Service Delivery Plan
2010 – 2015

"HAVING AND NURTURING HEALTHY BABIES IS ESSENTIAL FOR BUILDING STRONG, HEALTHY COMMUNITIES."

August 15, 2010

2010 - 2015 SERVICE DELIVERY PLAN
The Prenatal & Infant Health Care Coalition of Brevard County, Inc., dba Healthy Start Coalition of Brevard County, Inc.

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SECTION 1: INTRODUCTION

A. History and Background

The Prenatal & Infant Health Care Coalition of Brevard County, Inc. dba Healthy Start Coalition of Brevard County, Inc. (Coalition) is a not-for-profit corporation registered with the State of Florida and the Internal Revenue Service.

The Coalition was chartered in October of 1992 and in January of 1993 was funded by the state of Florida to deliver the components of the 1991 Florida Healthy Start Initiative to the citizens of Brevard County. The Healthy Start Initiative is a strategic plan designed to **help women have healthier babies, reduce infant mortality, and improve the overall health and development of Florida's children.** In adopting this strategy, the mission of the Coalition became:

> *To establish a system of care that guarantees all women have access to prenatal care and that all children have access to services that promote normal growth and development.*

Since the inception, the Coalition has grown from 48 to over 100 community members that represent consumers, private and public health care providers, industry, educational institutions, public and private social service agencies, and civic groups. In 1994, the Coalition developed a "vision" for Brevard County's maternal and child health services. This "blueprint" was the foundation of the service delivery plan. In 1999, based on the prior years' experiences, the vision was revised. Since then, the Coalition has worked diligently to implement action steps, develop new ones, and make revisions as changes occur in our community, state and nation that affect the families the Coalition serves.

This document includes a recap of the accomplishments and experience gained from implementing the 2005 Service Delivery Plan during the five-year period of fiscal years 2005-2006, 2006-2007, 2007-2008, 2008-2009 and 2009-2010. It provides an analysis of relevant data noting both the positive and negative trends that have occurred since 2005 and outlines the 2010 Service Delivery Plan for maternal and child health that will take the Healthy Start Coalition of Brevard County into the next five years.

B. Planning Process

Since 2005, the planning process has broadened to establish effective affiliations, partnerships and collaborations to address infant mortality within a broader community context. This provides the foundation for program development efforts that focus on ensuring that all women have access to quality prenatal care and that infants have access to services that ensure normal growth and development.

The planning initiatives that identified and developed the action steps for this service delivery plan can be categorized into four areas:

1. <u>Broad Community Planning Initiatives for Children</u>

In the past five years Brevard County has had several major planning initiatives. As a part of these county-wide efforts, the Coalition actively participated representing prenatal and infant health care on several boards and committees, as well as in three specific initiatives:

Brevard Healthcare Forum

Since 1996, the Brevard Healthcare Forum has been sponsored by Florida Institute of Technology and served as a county-wide coalition of healthcare providers and other organizations. The current membership includes representatives from the following:

- *Health First, Parrish Medical Center, and Wuesthoff Health System* - the county's three hospital systems
- *Circles of Care, Inc.* - the county's largest behavioral health provider
- *Brevard County Government*
- *Brevard County Health Department*
- *Brevard Health Alliance* - the county's only federally qualified health center
- *Brevard Public Schools*
- *Healthy Start Coalition of Brevard County*
- *Florida Institute of Technology* - one of Florida's top private universities
- *Devereux Florida* - the largest nonprofit provider of mental health, developmental disabilities and child welfare services to children and families in Florida
- *Health Council of East Central Florida, Inc.* - one of 11 regional health planning councils created by statute by the Florida Legislature in 1982, it covers a four county area that includes Brevard County

The Brevard Healthcare Forum serves as the health planning body for Brevard County and seeks to foster collaborative relationships that facilitate the sharing of data and expertise to address the county's most pressing healthcare issues.

The vision of the Brevard Healthcare Forum is to make health care better, safer, more accessible and more affordable in Brevard County.

The Brevard Healthcare Forum has as its mission to:

1. identify and build consensus on healthcare priorities and directions
2. facilitate dialogue and joint healthcare initiatives among community stakeholders
3. provide and support community-wide healthcare education in Brevard County

Central to the mission and vision is an ongoing assessment of community resources and needs relative to current healthcare delivery systems, with a focus on identifying and addressing healthcare priorities and reducing healthcare disparities. The Healthy Start Coalition has been an active participant in the Brevard Healthcare Forum since 2000.

March of Dimes Program Service Committee

Their mission is to improve the health of babies by preventing birth defects, premature birth and infant mortality. They carry out this mission through research, community services, education and advocacy to save babies' lives.

Program Services Committees nationally engage volunteers state-wide to coordinate outreach to mission families and to plan and implement activities for these families; represent the March of Dimes at community events, such as health fairs; maintain inventory and re-stock NICU Family Support Centers at hospitals; assist with planning and implementation of Prematurity Awareness Day/Month events; and assist with planning and logistics of professional and public health

education initiatives. They also engage individuals with maternal child health, public health, rural health, social work, or grant writing experience to assist with their professional committees and activities. Locally, the regional Program Services Committee focuses on planning and logistics of professional and public health education initiatives as well as engaging individuals with maternal child health, public health, rural health, social work, or grant writing experience to assist with their professional committees and activities.

The Healthy Start Coalition participates on the local March of Dimes Board of Directors as well as the Program Services Committee.

Together In Partnership

In 1999, the Brevard County Board of County Commissioners drafted a resolution creating Juvenile Justice Comprehensive Strategy Planning Committee (JJSPC) modeled after the Office of Juvenile Justice and Delinquency Prevention (OJJDP) *Guide for Implementing the Comprehensive Strategy for Serious, Violent, and Chronic Juvenile Offender* and *Communities that Care*. The purpose of this planning committee was to create a research-based strategic plan that addressed prenatal to adulthood continuum of services that would reduce risk factors for residents within Brevard County. In February 2000, the JJCSPC adopted the name "Together in Partnership" (TIP**)**.

TIP's membership accurately reflects the racial, cultural, socio-economic, and geographic diversity of Brevard. The Healthy Start Coalition has actively participated in this ongoing effort since 2002. TIP's three areas of focus include:

- *Early Academic Success:* The goal of *Early Academic Success* is that all children, birth to five years of age, will have access to preventative and support services.
- *Family Management (including Domestic Violence)*: The goal of *Family Management* is that all families in Brevard County will have adequate access to preventative support services.
- *Substance Abuse Prevention*: The goal of *Substance Abuse Prevention* is community support for enforcement of underage drinking laws to decrease number of DUI's for those under age 21.

The Healthy Start Coalition members and staff are represented on both the Family Management Issues and Early School Success sub-committees. Strategies from the TIP plan were used in the formulation of this plan and have been incorporated into our action steps for family management and early academic success. Additionally, TIP utilizes strategies from the Coalition's Service Delivery Plan in the development and implementation of the TIP work plan.

2. Consumer Involvement

In order to secure input from consumers the Coalition conducted focus groups and surveys throughout Brevard County. Recommendations and insight received from consumers are detailed in Section III and incorporated into the planning process and the action steps.

Surveys were conducted with:

- 53 Healthy Start consumer participants
- 21 community based focus group participants of childbearing age
- 14 teenagers (out of the focus group participants)

The following focus groups were conducted:

- Teens with children or who were currently pregnant
- Black women of childbearing age

3. Fetal Infant Mortality Review Process (FIMR) – Modified

Historically, low birth weight and infant mortality rates in Brevard County are below the state rate. The Coalition conducts a modified FIMR review semi-annually to evaluate the data trends by receiving de-identified copies of death certificates from the Department of Health – Vital Statistics office. If a trend is identified, the Coalition will further study the death certificates and evaluate the specific details and circumstances for indications of community-wide problems that may be developing.

For example, although statistically insignificant, the Coalition observed an increase in non-white infant deaths in 2006. Upon review, three cases were identified to have congenital anomalies in the same area of the county. The Coalition requested and reviewed birth certificates and after further analysis did not identify any potential linkages within the findings.

To date, no significant incidents have been observed nor have any trends been identified during the modified FIMR reviews.

4. Coalition Committee Analysis of Maternal and Child Health Data at the County and State Level to Identify Significant Health Issues, Review of Existing Action Steps and the Impact on the System of Care

The following Coalition committees were responsible for reviewing data, developing action steps and evaluating how the steps impact local factors contributing to poor outcomes such as fetal and infant mortality, low birth weight and entry to prenatal care:

- Finance
- Quality Improvement/Quality Assurance
- Service Delivery Plan: Steering Committee

SECTION II: RECAP OF THE 2005 SERVICE DELIVERY PLAN

A. Overview

In August 2005, the Coalition completed the Brevard County Service Delivery Plan for maternal and child health services. This plan built on the lessons learned and accomplishments of the plan completed in 2002. The 2005 plan focused on two priorities:

1. Decreasing the low birth weight and very low birth weight rates by reducing preterm births through assuring early access to comprehensive prenatal care, providing Healthy Start services to pregnant women screened for risk factors that would contribute to low birth weight, and reducing the teen pregnancy rate.

2. Increasing the number of children who will be ready to start school by ensuring that children enrolled in Healthy Start have a medical home, developmental assessments, referrals for early intervention services as needed, ensuring all risk factors are addressed and providing intensive substance exposed newborn services.

To address these priorities, the Coalition took three approaches: directly funding services, partnering with community organizations to address system issues, and targeting interventions. Action steps were developed for each strategy and were carried out over the five year period July 1, 2005 through June 30, 2010. Outcome and performance measures were identified in the plan and monitored over the same period.

As local, state, or national changes occurred, action steps were revised or new ones developed to help ensure that our primary goals of reducing the low birth weight and very low birth weight rates and increasing the number of children ready to start school were achieved. Action steps fell into several broad categories:

Prenatal Focus:

1. Continued implementation of the Healthy Start Screening Infrastructure and Services.
2. Continued implementation of "Building Tomorrow's Child" to distribute educational items and increase prenatal screening rates.
3. Maintenance of the MomCare System "in-house".
4. Research Initiatives through committees focusing on best practices for the prevention of low birth weight infants, fetal and infant mortality as it relates to racial disparities.
5. Targeting services to zip code 32922 through Fiscal Year 2005 – 2006.

Postnatal Focus:

1. Continued collaboration with Healthy Families to ensure families are receiving the appropriate program(s) and/or services to meet their needs.
2. Development of "Building Tomorrow's Child" social marketing campaign to include distribution of educational items to increase the type and intensity level of parenting information to the community as well as increase infant screening rates.

A detailed summary of each action step and how it affected the overall system of care follows in this document. The description includes revisions made to adapt to a changing environment.

B. Overview of Changes/Challenges to the Local Community Since the Last Service Delivery Plan

Similar to many other communities, Brevard County has seen many changes and challenges to the maternal and child health care system over the past five years. These changes affect both the Coalition as an organization and the services for which it funds and provides oversight. Since the 2005 Service Delivery Plan, the most noted changes include:

- The Brevard County Health Department contract for substance abusing pregnant women and exposed newborns was discontinued in August 2007 as a result of the elimination of drug use as a risk from the prenatal screen. This change was made as there was no longer any way to identify those clients at the time of screening. However, once a client is identified to have substance abuse as a risk factor during any phase of care coordination, that risk is addressed in compliance with Healthy Start Standards and Guidelines.

- There is an increase in the number of high risk pregnancies, often with multiple high risk factors; one influencing factor is the demographics of birthing moms have changed.

- There is a higher incidence of elective inductions being offered, an increase in early-delivery cesarean births.

- There are fewer families attending childbirth classes.

- There are limited maternity and pediatric mental health services.

- There is an increase in the provision of birth and postpartum doula services.

- The County's mass transportation system is not effectively covering the length of 72.5 miles.

- The number of uninsured and underinsured pregnant women continues to increase, while fewer OB's are accepting Medicaid. In an effort to better serve the community, the County Health Department has collaborated with the Coalition, delivery hospitals and local OB's to expand and improve the way they provide high quality, comprehensive maternity services to all of Brevard's pregnant women. Objectives included identifying and removing barriers to prenatal care; providing comprehensive, high quality ante partum care, improving high risk maternity care; ensuring continuity of care; reducing litigation issues between health department clients and private providers; improving maternal/infant outcomes.

- The Brevard Health Alliance, the County's only federally qualified health center, opened a pediatrics clinic in the south part of the county to provide services for the underinsured and uninsured populations.

- The number of uninsured pediatric clients continues to increase, resulting in a concentrated community effort to get more children enrolled in FL KidCare resulting in county enrollment numbers increasing.

- The unemployment rate has reached over 12% in Brevard County; this will increase with the challenges at the Kennedy Space Center and may result in an increase in the birth rate. As state and federal funding decreases for Healthy Start, it will make it difficult to service the increasing need.

Challenges specific to the Coalition include:

- A decrease in alternative funding opportunities and a drop in donations is forcing the Coalition to make difficult decisions, including but not limited to, decreasing service provision, resulting in the decreased ability to positively impact the incidence of low birth weight and infant mortality.

- The Coalition is challenged with limited access to HMS, resulting in inefficiency in contractual requirements such as monitoring. Additionally, the Coalition questions HMS data integrity and limited access to the system does not provide the opportunity to research those reservations.

C. Service Gaps

Service gaps in Brevard County include:

- There has been a decrease in long-term established OB's, reducing the number of practices providing services and consequently access to care; there are no OB's in Palm Bay (South County).

- Brevard County has only one high risk OB who serves a minimum number of Medicaid clients monthly. In addition, he only delivers in Tampa.

- Access to dental services for pregnant women and pediatrics for disadvantaged families has become increasingly limited; this is extremely concerning due to the fact that periodontal disease is related to preterm birth. The Brevard County Health Department does provide:
  1. Dental services to their maternity patients
  2. Emergency dental care for children ages 4-18 who are underinsured, Medicaid or self-pay.

To help fill potential gaps in services, the **Bonnie Schuster Memorial Fund** is dedicated to providing special or emergency services for pregnant women and infants not currently available through Healthy Start or other social service agencies. Since inception in October of 1999, this fund has paid for postpartum Doula services, prescriptions, specialized formula, preemie diapers, educational training, transportation out of domestic violence situations, and utility bills for over 1071 recipients through June 2010. The Bonnie Schuster Memorial Fund receives funding through local grants and donations. Participants only become eligible after all other avenues have been tried, paying when no other option exists. Fund requests are limited to $100 per application and restricted to 3 life-time requests per person.

The Coalition's Board of Directors continues to discuss ways to increase the number of private providers accepting high risk pregnant women. Though this continues to remain an issue, the County Health Department will provide services to all high risk pregnant women through their prenatal care clinics. The County Health Department has contracted with several local OB/GYN practitioners to provide comprehensive prenatal and postpartum services to clients served at the local County Health Department Clinic sites. This is a unique partnership in that private providers are able to serve eligible clients at the local health department, thus providing continuous care through delivery at the local

hospital. The Coalition contracts with the health department to provide 1.) Clinical services to pregnant women and infants who are uninsured and do not have the financial resources to pay for care and 2.) Perinatology services through the Wuesthoff Regional Perinatal Intensive Care Center (RPICC) high-risk satellite clinic.

The County Health Department has relocated the Rockledge clinic to Viera, and has increased the number of Family Planning Clinics to reduce the wait time in receiving services. Staff at the health department continues to promote the Family Planning Waiver to increase awareness of the services available.

MomCare staff and the Provider Liaison continue to work with the Department of Children and Families to develop a listing of Specialists who provide services to pregnant women enrolled with the Pregnancy Medicaid Insurance.

In addition, the action steps outlined in Category B of the Service Delivery Plan represent activities and action steps the Coalition will take to impact some of the service gaps outlined above.

D. Summary of Community Resources

Brevard County is fortunate to have a great number of resources available to meet many resident's health and human service needs. Several local groups have prepared health and human service directories for use in referrals. Most notable is 211 Brevard, a comprehensive directory of community services available in print and distributed to social service organizations. 211 Brevard is also available online (www.211brevard.org) and by phone to provide health and human service resources within the county. The Coalition provided 211 Brevard books to all Healthy Start contracted providers assist in the referral process.

E. Service Availability of Wraparound Services:

Wraparound services are offered in addition to Healthy Start Core Services as funding allows; translation is provided as needed. Services may also be available within the community.

- **Breastfeeding Education and Support** is available through Healthy Start subcontractors. In addition to the services available through Healthy Start, the following breastfeeding resources are available to women in Brevard County: LaLeche League, Women, Infants and Children (WIC), Independent Lactation Consultants, Doula's, Beyond Babies, delivery hospitals and local churches offering breastfeeding classes and consultation.

- **Childbirth Education** is available through the Brevard Chapter of Florida Outreach Program, Inc. dba Birth Resources of Brevard. Healthy Start clients receive these classes at no charge through a contract between the Coalition and Birth Resources of Brevard. The project provides services on a sliding fee scale to all Brevard County women. Childbirth classes are also provided through individual OB/GYN offices and local delivery hospitals on a fee for service basis.

- **Nutrition Counseling** is primarily offered through WIC for the women and children enrolled in the WIC Program. Services are also available to women through Healthy Start Contractors who subcontract for these services. Education about a healthy diet and infant feeding is provided by many sources including Healthy Start Care Coordination; however, access to counseling about

specific nutrition issues is limited to WIC or private dieticians. Healthy Start and MomCare staff works to encourage referral to the WIC program for nutritional counseling services.

- **Parenting Education** is primarily available through programs such as Healthy Start, Healthy Families and Florida First Start. This service is offered to Healthy Start clients as part of the care coordination process utilizing a Coalition approved curriculum. In addition to Healthy Start care coordinators, Links of Hope and Yellow Umbrella also provide parenting education services to the Spanish speaking population. Other resources for parents include several mother support groups throughout the county and family strengthening programs offered through PREVENT of Brevard, Parent to Parent, Salvation Army, Parenting Skills-BCC, Pregnancy Resources, South Brevard Mothers of Multiples, and local hospitals.

- **Psychosocial Counseling** is offered to Healthy Start clients by referrals to subcontracted providers. These services are provided by a skilled professional counselor to an individual, family, or group for the purpose of improving well-being, alleviating distress, and enhancing coping skills. The goal is to reduce identified risk factors to achieve positive pregnancy outcomes and optimal infant/child health and development. Funding for this service is limited. Additional counseling needs that are not critical to risk factors, health and well-being, or require specialized intervention are addressed by referrals to other resources in the community. Other resources for psychosocial counseling services include Circles of Care, Community Psychological Services, Remembering Through Sharing (Bereavement), and the Family Counseling Center with offices located throughout the county.

- **Smoking Cessation Services** are offered to Healthy Start clients utilizing the "Make Yours a Fresh Start Family" curriculum. Outside of the Healthy Start program, access to this service is limited, though both the Brevard County Health Department and the Central Florida Area Health Education Center (through the local hospitals) offer limited services. Additionally, local organizations also provide smoking cessation services: Florida Quit Line, Prevent of Brevard (just for teens), as well as OB/GYN practitioners are encouraged to educate clients on the hazards of smoking during pregnancy and second hand smoke. The Coalition continues to identify ways to educate families on the risks associated with smoking during pregnancy and postpartum.

F. Other Community Services

- **County Health Department** clinics are located in the north, central and southern areas of Brevard County and provide comprehensive services for Medicaid eligible clients, underinsured and uninsured clients on a sliding fee scale. Services provided include: comprehensive prenatal care, child health care through age twenty-one, family planning services, and Perinatology services.

- **Pregnancy Counseling Services** are offered to women at the County Health Department and several community pregnancy centers. These agencies often serve as the first point of entry into prenatal care by confirming a pregnancy, which is needed to initiate the Medicaid application process. The Coalition works closely with these agencies to encourage uninsured women to complete the Simplified Medicaid Eligibility form once they have a verified pregnancy test.

- A **High Risk Obstetrical Satellite Clinic** is funded through the Regional Perinatal Intensive Care Centers (RPICC) Program. This program was established because of inadequate transportation resources and geographic distances of more than 100 miles limiting access to a RPICC. A team,

consisting of a Perinatologist, Nurse, Ultrasonographer and a Genetic Counselor travel from Arnold Palmer Hospital to Rockledge to provide high-risk OB services to women referred from community providers. The two primary goals of this program are: 1) at least 80% of high-risk pregnant women are able to deliver in their community and 2) less than 10% of the infants born to these women will require Level III care.

- **Community Support Groups:** Several community support groups exist within Brevard County including the MOM's Club, Parent to Parent (for parents with a child with disabilities), Mothers of Preschoolers, and Mothers of Multiples. The Bonnie Schuster Memorial Fund received grant funding to provide bereavement support services to families who experienced an infant death from 2005-2008. Currently, bereavement support services are provided through "Remembering Through Sharing" and through Holmes Regional Medical Center and Cape Canaveral Hospital.

- **Substance Abusing Mothers/ Substance Exposed Newborns:** The County Health Department provided Healthy Start Care Coordination services to substance abusing mothers and substance exposed newborns through a contract with the Coalition through Fiscal Year 2006-2007. The program transitioned to Children's Home Society during the beginning of Fiscal Year 2007-2008, completing full transition in August 2007. The program was discontinued as a separately funded service following the elimination of substance abuse as an identified risk on the new prenatal Healthy Start screen.

- **Bi-lingual Doula Services** for Spanish speaking pregnant women in need of labor and/or postpartum support is offered by the Brevard Chapter of Florida Outreach Childbirth Education dba Birth Resources of Brevard.

- **Children with Special Health Care Needs:** Children's Medical Services provides the following services for eligible children birth to age 21: Nurse Care Coordination, Specialty Clinics, Primary Care Pediatricians through CATCH of Brevard, Medical Foster Care and the Early Steps Program which includes evaluation and assessment of developmental delays for children birth to age 3. Child Find, a support service offered to the public school system identifies children over age 3 which may be at risk for developmental delays and/or other conditions.

G. Outcomes

Low Birth Weight Infant Rate (LBW)

Low Birth Weight is defined as a birth weight less than 2,500 grams. From a public health and societal perspective, documentation and prevention of low birth weight is critical due to the significantly elevated risk for serious health problems for newborns associated with this condition. Moreover, low birth weight results in lasting disabilities, including increased risk for developmental disabilities, chronic lung disease, adult-onset diabetes, coronary heart disease, high blood pressure, intellectual, physical and sensory disabilities, and psychological and emotional distress. These relationships reiterate the premium that must be placed on prevention of low birth weight, particularly in high-risk subgroups of women.

The Coalition established a goal of reducing the low birth weight rate from 7.9 to 7.0 by the year 2010. Next, **Figure 1** and **Table 1** detail the incidence of Low Birth Weight in Brevard County.

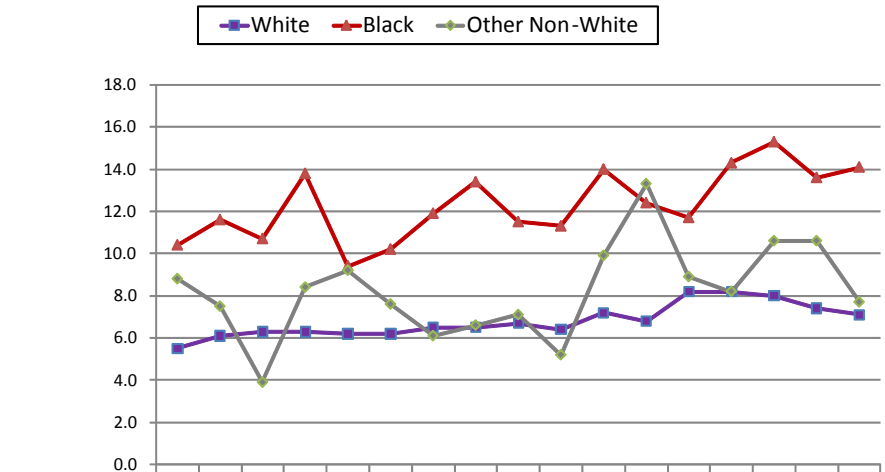
- The incidence of low birth weight in Brevard has increased over time among Blacks, Whites, and non-Caucasian Whites, and is highest among Blacks. However, since 2007, the incidence of low birth weight has begun to decline.

- Similar rates of low birth weight and trends over time have been observed in Florida.

Figure 1. Incidence of Low Birth Weight by Year and Race (1992 to 2008)

BREVARD COUNTY

Incidence of Low Birth Weight* by Year and Race

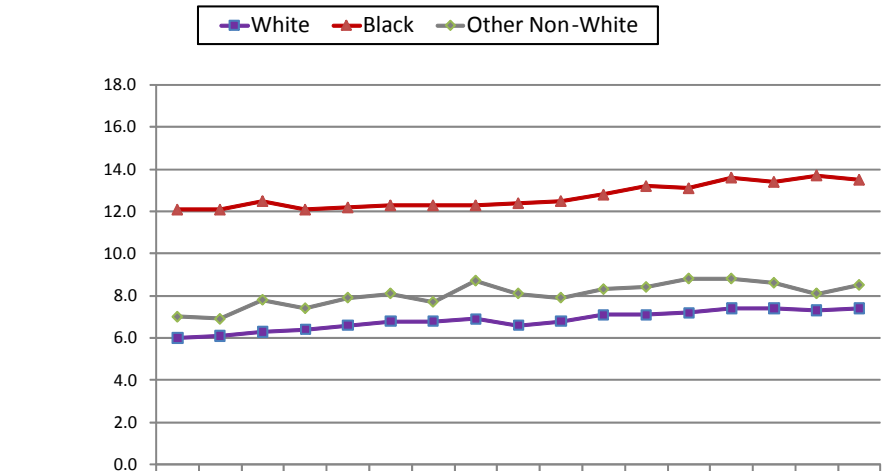


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
White	5.5	6.1	6.3	6.3	6.2	6.2	6.5	6.5	6.7	6.4	7.2	6.8	8.2	8.2	8.0	7.4	7.1
Black	10.4	11.6	10.7	13.8	9.4	10.2	11.9	13.4	11.5	11.3	14.0	12.4	11.7	14.3	15.3	13.6	14.1
Other Non-White	8.8	7.5	3.9	8.4	9.2	7.6	6.1	6.6	7.1	5.2	9.9	13.3	8.9	8.2	10.6	10.6	7.7

*Defined as <2,500 grams. Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Incidence of Low Birth Weight* by Year and Race



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
White	6.0	6.1	6.3	6.4	6.6	6.8	6.8	6.9	6.6	6.8	7.1	7.1	7.2	7.4	7.4	7.3	7.4
Black	12.1	12.1	12.5	12.1	12.2	12.3	12.3	12.3	12.4	12.5	12.8	13.2	13.1	13.6	13.4	13.7	13.5
Other Non-White	7.0	6.9	7.8	7.4	7.9	8.1	7.7	8.7	8.1	7.9	8.3	8.4	8.8	8.8	8.6	8.1	8.5

*Defined as <2,500 grams. Source: Florida Dept. of Health Vital Statistics: CHARTS

Table 1 presents selected maternal characteristics and their relationship to the occurrence of low birth weight in calendar year 2006. As seen, age less than 18 years, black race, less than high school education, unmarried, pre-pregnancy BMI of <18.5, Healthy Start Infant Score ≥4, adequate or below prenatal care utilization (Kotelchuck Index), and less than 15 prenatal visits were all strongly associated with the incidence of low birth weight.

Table 1
Maternal Characteristics and Incidence of Low Birth Weight (LBW)
Brevard County (2006)

Characteristic	Total (N=5707)	LBW (N=514)	No LBW (N=5193)	p-value
Mother Age at Infant Birth, %				
Less than 18	3.3	5.4	3.1	0.0044
18 to 21	18.1	22.8	17.7	
22 to 25	22.3	21.2	22.5	
26 to 29	21.6	20.0	21.7	
30 to 34	20.6	17.3	20.9	
35 to 39	11.6	11.3	11.6	
40 or older	2.5	1.9	2.6	
Mothers Race, %				
White	80.6	70.2	81.6	<.0001
Black	13.5	22.8	12.5	
Other non-white	6.0	7.0	5.9	
Mothers Education, %				
Less than high school	17.3	23.0	16.7	0.0008
High school/GED	26.6	26.9	26.5	
At least some college	56.2	50.1	56.7	
Mothers Marital Status, %				
Married	58.0	49.7	58.8	<.0001
Unmarried	42.0	50.3	41.2	
Pre-Pregnancy Body Mass Index, %				
BMI < 18.5	6.1	9.6	5.7	0.0013
BMI 18.5 to 24.9	52.7	53.6	52.6	
BMI 25 to 29.9	21.7	17.5	22.2	
BMI 30 to 34.9	11.4	10.0	11.5	
BMI >= 35	8.1	9.2	8.0	
Tobacco Use During Pregnancy, %				
Non-smoker	83.3	80.5	83.6	0.2697
1 to 10 cigarettes	13.4	15.2	13.3	
11 to 19 cigarettes	1.1	1.6	1.1	
20 or more cigarettes	2.1	2.8	2.0	
Healthy Start Screening Consent, %				
No	13.3	14.4	13.2	0.4564
Yes	86.7	85.6	86.8	
Healthy Start Infant Score, %				
Zero	38.2	19.7	40.0	<.0001
One	27.8	17.7	28.8	
Two	15.4	11.2	15.8	
Three	7.5	6.5	7.6	
Four or more	11.1	45.0	7.8	
Prenatal Care Utilization: Kotelchuck Index, %				
Missing	8.0	8.6	8.0	<.0001
Inadequate	10.8	11.7	10.7	
Intermediate	7.3	4.3	7.6	
Adequate	36.7	18.7	38.5	
Adequate plus	37.2	56.8	35.3	
Month Pregnancy Prenatal Care Began, %				
Month 0 or 1	26.6	31.5	26.1	0.0853

Month 2	37.4	34.2	37.7	
Month 3	18.0	18.6	17.9	
Month 4	8.1	6.7	8.3	
Month 5 or later	9.9	9.0	10.0	
Number of Prenatal Visits, %				
0 to 7	8.2	24.6	6.6	<.0001
8 to 14	71.9	56.9	73.3	
15 to 20	18.1	14.3	18.4	
21 or more	1.9	4.2	1.7	

Note: a p-value <0.0001 suggests a strong relationship between a given characteristic and risk of LBW
Source: Florida Department of Health, Office of Statistics and Assessment: Healthy Start De-identified Linked and Unlinked Data Files

The key to reducing the **Low Birth Weight rate** is two-fold:

1. Addressing behavioral risk factors of the mother such as smoking, drug and alcohol use, accessing regular prenatal care, preconception and interconception healthcare, and poor nutrition.

2. Preventing premature births. The primary contributing factor to low birth weight is the prematurity of the infant. Risk factors for prematurity include substance abuse, congenital anomalies, multiple births, maternal medical conditions, nutrition, and dehydration. Research is now indicating that stress may also be a factor.

In section III, you will see the impact pre-term births have played on the LBW rate and how the LBW rate has impacted the infant mortality rate.

The Coalition developed several strategies during the 2005 - 2010 Service Delivery Plan for impacting the low birth weight rate. These included:

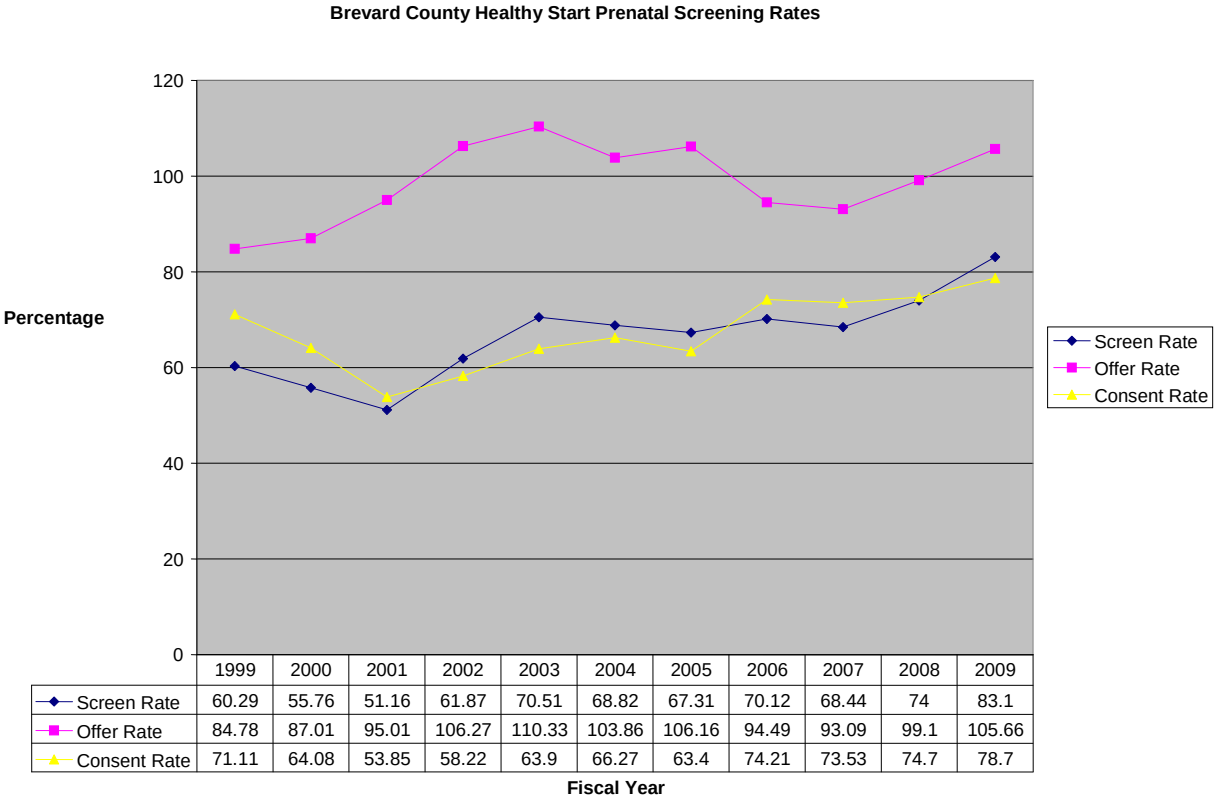
1. *Continuing to develop the screening infrastructure and services to increase the intensity level of contact with providers, strenghten the link with MomCare and provide feedback reports on screening data to providers.*

2. *Increasing Healthy Start prenatal screening rates and continuing "Building Tomorrow's Child" the Coalition's public awareness campaign focusing on the risk factors associated with low birth weight.*

   Educational information is provided to women completing the prenatal and infant screens. The information is distributed based on non – Department of Health funding sources, are attractively packaged and include prenatal care information for pregnant women; information on infant care, postpartum depression, community resources, infant books, etc. for women who just gave birth. All are labeled with the new Healthy Start brand logo and website, www.healthystartbrevard.com.

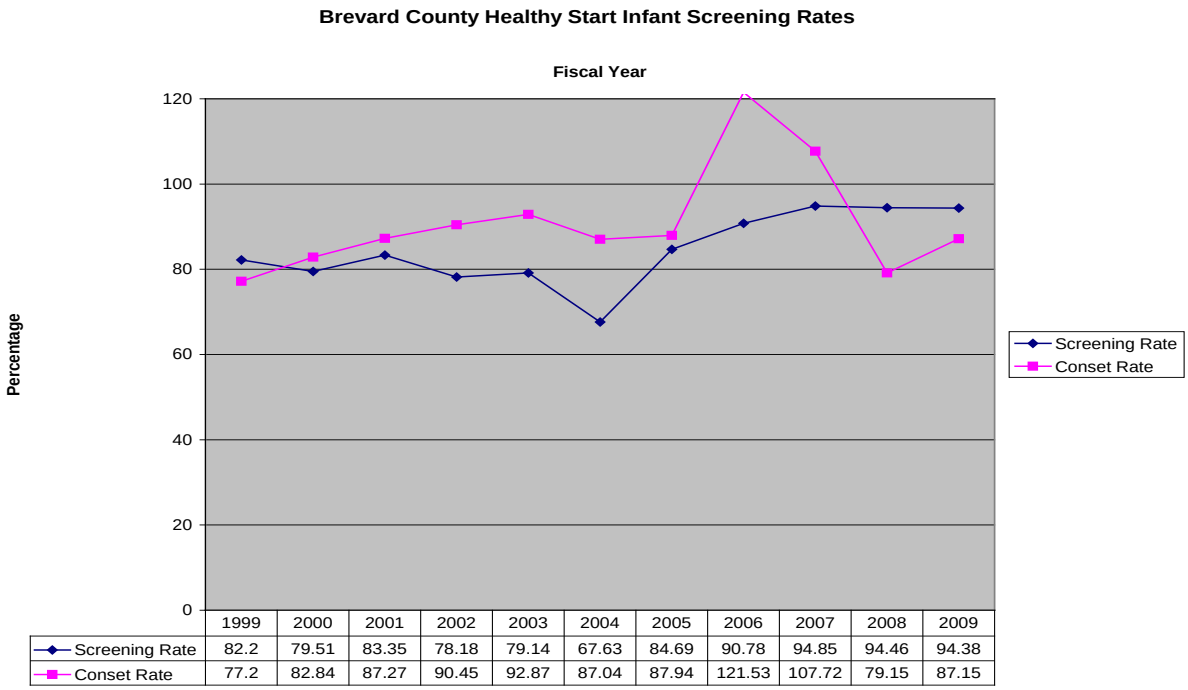
   These strategies continue to be very successful in raising the prenatal and postnatal screening rates for Brevard County. The 2009-2010 Prenatal Screening Rate Goal is 67.65% and the Infant Screening Rate Goal is 87.73%. The Coalition continues to exceed these goals as reflected in **Figures 2 and 3**.

Figure 2. Healthy Start Prenatal Screening Results by Calendar Year



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Screen Rate	60.29	55.76	51.16	61.87	70.51	68.82	67.31	70.12	68.44	74	83.1
Offer Rate	84.78	87.01	95.01	106.27	110.33	103.86	106.16	94.49	93.09	99.1	105.66
Consent Rate	71.11	64.08	53.85	58.22	63.9	66.27	63.4	74.21	73.53	74.7	78.7

Figure 3. Healthy Start Infant Screening Results by Calendar Year



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Screening Rate	82.2	79.51	83.35	78.18	79.14	67.63	84.69	90.78	94.85	94.46	94.38
Conset Rate	77.2	82.84	87.27	90.45	92.87	87.04	87.94	121.53	107.72	79.15	87.15

Note: Data for the Years 1992 to 1998 were not available from the FL Department of Health. 2009 data was available and is included in Figures 2 and 3 for Screening Rate Goal comparison.

3. *Maintenance of the MomCare System "in-house"*

The MomCare Program is in its tenth year of operation. The program is operated by and housed in the Healthy Start Coalition office. In Brevard County, over 4,200 women are served each year. The goal of the MomCare Program is to enroll women with a prenatal care provider during their first trimester and to provide them with information and referrals during their pregnancy. MomCare explains services that are available to the women due to their eligibility for SOBRA (Pregnancy) Medicaid. MomCare also encourages women to complete the Healthy Start Prenatal Risk Screen, enroll with the WIC Program and provides information on the family planning waiver. The MomCare staff works closely with the Provider Liaison, focusing on building stronger relationships with providers. MomCare staff also work closely with the Department of Children and Families to coordinate the process of the simplified one page eligibility application for Pregnancy Medicaid.

Due to funding decreases, since implementation of the MomCare Program, staff has decreased from one and one-half full time Maternity Care Advisors to two part time Advisors with the Provider Liaison assisting with the completion of home visits. Nevertheless, the MomCare Advisors have continued to meet and exceed performance measures. Support and oversight is provided by the Executive Director and the Assistant Director. As part of the Coalition's quality improvement plan, quarterly record reviews and satisfaction surveys are conducted as well as an annual on-site administrative review conducted by the Coalition's Quality Improvement Committee. The success of the MomCare Program is evidenced by its performance on contracted and in-house measures, which typically exceed goals and statewide averages. The MomCare Program continues to be an essential component in providing support, information and referrals to help women have healthy babies.

4. *Develop and implement the Low Birth Weight & Hispanic Committee to ensure all women in the Hispanic community have access to prenatal care, increase awareness of Healthy Start services and to lower the incidence of LBW and fetal demise for Hispanic babies.*

The strategy developed by the Committee was to increase outreach to the Hispanic community, targeting but not limited to Hispanic women and their families, resulting in an increase in their knowledge of the importance of prenatal, postpartum and interconceptional care and ultimately increasing access to care.

The methods to accomplish the strategy included:

- Recruit and train bilingual Spanish individuals to work as liaisons in the community.
- Provide a bilingual Childbirth Education Teacher training to increase the number of bilingual educators.
- Provide bilingual Doula training to increase the number of bilingual Doula's within Brevard County.

The resulting program is "Seras Madre" and has been extremely successful, as demonstrated in the knowledge gained by participants as reflected in survey responses. The Coalition plans to study the outcomes of the "Seras Madre" model and develop a model specific to the prevention of low birth weight infants, fetal mortality and infant mortality in the Black population for implementation throughout the 2010-2015 Service Delivery Plan.

5. *Discontinued targeting intensive Healthy Start services to zip code 32922.*

   The Coalition determined that it was no longer feasible to target zip code 32922 for two reasons:
   - Brevard County Housing Authority closed the largest housing project in the 32922 zip code, resulting in a significant change in the population.
   - The Provider was not effective in delivering the services and those activities were contracted with another service Provider. The 32922 zip code continued to be served through the core Healthy Start service delivery system.

Readiness to Start School:

The Coalition functioned as the Administrative and Fiscal Agent for the Brevard School Readiness Coalition through December 2005, at which time those services were transitioned to the Brevard School Readiness Coalition, a.k.a Early Learning Coalition of Brevard County, Inc. (ELC). The Coalition continues to collaborate with the ELC as well as other School Readiness providers to ensure all children have access to services that promote normal growth and development, maximizing the opportunity for children to be ready to start school.

Brain development during pregnancy establishes the foundation for future learning. The brain begins to grow soon after conception. At birth, a child has approximately 100 billion brain cells (neurons) and 50 trillion connections (synapses). Lack of prenatal care, unhealthy eating habits, smoking and drug or alcohol use during pregnancy can reduce the number of cells and connections a child has at birth. As a result, the child will have a diminished ability to learn before they are even born. Our strategies for the prenatal care period have been outlined on the prior pages, but in addition to focusing on the prenatal period, the Coalition developed strategies focusing on the infant and their parents. In the first months of life, a child's brain will develop 20 times the number of connections (synapses) he/she is born with to more than 1,000 trillion synapses. The child needs the proper tools and materials to build strong connections. Early experiences and interaction with parents creates new connections (synapses) and repetition strengthens them. It is important to talk, sing to or mimic a baby. This provides brain stimulation. According to the April 17, 1997, *New York Times*, "the number of words an infant hears each day is the single most important predictor of later intelligence, school success, and social competence".

In order to ensure that children are ready to start school, the Coalition has focused on the following action steps:

1. *Continued collaboration with Healthy Families to ensure families are receiving the appropriate program(s) and /or services to meet their needs.*

   The primary Healthy Start Care Coordination provider partners with Healthy Families to reduce duplication and increase communication across program lines to ensure the process for initial contact and assessment are integrated. Additionally, good communication on referrals and the identification of needs of families helps reduce duplication of services.

2. *Increasing the type and intensity level of parenting information to the community.*

   The Coalition continues to provide ongoing parenting information to both Healthy Start clients and the general population through the "Building Tomorrow's Child" project. Educational information is distributed to women who have consented to either the Healthy Start prenatal and/or infant

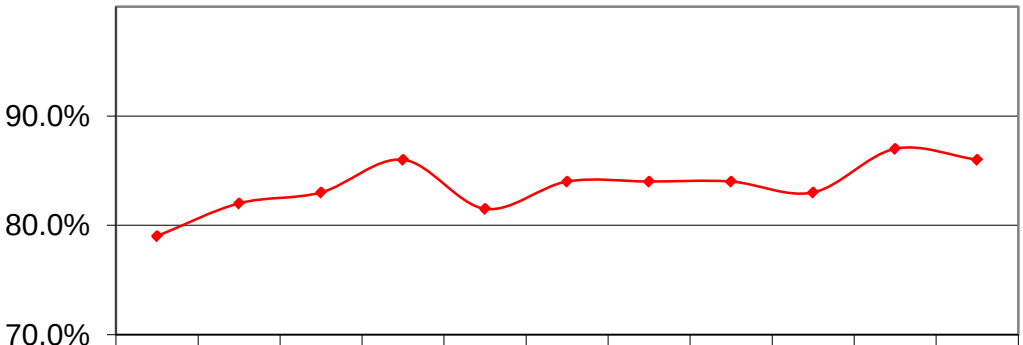
screens. The educational information is identified based on funding sources and include materials related to healthy pregnancy, and parenting and infant care information. Educational information is distributed through prenatal providers' offices and in the hospitals. This activity has proven to be very effective in increasing screening rates and providing parenting information to the community, as demonstrated previously in the Screening Rate Figures 2 and 3.

3. *Ensuring that all children have a medical home through collaboration and shared leadership with the KidCare Committee, Healthy Start and School Readiness service providers.*

   The Coalition continues to actively participate in Brevard County's KidCare Committee to promote health insurance options to families and KidCare materials are distributed through the MomCare Program and "Building Tomorrow's Child" prenatal and infant educational information. Additionally, links to resources that may be useful to families if they are expecting a baby, planning on becoming pregnant or are already parenting are listed on the Healthy Start website.

Each of these activities contributes to the percentage of Brevard County children who are ready to start school, as demonstrated in **Figure 4**.

Figure 4. Percentage of Brevard County Children Ready to Start School



	1997/ 1998	1998/ 1999	1999/ 2000	2000/ 2001	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008
Percent Ready to Start School by School Year	79.0%	82.0%	83.0%	86.0%	81.5%	84.0%	84.0%	84.0%	83.0%	87.0%	86.0%

Source: Early Learning Coalition of Brevard County.
*NOTE: In 2006/2007, DOE began using the new ECHOS (Early Childhood Observation System) assessment tool for kindergarten readiness.

Conclusion Synopsis:

The purpose of the recap section is to provide a summary of what has occurred since the 2005 Service Delivery Plan and what progress or successes the Coalition has achieved during that period.

Several significant achievements were realized:

1. Increased prenatal and infant screening rates.
2. Developed a "model" MomCare program.
3. Beginning to see a decrease in the incidence of Low Birth Weight.
4. Increased knowledge demonstrated by "Seras Madre" participants.

SECTION III: DATA ANALYSIS OF MATERNAL AND CHILD HEALTH INDICATORS

Overview of Methods and Data Analyses. The following information is an analysis of data for Brevard County for selected maternal and child health indicators. Data are presented in a year-to-year format beginning in 1992 through 2007; in some cases data was available through 2008 and was included. In addition, data are stratified by important characteristics of the birth mother including age, race, trimester in which prenatal care began, marital status, and educational attainment. This allows a 15-year assessment of trends in selected maternal and child health indicators. For comparisons with Brevard County, data from the State of Florida are presented. Two primary sources of data have been used to compile this data analysis:

(i) Florida Community Health Assessment Resource Tool Set (CHARTS)
http://www.floridacharts.com/charts/chart.aspx

(ii) Florida Department of Health, Office of Statistics and Assessment: Healthy Start De-identified Linked and Unlinked Data Files
ftp://ftp.doh.state.fl.us

Definitions. For the health status indicators and characteristics of birth mothers in this report, definitions are provided below and are excerpted from the Florida Birth Query System and the October 1997 report on Maternal and Infant Health Status Indicators for Florida published by the Lawton and Rhea Chiles Center for Healthy Mothers and Babies.

Health Status Indicators and Outcomes:

Births:	Births among mothers who are residents in Brevard County or the State of Florida.
Birth Rate per 1,000:	The rate of births per 1,000 residents in Brevard County or the State of Florida.
Low Birth Weight:	Infant born with weight between 1500 to 2499 grams.
Very Low Birth Weight	Infant born with weight less than 1500 grams.
Preterm Birth:	Infant born before 37 completed weeks gestation.
Very Preterm Birth:	Infant born before 32 completed weeks gestation.
Gestational Age:	Estimated gestational age based on date of last menstrual period and date of delivery.
Prenatal Screening	
Receive Healthy Start Screening:	Woman who has received a Healthy Start prenatal screening.
Consent to Healthy Start Program:	Woman who has had a Healthy Start prenatal screening offered and has consented to participate.
Postnatal Screening	
Receive Healthy Start Screening:	Woman who has received a Healthy Start postnatal screening.
Consent to Healthy Start Program:	Woman who has had a Healthy Start postnatal screening offered and has consented to participate.
Healthy Start Screen Score ≥4:	Woman who has an infant that has received a Healthy Start postnatal screening and has a score ≥4 (i.e. high risk status).
Fetal Death:	The death of a fetus after 20 weeks gestation until birth. The rate is the

(also Fetal Mortality Rate):	number of fetal deaths per 1,000 live births plus fetal deaths.
Neonatal Death:	Infant death between birth and 27th day of life.
Postnatal Death:	Infant death between 28th day of life and 364 days.
Infant Death < Age 1: (also Infant Mortality Rate and Postneonatal Death)	Infant death between birth and 364 days.

Selected Maternal Characteristics:

Age:	Mother's age at the time of birth.
Race:	Mother's race. Classifications used are White, Black, and Non-white. Non-white includes, Black (when not classified separately), American Indian, Chinese, Japanese, Hawaiian, Filipino, Korean, Other Races, Vietnamese, Asian Indian, Asian Other, Guam, Samoan, Other Pacific Islander, and individuals indicating more than one race.
Marital Status:	This is the mother's marital status at the time of birth. Values are married, unmarried, and other or unknown marital status. Other or unknown marital status includes mothers who are widowed.
Educational Level:	This indicates the mother's highest level of educational attainment. Values are less than high school education, high school education and higher, and unknown educational attainment.
Trimester Care:	Indicates the trimester of entry into prenatal care. Values are 1st trimester, 2nd trimester, 3rd trimester, no prenatal care, and unknown trimester of entry.
Prenatal Visits:	Number of prenatal visits during pregnancy period.

Executive Summary of Results

In the tables below, brief summaries are provided for the results observed for selected maternal and child health and community indicators.

Summary of Results: Births and Birth Rates	
●	Approximately 5,000 births occur each year in Brevard County.
●	Brevard County is becoming more racially diverse in terms of its birth mothers.
●	The birth rate in Brevard is lower than the State of Florida as a whole, and higher among non-white residents compared to white residents.
●	Over the past 15 years, the percentage of births to mothers under the age of 18 has decreased slightly to a rate of 3.0% in 2007.
●	Although non-whites have higher rates of teen births than whites, the overall reduction in the percentage of teen births over the past 10 years has been greater in non-white women.
Refer to Figures 2-4c and Tables 5-6 for more detailed information; pages 26-32.	

Summary of Results: Prenatal Screening	
●	The rate of prenatal screening in Brevard has increased over time to approximately 70%.
●	For any given year, the prenatal consent rate is approximately 50% and has not increased in Brevard over time.
●	The percentage of women without prenatal care has remained below 2% in all years.
●	Although slightly higher than Florida, the percentage of women who began prenatal care in the first trimester dropped from 87% in 1995-97 to 80% in 2005-07.
●	Rates for initiation of prenatal care in the first trimester care have been lower in Black (~70%) compared to White (~80%) mothers.
●	In 2007, 89% of all birth mothers in Brevard had 8 or more prenatal visits, rate that has remained consistent over time.
Refer to Figures 7-12, Table 5 and Charts 1-2 for more detailed information; pages 33-41.	

Summary of Results: Births to Unmarried Mothers	
●	In Brevard, births to unmarried white mothers have increased substantially from 21% in 1992 to 39% in 2007.
●	The percentage of births to unmarried black mothers has remained at approximately 60% over the past 15 years.
●	Among unmarried mothers, the initiation of prenatal care in the first trimester has decreased from 75% in 2000 to 66% in 2007.
Refer to Figures 13-14 for more detailed information; pages 43-44.	

Summary of Results: Births to Mothers with Less than High School Education	
●	Among white mothers in Brevard, about 14% have less than a high school education.
●	Among black mothers in Brevard, 24% had less than a high school education in 2007, a rate that has decreased from 31% in 1993.
●	Dissimilar to Brevard, in Florida, the percentage of mothers with less than a high school education is similar between blacks and whites (~21%).
●	In 2007 in Brevard, unmarried mothers were 3 times more likely to have less than a high school education compared to married mothers (76% versus 24%)
●	Among mothers in Brevard with less than a high school education, 61% began prenatal care in the first trimester in 2007, a rate lower than in 2003 (73%).
Refer to Figures 15-17 for more detailed information; pages 46-48.	

Summary of Results: Low Birth Weight	
●	Consistent with national and statewide trends, the incidence of low birth weight in Brevard has increased from approximately 7% in 1995-1997 to 9% in 2005-2007.
●	For whites, the increase in low birth weight over the past decade has been from 6% to 8%, whereas in non-whites it has been from 11% to 13%.
●	In Brevard in 2007, the incidence of low birth weight was 10% in unmarried women compared to 7% in married women.
●	In Brevard from 2005 to 2007, the incidence of low birth weight was highest in mothers under the age of 18 (13%) and second highest in those age 18 to 29 (11%).
●	In 2006 in Brevard, the strongest predictors of low birth weight were mother of black race, less than optimal prenatal care utilization, less than 15 prenatal visits, and a Healthy Start Infant Score $\geq$4.
Refer to Figures 1, 18-21, Table 1 and Charts 3-5 for more detailed information; pages 50-59.	

Summary of Results: Very Low Birth Weight	
●	Among whites in Brevard, the incidence of very low birth weight increased from 1.0% in 1995 to 1997 to 1.3% in 2005 to 2007. By way of comparison, in non-whites the increase was from 1.7% to 2.5%.
●	The incidence of very low birth weight is nearly double in unmarried women compared to married women in Brevard, a pattern that has remained relatively consistent over time.
Refer to Figures 22-24 and Charts 6-7 for more detailed information; pages 61-65.	

Summary of Results: Preterm Birth	
●	Among whites, the incidence of preterm birth increased from 10% in 1995 to 1997 to 14% in 2005 to 2007. By way of comparison, in non-whites the increase was from 15% to 20%.
●	Rates of preterm birth in Brevard have remained consistently higher in unmarried women compared to married women.
●	In 2006 in Brevard, the strongest predictors of preterm birth were mother of black race, less than optimal prenatal care utilization, less than 8 prenatal visits, and a Healthy Start Infant Score $\geq$4.
Refer to Figures 25-27, Table 6 and Charts 8-9 for more detailed information; pages 67-73.	

Summary of Results: Very Preterm Birth	
●	From 1995-1997 to 2005-2007, the incidence of very preterm birth in non-whites increased from 2.9% to 4.0%. The corresponding increase in whites in Brevard was from 1.2% to 1.8%.
●	In Brevard, the incidence of very preterm birth has remained approximately twice as high in unmarried women compared to married women.
Refer to Figures 28-30and Charts 10-11 for more detailed information; pages 75-79.	

Summary of Results: Postnatal Screening	
●	Rates of infant consent to the Healthy Start Program have been generally higher in non-whites (83% in 2007) compared to whites (81% in 2007).
●	With the exception of 2004 in which personnel transitions occurred at the Healthy Start Coalition of Brevard, rates of infant Healthy Start services have generally increased over time. Rates were 72% in 1995 to 1997 compared to 83% in 2005 to 2007.
●	The percentage of infants with a Healthy Start score $\geq$4 has been relatively constant over time, although much higher in non-whites (22% in 2007) compared to whites (8% in 2007).
●	The percentage of infants with a Healthy Start score $\geq$4 is approximately 3-fold higher in unmarried women compared to married women.
Refer to Figures 31-3, Table 7 and Charts 12-13 for more detailed information; pages 81-92.	

Summary of Results: Fetal and Infant Mortality	
●	Among whites in Brevard, the incidence rate of infant mortality increased from 4.9 per 1,000 births in 1995 to 1997 to 6.4 per 1,000 births in 2005 to 2007. In non-whites, the corresponding increase was from 8.6 per 1,000 births to 10.1 per 1,000 births.
●	In 2007 in Brevard, incidence rates of fetal death were 5.9 per 1,000 in whites compared to 12.2 per 1,000 in non-whites, rates that parallel those in Florida as a whole.
●	Rates of neonatal mortality (days 0 to 27 after birth) have been generally consistent over time. In 2007 incidence rates were 3.3 per 1,000 in whites compared to 6.6 per 1,000 in non-whites.
●	Rates of postnatal mortality (days 28 to 364 after birth) were much higher in 2007 in non-whites (6.6 per 1,000) compared to whites (1.5 per 1,000).
●	In 2006 in Brevard, the strongest predictors of infant mortality were being unmarried, no consent to Healthy Start screening, less than optimal prenatal care utilization, less than 8 prenatal visits, and a Healthy Start Infant Score $\geq$4.
Refer to Figures 40-45, Tables 8-9 and Chart 14 for more detailed information; pages 93-103.	

Summary of Results: Uninsured Children	
●	Title XXI Enrollment has remained relatively consistent since 2005 after enrollment peaked in 2004.
●	Title XIX enrollment had remained relatively consistent since 2005 although there has been a significant increase beginning in early 2009. This could be the result of the challenging economic situation that began in 2008.
Refer to Figures 46-47 and Tables 10-11 for more detailed information; pages 105-106.	

Summary of Results: Child Abuse and Neglect	
●	From the 95/96 report of 3,607 to the 6,969 reported in 08/09 the number of abuse reports received has risen by 93.25% in Brevard County.
●	From the 95/96 report of 13,951 to the 26,099 reported in 08/09 the number of abuse reports received has risen by 87.08% in District VII.
●	From the 95/96 report of 114,826 to the 170,971 reported in 08/09 the number of abuse reports received has risen by 48.90% Statewide.
Refer to Table 12 for more detailed information; page 108.	

Summary of Results: School Readiness	
●	There has been an overall 5 percentage point increase of children ready to start school from school year 1996/1997 to school year 2004/2005.
Refer to Table 13 for more detailed information; pages 109.	

Summary of Results: Consumer Input	
●	Focus group and Healthy Start consumer participation survey findings show the need to increase community awareness between the Healthy Start risk screen and recognizing/addressing risk factors likely to affect birth outcomes or infant development.
Refer to pages 110-112.	

Births and Birth Rates

As seen in **Table 2**, between 4,741 and 5,731 resident births have occurred on an annual basis in Brevard County during the years 1992-2007. Of note, the two highest annual birth counts are in 2006 (5,610) and 2007 (5,731) due primarily to increased population count in the county as a whole. The majority of all births have to been mothers of white race. In 2007, 368 births (6.4%) were to mothers of race other than white or black. This compares to a low of 92 (1.9%) in 1997. These data, along with relatively constant proportion of black residents, indicate that Brevard county is becoming more diverse in terms of its birth mothers.

Table 2. Resident Births (Counts)
Brevard County

	Mother's Race				
Year	**White**	**Black**	**Other Non-White**	**Unknown**	**All Mother's Race**
1992	4,676	748	113	0	5,537
1993	4,518	700	120	2	5,340
1994	4,414	680	127	0	5,221
1995	4,154	617	131	6	4,908
1996	4,247	593	163	1	5,004
1997	4,091	607	92	2	4,792
1998	4,087	624	98	2	4,811
1999	3,930	655	152	4	4,741
2000	4,146	704	156	8	5,014
2001	3,935	689	155	10	4,789
2002	3,952	708	142	5	4,807
2003	4,107	741	165	4	5,017
2004	4,197	719	281	17	5,214
2005	4,348	727	291	21	5,387
2006	4,514	763	330	3	5,610
2007	4,517	843	368	3	5,731

Data Source: Florida Department of Health, Office of Vital Statistics, Florida Birth Certificate

Data Notes: Data for Florida residents only.

As seen in **Table 3**, the birth rate per 1,000 residents in Brevard has ranged from a low of 9.7 (2002) to a high of 13.2 (1992). For white mothers, birth rates have ranged from 9.0 per 1,000 to 12.4 per 1,000 residents. For non-white residents, the birth rate has been substantially higher, ranging from 14.3 per 1,000 to 20.4 per 1,000 residents. This translates to a non-white to white birth ratio of 1.42 to 1.91. Compared to the state of Florida, the birth rate per 1,000 persons has been lower in Brevard county, ranging from a ratio of 0.78 (2001) to 0.94 (1992).

Table 3. Birth Rates per 1,000 Residents in Brevard and Florida by Race (1992-2007)

Birth Rate per 1,000	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
All																
Brevard	13.2	12.5	12	11.1	11.2	10.5	10.4	10.1	10.5	9.8	9.7	9.8	9.9	10.1	10.3	10.4
State	14.1	13.9	13.5	13.1	12.9	12.8	12.8	12.6	12.7	12.5	12.3	12.4	12.4	12.6	12.9	12.8
Ratio	0.94	0.90	0.89	0.85	0.87	0.82	0.81	0.80	0.83	0.78	0.79	0.79	0.80	0.80	0.80	0.81
White																
Brevard	12.4	11.8	11.3	10.5	10.6	10.1	9.9	9.4	9.7	9.1	9	9.1	9	9.3	9.4	9.3
State	12.6	12.5	12.1	11.8	11.7	11.6	11.5	11.3	11.4	11.3	11.1	11.2	11.1	11.4	11.7	11.6
Ratio	0.98	0.94	0.93	0.89	0.91	0.87	0.86	0.83	0.85	0.81	0.81	0.81	0.81	0.82	0.80	0.80
Non-White																
Brevard	20.4	18.7	17.8	16	15.9	14.3	14.4	15.6	16.2	15.4	15.1	15.7	16.8	15.7	16.4	17.8
State	22.4	21.5	20.3	19.3	18.8	18.7	18.5	18.2	18.7	18.2	17.4	17.5	17.8	17.3	17.8	17.6
Ratio	0.91	0.87	0.88	0.83	0.85	0.76	0.78	0.86	0.87	0.85	0.87	0.90	0.94	0.91	0.92	1.01
Non-White/White																
Brevard	1.65	1.58	1.58	1.52	1.50	1.42	1.45	1.66	1.67	1.69	1.68	1.73	1.87	1.69	1.74	1.91
State	1.78	1.72	1.68	1.64	1.61	1.61	1.61	1.61	1.64	1.61	1.57	1.56	1.60	1.52	1.52	1.52

Source: Florida Dept. of Health Vital Statistics: CHARTS

Births by Mother's Age

Table 4a. shows resident births for Brevard county by mother's age and calendar year. As seen, the highest number of births has occurred among mothers age 25 to 29 with very few births among mothers less than age 15 or age 40 and older. Nonetheless, in the age group 40 to 44, birth counts have generally increased over time.

Table 4a. Resident Births (Counts)
Brevard County

	Mother's Age										
Year	**0-14**	**15-17**	**18-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45+**	**Un-known**	**All Mother's Age**
1992	11	224	403	1,344	1,683	1,342	462	66	2	0	5,537
1993	23	235	340	1,257	1,564	1,346	504	71	0	0	5,340
1994	11	236	369	1,213	1,432	1,380	506	69	3	2	5,221
1995	13	225	356	1,077	1,289	1,306	557	82	3	0	4,908
1996	11	193	350	1,116	1,314	1,346	574	99	0	1	5,004
1997	10	211	346	1,043	1,241	1,209	634	95	2	1	4,792
1998	6	195	367	1,056	1,302	1,116	669	98	2	0	4,811
1999	6	196	398	1,132	1,211	1,070	608	117	0	3	4,741
2000	13	164	402	1,272	1,242	1,095	688	133	4	1	5,014
2001	6	144	382	1,267	1,135	1,102	598	150	4	1	4,789
2002	11	175	351	1,281	1,195	1,057	603	127	6	1	4,807
2003	8	145	368	1,350	1,310	1,097	593	136	10	0	5,017
2004	11	163	359	1,408	1,421	1,085	586	174	7	0	5,214
2005	8	166	394	1,445	1,499	1,127	581	159	8	0	5,387
2006	2	185	417	1,495	1,559	1,159	652	130	10	1	5,610
2007	9	162	415	1,566	1,694	1,141	572	165	7	0	5,731
2008	6	153	378	1,544	1,550	1,116	568	137	14	1	5,467

Data Source: Florida Department of Health, Office of Vital Statistics, Florida Birth Certificate
Data Notes: Data for Florida residents only.

Table 4b shows resident births for Brevard county **among White mothers** by age and calendar year. Consistent with all births (i.e. irrespective of race), the highest number of births has occurred among mothers age 25 to 29 with very few births among mothers less than age 15 or age 45 and older.

Table 4b. Resident Births (Counts - Whites)
Brevard County

	Mother's Age										
Year	**0-14**	**15-17**	**18-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45+**	**Un-known**	**All Mother's Age**
1992	4	142	289	1,062	1,487	1,210	419	62	1	0	4,676
1993	5	148	241	1,033	1,371	1,201	451	68	0	0	4,518
1994	3	153	257	963	1,271	1,241	460	61	3	2	4,414
1995	5	154	248	870	1,119	1,186	497	72	3	0	4,154
1996	3	120	273	880	1,143	1,215	525	87	0	1	4,247
1997	4	144	257	822	1,111	1,098	568	84	2	1	4,091
1998	3	144	272	834	1,127	1,012	607	86	2	0	4,087
1999	2	133	293	867	1,025	958	548	102	0	2	3,930
2000	4	108	307	1,005	1,014	969	622	113	4	0	4,146
2001	3	96	293	968	934	978	526	132	4	1	3,935
2002	4	115	254	999	1,013	928	521	111	6	1	3,952
2003	2	94	278	1,058	1,086	937	528	117	7	0	4,107
2004	7	109	260	1,068	1,165	925	502	155	6	0	4,197
2005	2	119	293	1,126	1,228	933	494	145	8	0	4,348
2006	1	119	313	1,169	1,289	961	547	105	9	1	4,514
2007	2	106	271	1,214	1,375	935	469	139	6	0	4,517
2008	5	107	273	1,200	1,250	904	452	111	12	0	4,314

Data Source: Florida Department of Health, Office of Vital Statistics, Florida Birth Certificate
Data Notes: Data for Florida residents only.

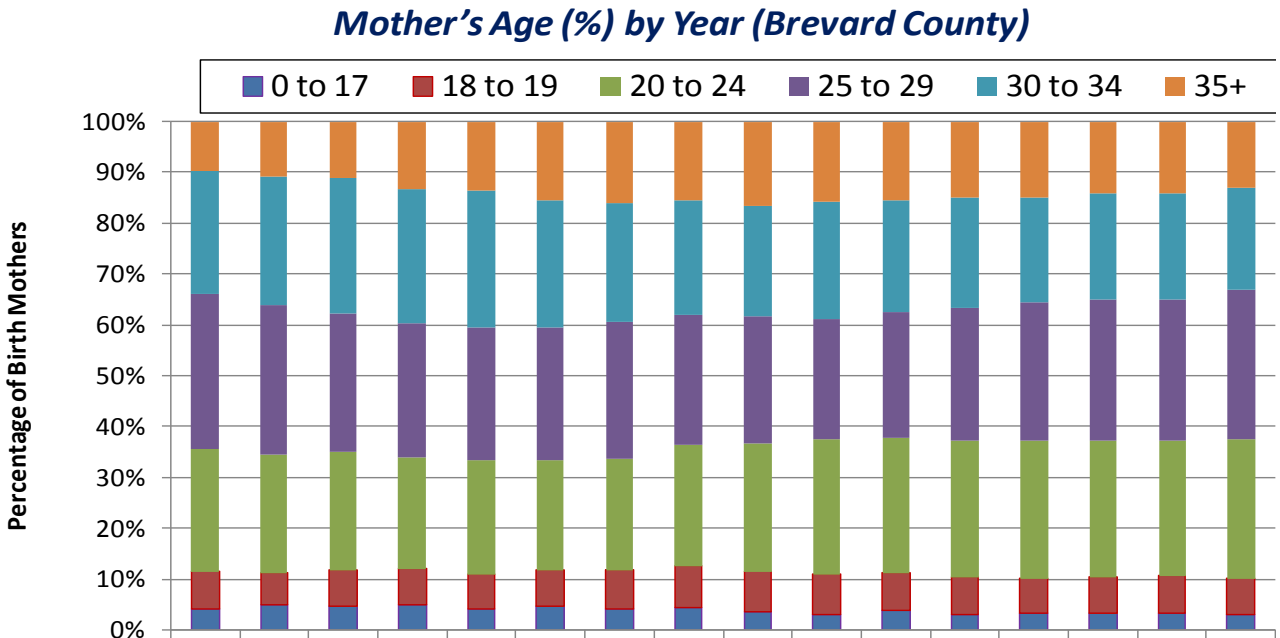
Table 4c. shows resident births for Brevard county **among Black mothers** by age and calendar year. The highest number of births has occurred among mothers age 20 to 24 which is lower, on average, than the most frequent age group among White mothers (25 to 29).

Table 4c. Resident Births (Counts – Blacks)
Brevard County

	Mother's Age										
Year	**0-14**	**15-17**	**18-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40-44**	**45+**	**Unknown**	**All Mother's Age**
1992	7	81	111	259	160	95	31	3	1	0	748
1993	18	83	93	209	149	110	38	0	0	0	700
1994	8	83	111	224	129	93	27	5	0	0	680
1995	7	69	99	184	121	87	42	8	0	0	617
1996	8	71	70	203	121	87	28	5	0	0	593
1997	6	66	84	208	104	84	46	9	0	0	607
1998	3	48	85	207	146	86	43	6	0	0	624
1999	4	60	102	240	134	74	33	8	0	0	655
2000	8	53	89	243	186	71	43	11	0	0	704
2001	3	45	84	268	156	75	48	10	0	0	689
2002	7	57	91	261	147	77	55	13	0	0	708
2003	6	51	83	264	173	99	47	15	3	0	741
2004	4	39	87	270	176	77	52	13	1	0	719
2005	6	38	79	255	185	112	43	9	0	0	727
2006	1	55	87	249	201	98	55	16	1	0	763
2007	6	49	119	265	221	125	44	13	1	0	843
2008	1	40	90	270	209	115	59	13	1	1	799
Selected Years Total	103	988	1,564	4,079	2,718	1,565	734	157	8	1	11,917

Data Source: Florida Department of Health, Office of Vital Statistics, Florida Birth Certificate
Data Notes: Data for Florida residents only.

Figure 5 depicts percentages of births in Brevard County by mother's age (in groups) and calendar year. As seen, the percentage of all births to mothers under the age of 18 has decreased from a high of 4.8% in 1993 and 1995 to 3.0% in 2007.



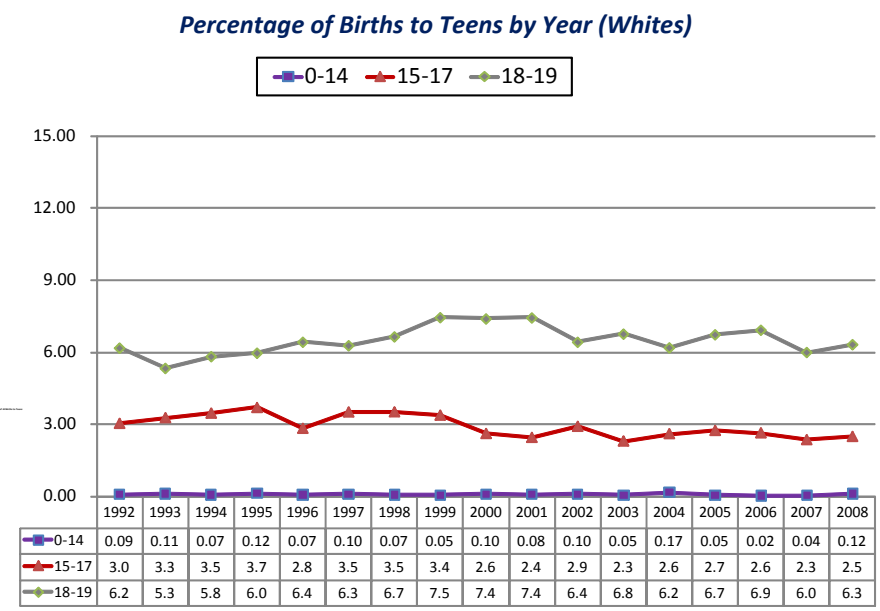
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
35+	9.6	10.8	11.1	13.1	13.5	15.3	16.0	15.3	16.5	15.7	15.3	14.7	14.7	13.9	14.1	13.0
30 to 34	24.2	25.2	26.4	26.6	26.9	25.2	23.2	22.6	21.8	23.0	22.0	21.9	20.8	20.9	20.7	19.9
25 to 29	30.4	29.3	27.4	26.3	26.3	25.9	27.1	25.6	24.8	23.7	24.9	26.1	27.3	27.8	27.8	29.6
20 to 24	24.3	23.5	23.2	21.9	22.3	21.8	21.9	23.9	25.4	26.5	26.7	26.9	27.0	26.8	26.7	27.3
18 to 19	7.3	6.4	7.1	7.3	7.0	7.2	7.6	8.4	8.0	8.0	7.3	7.3	6.9	7.3	7.4	7.2
0 to 17	4.2	4.8	4.7	4.8	4.1	4.6	4.2	4.3	3.5	3.1	3.9	3.0	3.3	3.2	3.3	3.0

Source: Florida Dept. of Health Vital Statistics: CHARTS

Figure 5. Percentage of Births by Mother's Age and Calendar Year

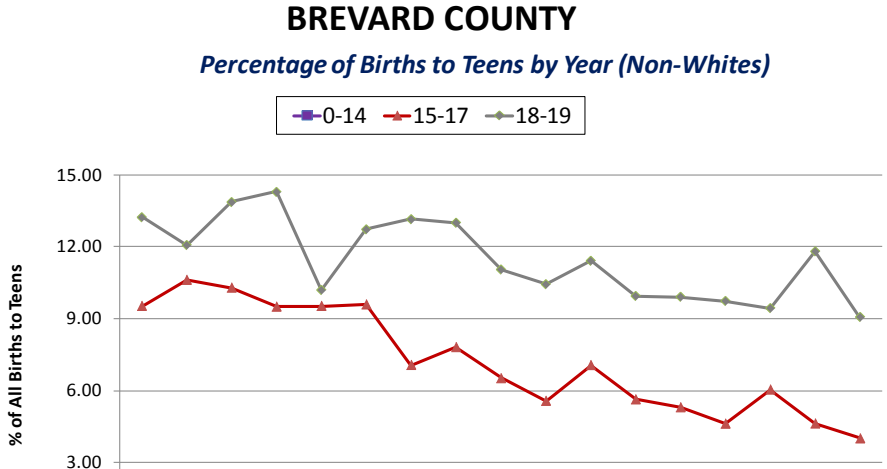
- Among White mothers, the percentage of all births to teens has stayed relatively constant over time, with a high of 7.5% among 18-19 year old birth mothers.
- In contrast, the percentage of all births to teens among Non-White mothers has decreased markedly over time, yet still remains higher than births to White mothers.

Figure 6. Percentage of Birth to Teens by Year and Race (Brevard County)



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
0-14	0.09	0.11	0.07	0.12	0.07	0.10	0.07	0.05	0.10	0.08	0.10	0.05	0.17	0.05	0.02	0.04	0.12
15-17	3.0	3.3	3.5	3.7	2.8	3.5	3.5	3.4	2.6	2.4	2.9	2.3	2.6	2.7	2.6	2.3	2.5
18-19	6.2	5.3	5.8	6.0	6.4	6.3	6.7	7.5	7.4	7.4	6.4	6.8	6.2	6.7	6.9	6.0	6.3

Source: Florida Dept. of Health Vital Statistics: CHARTS.



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
0-14	0.81	2.20	0.99	1.07	1.06	0.86	0.42	0.50	1.05	0.36	0.82	0.66	0.40	0.59	0.09	0.58	0.09
15-17	9.5	10.6	10.3	9.5	9.5	9.6	7.1	7.8	6.5	5.6	7.1	5.6	5.3	4.6	6.0	4.6	4.0
18-19	13.2	12.1	13.9	14.3	10.2	12.7	13.2	13.0	11.0	10.4	11.4	9.9	9.9	9.7	9.4	11.8	9.1

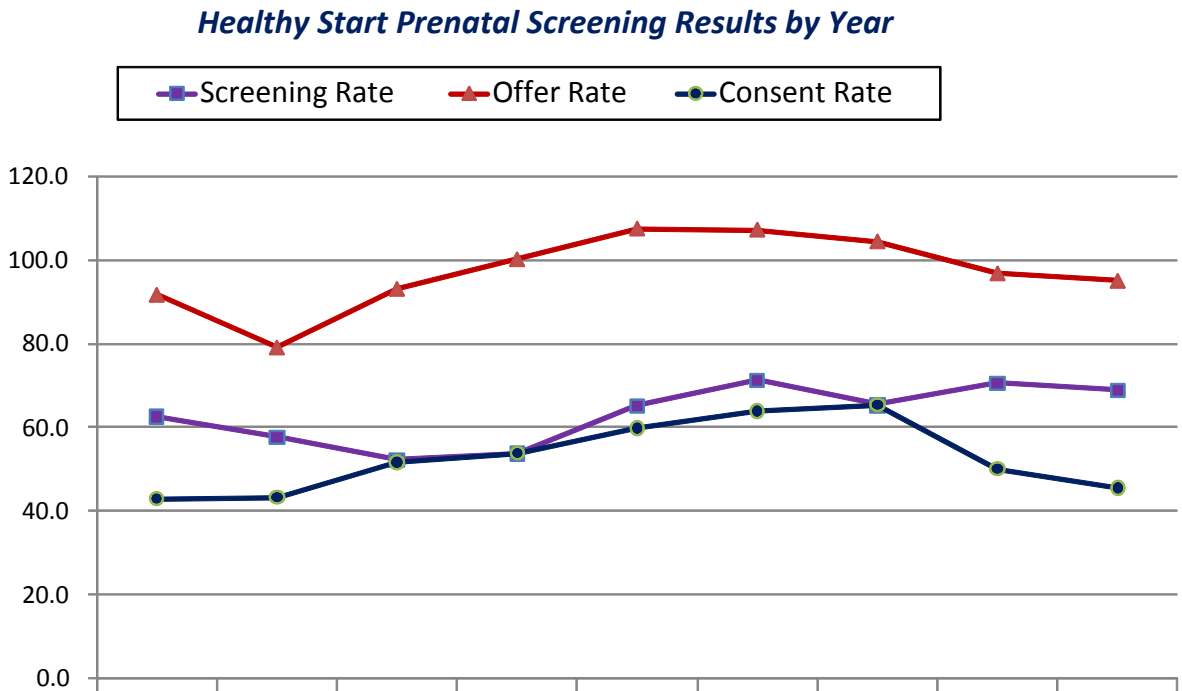
Source: Florida Dept. of Health Vital Statistics: CHARTS.

Prenatal Screening

Florida Statute 383.14 requires that all pregnant women be offered the Healthy Start Prenatal Risk Screening at their first or consequent prenatal visit and the Healthy Start Infant (Postnatal) Risk Screening be offered to parents or guardians of all infants born in Florida before leaving the delivery facility. These screenings identify risk factors so women and infants may be referred for services that complement and assure continued participation in prenatal and infant health care. In the figures that follow, the trimester in which prenatal screening was initiated is plotted over time by calendar year. Similarly, the number of prenatal visits is plotted by calendar year.

As seen in **Figure 7**, the rate of prenatal screening has increased from approximatly 60% in 1999-2003 to approximately 70% in 2004-2007. Nonetheless, the prenatal consent rate remains suboptimal at approximately 50% with no increase observed in 2006 and 2007.

BREVARD COUNTY



	1999	2000	2001	2002	2003	2004	2005	2006	2007
Screening Rate	62.5	57.5	52.2	53.6	65.0	71.2	65.3	70.5	68.9
Offer Rate	91.7	79.1	93.1	100.2	107.5	107.3	104.5	96.8	95.0
Consent Rate	42.9	43.2	51.5	53.6	59.7	63.8	65.3	50.1	45.4

Source: Florida Dept. of Health Vital Statistics: CHARTS

Figure 7. Healthy Start Prenatal Screening Results by Calendar Year

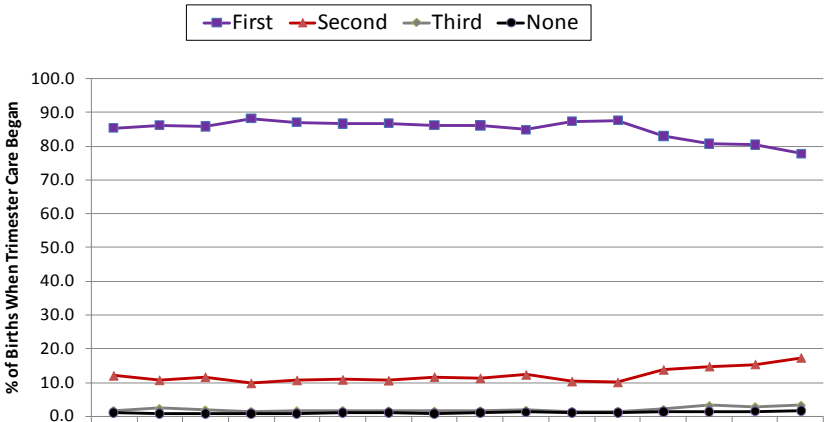
Note: Data for the Years 1992 to 1998 were not available from the FL Department of Health.

- The percentage of women with prenatal care initiated in the first trimester has ranged from 78% to 88% between 1992 and 2007. Between 2005 and 2007, there was a small drop in the percentage of women who began prenatal care in their first trimester. The percentage of women without prenatal care has remained below 2% in all years.
- Similar trends have been observed in the state of Florida as a whole.

Figure 8. Initiation of Prenatal Care by Trimester (1992 to 2007)

BREVARD COUNTY

Begin Trimester Care (%) Among Births to All Mothers by Year

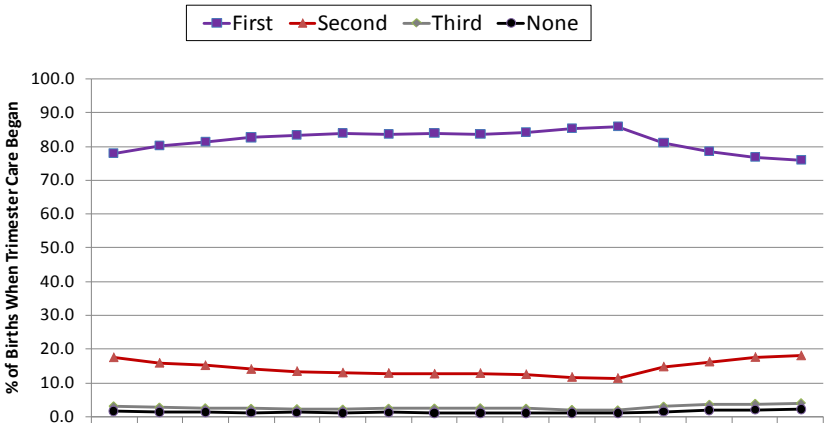


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
First	85.4	86.3	85.8	88.2	87.1	86.7	86.9	86.2	86.2	84.9	87.4	87.6	83.0	80.8	80.5	77.9
Second	12.0	10.6	11.6	9.7	10.6	10.8	10.5	11.6	11.2	12.3	10.3	10.0	13.7	14.7	15.4	17.3
Third	1.6	2.3	1.8	1.4	1.6	1.7	1.5	1.5	1.6	1.7	1.3	1.3	2.0	3.1	2.8	3.2
None	1.0	0.8	0.7	0.8	0.7	0.9	1.1	0.7	1.0	1.1	1.1	1.0	1.3	1.3	1.4	1.6

Source: Florida Dept. of Health Vital Statistics: CHARTS.

FLORIDA

Begin Trimester Care (%) Among Births to All Mothers by Year



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
First	77.9	80.2	81.3	82.6	83.3	83.9	83.7	83.9	83.7	84.1	85.4	85.8	81.0	78.5	76.8	75.9
Second	17.5	15.8	15.1	14.0	13.4	13.0	12.8	12.6	12.8	12.5	11.7	11.4	14.7	16.2	17.5	18.0
Third	3.0	2.7	2.5	2.3	2.2	2.1	2.4	2.4	2.5	2.4	2.0	1.9	3.0	3.5	3.8	3.9
None	1.6	1.3	1.2	1.1	1.1	1.0	1.1	1.0	1.0	1.0	0.9	0.9	1.3	1.8	1.9	2.1

Source: Florida Dept. of Health Vital Statistics: CHARTS.

As seen in **Chart 1**, the percentage of all birth mothers in Brevard who began prenatal care in the first trimester decreased from 87.3% in 1995 to 1997 to 79.7% in 2005 to 2007. These rates are slighty higher than those observed in Florida as a whole.

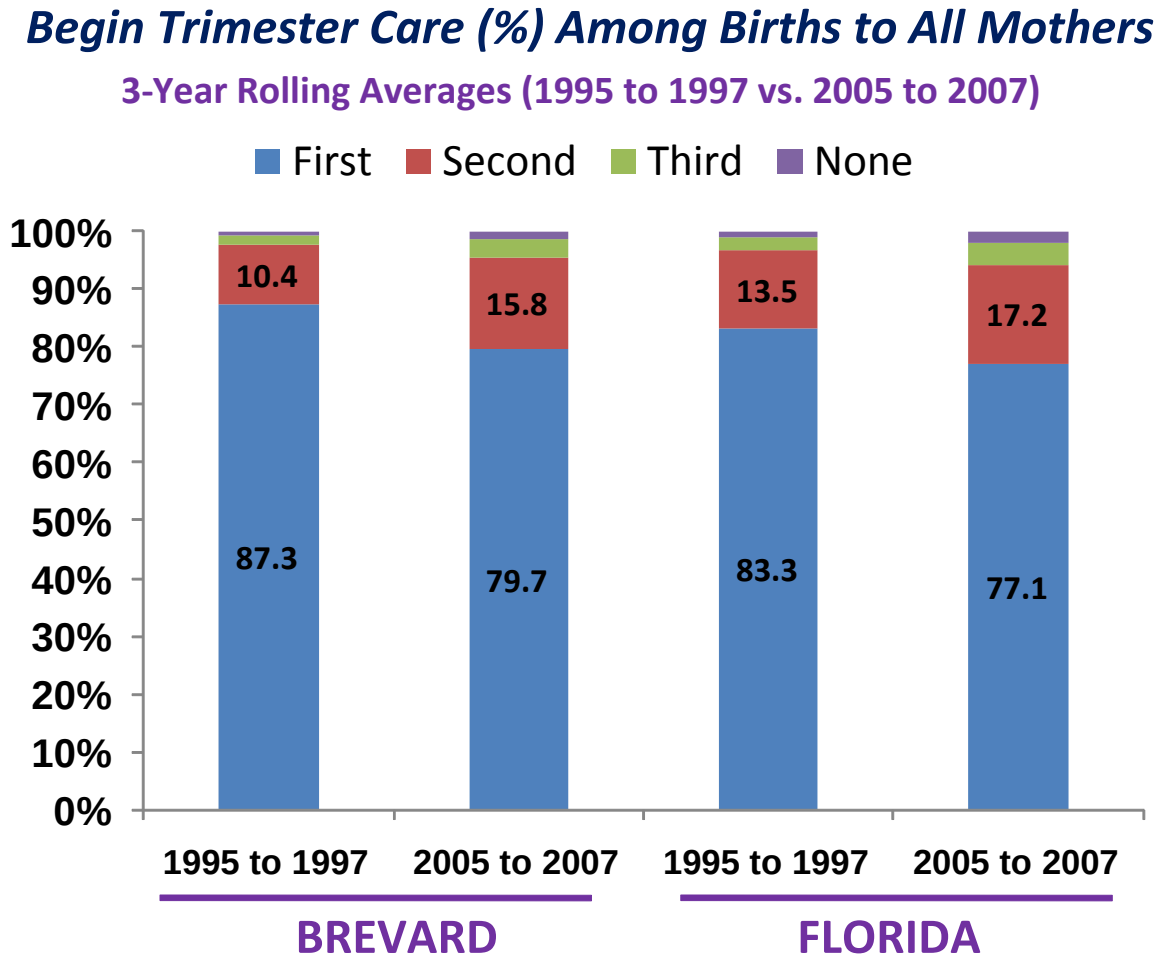


Chart 1. Rolling 3-Year Averages of Trimester in Which Prenatal Care Began

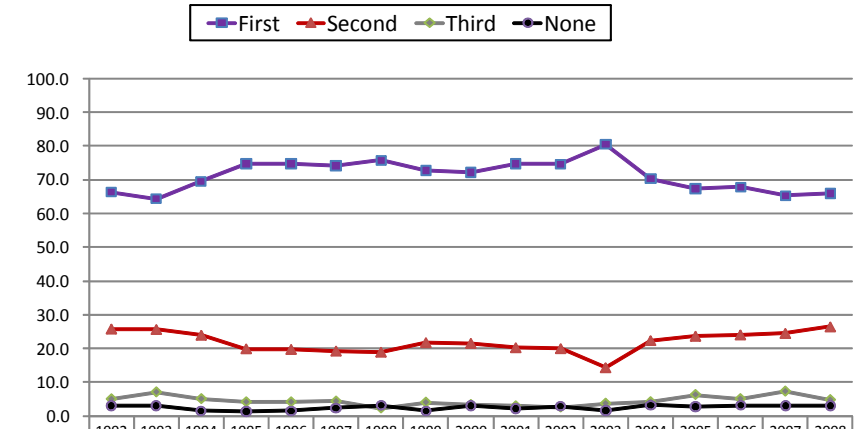
Source: Florida Dept. of Health Vital Statistics: CHARTS

- Among Black mothers in Brevard, approximately 70% initiated prenatal care in the first trimester, a rate that has been relatively constant over time.
- Similar trends among Black mothers have been observed in the state of Florida as a whole.

Figure 9. Initiation of Prenatal Care by Trimester (1992 to 2008)

BREVARD COUNTY

Begin Trimester Care (%) Among Births to Black Mothers by Year

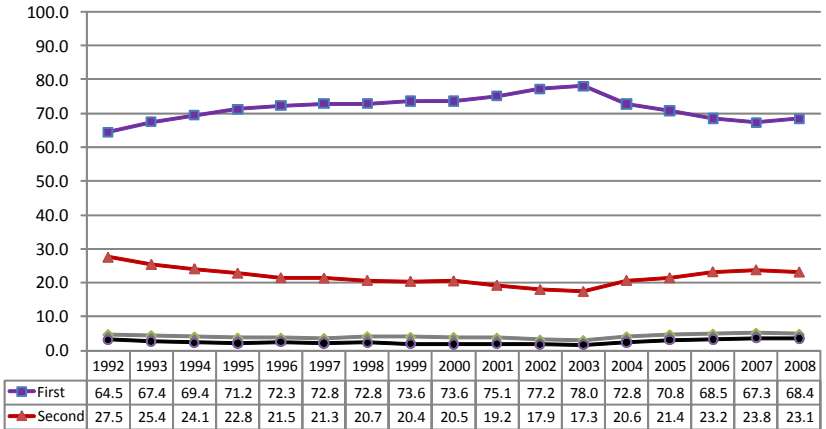


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
First	66.3	64.3	69.6	74.8	74.7	74.2	75.8	72.8	72.2	74.7	74.7	80.5	70.3	67.4	67.9	65.3	65.9
Second	25.8	25.6	23.9	19.9	19.7	19.2	18.9	21.7	21.5	20.2	19.9	14.2	22.3	23.6	24.0	24.5	26.4
Third	5.0	7.0	5.0	4.1	4.1	4.3	2.3	4.0	3.3	2.9	2.6	3.7	4.1	6.3	5.0	7.2	4.7
None	3.0	3.0	1.5	1.3	1.5	2.3	3.1	1.5	3.0	2.2	2.8	1.6	3.2	2.7	3.1	3.0	3.0

Source: Florida Dept. of Health Vital Statistics: CHARTS.

FLORIDA

Begin Trimester Care (%) Among Births to Black Mothers by Year



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
First	64.5	67.4	69.4	71.2	72.3	72.8	72.8	73.6	73.6	75.1	77.2	78.0	72.8	70.8	68.5	67.3	68.4
Second	27.5	25.4	24.1	22.8	21.5	21.3	20.7	20.4	20.5	19.2	17.9	17.3	20.6	21.4	23.2	23.8	23.1
Third	4.8	4.5	4.1	3.8	3.8	3.7	4.2	4.0	4.0	3.7	3.2	3.0	4.2	4.8	4.9	5.2	4.9
None	3.2	2.7	2.3	2.1	2.5	2.2	2.3	2.0	1.9	1.9	1.7	1.6	2.4	3.1	3.3	3.7	3.6

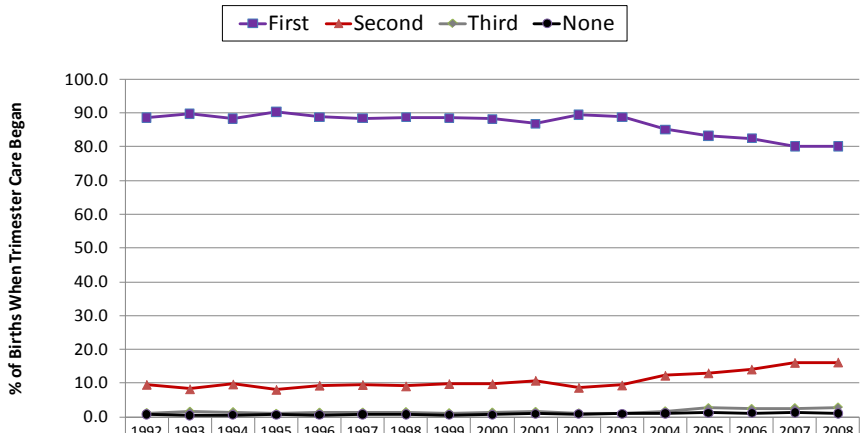
Source: Florida Dept. of Health Vital Statistics: CHARTS.

- Among White mothers in Brevard, initiation of prenatal care in the first trimester has generally dropped from 90% to 80% over time, yet remains higher than that of Black mothers (previous Figure 6).
- Similar trends have been observed in the state of Florida as a whole.

Figure 10. Initiation of Prenatal Care by Trimester (1992 to 2008)

BREVARD COUNTY

Begin Trimester Care (%) Among Births to White Mothers by Year

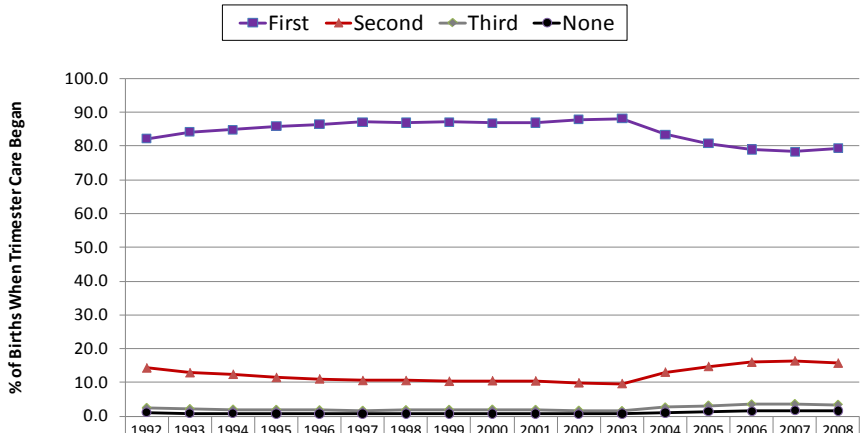


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
First	88.6	89.7	88.4	90.3	88.8	88.5	88.7	88.6	88.3	86.8	89.5	88.9	85.1	83.3	82.5	80.1	80.1
Second	9.6	8.3	9.7	8.1	9.3	9.5	9.1	9.8	9.8	10.8	8.7	9.4	12.2	13.0	14.1	16.0	16.1
Third	1.1	1.5	1.4	0.9	1.3	1.3	1.4	1.1	1.3	1.5	1.0	0.9	1.6	2.6	2.3	2.6	2.8
None	0.7	0.5	0.6	0.7	0.6	0.7	0.7	0.6	0.7	0.9	0.8	0.9	1.0	1.2	1.1	1.3	1.0

Source: Florida Dept. of Health Vital Statistics: CHARTS.

FLORIDA

Begin Trimester Care (%) Among Births to White Mothers by Year



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
First	82.2	84.2	84.9	85.9	86.5	87.1	86.9	87.1	86.8	87.0	87.8	88.2	83.4	80.8	79.0	78.4	79.3
Second	14.3	12.9	12.4	11.4	11.0	10.5	10.5	10.3	10.5	10.4	9.8	9.6	13.0	14.7	16.0	16.4	15.7
Third	2.4	2.1	2.0	1.9	1.8	1.6	1.8	1.9	2.0	1.9	1.7	1.5	2.6	3.1	3.5	3.6	3.4
None	1.1	0.8	0.8	0.7	0.7	0.7	0.8	0.7	0.8	0.7	0.7	0.7	1.0	1.4	1.5	1.7	1.6

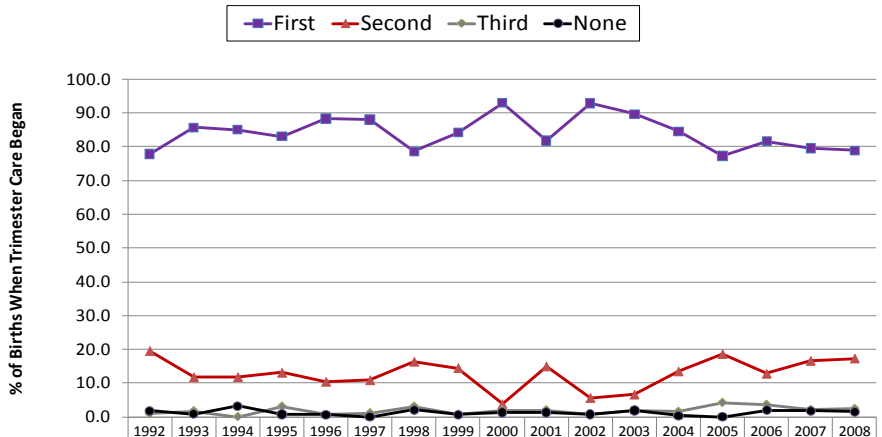
Source: Florida Dept. of Health Vital Statistics: CHARTS.

- Among non-Caucasian White mothers in Brevard, initiation of prenatal care in the first trimester has ranged from 80% to 90% over time.
- These rates are slightly higher than the rates of 75% to 85% observed in the state of Florida as a whole.

Figure 11. Initiation of Prenatal Care by Trimester (1992 to 2008)

BREVARD COUNTY

Begin Trimester Care (%) Among Births to Other* White Mothers by Year

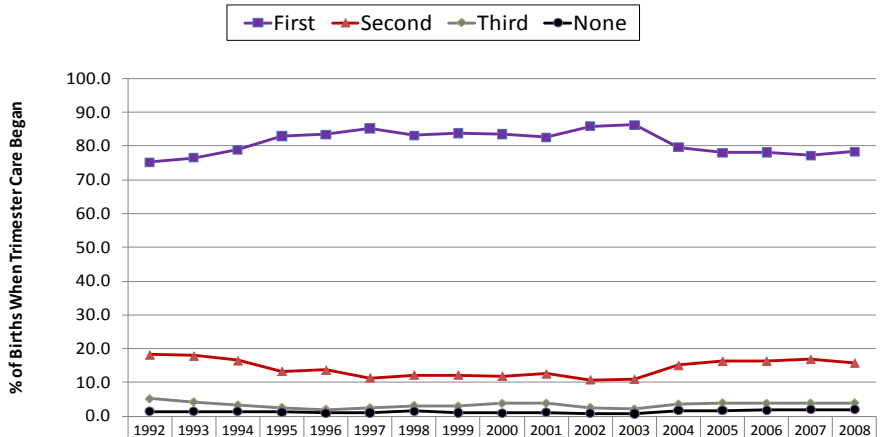


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
First	77.9	85.7	85.0	83.1	88.3	88.0	78.6	84.2	92.9	81.8	92.9	89.7	84.6	77.3	81.6	79.6	78.9
Second	19.5	11.8	11.8	13.1	10.4	10.9	16.3	14.5	3.8	14.9	5.7	6.7	13.5	18.6	12.8	16.6	17.3
Third	0.9	1.7	0.0	3.1	0.6	1.1	3.1	0.7	1.9	1.9	0.7	1.8	1.5	4.2	3.6	2.1	2.4
None	1.8	0.8	3.1	0.8	0.6	0.0	2.0	0.7	1.3	1.3	0.7	1.8	0.4	0.0	2.0	1.8	1.5

Source: Florida Dept. of Health Vital Statistics: CHARTS. *White, non-Caucasians (e.g. Asian, American Indian).

FLORIDA

Begin Trimester Care (%) Among Births to Other* White Mothers by Year



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
First	75.2	76.5	78.9	83.0	83.4	85.2	83.2	83.8	83.5	82.6	85.9	86.3	79.7	78.0	78.1	77.2	78.4
Second	18.3	17.9	16.5	13.3	13.7	11.4	12.2	12.2	11.8	12.5	10.8	10.9	15.1	16.4	16.4	16.9	15.8
Third	5.1	4.2	3.3	2.5	2.0	2.4	3.1	2.9	3.8	3.8	2.5	2.1	3.5	3.9	3.8	3.8	3.9
None	1.4	1.4	1.4	1.2	0.9	1.0	1.5	1.1	0.9	1.1	0.8	0.8	1.7	1.7	1.7	2.0	1.9

Source: Florida Dept. of Health Vital Statistics: CHARTS. *White, non-Caucasians (e.g. Asian, American Indian).

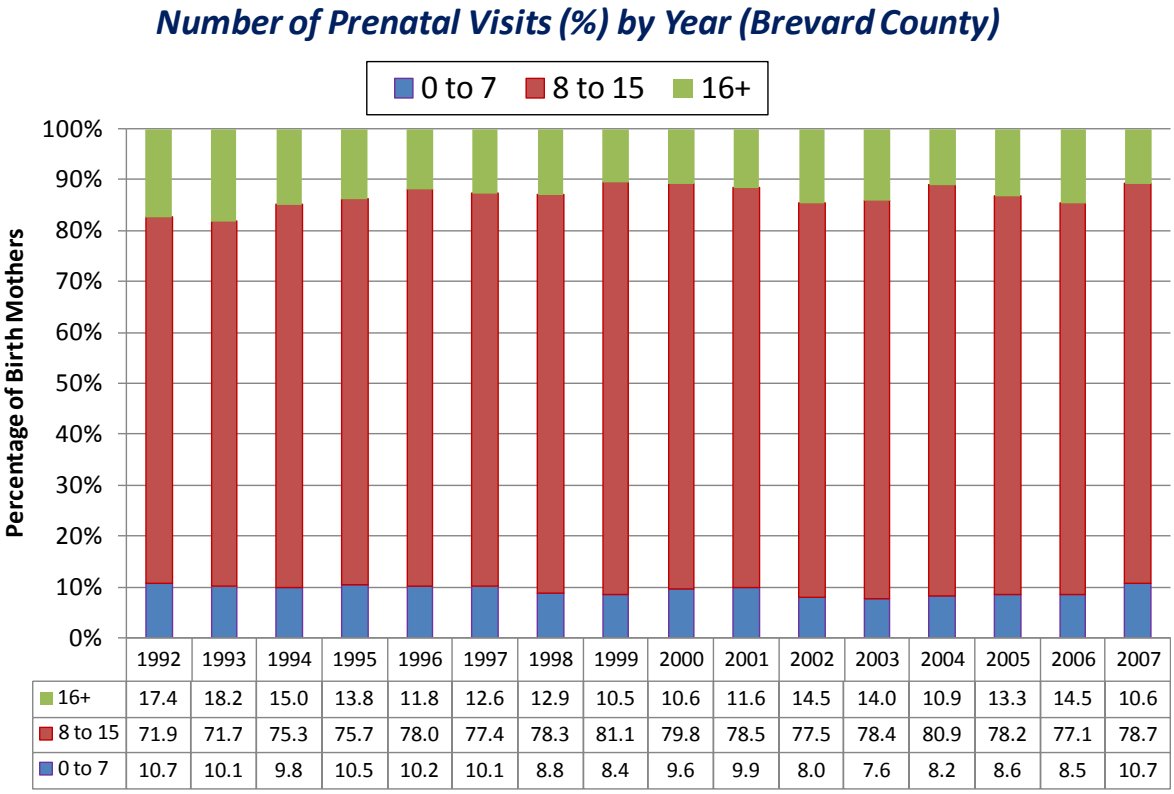
Table 5 shows resident births in Brevard County by year and number of prenatal visits that occurred during pregnancy. As seen, between 18 to 25 prenatal visits is the most frequent occurrence. From 2004 to 2007, there has been a small increase in the number of women with no prenatal visits.

Table 5. Resident Births (Counts)
Brevard County

	Number of Prenatal Visits							
Year	**0 visits**	**1 visit**	**2-7 visits**	**8-15 visits**	**16-24 visits**	**25+ visits**	**Unknown visits**	**All Visits**
1992	58	10	508	3,858	813	121	169	5,537
1993	43	16	469	3,729	836	111	136	5,340
1994	39	24	436	3,841	667	97	117	5,221
1995	38	26	440	3,628	562	100	114	4,908
1996	34	30	439	3,857	491	92	61	5,004
1997	44	17	418	3,686	520	79	28	4,792
1998	51	20	349	3,733	540	75	43	4,811
1999	32	10	356	3,821	435	59	28	4,741
2000	51	16	410	3,983	446	83	25	5,014
2001	54	10	406	3,739	482	70	28	4,789
2002	55	9	319	3,701	606	86	31	4,807
2003	52	8	317	3,913	598	100	29	5,017
2004	63	9	345	4,128	474	81	114	5,214
2005	66	7	381	4,140	622	80	91	5,387
2006	72	3	390	4,233	715	80	117	5,610
2007	85	7	508	4,426	554	43	108	5,731

Data Source: Florida Department of Health, Office of Vital Statistics, Florida Birth Certificate
Data Notes: Data for Florida residents only.

When analyzed in categories of low (0 to 7), medium (8 to 15), and high (16+) number of prenatal visits, results have been generally consistent over time (**Figure 12**). In 2007, 89% of all birth mothers in Brevard had 8 or more prenatal visits.



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
16+	17.4	18.2	15.0	13.8	11.8	12.6	12.9	10.5	10.6	11.6	14.5	14.0	10.9	13.3	14.5	10.6
8 to 15	71.9	71.7	75.3	75.7	78.0	77.4	78.3	81.1	79.8	78.5	77.5	78.4	80.9	78.2	77.1	78.7
0 to 7	10.7	10.1	9.8	10.5	10.2	10.1	8.8	8.4	9.6	9.9	8.0	7.6	8.2	8.6	8.5	10.7

Source: Florida Dept. of Health Vital Statistics: CHARTS

Figure 12. Number (%) of Prenatal Visits by Year (Brevard County)

As seen in **Chart 2**, thirteen percent (13%) of birth mothers in Brevard had 16 or more prenatal visits in the years 2005 to 2007, essentially identical to the years 1995 to 1997. At the other extreme, 10% of birth mothers had less than 8 prenatal visits in 1995 to 1997 compared to 9% in 2005 to 2007.

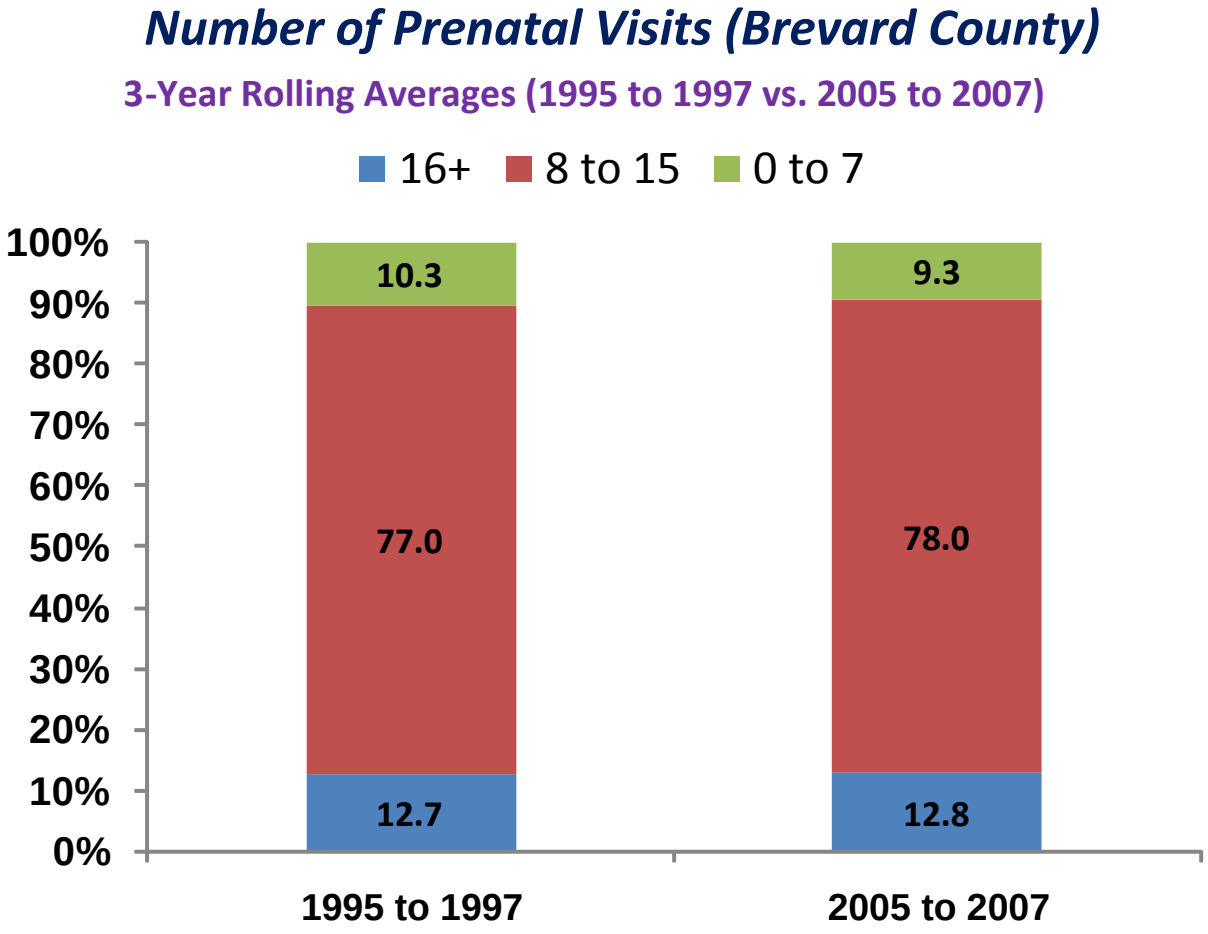


Chart 2. Rolling 3-Year Averages of Number of Prenatal Visits
Source: Florida Dept. of Health Vital Statistics: CHARTS

Births to Unmarried Mothers

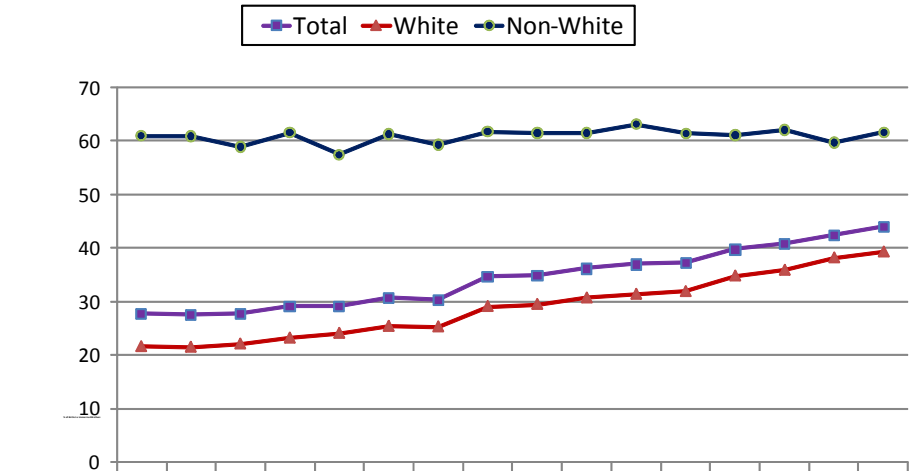
In the figures that follow, births to unmarried mothers are presented by calendar year and race, as well as when trimester care was initiated. These data are important in that it is well established that unmarried mothers are at higher risk of poor pregnancy management and adverse birth outcomes.

- Among non-whites in Brevard, about 60% of all births have occurred in unmarried mothers. This compares to between 20 to 40% in whites.
- Between 1992 and 2007 in Brevard, the incidence of births to unmarried white mothers has nearly doubled. Similar trends have been observed in Florida.

Figure 13. Births to Unmarried Mothers by Year and Race

BREVARD COUNTY

Births to Unmarried Mothers (%) by Year and Race

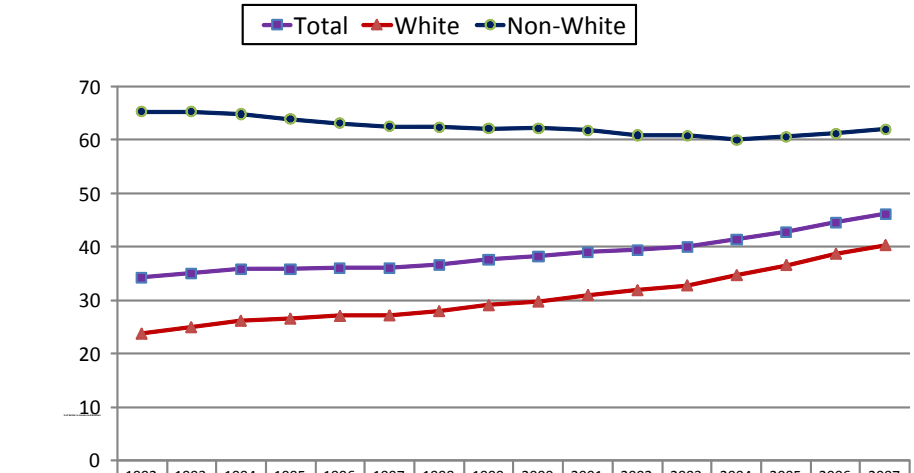


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total	27.6	27.5	27.7	29	29.1	30.6	30.3	34.6	34.8	36.1	36.9	37.2	39.7	40.7	42.3	43.9
White	21.5	21.4	22	23.1	24	25.3	25.2	29	29.4	30.6	31.3	31.8	34.7	35.8	38.1	39.2
Non-White	60.9	60.9	58.9	61.5	57.4	61.2	59.3	61.7	61.4	61.4	63.0	61.4	61.0	62.0	59.7	61.6

Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Births to Unmarried Mothers (%) by Year and Race



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total	34.2	35	35.7	35.8	36	36	36.6	37.5	38.2	39	39.3	39.9	41.3	42.8	44.6	46.1
White	23.7	24.9	26.1	26.5	27	27.1	27.9	29	29.7	30.9	31.8	32.7	34.6	36.5	38.6	40.2
Non-White	65.3	65.3	64.8	63.9	63.1	62.5	62.3	62.1	62.2	61.8	60.9	60.8	60.0	60.6	61.1	62.0

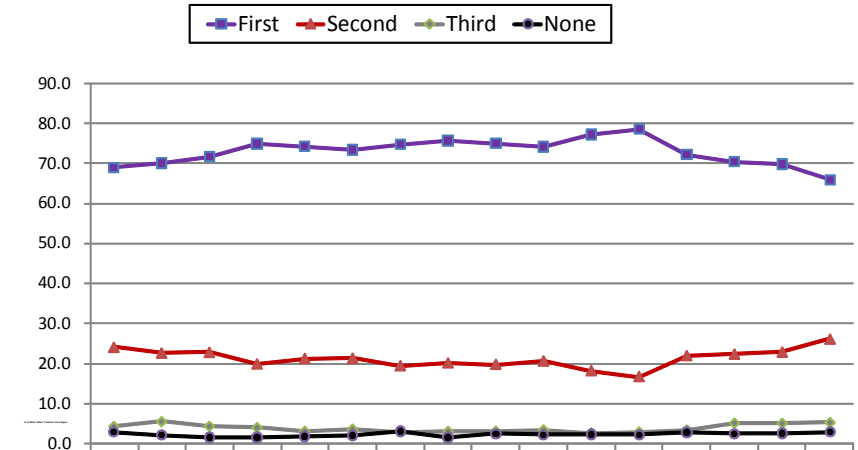
Source: Florida Dept. of Health Vital Statistics: CHARTS

- Among unmarried birth mothers in Brevard, there has been a slight reduction since 2003 in the initiation of prenatal care in the first trimester.
- Similar results have been observed for the state of Florida.

Figure 14. Initiation of Prenatal Care (Trimester) to Unmarried Mothers

BREVARD COUNTY

Begin Trimester Care (%) Among Births to Unmarried Mothers by Year



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
First	68.9	70.0	71.6	74.8	74.2	73.3	74.7	75.6	75.0	74.1	77.2	78.5	72.2	70.3	69.8	65.9
Second	24.0	22.5	22.7	19.8	21.2	21.2	19.3	20.0	19.7	20.5	18.1	16.6	21.9	22.2	22.8	26.1
Third	4.2	5.4	4.2	3.9	2.9	3.5	2.9	2.9	3.0	3.3	2.6	2.8	3.3	5.0	5.0	5.2
None	2.9	2.1	1.5	1.5	1.7	2.0	3.0	1.4	2.4	2.1	2.2	2.2	2.7	2.4	2.5	2.9

Source: Florida Dept. of Health Vital Statistics: CHARTS.

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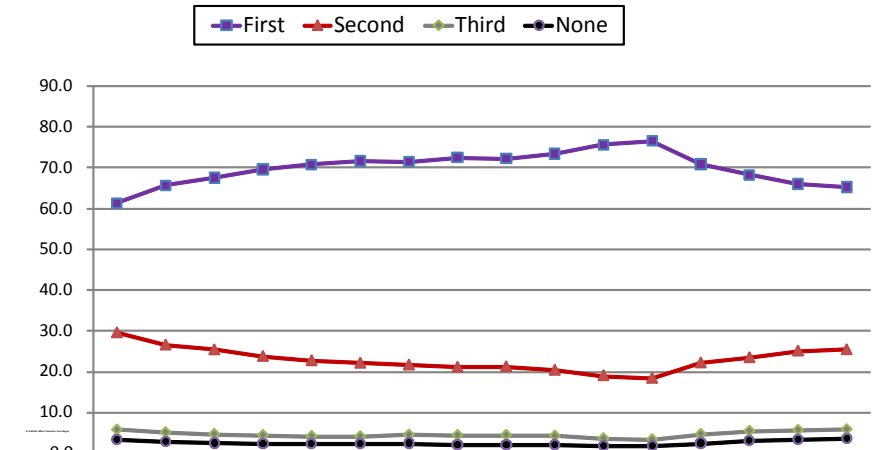
Begin Trimester Care (%) Among Births to Unmarried Mothers by Year



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
First	61.4	65.6	67.6	69.6	70.8	71.7	71.5	72.5	72.3	73.5	75.7	76.6	70.8	68.2	66.0	65.3
Second	29.6	26.6	25.4	23.8	22.7	22.1	21.6	21.1	21.2	20.3	19.0	18.4	22.2	23.4	25.1	25.4
Third	5.6	5.0	4.6	4.3	4.1	4.0	4.4	4.3	4.4	4.2	3.6	3.3	4.6	5.3	5.6	5.7
None	3.3	2.8	2.4	2.3	2.4	2.2	2.4	2.1	2.1	2.0	1.8	1.8	2.4	3.0	3.3	3.5

Source: Florida Dept. of Health Vital Statistics: CHARTS.

Births to Mothers with Less than High School Education

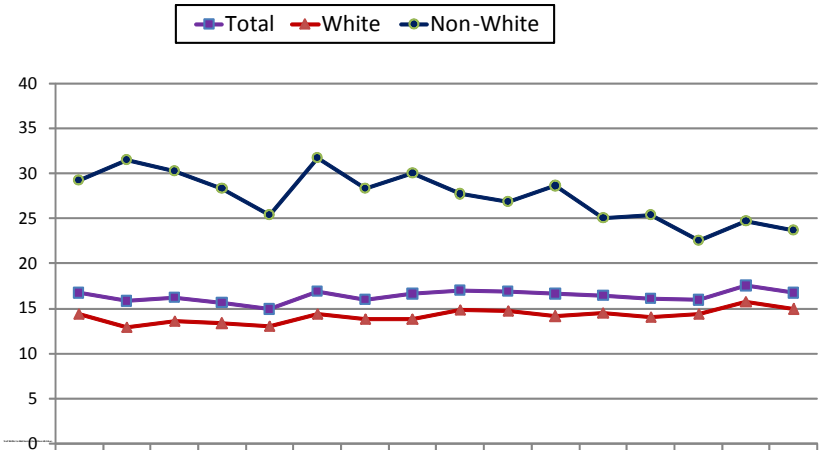
In the figures that follow, births to mothers with less than a high school education are presented by calendar year, race, marital status, and the trimester in which prenatal care was initiated. Like unmarried women, mothers with less than a high school education are generally at higher risk of poor pregnancy management and adverse birth outcomes.

- Among white mothers in Brevard, the percentage with less than a high school education has remained between 13 to 15% over time. While the percentage of mothers with less than a high school education is higher in non-whites, the gap has been closing over time (i.e. 2007; whites 15%, non-whites 24%).
- A more profound change has occurred in Florida with the percentage of mothers with low education in 2007 similar between whites (20%) and non-whites (22%).

Figure 15. Percentage of Births Mothers with Less than High School Education

BREVARD COUNTY

Births to Mothers w/Less than HS Education (%) by Year and Race



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total	16.7	15.8	16.2	15.6	14.9	16.9	16	16.6	17	16.9	16.6	16.4	16.1	15.9	17.5	16.7
White	14.4	12.9	13.6	13.3	13	14.4	13.8	13.8	14.8	14.7	14.1	14.5	14	14.4	15.7	14.9
Non-White	29.2	31.5	30.3	28.4	25.4	31.7	28.4	30.0	27.7	26.9	28.6	25.0	25.4	22.6	24.7	23.7

Source: Florida Dept. of Health Vital Statistics: CHARTS

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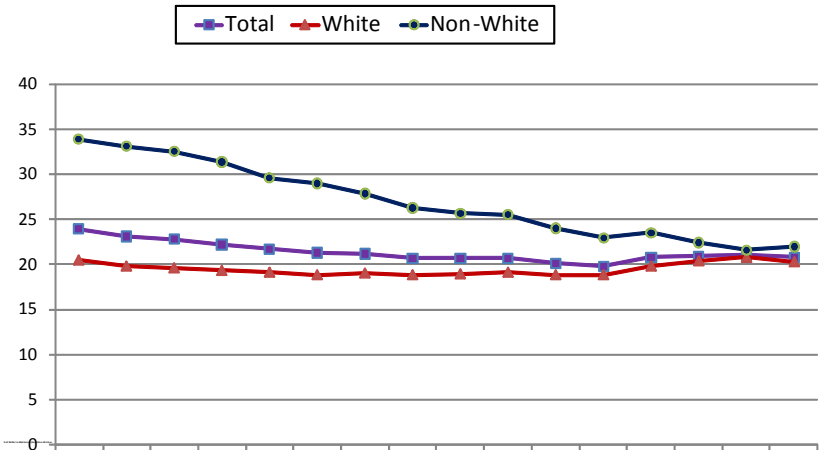
Births to Mothers with Less than HS Education (%) by Year and Race



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total	23.9	23.1	22.8	22.2	21.7	21.3	21.2	20.7	20.7	20.7	20.1	19.8	20.8	20.9	21	20.8
White	20.5	19.8	19.6	19.3	19.1	18.8	19	18.8	18.9	19.1	18.8	18.8	19.8	20.4	20.8	20.3
Non-White	33.9	33.1	32.6	31.4	29.6	29.0	27.9	26.3	25.6	25.5	24.0	22.9	23.5	22.4	21.6	22.0

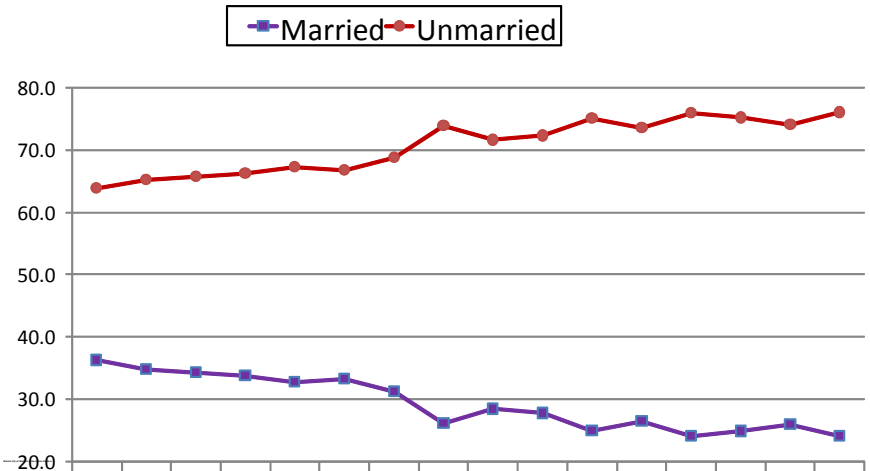
Source: Florida Dept. of Health Vital Statistics: CHARTS

- Since 1992 in Brevard, there has been a slow steady increase in the percentage of mothers with less than a high school education and being unmarried (76% in 2007).
- A similar trend has been observed in Florida as a whole.

Figure 16. Marital Status of Mothers with Less than High School Education

BREVARD COUNTY

Marital Status (%) of Birth Mothers with Less than HS Education



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Married	36.2	34.8	34.3	33.8	32.8	33.3	31.2	26.1	28.4	27.7	24.9	26.4	24.0	24.8	25.9	24.0
Unmarried	63.8	65.2	65.7	66.2	67.2	66.7	68.8	73.9	71.6	72.3	75.1	73.6	76.0	75.2	74.1	76.0

Source: Florida Dept. of Health Vital Statistics: CHARTS

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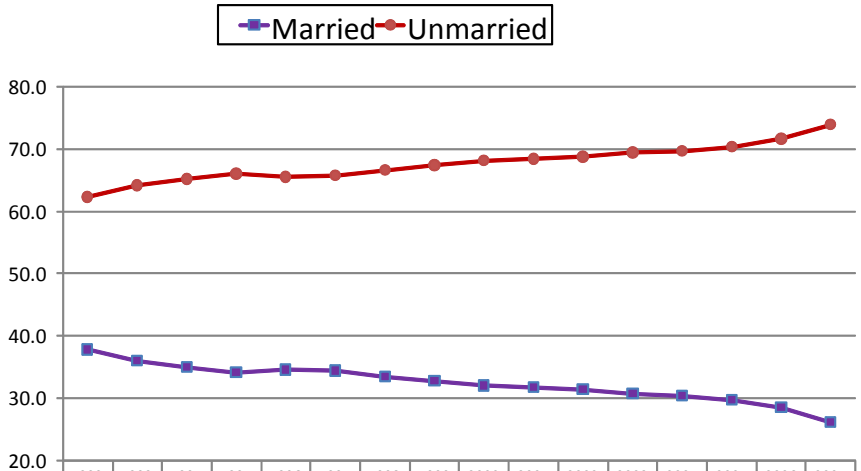
Marital Status (%) of Birth Mothers with Less than HS Education



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Married	37.8	35.9	34.9	34.0	34.5	34.3	33.4	32.7	31.9	31.7	31.3	30.6	30.4	29.7	28.4	26.1
Unmarried	62.2	64.1	65.1	66.0	65.5	65.7	66.6	67.3	68.1	68.3	68.7	69.4	69.6	70.3	71.6	73.9

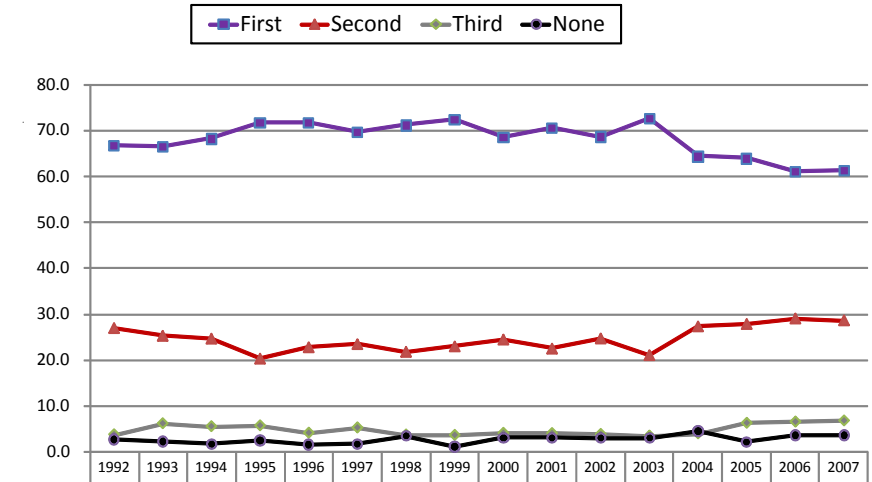
Source: Florida Dept. of Health Vital Statistics: CHARTS

- Among mothers in Brevard (2007) with less than a high school education, 61% began prenatal care in the first trimester. This is lower than a high of 73% in 2003.
- In Florida in 2007, 57% of mothers with less than a high school education began prenatal care in the first trimester, also down from 71% in 2003.

Figure 17. Trimester Care of Mothers with Less than High School Education

BREVARD COUNTY

Begin Trimester Care (%) Among Births to Mothers with less than HS Education by Year

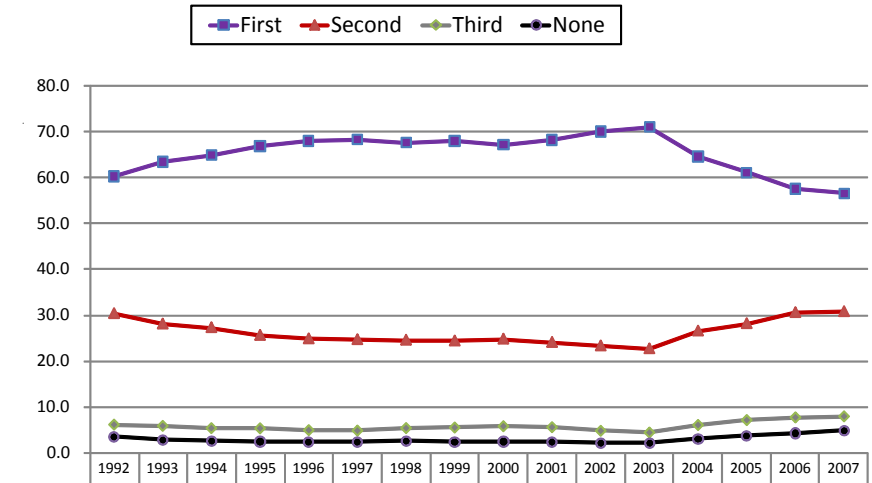


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
First	66.8	66.6	68.3	71.8	71.8	69.8	71.2	72.5	68.7	70.7	68.7	72.7	64.5	64.0	61.2	61.3
Second	26.8	25.2	24.6	20.2	22.7	23.4	21.7	22.9	24.3	22.4	24.6	21.0	27.2	27.7	28.9	28.5
Third	3.7	6.1	5.5	5.6	4.0	5.2	3.7	3.6	4.0	4.0	3.8	3.4	3.9	6.2	6.5	6.7
None	2.6	2.1	1.7	2.4	1.5	1.6	3.4	1.0	3.0	3.0	2.9	2.9	4.4	2.1	3.4	3.5

Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Begin Trimester Care (%) Among Births to Mothers with less than HS Education by Year



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
First	60.2	63.4	64.9	66.8	67.9	68.3	67.5	67.9	67.1	68.2	69.9	70.9	64.5	61.0	57.6	56.6
Second	30.3	28.1	27.3	25.6	24.8	24.7	24.5	24.4	24.8	24.0	23.3	22.7	26.5	28.1	30.6	30.8
Third	6.1	5.8	5.3	5.2	4.9	4.8	5.3	5.4	5.7	5.5	4.7	4.3	6.0	7.0	7.6	7.8
None	3.4	2.8	2.6	2.4	2.4	2.3	2.6	2.3	2.4	2.3	2.1	2.1	3.0	3.8	4.3	4.8

Source: Florida Dept. of Health Vital Statistics: CHARTS

Low Birth Weight

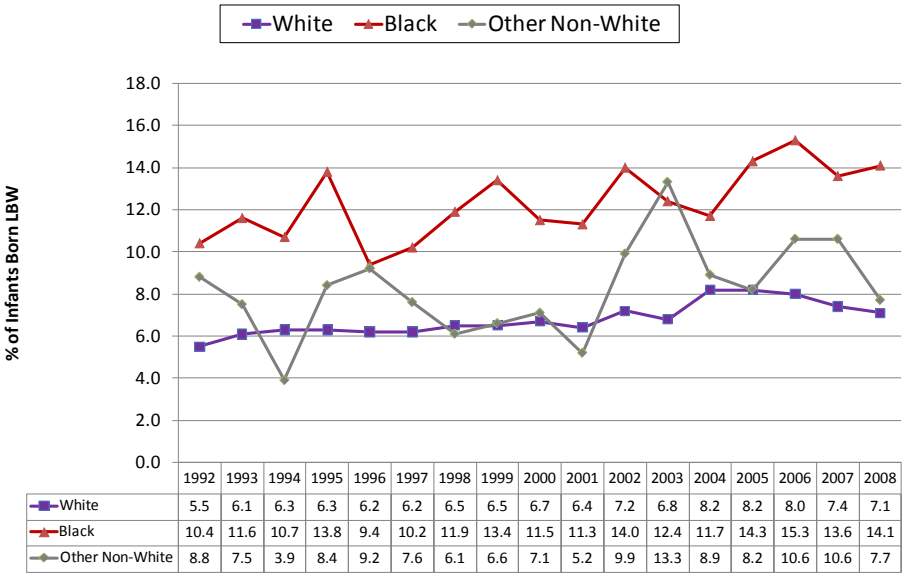
Low birth weight is defined as a birth weight less than 2,500 grams. From a public health and societal perspective, documentation and prevention of low birth weight is critical due to the significantly elevated risk for serious health problems for newborns associated with this condition. Moreover, low birth weight results in lasting disabilities, including increased risk for developmental disabilities, chronic lung disease, adult-onset diabetes, coronary heart disease, high blood pressure, intellectual, physical and sensory disabilities, and psychological and emotional distress. These relationships reiterate the premium that must be placed on prevention of low birth weight, particularly in high-risk subgroups of women.

- The incidence of low birth weight in Brevard has increased over time among Blacks, Whites, and non-Caucasian Whites, and is highest among Blacks.
- Similar rates of low birth weight and trends over time have been observed in Florida.

Figure 1. Incidence of Low Birth Weight by Year and Race (1992 to 2008)

BREVARD COUNTY

Incidence of Low Birth Weight (%) by Year and Race*

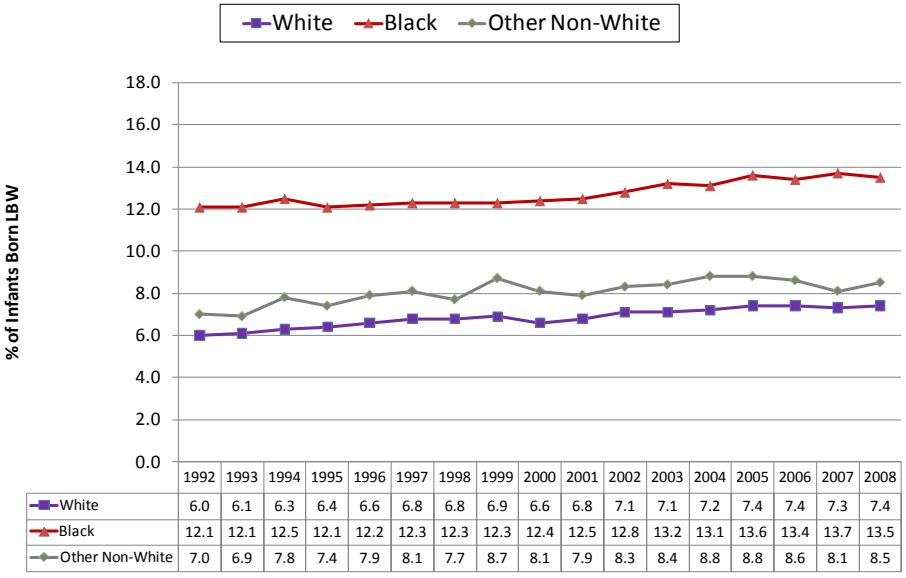


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
White	5.5	6.1	6.3	6.3	6.2	6.2	6.5	6.5	6.7	6.4	7.2	6.8	8.2	8.2	8.0	7.4	7.1
Black	10.4	11.6	10.7	13.8	9.4	10.2	11.9	13.4	11.5	11.3	14.0	12.4	11.7	14.3	15.3	13.6	14.1
Other Non-White	8.8	7.5	3.9	8.4	9.2	7.6	6.1	6.6	7.1	5.2	9.9	13.3	8.9	8.2	10.6	10.6	7.7

*Defined as <2,500 grams. Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Incidence of Low Birth Weight (%) by Year and Race*



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
White	6.0	6.1	6.3	6.4	6.6	6.8	6.8	6.9	6.6	6.8	7.1	7.1	7.2	7.4	7.4	7.3	7.4
Black	12.1	12.1	12.5	12.1	12.2	12.3	12.3	12.3	12.4	12.5	12.8	13.2	13.1	13.6	13.4	13.7	13.5
Other Non-White	7.0	6.9	7.8	7.4	7.9	8.1	7.7	8.7	8.1	7.9	8.3	8.4	8.8	8.8	8.6	8.1	8.5

*Defined as <2,500 grams. Source: Florida Dept. of Health Vital Statistics: CHARTS

As seen in **Chart 3,** the incidence of low birth weight in Brevard has increased in whites from 6.2% in 1995-1997 to 7.9% in 2005-2007. The corresponding increase observed in non-whites was from 10.7% in 1995-1997 to 13.0% in 2005-2007. These increases over time are slightly higher than increases in low birth weight in Florida as a whole.

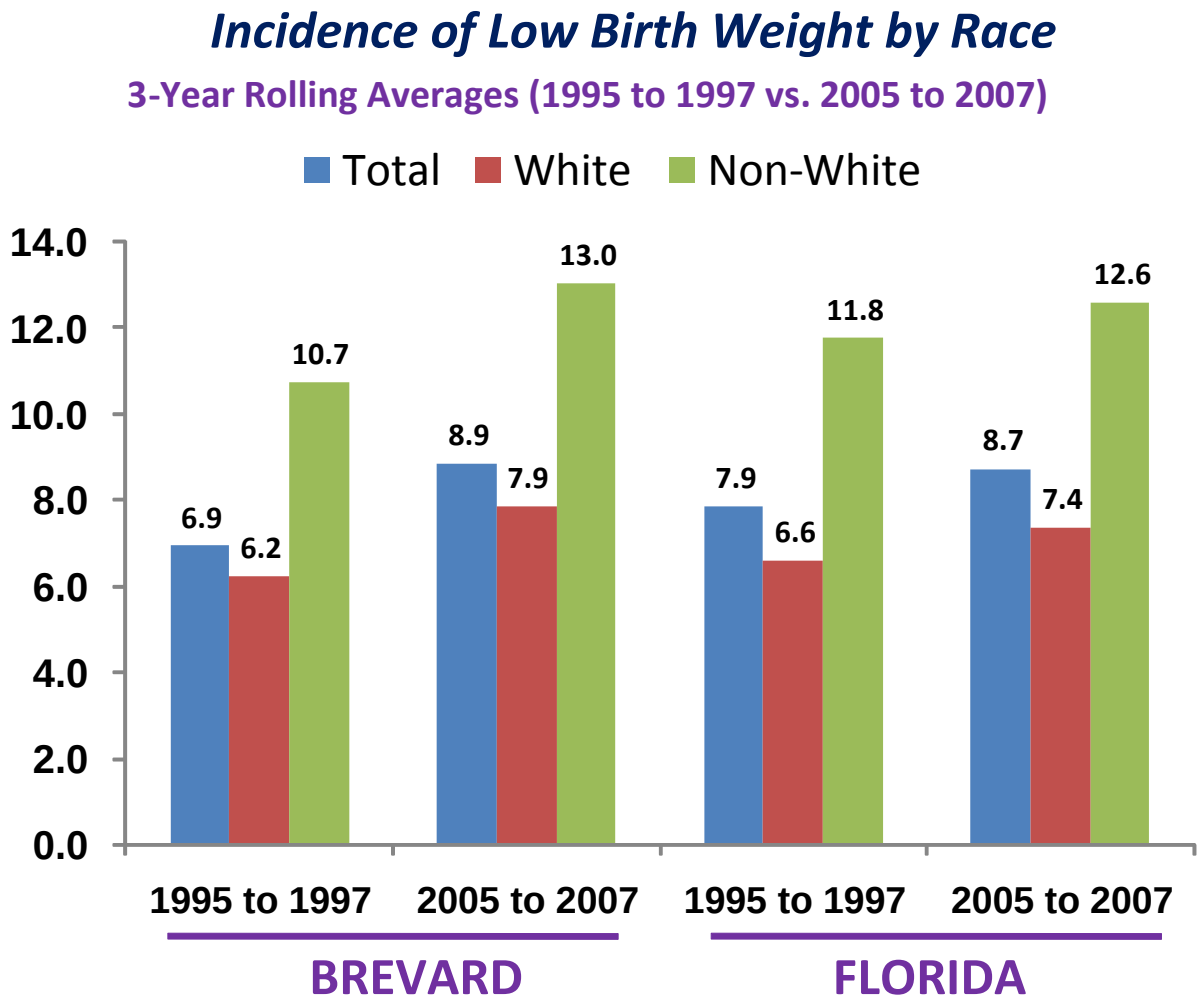


Chart 3. Rolling 3-Year Averages of Incidence of Low Birth Weight by Race

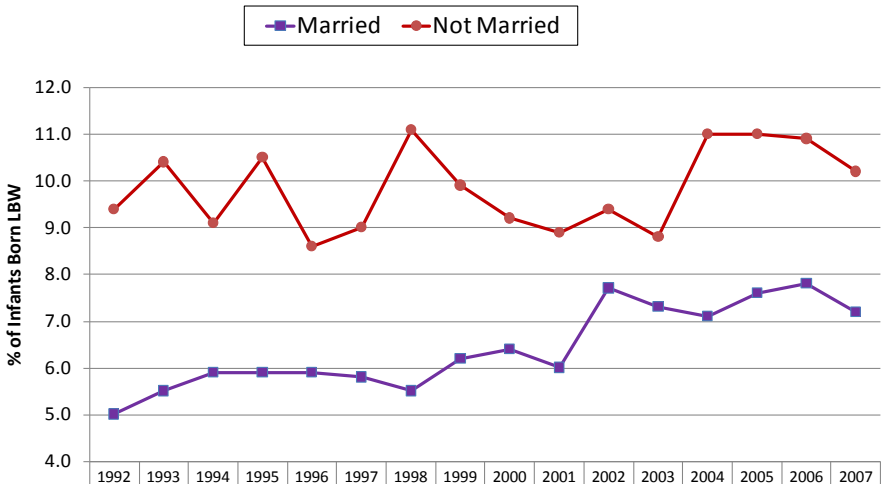
Source: Florida Dept. of Health Vital Statistics: CHARTS

- Although unmarried women in Brevard have experienced higher rates of low birth weight than married women, rates have been consistent over time. In contrast, the rate of low birth weight among married women has increased since 2001.
- Parallel trends have been observed in the state of Florida as a whole.

Figure 18. Incidence of Low Birth Weight by Year and Marital Status

BREVARD COUNTY

Incidence of Low Birth Weight (%) by Year and Marital Status*

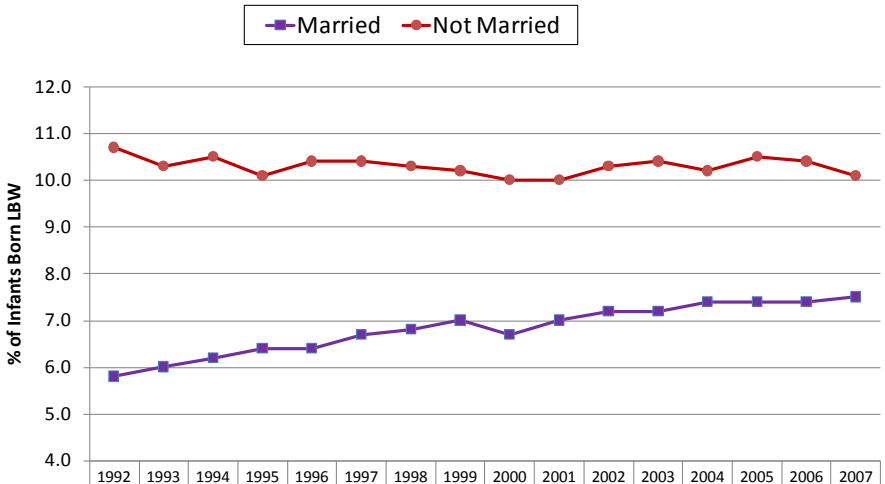


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Married	5.0	5.5	5.9	5.9	5.9	5.8	5.5	6.2	6.4	6.0	7.7	7.3	7.1	7.6	7.8	7.2
Not Married	9.4	10.4	9.1	10.5	8.6	9.0	11.1	9.9	9.2	8.9	9.4	8.8	11.0	11.0	10.9	10.2

*Defined as <2,500 grams. Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Incidence of Low Birth Weight (%) by Year and Marital Status*



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Married	5.8	6.0	6.2	6.4	6.4	6.7	6.8	7.0	6.7	7.0	7.2	7.2	7.4	7.4	7.4	7.5
Not Married	10.7	10.3	10.5	10.1	10.4	10.4	10.3	10.2	10.0	10.0	10.3	10.4	10.2	10.5	10.4	10.1

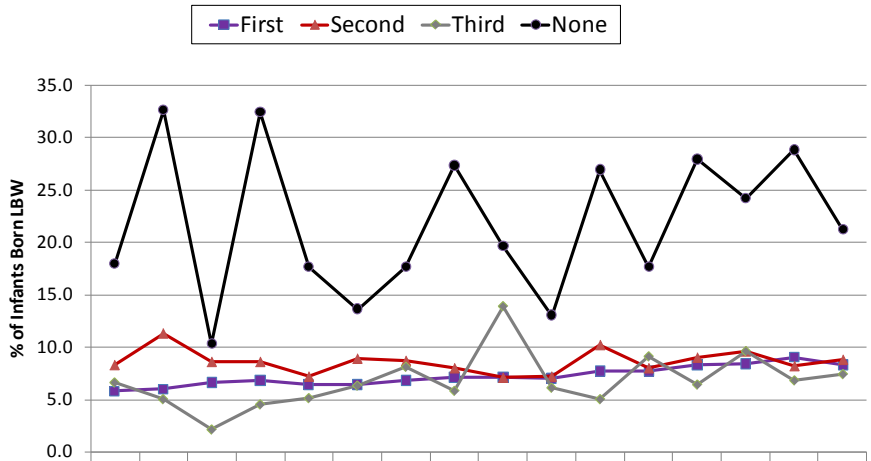
*Defined as <2,500 grams. Source: Florida Dept. of Health Vital Statistics: CHARTS

- The incidence of low birth weight in Brevard has been consistently and markedly higher among women with no prenatal care. These results are consistent with those from Florida where women without prenatal care have experienced rates of low birth weight of 20% or higher over time.

Figure 19. Incidence of Low Birth Weight by Year and Trimester Care

BREVARD COUNTY

Incidence of Low Birth Weight* (%) by Year and Begin Trimester Care

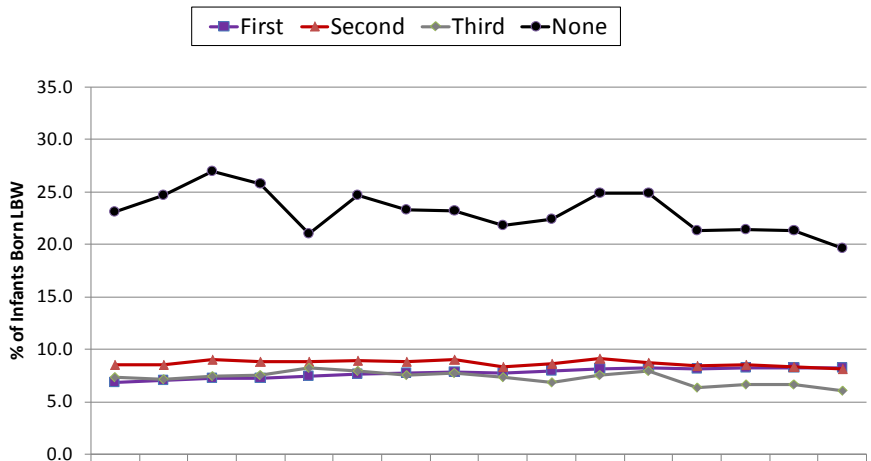


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
First	5.8	6.0	6.6	6.8	6.4	6.4	6.8	7.1	7.1	7.0	7.7	7.7	8.3	8.4	9.0	8.3
Second	8.3	11.3	8.6	8.6	7.2	8.9	8.7	8.0	7.1	7.2	10.2	8.0	9.0	9.6	8.2	8.8
Third	6.6	5.0	2.1	4.5	5.1	6.3	8.1	5.8	13.9	6.1	5.0	9.1	6.4	9.6	6.8	7.4
None	17.9	32.6	10.3	32.4	17.6	13.6	17.6	27.3	19.6	13.0	26.9	17.6	27.9	24.2	28.8	21.2

*Defined as <2,500 grams. Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Incidence of Low Birth Weight* (%) by Year and Begin Trimester Care



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
First	6.8	7.0	7.2	7.2	7.4	7.6	7.7	7.8	7.7	7.9	8.1	8.2	8.1	8.2	8.2	8.2
Second	8.5	8.5	9.0	8.8	8.8	8.9	8.8	9.0	8.3	8.6	9.1	8.7	8.4	8.5	8.3	8.1
Third	7.3	7.1	7.4	7.5	8.2	7.9	7.5	7.7	7.3	6.8	7.5	7.9	6.3	6.6	6.6	6.0
None	23.1	24.7	27.0	25.8	21.0	24.7	23.3	23.2	21.8	22.4	24.9	24.9	21.3	21.4	21.3	19.6

*Defined as <2,500 grams. Source: Florida Dept. of Health Vital Statistics: CHARTS

As seen in **Chart 4**, increases over time in the incidence of low birth weight in Brevard have occurred irrespective of the trimester in which prenatal care began. These results are somewhat different to Florida as a whole where the increase in low birth weight over time has been observed only among women who began prenatal care in the first trimester, and among those without prenatal care.

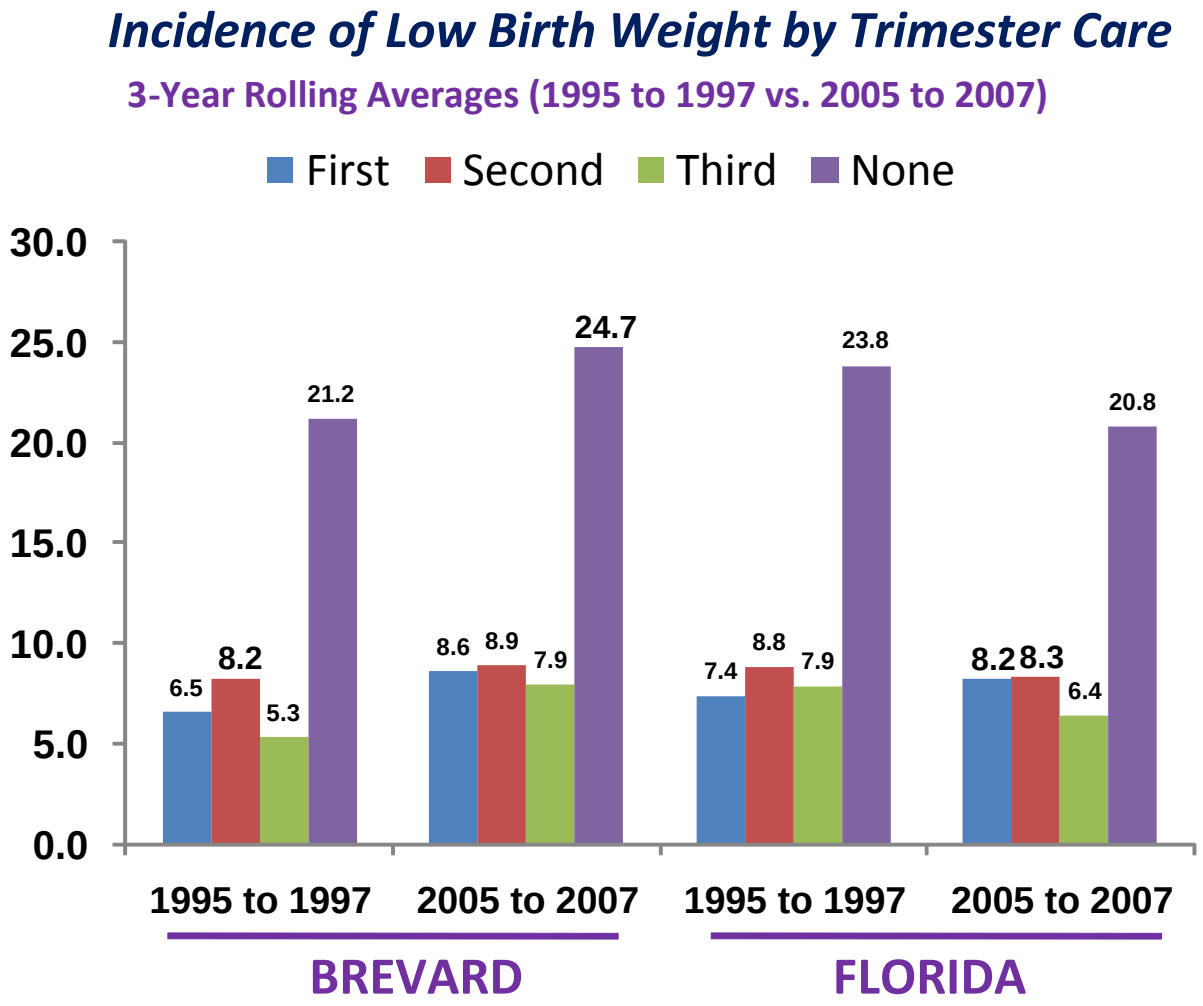
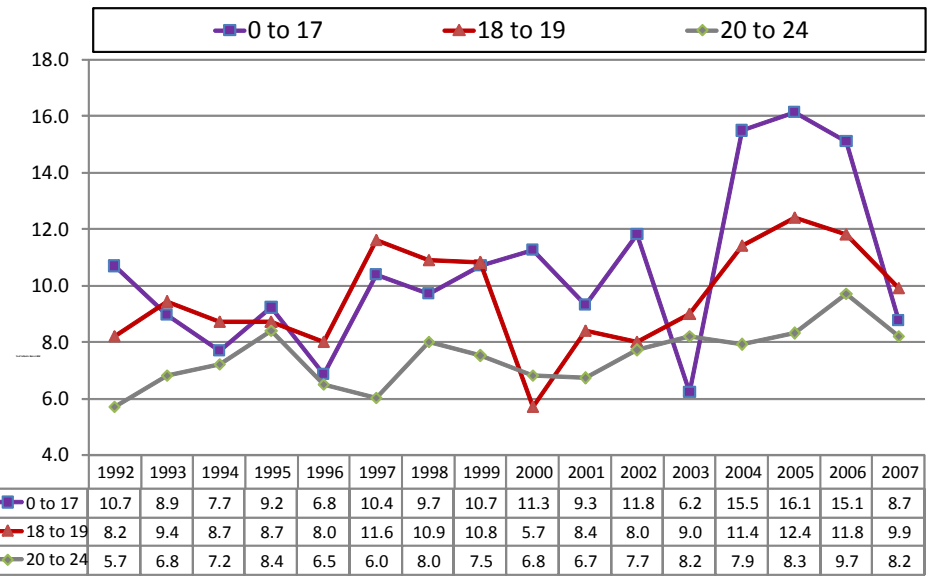


Chart 4. Rolling 3-Year Averages of Incidence of Low Birth Weight by Trimester Care

Source: Florida Dept. of Health Vital Statistics: CHARTS

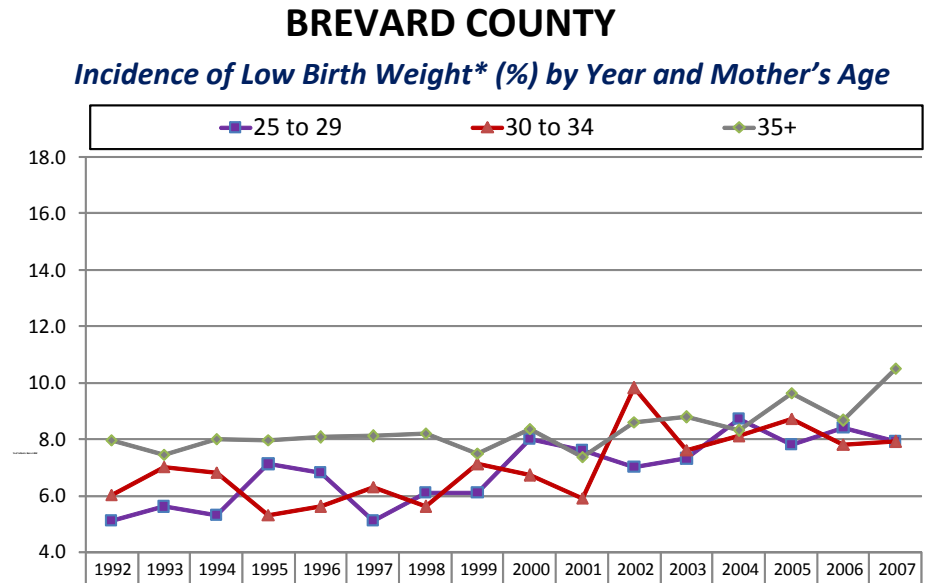
- In general, the incidence of low birth weight has been highest among mothers less than age 18.

Figure 20. Incidence of Low Birth Weight by Year and Mother's Age



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
0 to 17	10.7	8.9	7.7	9.2	6.8	10.4	9.7	10.7	11.3	9.3	11.8	6.2	15.5	16.1	15.1	8.7
18 to 19	8.2	9.4	8.7	8.7	8.0	11.6	10.9	10.8	5.7	8.4	8.0	9.0	11.4	12.4	11.8	9.9
20 to 24	5.7	6.8	7.2	8.4	6.5	6.0	8.0	7.5	6.8	6.7	7.7	8.2	7.9	8.3	9.7	8.2

*Defined as <2,500 grams. Source: Florida Dept. of Health Vital Statistics: CHARTS



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
25 to 29	5.1	5.6	5.3	7.1	6.8	5.1	6.1	6.1	8.0	7.6	7.0	7.3	8.7	7.8	8.4	7.9
30 to 34	6.0	7.0	6.8	5.3	5.6	6.3	5.6	7.1	6.7	5.9	9.8	7.6	8.1	8.7	7.8	7.9
35+	7.9	7.4	8.0	8.0	8.1	8.1	8.2	7.5	8.4	7.4	8.6	8.8	8.3	9.6	8.7	10.5

*Defined as <2,500 grams. Source: Florida Dept. of Health Vital Statistics: CHARTS

As seen in **Chart 5**, a higher incidence of low birth weight in Brevard over time (1995-1997 versus 2005-2007) has occurred irrespective of the age of the mother. Nonetheless, younger mothers (less than age 30) have experienced the highest incidence of low birth weight.

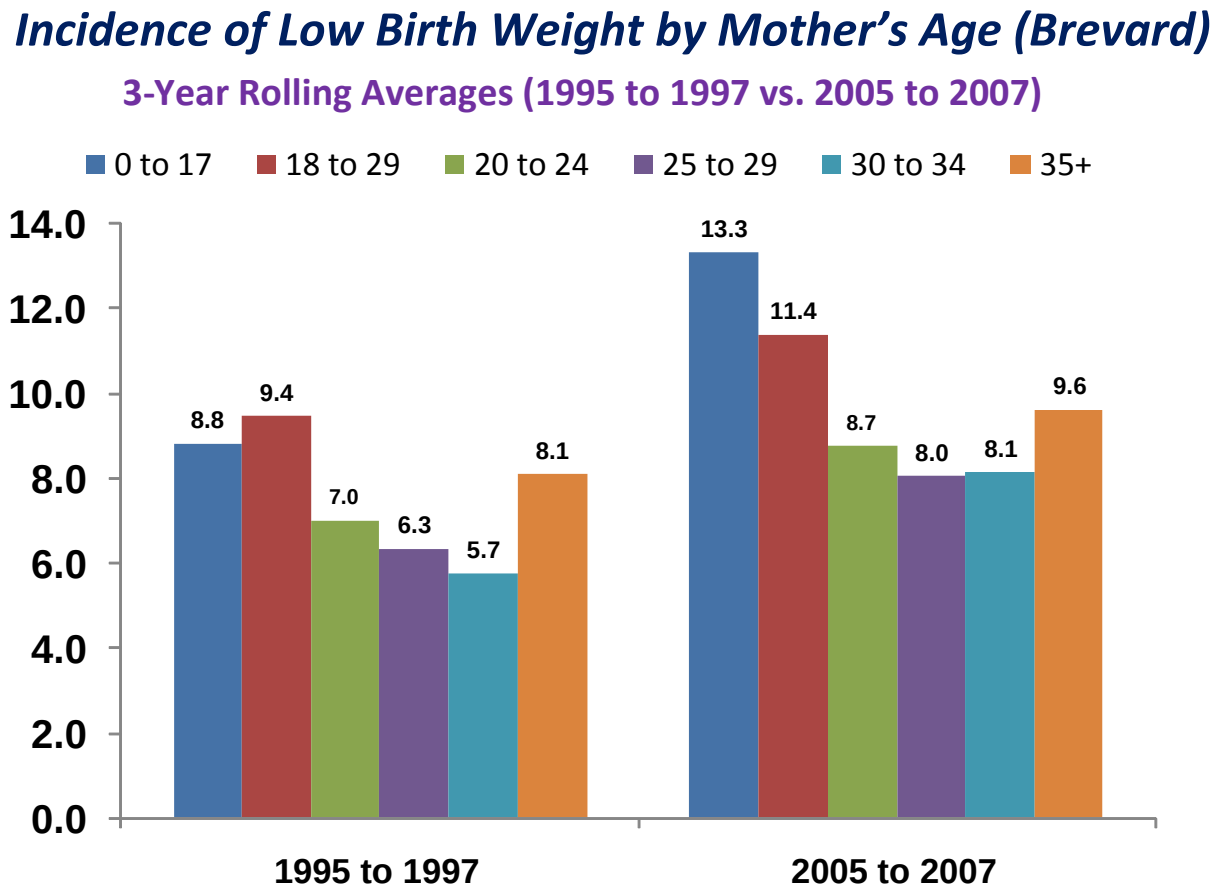
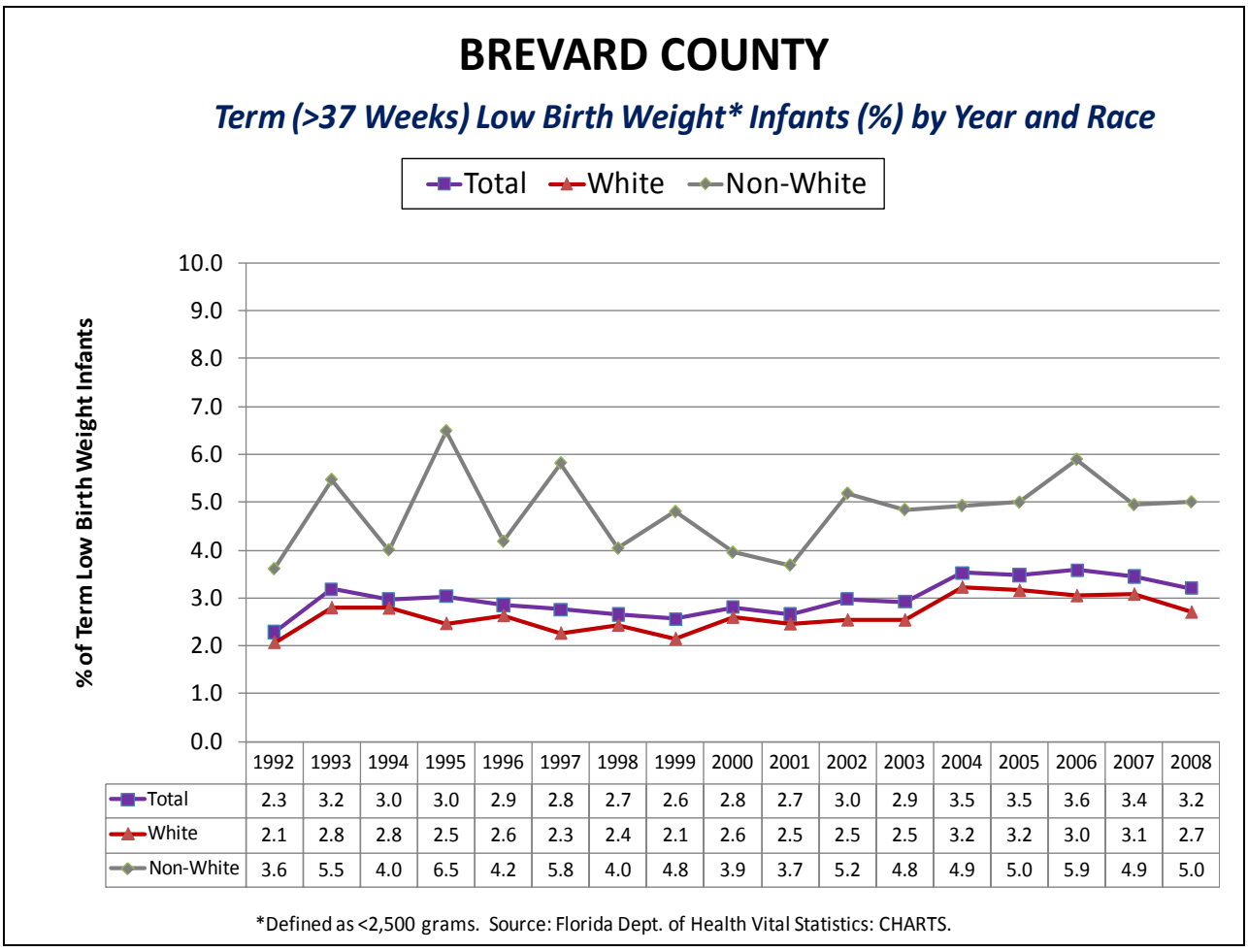


Chart 5. Rolling 3-Year Averages of Incidence of Low Birth Weight by Mother's Age

Source: Florida Dept. of Health Vital Statistics: CHARTS

- In Brevard, the incidence of low birth weight among mothers with full term births (>37 weeks) has been markedly higher among non-Whites than Whites, and has increased slightly over time.

Figure 21. Incidence of Low Birth Weight Among Full Term Mothers (>37 Weeks) by Race and Year (1992-2008)



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total	2.3	3.2	3.0	3.0	2.9	2.8	2.7	2.6	2.8	2.7	3.0	2.9	3.5	3.5	3.6	3.4	3.2
White	2.1	2.8	2.8	2.5	2.6	2.3	2.4	2.1	2.6	2.5	2.5	2.5	3.2	3.2	3.0	3.1	2.7
Non-White	3.6	5.5	4.0	6.5	4.2	5.8	4.0	4.8	3.9	3.7	5.2	4.8	4.9	5.0	5.9	4.9	5.0

*Defined as <2,500 grams. Source: Florida Dept. of Health Vital Statistics: CHARTS.

Table 1 presents selected maternal characteristics and their relationship to the occurrence of low birth weight in calendar year 2006. As seen, age less than 18 years, black race, less than high school education, unmarried, pre-pregnancy BMI of <18.5, Healthy Start Infant Score ≥4, adequate or below prenatal care utilization (Kotelchuck Index), and less than 15 prenatal visits were all strongly associated with the incidence of low birth weight.

Table 1
Maternal Characteristics and Incidence of Low Birth Weight (LBW)
Brevard County (2006)

Characteristic	Total (N=5707)	LBW (N=514)	No LBW (N=5193)	p-value
Mother Age at Infant Birth, %				
Less than 18	3.3	5.4	3.1	0.0044
18 to 21	18.1	22.8	17.7	
22 to 25	22.3	21.2	22.5	
26 to 29	21.6	20.0	21.7	
30 to 34	20.6	17.3	20.9	
35 to 39	11.6	11.3	11.6	
40 or older	2.5	1.9	2.6	
Mothers Race, %				
White	80.6	70.2	81.6	<.0001
Black	13.5	22.8	12.5	
Other non-white	6.0	7.0	5.9	
Mothers Education, %				
Less than high school	17.3	23.0	16.7	0.0008
High school/GED	26.6	26.9	26.5	
At least some college	56.2	50.1	56.7	
Mothers Marital Status, %				
Married	58.0	49.7	58.8	<.0001
Unmarried	42.0	50.3	41.2	
Pre-Pregnancy Body Mass Index, %				
BMI < 18.5	6.1	9.6	5.7	0.0013
BMI 18.5 to 24.9	52.7	53.6	52.6	
BMI 25 to 29.9	21.7	17.5	22.2	
BMI 30 to 34.9	11.4	10.0	11.5	
BMI >= 35	8.1	9.2	8.0	
Tobacco Use During Pregnancy, %				
Non-smoker	83.3	80.5	83.6	0.2697
1 to 10 cigarettes	13.4	15.2	13.3	
11 to 19 cigarettes	1.1	1.6	1.1	
20 or more cigarettes	2.1	2.8	2.0	
Healthy Start Screening Consent, %				
No	13.3	14.4	13.2	0.4564
Yes	86.7	85.6	86.8	
Healthy Start Infant Score, %				
Zero	38.2	19.7	40.0	<.0001
One	27.8	17.7	28.8	
Two	15.4	11.2	15.8	
Three	7.5	6.5	7.6	
Four or more	11.1	45.0	7.8	
Prenatal Care Utilization: Kotelchuck Index, %				
Missing	8.0	8.6	8.0	<.0001
Inadequate	10.8	11.7	10.7	
Intermediate	7.3	4.3	7.6	
Adequate	36.7	18.7	38.5	
Adequate plus	37.2	56.8	35.3	
Month Pregnancy Prenatal Care Began, %				

Month 0 or 1	26.6	31.5	26.1	0.0853
Month 2	37.4	34.2	37.7	
Month 3	18.0	18.6	17.9	
Month 4	8.1	6.7	8.3	
Month 5 or later	9.9	9.0	10.0	
Number of Prenatal Visits, %				
0 to 7	8.2	24.6	6.6	<.0001
8 to 14	71.9	56.9	73.3	
15 to 20	18.1	14.3	18.4	
21 or more	1.9	4.2	1.7	

Note: a p-value <0.0001 suggests a strong relationship between a given characteristic and risk of LBW
Source: Florida Department of health, Office of Statistics and Assessment: Healthy Start De-identified Linked and Unlinked Data Files

Very Low Birth Weight

Very low birth weight is defined as a birth weight less than 1,500 grams. Like low birth weight (<2,500 grams), babies with very low birth weight are at markedly higher risk of serious complications. With very small body size, very low birth weight babies may have a harder time eating, gaining weight, and fighting infection. Moreover, with very little body fat, very low birth weight babies often have difficulty staying warm in normal temperatures.

Among the most common problems of very low birth weight babies are: low oxygen levels at birth, inability to maintain body temperature, difficulty feeding and gaining weight, infection, breathing problems such as respiratory distress syndrome (a respiratory disease of prematurity caused by immature lungs), neurological problems such as intraventricular hemorrhage (bleeding inside the brain), gastrointestinal problems, such as necrotizing enterocolitis (NEC) - a serious disease of the intestine common in premature babies, and sudden infant death syndrome (SIDS). For these and other related reasons, efforts to prevent very low birth weight are paramount.

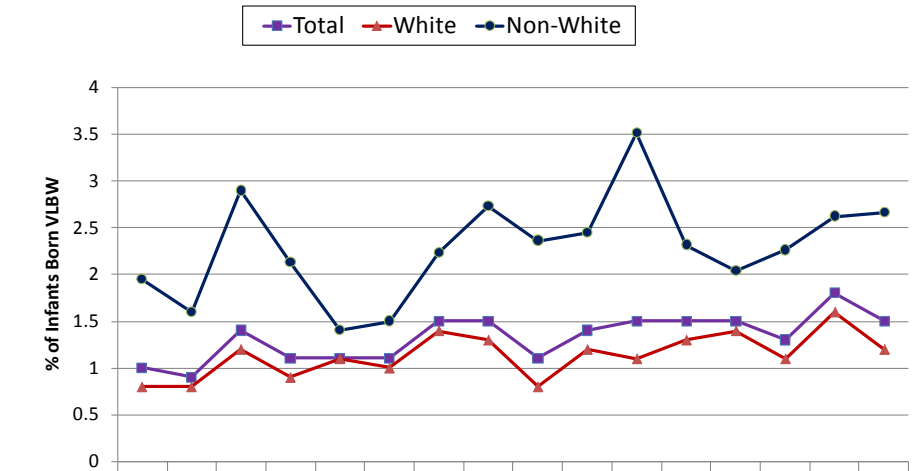
- Among non-whites in Brevard, the incidence of VLBW has increased slightly over time with a rate of 2.7% in 2007. This compares to a substantially lower rate of 1.2% in whites in 2007, and little evidence of an increase over time.

- White and non-white rates of VLBW in Brevard parallel those of the state of Florida.

Figure 22. Incidence of Very Low Birth Weight by Year and Race

BREVARD COUNTY

Incidence of Very Low Birth Weight* (%) by Year and Race

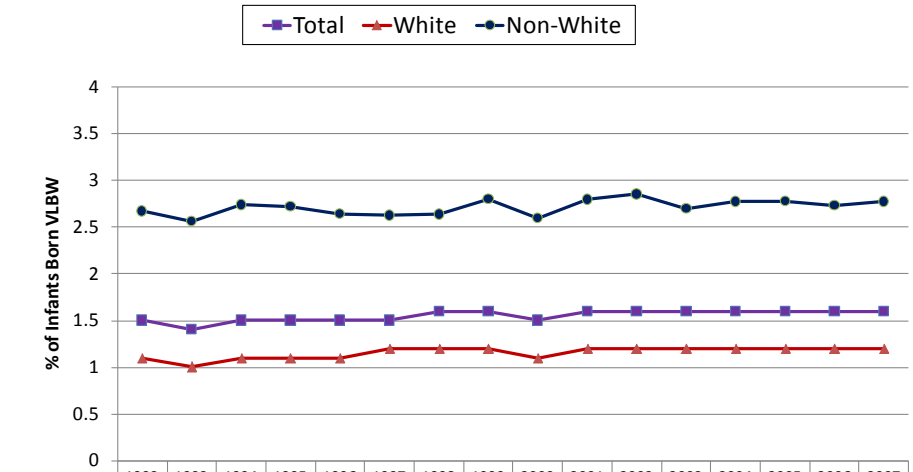


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total	1	0.9	1.4	1.1	1.1	1.1	1.5	1.5	1.1	1.4	1.5	1.5	1.5	1.3	1.8	1.5
White	0.8	0.8	1.2	0.9	1.1	1	1.4	1.3	0.8	1.2	1.1	1.3	1.4	1.1	1.6	1.2
Non-White	1.9	1.6	2.9	2.1	1.4	1.5	2.2	2.7	2.4	2.5	3.5	2.3	2.0	2.3	2.6	2.7

*Defined as <1,500 grams. Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Incidence of Very Low Birth Weight* (%) by Year and Race



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total	1.5	1.4	1.5	1.5	1.5	1.5	1.6	1.6	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6
White	1.1	1	1.1	1.1	1.1	1.2	1.2	1.2	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Non-White	2.7	2.6	2.7	2.7	2.6	2.6	2.6	2.8	2.6	2.8	2.8	2.7	2.8	2.8	2.7	2.8

*Defined as <1,500 grams. Source: Florida Dept. of Health Vital Statistics: CHARTS

As seen in **Chart 6**, the incidence of very low birth weight in Brevard increased in whites from 1.0% in 1995-1997 to 1.3% in 2005-2007. The corresponding increase observed in non-whites was 1.7% in 1995-1997 to 2.5% in 2005-2007. These increases over time are slightly higher than increases in very low birth weight in Florida as a whole.

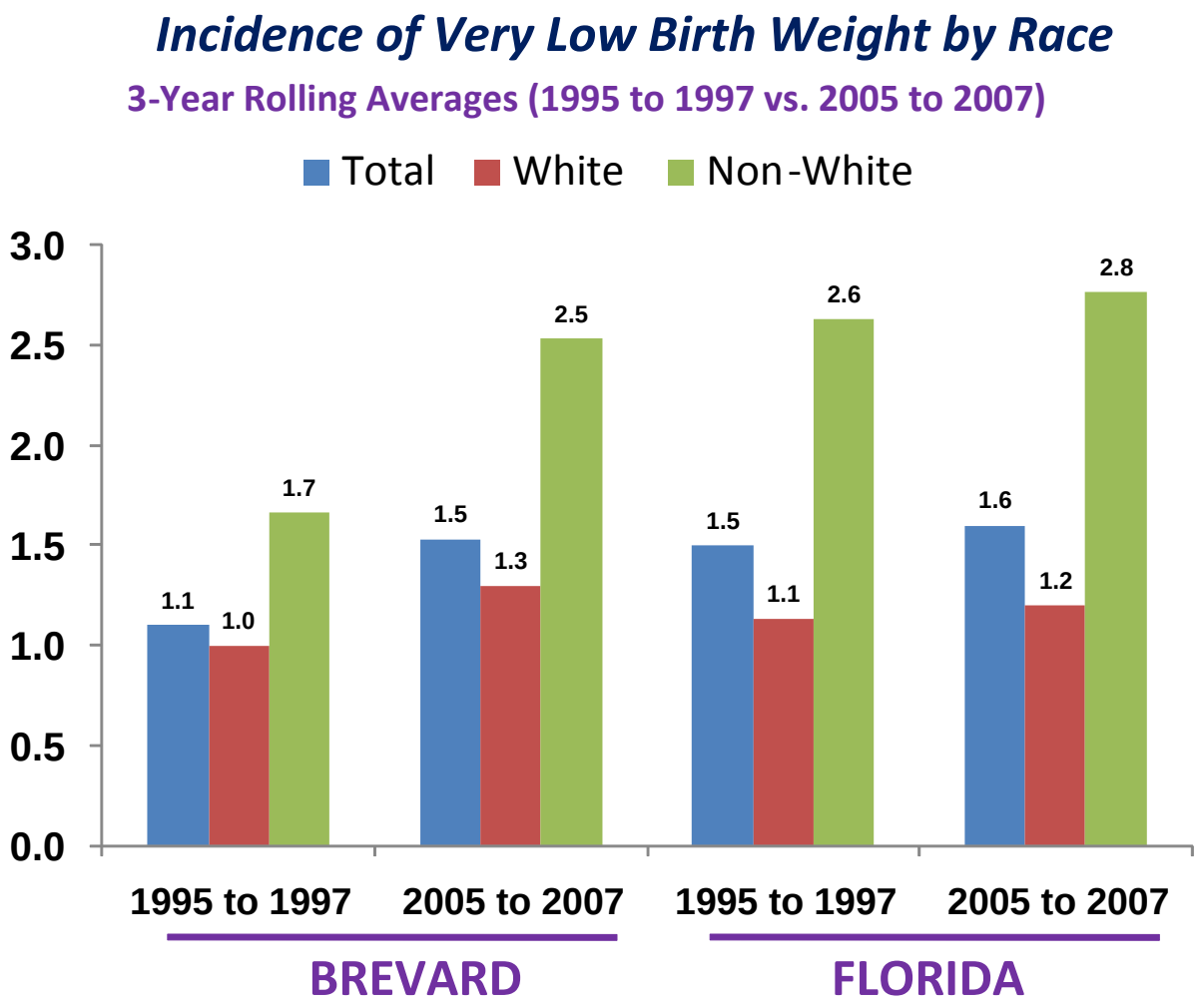


Chart 6. Rolling 3-Year Averages of Incidence of Very Low Birth Weight by Race

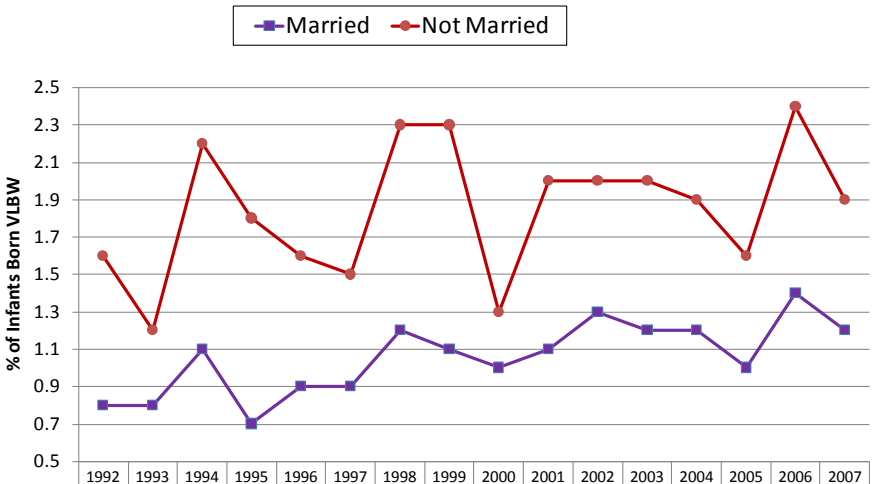
Source: Florida Dept. of Health Vital Statistics: CHARTS

- The incidence of VLBW is nearly double in unmarried women compared to married women in Brevard, a pattern that has remained relatively consistent over time.
- However, in Florida, although unmarried women have higher rates of VLBW than married women, the gap has narrowed steadily over time.

Figure 23. Incidence of Very Low Birth Weight by Marital Status.

BREVARD COUNTY

Incidence of Very Low Birth Weight (%) by Year and Marital Status*

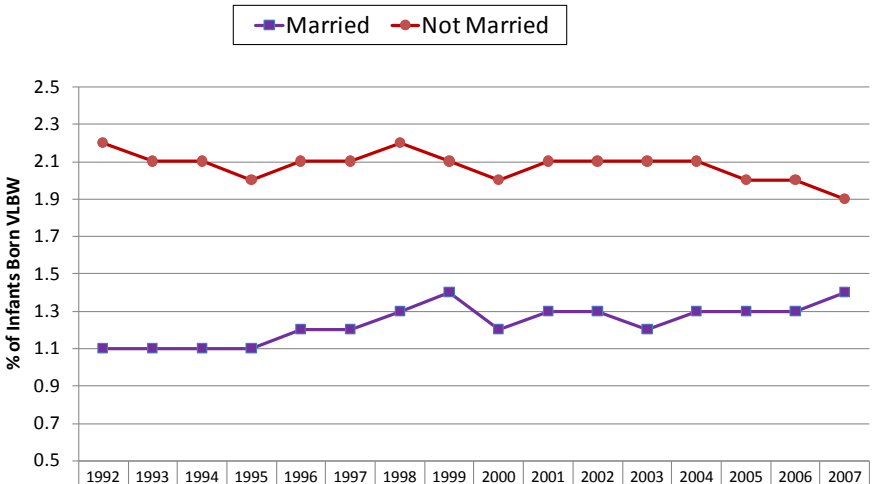


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Married	0.8	0.8	1.1	0.7	0.9	0.9	1.2	1.1	1.0	1.1	1.3	1.2	1.2	1.0	1.4	1.2
Not Married	1.6	1.2	2.2	1.8	1.6	1.5	2.3	2.3	1.3	2.0	2.0	2.0	1.9	1.6	2.4	1.9

*Defined as <1,500 grams. Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Incidence of Very Low Birth Weight (%) by Year and Marital Status*



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Married	1.1	1.1	1.1	1.1	1.2	1.2	1.3	1.4	1.2	1.3	1.3	1.2	1.3	1.3	1.3	1.4
Not Married	2.2	2.1	2.1	2.0	2.1	2.1	2.2	2.1	2.0	2.1	2.1	2.1	2.1	2.0	2.0	1.9

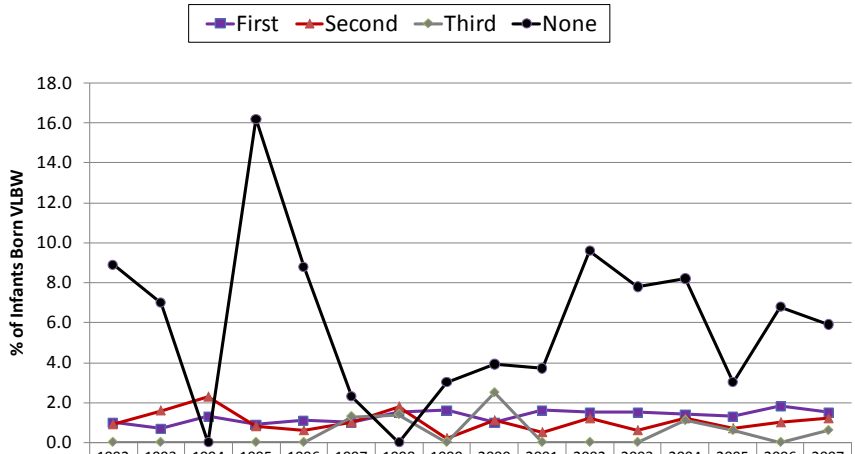
*Defined as <1,500 grams. Source: Florida Dept. of Health Vital Statistics: CHARTS

- The incidence of VLBW in Brevard is much higher in women with no prenatal care, while relatively similar regardless of the trimester in which prenatal care began.
- Results are similar in Florida except that rates of VLBW are actually lowest among women who began prenatal care in the third trimester. This result is likely confounded by higher risk mothers initiating care in the first trimester.

Figure 24. Incidence of Very Low Birth Weight by Trimester Care

BREVARD COUNTY

Incidence of Very Low Birth Weight* (%) by Year and Begin Trimester Care

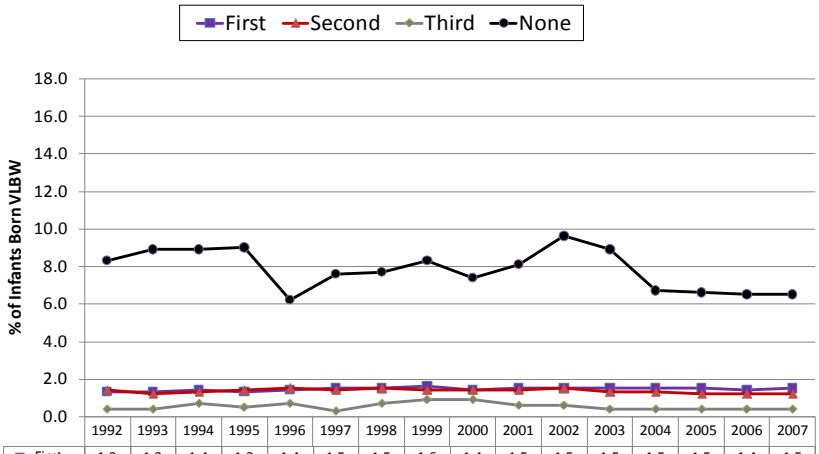


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
First	1.0	0.7	1.3	0.9	1.1	1.0	1.5	1.6	1.0	1.6	1.5	1.5	1.4	1.3	1.8	1.5
Second	0.9	1.6	2.3	0.8	0.6	1.0	1.8	0.2	1.1	0.5	1.2	0.6	1.2	0.7	1.0	1.2
Third	0.0	0.0	0.0	0.0	0.0	1.3	1.4	0.0	2.5	0.0	0.0	0.0	1.1	0.6	0.0	0.6
None	8.9	7.0	0.0	16.2	8.8	2.3	0.0	3.0	3.9	3.7	9.6	7.8	8.2	3.0	6.8	5.9

*Defined as <1,500 grams. Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Incidence of Very Low Birth Weight* (%) by Year and Begin Trimester Care



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
First	1.3	1.3	1.4	1.3	1.4	1.5	1.5	1.6	1.4	1.5	1.5	1.5	1.5	1.5	1.4	1.5
Second	1.4	1.2	1.3	1.4	1.5	1.4	1.5	1.4	1.4	1.4	1.5	1.3	1.3	1.2	1.2	1.2
Third	0.4	0.4	0.7	0.5	0.7	0.3	0.7	0.9	0.9	0.6	0.6	0.4	0.4	0.4	0.4	0.4
None	8.3	8.9	8.9	9.0	6.2	7.6	7.7	8.3	7.4	8.1	9.6	8.9	6.7	6.6	6.5	6.5

*Defined as <1,500 grams. Source: Florida Dept. of Health Vital Statistics: CHARTS

As seen in **Chart 7**, incidence rates of very low birth weight in Brevard and Florida as a whole have been much higher among women with no prenatal care. In Brevard, the only group of women who have experienced a lower incidence rate of very low birth weight from 1995-1997 to 2005-2007 is the small subset of women with no prenatal care.

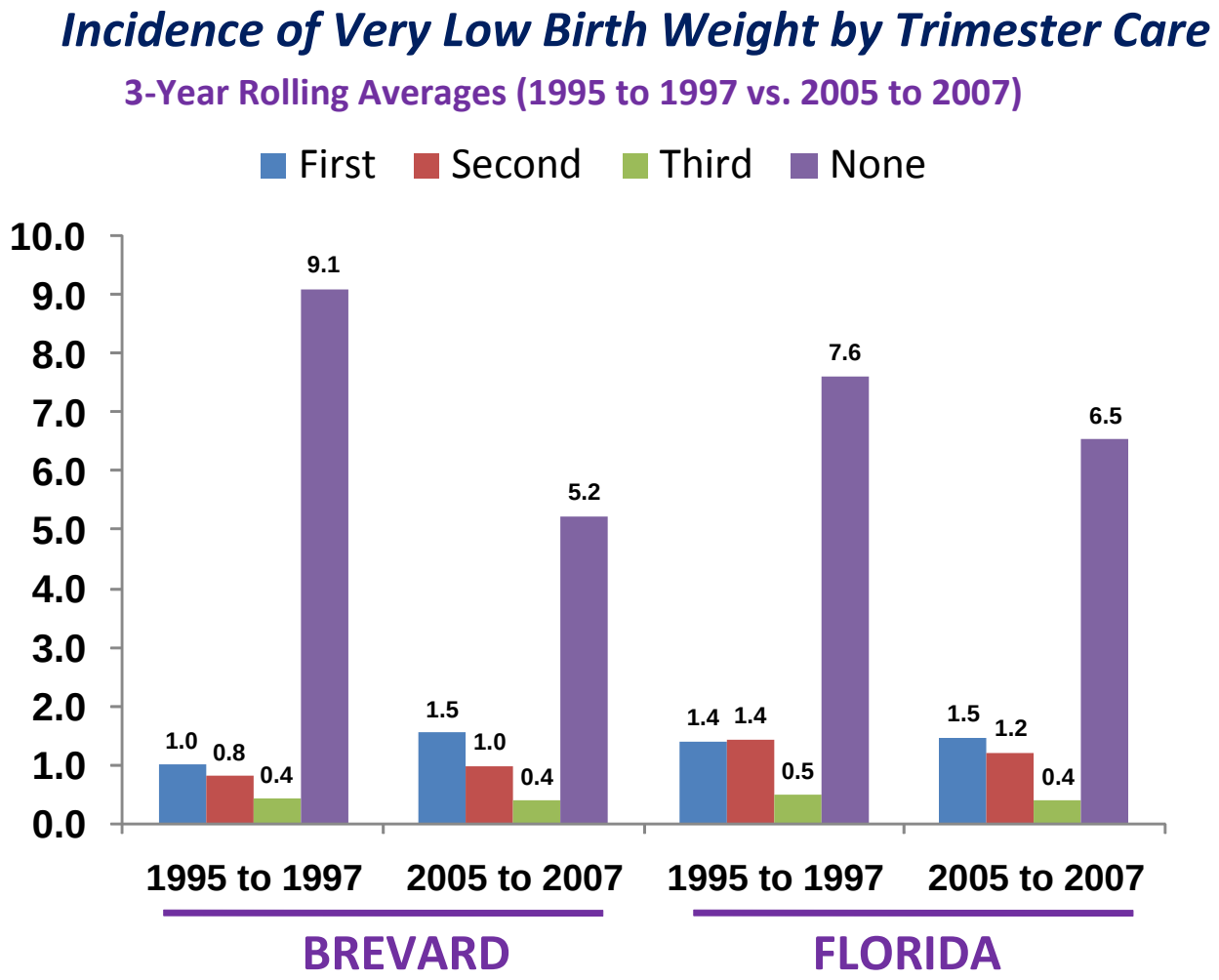


Chart 7. Rolling 3-Year Averages of Incidence of Very Low Birth Weight by Trimester Care

Source: Florida Dept. of Health Vital Statistics: CHARTS

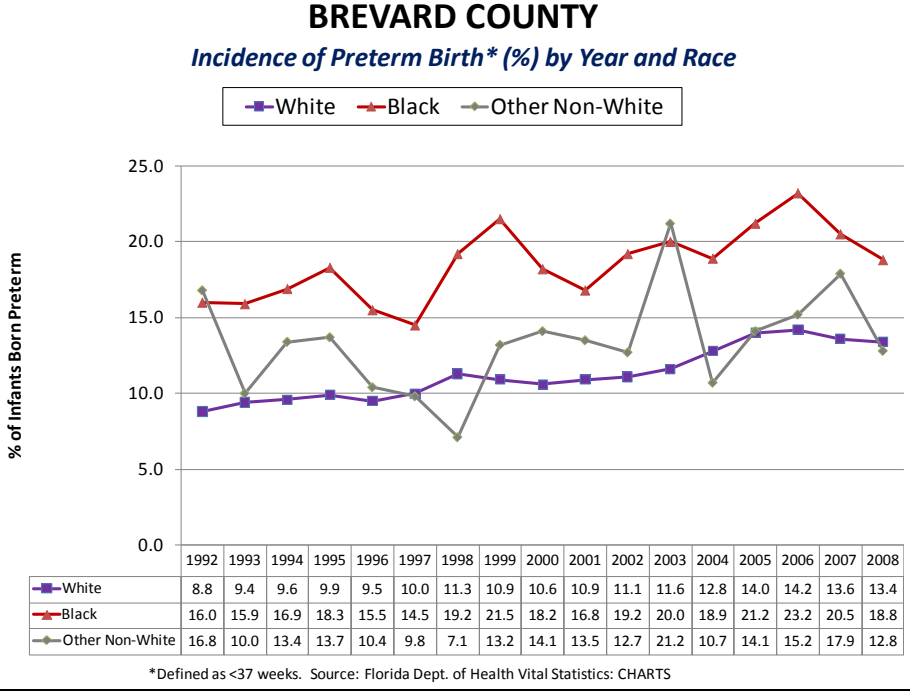
Preterm Birth

Preterm birth is defined as birth less than 37 weeks gestational age. Importantly, premature infants are at greater risk for short and long term complications, including breathing problems, infections, disabilities, and impediments in growth and mental development.

- Both whites and non-whites in Brevard have experienced increased rates of preterm birth over time with an overall rate of 15% in 2007. Rates have been consistently higher (approximately 50%) among Blacks compared to Whites.

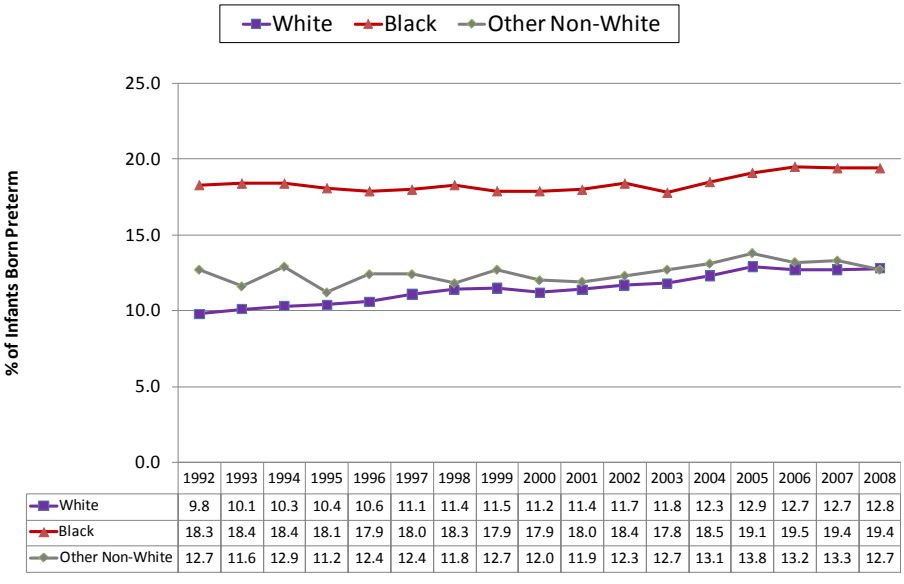
- Results are somewhat different in Florida with increased rates of preterm birth in Whites over time yet no appreciable increase over time in Blacks.

Figure 25. Incidence of Preterm Birth by Year and Race (1992-2008)



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
White	8.8	9.4	9.6	9.9	9.5	10.0	11.3	10.9	10.6	10.9	11.1	11.6	12.8	14.0	14.2	13.6	13.4
Black	16.0	15.9	16.9	18.3	15.5	14.5	19.2	21.5	18.2	16.8	19.2	20.0	18.9	21.2	23.2	20.5	18.8
Other Non-White	16.8	10.0	13.4	13.7	10.4	9.8	7.1	13.2	14.1	13.5	12.7	21.2	10.7	14.1	15.2	17.9	12.8

*Defined as <37 weeks. Source: Florida Dept. of Health Vital Statistics: CHARTS



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
White	9.8	10.1	10.3	10.4	10.6	11.1	11.4	11.5	11.2	11.4	11.7	11.8	12.3	12.9	12.7	12.7	12.8
Black	18.3	18.4	18.4	18.1	17.9	18.0	18.3	17.9	17.9	18.0	18.4	17.8	18.5	19.1	19.5	19.4	19.4
Other Non-White	12.7	11.6	12.9	11.2	12.4	12.4	11.8	12.7	12.0	11.9	12.3	12.7	13.1	13.8	13.2	13.3	12.7

*Defined as <37 weeks. Source: Florida Dept. of Health Vital Statistics: CHARTS

As seen in **Chart 8**, the incidence of preterm birth in Brevard has increased in whites from 9.8% in 1995-1997 to 13.9% in 2005-2007. The corresponding increase observed in non-whites was from 15.3% in 1995-1997 to 19.9% in 2005-2007. These increases over time are slightly higher than increases in preterm birth in Florida as a whole.

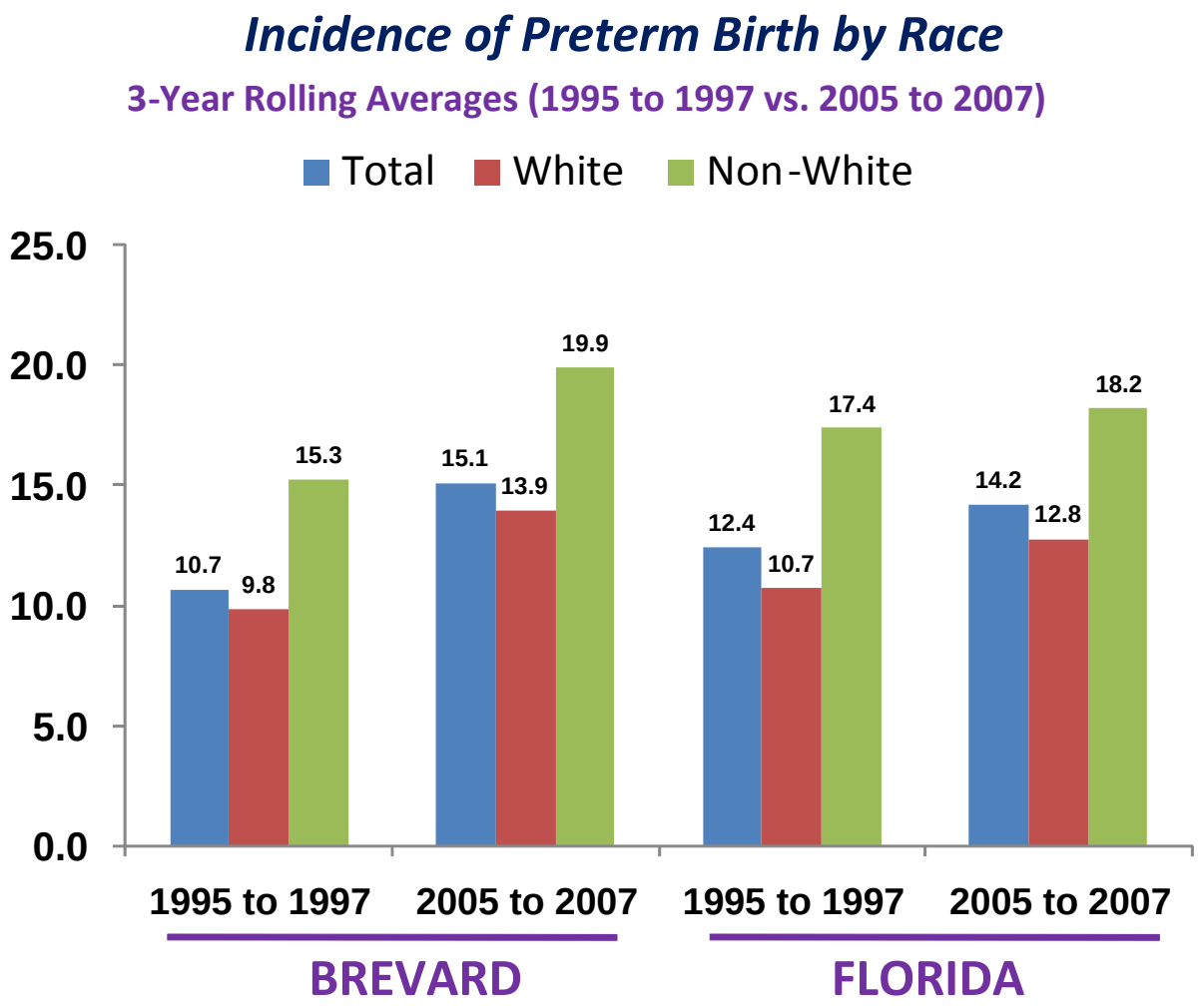


Chart 8. Rolling 3-Year Averages of Incidence of Preterm Birth by Race

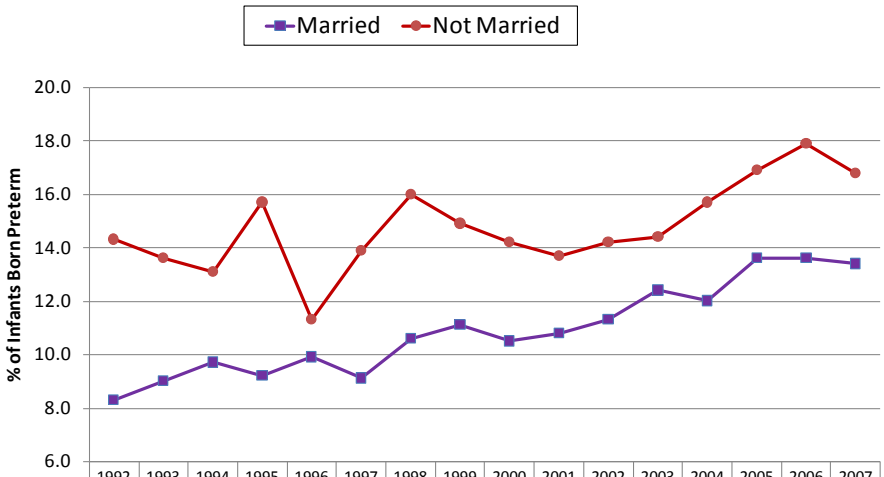
Source: Florida Dept. of Health Vital Statistics: CHARTS

- Rates of preterm birth in Brevard have remained consistently higher in unmarried women compared to married women.
- These results differ somewhat from Florida as a whole where the difference in rates of preterm birth by marital status appears to be narrowing over time.

Figure 26. Incidence of Preterm Birth by Year and Marital Status

BREVARD COUNTY

Incidence of Preterm Birth* (%) by Year and Marital Status

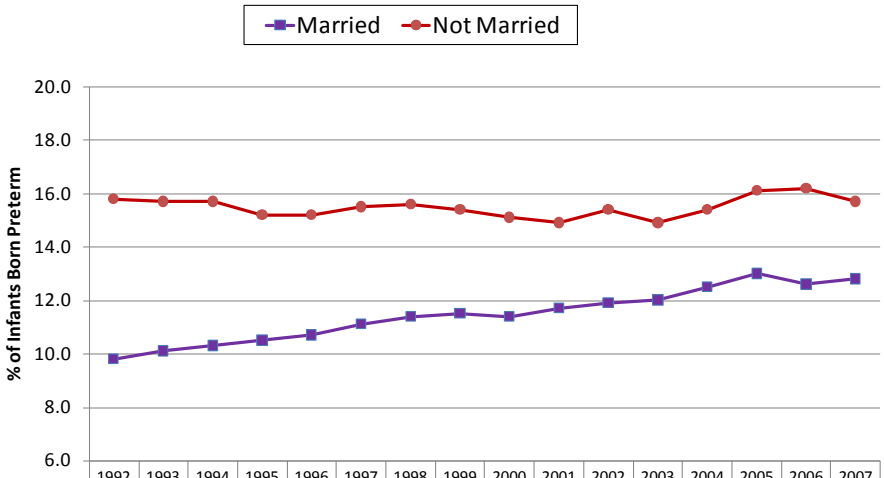


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Married	8.3	9.0	9.7	9.2	9.9	9.1	10.6	11.1	10.5	10.8	11.3	12.4	12.0	13.6	13.6	13.4
Not Married	14.3	13.6	13.1	15.7	11.3	13.9	16.0	14.9	14.2	13.7	14.2	14.4	15.7	16.9	17.9	16.8

*Defined as <37 weeks. Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Incidence of Preterm Birth* (%) by Year and Marital Status



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Married	9.8	10.1	10.3	10.5	10.7	11.1	11.4	11.5	11.4	11.7	11.9	12.0	12.5	13.0	12.6	12.8
Not Married	15.8	15.7	15.7	15.2	15.2	15.5	15.6	15.4	15.1	14.9	15.4	14.9	15.4	16.1	16.2	15.7

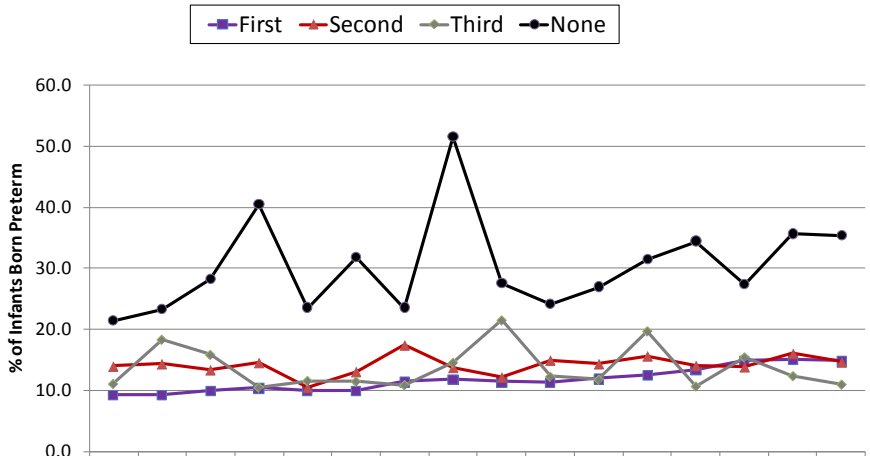
*Defined as <37 weeks. Source: Florida Dept. of Health Vital Statistics: CHARTS

- As with low birth weight, the incidence of preterm birth among women in Brevard is much higher in those who do not receive prenatal care.
- Similar results over time have been observed at the state level.

Figure 27. Incidence of Preterm Birth by Year and Trimester Care

BREVARD COUNTY

Incidence of Preterm Birth (%) by Year and Begin Trimester Care*

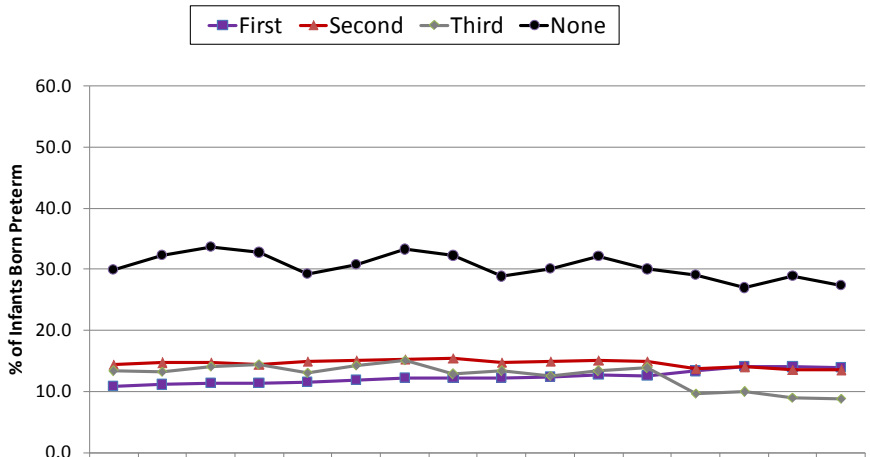


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
First	9.3	9.3	10.0	10.4	10.0	10.0	11.4	11.8	11.4	11.3	11.9	12.5	13.3	14.9	15.0	14.8
Second	13.9	14.3	13.3	14.5	10.4	13.0	17.4	13.7	12.1	14.9	14.3	15.6	14.0	13.8	16.0	14.6
Third	11.0	18.3	15.8	10.4	11.5	11.4	10.8	14.5	21.5	12.2	11.7	19.7	10.6	15.4	12.3	10.9
None	21.4	23.3	28.2	40.5	23.5	31.8	23.5	51.5	27.5	24.1	26.9	31.4	34.4	27.3	35.6	35.3

*Defined as <37 weeks. Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Incidence of Preterm Birth (%) by Year and Begin Trimester Care*



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
First	10.8	11.1	11.3	11.3	11.5	11.9	12.2	12.2	12.2	12.4	12.7	12.6	13.3	14.1	14.0	13.9
Second	14.4	14.7	14.8	14.4	14.9	15.1	15.3	15.4	14.8	14.9	15.1	14.9	13.7	14.0	13.6	13.5
Third	13.3	13.2	14.1	14.4	13.0	14.2	15.1	12.8	13.3	12.5	13.3	13.8	9.6	9.9	9.0	8.8
None	29.9	32.3	33.6	32.7	29.2	30.8	33.2	32.2	28.8	30.1	32.1	30.0	29.0	26.9	28.9	27.3

*Defined as <37 weeks. Source: Florida Dept. of Health Vital Statistics: CHARTS

As seen in **Chart 9**, the incidence of preterm birth in both Brevard and Florida has been much higher in women with no prenatal care. In Brevard, the overall increase in the incidence of preterm birth between the periods 1995-1997 versus 2005-2007 has occurred irrespective of whether prenatal care began in the first, second, or third trimester.

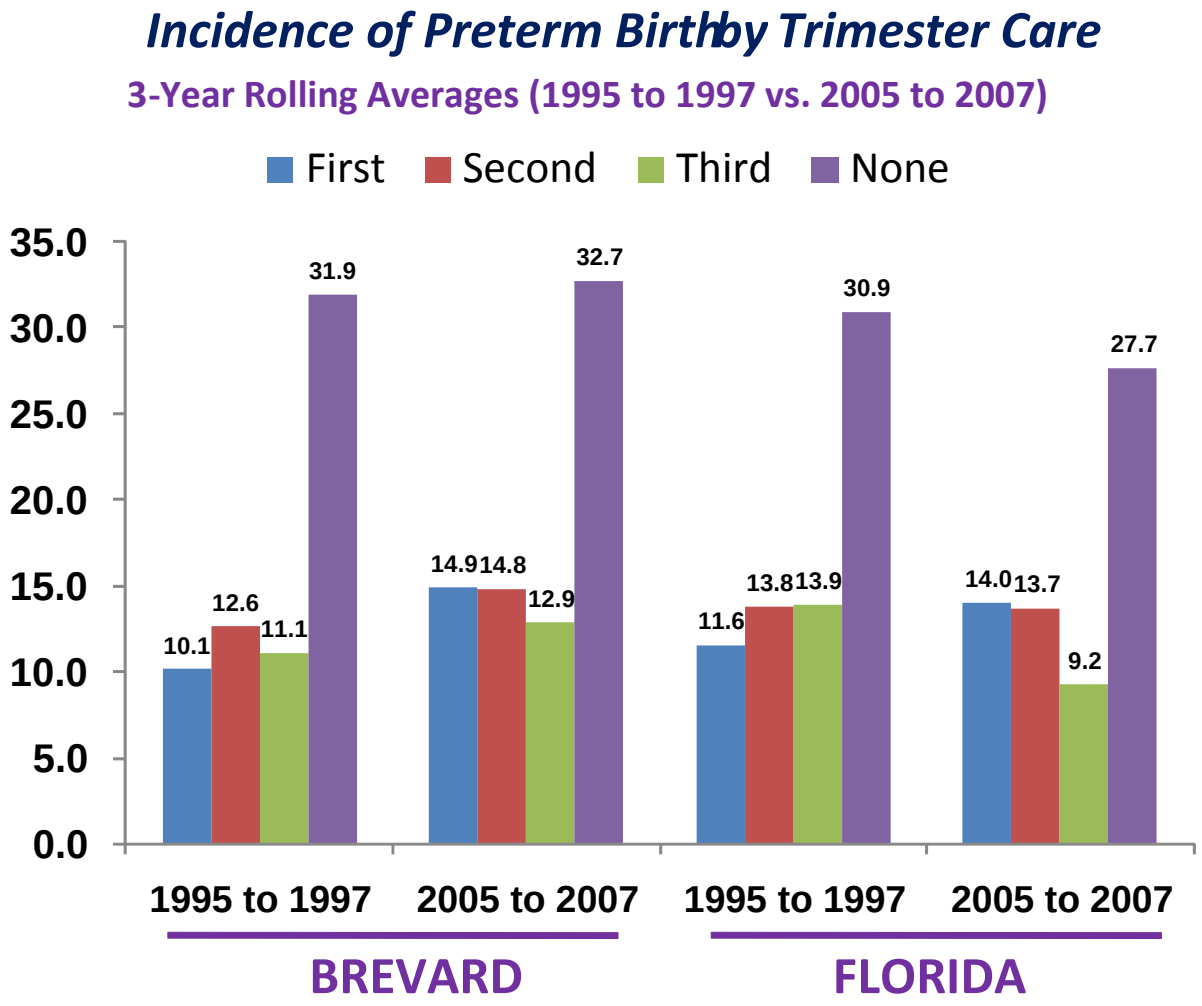


Chart 9. Rolling 3-Year Averages of Incidence of Preterm Birth by Trimester Care

Source: Florida Dept. of Health Vital Statistics: CHARTS

Table 6 presents selected maternal characteristics and their relationship to the incidence of preterm birth in calendar year 2006. As seen, black race, Healthy Start Infant Score ≥4, adequate or below prenatal care utilization (Kotelchuck Index), and less than 8 prenatal visits were all strongly associated with the incidence of preterm birth. These factors are largely consistent with factors associated with low birth weight (previous Table 1). Of all characteristics, the strongest relationship with risk of preterm birth appears to be a Healthy Start Infant Score of 4 or higher.

Table 6
Maternal Characteristics and Incidence of Preterm Birth
Brevard County (2006)

Characteristic	Total N=5703)	Full term birth (N=5037)	Preterm birth (N=666)	p-value
Mother Age at Infant Birth, %				
Less than 18	3.3	3.3	3.6	0.0418
18 to 21	18.1	18.1	18.3	
22 to 25	22.3	22.5	21.2	
26 to 29	21.6	21.7	20.9	
30 to 34	20.6	20.9	18.0	
35 to 39	11.6	11.1	15.5	
40 or older	2.5	2.5	2.6	
Mothers Race, %				
White	80.5	81.0	76.8	<.0001
Black	13.5	12.8	18.6	
Other non-white	6.0	6.2	4.5	
Mothers Education, %				
Less than high school	17.3	17.1	18.8	0.5266
High school/GED	26.6	26.7	25.6	
At least some college	56.2	56.2	55.7	
Mothers Marital Status, %				
Married	58.0	58.4	55.2	0.1116
Unmarried	42.0	41.6	44.8	
Pre-Pregnancy Body Mass Index, %				
BMI < 18.5	6.1	6.0	6.6	0.0245
BMI 18.5 to 24.9	52.7	53.1	49.5	
BMI 25 to 29.9	21.7	21.9	20.6	
BMI 30 to 34.9	11.4	11.3	12.2	
BMI >= 35	8.1	7.7	11.2	
Tobacco Use During Pregnancy, %				
Non-smoker	83.3	83.4	83.2	0.8782
1 to 10 cigarettes	13.4	13.4	13.5	
11 to 19 cigarettes	1.1	1.2	0.9	
20 or more cigarettes	2.1	2.1	2.4	
Healthy Start Screening Consent, %				
No	13.3	13.1	14.8	0.2491
Yes	86.7	86.9	85.2	
Healthy Start Infant Score, %				
Zero	38.2	39.6	27.3	<.0001
One	27.8	28.5	22.4	
Two	15.4	16.3	8.5	
Three	7.5	7.7	5.9	
Four or more	11.1	7.8	35.9	
Prenatal Care Utilization: Kotelchuck Index, %				
Missing	8.0	7.9	8.6	<.0001
Inadequate	10.8	10.8	10.8	
Intermediate	7.3	7.7	4.1	
Adequate	36.7	39.3	17.1	

Adequate plus	37.2	34.3	59.5	
Month Pregnancy Prenatal Care Began, %				
Month 0 or 1	26.6	26.0	31.2	0.0124
Month 2	37.4	37.2	38.7	
Month 3	18.0	18.3	15.2	
Month 4	8.1	8.3	6.6	
Month 5 or later	9.9	10.1	8.3	
Number of Prenatal Visits, %				
0 to 7	8.2	6.5	20.9	<.0001
8 to 14	71.8	73.2	61.2	
15 to 20	18.1	18.7	13.6	
21 or more	1.9	1.6	4.3	

Note: a p-value <0.0001 suggests a strong relationship between a given characteristic and risk of Preterm Birth
Source: Florida Department of health, Office of Statistics and Assessment: Healthy Start De-identified Linked and Unlinked Data Files

Very Preterm Birth

Very preterm birth is defined as birth less than 32 weeks gestational age. These babies are at very high risk for complications and lifelong health conditions, including insufficient brain development, learning and behavioral deficiencies, apnea, feeding problems, and are at greater risk for sudden infant death syndrome (SIDS).

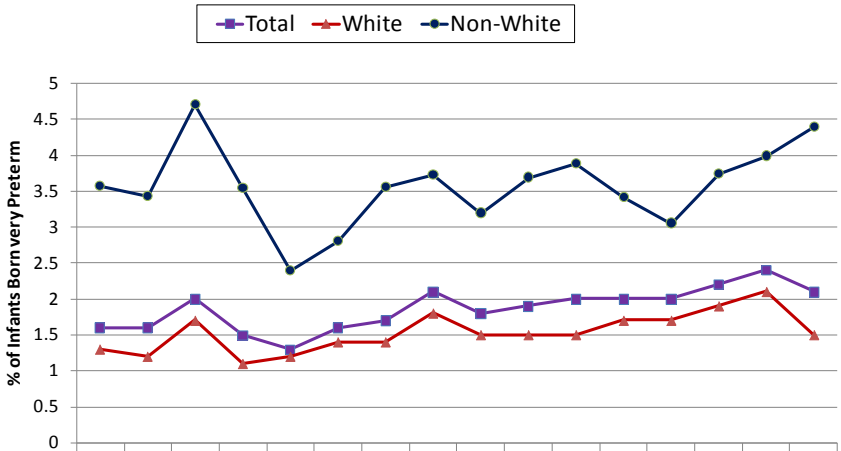
- The incidence of very preterm birth in Brevard has been about twice as high in non-whites compared to whites over time. There has been a slight increase in very preterm birth over time in whites, but not in non-whites.

- In Florida, non-whites continue to have much higher rates of very preterm birth than whites, although, the incidence in non-whites appears to be decreasing over time.

Figure 28. Incidence of Very Preterm Birth by Year and Race

BREVARD COUNTY

Incidence of Very Preterm Birth* (%) by Year and Race

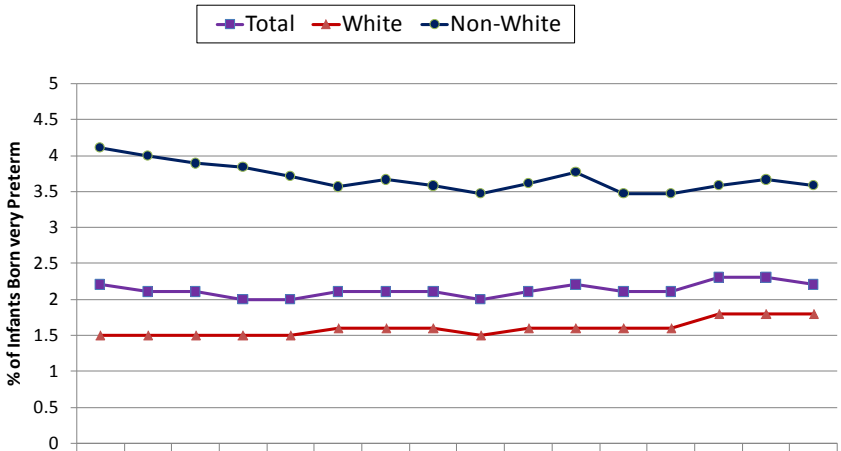


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total	1.6	1.6	2	1.5	1.3	1.6	1.7	2.1	1.8	1.9	2	2	2	2.2	2.4	2.1
White	1.3	1.2	1.7	1.1	1.2	1.4	1.4	1.8	1.5	1.5	1.5	1.7	1.7	1.9	2.1	1.5
Non-White	3.6	3.4	4.7	3.5	2.4	2.8	3.6	3.7	3.2	3.7	3.9	3.4	3.1	3.7	4.0	4.4

*Defined as gestation <32 weeks. Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Incidence of Very Preterm Birth* (%) by Year and Race



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total	2.2	2.1	2.1	2	2	2.1	2.1	2.1	2	2.1	2.2	2.1	2.1	2.3	2.3	2.2
White	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.5	1.6	1.6	1.6	1.6	1.8	1.8	1.8
Non-White	4.1	4.0	3.9	3.8	3.7	3.6	3.7	3.6	3.5	3.6	3.8	3.5	3.5	3.6	3.7	3.6

*Defined as gestation <32 weeks. Source: Florida Dept. of Health Vital Statistics: CHARTS

As seen in **Chart 10**, the incidence of very preterm birth in Brevard increased in whites from 1.2% in 1995-1997 to 1.8% in 2005-2007. The corresponding increase observed in non-whites was from 2.9% in 1995-1997 to 4.0% in 2005-2007. In Florida, no increase in the incidence of very preterm birth among non-whites was observed during the periods 1995-1997 (3.7%) versus 2005-2007 (3.6%).

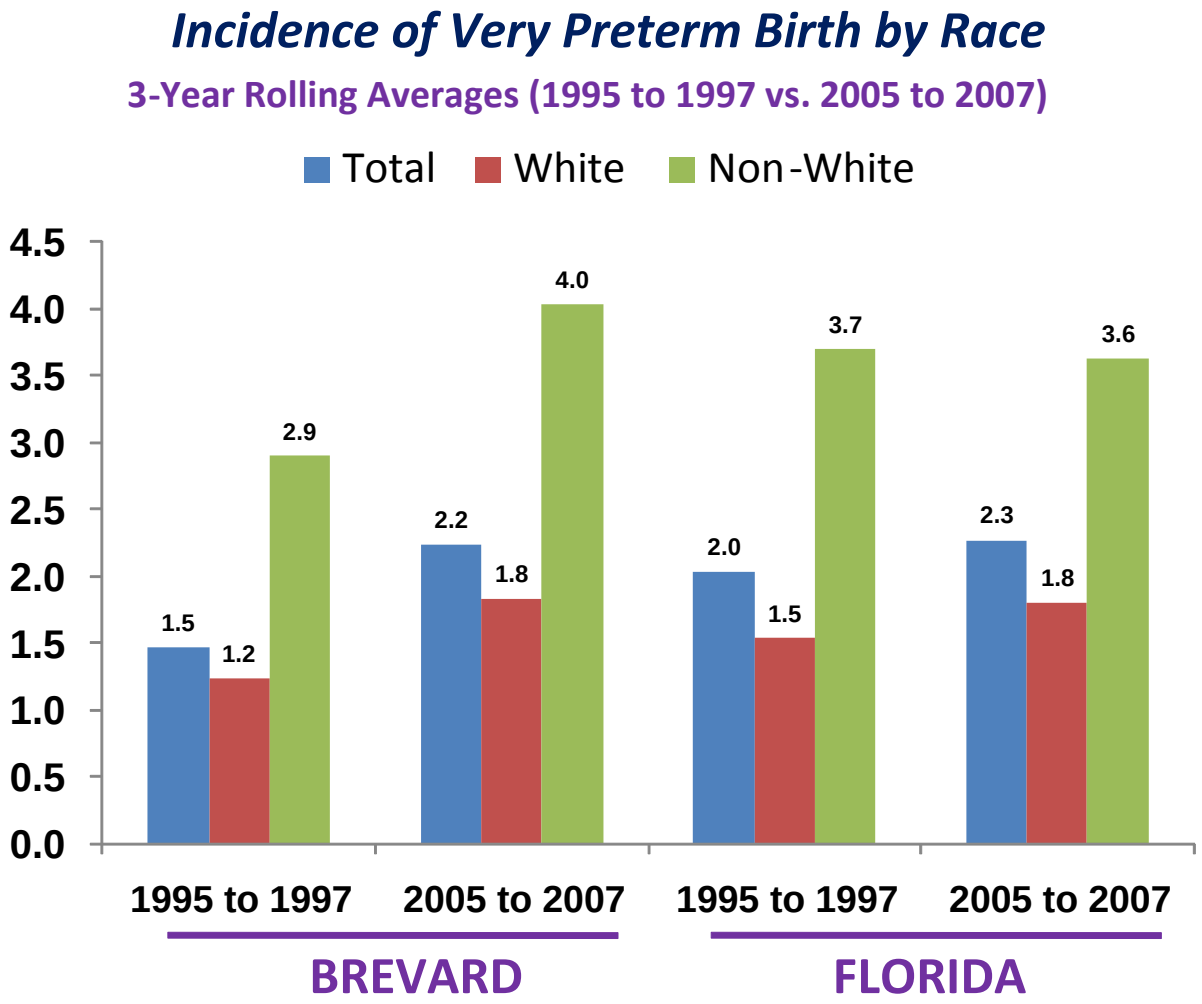


Chart 10. Rolling 3-Year Averages of Incidence of Very Preterm Birth by Race

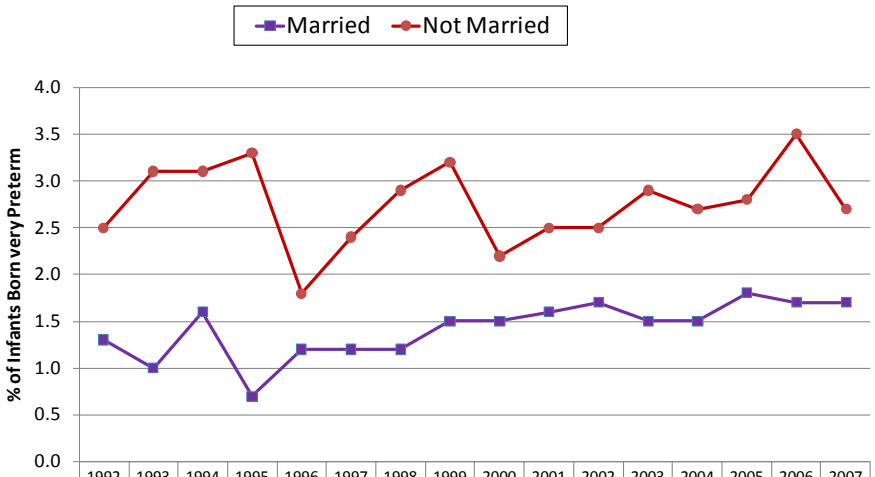
Source: Florida Dept. of Health Vital Statistics: CHARTS

- In Brevard, the incidence of very preterm birth has remained approximately twice as high in unmarried women compared to married women.
- In Florida, this disparity by marital status appears to be narrowing, yet unmarried women continue to have higher rates of very preterm birth than married women.

Figure 29. Incidence of Very Preterm Birth by Year and Marital Status

BREVARD COUNTY

Incidence of Very Preterm Birth (%) by Year and Marital Status*

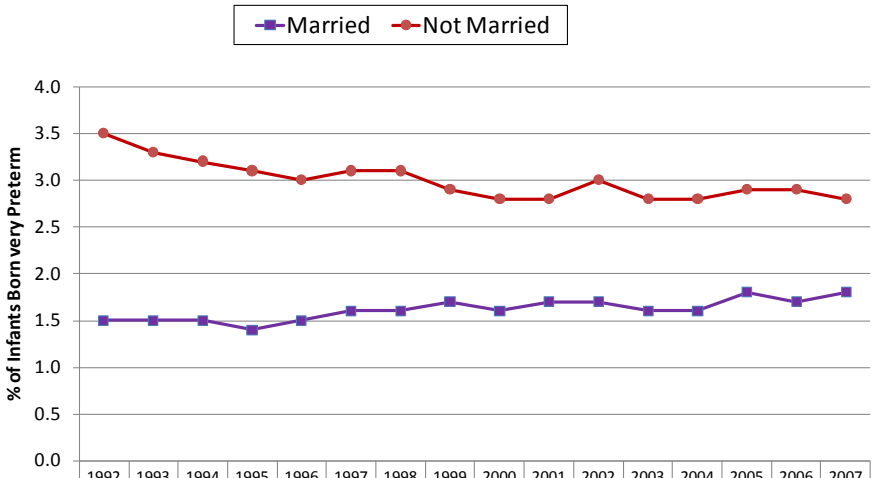


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Married	1.3	1.0	1.6	0.7	1.2	1.2	1.2	1.5	1.5	1.6	1.7	1.5	1.5	1.8	1.7	1.7
Not Married	2.5	3.1	3.1	3.3	1.8	2.4	2.9	3.2	2.2	2.5	2.5	2.9	2.7	2.8	3.5	2.7

*Defined as gestation <32 weeks. Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Incidence of Very Preterm Birth (%) by Year and Marital Status*



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Married	1.5	1.5	1.5	1.4	1.5	1.6	1.6	1.7	1.6	1.7	1.7	1.6	1.6	1.8	1.7	1.8
Not Married	3.5	3.3	3.2	3.1	3.0	3.1	3.1	2.9	2.8	2.8	3.0	2.8	2.8	2.9	2.9	2.8

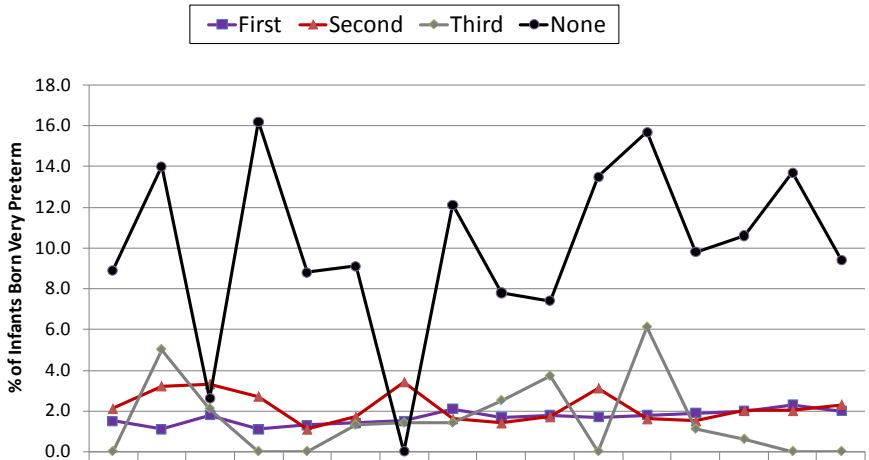
*Defined as gestation <32 weeks. Source: Florida Dept. of Health Vital Statistics: CHARTS

- As with low birth weight, the incidence of very preterm birth in Brevard is consistently (over time) highest among women who do not receive prenatal care.
- Similar results have been observed in Florida as a whole.

Figure 30. Incidence of Very Preterm Birth by Year and Trimester Care

BREVARD COUNTY

Incidence of Very Preterm Birth (%) by Year and Begin Trimester Care*

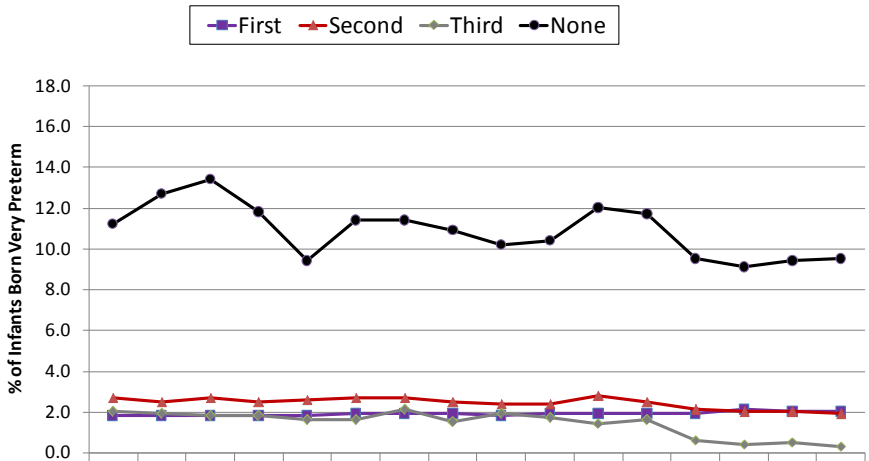


	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
First	1.5	1.1	1.8	1.1	1.3	1.4	1.5	2.1	1.7	1.8	1.7	1.8	1.9	2.0	2.3	2.0
Second	2.1	3.2	3.3	2.7	1.1	1.7	3.4	1.6	1.4	1.7	3.1	1.6	1.5	2.0	2.0	2.3
Third	0.0	5.0	2.1	0.0	0.0	1.3	1.4	1.4	2.5	3.7	0.0	6.1	1.1	0.6	0.0	0.0
None	8.9	14.0	2.6	16.2	8.8	9.1	0.0	12.1	7.8	7.4	13.5	15.7	9.8	10.6	13.7	9.4

*Defined as < gestation <32 weeks. Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Incidence of Very Preterm Birth (%) by Year and Begin Trimester Care*



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
First	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	2.1	2.0	2.0
Second	2.7	2.5	2.7	2.5	2.6	2.7	2.7	2.5	2.4	2.4	2.8	2.5	2.1	2.0	2.0	1.9
Third	2.0	1.9	1.8	1.8	1.6	1.6	2.1	1.5	1.9	1.7	1.4	1.6	0.6	0.4	0.5	0.3
None	11.2	12.7	13.4	11.8	9.4	11.4	11.4	10.9	10.2	10.4	12.0	11.7	9.5	9.1	9.4	9.5

*Defined as < gestation <32 weeks. Source: Florida Dept. of Health Vital Statistics: CHARTS

As seen in **Chart 11**, the incidence of very preterm birth in Brevard increased between the periods 1995-1997 versus 2005-2007 among women who began prenatal care in the first and second trimesters. These increases were generally not observed in Florida as a whole.

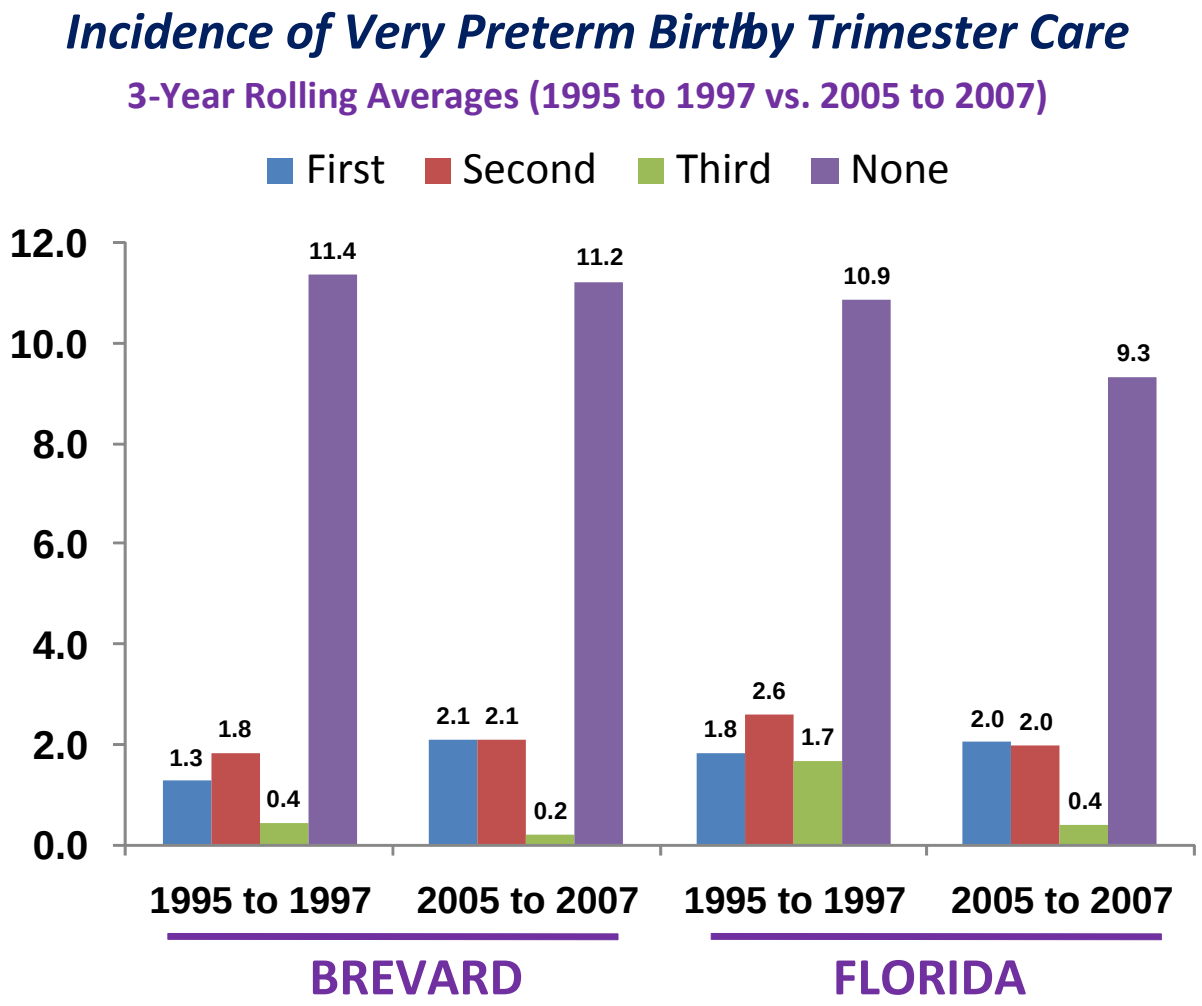


Chart 11. Rolling 3-Year Averages of Incidence of Very Preterm Birth by Trimester Care

Source: Florida Dept. of Health Vital Statistics: CHARTS

Postnatal Screening

Pursuant to §383.14 of the Florida Statutes, parents or guardians of all infants born in Florida must be offered an Infant (Postnatal) Risk Screening for each infant before leaving the delivery facility. This completed form is submitted to the local County Health Department, Office of Vital Statistics. Importantly, the Healthy Start infant risk screen identifies risk factors so women and infants may be referred for services that complement and assure continued participation in infant health care services. In the figures that follow, data are presented from 1995 to 2007. Data for the years 1992 to 1994 were not available from the Florida Department of Health.

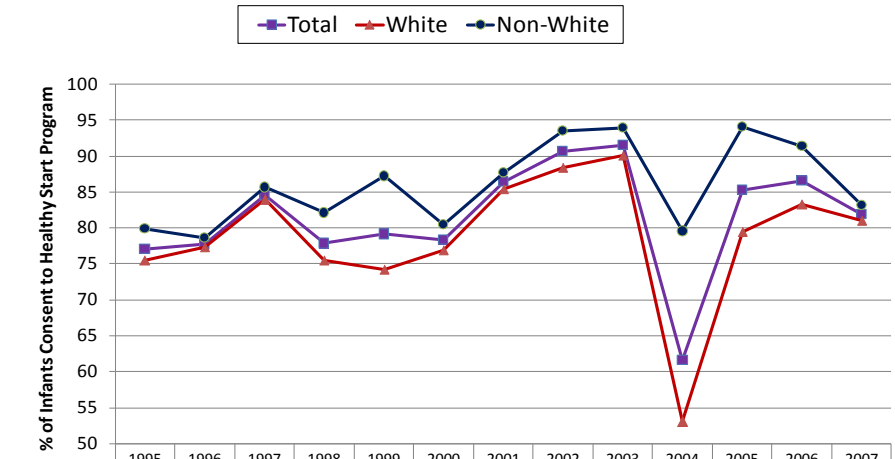
- Between 1995 and 2007, rates of infant consent to the Healthy Start Program have generally ranged from 77% to 91% with slightly higher rates in non-whites compared to whites. In 2004, the overall rate was lower in non-whites at 61.6% and only 53% in whites. This precipitous drop was due to personnel transitions at the Healthy Start Coalition of Brevard.

- Except for 2004, infant consent rates were similar between Brevard and Florida.

Figure 31. Rates of Infant Consent to Healthy Start Program by Year and Race

BREVARD COUNTY

Infant Consent to Healthy Start Program (%) by Year and Race

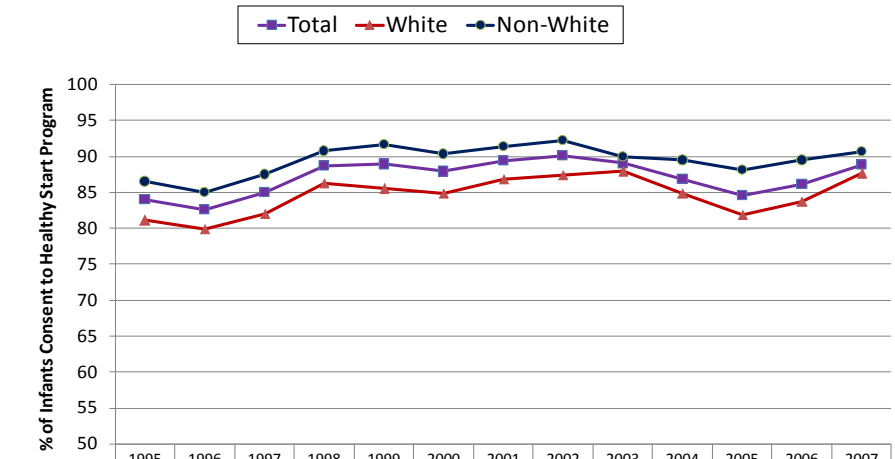


	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total	77	77.7	84.6	77.8	79.1	78.3	86.4	90.7	91.5	61.6	85.3	86.5	81.9
White	75.5	77.3	83.9	75.5	74.2	76.9	85.4	88.4	90.1	53	79.5	83.3	81
Non-White	79.9	78.6	85.6	82.1	87.2	80.5	87.7	93.5	94.0	79.5	94.0	91.3	83.2

Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Infant Consent to Healthy Start Program (%) by Year and Race



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total	84	82.6	85	88.7	88.9	87.9	89.4	90.1	89	86.8	84.6	86.1	88.8
White	81.1	79.9	82	86.3	85.5	84.8	86.8	87.4	87.9	84.8	81.9	83.7	87.6
Non-White	86.5	84.9	87.5	90.7	91.7	90.3	91.4	92.2	89.9	89.4	88.1	89.5	90.6

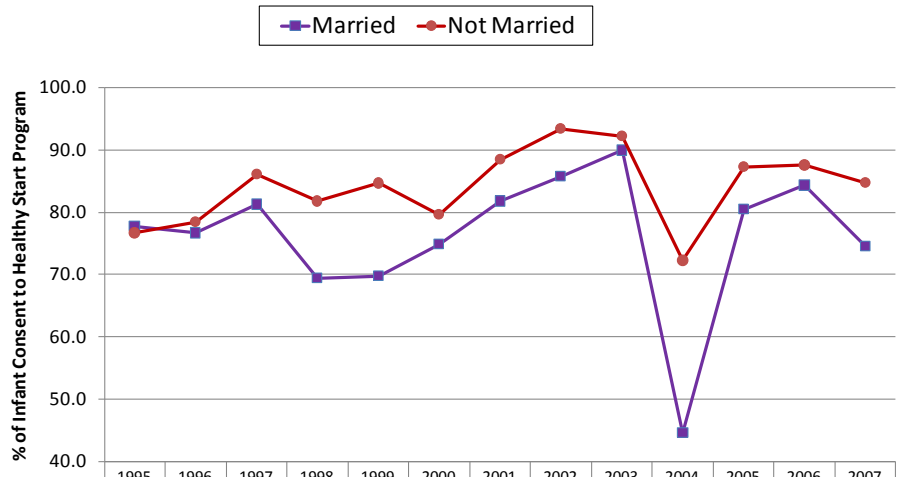
Source: Florida Dept. of Health Vital Statistics: CHARTS

- In both Brevard County and Florida as a whole, rates of infant consent to the Healthy Start Program have been slightly higher in unmarried compared to married women.
- In 2004, only 44.6% of married women provided infant consent to the Healthy Start Program.

Figure 32. Rates of Infant Consent to Healthy Start Program by Marital Status

BREVARD COUNTY

Infant Consent to Healthy Start Program (%) by Year and Marital Status

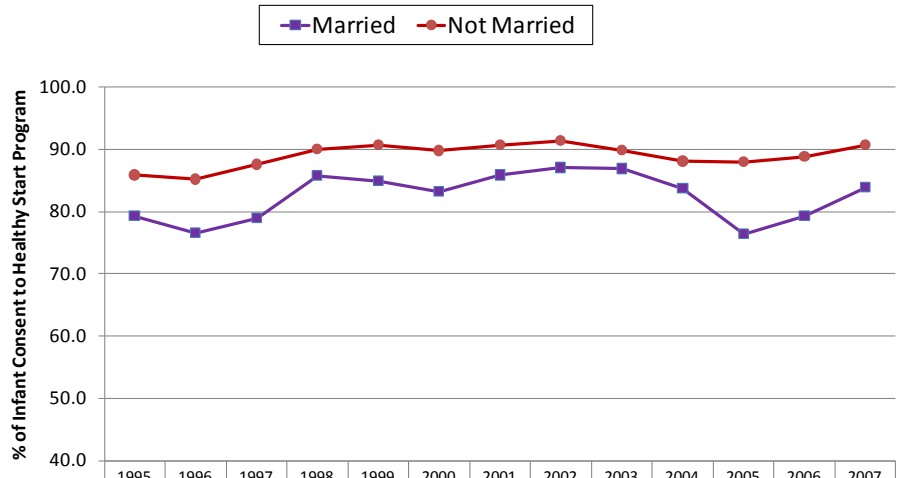


	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Married	77.7	76.6	81.2	69.4	69.7	74.8	81.7	85.7	89.9	44.6	80.4	84.3	74.5
Not Married	76.6	78.4	86.1	81.7	84.6	79.6	88.5	93.4	92.2	72.2	87.3	87.5	84.7

Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Infant Consent to Healthy Start Program (%) by Year and Marital Status



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Married	79.3	76.5	78.9	85.7	84.9	83.2	85.8	87.0	86.8	83.7	76.4	79.3	83.8
Not Married	85.8	85.1	87.5	90.0	90.6	89.7	90.7	91.3	89.8	88.0	87.9	88.8	90.7

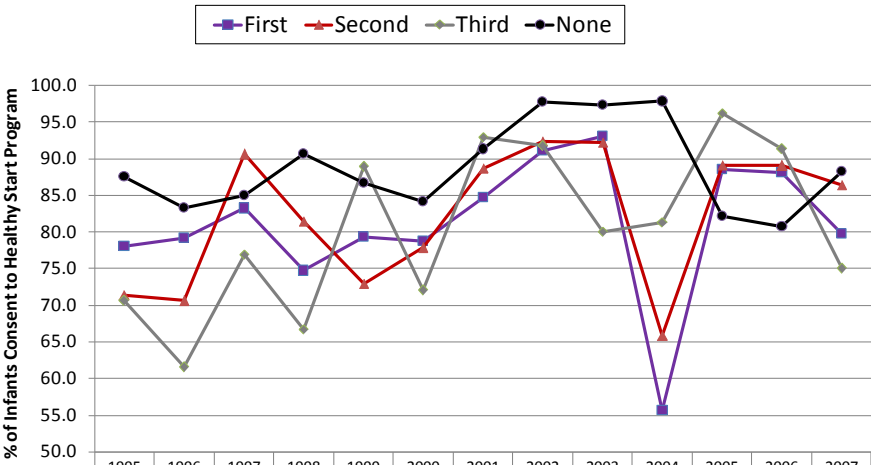
Source: Florida Dept. of Health Vital Statistics: CHARTS

- For both Brevard County and Florida, there was little relationship between the trimester in which prenatal care began and subsequent rate of infant consent to the Healthy Start Program.

Figure 33. Rate of Infant Consent to Healthy Start Program by Trimester in Which Prenatal Care Began

BREVARD COUNTY

Infant Consent to Healthy Start Program (%) by Year and Begin Trimester Care

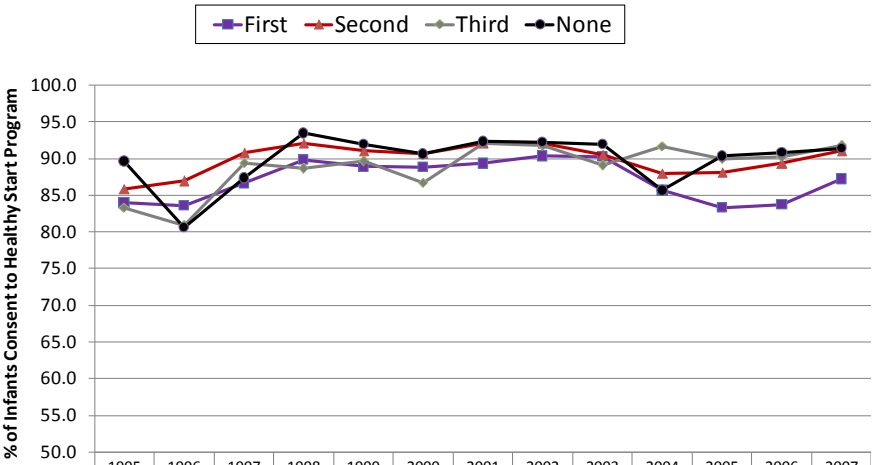


	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
First	78.0	79.2	83.2	74.7	79.3	78.7	84.7	91.1	93.1	55.6	88.5	88.1	79.7
Second	71.4	70.6	90.6	81.4	72.9	77.8	88.7	92.4	92.2	65.8	89.1	89.0	86.4
Third	70.6	61.5	76.9	66.7	88.9	72.0	92.9	91.7	80.0	81.3	96.2	91.3	75.0
None	87.5	83.3	85.0	90.7	86.7	84.1	91.3	97.7	97.3	97.8	82.1	80.7	88.2

Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Infant Consent to Healthy Start Program (%) by Year and Begin Trimester Care



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
First	83.9	83.6	86.6	89.8	88.9	88.8	89.3	90.3	90.2	85.6	83.3	83.7	87.2
Second	85.8	86.9	90.8	92.1	91.0	90.7	92.1	92.1	90.5	88.0	88.1	89.3	91.0
Third	83.3	80.8	89.4	88.6	89.6	86.7	92.0	91.7	89.0	91.6	89.9	90.2	91.7
None	89.6	80.6	87.3	93.4	91.9	90.6	92.3	92.2	91.9	85.6	90.3	90.8	91.4

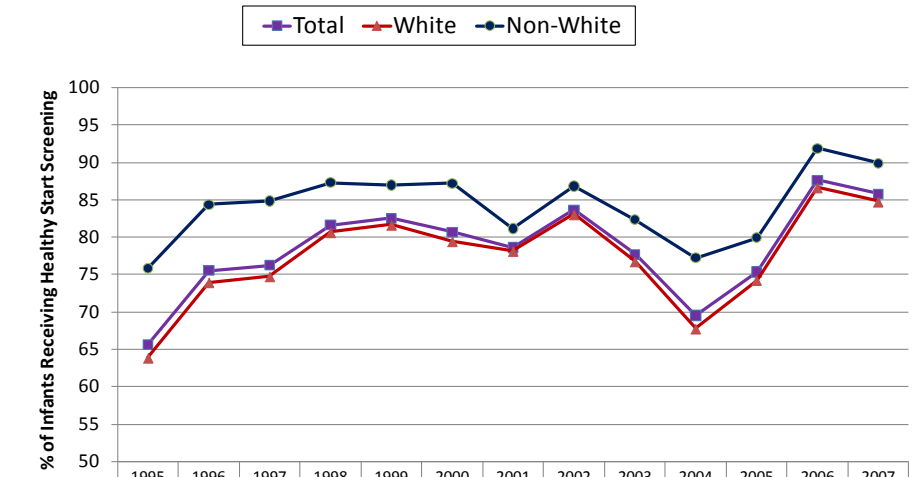
Source: Florida Dept. of Health Vital Statistics: CHARTS

- With the exception of 2004, rates of infant Healthy Start services have generally increased over time and have been modestly higher in non-whites compared to whites.
- Rates of infant Healthy Start services in Brevard have been slightly higher than Florida as a whole with the notable exception of the year 2004.

Figure 34. Rates of Infant Healthy Start Services by Year and Race.

BREVARD COUNTY

Infants Receiving Healthy Start Services (%) by Year and Race

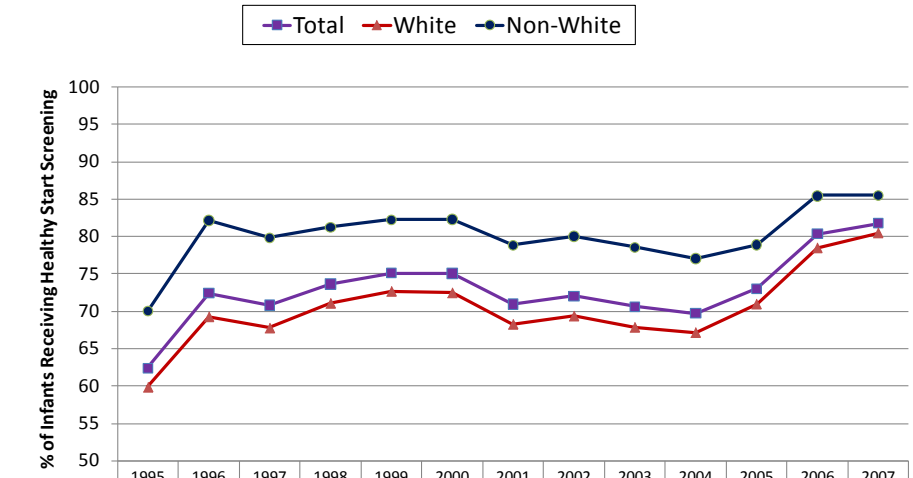


	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total	65.6	75.5	76.2	81.6	82.5	80.7	78.6	83.6	77.7	69.5	75.3	87.6	85.8
White	63.8	73.9	74.7	80.6	81.6	79.4	78.1	83	76.7	67.7	74.2	86.6	84.7
Non-White	75.8	84.4	84.9	87.3	87.0	87.2	81.1	86.8	82.3	77.2	80.0	91.9	89.9

Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Infants Receiving Healthy Start Services (%) by Year and Race



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total	62.4	72.4	70.8	73.6	75.1	75	70.9	72	70.6	69.7	73	80.3	81.7
White	59.8	69.2	67.7	71	72.6	72.4	68.2	69.3	67.8	67.1	70.9	78.4	80.4
Non-White	70.0	82.2	79.8	81.2	82.2	82.3	78.8	80.0	78.5	77.0	78.9	85.4	85.5

Source: Florida Dept. of Health Vital Statistics: CHARTS

As seen in **Chart 12**, the percentage of infants who received Healthy Start services increased in whites from 70.8% in 1995-1997 to 81.8% in 2005-2007. The corresponding increase observed in non-whites was from 81.7% in 1995-1997 to 87.3% in 2005-2007. These increases over time are consistent with those observed among Florida as a whole.

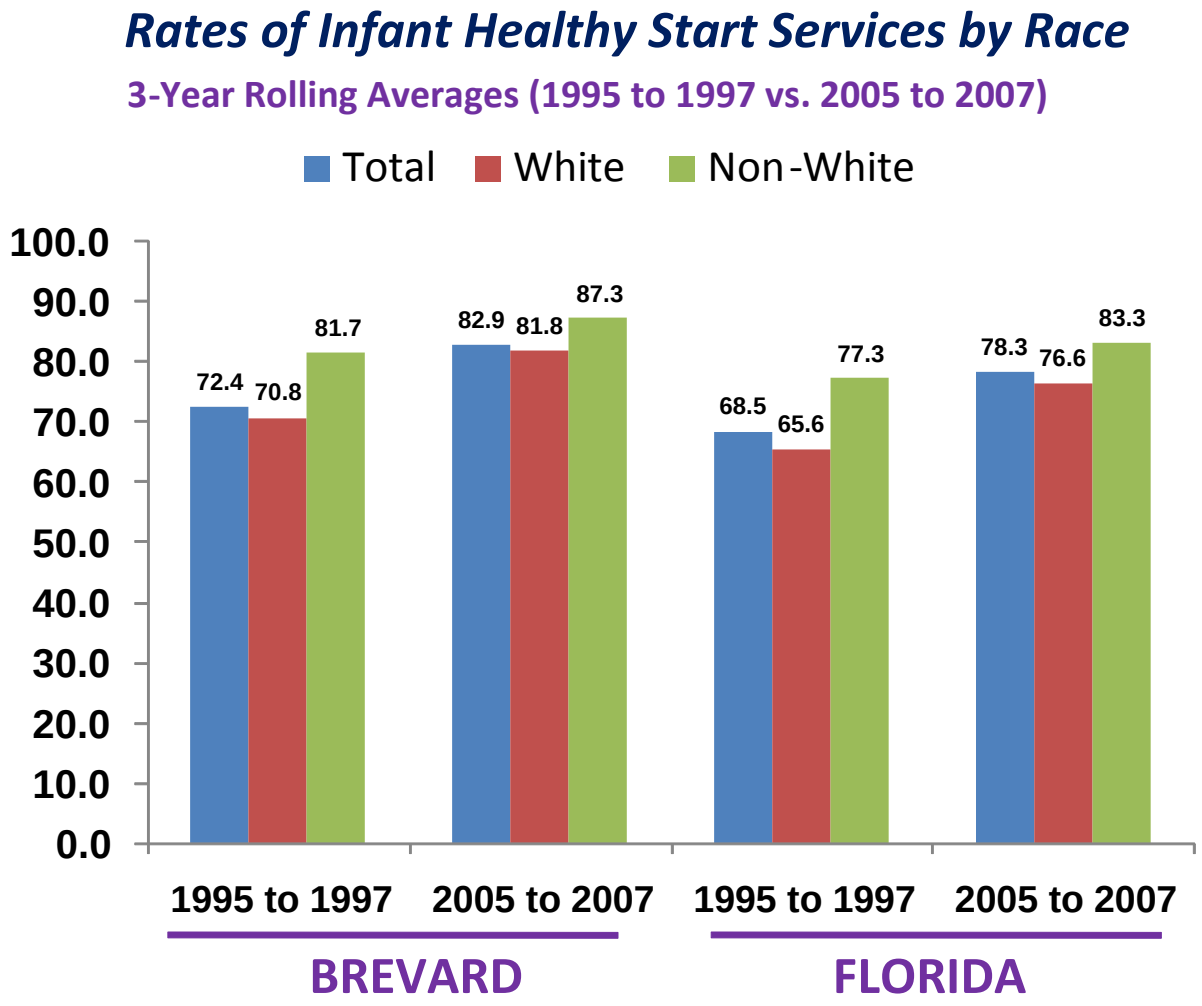


Chart 12. Rolling 3-Year Averages of Rates of Infant Healthy Start Services by Race

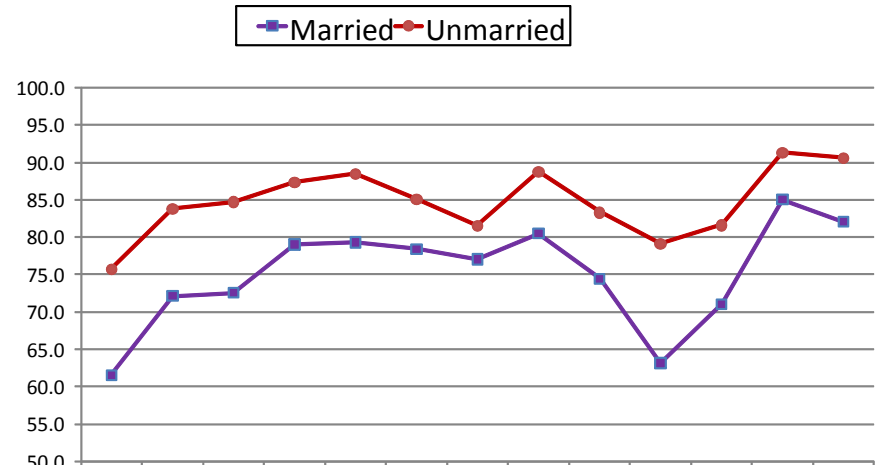
Source: Florida Dept. of Health Vital Statistics: CHARTS

- In both Brevard County and Florida as a whole, rates of infant Healthy Start services have been consistently higher over time in unmarried women compared to married women.

Figure 35. Rates of Infant Healthy Start Services by Year and Marital Status.

BREVARD COUNTY

Infants Receiving Healthy Start Services (%) by Year and Marital Status

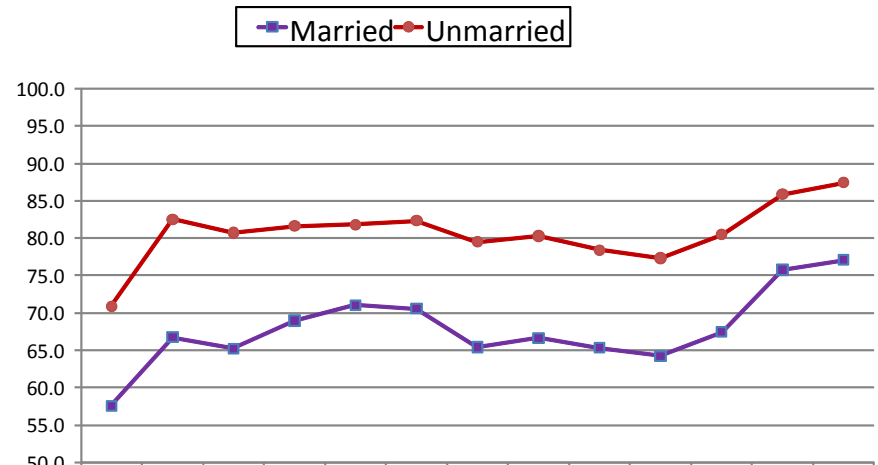


	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Married	61.5	72.1	72.5	79.0	79.3	78.4	77.0	80.5	74.4	63.1	71.0	85.0	82.0
Unmarried	75.7	83.8	84.7	87.3	88.5	85.1	81.5	88.8	83.3	79.1	81.6	91.3	90.6

Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Infants Receiving Healthy Start Services (%) by Year and Marital Status



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Married	57.6	66.7	65.2	68.9	71.0	70.5	65.4	66.6	65.3	64.2	67.4	75.7	77.0
Unmarried	70.9	82.5	80.7	81.6	81.8	82.3	79.5	80.3	78.4	77.3	80.5	85.9	87.4

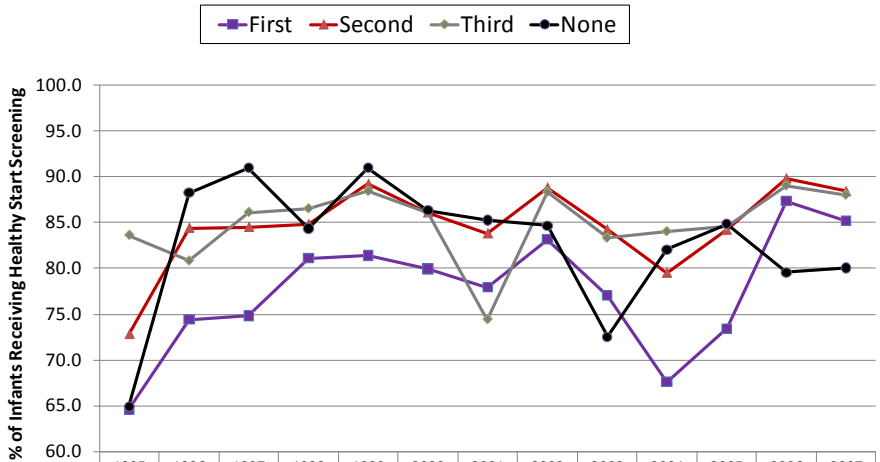
Source: Florida Dept. of Health Vital Statistics: CHARTS

- In Brevard, rates of infant Healthy Start services have generally been lowest among women who began prenatal care in the first trimester.
- Similar results have been observed in Florida as a whole.

Figure 36. Rates of Infant Healthy Start Services by Trimester Care.

BREVARD COUNTY

Infants Receiving Healthy Start Services (%) by Year and Begin Trimester Care

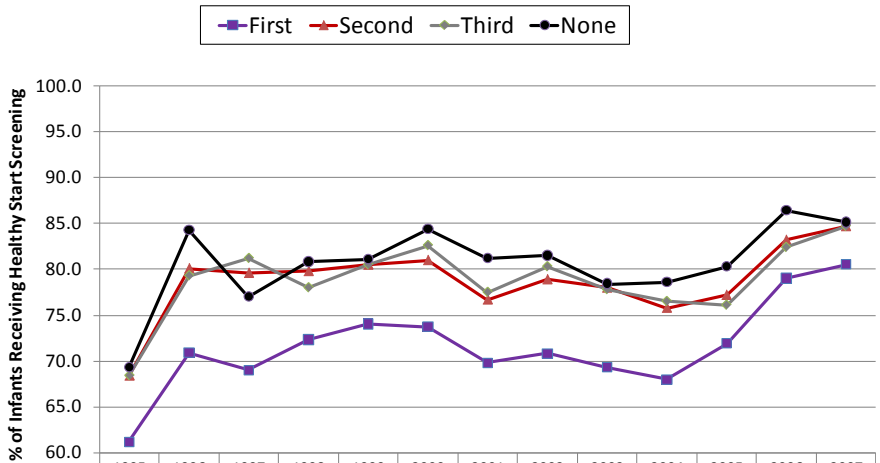


	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
First	64.6	74.4	74.8	81.1	81.4	79.9	77.9	83.1	77.0	67.6	73.4	87.3	85.2
Second	72.8	84.4	84.5	84.8	89.2	86.1	83.8	88.8	84.2	79.5	84.2	89.8	88.4
Third	83.6	80.8	86.1	86.5	88.4	86.1	74.4	88.3	83.3	84.0	84.6	89.0	88.0
None	64.9	88.2	90.9	84.3	90.9	86.3	85.2	84.6	72.5	82.0	84.8	79.5	80.0

Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Infants Receiving Healthy Start Services (%) by Year and Begin Trimester Care



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
First	61.2	70.9	69.0	72.3	74.0	73.7	69.8	70.8	69.3	68.0	71.9	79.0	80.5
Second	68.4	80.1	79.6	79.8	80.5	81.0	76.7	78.9	78.0	75.8	77.2	83.2	84.7
Third	68.4	79.3	81.2	78.0	80.5	82.6	77.5	80.3	77.8	76.5	76.1	82.4	84.7
None	69.3	84.3	77.0	80.8	81.1	84.4	81.2	81.5	78.4	78.6	80.3	86.4	85.1

Source: Florida Dept. of Health Vital Statistics: CHARTS

As seen in **Chart 13**, the percentage of infants who received Healthy Start services in Brevard increased during the periods 1995-1997 versus 2005-2007 irrespective of whether prenatal care began in the first, second, or third trimester. Similar results were observed in Florida as a whole.

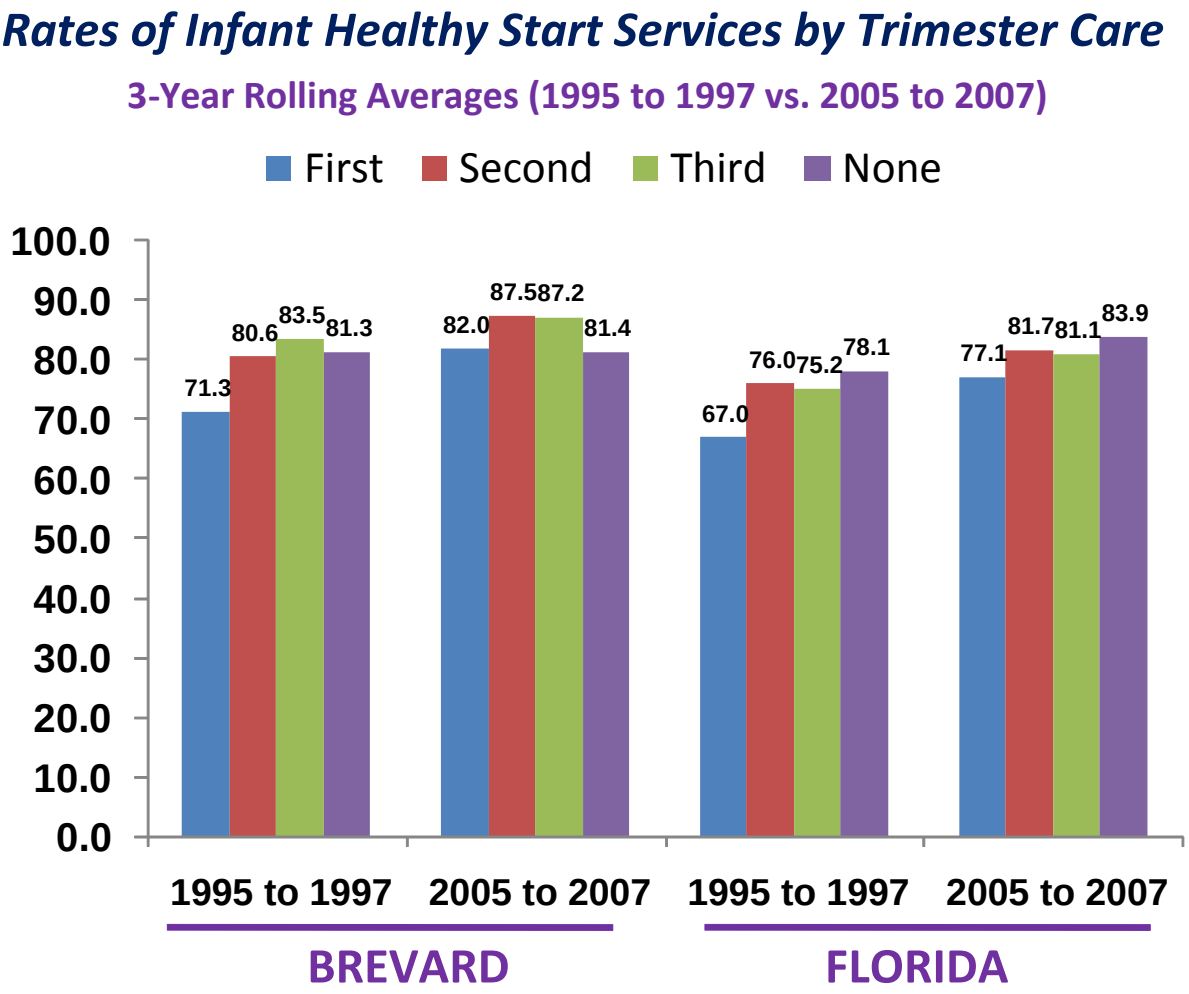


Chart 13. Rolling 3-Year Averages of Rates of Infant Healthy Start Services by Trimester Care

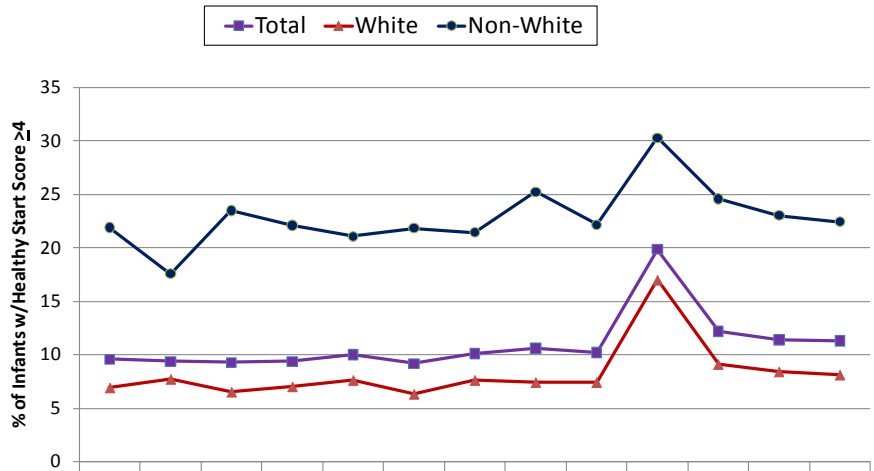
Source: Florida Dept. of Health Vital Statistics: CHARTS

- Non-white infants in Brevard have been approximately 2-times more likely to have a Healthy Start Score ≥4 compared to white infants.
- In Florida, the percentage of white infants with a Healthy Start Score ≥4 has increased markedly since 2003, a trend not observed in Brevard.

Figure 37. Percentage of Infants with Healthy Start Score ≥4 by Race

BREVARD COUNTY

Infants with Healthy Start Score ≥4 (%) by Year and Race

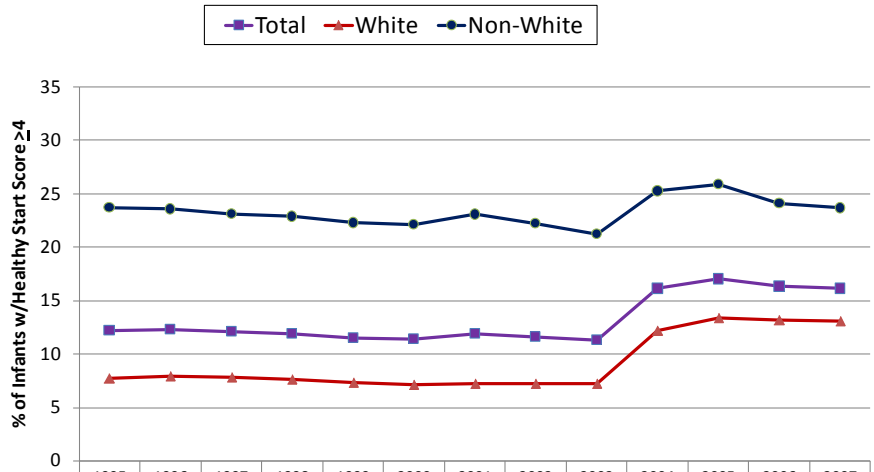


	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total	9.6	9.4	9.3	9.4	10	9.2	10.1	10.6	10.2	19.8	12.2	11.4	11.3
White	6.9	7.7	6.5	7	7.6	6.3	7.6	7.4	7.4	17	9.1	8.4	8.1
Non-White	21.9	17.6	23.5	22.1	21.1	21.8	21.5	25.2	22.2	30.3	24.6	23.0	22.4

Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Infants with Healthy Start Score ≥4 (%) by Year and Race



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total	12.2	12.3	12.1	11.9	11.5	11.4	11.9	11.6	11.3	16.1	17	16.3	16.1
White	7.7	7.9	7.8	7.6	7.3	7.1	7.2	7.2	7.2	12.2	13.4	13.2	13.1
Non-White	23.7	23.5	23.1	22.8	22.2	22.1	23.1	22.2	21.2	25.2	25.9	24.1	23.7

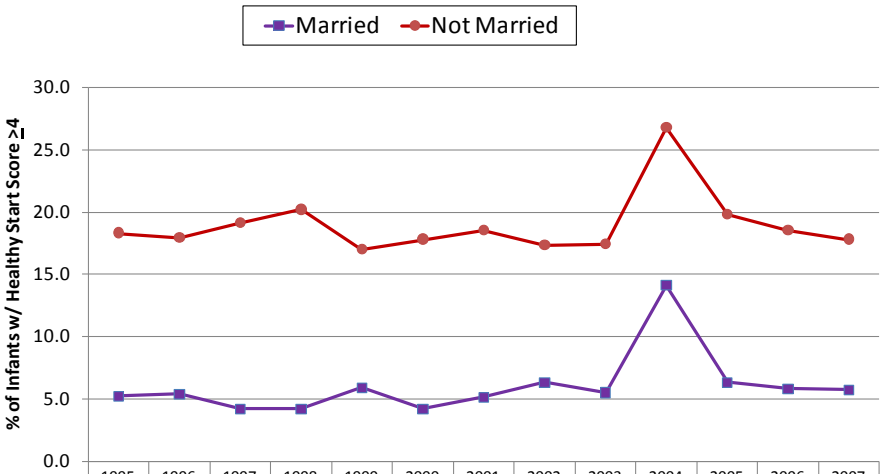
Source: Florida Dept. of Health Vital Statistics: CHARTS

- In both Brevard and Florida, unmarried mothers have been approximately 3-times more likely than married mothers to have an infant Healthy Start Score ≥4.

Figure 38. Percentage of Infants with Healthy Start Score ≥4 by Marital Status

BREVARD COUNTY

Infants with Healthy Start Score ≥4 (%) by Year and Marital Status

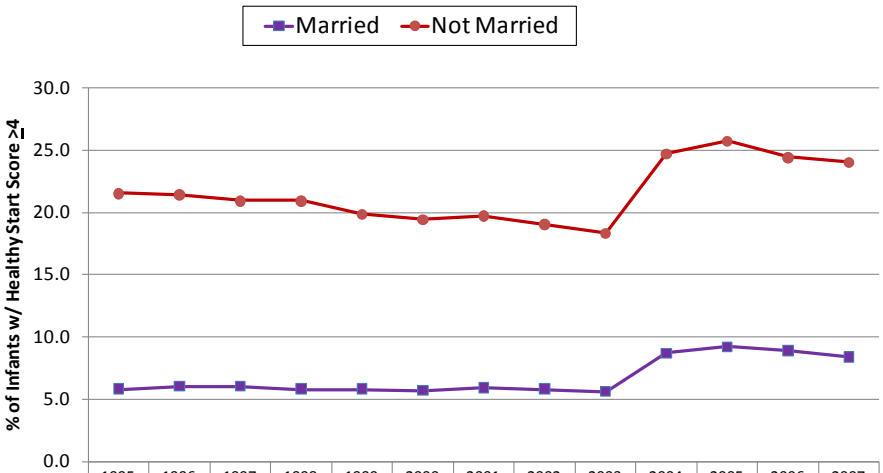


	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Married	5.2	5.4	4.2	4.2	5.9	4.2	5.1	6.3	5.5	14.1	6.3	5.8	5.7
Not Married	18.3	17.9	19.1	20.2	17.0	17.8	18.5	17.3	17.4	26.8	19.8	18.5	17.8

Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Infants with Healthy Start Score ≥4 (%) by Year and Marital Status



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Married	5.8	6.0	6.0	5.8	5.8	5.7	5.9	5.8	5.6	8.7	9.2	8.9	8.4
Not Married	21.5	21.4	20.9	20.9	19.8	19.4	19.7	19.0	18.3	24.7	25.7	24.4	24.0

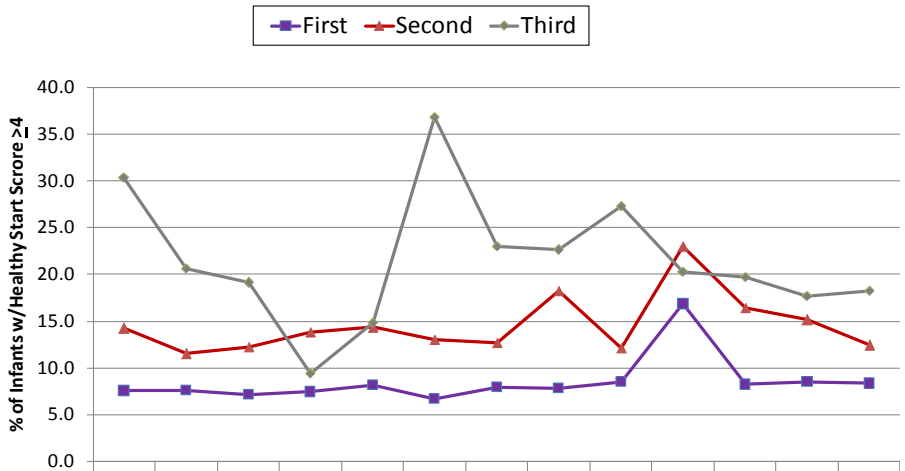
Source: Florida Dept. of Health Vital Statistics: CHARTS

- In both Brevard and Florida, prenatal care initiated in the third trimester has been associated with higher likelihood of having an infant Healthy Start Score ≥4.
- In contrast, initiation of prenatal care in the first trimester has been associated with lower likelihood of having an infant Healthy Start Score ≥4.

Figure 39. Percentage of Infants with Healthy Start Score ≥4 by Trimester Care

BREVARD COUNTY

Infants with Healthy Start Score ≥4 (%) by Year and Begin Trimester Care

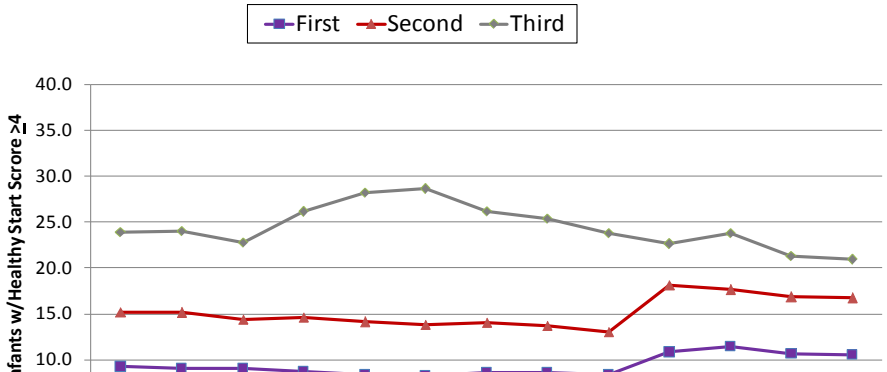


	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
First	7.5	7.6	7.1	7.4	8.1	6.7	7.9	7.8	8.5	16.8	8.2	8.5	8.3
Second	14.2	11.5	12.2	13.8	14.3	13.0	12.7	18.2	12.1	23.0	16.4	15.1	12.4
Third	30.4	20.6	19.1	9.4	14.8	36.8	23.0	22.6	27.3	20.3	19.7	17.7	18.2

Source: Florida Dept. of Health Vital Statistics: CHARTS

FLORIDA

Infants with Healthy Start Score ≥4 (%) by Year and Begin Trimester Care



	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
First	9.2	9.0	9.0	8.7	8.4	8.2	8.6	8.6	8.4	10.8	11.4	10.6	10.5
Second	15.2	15.1	14.4	14.6	14.1	13.8	14.0	13.7	13.0	18.1	17.6	16.8	16.7
Third	23.9	24.0	22.8	26.1	28.2	28.6	26.2	25.4	23.8	22.6	23.8	21.3	20.9

Source: Florida Dept. of Health Vital Statistics: CHARTS

Summary of Birth Characteristics to Young Mothers

As seen in **Table 7**, the majority of birth mothers ages 15-19 in Brevard have been unmarried. The percentage of low-birth weight babies among these mothers has ranged from 8% to 14% with no consistent pattern over time. Of note, the overall birth rate per 1,000 females has dropped substantially from 57.8 in 1992 to 31.0 in 2008.

Among very young birth mothers ages 10-14, there has been a slight decrease in total births and births per 1,000 females over time.

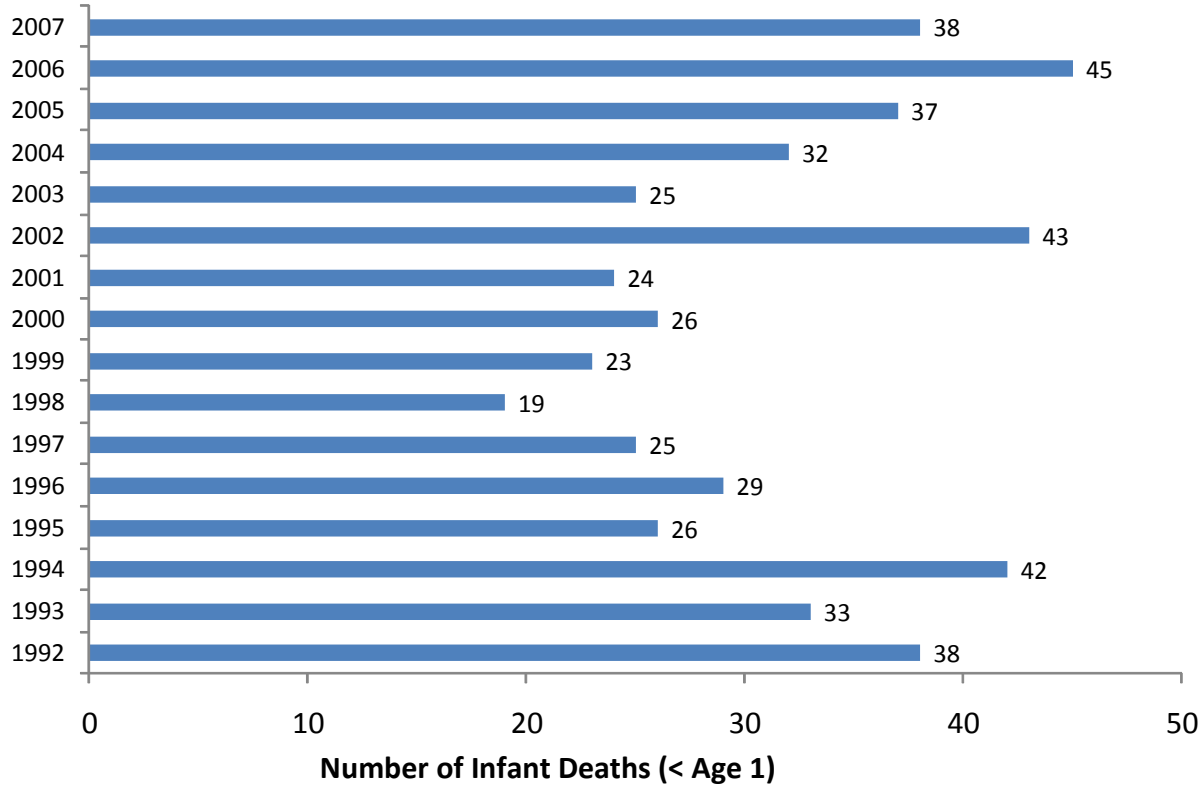
Table 7. Resident Live Births to Mothers by Age (<20) for Selected Indicators by Age Specific Birth Rates per 1,000 Females in Brevard County

Year	Total	Unwed		Birth Weight				3rd trimester or no prenatal care		Less than high school education		Birth rate (population)
				<1500 grams		<2500 grams						
		#	%	#	%	#	%	#	%	#	%	
Birth Mothers 15-19 Years of Age												
1992	627	453	72.2%	11	1.8%	56	8.9%	37	5.9%	387	61.7%	57.8
1993	575	434	75.5%	6	1.0%	47	8.2%	43	7.5%	356	61.9%	51.9
1994	605	463	76.5%	13	2.1%	50	8.3%	40	6.6%	383	63.3%	53.0
1995	581	468	80.6%	11	1.9%	52	9.0%	37	6.4%	354	60.9%	49.2
1996	543	427	78.6%	5	0.9%	40	7.4%	31	5.7%	330	60.8%	44.6
1997	557	459	82.4%	11	2.0%	62	11.1%	39	7.0%	344	61.8%	44.2
1998	562	437	77.8%	17	3.0%	59	10.5%	29	5.2%	348	61.9%	43.0
1999	594	506	85.2%	14	2.4%	64	10.8%	22	3.7%	358	60.3%	44.0
2000	566	466	82.3%	8	1.4%	37	6.5%	21	3.7%	337	59.5%	40.5
2001	526	449	85.4%	14	2.7%	44	8.4%	22	4.2%	303	57.6%	36.1
2002	526	455	86.5%	7	1.3%	48	9.1%	23	4.4%	290	55.1%	35.1
2003	513	444	86.5%	12	2.3%	42	8.2%	28	5.5%	286	55.8%	33.2
2004	522	458	87.7%	9	1.7%	66	12.6%	19	3.6%	271	51.9%	32.5
2005	560	490	87.5%	6	1.1%	76	13.6%	30	5.4%	301	53.8%	32.8
2006	602	539	89.5%	25	4.2%	77	12.8%	35	5.8%	329	54.7%	35.1
2007	577	523	90.6%	10	1.7%	54	9.4%	38	6.6%	318	55.1%	33.5
2008	531	477	89.8%	8	1.5%	43	8.1%	32	6.0%	283	53.3%	31.0
Birth Mothers 10-14 Years of Age												
1992	11	11	100.0%	0	0.0%	2	18.2%	2	18.2%	---	---	0.88
1993	23	23	100.0%	2	8.7%	8	34.8%	1	4.3%	---	---	1.76
1994	11	11	100.0%	1	9.1%	1	9.1%	1	9.1%	---	---	0.81
1995	13	13	100.0%	1	7.7%	1	7.7%	2	15.4%	---	---	0.93
1996	11	11	100.0%	0	0.0%	2	18.2%	2	18.2%	---	---	0.78
1997	10	9	90.0%	0	0.0%	1	10.0%	1	10.0%	---	---	0.69
1998	6	6	100.0%	0	0.0%	0	0.0%	0	0.0%	---	---	0.41
1999	6	6	100.0%	0	0.0%	0	0.0%	0	0.0%	---	---	0.39
2000	13	13	100.0%	0	0.0%	6	46.2%	1	7.7%	---	---	0.83
2001	6	6	100.0%	0	0.0%	2	33.3%	0	0.0%	---	---	0.38
2002	11	11	100.0%	0	0.0%	2	18.2%	2	18.2%	---	---	0.69
2003	8	8	100.0%	0	0.0%	0	0.0%	1	12.5%	---	---	0.49
2004	11	11	100.0%	0	0.0%	2	18.2%	5	50.0%	---	---	0.67
2005	8	8	100.0%	0	0.0%	1	12.5%	1	14.3%	---	---	0.49
2006	2	2	100.0%	0	0.0%	0	0.0%	0	0.0%	---	---	0.12
2007	9	9	100.0%	0	0.0%	2	22.2%	0	0.0%	---	---	0.55
2008	6	6	100.0%	0	0.0%	1	16.7%	1	16.7%	---	---	0.38

Infant Mortality

As seen in **Figure 40**, the number of infant deaths in Brevard County has fluctuated over time with no discernable pattern. In 2006, a high of 45 deaths was recorded in Brevard with a slightly lower number of 38 infant deaths in 2007.

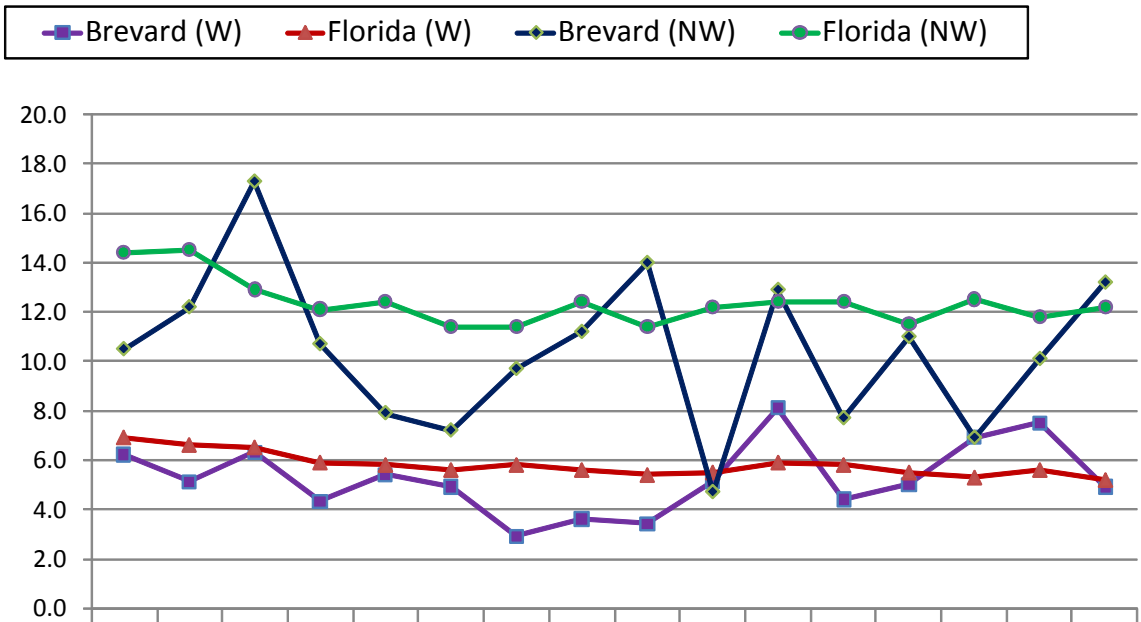
Figure 40. Infants Deaths in Brevard County by Year



Source: Florida Dept. of Health Vital Statistics: CHARTS

- In whites in 2007, the incidence rate of infant mortality was 4.9 per 1,000 in Brevard compared to 5.2 per 1,000 in Florida. These rates were much lower than the rates among non-whites of 13.2 per 1,000 in Brevard and 12.2 per 1,000 in Florida.
- In Brevard, the incidence rate of infant mortality has been constant over time in both whites and non-whites. In Florida, the incidence rate of infant mortality appears to have decreased slightly over time.

Figure 41. Incidence Rates of Infant Mortality per 1,000 by Year and Race



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Brevard (W)	6.2	5.1	6.3	4.3	5.4	4.9	2.9	3.6	3.4	5.1	8.1	4.4	5.0	6.9	7.5	4.9
Florida (W)	6.9	6.6	6.5	5.9	5.8	5.6	5.8	5.6	5.4	5.5	5.9	5.8	5.5	5.3	5.6	5.2
Brevard (NW)	10.5	12.2	17.3	10.7	7.9	7.2	9.7	11.2	14.0	4.7	12.9	7.7	11.0	6.9	10.1	13.2
Florida (NW)	14.4	14.5	12.9	12.1	12.4	11.4	11.4	12.4	11.4	12.2	12.4	12.4	11.5	12.5	11.8	12.2

Source: Florida Dept. of Health Vital Statistics: CHARTS. W=White; NW=Non -White.

As seen in **Chart 14**, the rate of infant mortality in Brevard increased in whites from 4.9 per 1,000 in 1995-1997 to 6.4 per 1,000 in 2005-2007. The corresponding increase observed in non-whites was from 8.6 per 1,000 in 1995-1997 to 10.1 per 1,000 in 2005-2007. These increases over time were not observed in Florida as a whole, although, Florida has experienced higher rates of infant mortality among non-whites compared to Brevard.

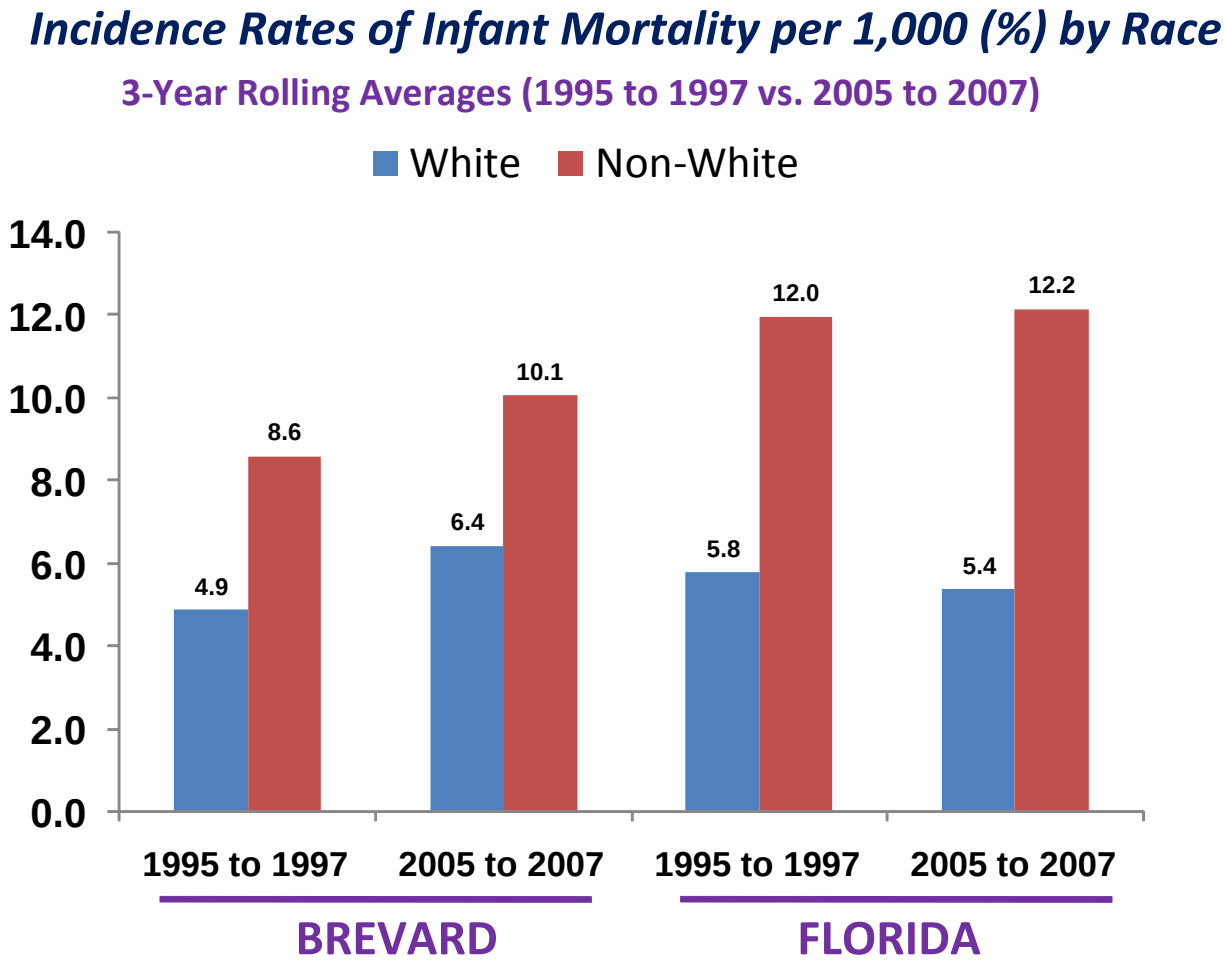
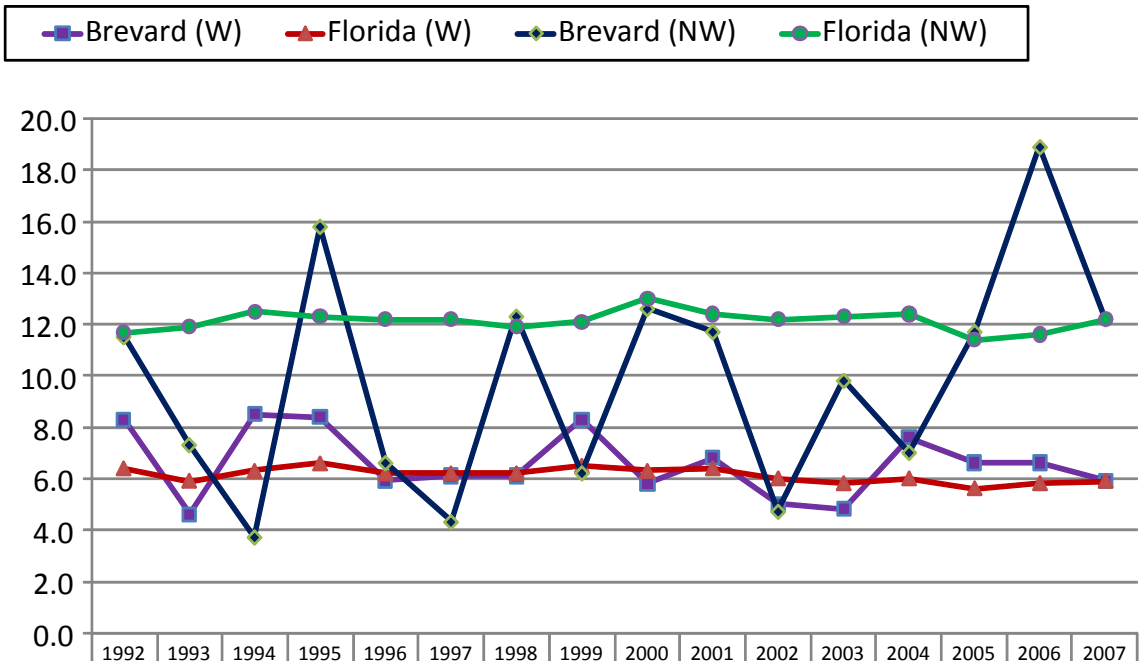


Chart 14. Rolling 3-Year Averages of Incidence Rates of Infant Mortality by Race

Source: Florida Dept. of Health Vital Statistics: CHARTS

- In whites in 2007, the incidence rate of fetal death was 5.9 per 1,000 in Brevard, identical to the rate of 5.9 per 1,000 in Florida. These rates were much lower than the rates among non-whites of 12.2 per 1,000 in both Brevard and Florida as a whole.
- The incidence rate of fetal death has been generally consistent over time in both whites and non-whites in Brevard and Florida as a whole.

Figure 42. Incidence Rates of Fetal Death per 1,000 by Year and Race



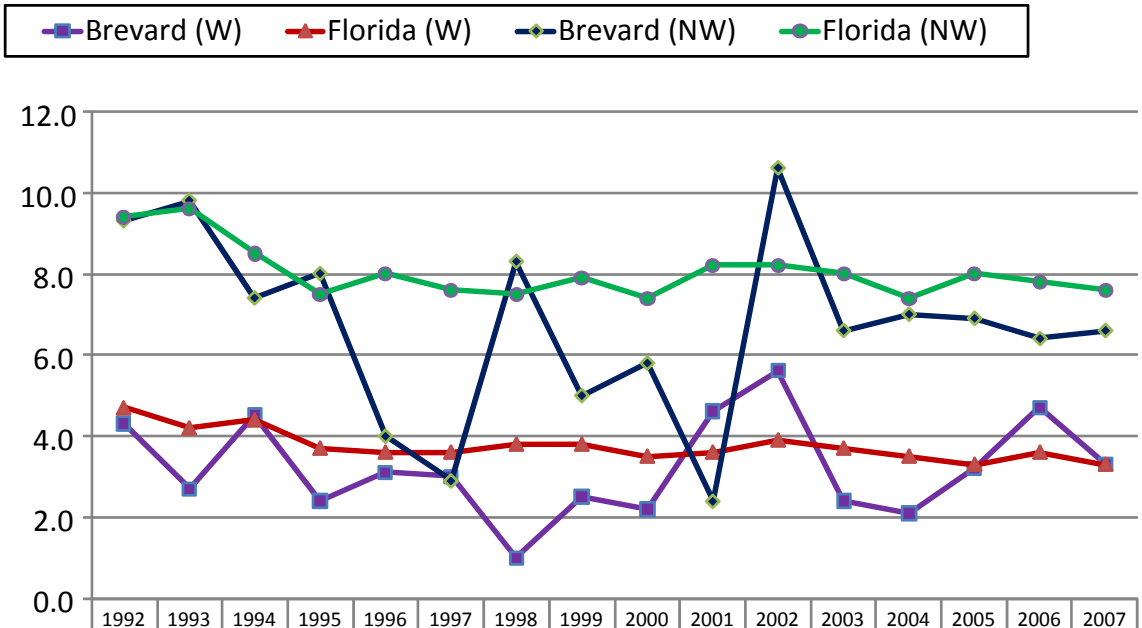
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Brevard (W)	8.3	4.6	8.5	8.4	5.9	6.1	6.1	8.3	5.8	6.8	5.0	4.8	7.6	6.6	6.6	5.9
Florida (W)	6.4	5.9	6.3	6.6	6.2	6.2	6.2	6.5	6.3	6.4	6.0	5.8	6.0	5.6	5.8	5.9
Brevard (NW)	11.5	7.3	3.7	15.8	6.6	4.3	12.3	6.2	12.6	11.7	4.7	9.8	7.0	11.7	18.9	12.2
Florida (NW)	11.7	11.9	12.5	12.3	12.2	12.2	11.9	12.1	13.0	12.4	12.2	12.3	12.4	11.4	11.6	12.2

Source: Florida Dept. of Health Vital Statistics: CHARTS. W=White; NW=Non-White*Defined as 20 weeks gestation until birth

- In whites in 2007, the incidence rate of neonatal mortality in Brevard was 3.3 per 1,000, identical to the rate of 3.3 per 1,000 in Florida. These rates were approximately 50% lower than rates observed among non-whites of 6.6 per 1,000 in Brevard and 7.6 per 1,000 in Florida.
- In Florida, the incidence rate of neonatal mortality appears to be decreasing over time among whites and non-whites, a pattern not apparent in Brevard.

Figure 43. Incidence Rates of Neonatal Mortality per 1,000 by Year and Race

Incidence of Neonatal Mortality* per 1,000 (%) by Year and Race



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Brevard (W)	4.3	2.7	4.5	2.4	3.1	3.0	1.0	2.5	2.2	4.6	5.6	2.4	2.1	3.2	4.7	3.3
Florida (W)	4.7	4.2	4.4	3.7	3.6	3.6	3.8	3.8	3.5	3.6	3.9	3.7	3.5	3.3	3.6	3.3
Brevard (NW)	9.3	9.8	7.4	8.0	4.0	2.9	8.3	5.0	5.8	2.4	10.6	6.6	7.0	6.9	6.4	6.6
Florida (NW)	9.4	9.6	8.5	7.5	8.0	7.6	7.5	7.9	7.4	8.2	8.2	8.0	7.4	8.0	7.8	7.6

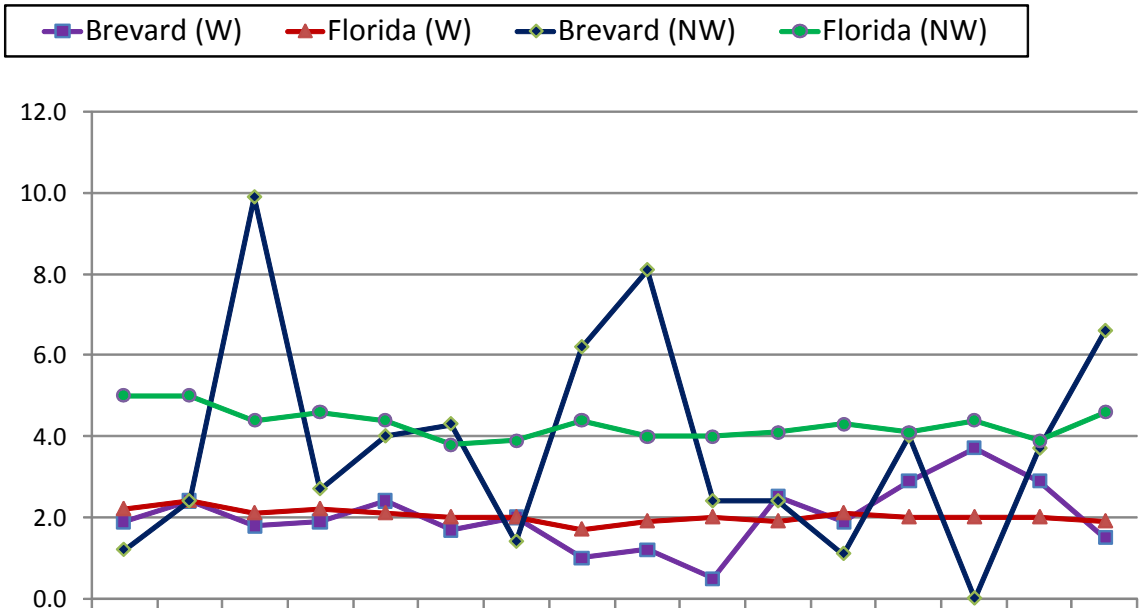
Source: Florida Dept. of Health Vital Statistics: CHARTS. W=White; NW=Non -White. *Defined as 0 to 27 days.

- In whites in 2007, the incidence rate of post-neonatal mortality in Brevard was 1.5 per 1,000, slightly lower than the rate of 1.9 per 1,000 in Florida. In contrast, the incidence rate of post-neonatal mortality among non-whites in Brevard was much higher at 6.6 per 1,000, and higher than the rate of 4.6 per 1,000 in Florida.

- The incidence rates of post-neonatal mortality appear to be relatively constant over time in whites and non-whites in both Brevard and Florida as a whole.

Figure 44. Incidence Rates of Post-Neonatal Mortality per 1,000 by Year and Race

Incidence of Post Neonatal Mortality* per 1,000 (%) by Year and Race



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Brevard (W)	1.9	2.4	1.8	1.9	2.4	1.7	2.0	1.0	1.2	0.5	2.5	1.9	2.9	3.7	2.9	1.5
Florida (W)	2.2	2.4	2.1	2.2	2.1	2.0	2.0	1.7	1.9	2.0	1.9	2.1	2.0	2.0	2.0	1.9
Brevard (NW)	1.2	2.4	9.9	2.7	4.0	4.3	1.4	6.2	8.1	2.4	2.4	1.1	4.0	0.0	3.7	6.6
Florida (NW)	5.0	5.0	4.4	4.6	4.4	3.8	3.9	4.4	4.0	4.0	4.1	4.3	4.1	4.4	3.9	4.6

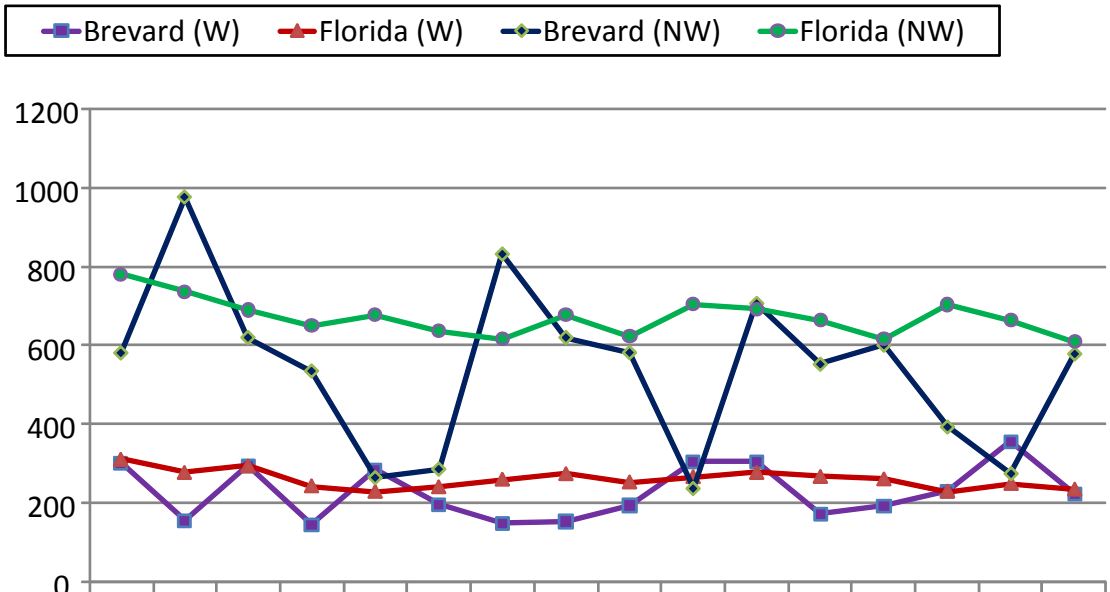
Source: Florida Dept. of Health Vital Statistics: CHARTS. W=White; NW=Non -White. *Defined as 28 to 364 days.

- In whites in 2007, the incidence rate of infant mortality (birth to 364 days) related to perinatal conditions in Brevard was 221 per 100,000 essentially equal to the rate of 233 per 100,000 in Florida. These rates were much lower than the rates in non-whites in Brevard (578 per 100,000) and Florida as a whole (609 per 100,000).

- Incidence rates of infant mortality (birth to 364 days) related to perinatal conditions have decreased slightly over time among non-whites in Florida, but not among whites. Rates in Brevard appear to be relatively constant over time.

Figure 45. Incidence of Infant Deaths Related to Perinatal Conditions by Race

Incidence of Deaths < Age 1 per 100K: Perinatal Conditions (%) by Year and Race



	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Brevard (W)	299	155	295	144	283	196	147	153	193	305	304	170	191	230	355	221
Florida (W)	311	277	293	242	228	239	259	273	252	266	277	266	260	228	248	233
Brevard (NW)	581	976	620	535	265	286	831	620	581	237	706	552	600	393	275	578
Florida (NW)	781	737	690	649	677	636	614	678	621	704	692	663	616	703	664	609

Source: Florida Dept. of Health Vital Statistics: CHARTS. W=White; NW=Non -White.

Table 8 presents selected maternal characteristics and their relationship to the incidence of infant death in calendar year 2006. As seen, mother's age less than 22 years, black race, unmarried status, lack of consent to Healthy Start screening, suboptimal prenatal care utilization (Kotelchuck Index), Healthy Start Infant Score ≥4, and less than 15 prenatal visits were all associated with infant mortality.

Table 8
Maternal Characteristics and Incidence of Infant Death
Brevard County (2006)

Characteristic	Total N=5707)	Infant Death (N=45)	No Infant Death (N=5662)	p-value
Mother Age at Infant Birth, %				
Less than 18	3.3	8.9	3.3	0.0303
18 to 21	18.1	33.3	18.0	
22 to 25	22.3	17.8	22.4	
26 to 29	21.6	13.3	21.6	
30 to 34	20.6	11.1	20.6	
35 to 39	11.6	13.3	11.6	
40 or older	2.5	2.2	2.5	
Mothers Race, %				
White	80.6	66.7	80.7	0.0553
Black	13.5	24.4	13.4	
Other non-white	6.0	8.9	6.0	
Mothers Education, %				
Less than high school	17.3	23.8	17.2	0.4363
High school/GED	26.6	28.6	26.6	
At least some college	56.2	47.6	56.2	
Mothers Marital Status, %				
Married	58.0	31.8	58.2	0.0004
Unmarried	42.0	68.2	41.8	
Pre-Pregnancy Body Mass Index, %				
BMI < 18.5	6.1	7.9	6.0	0.1205
BMI 18.5 to 24.9	52.7	42.1	52.8	
BMI 25 to 29.9	21.7	15.8	21.8	
BMI 30 to 34.9	11.4	15.8	11.3	
BMI >= 35	8.1	18.4	8.0	
Tobacco Use During Pregnancy, %				
Non-smoker	83.3	79.1	83.4	0.8194
1 to 10 cigarettes	13.4	16.3	13.4	
11 to 19 cigarettes	1.1	2.3	1.1	
20 or more cigarettes	2.1	2.3	2.1	
Healthy Start Screening Consent, %				
No	13.3	38.9	13.1	<.0001
Yes	86.7	61.1	86.9	
Healthy Start Infant Score, %				
Zero	38.2	12.9	38.4	<.0001
One	27.8	9.7	27.9	
Two	15.4	9.7	15.4	
Three	7.5	6.5	7.5	
Four or more	11.1	61.3	10.8	
Prenatal Care Utilization: Kotelchuck Index, %				
Missing	8.0	22.2	7.9	0.0003
Inadequate	10.8	22.2	10.7	
Intermediate	7.3	2.2	7.3	
Adequate	36.7	28.9	36.8	
Adequate plus	37.2	24.4	37.3	
Month Pregnancy Prenatal Care Began, %				
Month 0 or 1	26.6	45.7	26.4	0.0925
Month 2	37.4	25.7	37.5	

Month 3	18.0	8.6	18.0	
Month 4	8.1	8.6	8.1	
Month 5 or later	9.9	11.4	9.9	
Number of Prenatal Visits, %				
0 to 7	8.2	55.0	7.8	<.0001
8 to 14	71.9	42.5	72.1	
15 to 20	18.1	0.0	18.2	
21 or more	1.9	2.5	1.9	

Note: a p-value <0.0001 suggests a strong relationship between a given characteristic and risk of Infant Death
Source: Florida Department of health, Office of Statistics and Assessment: Healthy Start De-identified Linked and Unlinked Data Files

Table 9. Births and Birth Outcomes (2005-2007) For Selected Counties and Florida

An overview and comparison among the 3 counties most similar to Brevard, (Polk, Seminole, and Volusia) and Florida as a whole.

Indicators	Measure	BREVARD 2005-2007		POLK 2005-2007		SEMINOLE 2005-2007		VOLUSIA 2005-2007		STATE 2005-2007	
		Avg. Annual Number of Events	3-Year Rate or Percent	Avg. Annual Number of Events	3-Year Rate or Percent	Avg. Annual Number of Events	3-Year Rate or Percent	Avg. Annual Number of Events	3-Year Rate or Percent	Avg. Annual Number of Events	3-Year Rate or Percent
Total Births											
Total Live Births	Per 100,000 Total Population	5,576	1,024.0	8,206	1,449.5	4,793	1,138.9	5,258	1,043.9	234,168	1,272.9
White Live Births	Per 100,000 White Population	4,460	933.1	6,385	1,355.5	3,788	1,064.1	4,312	972.7	171,642	1,155.0
Nonwhite Live Births	Per 100,000 Nonwhite Population	1,107	1,663.7	1,818	1,911.9	1,003	1,546.2	943	1,563.2	62,132	1,757.3
Births By Age of Mother											
Births to Mothers 15-44	Per 1,000 Females 15-44	5,561	59.0	8,180	78.7	4,780	53.0	5,246	59.8	233,414	66.0
Births to Mothers 10-18	Per 1,000 Females 10-18	349	11.5	752	22.8	222	8.5	373	13.9	15,444	14.8
Births to Mothers 10-14	Per 1,000 Females 10-14	6	0.4	19	1.0	3	0.2	6	0.4	381	0.7
Births to Mothers 15-19	Per 1,000 Females 15-19	580	33.8	1,183	65.6	379	27.2	631	40.3	25,121	42.9
Repeat Births to Mothers 15-19	Percent of Teens with Prev. Birth	100	16.3%	252	18.3%	57	14.5%	100	14.7%	4,620	16.3%
Births By Marital Status											
Births to Unwed Mothers	Percent of Total Births	2,362	42.4%	4,086	49.8%	1,717	35.8%	2,460	46.8%	104,275	44.5%
Low Birth Weight											
Total Live Births Under 2500 Grams	Percent of Total Births	494	8.9%	683	8.3%	361	7.5%	425	8.1%	20,428	8.7%
White Live Births Under 2500 Grams	Percent of White Births	349	7.8%	461	7.2%	243	6.4%	315	7.3%	12,578	7.3%
Nonwhite Live Births Under 2500 Grams	Percent of Nonwhite Births	145	13.1%	223	12.2%	117	11.7%	110	11.7%	7,818	12.6%
Total Live Births Under 1500 Grams	Percent of Total Births	86	1.5%	139	1.7%	67	1.4%	69	1.3%	3,777	1.6%
White Live Births Under 1500 Grams	Percent of White Births	58	1.3%	86	1.3%	37	1.0%	43	1.0%	2,045	1.2%
Nonwhite Live Births Under 1500 Grams	Percent of Nonwhite Births	28	2.5%	53	2.9%	30	3.0%	26	2.7%	1,723	2.8%
Prenatal Care											
Births With First	Percent of Births	4,151	79.7%	4,764	61.0%	3,527	80.7%	3,756	0.75	163,046	77.0%

Trimester Prenatal Care	With Known PNC Status										
Births With Late or No Prenatal Care	Percent of Births With Known PNC Status	234	4.5%	787	10.1%	221	5.0%	287	5.7%	12,018	5.7%
Infant Mortality											
Infant Deaths	Per 1,000 Live Births	40	7.2	65	7.9	33	6.8	34	6.5	1,676	7.2
White Infant Deaths	Per 1,000 White Live Births	29	6.4	37	5.8	16	4.3	25	5.8	921	5.4
Nonwhite Infant Deaths	Per 1,000 Nonwhite Live Births	11	10.2	27	15.0	16	16.3	9	9.9	754	12.1
Total Neonatal Infant Deaths	Per 1,000 Live Births	24	4.3	39	4.8	20	4.2	15	2.9	1,069	4.6
White Neonatal Infant Deaths	Per 1,000 White Live Births	17	3.7	23	3.5	10	2.6	12	2.8	582	3.4
Nonwhite Neonatal Infant Deaths	Per 1,000 Nonwhite Live Births	7	6.6	16	9.0	10	10.3	3	3.5	485	7.8

Source: Florida Dept. of Health Vital Statistics: CHARTS

Uninsured Children

Florida currently has the second highest percentage of uninsured children in the nation, according to the most recent Census data. According to a report by StateHealthFacts.Org, more than 18% of Florida's children between 0 and 18 are uninsured, which is almost double the national average. Data for the report covers the time period of 2008-2009 collected by the Census Bureau Current Population Survey. With the economic situation becoming more challenging, the number of uninsured children is likely to continue to climb, as more families lose their current health care coverage. This in turn, increases the demand for safety net programs like Medicaid and the State Children's Health Insurance Program (CHIP; KidCare in Florida).

Findings from the report also show that Florida has the third highest percentage of uninsured children living at the Federal Poverty Level (FPL) and second highest for those at 133% of the FPL at 29.3% and 22.1% respectively. In Florida 92.2% come from working families, where at least one parent works full-time, year-round. However, their employers may not offer health care coverage, or the cost is far too expensive for the family to afford. Many of Florida's uninsured come from low-income families (income below twice the poverty level, or $35,200 for a family of three in 2008) who are likely eligible for Medicaid or KidCare. KidCare offers children in these families high-quality, affordable coverage, which helps ensure that the children get the preventive care they need so that they can remain healthy, learn in school, and become productive citizens.

In Brevard County, over the past few years, several changes, designed to allow easier access and increase enrollment, have been made to Florida KidCare. The online application was introduced in 2006 and has quickly proven to be the fastest and easiest way for families to apply for coverage. Both paper and online applications were revised to reflect a more user-friendly application process. Additionally, a new system using state-of-the-art technology to process applications offers Florida KidCare staff better controls to get families through the system more efficiently.

Sources: Urban Institute and Kaiser Commission on Medicaid and the Uninsured estimates based on the Census Bureau's March 2008 and 2009 Current Population Survey (CPS: Annual Social and Economic Supplements).

Table 10.

Title XXI Enrollment- Brevard County

(July 2003- August 2009)

Month	2003	2004	2005	2006	2007	2008	2009
January		7,948	6,295	4,956	4,956	5,711	5,279
February		7,910	5,810	4,961	4,961	5,722	5,269
March		7,739	5,698	5,012	5,012	5,693	5,510
April		8,474	5,587	5,045	5,580	5,614	5,492
May		8,340	5,441	5,057	5,676	5,570	5,490
June		8,189	5,338	5,225	5,797	5,563	5,538
July	8,413	8,214	5,201	5,201	5,764	5,368	5,630
August	8,302	8,095	5,256	5,256	5,806	5,273	5,642
September	8,156	8,041	5,253	5,253	5,767	5,130	
October	8,219	8,071	5,301	5,301	5,758	4,883	
November	8,198	7,978	5,234	5,234	5,721	5,371	
December	8,137	6,623	5,113	5,113	5,741	5,260	

Source: Florida Healthy Kids Corporation

Title XXI Enrollment = non-Medicaid enrollment plus full pay. It includes those who are above the 200% of FPL who are in the full pay program for Medikids and Healthy Kids

Figure 46.

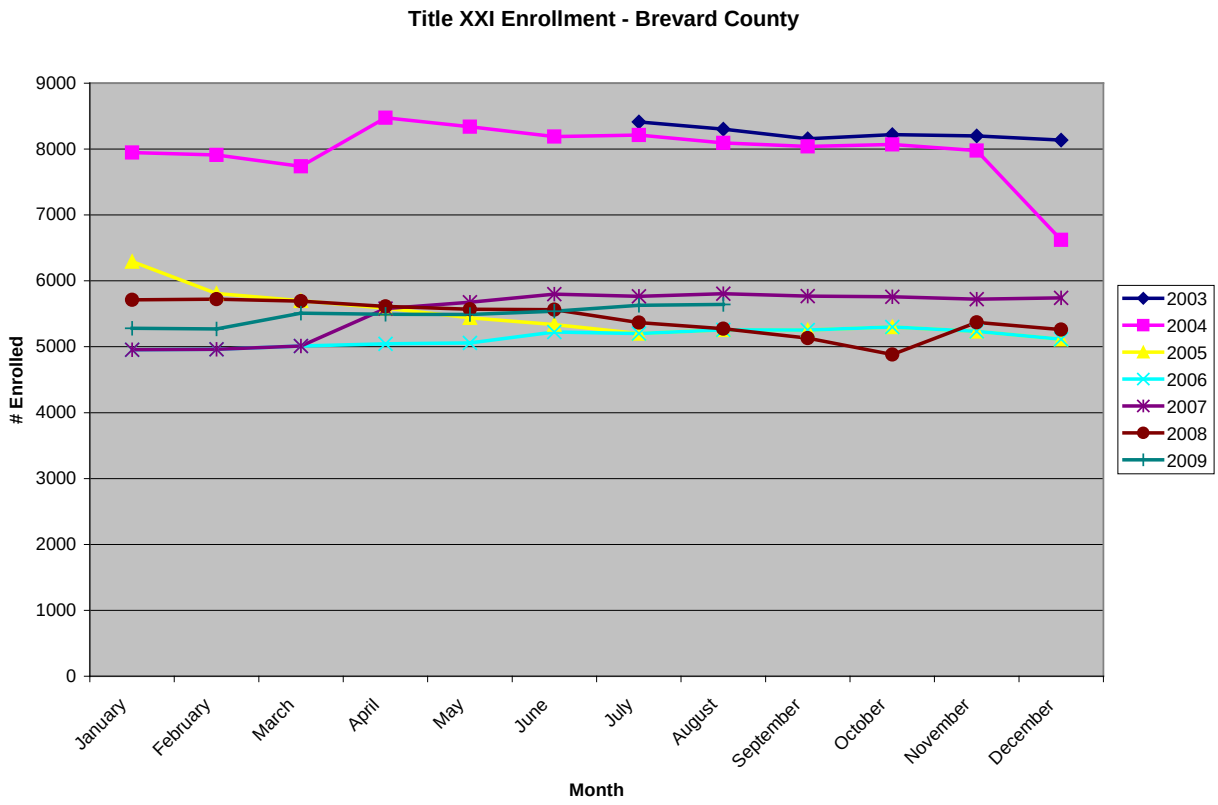


Table 11.

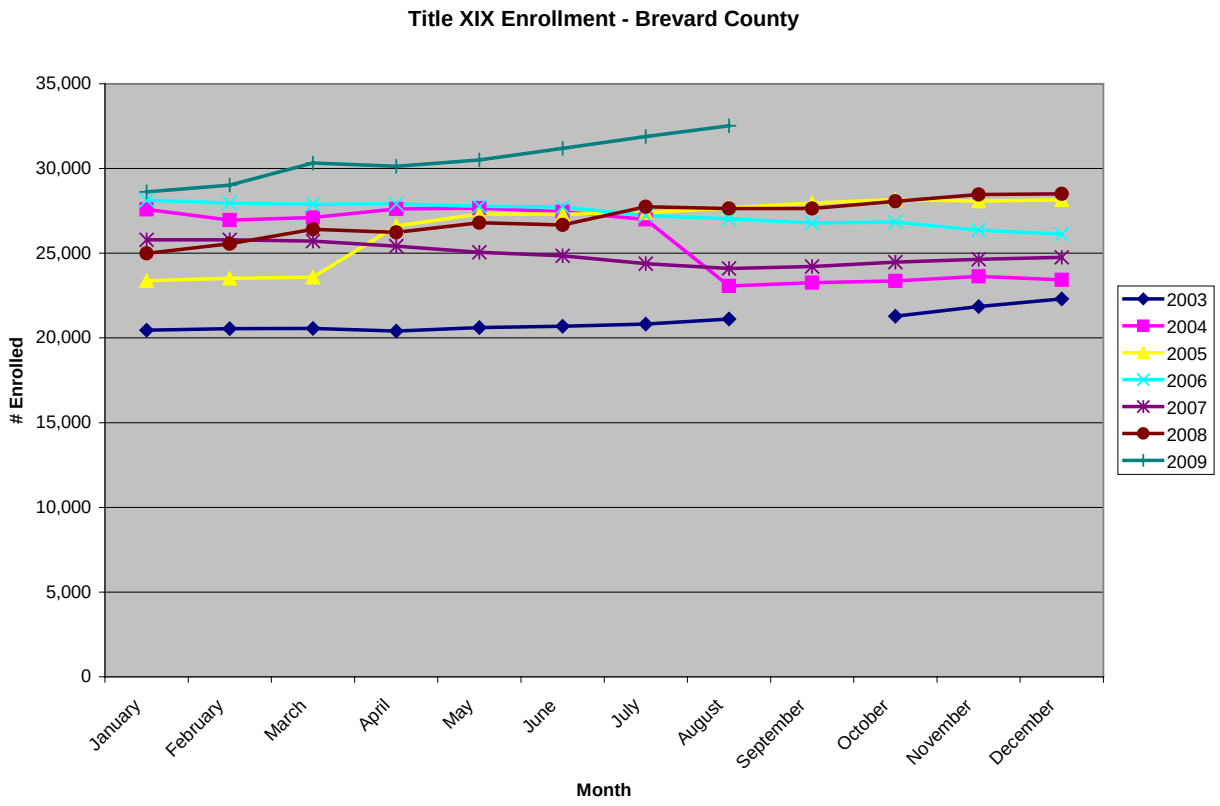
Title XIX Enrollment- Brevard County

(January 2003- August 2009)

Month	2003	2004	2005	2006	2007	2008	2009
January	20,457	27,587	23,376	28,125	25,786	24,995	28,615
February	20,554	26,960	23,518	27,959	25,789	25,558	29,020
March	20,557	27,110	23,584	27,883	25,710	26,414	30,324
April	20,409	27,617	26,599	27,913	25,419	26,228	30,130
May	20,617	27,662	27,314	27,770	25,056	26,802	30,509
June	20,690	27,450	27,300	27,732	24,849	26,673	31,189
July	20,825	26,988	27,382	27,225	24,378	27,736	31,889
August	21,115	23,072	27,672	27,028	24,101	27,642	32,519
September		23,259	27,964	26,781	24,213	27,635	
October	21,288	23,358	28,167	26,836	24,477	28,066	
November	21,848	23,637	28,083	26,359	24,647	28,470	
December	22,305	23,430	28,159	26,127	24,761	28,502	

*Data not available for September 2003.
Source: Agency for Health Administration
Title XIX Enrollment = Medicaid enrollment including 0 – 1 years)

Figure 47.



Data Conclusion for Uninsured Children

The following conclusions can be drawn from the analysis of Brevard County's KidCare enrollment trends:

- Title XXI Enrollment has remained relatively consistent since 2005 after enrollment peaked in 2004.

- Title XIX enrollment had remained relatively consistent since 2005 although there has been a significant increase beginning in early 2009. This could be the result of the challenging economic situation that began in 2008.

Child Abuse and Neglect

The table below indicates the abuse reports that Brevard County has received since the 1995 fiscal year. As the chart indicates, the number of reports has grown each year until 03/04 and then another decrease in 05/06. There was a significant increase in 06/07 and then 08/09 remained unchanged compared to 07/08. It is worth noting that abuse reports in Brevard since 06/07 remain below the high in 02/03.

Table 12.
Abuse Reports Received For Brevard County, District VII and the State of Florida

	1995 – 1996	**1996 – 1997**	**1997 – 1998**	**1998 – 1999**	**1999 – 2000**	**2000 – 2001**	**2001 – 2002**
Brevard	3,607	3,975	4,027	4,621	6,243	6,691	7,096
Orange	6,973	7,228	7,518	8,654	11,263	11,795	12,145
Osceola	1,272	1,393	1,445	1,904	3,113	2,935	2,771
Seminole	2,099	2,112	2,366	2,612	2,982	3,147	3,330
District	13,951	14,708	15,356	17,791	23,601	24,568	25,342
Statewide	114,826	117,633	121,815	127,926	164,464	176,635	185,675

	2002 – 2003	**2003 – 2004**	**2004 – 2005**	**2005 – 2006**	**2006 – 2007**	**2007 – 2008**	**2008 – 2009**
Brevard	7,602	5,548	5,637	4,964	6,415	6,979	6,969
Orange	12,523	10,449	10,677	13,010	13,481	14,081	12,360
Osceola	2,866	2,784	2,667	2,847	3,196	3,231	3,037
Seminole	2,923	*2,708	3,477	3,609	3,782	3,946	3,733
District	25,914	*21,489	22,458	24,430	26,874	28,237	26,099
Statewide	204,126	*130,834	159,597	167,369	172,137	187,137	170,971

*Does not include July, August 2003 data for Seminole County

Data Conclusion for Child Abuse and Neglect

The following conclusions can be drawn from the analysis of Brevard County's District VII abuse report trends:

- From the 95/96 report of 3,607 to the 6,969 reported in 08/09 the number of abuse reports received has risen by 93.25% in Brevard County.

- From the 95/96 report of 13,951 to the 26,099 reported in 08/09 the number of abuse reports received has risen by 87.08% in District VII.

- From the 95/96 report of 114,826 to the 170,971 reported in 08/09 the number of abuse reports received has risen by 48.90% Statewide.

School Readiness

As Healthy Start expanded to age three, the Coalition began to actively review data related to school readiness.

Each School District in Florida in 1996-97 began to assess kindergarten students on their readiness skills to start school. In Brevard County three broad areas were scored:

- Health and physical development
- Personal, social and behavior development
- Pre-academic, academic, and literacy development

It is important to note that prior to school year 2002/2003, the screening tool was developed by each individual school district, therefore, lending to no consistency in statewide results. This led to a vast change in readiness rates from year to year based, on the tool used.

With the addition of the Voluntary Pre-Kindergarten Program beginning in school year 2005/2006, the Department of Education has been tasked with identifying and adopting a statewide kindergarten screening that assesses the readiness of each student for kindergarten based upon the performance standards adopted for the VPK Program. Each school district will be required to administer the statewide kindergarten screening to each kindergarten student within the first 30 school days of each school year. This impending change will impact the school readiness rates throughout the state, resulting in the difficulty to assess the Coalition's impact on the rate of children ready to start school in Brevard County until this assessment has been offered for a period of three consecutive years. With this in mind, the Coalition has removed the outcome measure previously in the last Service Delivery Plan as it relates to the School Readiness Rate. The Coalition will, however, continue to internally monitor this rate and move forward in continuing the collaborative efforts with the Early Learning Coalition to increase the percentage of children ready to start school. The Early Learning Coalition's goal is to have 85% of Brevard County children entering kindergarten ready to start school by school year 2007/2008.

The following chart provides data from the School Readiness Report by school calendar year.

Table 13. Brevard School Readiness Report

	Percent not Ready or Getting Ready for School	**Percent Ready for School**
1997-1998	**21%**	**79%**
1998-1999	**18%**	**82%**
1999-2000	**17%**	**83%**
2000-2001	**14%**	**86%**
2001-2002	**18.5%**	**81.5%**
2002-2003	**16%**	**84%**
2003-2004	**16%**	**84%**
2004-2005	**16%**	**84%**
2005-2006	**17%**	**83%**
2006-2007*	**13%**	**87%**
2007-2008	**14%**	**86%**

Note: Prior to the school year 2002/03, the screening tool was not standardized throughout Florida.
* DOE began using the new ECHOS (Early Childhood Observation System) assessment tool for kindergarten readiness.

The Healthy Start Coalition has actively participated in the Early Learning Coalition of Brevard County since 1998 and then became a contracted provider of service for Administrative and Fiscal responsibilities in 2000 through December 31, 2005. Though no longer providing administrative and fiscal services, the Healthy Start Coalition remains actively involved with the Early Learning Coalition.

Data Conclusion for School Readiness

The following conclusions can be drawn from the analysis of Brevard County's school readiness results:

- There has been an overall 5 percentage point increase of children ready to start school from school year 1996/1997 to school year 2004/2005.

Fetal Infant Mortality Review (FIMR) - Modified

Historically, low birth weight and infant mortality rates in Brevard County are below the state rate. As a result, and due to limited funding, the Coalition conducts a modified FIMR review semi-annually to evaluate the data trends and receives de-identified copies of death certificates from the Department of Health – Office of Vital Statistics.

Although statistically insignificant, the Coalition observed an increase in non-white infant deaths in 2006. Upon review, three cases were identified to have with congenital anomalies in the same area of the County. The Coalition requested and reviewed unidentified birth certificates and following the analysis did not identify any potential linkages within the findings.

To date, no significant incidents have been observed nor have any trends been identified during the semi-annual modified FIMR reviews.

Consumer Input

Surveys

Surveys were conducted with Healthy Start consumer participants, teens and within adult focus groups (see Appendix A for sample surveys). A survey was created by the Healthy Start Coalition Quality Improvement Coordinator for unbiased, statistically acceptable responses, and given to participants anonymously through: the Mount Moriah Baptist Church, Children's Home Society, Eau Gallie High School, and through each focus group process. The surveys were reviewed and calculated by the Healthy Start Quality Improvement Coordinator and Assistant Director.

Surveys completed by Healthy Start Consumer Participants: Surveys were completed by 53 women: 30 white, 18 black, and 5 unknown. Ethnicity responses: 13 women responded Hispanic, 24 women responded non-Hispanic, and 16 women did not respond. Twenty-five women indicated that they were over the age of 21; with the average age being 28. Twenty-six women indicated that they were under the age of 21; with the average age being 18. Two women did not report their age.

Data Conclusion: Surveys from the Healthy Start Consumer Participants

- The average number of services provided to the twenty-six (out of 32) women who responded was 6. This is a slight increase from 2005. Black women and women less than 21 years of age received a greater number of services than the other groupings however; three women in the black group did not indicate what services they were receiving.
- Knowledge of Healthy Start was below average (35%) before screening or referral. Black women reported a greater awareness of Healthy Start before screening or referral though there was not a statistically significant difference.
- Women indicated that the doctor's office staff described the risk screen adequately. However, in answering their questions about how the screen was used, 27% of the women scored this statement unfavorably.
- Forty percent (40%) of the postnatal group were less inclined to view the knowledge of the hospital staff in describing the infant risk screen and unsatisfied in how the hospital staff were answering questions on how the information from the infant screen would be used.
- All women indicated agreement with the statements regarding knowledge gained in the Healthy Start program and benefits of the services. Staff was viewed as courteous and helpful with this statement being the most highly endorsed statement on the survey.
- All women indicated agreement with recommending the Healthy Start program to others.

Surveys completed by Focus Group Participants: Surveys were completed by 21participants: 14 teens and 7 adults. Out of those 7 adults: 7 were Black. (See focus group sections below for remaining demographics).

Data Conclusion for Surveys from the Focus Groups

- The pregnant teen and Black focus group participants were familiar with the Healthy Start name. However, approximately half of the participants understood Healthy Start's purpose.
- Compared to 2005 participant surveys, more participants recognized that Healthy Start services are for all women, not just low income women. Therefore indicating education done through Building Tomorrow's Child over the past years appears to be reflected here.

Focus Groups

Two focus groups were facilitated by the Healthy Start Coalition Quality Improvement Coordinator in a manner to ensure an unbiased overall understanding of the perceptions and attitudes of the community members as they relate to maternal and child health. Each one-hour focus group began with a brief introduction of the facilitator, the focus group process and an introduction of the Healthy Start Coalition. Materials used for the focus group discussion were prepared by the Healthy Start Coalition staff (see Appendix A). When the focus group concluded, the facilitator asked each group to fill out one Focus Group Survey and one Prenatal or Postnatal Healthy Start Participant Survey anonymously, prepared by Coalition Staff, to ensure all information was captured by this specific population of the community (see Appendix A).

The follow demographics and conclusions were found:
Focus Group #1: *Teen Parent or Pregnant Teen*: 14 participants, with ages ranging from 16 – 18 years of age.
Focus Group #2: Black Women's: 7 participants, with ages ranging from 21 to 38 years old.

Data Conclusion for Focus Groups

- The participants ranked the use of alcohol or drugs on the Healthy Start Prenatal and Infant Risk screen as the factor most likely to affect birth outcomes or infant development. In addition, the majority of participants ranked the marital status of the mother as the least likely to affect birth outcomes or infant development.
- Participants recognized Low Birth Weight as a risk factor to infant development, but did not rank it high as a leading factor in affecting infant development.
- Participants did not demonstrate knowledge that disorders relating to prematurity and low birth weight are one of the leading causes of infant death. None of the participants identified SIDS as a cause of death for infants.
- Teen participants indicated the need to eat healthier and exercise while pregnant.
- Participants completing the health survey were unsure of the amount of time a woman should wait before she gets pregnant again in order to have a healthy baby.
- Education and information was cited by all groups as the way to increase the public and women's awareness of Healthy Start and risk factors contributing to low birth weight. Suggestions included: advertising via electronic media, billboard advertising, speaking at local high school health classes, television commercials, posting and/or distributing at local child care centers, libraries, bus stops, and other places where women of child bearing age would visit.

NOTE: All of the survey and focus group data is available at the Coalition Office.

Category A
Implementing the Healthy Start System

Category "A" outlines the following:

County priorities:

The two major priorities for the Coalition for this service delivery plan are:
1. To reduce the racial disparities in low birth weight and very low birth weight rates.
2. To reduce risk factors associated with poor birth outcomes for all women of childbearing age.

Healthy Start system components:

This section reviews each component required and offered by the Coalition, who is providing the care, if service dollars are paying for the service, and the date of the contract or MOA period.

Funding allocation plan for 2010/2011:

This outlines how much each provider is being paid for each service for fiscal year 10/11.

Process of monitoring of providers:

The Coalition contracts with providers for Healthy Start services on an annual basis. On-site monitoring is conducted at least annually as part of the Coalition's QI Plan.

The following two pages describe these components in detail.

SUMMARY SHEET FOR THE HEALTHY START SYSTEM

County:
Brevard

County Priorities:

What particular priorities, target groups, or geographic areas are targeted in your Service Delivery Plan?

1. Reducing the racial disparities in the low birth weight and very low birth weight rates by reducing preterm births to black women.
2. Reducing risk factors associated with poor birth outcomes for all women of childbearing age.

Targeted Geographical Areas:

Healthy Start services are provided in Brevard countywide.

Healthy Start System Components:

Check the "Y" column if Healthy Start money is being used. Check the "N" column if no Healthy Start money is being used.

Healthy Start System Components	Provider	Y	N	Begin and End Date of MOA or Contract
Outreach services for pregnant women	Children's Home Society County Health Department Birth Resources of Brevard	Y Y Y		07/10 – 06/11 07/10 – 06/11 07/10 – 06/11
Outreach services for children	Children's Home Society Birth Resources of Brevard	Y Y		07/10 – 06/11 07/10 – 06/11
Process for assuring access to Medicaid (PEPW and ongoing)	County Health Department	Y		07/10 – 06/11
Clinical prenatal care for all unfunded women	County Health Department	Y		07/10 – 06/11
Funding to support the CHD Vital Statistics Healthy Start Screening Infrastructure	County Health Department Coalition	Y Y		07/10 – 06/11 07/10 – 06/11
Ongoing training for providers doing screens and referrals	Coalition	Y		07/10 – 06/11
Initial contact after screening	Children's Home Society County Health Department	Y Y		07/10 – 06/11 07/10 – 06/11
Assessment of service needs	Children's Home Society	Y		07/10 – 06/11
Ongoing care coordination	Children's Home Society	Y		07/10 – 06/11
Childbirth education	Birth Resources of Brevard	Y		07/10 – 06/11
Parenting support and education	Children's Home Society	Y		07/10 – 06/11
Nutritional counseling	Children's Home Society W.I.C. – County Health Department	Y	 N	07/10 – 06/11
Psychosocial counseling	Children's Home Society	Y		07/10 – 06/11
Smoking cessation counseling	Children's Home Society County Health Department	Y Y		07/10 – 06/11 07/10 – 06/11
Breastfeeding education and support	Children's Home Society W.I.C. – County Health Department	Y	 N	07/10 – 06/11

Data entry into HMS	County Health Department	Y		07/10 – 06/11
MomCare	Coalition	Y		07/10 – 06/11
Supplemental Services Provided: 1. Labor and Postpartum Doula Services for at risk women.	Birth Resources of Brevard	Y		07/10 – 06/11
2. Postpartum Doula Services for patients in crisis.	Appropriate community providers		N	negotiated rate
3. Emergency services for patients, i.e. transportation, payment of prescriptions, specialty formulas not available through WIC, respite child care, etc.	Appropriate community provider		N	negotiated rate
4. Ages and Stages Developmental Screening	Children's Home Society	Y		07/10 – 06/11

Process for Allocating Funds / Provider Contracts:

The Coalition has contracts with Children's Home Society for Care Coordination Services. Additionally, the Coalition has three contracts with the Brevard County Health Department for 1) Initial Contact Services, 2) Healthy Start Screening Services and 3) Clinical Care for Uninsured Pregnant Women. The Coalition also contracts with the Brevard Chapter of Florida Outreach Program, Inc., dba Birth Resources of Brevard for Childbirth Education Classes. Each contract outlines specific tasks, reporting requirements, payment guidelines, and performance and outcome measures. Amendments to contracts are executed when necessary to reflect changes in legislative funding and/or the service delivery system. Annually, staff recommends funding allocations to the Finance Committee for review based on the Coalition's Base, Medicaid Waiver and SOBRA Contracts. Upon the Finance Committee's approval of funding allocations, the Coalition Board of Director's reviews and votes on approval of the funding allocation prior to the Full Coalition vote. Once the Full Coalition has approved funding allocations, a Cost Allocation Plan is submitted to the Florida Department of Health.

Approved Fund Allocation Plan for 2010/2011:

Services	Children's Home Society	Health Department	Birth Resources of Brevard	Coalition
Clinical Care for Uninsured Pregnant Women		$62,207		
Healthy Start Care Coordination and Support Services	$730,000			
Childbirth Education			$30,769	
Healthy Start Screening Services				$31,696
Healthy Start Operations Budget				$98,186
Healthy Start Data Entry		$20,484		
Healthy Start Initial Contact Project		$112,440		
MomCare				$119,808
Service Delivery Plan Projects				$12,778
Totals	**$730,000**	**$195,131**	**$30,769**	**$262,468**

Category A - Activity #1

The Coalition will monitor contracted providers of Healthy Start Care Coordination through on-site monitoring and fiscal and program quarterly reports.

Summary:

The Coalition contracts with providers for Healthy Start Care Coordination services on an annual basis. On-site monitoring visits are conducted at least annually for each service provider.

Strategy 1:

Maintain service delivery through ongoing quality assurance and quality improvement (QA/QI) activities as detailed in the Coalition QI Plan (see Section V).

Activities include:

- Development of contracts and MOA's with Healthy Start Service providers
- Monitoring and QA/QI of those providers
- Determination of the fiscal and program reports required
- Development of the method, format and frequency of reporting
- Procedures for the validation of QI processes
- Process for conducting on-site record reviews
- Procedure for problem solving and record review
- Process for obtaining consumer feedback

QUARTERLY PROGRESS REPORT for _____:

QUARTERLY PROGRESS REPORT for _____:

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QUARTERLY PROGRESS REPORT for _____:

Category "B" Activities
Community Wide and/or System Related Strategies

Category "B" outlines the activities that are required by contract or have been identified through data as the most problematic system-wide or community-wide issues facing Brevard County. Each activity is identified, assigned a strategy or various strategies, and action steps on how the Coalition will address the problem. The identified issues are represented in Category "B" and detailed below.

In addition to activities and strategies identified in Category "B" to address Brevard County's problematic issues, the Coalition will continue to provide several of the worthwhile and successful activities from the 2005 – 2010 Service Delivery Plan:

- Continue the diligent efforts of the Coalition's model MomCare Program; recognized by the state
- Ensure OB providers and birthing hospitals have the knowledge and resources to continue to offer all pregnant women and infants the Healthy Start Screen
- Provide community outreach and education regarding Healthy Start Services
- Build community partnerships and ongoing board development
- Leverage community resources to maximize funding
- Evaluate the system of care to ensure that the systems of care for pregnant women and infants in Brevard County are relevant in addressing adverse pregnancy and birth outcomes
- Engage the community in all aspects of Healthy Start service planning, provision, and evaluation activities.

The following requirements and issues were identified and are represented in Category "B":

<u>Activity #1:</u> Over a ten (10) year span from 1997 – 2007, birth outcomes in Brevard County continue to demonstrate disparities. One of the strongest predictors of low birth weight, preterm birth and infant mortality is being a mother of black race. Outreach and education to this target population shall be increased to reduce birth outcome disparities.

<u>Activity #2:</u> Provide culturally sensitive, prevention based Interconception Education and Counseling that focuses on reducing factors associated with poor birth outcomes.

Category B - Activity #1:

Increase Targeted Outreach and Education to Women of Black Race

1. **IDENTIFIED COMMUNITY-WIDE/SYSTEM ISSUE:**

   a. *What is the requirement or system/community-wide problem or need identified to be addressed by a strategy?*

      Over a ten (10) year span from 1997 – 2007, birth outcomes in Brevard County continue to demonstrate disparities. One of the strongest predictors of low birth weight, preterm birth and infant mortality is being a mother of black race. Outreach and education to this target population shall be increased to reduce birth outcome disparities.

      In Brevard County, from 1997 – 2007:
      - The incidence of low birth weight in the non-white population increased from 11% to 13%.
      - The incidence of preterm birth in the non-white population increased from 15% to 20%.
      - The incidence rate of infant mortality among non-whites increased from 8.6 per 1,000 births to 10.1 per 1,000 births.

      In Brevard County, from 2000 – 2007:
      - Brevard County's birth mothers have become more racially diverse. This rate of growth of the total population for Brevard County was 12.17%, while the rate of growth in the black population reflects an increase of 29.52%.

   b. *What health status indicator / Coalition administrative activity is being addressed by this strategy?*

      - **Low birth weight rates**
      - **Fetal and infant mortality rates**
      - **Pre-term birth rates (monitored every five years)**

   c. *What information, if any, was used to identify the issue/problem (i.e. HPS, FIMR, screening, client satisfaction, interviews, QI/QA)?*

      - **Data Analysis of Maternal and Child Health Indicators**
      - **State Vital Statistics Annual Reports**
      - **Fetal Infant Mortality Review Data**
      - **Focus Group Data**
      - **Census Data**

2. **PLANNING PHASE QUESTIONS:**

a. What strategy has been selected to address this?

Strategy 1:
Establish a Birth Disparity Collaborative comprised of community partners to explore options and best practices for the reduction of low birth weight infants, preterm birth and infant mortality as it relates to racial disparity for Blacks in particular. This will include representation by the Black community to develop a plan for increasing the awareness of Healthy Start services, risk factors associated with LBW, preterm birth, infant mortality and general prenatal and postnatal education for this population (Modified, carry-over from prior Service Delivery Plan).

Strategy 2:
Develop and implement a public awareness campaign with a focus on the Black community to increase awareness of Healthy Start services, risk factors associated with LBW, fetal and infant mortality and general prenatal and postnatal education for the Black population. The campaign will be established through the Birth Disparity Collaborative as discussed in Strategy 1 above.

b. What information will you gather to demonstrate that you have implemented this strategy as intended (who, what, how many, where, etc.).

- **Healthy Start data and performance reports**
- **Meeting notes and reports**
- **Vital Statistics data**
- **Birth outcomes in the Black Community**

c. Where/how will you get the information?

- **Community records and onsite monitoring results**
- **Vital statistics annual data**
- **Florida Charts reports**
- **Health Management System (HMS) reports**

d. What do you expect will be the observed impact of the strategy on the system or community-wide problem/need?

Strategy 1:
The establishment of best practices for decreasing low birth weight, preterm birth and infant mortality in the Black population.

Strategy 2:
Women and community members alike will be more aware of the Healthy Start risk screen, Healthy Start, the risk factors associated with low birth weight, preterm birth and infant mortality.

Strategy 2 (continued):
Increase participation in Healthy Start by the Black population.

Increase first trimester entry into care for the Black population.

e. What information will you gather to demonstrate this change on the system?

Strategy 1:
- **Birth Disparity Collaborative meeting notes and reports**
- **Florida Charts reports**
- **Health Management System (HMS) reports**
- **Monitoring reports**
- **Anecdotal data from care coordination staff**

Strategy 2:
- **Screening data and reports**
- **Vital statistics reports**
- **Florida Charts reports**
- **Health Management System (HMS) reports**
- **Anecdotal information from care coordination staff**
- **Marketing material reports**

f. Where/how will you get the information?

Strategy 1:
The information will be supplied by the Birth Disparity Collaborative and staff. The information will be maintained in the Coalition Office.

Strategy 2:
The information will be obtained from:
- **State screening reports**
- **Local screening reports**
- **Local maternal and child health birth outcome reports**
- **Local HMS adhoc reports**
- **Monitoring reports**
- **Contract reports**
- **Feedback from providers through onsite visits and surveys**
- **Coalition staff**
- **Marketing materials**

3. **ACTION STEPS:**

Strategy 1:
Establish a Birth Disparity Collaborative comprised of community partners to explore options and best practices for the reduction of low birth weight infants, preterm birth and infant mortality as it relates to racial disparity and Blacks in particular. This will include representation by the Black community to develop a plan for increasing the awareness of Healthy Start services, risk factors associated with LBW, preterm birth, infant mortality and general prenatal and postnatal education for this population (Modified, carry-over from prior Service Delivery Plan).

ACTION STEPS	PERSON RESPONSIBLE	START DATE	COMPLETION DATE
1. Identify individual members and organizations for participation in the Birth Disparity Collaborative and determine information to be discussed. The Coalition will contact at least three Black churches (targeting north, central, and south areas of Brevard County), the Interfaith Coalition, the Federally Qualified Health Center (FQHC), and known Black leaders in the community to participate in the Collaborative.	Executive Dir., Assistant Director	July 1, 2010	June 30, 2011
2. Establish mission and goals for the Collaborative with time frames for information sharing and completion of work.	Assistant Director	July 1, 2010	June 30, 2011
3. Develop recommendations for reducing the number of LBW infants, preterm birth and infant mortality in the Black community to include public awareness information for this unique population in at least three ways, such as church bulletins, community centers, and information sessions.	Chair, Committee Members	July 1, 2010	June 30, 2011
4. Provide Board/Full Coalition with the Collaborative's findings.	Assistant Director, Chair	July 1, 2010	June 30, 2011
5. Develop and implement at least two community activities based on the recommendations from the Collaborative as funding is available.	Executive Director, Assistant Director	July 1, 2010	June 30, 2011
6. Evaluate the effectiveness of the Birth Disparity Collaborative to determine whether to continue or modify the activities. The following methods will be	Executive Director, Assistant Director	July 1, 2010	June 30, 2011

used to evaluate as applicable: • Birth Disparity Collaborative meeting notes/attendance roster, and reports • Florida CHARTS reports • Health Management System (HMS) reports • Number of participants at community activities			

QUARTERLY PROGRESS REPORT for _____:

QUARTERLY PROGRESS REPORT for _____:

QUARTERLY PROGRESS REPORT for _____:

QUARTERLY PROGRESS REPORT for _____:

4. **REPORTING PHASE ANSWERS (To be completed for the Annual Action Plan Update)**:

A. Demonstrate that you have implemented this strategy as planned (who, what, how many, where, etc.)

B. Demonstrate the changes in the system / community.

C. Drop / modify / expand / continue strategy next year?

<u>Strategy 2</u>:
Develop and implement a public awareness campaign with a focus on the Black community to increase awareness of Healthy Start services, risk factors associated with LBW, fetal and infant mortality and general prenatal and postnatal education for the Black population. The campaign will be established through the Birth Disparity Collaborative as discussed in Strategy 1 above.

ACTION STEPS	PERSON RESPONSIBLE	START DATE	COMPLETION DATE
1. Develop a plan on how to increase outreach to pregnant women and their families and to identify specific needs in the Black community.	Birth Disparity Collaborative, Asst Dir, Exec Dir, Communications Manager	July 1, 2010	June 30, 2011
2. Implement plan based on recommendations from the Collaborative as funding allows.	Exec Dir, Asst Dir, Communications Manager	July 1, 2010	June 30, 2011
3. Evaluate the effectiveness of the public awareness campaign to determine whether to continue or modify the activities.	Exec Dir, Asst Dir, Communications Manager	July 1, 2010	June 1, 2011

QUARTERLY PROGRESS REPORT for _____:

QUARTERLY PROGRESS REPORT for _____:

QUARTERLY PROGRESS REPORT for _____:

QUARTERLY PROGRESS REPORT for _____:

4. **REPORTING PHASE ANSWERS (To be completed for the Annual Action Plan Update)**:

   A. Demonstrate that you have implemented this strategy as planned (who, what, how many, where, etc.)

   B. Demonstrate the changes in the system / community.

   C. Drop / modify / expand / continue strategy next year?

Category B - Activity #2:

Provide culturally sensitive, prevention based Interconception Education and Counseling that focuses on reducing factors associated with poor birth outcomes (modified, carry-over from prior Service Delivery Plan).

1. **IDENTIFIED COMMUNITY-WIDE/SYSTEM ISSUE:**

   a. What is the requirement or system/community-wide problem or need identified to be addressed by a strategy?

   To provide culturally sensitive, prevention based Interconception Education and Counseling that focuses on reducing factors associated with poor birth outcomes (modified, carry-over from prior Service Delivery Plan).

   In Brevard County, from 1997 – 2007:

   - Consistent with national and statewide trends, the incidence of low birth weight in Brevard has increased from approximately 7% in 1995 to 1997 to 9% in 2005 to 2007.
   - In Brevard in 2007, the incidence of low birth weight was 10% in unmarried women compared to 7% in married women.
   - In Brevard from 2005 to 2007, the incidence of low birth weight was highest in mothers under the age of 18 (13%) and second highest in those age 18 to 29 (11%).
   - Among whites, the incidence of preterm birth increased from 10% in 1995 to 1997 to 14% in 2005 to 2007. By way of comparison, in non-whites the increase was from 15% to 20%
   - Rates of preterm birth in Brevard have remained consistently higher in unmarried women compared to married women.

b. *What health status indicator / Coalition administrative activity is being addressed by this strategy?*

- **Low birth weight rates**
- **Pre-term birth rates**

c. *What information, if any, was used to identify the issue/problem (i.e. HPA, FIMR. screening, client satisfaction, interviews, QI/QA)?*

- **Florida Department of Health, Office of Statistics and Assessment: Healthy Start De-identified Linked and Unlinked Data Files**
- **Feedback from providers and care coordinators**
- **Focus group data**

2. **PLANNING PHASE QUESTIONS:**

a. *What strategy has been selected to address this?*

<u>Strategy 1:</u>
Healthy Start staff will evaluate the implementation of the "Women's Healthy Living Guide", the interconception care and education curriculum developed by the Coalition to reflect the needs of Brevard County. The "Women's Healthy Living Guide" was developed to provide comprehensive information and education related to the optimal health status needed by any eligible woman of reproductive age to improve the birth outcome of a potential pregnancy.

<u>Strategy 2:</u>
Develop and implement a public awareness campaign with a focus on providing comprehensive information and education related to the optimal health status needed by any eligible woman of reproductive age to improve the birth outcome of a potential pregnancy.

b. *What information will you gather to demonstrate that you have implemented this strategy as intended (who, what, how many, where, etc.).*

- **Subcontracted Provider's monitoring data**
- **Subcontracted Provider's quarterly data**
- **HMS**
- **GH 330 and GH 350**

c. *Where/how will you get the information?*

- **Subcontracted Provider's monitoring reports**
- **Subcontracted Provider's quarterly reports**
- **Florida Charts reports**
- **HMS**
- **GH 330 and GH 350**

d. What do you expect will be the observed impact of the strategy on the system or community-wide problem/need?

Strategy 1:
Provision of interconception education and counseling to Healthy Start clients will result in improved pregnancy outcomes by reducing risk factors that may affect the health and well-being of mother and any future children.

Strategy 2:
Women and community members alike will be more aware of the risk factors that may affect the health and well-being of mother and any future children.

e. What information will you gather to demonstrate this change on the system?

Strategy 1:
- **GH 330 and GH 350**
- **Low birth weight rates**
- **Preterm birth rates**

Strategy 2:
- **Screening data and reports**
- **Vital statistics reports**
- **Florida Charts reports**
- **Health Management System (HMS) reports**
- **Anecdotal information from care coordination staff**
- **Marketing material reports**

f. Where/how will you get the information?

Strategy 1:
- **GH 330 and GH 350**
- **Vital statistics reports**

Strategy 2:
The information will be obtained from:
- **State screening reports**
- **Local screening reports**
- **Local maternal and child health birth outcome reports**
- **Local HMS adhoc reports**
- **Monitoring reports**
- **Contract reports**
- **Feedback from providers through onsite visits and surveys**
- **Coalition staff**
- **Marketing materials**

3. **ACTION STEPS:**

Strategy 1:
Evaluate the provision of comprehensive counseling and education utilizing the "Women's Healthy Living Guide" that focuses on reducing factors associated with poor birth outcomes to eligible woman of childbearing age to improve the birth outcome of a potential pregnancy.

ACTION STEPS	PERSON RESPONSIBLE	START DATE	COMPLETION DATE
1. Evaluate the implementation of the "Women's Healthy Living Guide", the Interconception care and education curriculum.	Assistant Director	July 1, 2010	June 30, 2011
2. Provide ongoing training to care coordination staff on utilizing, documenting and coding the "Women's Healthy Living Guide" curriculum.	Assistant Director, Healthy Start Subcontracted providers	July 1, 2010	June 30, 2011
3. Engage providers and clients in a feedback loop to assess the impact of the curriculum.	Assistant Director	July 1, 2010	June 30, 2011
4. Monitor updated Interconceptional Counseling and Education services through the GH 330 report and on site monitoring.	Assistant Director	July 1, 2010	June 30, 2011

QUARTERLY PROGRESS REPORT for _____:

QUARTERLY PROGRESS REPORT for _____:

QUARTERLY PROGRESS REPORT for _____:

QUARTERLY PROGRESS REPORT for _____:

4. **REPORTING PHASE ANSWERS (To be completed for the Annual Action Plan Update)**:

A. Demonstrate that you have implemented this strategy as planned (who, what, how many, where, etc.)

B. Demonstrate the changes in the system / community.

C. Drop / modify / expand / continue strategy next year?

Strategy 2:
Develop and implement a public awareness campaign with a focus on providing comprehensive information and education related to the optimal health status needed by any eligible woman of reproductive age to improve the birth outcome of a potential pregnancy.

ACTION STEPS	PERSON RESPONSIBLE	START DATE	COMPLETION DATE
1. Develop a plan on how to increase outreach to women of childbearing age to provide comprehensive information and education related to the optimal health status needed to improve the birth outcome of any potential pregnancy.	Birth Disparity Collaborative, Asst Dir, Exec Dir, Communications Manager	July 1, 2010	June 30, 2011
2. Implement the public awareness campaign plan as funding allows.	Communications Manager	July 1, 2010	June 30, 2011
3. Evaluate the effectiveness of the public awareness campaign to determine whether to continue or modify the activities.	Exec Dir, Asst Dir, Communications Manager	July 1, 2010	June 1, 2011

QUARTERLY PROGRESS REPORT for _____:

QUARTERLY PROGRESS REPORT for _____:

QUARTERLY PROGRESS REPORT for _____:

QUARTERLY PROGRESS REPORT for _____:

4. **REPORTING PHASE ANSWERS (To be completed for the Annual Action Plan Update)**:

   A. Demonstrate that you have implemented this strategy as planned (who, what, how many, where, etc.)

   B. Demonstrate the changes in the system / community.

   C. Drop / modify / expand / continue strategy next year?

Category "C" Activities
Small Area Interventions

Category "C" outlines the activities that have been identified through data as the most problematic in a targeted area within Brevard County. The Coalition has determined that the data does not reflect the need to target a small area intervention at this time.

Quality Improvement Plan
FY 2009/2010

Prenatal and Infant Health Care Coalition

of Brevard County, Inc.

dba

Healthy Start Coalition of Brevard County, Inc.

Overview of Program

Purpose

The purpose of the Quality Improvement Program at the Prenatal and Infant Health Care Coalition of Brevard County, Inc. dba Healthy Start Coalition of Brevard County, Inc. (the Coalition) is to assess and improve the quality and appropriateness of care being provided to Healthy Start participants by contracted providers, and, services provided directly by the Coalition. The program ensures that any area identified through the monitoring and evaluation process, or other contract related process, found not in compliance with established standards, is targeted for corrective action.

Goals

The goals of the Quality Improvement Program are as follows:

A. To ensure that the established levels of quality care are maintained and continuously improved by all providers through
   1) The monitoring and evaluation of the care, services, and processes provided to Healthy Start participants in order to identify areas for improvement and deficit trends;
   2) The implementation of corrective actions when deficit trends and opportunities for improvement are identified; and
   3) Monitoring and evaluating the resolution of the problem or opportunity for improvement to ensure the corrective action has been effective.

B. To ensure appropriate utilization of services, timeliness of service provision, and accessibility to services through
   1) Ongoing review of state and local reports to examine status of process indicators, performance measures, and outcomes;
   2) Establish performance improvement projects when expected target goals are not being met; and
   3) Re-evaluate processes implemented for continuous quality assurance.

C. To ensure Coalition operations are in compliance with state statutes, contract requirements, and internal quality standards through
   1) Quarterly review and evaluation of the agency work plan by staff;
   2) Self-monitoring of compliance on a annual basis with internal monitoring tool;
   3) Accomplishment of goals and objectives in the Service Delivery Plan; and
   4) Annual community and provider survey of Coalition's responsiveness to the community's needs within the confines of statutes and our mission.

D. To ensure the effectiveness of the Quality Improvement Program through
   1) The integration of information from all quality improvement activities;
   2) The assessment of the monitoring and evaluation process to determine its effectiveness; and
   3) Appropriate revisions to the program and/or service delivery plan as identified through the annual evaluation.

Organization

The Quality Improvement Program is designed to encourage participation by the Healthy Start staff, Coalition members and contracted providers to provide usable data to assess service performance in relation to the Service Delivery Plan for Brevard County, Healthy Start Standards and Guidelines, MomCare procedures and operations, and the Coalition's adherence to contract requirements and state statutes. Other indicators of quality and appropriateness may be assessed based on the specific needs of Brevard County for future planning or special projects.

A. Quality Improvement Committee

Responsibilities

The Quality Improvement Committee shall be responsible for ensuring the monitoring and evaluation of contracted services based on the most current Healthy Start Standards and Guidelines. The committee will also review quality improvement activities of the Coalition relative to internal standards and utilization of services for input into revision of the Quality Improvement Plan annually.

Membership

The membership of the Quality Improvement Committee will include Healthy Start Coalition staff, coalition members, or other qualified individuals in the community deemed to have requisite knowledge that would benefit the quality improvement program.

The Committee shall be composed of at least six members. The Assistant Director and the Quality Improvement Coordinator will serve on the committee. A diverse group of professionals will be recruited who have experience or background in nursing, social services, counseling, program management, contract management, or quality improvement. To avoid a conflict of interest, committee members will not be an employee, volunteer, board member, or otherwise professionally involved with a contracted provider. Committee members are advised to discuss any conflict of interest that may arise with the Quality Improvement Coordinator.

Meetings

The Quality Improvement Committee will meet at least -annually. These meetings will address a review of monitoring tools and procedures for each contract year and an annual review of the Quality Improvement Plan with recommendations for revisions. The minutes will be sent to committee members within 15 business days after the date of the meeting. Minutes will be kept and maintained by the Quality Improvement Coordinator. All committee meeting minutes will be forwarded to the Executive Director.

B. Quality Improvement Chairperson

Responsibilities

The Quality Improvement Chairperson will assist in determining the agenda for each Quality Improvement Committee meeting. It is the Chairperson's responsibility to ensure items needing

discussion and review are conducted at the meetings. The Chairperson will participate in monitoring visits or assign another committee member as needed.

Reporting

The Quality Improvement Chairperson will not have any direct reporting responsibilities on a regular basis. As needed, quality improvement projects or other QI activities may be reported to the full Coalition upon request of Coalition staff.

C. Quality Improvement Coordinator

Responsibilities

The Quality Improvement Coordinator will assist the Quality Improvement Chairperson and the Quality Improvement Committee in identifying, coordinating, and integrating quality improvement activities and in managing the Quality Improvement Program. In addition, the Quality Improvement Coordinator will participate in all monitoring visits to the contracted providers and will write the monitoring summary with the monitoring teams' input for all monitoring visits in which the Quality Improvement Coordinator serves as the lead auditor. Assistance to contracted providers in developing and implementing monitoring tools, service evaluation, and problem-solving is a function of this position.

Reporting

The Quality Improvement Coordinator will report the outcome of monitoring visits, quality improvement projects, technical assistance, and other QI activities directly to the Assistant Director and Executive Director. QI activities will also be shared with HS staff and contracted providers.

D. Assistant Director

Responsibilities

The Assistant Director ensures the deliverables in the contract are within established parameters and works closely with the Quality Improvement Coordinator to ensure all contracted providers maintain quality improvement activities and performance and outcome measure goals. The Assistant Director serves on the Quality Improvement Committee and participates in all monitoring visits to the contracted providers. The Assistant Director will write the monitoring summary with the monitoring teams' input for all monitoring visits in which the Assistant Director serves as the lead auditor.

Reporting

The Assistant Director reports the status of contract compliance with service tasks, service units, reporting requirements, and fiscal expenditures to evaluate a contractors' performance. This information is reported to the Executive Director and is used in contract preparation, amendments, and future planning.

E. Executive Director

Responsibilities

The Executive Director receives reports from the Assistant Director, Quality Improvement Coordinator, and other HS Coalition staff on the contracted providers' performance on quality indicators and utilization of services. The Executive Director uses information from these reports for strategic planning, determining service needs, and funding allocation.

Reporting

The Executive Director shares quality improvement activities and reports with the Board of Directors. A year-end analysis to evaluate the performance of each contract in relationship to the impact on maternal and child health outcomes in Brevard County is completed by the Executive Director. Performance and outcome measure goal attainment is used to update the service delivery plan every five years. Additional data is collected on various demographics and health indicators in the county to assist the Coalition in service planning at least yearly to ensure a more timely response to community changes.

Quality Improvement Functions

A. Service Delivery Monitoring of Contracted Providers and Program Outcomes

Purpose

The purpose of service monitoring is to ensure important aspects of care are being provided as outlined in the most current edition of the Healthy Start Standards and Guidelines. Procedures and protocols are reviewed to ensure compliance with the contract, including adequate staffing, reporting, coding, quality improvement activities, and data entry. Documentation of service provision is reviewed to ensure risk appropriate services are being offered at the intensity indicated per the leveling system. The effectiveness of programs and services in relation to established performance and outcome measures is evaluated as established in the provider's contract.

Activities

- Administrative Review of Contract Provisions
- Record Review of Clinical Services
- Class Monitoring for Childbirth Education
- Review of Provider's quarterly record review report for care coordination and non-care coordination services.
- Evaluation of Performance and Outcome Measure goal attainment per provider
- Review of Provider Liaison reports
- Satisfaction Survey results
- Semi-Annual and Annual Reports

Process

1. At the beginning of each contract year, a schedule of reporting deadlines and monitoring visits will be completed by the Quality Improvement Coordinator and Assistant Director for dissemination to contracted providers. Each provider will be monitored at least once during the contract year. Appendix I includes provider data reporting forms and performance measure reports for each provider, a sample reporting and monitoring schedule, and a current sample of each of these forms. Monitoring tools and data report forms are identified in each contract. No monitoring tool will be used that has not been negotiated with providers prior to the visit.

2. Prior to each monitoring visit, the provider will receive a letter confirming the date, time, location, and QI members that will participate in the monitoring. Each monitoring will include an administrative review of contract requirements, clinical services review via record review or class observation, and an evaluation of the provider's goal attainment of performance and outcome measures. The Quality Improvement Coordinator or the Assistant Director and at least one additional QI Committee member will participate in a monitoring visit for a contractor providing direct services to Healthy Start participants.

3. Each monitoring visit will include an entrance and exit conference. The Quality Improvement Coordinator or Assistant Director will lead these reviews. The purpose of the entrance review is to go over the purpose of the monitoring, schedule for the review, and answer any questions. The exit review will provide a brief synopsis of the findings. A written report summarizing the findings and identifying any corrective action requirements will be mailed to the provider within 45 working days of the monitoring visit. The monitoring report is to be completed by the Quality Improvement Coordinator or Assistant Director and approved by the Executive Director. If a corrective action plan is required, the provider will be given 30 calendar days to submit the plan to the Coalition.

4. Every month, the Quality Improvement Coordinator will review a satisfaction survey tally report received from the Childbirth Education provider. This review is to keep the Coalition abreast of activities and satisfaction results that may indicate a need for performance improvement.

5. Every quarter, the record review reports from service providers will be reviewed by the Quality Improvement Coordinator to assess documentation quality and status of performance measure attainment. Special attention will be given to provider's adherence to any corrective action or quality improvement plans, and QI Management system items. Any new areas needing improvement will be listed in the ongoing QI Management System.

6. Semi-annual and Annual Report include a tabulation of program statistical information related to client services and performance measures. Information from each provider is used to monitor performance with the contract, monitor quality and level of service to participants, and provide a comprehensive Healthy Start Services Contractors' report that summarizes the statistical, fiscal and quality improvement activities for each contractor. Information is compared to state reports and prior 6-month and annual reports. This report is completed by the Quality Improvement Coordinator and the Executive Director within 90 -120 days of receiving the contracted providers' reports, and submitted to the State.

B. Client Care Monitoring of the MomCare Program

Purpose

The MomCare program is operated by Coalition staff and therefore, in need of a separate QI process from contracted providers. The purpose of client care monitoring is to ensure that the program is meeting contract requirements in service provision, documentation standards, performance measure goal attainment, and participant satisfaction with the program.

Activities

- Quarterly Record Review of Service Tasks and Outcome Measure Achievement
- Quarterly Data Reports
- Quarterly Satisfaction Survey Results
- Annual Administrative and Service Provision Monitoring

Process

1. At the end of every quarter, the Assistant Director will create a random record review report from the MomCare database, Sobra Information System (SIS). This automated sampling selects at least 30 records from the database that includes open and closed records and produces a summary report on the program's performance on contract performance measures and standards. If a non-compliance trend is identified, the Assistant Director will manually identify an additional 30 records by random selection of which 75% of the records will be open, and 25% will be closed. The MomCare Record Review Tool in Appendix I will be used for the review. Outcome measure achievement will be obtained from the records reviewed and the SIS. A quarterly record review summary from the automated and manual review will be completed and this information will be integrated into the quarterly report completed by the Quality Improvement Coordinator. This report will be submitted to the Executive Director for submission to the State. Any corrective action plans will be developed with the Maternity Care Advisor(s) and their supervisor with follow-up on implementation and results at the next review.

2. Quarterly data reports pertaining to service delivery as outlined in the contract will be prepared using the SIS. This report will be submitted with the quarterly record review summary report to the Executive Director for submission to the State. The Coalition will use this report to track referrals to MomCare, participation rates, and involvement in Healthy Start.

3. Participant satisfaction surveys are mailed by the Maternity Care Advisor(s) as part of follow-up. Returned satisfaction surveys are opened by the Administrative Assistant for the Coalition and placed in the box of the Quality Improvement Coordinator. The Quality Improvement Coordinator makes a copy of any survey where information is requested and identification is noted and forwards to the Maternity Care Advisor for follow-up. Thirty days post the end of the quarter, the Quality Improvement Coordinator will summarize the results into a quarterly report. The quarterly participant satisfaction survey report will be discussed with the Maternity Care Advisor(s), Assistant Director, and Executive Director to identify trends (positive or negative) in participants' satisfaction. The quarterly satisfaction reports will be submitted with quarterly reports sent to the State.

4. The Coalition will conduct an annual administrative and services monitoring of the program for maintenance of contract compliance. The QI team will include the Quality Improvement Coordinator, the Assistant Director, and at least one non-staff QI member. The MomCare Administrative Review Tool in Appendix I will be used for this monitoring. A written report of monitoring results will be completed by the Assistant Director and approved by the entire QI team. If a corrective action plan is required, the provider will be given 30 calendar days to submit the plan to the Coalition. If corrective action is necessary, the Assistant Director, and Maternity Care Advisor(s) will develop the plan and the Quality Improvement Coordinator will monitor the implementation and results.

C. Resource Utilization Review/Utilization Management

Purpose

The purpose of utilization management is to ensure that the Healthy Start Screening Infrastructure is working efficiently to maximize screening rates so pregnant women can access services and to ensure that there is effective utilization of services to impact birth outcomes. Services should be provided as designed which takes into account risk factors, leveling, and care coordination needs.

Activities

- Review of prenatal and postnatal screening rates from Department of Health
- Provider Liaison reports
- Review of Service Profile Reports (GH330 or GH350) from Department of Health
- Review of Department of Health Prenatal and Infant Executive Summary Reports
- Timely submission of Encounter Forms
- Prenatal and Postnatal Screens to Care Coordination

Process

1. Each month, the Quality Improvement Coordinator will review prenatal and postnatal screening rates. Provider Liaison reports will be used to assess individual health care provider screening rates and examine any inconsistencies with the Department of Health reports. The Provider Liaison will target improvement plans with health care providers demonstrating negative trends in screening rates. The number of prenatal and postnatal screens referred to care coordination will be tracked monthly to establish referral trends and impact on care coordination resources.

2. Service Profile Reports will be obtained from the Department of Health Website to assess utilization of services. Monthly reviews will take into account expected service numbers and types of services used to track service provision. Atypical data will be evaluated with the Department of Health and contracted providers. Charts tracking the provision of services throughout the contract year will be updated quarterly by the Assistant Director. Timely submission of encounter forms to data entry at the Health Department will be tracked on a monthly basis to ensure service profile reports are a true picture of monthly services.

3. Monthly updates to the Prenatal and Infant Executive Summary Reports will be obtained from the Department of Health Website by the Assistant Director. These reports allow the Coalition to assess performance measure achievement, use of resources and services, and other outcome

indicators in relation to Healthy Start goals. These reports will give the Quality Improvement Coordinator and Assistant Director direction on where quality improvement projects should be targeted and give feedback to providers on resource utilization and service planning. A discrepancy investigation will be requested of Department of Health headquarters where errors are suspected in the reports.

D. Quality Management of Coalition Operations

Purpose

The purpose of quality management in the operations of the Coalition is to ensure maintenance of contract requirements, adherence to written procedures and objectives as outlined in the agency work plan, and monitor internal standards developed through the P&Q (Principles and Quality) process. All self-assessment tools and surveys are listed in Appendix II.

Activities

- Quarterly monitoring of agency work plan goals
- Semi-annual evaluation of adherence to standards developed through P&Q process
- Annual self-monitoring of contract requirements and tasks required in statute
- Annual community survey to local agencies to assess communication pathways and responsiveness as a community partner
- Annual provider satisfaction survey to evaluate responsiveness to providers and identified needs in their interactions with Coalition staff

Process

1. The Executive Director in conjunction with the Board and Directors and Coalition staff will develop action items for the Agency work plan and set dates for completion. This work plan will be reviewed with staff every quarter to update staff on Coalition activities as well as monitoring completion of action items as targeted. The goal established by the Coalition is to have 85% of the work plan completed during the fiscal year. The QI Coordinator will monitor timely completion at review and maintain a chart outlining goal attainment each quarter. This chart will be disseminated to all Coalition staff.

2. Coalition staff has established general qualities and internal standards through the P&Q process related to professionalism, working environment, knowledge base and accuracy of communication, and timeliness in responding to the community and providers. Adherence to standards is measured through self-assessment by employees or supervisors during employee meetings and by the responses obtained from the annual community survey and annual provider satisfaction survey. A semi-annual evaluation will be completed by the Quality Improvement Coordinator utilizing an employee self-assessment checklist and responses from community and provider surveys when available. This report will be disseminated to all Coalition staff.

3. Coalition staff will complete a self-assessment checklist to assess ongoing compliance with state statutes and contract compliance. The Executive Director will initiate the process however all staff will be involved in the self-monitoring. This annual evaluation will assist the Coalition in meeting timeframes for completion of task requirements.

4. An annual community survey will be disseminated to community agencies in which the Coalition has interagency agreements, service involvement or community partnerships. Questions will address staff responsiveness to requests as well as service delivery activities in the county. The QI Coordinator will compile the results and present the report to the Coalition staff. Areas identified for improvement will be targeted by Coalition staff in the Agency work plan and P & Q process and communicated to the community through the Coalition's semi-annual newsletter.

5. An annual provider satisfaction survey will be disseminated to all contract providers. The purpose of this survey is to elicit feedback on the Coalition's efficiency and effectiveness in helping providers maintain and improve services to Healthy Start participants. The QI Coordinator will compile the results and present the report to Coalition staff and to the providers at the semi-annual Provider Meeting. Areas identified for improvement will be targeted by Coalition staff in the Agency work plan and P&Q process, and communicated to providers in the semi-annual contractor meetings.

Program Evaluation

A. Assessment

1. Data collection is the foundation of quality improvement activities. The Coalition will collect data on processes and outcomes as well as utilization findings and participant satisfaction results to establish opportunities for improvement. Integration of information obtained will lead to an assessment of the quality improvement program.

2. Based on results, the Coalition may set priorities for quality improvement activities related to maternal and child health indicators that may be integrated into the service delivery plan and added to provider contracts.

B. Annual Review

1. The Quality Improvement Coordinator will review the QI plan annually with the Assistant Director and Executive Director for needed revisions, modifications, or enhancements. Comments from the QI Committee will also be elicited. The final update to the plan will be discussed in the annual QI Committee meeting.

Appendix I

Sample Reporting and Monitoring Schedule for Contracted Providers
and Coalition-Provided Services

Samples of Monitoring Tools, Data Reporting Forms,
and Performance Measure Reports

Appendix II

Samples of Monitoring Tools, Surveys,
and Self-Assessment Checklists for Coalition Operations

Data Sources & References

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Survey for Pregnant Teenagers

Age:____ Months pregnant _____

Race: □ Am. Indian/Alaskan Native □ Hispanic □ Asian □ Non-Hispanic
□ Black □ Pacific Islander □ White

Marital Status__ Single __ Married __ Separated __ Divorced ___ Widowed

Please answer the following questions or statements by filling in one circle for each item.

	Yes	No	Not Sure
1. I have heard of Healthy Start before today.	○	○	○
2. I already understood the purpose of Healthy Start	○	○	○
3. I have been offered the Healthy Start Screen by my maternity provider	○	○	○
4. I have accepted participation in Healthy Start Services.	○	○	Not Applicable ○

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Not Applicable
5. I feel the Healthy Start services I receive are helpful. (If Applicable)	○	○	○	○	○	○
6. I would encourage a friend or family member to ask their doctor for a Healthy Start risk screen if pregnant.	○	○	○	○	○	○
7. Before I got pregnant, I was aware that there are risks to the baby when the mother is less than 18 years old.	○	○	○	○	○	○
8. I need more information about how to take care of a baby.	○	○	○	○	○	○

	Yes	No	Not Sure
9. I believe Healthy Start services are primarily for low-income women or infants.	○	○	○
10. I will agree to have my baby receive the Healthy Start Infant risk screen	○	○	○

Please use the back of this survey for additional comments or suggestions.
Thank you for your time. Your answers and comments will be kept confidential.

Pregnant Teen Focus Group Questions

1. What did you know about taking care of your body to have a healthy baby before becoming pregnant

2. What have you learned about taking care of your body since you became pregnant

3. Do you feel teens should learn how to take care of their bodies in case they become pregnant? If yes, why?

4. What would be the most valuable information to you?

5. What would be the best way to get this information to teens?

Women in Brevard Survey

It is important to us to get your comments on the services you are receiving. Your responses will help us improve services to all pregnant women and their children. Please take a moment to answer the following statements. Fill in only one circle for each statement. Feel free to list additional comments or suggestions. Thank you for your time. Your answers and comments will be kept confidential.

Age:____ **Months Pregnant:____**

Race: □ Am Indian/Alaskan Native □ Asian □ Black □ Pacific Islander □ White

Ethnicity: □ Hispanic □ Non-Hispanic

Marital Status: __ Single __ Married __ Separated __ Divorced ___ Widowed

Education: ___ Less then HS diploma ___HS diploma ___ Some College ___ College degree
___ Vocational / Technical certificate

	Yes	No	Not Sure	Not Applicable
1 . I had heard of Healthy Start before today.				
2. I understood the purpose of Healthy Start before today.				
3. I have been pregnant or given birth while living in this county in the last 10 years.				
4. If yes, I or my baby was screened for Healthy Start risk factors.				
5. I or my baby received Healthy Start services.				
6. I would encourage a family member or friend to ask their doctor for a risk screen if pregnant.				
7. I would recommend the Healthy Start program to family and friends.				
8. I had a good understanding of the pregnancy risk factors before today.				
9. I had a good understanding of how I should care for my body between babies.				
10. I believe Healthy Start services are primarily for low-income women and infants.				

I have received the following services as a participant in the Healthy Start Program (circle all appropriate responses):

○ Telephone calls from Healthy Start staff ○ Home Visits from a Care Coordinator
○ A Family Support Plan ○ Help in quitting smoking ○ Nutritional Counseling
○ Parenting Education ○ Counseling ○ Help in getting treatment for substance abuse
○ Childbirth Education Classes ○ Breastfeeding Support and Education
○ Interconceptional Care and Counseling ○ Developmental Assessments for my baby ○ Other____

What other services or classes could be offered that would help a woman and her baby get a healthy start in life?

Healthy Start Prenatal Participant Survey

It is important to us to get your opinion about Healthy Start services and your needs. Your responses will help us improve services to all pregnant women and their children. Please take a moment to answer the following statements. Fill in only one circle for each statement. Feel free to list additional comments or suggestions. Thank you for your time. Your answers and comments will be kept confidential.

Age:____ **Months Pregnant: _____**

Race: □ Am Indian/Alaskan Native □ Asian □ Black □ Pacific Islander □ White

Ethnicity: □ Hispanic □ Non-Hispanic

Marital Status: __Single __Married __Separated __Divorced __Widowed

Education: ___ less than HS diploma ___HS diploma __ Some College __College degree
__ Vocational / Technical certificate

	Yes	No	Not Sure	Not Applicable
1. I knew about Healthy Start before I was screened or referred into the Program.				
2. I was offered a chance to participate in the Healthy Start program because of my risk factors.				
3. I would recommend the Healthy Start program to a family member or friend.				

4. I accepted the offer to participate in Healthy Start because (Please circle each that applies):

I thought it is was required I thought it was a part of my Medicaid benefits

I wanted to give my baby the best chances in life Friends told me it was a good program

I was not sure how to take care of myself during my pregnancy I needed someone to talk to

I needed financial support I needed help to stop smoking

I was not sure how to care for a baby I needed help to stop using alcohol

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Not Applicable
5. My doctor's office explained the prenatal risk screen to me in a way I could easily understand.	○	○	○	○	○	○
6. My doctor's office could answer questions about how the screen would be used.	○	○	○	○	○	○
7. After completing the screen, I understood what my score meant and any risk factors that could affect my unborn baby.	○	○	○	○	○	○
8. Since enrolling in Healthy Start, I feel that my case worker and I are working on reducing these risk factors.	○	○	○	○	○	○
9. I am learning how to reduce each risk factor.	○	○	○	○	○	○
10. I am learning how to have a healthy pregnancy	○	○	○	○	○	○

or raise a healthy infant.						
11. Participation in the healthy start program will make a big difference in my baby's health and wellbeing.	○	○	○	○	○	○
12. I could have worked on my own just as well on reducing my risk factors without Healthy Start.	○	○	○	○	○	○
13. I would be willing to participate in a group discussion about my healthy start experience at a later date. If yes, please provide contact information below. **YES** ○ **NO** ○						
Name: **Email:** **Address:** **Phone:**						

I have received the following services as a participant in the Healthy Start Program (check all that apply):

○ Telephone calls from Healthy Start staff ○ Home Visits from a Care Coordinator ○ A Family Support Plan

○ Help in quitting smoking ○ Nutritional Counseling ○ Parenting Education

○ Help in getting treatment for substance abuse ○ Childbirth Education Classes ○ Counseling

○ Breastfeeding Support and Education ○ Interconceptional Education and Counseling

○Other_____

What other services or classes could be offered that would help you give your baby a healthy start in life?

Healthy Start Postnatal Participant Survey

It is important to us to get your opinion about Healthy Start services and your needs. Your responses will help us improve services to all pregnant women and their children. Please take a moment to answer the following statements. Fill in only one circle for each statement. Feel free to list additional comments or suggestions. Thank you for your time. Your answers and comments will be kept confidential.

Age:____ **Months Pregnant:** _____

Race: □ Am Indian/Alaskan Native □ Asian □ Black □ Pacific Islander □ White

Ethnicity: □ Hispanic □ Non-Hispanic

Marital Status: __Single __Married __Separated __Divorced __Widowed

Education: ___ less than HS diploma ___HS diploma __ Some College __College degree
__ Vocational / Technical certificate

	Yes	No	Not Sure	Not Applicable
1. I knew about Healthy Start before I was screened or referred into the Program.				
2. I was offered a chance to participate in the Healthy Start program because of my risk factors.				
3. I would recommend the Healthy Start program to a family member or friend.				

4. I accepted the offer to participate in Healthy Start because (Please circle each that applies):

I thought it is was required I thought it was a part of my Medicaid benefits

I wanted to give my baby the best chances in life Friends told me it was a good program

I was not sure how to take care of myself during my pregnancy I needed someone to talk to

I needed financial support I needed help to stop smoking

I was not sure how to care for a baby I needed help to stop using alcohol

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Not Applicable
5. My doctor's office explained the prenatal risk screen to me in a way I could easily understand.	○	○	○	○	○	○
6. My doctor's office could answer questions about how the screen would be used.	○	○	○	○	○	○
7. After completing the screen, I understood what my score meant and any risk factors that could affect my unborn baby.	○	○	○	○	○	○
8. Since enrolling in Healthy Start, I feel that my case worker and I are working on reducing these risk factors.	○	○	○	○	○	○
9. I am learning how to reduce each risk factor.	○	○	○	○	○	○
10. I am learning how to have a healthy pregnancy						

or raise a healthy infant.	○	○	○	○	○	○
11. Participation in the healthy start program will make a big difference in my baby's health and wellbeing.	○	○	○	○	○	○
12. I could have worked on my own just as well on reducing my risk factors without Healthy Start.	○	○	○	○	○	○
13. I would be willing to participate in a group discussion about my healthy start experience at a later date. If yes, please provide contact information below. **YES** ○ **NO** ○						
Name: **Email:** **Address:** **Phone:**						

I have received the following services as a participant in the Healthy Start Program (check all that apply):

○ Telephone calls from Healthy Start staff ○ Home Visits from a Care Coordinator ○ A Family Support Plan

○ Help in quitting smoking ○ Nutritional Counseling ○ Parenting Education

○ Help in getting treatment for substance abuse ○ Childbirth Education Classes ○ Counseling

○ Breastfeeding Support and Education ○ Interconceptional Education and Counseling

○Other_____

What other services or classes could be offered that would help you give your baby a healthy start in life?

Health Problem Analysis

Health Problem: Infant Mortality		
Risk Factors: 1. Low Birth Weight (LBW) 2. Pre Term Birth		
Direct Contributing Factors	**Indirect Contributing Factors**	**Strategies and Activities that will address the contributing factors**
1. Access to Prenatal Care	1. Late or no prenatal care	1. Category B, Activity 1, Strategy 1: Birth Disparities Collaborative; Category B, Activity 1, Strategy 2, Public Awareness Campaign; Category B, Activity 2, Strategy 1, Interconceptional Education – "Women's Healthy Living Guide"
2. Unmarried	2. Lack of support system	2. Category B, Activity 1, Strategy 1: Birth Disparities Collaborative; Category B, Activity 1, Strategy 2, Public Awareness Campaign; Category B, Activity 2, Strategy 1, Interconceptional Education – "Women's Healthy Living Guide"
3. Age of mother (<18)	3. Lack of support system	3. Category B, Activity 1, Strategy 1: Birth Disparities Collaborative; Category B, Activity 1, Strategy 2, Public Awareness Campaign; Category B, Activity 2, Strategy 1, Interconceptional Education – "Women's Healthy Living Guide"
4. Poor Maternal Weight	4. Dietary practices	4. Category B, Activity 1, Strategy 1: Birth Disparities Collaborative; Category B, Activity 1, Strategy 2, Public Awareness Campaign; Category B, Activity 2, Strategy 1, Interconceptional Education – "Women's Healthy Living Guide"
5. Tobacco Use / Smoking	5. Lack of education about the effects of tobacco/smoking	5. Category B, Activity 1, Strategy 1: Birth Disparities Collaborative; Category B, Activity 1, Strategy 2, Public Awareness Campaign; Category B, Activity 2, Strategy 1, Interconceptional Education – "Women's Healthy Living Guide"
6. Drug and Alcohol Abuse	6. Lack of education about effects of drugs and alcohol	6. Category B, Activity 1, Strategy 1: Birth Disparities Collaborative; Category B, Activity 1, Strategy 2, Public Awareness Campaign; Category B, Activity 2, Strategy 1, Interconceptional Education – "Women's Healthy Living Guide"

continued

7. Vaginal and urinary tract infections, and sexually transmitted disease	7. Lack of uniformed screening and identification of infections	7. Category B, Activity 1, Strategy 1: Birth Disparities Collaborative; Category B, Activity 1, Strategy 2, Public Awareness Campaign; Category B, Activity 2, Strategy 1, Interconceptional Education – "Women's Healthy Living Guide"
8. Poverty	8. Minimum or no job skills	8. Category B, Activity 1, Strategy 1: Birth Disparities Collaborative; Category B, Activity 1, Strategy 2, Public Awareness Campaign; Category B, Activity 2, Strategy 1, Interconceptional Education – "Women's Healthy Living Guide"