiety/depressed moms. New moms that are in treatment for substance abuse give birth to babies with addiction. Neonatal Abstinence Syndrome is high,*

not decreasing. These moms don't have resources for mental health issues, children's behavioral issues, toxic stress, or finances."

- *"I know of one young woman who was homeless. She drove herself an hour away to give birth to her baby, alone."*

- *"There is definitely discrimination for families of color (mostly Latinx). Many moms and families are scared to get or ask for help because of language barrier and legal status. They won't share much information. She (the provider) often leaves things on their porches. It takes a lot of time to build trust. Often there are huge families living together. They aren't treated well; sometimes the men aren't paid for their work."*

Ideas for Improvement

Resources, [8 of 11 respondents]:

1. A program for home visits that includes training/assistance with breastfeeding, childcare, cleaning, laundry, and whatever else is needed by the mother. This could be a peer group arrangement or a doula service.

2. A center for:
    - Parenting classes
    - Donation room, just for babies and new mothers needing material goods
    - Maintaining an intuitive pathways system navigator/one-stop shop to help pinpoint and access best resources, as well as a comprehensive binder given at the first prenatal visit (listings could range from providers that accept Medicaid, to where to procure baby clothes.)

Note: Healthy Families provides products and teaches parenting basics. Participants do not have to fit any criteria; they simply need to be referred by someone. Participants are served for up to three years. There are three full-time case workers. As of March 2022, there were 10 slots available.

TRHD Maternity Care Managers are engaged with high-risk pregnancy clients and those who are covered by Medicaid. They often serve as an advocate between the mother and medical provider/hospital, as well as find needed resources (including getting diapers).

Tri-County Pregnancy Center offers parenting classes to earn Baby Bucks that may be used in their baby supply store. In addition, Charis Children's Foundation gives out baby beds.

3. An in-county crisis team.

Note: Yancey County has hired Evan Carroll as a Community Paramedic (828-284-6649). Evan previously was a paramedic, and currently checks on clients who are in opioid detox. In crisis, EMS refers clients to him, and he is a support for crisis management until RHA out of Asheville sends a team.

Women's Health, [8 of 11 respondents]:

- Continuity of care from pregnancy through postpartum, with primary care OB support before the baby is born
- Mobile well-woman care unit
- Local rehabilitation center / recovery support
- Home behavioral health specialists
- Intentional community/peer building programs
- More mental health providers who provide low/no cost services (OB and otherwise)

Housing, [6 of 11 respondents]:

- Crisis housing *(None available currently)*
- Adequate, affordable housing *(None available currently)*
- Advocates for mothers in HUD housing

Transportation and Childcare, [5 of 11 respondents]:

- A reliable, free/low-cost service
- Help to get a driver's license/ photo ID / Social Security card
- Free/low-cost childcare, in home or at a center, while mothers seek pregnancy related services

Delivery, [5 of 11 respondents], with the goal of 40 to 42-week pregnancies:

- Birth center
- Mobile OB units that come to you
- Alternative methods for delivery (e.g., home birth)
- Local hospital access for high-risk moms

Appendix F: Index of Non-Medical Providers

Jessica Beach	WellCare	Medicaid Managed Care, Tribal Outreach Coordinator
Cassandra Burleson	MCHP[1]	C Peer Support Specialist
Amber Dillinger	MCHP	Outreach Manager
Tracey Holmes	Tri-County Pregnancy Center	
Lauren Lumsden	Healthy Blue NC	Medicaid Managed Care, Community Relations
Michelle Riddle	TRHD[2]	Case Manager, Care Coordinator for Children
Brianna Smith	TRHD	WIC, Breastfeeding Peer Counselor
Nickey Stamey	BRHF[3]	BRHF Director, through Toe River Health District, Partners Aligned Towards Health, & Blue Ridge Partnership for Children
Jessica Thomas	TRHD	Director, Nutritionist – Registered Dietitian
Rachel Towler	TRHD, Avery Co. Health Dept.	Maternity Care Coordinator: CMHRP (Care Manager for High-Risk Pregnancies), At Risk Youth Coordinator (Parental Drug Use, High Stress, NICU stay, or referred to CDSA)
Rebecca Church	Intermountain Children's Center, Director	Intermountain Children's Center

[1]MCHP, Mountain Community Health Partnership

[2]TRHD, Toe River Health District

[3]BRHF, Blue Ridge Healthy Families

Note: Yancey County Commissioners voted to remove the county from the Toe River Health District. As of July 2022, Yancey County Health Department will be run by the Yancey County government.

Appendix G: Non-Medical Provider Survey Questions

1. Name, Organization, Job Title
2. Email address
3. Please describe your work.
4. Can we distribute surveys through your organization in the upcoming month to connect with women who have given birth in the last four years?
5. Would any of your clients benefit from a Spanish language survey?
6. How many pregnant or postpartum clients are you working with, on average, per month?
7. What are the most common forms of communication you use with clients (phone, in person, text, email, etc.)? Which do you prefer?
8. How do you share resources/education information with your clients?
9. What do you see as the biggest challenges for pregnant and postpartum moms in Mitchell and Yancey counties?
10. What outside information or resources do you refer clients to most frequently?
11. If you had all the time and money in the world, what would you like to see for new/young families in Mitchell and Yancey counties?
12. What challenging birth outcomes have you heard a lot about or noticed, and have you noticed any trends in birth outcomes in the last four years (premature, low birth weight, significant developmental delays, addiction, etc.)?
13. What, in your opinion, could be done to strengthen birth outcomes so that mothers and babies are healthier?
14. Does your organization do any tracking/data collection of its clients? If so, please describe. We are especially interested in data related to prenatal and/or postpartum education?
15. In your view, what has changed for perinatal families in Yancey/Mitchell since BRRH closed its L&D department? Please describe both qualitative and quantitative changes you have noticed.
16. Please describe any disparities that influence access to education and resources that you notice any of your clients experiencing (language, income, addiction, discrimination, etc.)?
17. Are there any other people in the field you think we should talk with?

Appendix H: Medical Provider Responses

There were eight medical provider respondents. The surveys were largely conducted by phone, with one participant responding via email. Appendix I provides an index of the respondents. Appendix J is the Prenatal Care Provider Survey.

Note: This summary was shared and reviewed by Kirstin Rule, MCHP Certified Nurse-Midwife.

Providers and Caseloads

Group 1: Medical Doctor and Certified Nurse Midwifes [4 of 8]
There is only one Certified Nurse Midwife who practices in Mitchell and Yancey counties. She sees about 40 clients a month. The three providers who practice at Mission McDowell have a client base range of 30-160 mothers. Office visits with clients are allotted 15-30 minutes per visit. The average time spent is 19 minutes and the most common appointment length is 15 minutes.

Group 2: Family Practice Physicians and Physician Assistant [4 of 8]
The three family care physicians practicing in Mitchell and Yancey counties have largely lost the prenatal client base since the closure of L&D at BRRH. The pediatric Physician Assistant sees approximately 70 children (between the ages of 0-4) per month.

These providers allow 45 minutes to an hour for the first visit and 15-30 minutes for subsequent visits. The average time for subsequent visits is 24 minutes, and the most common appointment length is 30 minutes. This is an increase of time allowed by Group 2 over Group 1 of 25% and 100% respectively.

Communication

All providers preferred verbal communication as the primary avenue of conveying information to patients. Group 1 providers were also unanimous in the use of written information for their clients, and one cited the use of websites. Group 2, in addition to verbal, cited written communication [2 of 4] and website use [1 of 4].

Most providers were dissatisfied with the available modes of communication. While verbal was the most preferred, it is hampered by time limitations. Written materials were acknowledged as

often being put in the trash. Recommended websites are good but require devices and cellular service. Patient portals are available but seem to go largely unused.

Note: Time for more one-on-one conversations is lacking, thereby limiting the scope of subject matter and connection, particularly regarding the mother's health and coping skills after delivery. There was a recuring theme among Group 1 providers of wanting a video library that could be viewed on an iPad in the waiting room of any office. These are in use at Mission McDowell. Most providers expressed a need for a comprehensive notebook that offers a complete list of local resources, as well as written material on key issues. Spanish editions would be helpful.

Education

Providers attempt to furnish educational materials on a wide range of topics with their clients. Often the topics are driven by the questions of the mothers. The following is a summary of their concerns.

1. Pre-natal care. Most providers focus on the physical health of the mother and what to expect during birthing.

Note: A TRHD Pregnancy Care Manager helps mothers with Medicaid enrollment (48 percent of the mother survey respondents). The Care Manager attends doctor visits to match resources to needs and follows the mother from prenatal visits through delivery and postpartum. This resource is sorely understaffed. Due to staffing shortages, there has been only one Care Manager for Avery, Mitchell and Yancey counties. In addition, COVID-19 protocols disallowed her from accompanying clients to appointments.

2. Birth. A birth plan/options are discussed, touring the hospital, reviewing inductions, C-sections, pain management and what to expect in labor.

3. Breastfeeding. Mission McDowell has two Lactation Consultants that meet with mothers while they are in L&D. Group 2 providers share information and encouragement and have access to a Lactation Consultant.

Note: One provider observed that only about 35-40% of mothers are breastfeeding. Another stated that only 30% of mothers take advantage of breastfeeding classes available at Mission McDowell.

4. Postpartum. Group 1 providers mainly rely on the hospital's video library that clients can use while they are in L&D. Topics include: contraception, breastfeeding, and postpartum

anxiety/depression. Group 2 begin providing OB and pediatric visits at two weeks of age. They share information about women's health issues, baby care and local resources as requested or needed by patients.

Note: One provider observed that our communities have lost critical care resources since the loss of L&D at BRRH. For ex., jaundice is fairly common, with about 10% of newborns having it. There are no Bili Blankets available locally. Those in need have to go to Marion or Asheville. Local lending resources are needed.

Barriers for Patients

Financial Stress/Substance Use/In Recovery

The survey lumped all three of these tangible attributes into one question. It appears that mothers with substance use disorders or in recovery are a subset of those in financial stress. Their care, as well as their mental and emotional health, is more fragile. The fear and anxiety they experience is exacerbated by the loss of local L&D.

Note: This was expounded upon in Appendix D, the non-medical provider responses.

Financial stress seems to be the kingpin for rural mothers, in that resources are even harder to access than in urban settings. *One provider stated this is probably one of the biggest issues in our area, even more concerning than the lack of OB services.* Financial insecurity impacts transportation, ability to make appointments, ability to pay for medications, childcare, consistent phone service, safe housing, etc.

In The Journal of Rural Health, *Exploration of the Effects of Rural Obstetric Unit Closures on Birth Outcomes in North Carolina,* lead author Margaret Sullivan makes this point:

> An important shared pre-closure characteristic of our study counties [Yancey and Mitchell included] was the high rate of births covered by Medicaid, and the fact that many women, particularly commercially insured, college-educated women, were choosing to deliver out-of-county prior to L&D closure. This pattern highlights that the impact of the closures fell hardest on the patients with the least resources – those already at greater risk to suffer from health disparities.

Latinx Community

In many ways, the Latinx community is a subset of those mothers under financial stress, AND additionally, they experience fear of unknown doctors and nurses, and exposure of documentation status. In addition, the Latinx group also experiences significant language and cultural barriers to receiving services.

Note: There are not many resources available in Spanish. One provider stated that Latinx mothers often don't read Spanish well. Another provider explained that Latinx mothers have a different way of expressing bodily complaints; therefore, [even with in-person (MCHP) or online interpreters (Mission McDowell)], understanding their needs requires extra time.

Challenges

Perceived Patient Challenges

Primarily expressed as the distance to travel for delivery/care.

- *"There have been babies born in the ambulance and in Blue Ridge Regional Hospital ER."*
- *"OB/GYN doctors and Certified Nurse Midwifes are not allowed in the BRRH ER even though they are located across the parking lot and practice out of Mission McDowell. Patients are transported to Mission McDowell. The issue of not having access to mothers in the ER also impacts women experiencing miscarriages. Lack of good emergency care has many implications."*

Financial barriers are also common, including job opportunities and lack of resources. The lack of Spanish-speaking providers was included in challenges.

Note: The Hispanic population is 5.5% of the total population in Mitchell and Yancey counties according to the 2020 Census Bureau. One provider suggested that this number is likely underreported.

Provider Concerns

Provider concerns are related to all issues that stem from the increased distance to the hospital, as well as care for gestational diabetes and babies exposed to drugs in the womb. It was noted that mothers and infants are released from the hospital quickly, and mothers suffer from a lack of continuity of care and personal connections.

Observed Changes

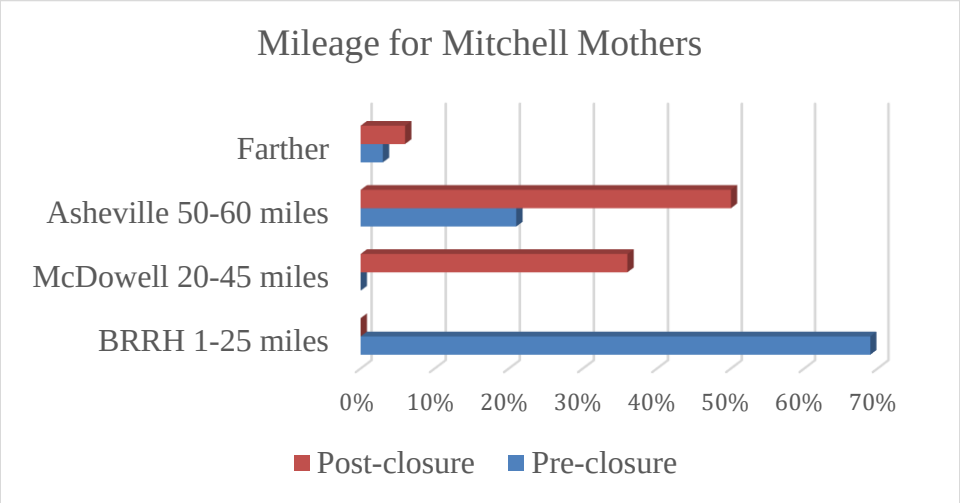
Patients feel less supported, particularly when their situation warrants extra care. Anxiety is greater, particularly as it relates to delivery. As noted previously, there is an increase of births in the ambulance and in the ER[7].

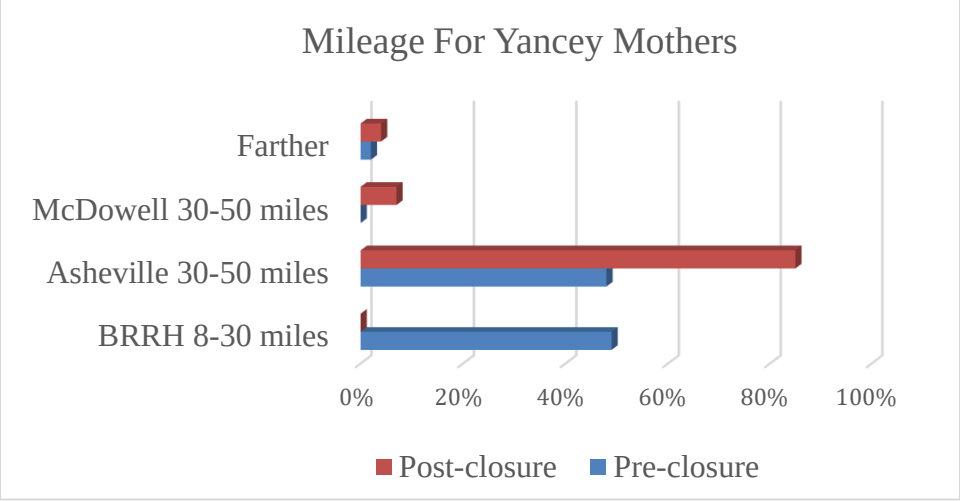
Note: One provider noted that postpartum care seems to be falling through the cracks.

[7] Data was not collected on the number of births in the ER or in the ambulance. This occurrence was stated as an observation by medical provider respondents.

Changes in travel distances: Yancey County mothers go primarily to Mission Asheville for L&D, while Mitchell County mothers go to Mission Asheville or Mission McDowell. As a result of an increase in patients at Mission McDowell coming from Mitchell County, Mission McDowell has set up a women's care office at a non-emergency outpatient office in Spruce Pine.

The percentages reflected below are from the article *Exploration of the Effects of Rural Obstetric Unit Closures on Birth Outcomes in North Carolina.* Actual travel time to the hospitals varies widely due to road conditions.





Reflections

1. Family practice providers want to be involved and afforded more time with their patients. With more time, they would address women's health and well-being issues, such as:

exercise, nutrition, smoking cessation, behavioral health, secondary education opportunities and parenting education. In addition, they would like to provide more postpartum care and support to help alleviate issues of isolation, depression/anxiety, and to match mothers with support networks.

2. Re-establishing Care Managers with reasonable numbers of clients would be ideal.

3. Community resource binder/people are needed.

4. On a state-wide scale, one provider spoke of the need for:
   a. Mandatory paid family leave (state driven), particularly for single mothers.
   b. Improving access to care (i.e., Medicaid Expansion, as NC did not expand this program. Better access would include transportation options.)
      Note: Participation in Pregnancy Medicaid seems to be very successful in Yancey and Mitchell counties. From the mother's survey, only 3% were uninsured.
   c. Access for patients who are ineligible for Pregnancy Medicaid (i.e., undocumented Spanish speaking patients).

Appendix I: Index of Medical Providers

James Carroll	MCHP[1], Mitchell County	MD, Family Medicine & Quality Director
Emily Chappelear	Celo Health Ctr., Yancey County	Physician Assistant, Pediatrics
Alison Christopher	Mission Women's Care, McDowell, Spruce Pine	Certified Nurse Midwife
Angela Logan	Mission, McDowell	Certified Nurse Midwife
Philip Mitchell	Celo Health Ctr., Yancey	MD, Family Medicine and Primary Care
Kirstin Rule	Celo Health Ctr., Yancey, Mission Women's Care, Spruce Pine	Certified Nurse Midwife
Margaret Sullivan	Mission Women's Care, McDowell, Spruce Pine	MD, Obstetrics and Gynecology
Jessica White	Celo Health Ctr., Yancey	MD, Family Medicine

[1]MCHP, Mountain Community Health Partnership

Appendix J: Medical Provider Survey Questions

1. Name
2. Job Title
3. Care facility where you work
4. Email address
5. May we contact you to survey your patients this fall? If you answered "yes" above, would any of your patients benefit from a Spanish language survey?
6. How many pregnant patients are you seeing per month?
7. What do you see as the biggest challenges for pregnant moms in Yancey and Mitchell counties?
8. How much time do you typically spend with a patient in a prenatal appointment?
9. What PREGNANCY information do you share in prenatal visits?
10. What BIRTH information do you share in prenatal visits?
11. What POSTPARTUM information do you share in prenatal visits?
12. What BREASTFEEDING information do you share in prenatal visits?
13. What OTHER kinds of information, if any, do you share in prenatal visits?
14. What outside information or resources do you refer pregnant patients to most frequently?
15. If you had all the time in the world, what are a couple things you'd like to discuss more with your pregnant patients?
16. What do you see as the biggest concerns regarding birth outcomes among families in Yancey and Mitchell counties?
17. What, in your opinion, could be done to strengthen positive birth outcomes so that mothers and babies are healthier?
18. Are you aware of any tracking of pregnant mothers' prenatal education/care and birth outcomes that could be used locally to improve what they receive?
19. In your view, what has changed for perinatal families in Yancey and Mitchell counties since Blue Ridge Regional Hospital closed its OB department? Please describe both qualitative (how patients say they are feeling) and quantitative (anything measurable) changes you have noticed.
20. Please describe any disparities or barriers to accessing perinatal education that you have learned your patients of color are experiencing.
21. What is your preferred format for sharing perinatal education information with patients? (Verbal, written, video, websites, other sources)
22. If you answered "Other sources" above, please provide a description.
23. How well do you feel the format you use is getting information across to parents? Is there another format you'd like to have?
24. What other sources of information or formats do you use to reinforce critical content so that it really sinks in? For example: childbirth education, tweets/texts/emails, social media, etc.
25. Please tell us what you've learned about barriers to access from people with significant financial stress, and people who are actively using substances or in recovery.
26. What sorts of community support would you like to see for perinatal families in Mitchell and Yancey counties? For example: classes, new mom groups, La Leche League, etc.

27. Please list any other care providers you think we should talk with to assess the current state of perinatal education and wellness in our community (Yancey and Mitchell counties).