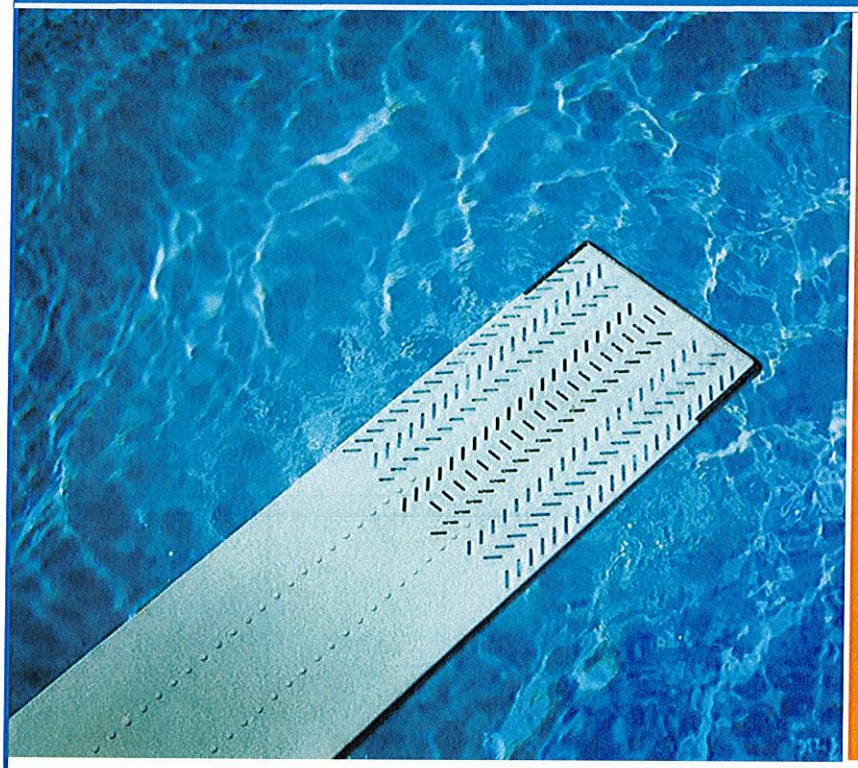
2019 COMMUNITY HEALTH ASSESSMENT

GUILFORD COUNTY



A DEEPER DIVE

Advancing Health Priorities in Guilford County

Guilford County Department of Health & Human Services

UNC Greensboro Department of Public Health Education

Cone Health

Wake Forest Baptist Health High Point Medical Center

United Way of Greater Greensboro

Guilford Community Care Network
Assuring Access to Healthcare for All

UNC Greensboro Department of Nutrition

ADS Alcohol & Drug Services

fellowship HALL Drug + Alcohol Recovery Center

United Way of Greater High Point

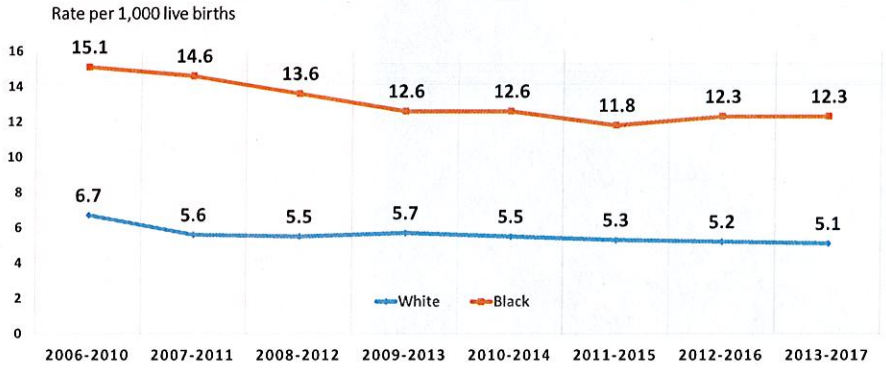
5 Maternal and Child Health

Why Is This Issue Important?

Preparing children for a great start in life begins long before birth. Mothers and children benefit from healthy nutrition, daily physical activity, social support and trusted health care providers. They also need supportive neighborhoods and communities with a variety of resources and policies that support women and children. Deficits or disadvantages in these areas may lead to poor birth outcomes. Pre-term birth (before 37 weeks of gestation), low birth weight (under 5.5 pounds) and infant mortality (death of a child before the first birthday) are areas of concern for organizations devoted to improving maternal and infant health (MCH) for women in Guilford County, as pre-term birth often co-occurs with low birth weight, which is a risk factor for infant mortality.

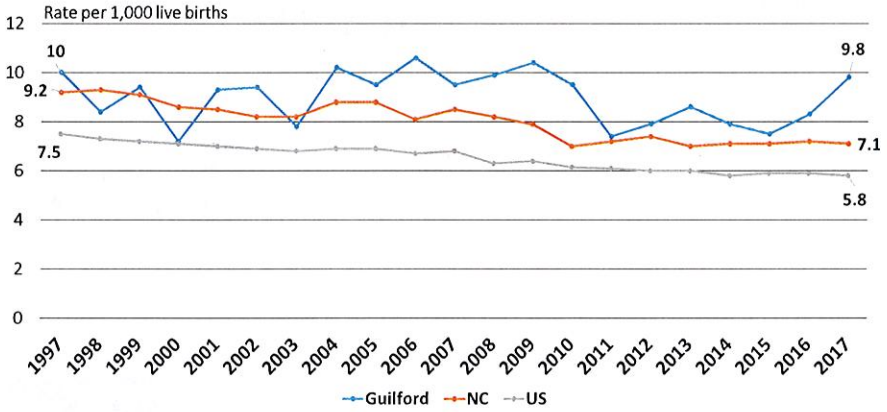
How Does Guilford County Trend Over Time?

Rolling Five-Year Infant Mortality Rates by Race, Guilford County, 2006-2017



Source: Data provided by the NC Center for Health Statistics, County Health Databook and the National Center for Health Statistics.

Infant Mortality Rates, Guilford County, 1997-2017



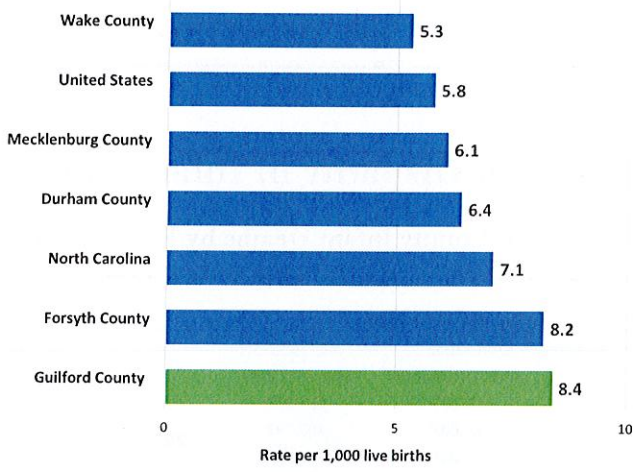
Source: Data provided by the NC Center for Health Statistics, County Health Databook and the National Center for Health Statistics.

Poor birth outcomes are a significant problem for Guilford County, with rates of infant mortality and low birth weight higher than national benchmarks and objectives. As shown in the infant mortality trendline chart, above, over the last 20 years Guilford County has had consistently higher infant mortality rates than the state of North Carolina and the United States. The trendlines for rolling five-year infant mortality rates by race illustrates the critical feature of birth outcomes in Guilford County: persistent racial disparities. African-Americans experience preterm birth, low and very low birth weight and infant mortality at substantially higher rates than Whites.

How Does Guilford County Compare to Others?

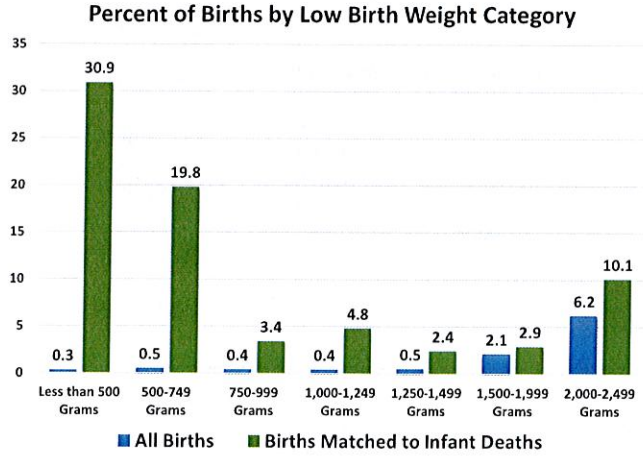
Infant mortality is an important issue in many communities, but as the following charts suggest, Guilford County has a heavy overall burden—a higher five-year infant mortality rate than all the peer comparison counties and the state as a whole—and a significant challenge in overcoming racial inequality in infant outcomes.

Infant Mortality 5-year Rates, 2013-2017 by County



Source: SCHS, Databook, 2013-2017 ; Note, US data for 2017 only.

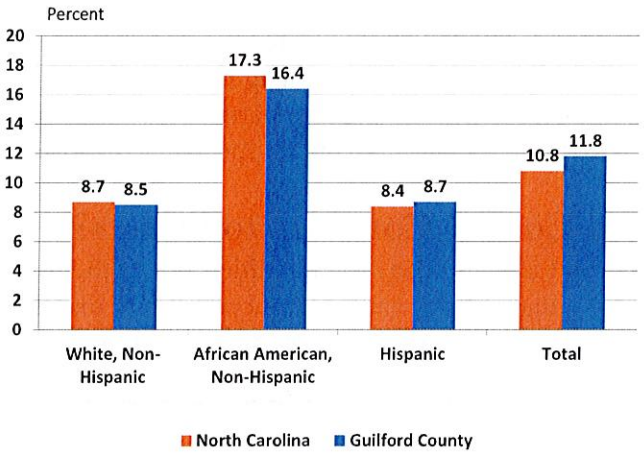
Low Birthweight in Guilford County



Source: NC State Center for Health Statistics, 2013-2017.

Analysis of birth certificates matched to death records shows that over 50% of all births resulting in infant death between 2013-2017 were extremely low birthweight (less than750 grams) infants. As the next chart shows, there is a significant racial disparity in low birthweight births.

Percentage of Births - Low Birthweight, 2013-2017



Source: County Health Databook, NC State Center for Health Statistics.

What Explains the Racial Disparity in Infant Mortality?

Table 1: Guilford County Infant Deaths by Race and Birthweight Distribution

Guilford County Deaths 2014-2017

Black/African-American

Birthweight	Births	Deaths	Birth Distribution	Mortality Rate
200-499	46	40	0.005	869.565
500-749	69	28	0.007	405.797
750-999	58	4	0.006	68.966
1,000-1,249	66	6	0.007	90.909
1,250-1,499	81	3	0.008	37.037
1,500-1,999	276	4	0.027	14.493
2,000-2,499	787	11	0.078	13.977
2,500-6,499	8714	24	0.863	2.754
Total	10097	120	1.000	**11.885**

White

Birthweight	Births	Deaths	Birth distribution	Mortality Rate
200-499	21	16	0.002	761.905
500-749	13	6	0.001	461.538
750-999	24	2	0.002	83.333
1,000-1,249	28	3	0.003	107.143
1,250-1,499	35	1	0.004	28.571
1,500-1,999	137	1	0.014	7.299
2,000-2,499	417	9	0.042	21.583
2,500-6,499	9319	14	0.932	1.502
Total	9994	52	1.000	**5.203**

	% Due to Differences in Birthweight Distribution	% Due to Differences in Birthweight Specific Mortality Rates
200-499	0.300	0.054
500-749	0.359	-0.034
750-999	0.038	-0.009
1,000-1,249	0.055	-0.011
1,250-1,499	0.022	0.007
1,500-1,999	0.022	0.022
2,000-2,499	0.096	-0.068
2,500-6,499	-0.022	0.168
Total	**0.871**	**0.129**

Source: NC State Center for Health Statistics.

The assessment process looked at four years of Guilford County infant birth and death data to better understand the nature of the racial disparity in infant mortality. The Kitagawa method was used to tease out whether the disparity is due to racial differences in birthweight-specific mortality rates or because of differences in birthweight distribution (Kitagawa, 1955). Over the four-year period between 2014-2017, the racial difference in infant mortality rates per 1,000 live births was 11.9 for African-Americans and 5.2 for Whites. The Kitagawa method revealed that 87% of the difference in infant mortality rates was due to differences in birthweight distribution and only 12.9% was due to birthweight-specific mortality rates (See Table 1). African-American mothers in the county are giving birth to a higher percentage of very low birthweight babies than do White mothers, but why is this the case?

An MCH Key Informant Assessment Workshop was convened to identify approaches to improve MCH outcomes.

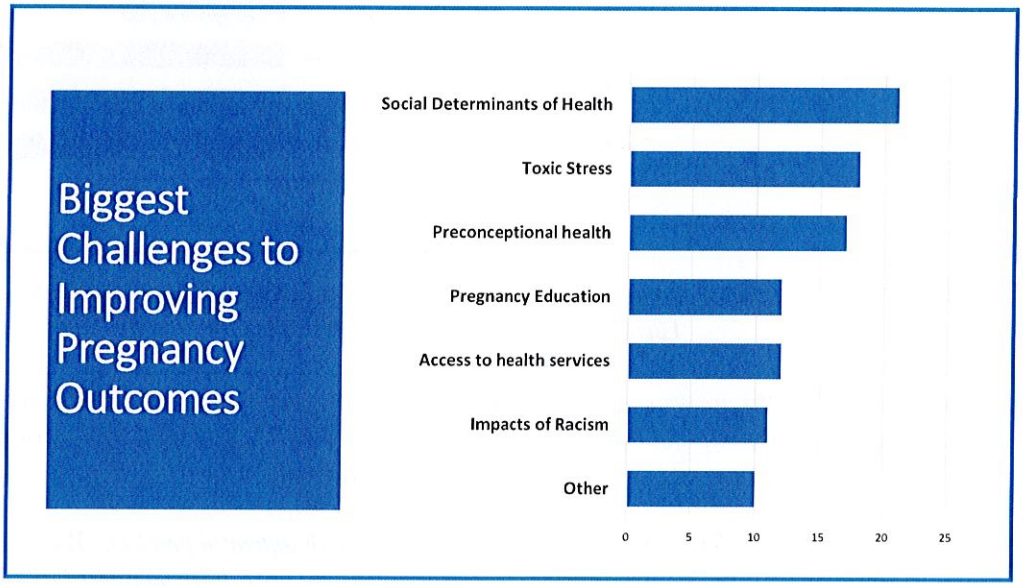
Maternal and Child Health Key Informant Survey

In March 2019, 157 persons identified by the CHA Team as Key Informants—persons with subject-matter expertise, knowledge and experience in the areas of maternal and child health—were invited to complete an online survey with questions regarding the current state and potential for an improved future state of pregnancy and childbirth in Guilford County. Of the 157 potential Key Informants invited to take the Pregnancy and Childbirth survey, results were obtained from 34 persons. 35% of respondents were non-profit service providers, 19% were from local government agencies, 22% were health care professionals, 3% were university or neighborhood representatives and 11% reported being personally affected by the issue.

Assessing the Current State of Maternal and Child Health

Challenges to Improving Pregnancy Outcomes

To assess the current state, survey respondents were asked for their views on three dimensions of maternal and child health in Guilford County: the most important challenges to improving pregnancy outcomes, the populations most impacted by challenges to maternal and child health, and perceived assets (programs and services, infrastructure and policies).



As depicted in the chart to the right, the most common challenge Key Informants reported was to improve the social determinants of health, followed by toxic stress and pre-conceptional health. In the following quotes, Key Informants explained that for African-American women, toxic stress, social determinants and racism are closely related.

The following quotes from respondents illustrate these challenges:

Social Determinants of Health

"Social determinants seem to coincide with access to services (stable transportation, understanding of need for care and how to navigate the health care system)."

Toxic Stress

"The women I work with are often juggling a number of stressors. They typically work difficult hours for very low pay and have inflexible schedules."

Pre-conceptional Health

"Low income families…don't have the financial means to have the proper pre-conception care."

Pregnancy Education

"(Many women) lack knowledge of risks, preconception and inter-conceptional health and the importance of early and continuous prenatal and postpartum care."

Access to Health Services

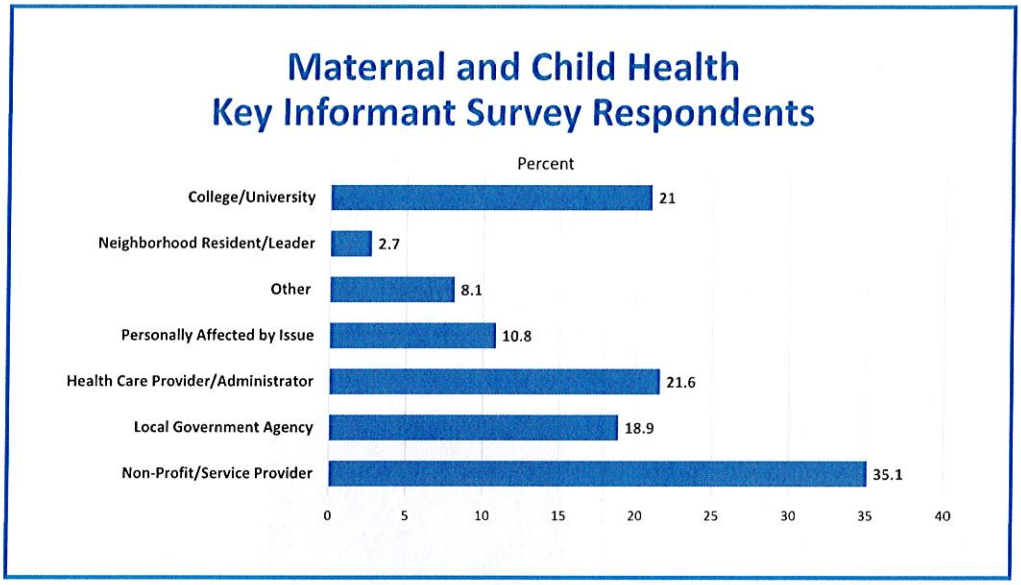
"Very low pay and inflexible work schedules...make it very difficult to get to regular appointments."

Impacts of Racism

"Institutionalized racism contributes to toxic stress which contributes to poor health pre-conception."

Populations Most Impacted by Poor Pregnancy and Birth Outcomes

When asked whether any special population groups are more impacted by poor pregnancy and birth outcomes, the most common groups mentioned were racial and ethnic minorities, teen girls, immigrants and refugees, followed by persons with disabilities. Some of the relevant comments are shown below.



"The lived experiences of people of color can reduce their chances of a healthy pregnancy and birth, as well as the survival of their infant. Living in poverty further lessens the chances for children to flourish."

"Racial and ethnic minorities are more likely to experience toxic stress and racism. Both which have been shown to transcend social class, education and income. Immigrants and refugees are more likely to not know how to navigate or distrust health systems and not receive early prenatal care."

"Refugees are often living in dire circumstances before they arrive, with untreated problems. Racial and ethnic minorities, esp. African-Americans, generally have the worst birth outcomes."

"Younger women experience higher rates of pre-term birth and low birthweight births. Teen moms often have experienced interpersonal violence and other social and emotional risk factors."

"Adolescent parents, and women living at low-income have higher risk of perinatal depression and possible impact on the infant's brain development."

Racial Disparities

Data reviewed during the 2019 Community Health Assessment demonstrated a strong and persistent racial disparity in pregnancy outcomes, with African-American women experiencing higher rates of preterm birth, low birthweight and infant mortality than majority White mothers. Asked what they regard as the most important factors causing these disparities, some Key Informant responses are below.

"Lack of understanding of the underlying factors related to social determinants of health and Adverse Childhood Experiences (ACES). This population needs to be treated differently. Integrate mental health therapy with physical health."

"Toxic stress resulting from decades of systemic racism."

"Racial bias, if not overt racism from providers. Cultural/community beliefs. Underlying health issues (which may or may not be evident.) Family support/family planning."

"Stress, racism and poverty are big factors. They need emotional support. Also, they really need to focus on eating healthy and exercising."

"Toxic stress, grew up in home with a mom that was a teen mom, poor pre-conception education."

"Diet, education, preconceptions due to race, lack of care by health care professionals, poverty, partner not involved or lack of family support, cultural traditions."

Perceived Assets and Gaps in Maternal and Child Health

The Key Informant Survey asked respondents to reflect on existing assets in our community that promote maternal and child health, along three dimensions – programs and services, infrastructure and policies. We included survey responses in Table 2 that were mentioned by multiple respondents.

Table 2. Perceived Assets – Effectively Addressing Pregnancy and Childbirth in Guilford County: Themes from Key Informant Survey Responses

Programs and Services	Infrastructure	Policies
• Nurse Family Partnership • Family Connects • Adopt-a-Mom • YWCA programs • OB Care Management • CenteringPregnancy®	• Nonprofits, agencies and programs • Support systems • Access to care	• Maternity and Family Leave policies • Breast-feeding friendly spaces

Asked what ***Programs and Services*** are effectively addressing pregnancy and childbirth in Guilford County, Key Informants named numerous programs, including those listed in Table 2, as well as: community-based doulas, the YWCA Teen Mentor Program, and the Newborn Home Visiting Program and the JustTeens Clinic LARC programs at GCDHHS.

Asked what ***Assets and Infrastructure*** are important in addressing pregnancy and childbirth, respondents noted ***Nonprofits and Other Agencies*** (including Get Ready Guilford, Smart Start, Cone Health Foundation, Foundation for Healthy High Point, Guilford County Department of Health & Human Services, Nurse Family Partnership, and Care Coordination for Children); ***Support Systems*** (including, family, school, faith, community); and ***Access to Care***, (including Doula services, pregnancy medical homes, screenings, hospital nurseries, access to LARC and other contraceptives and the Community Action for Healthy Babies Consortium).

Asked about **Policies** that are effective, Key Informants reported: that family leave policies are important (for both parents), WIC, breastfeeding-friendly workplaces, adolescent access to care and right to consent to healthcare, folic acid for women of childbearing age, 17p injections to prevent preterm birth, school programs for teen mothers and safe sleep education programs.

Survey respondents also addressed gaps in our community's ability to effectively address challenges in maternal and child health; responses from multiple respondents are recorded in Table 3.

Table 3. Perceived Gaps to Effectively Addressing Challenges to Maternal and Child Health in Guilford County: Themes from Key Informant Survey Responses

Programs and Services	Infrastructure	Policies
• Access/Insurance Issues: insurance, medical home, Medicaid approval, wait lists • Service needs: substance use and mental health disorders, childbirth education, family planning/birth control • Program capacity issues: limited staff, reduced caseloads	• Social determinants of health: transportation, jobs, safe housing and neighborhoods, affordable childcare • Communication and coordination between service providers • Access/care: maternity medical home, substance use centers, access to LARCs, more providers • Funding (lack of and competition for resources)	• Maternity and Family Leave policies • Social policies: livable wages, health insurance • Law enforcement policies (treatment v. incarceration) • Access issues (interconceptional care, access to comprehensive sex education in the schools)

Asked about gaps and needs in ***Programs and Services,*** Key Informants noted: lack of quality affordable childcare, lack of insurance coverage prior to pregnancy, lack of focus on communities most at-risk, lack of programs that integrate mental health, lack of communication between programs and services and lack of education targeted at employers—i.e., allowing time for doctor's appointment. The need for partner counseling and education, more doula services, wrap-around services and better transportation options were also identified.

Key Informants noted numerous gaps and needs in ***Assets and Infrastructure***, including gaps in community understanding about how important the first three years of a child's life is to their health/success trajectory; accessible and affordable childcare and transportation; affordable, safe housing; access to low-cost contraception including LARC options for non-teens, access to good jobs, access to safe and supportive neighborhoods; lack of knowledge and awareness of resources and the tendency for organizations to work in "silos."

Key Informants were also asked about gaps and needs in ***Policies*** that would benefit pregnancy and childbirth outcomes. Key Informants noted the need for more family friendly policies that are more widely available; policies that effectively address social determinants of health and adverse childhood experiences; the need for longer family leave for fathers to support mothers and babies postpartum; access to comprehensive sexual health education in Guilford County Schools; lack of inter-conceptional health care (because women often lose Medicaid eligibility between pregnancies); housing policies and women gaining access to Medicaid late in pregnancy.

In reviewing the perceived Assets and Gaps in Maternal and Child Health, it is important to note that some issues, such as: access to care and maternity and family leave policies are listed in both Table 2 and Table 3, indicating that they may be perceived as assets in our community and perceived as inadequate as well.

Promising Approaches for a Desired Future State

One of the final questions of the Key Informant Survey looked to future opportunities for improvement: **Based on your knowledge and experience, what do you see as the most promising approach or approaches to improve birth outcomes for all mothers among Guilford County residents?**

Here are a few of the noteworthy responses:

Identified Promising Approaches (MCH)

Downstream

- NCCare360
- Expanding access to services and resources
- Adopt-a-Mom

Midstream

- Ready, Ready
- Sex education
- CenteringPregnancy®
- YWCA
- Coordination among providers
- Universal approaches

Upstream

- Economic Development
- Medicaid Expansion
- Affordable health care

"Ready for School, Ready for Life's work WHEN it is successful will be key; continued economic development that brings more and better paying job to our community; implementation of NCCARE360 with increased availability of services including housing, food and transportation; adoption of voluntary living wages from some of our community's largest employers."

"Home visits. Nutritional support for mom and babies. Sex education in schools (& to other age groups) to reduce unintended pregnancies which may lead to negative health or social outcomes."

"1. Building a systemic approach that identifies the needs of all women and connects them to resources to meet those needs; 2. Building infrastructure to improve coordination among programs and providers serving women and families 3. Additional services that can provide positive social support and information for women during pregnancy and childbirth (e.g. doulas, home visiting, childbirth education, inter-

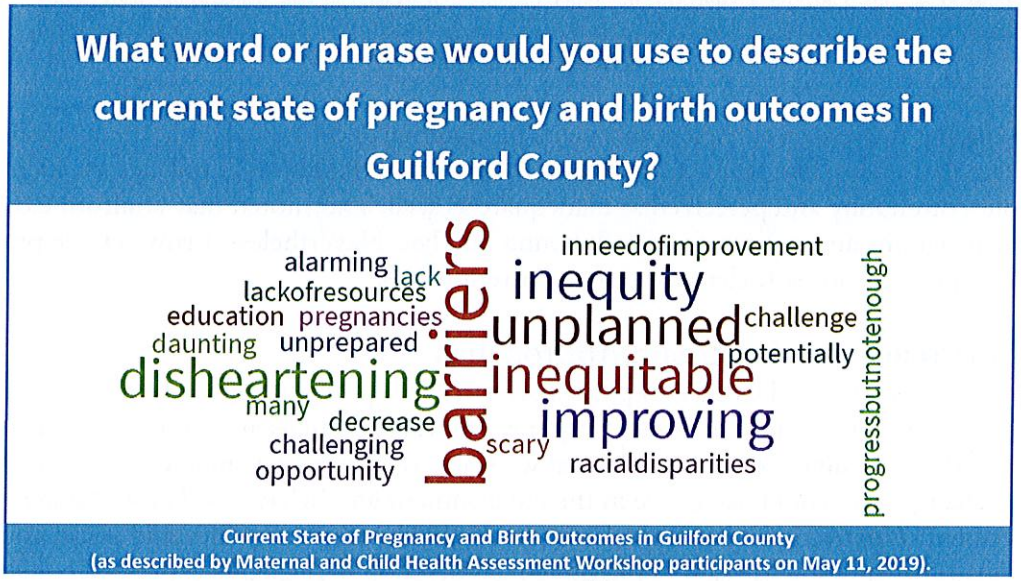
conception education/ activities in a peer group setting) 4. Additional resources to increase access to care (including better process for Medicaid enrollment, improved transportation infrastructure, family-friendly hours, etc.)"

"Making patients feel welcomed during prenatal visits; provide transportation and childcare if needed, provide safe sleep gift boxes given after delivery, help families secure stable housing, calling patients if they miss an appointment to reschedule quickly, get patients in and out-no one wants to sit in clinic for 3-4 hours."

Maternal and Child Health Key Informant Assessment Workshop

On May 11, 2019, the CHA Team and the Community Action for Healthy Babies (CAHB) Consortium convened a half-day MCH Assessment Workshop. Persons asked to complete the MCH Key Informant Survey, along with CAHB members, were invited to attend, with 30 attending. Workshop participants considered the current state of maternal and child health through presentations of both the quantitative data and discussion of findings from the MCH Key Informant Survey, followed by small group discussion of a desired future state of pregnancy and childbirth.

At the beginning of the workshop, participants shared words or phrases that expressed their views of the current state, and the most common phrase was "barriers", followed by "disheartening" and "inequitable." While these word clouds are not precise statements of fact, they may be interpreted as barometers of current values, perceptions, moods and priorities. Many of the responses here are negative, reflecting the group's frustration with current outcomes (See Word Cloud #1).



Word Cloud #1

Workshop participants also discussed the impact of racism on pregnancy and birth outcomes. "*It seems like racism is expressed through social determinants*," one participant stated, and many participant comments reflected the sentiment that race, ethnicity, income and education are intertwined. In turn, these act as key drivers of access to fundamental building blocks of health, including housing and transportation. There was a consensus that tackling racism and discrimination would have a significant impact on maternal and child health, and an acknowledgement that we lack knowledge of effective interventions and solutions to achieve that goal. The participants also commented on access to high quality, affordable childcare as an important impact on health, affecting both the child's development and the mother's ability to secure employment and improve a family's financial sustainability.

In the workshop, participants shared words or phrases that expressed their priorities for improvement; "universal healthcare" was by far the most common response, with issues related to poverty, equity and access to care among the common sentiments (See Word Cloud #2 below). Among workshop participants, there was acknowledgement that inequity of outcomes required addressing issues like racism in society and within healthcare, and system change that includes universal access, as much as possible. This group also commented on the challenges posed by limited access to healthcare because of eligibility guidelines for Medicaid that leave many low-income working women

without healthcare between pregnancies. Many workshop participants saw a universal approach to healthcare access as a possible remedy. They commented that universal healthcare access would improve women's access to interconceptional care to better address chronic health issues, such as diabetes, perinatal mood disorders, substance use and other issues that affect maternal health and birth outcomes.

Word Cloud #2

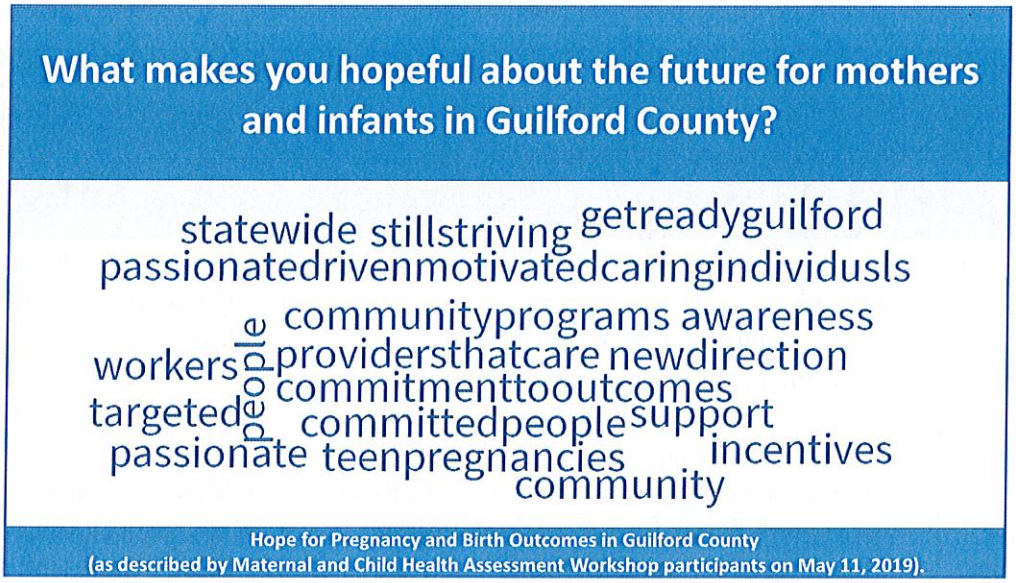
In reviewing and discussing the perceived Assets and Gaps in Maternal and Child Health, the workshop participants commented on the fact that issues, like access to care and maternity and family leave policies are identified as both perceived assets in our community and perceived as inadequate as well. They noted that Guilford County has built and maintained many programs and policies to benefit young families. Nevertheless, many service practitioners perceive that existing capacity is not sufficient to address current needs.

Downstream, Midstream and Upstream Approaches

We asked both survey respondents and workshop participants to share promising approaches that they see in our communities or elsewhere. We have organized these responses in Table 4; items are not listed in priority order. ***Downstream*** refers to diseases, illness or conditions that we want to reduce or eliminate in our community. ***Midstream*** refers to changes we would like to see in the environment and behaviors. These changes drive downstream improvement. ***Upstream*** changes are those we would like to see in policy and social equity. These changes will drive midstream and downstream improvement. Workshop participants expressed considerable interest in "one-stop-shop" types of interventions, integrating prenatal care into programs that offer education/job skills training and other supports. There was also support for offering universal access to perinatal interventions, acknowledging that families of all backgrounds need support for healthy pregnancies and family development. Participants suggested that this reduces stigma for families, who resist labeling and perceive certain programs as only for women "at risk."

Table 4. Promising Approaches to Improving Maternal and Child Health		
Downstream	**Midstream**	**Upstream**
Diseases, Illnesses and Conditions	**Environment, Infrastructure or Behaviors**	**Policies**
• Preconceptional and interconceptional health • Infant mortality • Smoking, including cannabis • Safe sleep • Spacing pregnancy, especially for teens • Sexually Transmitted Infections • Teen pregnancy • Obesity • Nutrition • Diabetes • Pre-term birth • Toxic stress	• Implementation of Integrated Service Delivery network • Implementation of NCCARE360 • Coordination among existing providers • Expansion of collaborative multiple social determinants programs like Family Success Center; CenteringPregnancy®; YWCA; Ready for School, Ready for Life; Adopt-a-Mom • More Pregnancy medical homes • More mental health providers who accept Medicaid • Primary care providers integrated with mental health providers • More smoking cessation programs • More substance use treatment options • Access to healthy food options, including eliminating food deserts, making healthy options more affordable, expanding Farmer's Markets and community gardens • Safe infant sleep education • Health education • Increased opportunity for teens, including after school enrichment • Childcare access • Safe, reliable, affordable public transportation, especially in rural areas and expansion of hours in High Point • Affordable housing • Neighborhood safety and reduce gun violence • Job training	• Universal healthcare • Universal maternal family leave • Community development targeted to improve social equity • Increased minimum wage • Medicaid expansion to cover more people, and expansion in which services are covered • Tobacco-free policies • Program policy for home visiting programs to assess infant sleep environments • Policies to promote poverty reduction and reduction in income inequality • Universal breastfeeding spaces • Eliminate "catch 22" of working versus benefits – develop a transition to allow women access to some income-based benefits while they move back into sustainable employment • Universal Pre-K • Equitable access to education • Equitable access to contraception, including LARCs

The workshop participants wrapped up their reflection by sharing words or phrases that expressed their views of what makes them hopeful about the future for women and infants in Guilford County (see Word Cloud #3 on the next page).



Word Cloud #3

Summary and Conclusions

The analysis of quantitative health data on maternal and infant health offered here identifies a critical factor driving 87% of the racial disparity in infant death in Guilford County: the higher prevalence of African American births in the lowest birth weight categories. Solutions that aim to remedy this disparity should be chosen that will prevent all children – especially those born to African American mothers—from being born at low birth weights. There are multiple medical risk factors for low birth weight: such as high blood pressure; diabetes; heart, lung and kidney problems; sexually-transmitted infections; and eating disorders. There are also behavioral risk factors (such as smoking and substance use) and environmental risk factors (such as exposure to air pollution, lead and discrimination). Survey and workshop participants in Guilford County identified additional stressors that underlie these risk factors: racism, low wages, inflexible work schedules, toxic stress, poverty, inadequate emotional support and bias within healthcare.

Taken together, primary and secondary data in this assessment point towards the necessity of developing effective interventions that:

- address **structural** issues (such wages, housing and health coverage) that disproportionately affect low income women and women of color;
- are offered **universally**, acknowledging that all women and young families need support to be successful;
- advance **equity** in outcomes, by eliminating bias in care delivery, addressing differences in power, and evaluating outcomes by race and other critical dimensions of difference; and
- are **coordinated** within our community, linking multiple agencies that offer care to young families.

Many agencies in Guilford County have committed to a 12-year strategy, the Get Ready Guilford Initiative (GRGI) that seeks to break the cycle of intergenerational poverty by building a continuum of services for families and children starting in the prenatal period. At the time of this writing, the first phase, focused on the prenatal period to age 3, is beginning to build capacity for evidence-based interventions to promote healthy development, establishing the backbone organization that will drive continuous improvement and constructing its data ecosystem. Much of the design of this work is built on concepts of equity, coordination and universal access. Progress in maternal and child health will rely on effective implementation of that design; developing innovative ways to address structural issues; and courage in facing, understanding and eliminating the root causes of racial inequity in maternal and child health outcomes.