



CITRUS COUNTY MATERNAL AND INFANT HEALTH REPORT-2015

FLORIDA HEALTHY BABIES INITIATIVE IN CITRUS COUNTY



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INTRODUCTION

Infant mortality is often used as a gauge for the health of a community because the same factors that affect the health of the infants will influence the health of older community members. Among developed nations, the United States has a particularly high infant mortality rate and was ranked behind 26 other developed nations as of September of 2014.¹ **The current national infant mortality rate is 6.0 infant deaths per 1,000 live births. The state of Florida currently has a slightly higher rate than the nation for infant mortality with a rate of 6.1 infant deaths per 1,000 live births.** This led the Florida Department of Health to start a state-wide initiative to address this issue using a risk and protective factor approach that examines inequities in the factors associated with infant mortality and maternal health. This data report is the first step in the process of identifying inequities in the health of our community and areas where targeted interventions will have meaningful impact.

POPULATION PROFILE

The estimated 2015 population in Citrus County was 141,058. The largest age group is older than 65 and the white population is the largest racial group. Because the numbers of Hispanic, black, and other race/ethnicity residents are so low in the local population, many of the statistics generated for their populations can vary widely with small changes. Three-year estimates were used whenever possible to stabilize the data, but the numbers remain low in many instances using those estimates. **Interpret statistics based on race/ethnicity with caution.**

AGE DISTRIBUTION

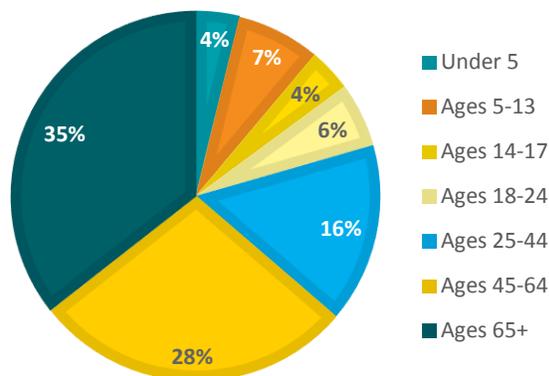


FIGURE 1-AGE DISTRIBUTION IN 2015

RACE/ETHNICITY

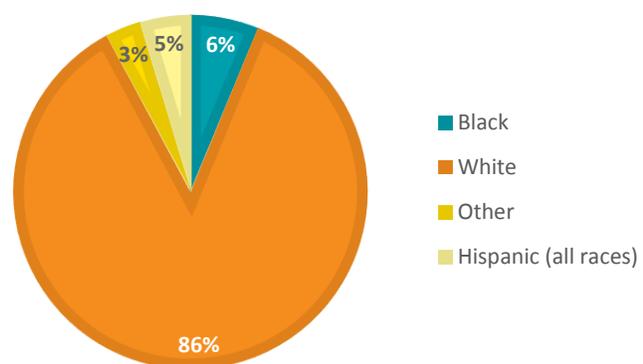


FIGURE 2-RACE/ETHNICITY DISTRIBUTION IN 2015

Citrus County birthrate (calculated using the equation below), at 7.1 births per 1,000 residents, is lower than the state rate of 11.2 births per 1,000 residents. The highest birth rate is seen in the Hispanic population with a birth rate of 9.4 births per 1,000 Hispanic people.

$$\text{Birth rate} = \frac{\text{Number of live births}}{\text{Total population}} \times 1,000$$

¹ MacDorman, M. F., Mathews, T., Mohangoo, A. D., & Zeitlin, J. (2014, September 24). International Comparisons of Infant Mortality and Related Factors: United States and Europe, 2010. *National Vital Statistics Reports*, 63(5), 1-6. doi:10.4159/harvard.9780674421776.c9

Women who experience a pregnancy in their teen years can experience lower graduation rates, lower earnings over their lifetimes, and greater dependence on social welfare programs.² **The teen birth rate for the 2013-2015 period was 30.1 births for every 1,000 girls ages 15-19.** This is noticeably higher than the state rate of 22 births per 1,000 girls ages 15-19. When this rate is broken down further by age, the **highest birth rates are seen in the 18-19 age group for teens with a birth rate of 66.9 births per 1,000 girls in that age group.** This rate is also much higher than the state rate (40.9 births per 1,000 girls ages 18-19).

PERINATAL AND INFANT MORTALITY

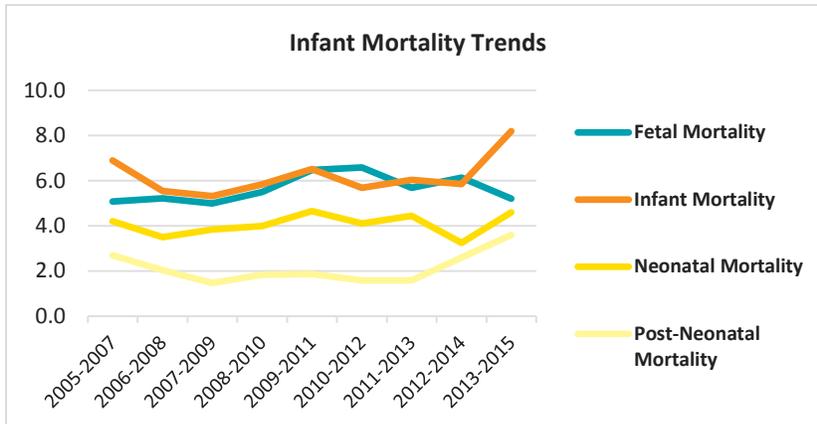


FIGURE 3-PERINATAL AND INFANT MORTALITY TRENDS

Perinatal mortality includes the death of an infant or fetus around time of birth. This means death after thirty-seven weeks gestation for fetal deaths and death in the first month of life for infant deaths. Like with births, mortality is measured as a rate that shows the relationship between the number of deaths and the number of births in a population. It is important to

consider that the number of deaths at the county-level is low enough that, while the rates calculated are informative, the mortality rates can fluctuate greatly with small changes in the number of deaths. To account for this fluctuation, **3-year rolling rates or counts are used whenever possible.**

FETAL MORTALITY

Fetal mortality is the death of a fetus of at least thirty-seven weeks gestation. It is described as a rate and calculated using the equation below.

$$\text{Fetal mortality rate} = \frac{\text{Number of fetal deaths}}{\text{Number of live births} + \text{fetal deaths}} \times 1,000$$

In Citrus County, the **most recent fetal mortality rate (2013-2015) is 5.2 fetal deaths per 1,000 live births and fetal deaths**, lower than the state rate of 7 fetal deaths per 1,000 live births and fetal deaths. Historically, the black population has seen a higher rate of fetal mortality yet this population has not had any reported fetal deaths since 2010.

² Hotz, V. J., McElroy, S. W., & Sanders, S. G. (1997). The Impact of Teenage Childbearing on Mothers and the Consequences of those Impacts for Government. In *Kids Having Kids*. Retrieved August 2, 2016, from http://public.econ.duke.edu/~vjh3/e195S/readings/Hotz_McElroy_Sanders.pdf

According to the CDC, fetal deaths typically fall into one of the three following categories:³

- Problems with the fetus
- Problems with the placenta or umbilical cord
- Certain health conditions of the mother

Risk factors for fetal death include:

- Maternal obesity
- Being of the black race
- Mother being 15-19 years old or older than 35
- Tobacco use during pregnancy
- Having certain medical conditions, such as high blood pressure or diabetes

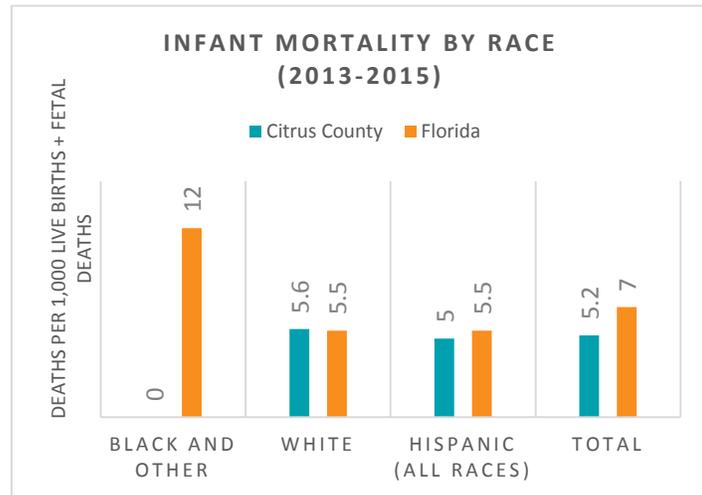


FIGURE 4-INFANT MORTALITY RATES BY RACE (2013-2015)

While some of these risk factors are unavoidable, **some can be mitigated through healthy lifestyle choices.**

INFANT MORTALITY

Infant mortality is the death of an infant in the first year of life (0-364 days). This can be broken down into neonatal mortality (0-27 days old) and post-neonatal mortality (28-364 days old). Infant mortality is expressed as a mortality rate using the equation below.

$$\text{Infant mortality rate} = \frac{\text{Number of infant deaths}}{\text{Number of live births}} \times 1,000$$

The overall 2013-2015 infant mortality rate in Citrus County was 8.2 infant deaths per 1,000 live births and resulted from **25 infant deaths**. Ten of the 25 infant deaths from 2013-2015 occurred in 2015 alone, and was the **highest number of infant deaths since 2005**. The infant mortality rate was much higher than the state's rate of 6.1 infant deaths per 1,000 live births and marks 41% increase from the 2012-2014 time-period. Disparities in infant mortality are seen between the different racial groups as well, as **the black and Hispanic populations experienced 10 and 20 infant deaths per 1,000 live births respectively.**

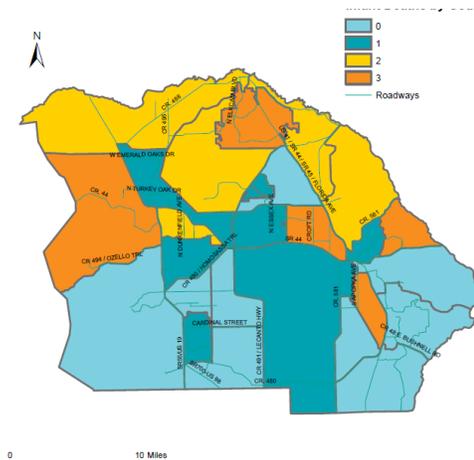
The difference observed between the black and white infant mortality rates is described as the black: white infant mortality ratio. During the 2013-2015 time-period this ratio was 0.14, the lowest ratio seen since 2008.

³ Facts about Stillbirth. (2016, June 6). Retrieved August 2, 2016, from <http://www.cdc.gov/ncbddd/stillbirth/facts.html>

NEONATAL MORTALITY

Of the 25 infant deaths that occurred in the 2013-2015 period, 14 occurred in the first 27 days of life (neonatal period). This resulted in a neonatal mortality rate of **4.6 neonatal infant deaths per 1,000 live births** (slightly higher than the state rate of 4.1 neonatal deaths per 1,000 live births) and is a sharp increase from the 2012-2014 period. **The highest neonatal mortality rate was seen in the Hispanic population with a rate of 15 neonatal infant deaths per 1,000 live births.**

FIGURE 5- INFANT MORTALITY BY CENSUS TRACT (2010-2014)



POST-NEONATAL MORTALITY

Citrus County experienced a post-neonatal (infants 28-364 days old) mortality rate of **3.6 deaths per 1,000 live births**, while the state mortality rate for the same age was 2 deaths per 1,000 live births. Like with neonatal mortality in the county, this is a dramatic increase from the previous 2012-2014 period. **The highest post-neonatal mortality rate was seen in the black population with a rate of 10 infant deaths per 1,000 live births, followed by the Hispanic population with a rate of 5 infant deaths per 1,000 live births.**

SELECT CAUSES OF DEATH

The leading causes of death in infants from 2013-2015 were congenital and chromosomal abnormalities (2 deaths per 1,000 live births), maternal complications with pregnancy, labor or delivery (1.6 deaths per 1,000 live births) and sudden unexpected infant deaths (SUID; 1.6 deaths per 1,000 live births). Both of these causes are increasing and are the highest recorded since 2005.

With new research on sudden infant death syndrome (SIDS), it was revealed that there was a need to structure this diagnosis differently. SIDS deaths are now categorized within the broader context of sudden unexpected infant deaths (SUID), which is described in greater detail below.

Other prominent causes of death in infants include infectious or body system diseases, perinatal conditions not including short gestation or low birth weight and maternal complications, short gestation and low birthweight, drowning, and homicide.

The single black infant death from 2013-2015 was attributed to SUID and the four Hispanic deaths during that time-period were attributed to body system diseases (two deaths), maternal complications (one death), and congenital malformations (one death). The numbers of deaths in these racial/ethnic groups are extremely low but are significant when considering how few births occur for these populations between 2013-2015.

SUDDEN UNEXPECTED INFANT DEATH (SUID)

The diagnosis of a sudden and unexpected death of an infant has evolved over time as our understanding of the phenomenon has grown. It was originally categorized as “sudden infant death

syndrome” or “SIDS.” The current designation that these deaths fall into is known as “sudden unexpected infant death” or “SUID.” These deaths fall into one of three categories:⁴

- **Sudden Infant Death Syndrome (SIDS):** deaths that occur in infants less than one year old where the cause of death cannot be determined after an autopsy and review of the death scene and medical records.
- **Unexplained:** deaths that occur in infants less than one year old where the cause of death cannot be determined; does not include the autopsy and review process.
- **Accidental strangulation or suffocation in bed:** death of an infant less than one year old resulting from accidental strangulation or suffocation from sleeping in an unsafe environment. Suffocation or strangulation can occur when an infant becomes trapped in soft bedding (blankets, pillows, toys, upholstered surfaces, etc.), when a co-sleeping adult rolls over onto the infant, or when an infant become entrapped or wedged between two surfaces (i.e., between a mattress and the wall or between the seat cushion of a couch and the armrest).

Nationally, in 2014 it was estimated that **44% of SUID deaths are from SIDS, 31% are from an unknown cause, and 25% are a result of accidental suffocation and strangulation in bed.**

MATERNAL AND INFANT HEALTH FACTORS

RISK FACTORS

A variety of risk factors affect maternal health in Citrus County. Adequately spacing pregnancies is essential to ensuring that mothers can physically heal after one pregnancy before entering another. Inter-pregnancy intervals of less than 18 months have shown to increase the risk of having preterm infants in the following pregnancies.⁵ Citrus County mothers often experience pregnancies less than 18 months apart. During the 2013-2015 period **40.3% of births occurred less than 18 months after a previous pregnancy**, higher than the state rate of 34.7%. **The black population experienced this reduced pregnancy interval at higher rates than the other racial and ethnic populations.**

Increased weight around the time of conception can increase the risk for a variety of health outcomes for both the mother and infant including the risk for gestational diabetes, pre-eclampsia, preterm birth, and low birthweight.⁶ Women who are overweight or obese who have complications during labor and delivery are also less likely to initiate breastfeeding.⁷ In Citrus County, **25.7% of mothers were obese around the time of conception and 24% were overweight. The black population experienced higher**

⁴ About SUID and SIDS. (2016, June 08). Retrieved August 02, 2016, from <http://www.cdc.gov/sids/aboutsuidandsids.htm>

⁵ Defranco, E., Ehrlich, S., & Muglia, L. (2014, June 04). Influence of interpregnancy interval on birth timing. *BJOG: An International Journal of Obstetrics & Gynaecology* *BJOG: Int J Obstet Gy*, *121*(13), 1633-1640. doi:10.1111/1471-0528.12891

⁶ Leddy, M. A., Power, M. L., & Schulkin, J. (2008). The Impact of Maternal Obesity on Maternal and Fetal Health. *Reviews in Obstetrics & Gynecology*, *1*(4). Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2621047/#>

⁷ Kitsantas, P., & Pawloski, L. (2010, February). Maternal obesity, health status during pregnancy, and breastfeeding initiation and duration. *DJMF The J. of Maternal-Fetal & Neonatal Med. The Journal of Maternal-Fetal & Neonatal Medicine*, 1-7. doi:10.1080/14767050903118270

rates of women who were obese at the time of conception, but the rates of women who were overweight at the time of conception was similar across the racial and ethnic populations.

Smoking during pregnancy can lead to a variety of negative outcomes for the fetus. Smoking increases the risk of miscarriage, create problems with the placenta, increase the risk of preterm birth and low birthweight, increase the risk of SIDS, and increase the likelihood of certain birth defects.⁸ Overall, **24.1% of mothers in the 2013-2015 time-period reported smoking while pregnant** compared to 6.2% at the state level. White mothers had higher smoking rates than any other racial or ethnic group in Citrus County.

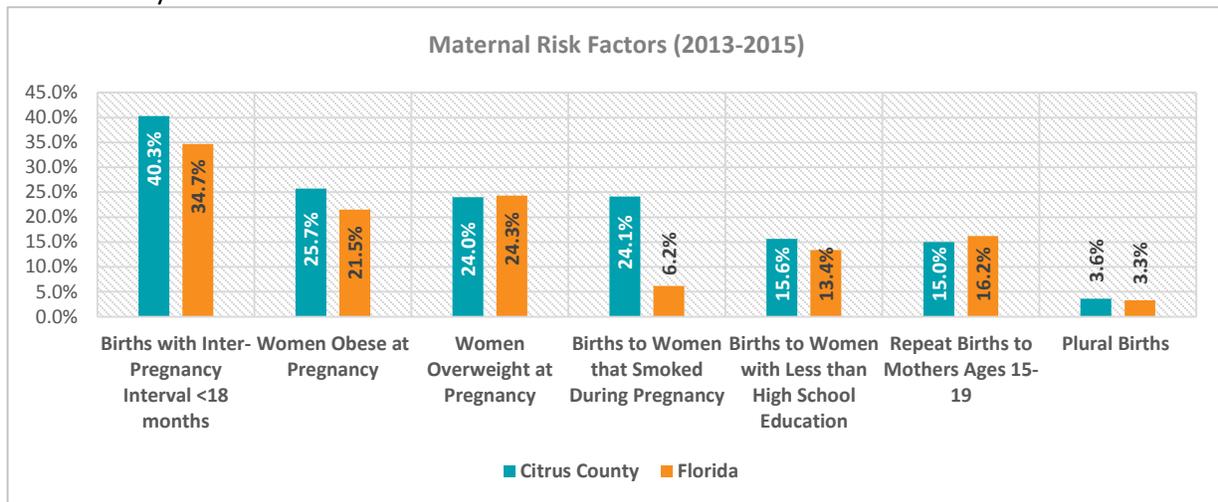


FIGURE 6-MATERNAL RISK FACTORS

Having a high school education is an essential step toward increasing personal earnings over the lifetime, yet **15.6% of mothers in Citrus County have less than a high school education**. This is slightly higher than the state rate of 13.4%. The white population has higher rates of mothers with less than a high school education than other racial and ethnic groups.

The teen birth rate was discussed previously but another important statistic on teen mothers is the rate of repeat births in this age group. **Of the births to teen (15-19) mothers, 15% are births to teens who already have at least one child**. This is slightly lower than the state rate of 16.2%.

HEALTHCARE RISK FACTORS

Medicaid coverage can be a protective factor for pregnant women by allowing them access to prenatal care, but it can also be a risk factor because it indicates that the mothers covered by Medicaid have low enough income to meet the qualifications. **The majority of births (74.7%) that occur in Citrus County are covered by Medicaid**, which is remarkably higher than the state rate of 50.2%. Medicaid coverage is seen in higher rates in black and Hispanic mothers than white mothers. **The rates of births to uninsured women as declined since 2005 and was 1.6% for the 2013-2015 time-period**. This indicator was lower than the state rate of 6.6%.

⁸ Tobacco Use and Pregnancy. (2016, July 20). Retrieved August 17, 2016, from <http://www.cdc.gov/reproductivehealth/maternalinfanthealth/tobaccousepregnancy/>

Cesarean section (C-section) deliveries are sometimes necessary to protect the life of the mother and infant but, when used outside of medical necessity, this type of delivery can put the mother and/or infant at risk. According to the World Health Organization, the ideal range for C-section deliveries is 10-15%⁹, yet **C-section rates are notably higher in both Citrus County (31.2%) and Florida (37.4%).**

MATERNAL PROTECTIVE FACTORS

MEDICAID

Medicaid enrollment can give pregnant women of low socioeconomic status access to essential prenatal care. Nearly **75% of the births in Citrus County are covered by Medicaid** which is notably higher than the state rate of 50.2%.

PRENATAL CARE

Mothers who receive late (third trimester) or no prenatal care are more likely to have low-birthweight infants and face dramatically increased risk of infant death.¹⁰ Prenatal care is an important first step to ensure a healthy pregnancy, yet **27.6% of Citrus County mothers did not receive prenatal care in the first trimester of their pregnancy.** This is notably higher than the state rate of 20.5%.

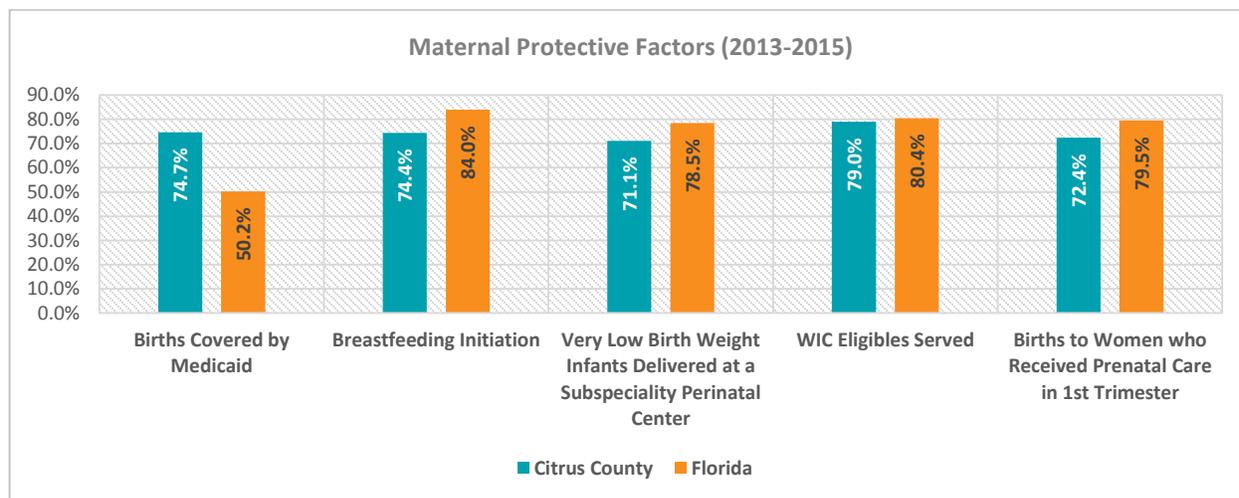


FIGURE 7-MATERNAL PROTECTIVE FACTORS

VERY LOW BIRTHWEIGHT INFANTS BORN IN SUB-SPECIALTY PERINATAL CENTERS

Citrus County does not experience a large number of very low birthweight babies (less than 1500 grams or 3.3 lbs.) but when those babies are born, it is hoped that they are delivered in a center equipped to handle the extensive and specialized medical needs of that infant. During the 2013-2015 time-period, **71.1% of these very low birthweight babies were delivered at a sub-specialty perinatal center** (lower than the state rate of 78.5%).

⁹ Caesarean sections should only be performed when medically necessary. (2015, April 10). Retrieved August 02, 2016, from <http://www.who.int/mediacentre/news/releases/2015/caesarean-sections/en/>

¹⁰ Child Trends Databank. (2015). *Late or no prenatal care*. Retrieved August 17, 2016, from <http://www.childtrends.org/?late-or-no-prenatal-care>

BREASTFEEDING

Breastfeeding has a variety of benefits for both mother and infant. According to the U.S. Surgeon General, breastfeeding protects and promotes infant health by protecting babies from common infections and reducing their risk for developing asthma, becoming obese, and experiencing SIDS. Mothers who breastfeed have a lower risk of developing breast and ovarian cancers.¹¹ Breastfeeding is measured by mothers who self-report whether or not they have attempted to breastfeed, even if just one time. Data is difficult to collect for the general population on breastfeeding behaviors later in the infancy of the child.

In Citrus County **74.4% of mother report making a breastfeeding attempt**, lower than the state rate of 84%. The lowest breastfeeding rates are seen in the black population where **only 67% of black mothers report making a breastfeeding attempt**.

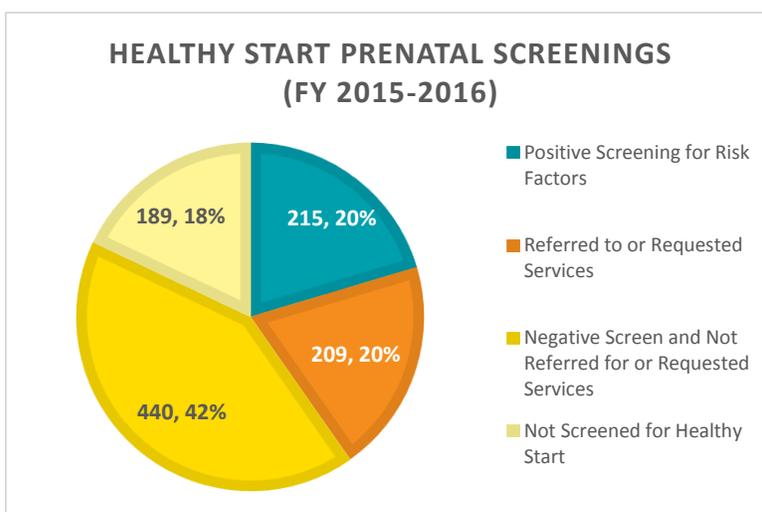
WIC PARTICIPATION

Women, Infants, and Children (WIC) is a federal program administered at the county-level that provides “supplemental foods, healthcare referrals and nutrition education for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children up to age five who are found to be at nutritional risk.”¹² In Citrus County, **79% of the individuals eligible for WIC were enrolled in the program**. This is slightly lower than the state rate of 80.4%.

HEALTHY START PARTICIPATION

Healthy Start is a Florida Department of Health program that assists “pregnant women, inter-conception women, infants, and children up to age three obtain the healthcare and social support needed to reduce the risks for poor maternal and child health outcomes.”¹³ The services this program provides include care coordination, nutrition education and counseling, tobacco cessation counseling, childbirth education, breastfeeding support and education, substance abuse education, home visiting, and inter-conception education and counseling. Screening of all pregnant women is mandated in physician offices during the first prenatal visit to identify women at higher risk for adverse outcomes. Infants can also be screened for Healthy Start even if the mother did not participate in the program

FIGURE 8-HEALTHY START PRENATAL SCREENINGS



¹¹ The Surgeon General's Call to Action to Support Breastfeeding. (2011, January 20). Retrieved August 03, 2016, from <http://www.surgeongeneral.gov/library/calls/breastfeeding/factsheet.html>

¹² Women, Infants, and Children (WIC). (2016, July 28). Retrieved August 03, 2016, from <http://www.fns.usda.gov/wic/women-infants-and-children-wic>

¹³ Healthy Start Facts. (n.d.). Retrieved August 3, 2016, from <http://www.floridahealth.gov//programs-and-services/childrens-health/healthy-start/documents/aHealthy-start-new-logo-jan-2015.pdf>

during pregnancy. After screening, those meeting risk criteria or who are referred to or request services must receive an initial contact within five days.

In Citrus County during the 2015-2016 fiscal year, **82% of pregnant women consented to be screened for Healthy Start**. Of those who were screened, **24.9% of pregnant women screened as being at risk enough for Healthy Start participation**. Healthy Start services can be obtained through a referral from a healthcare provider or agency or requested by a pregnant woman without the woman having met the screening criteria. Among women who were screened, **24.2% were either referred or requested services from Healthy Start without meeting the risk criteria**.

INFANT HEALTH

PRETERM BIRTH

According to the CDC, preterm birth is the greatest contributor to infant death.¹⁴ Preterm birth can put an infant at risk for short and long term health complications.

TABLE 1- PRETERM BIRTH COMPLICATIONS

Short-Term Complications	Long-Term Complications
<ul style="list-style-type: none"> ▪ Heart defects ▪ Low blood pressure ▪ Greater risk for bleeding in the brain ▪ Problems controlling body temperature ▪ Gastrointestinal problems ▪ Anemia ▪ Infant jaundice ▪ Low blood sugar ▪ Underdeveloped immune system 	<ul style="list-style-type: none"> ▪ Cerebral palsy ▪ Impaired cognitive skills ▪ Vision problems ▪ Hearing loss ▪ Dental problems

Certain factors increase the risk of delivering before thirty-seven weeks gestation and include:

- Low or high maternal age
- Being of the black race
- Low maternal income or socioeconomic status
- Infection during pregnancy
- Previously experiencing a preterm birth
- Carrying twins, triplets, or more
- High blood pressure during pregnancy
- Tobacco, alcohol, and/or substance use during pregnancy
- Late prenatal care
- Stress

Preterm births have been increasing since 2011. Of the births that occurred in the 2013-2015 time-period in Citrus County, **12.6% were preterm (less than thirty-seven weeks gestation)**. This is lower

¹⁴ **Preterm Birth. (2015, December 04). Retrieved August 03, 2016, from <http://www.cdc.gov/reproductivehealth/MaternalInfantHealth/PretermBirth.htm>**

than the state rate of 13.5% for the same time period. There are marked differences in this rate between the racial and ethnic groups. **The black and Hispanic populations experienced preterm births at rates of 17% and 16%.**

LOW BIRTHWEIGHT

Low birthweight can put an infant a greater risk for short and long term health issues¹⁵ and is defined as a birthweight of less than 2500 grams (5.5 lbs.).

TABLE 2-LOW BIRTHWEIGHT COMPLICATIONS

Short-Term Health Problems	Long-Term Health Problems
<ul style="list-style-type: none"> ▪ Respiratory distress syndrome ▪ Bleeding in the brain ▪ Heart defect ▪ Gastrointestinal problems ▪ Vision problems 	<ul style="list-style-type: none"> ▪ Diabetes ▪ Heart disease ▪ High blood pressure ▪ Metabolic syndrome (high blood pressure, diabetes and heart disease all together) ▪ Obesity

Infants can be born with low birthweight as a result of preterm birth or restricted growth during pregnancy. Risk factors include:

- Preterm labor
- Chronic health conditions
- Infections
- Problems with the placenta
- Insufficient weight gain during pregnancy
- Previous low birthweight infant
- Tobacco, alcohol, or substance use during pregnancy
- Lower educational attainment
- Low income or unemployment

The rate of low birthweight infants has been increasing since 2011, and **Citrus County has a higher rate than the state for infants born with low birthweight (9.3% and 8.6% respectively). The black population experienced the highest rate of low birthweight births at 16%, followed by the Hispanic population at 11%.**

VERY LOW BIRTHWEIGHT

Very low birthweight is defined as weight at birth of less than 1500 grams (3.3 lbs.) and between 2013-2015 **1.5% of infants born in Citrus County were designated as having very low birthweight.** This was similar to the state rate of 1.6%. **The black population had the highest rate of very low birthweight infants at 6%.**

¹⁵ **Low birthweight. (2014, October). Retrieved August 03, 2016, from <http://www.marchofdimes.org/complications/low-birthweight.aspx>**

SOCIAL DETERMINANTS OF HEALTH



FIGURE 9-SOCIAL DETERMINANTS OF HEALTH (CDC)

The social determinants of health are the conditions in the places community members live, work, and play that can affect the health of a community. These conditions are wide ranging can include both physical and social determinants. Healthy People 2020 breaks these conditions down into five areas that consist of:¹⁶

- Economic stability
- Education
- Social and community context
- Health and healthcare
- Neighborhood and built environment

Available data for these areas is described below.

ECONOMIC STABILITY

Communities with higher rates of poverty tend to experience poorer health outcomes.¹⁷ Income plays a major role in determining access to healthcare through available payment options, transportation, and scheduling availability.

POVERTY AND INCOME

The poverty threshold is determined by the size of the family and the number of related children under the age of 18 in a household. Because poverty data is only available through 2014, the 2014 poverty threshold will be used here. The threshold for poverty in 2014 for a family of four, with two related children in the household, was \$24,091. The poverty threshold for an individual under the age of 35 was \$12,316.¹⁸

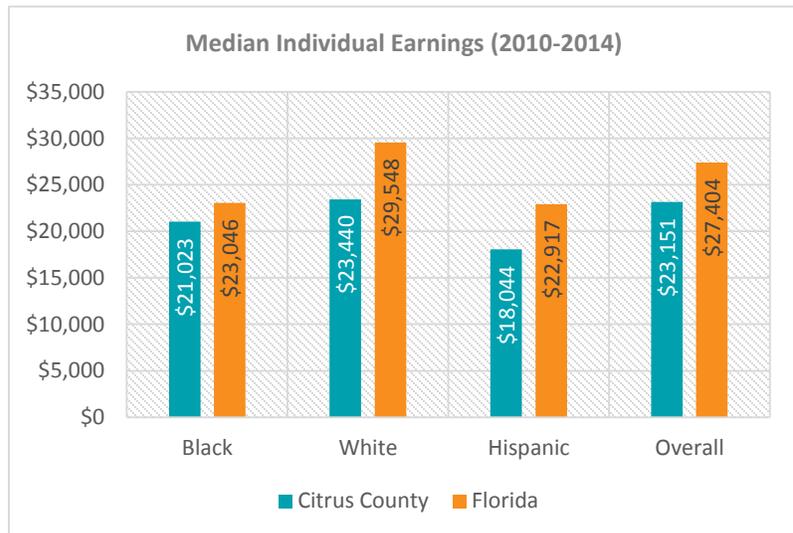


FIGURE 10-MEDIAN INDIVIDUAL EARNINGS

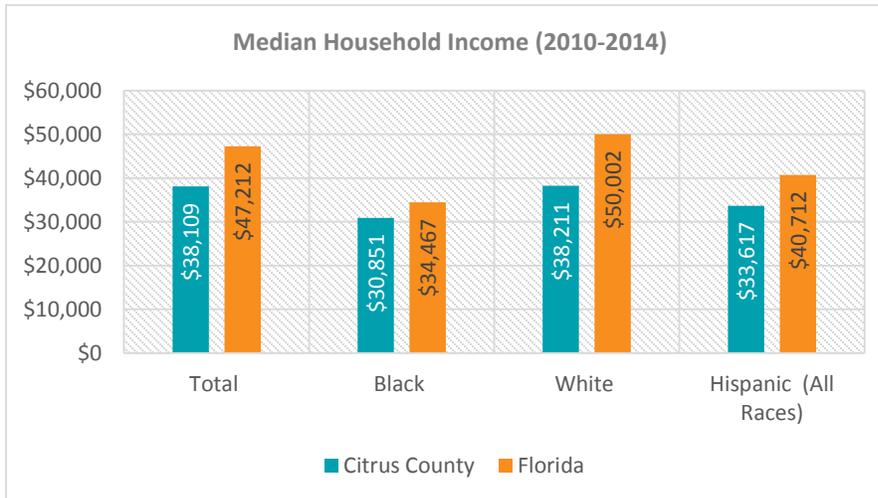
¹⁶ Social Determinants of Health. (2016, August 4). Retrieved August 05, 2016, from <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>

¹⁷Ludwig, J., Sanbonmatsu, L., Gennetian, L., Adam, E., Duncan, G. J., Katz, L. F., . . . Mcdade, T. W. (2011, October 20). Neighborhoods, Obesity, and Diabetes — A Randomized Social Experiment. *New England Journal of Medicine N Engl J Med*,365(16), 1509-1519. doi:10.1056/nejmsa1103216

¹⁸ Poverty Thresholds. (2016, May 16). Retrieved August 05, 2016, from <http://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html>

In 2014 **17.3% of individuals and 29.9% of individuals under the age of eighteen lived below the poverty level**, both higher than the state rates of 16.7 and 24.1% respectively.

Female-headed households with children under the age of five were more likely to live in poverty in Citrus County than not (52.8%), though this is similar to the state rate of 53.4%. According to the poverty threshold definition in 2014 this means that these households only made between \$16,317 and \$27,820 depending on if there were one to four children in the household.



The median individual earnings in Citrus County from 2010-2014 was \$23,151, much lower than the state individual earnings of \$27,404. This measure also shows that **median individual earnings for women at \$21,079 was much lower than the median individual earnings for men (\$26,537)**. **Black and Hispanic individual earnings (\$21,023 and**

FIGURE 11-MEDIAN HOUSEHOLD INCOME (2010-2014)

\$18,044, respectively) were lower than for the white population. The median earnings for all genders and racial/ethnic groups were much lower than the state earnings for each group.

From 2010-2014 Citrus County had a lower household income overall and for all racial and ethnic groups than the state. **Overall the median household income in Citrus County was \$38,109** while the state median household income was \$47,212. **The black population had the lowest household income of \$30,851, followed by the Hispanic population at \$33,617.**

EMPLOYMENT

The overall unemployment rate in Citrus County between 2010 and 2014 was higher than the state (14.1% and 10.9% respectively). The highest unemployment rates were seen in the black (16.1%) and Hispanic population (16.5%).

EDUCATION FACTORS

High levels of educational achievement are associated with higher lifetime earnings and better health outcomes.¹⁹

HIGH SCHOOL GRADUATION RATES

The graduation rates for the 2014-2015 school year in Citrus County were 77.4%, similar to the state rate of 77.8%. **The lowest graduation rates were seen in the black population with a graduation rate of 61.4%.**

¹⁹ Health, United States, 2011. (2012). Retrieved August 11, 2016, from <http://www.cdc.gov/nchs/data/hus/hus11.pdf>

Of individuals in Citrus County who are 25 years old or older in 2010, 85% had a high school diploma.

EARLY CHILDHOOD EDUCATION AND DEVELOPMENT

In 2014, **66% of Citrus County fourth grade students were at achievement level on the FCAT.** This was higher than the state rate of 61%.

HIGHER EDUCATION

In 2014, **only 16.8% of individuals 25 years old or older had a bachelor's degree or higher.** This is noticeably lower than the state rate of 26.8%.

HEALTHCARE FACTORS

BABY-FRIENDLY HOSPITALS

The Baby-Friendly Hospital Initiative is a global program that aims to “encourage and recognize hospitals and birthing centers that offer an optimal level of care for infant feeding and mother/baby bonding.” The program requires implementation of the “Ten Steps to Successful Breastfeeding” and the “International Code of Marketing of Breast-milk Substitutes.” Hospitals that are designated as Baby-Friendly are more likely to have mothers who initiate and sustain exclusive breastfeeding and reduce disparities in the rates of breastfeeding between sociodemographic and racial/ethnic groups.²⁰

The ten steps to successful breastfeeding include:

1. Have a written breastfeeding policy that is routinely communicated to all healthcare staff.
2. Train all healthcare staff in the skills necessary to implement this policy.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers initiate breastfeeding.
5. Show mothers how to breastfeed and how to maintain lactation, even if they are separated from their infants.
6. Give infants no food or drink other than breast-milk, unless medically indicated.
7. Practice rooming in – allow mothers and infants to remain together 24 hours a day.
8. Encourage breastfeeding on demand.
9. Give no pacifiers or artificial nipples to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or birth center.

Currently neither Citrus Memorial Hospital or Seven Rivers Regional Hospital are designated as Baby Friendly but have expressed interest in the designation.

PROVIDER RATES

Citrus County has lower healthcare provider rates than the state as of 2015. **The overall physician rate was 154 physicians per 100,000 residents.** Contrastingly, the state had 259.3 physicians per 100,000 residents. There were **only 33.1 dentists per 100,000 residents in Citrus County,** while the state had 59.5 dentists per 100,000 residents. In 2015 there were **only 18.3 family practitioners per 100,000 residents in Citrus County.**

²⁰ **Why Seek Designation?** (n.d.). Retrieved August 03, 2016, from <https://www.babyfriendlyusa.org/faqs/why-see-designation>

The lowest provider rates were seen in pediatricians (2.6 per 100,000 residents) and OB/GYNs (4.9 per 100,000 residents).

INTERPERSONAL-LEVEL HEALTH

In Citrus County in 2013, **71.2% of the adult population reported that their health was “good to excellent.”** However, in 2015 **16% of the adult population smoked and 27% were obese.**

Overall, Citrus County experiences lower rates of sexually transmitted infections than the state (**278.2 infections per 100,000 population compared to 555 infections per 100,000 people in the population between 2013 and 2015**). However, Citrus County experiences higher rates of chlamydia infections in the overall population and among girls between the ages of fifteen and nineteen years old than the state. **Between 2013 and 2015 there were 791.2 chlamydia infections per 100,000 people in the Citrus County population** while the state rate was 433.8 infections per 100,000 people in the population. **In women between the ages of fifteen and nineteen in the same time frame, there were 2,898.6 infections per 100,000 women in that age group in Citrus County.** Lower rates than state were seen for gonorrhea and HIV infections. The lowest infection rate was seen for infectious syphilis.

NEIGHBORHOOD AND BUILT ENVIRONMENT

Increased access to healthy food and physical activity opportunities increases the likelihood of individuals in a community engaging in healthy eating and making healthier food choices. Ideally, people can reach these opportunities within a half mile from where they live.

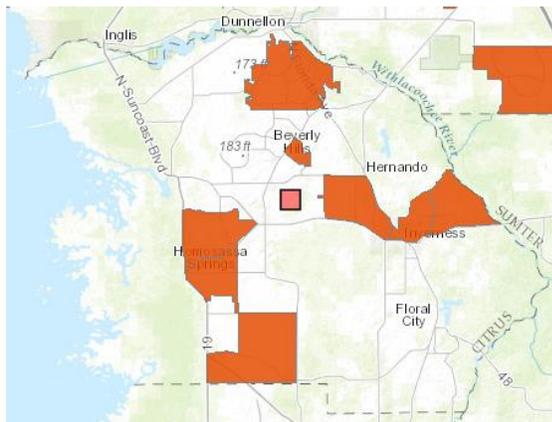


FIGURE 12-CENSUS TRACTS WITH HIGHER CONCENTRATION OF LOW INCOME HOUSEHOLDS AND LOW ACCESS TO HEALTHY FOOD

Citrus County residents have lower access than the state to both recreational space and healthy food sources within a half mile from where they live. **Only 6.6% of Citrus County residents in 2010 had access to recreational space within a half mile of their home, yet the state access rate was 44.8%.** Similarly, **only 6.2% of county residents had access to a healthy food source within a half mile from where they lived in 2013, dramatically lower than the state rate of 31.8%.**

Certain census tracts in Citrus County have shown to have both low access to healthy food and to have a higher concentration of residents with low income.

CRIME

Citrus County experiences less crime per 100,000 residents than the state. **In 2015 there were 1,647.3 crimes per 100,000 residents** while the state experienced 3,342.7 crimes per 100,000 residents. However, Citrus County experiences a higher rate of domestic violence offences than the state of Florida. **There were 602.8 domestic violence offences per 100,000 residents in Citrus County in 2015** while the state saw 543.4 domestic violence offenses per 100,000 residents. **The majority (79%) of the domestic violence offenses committed in Citrus County were simple assaults.**

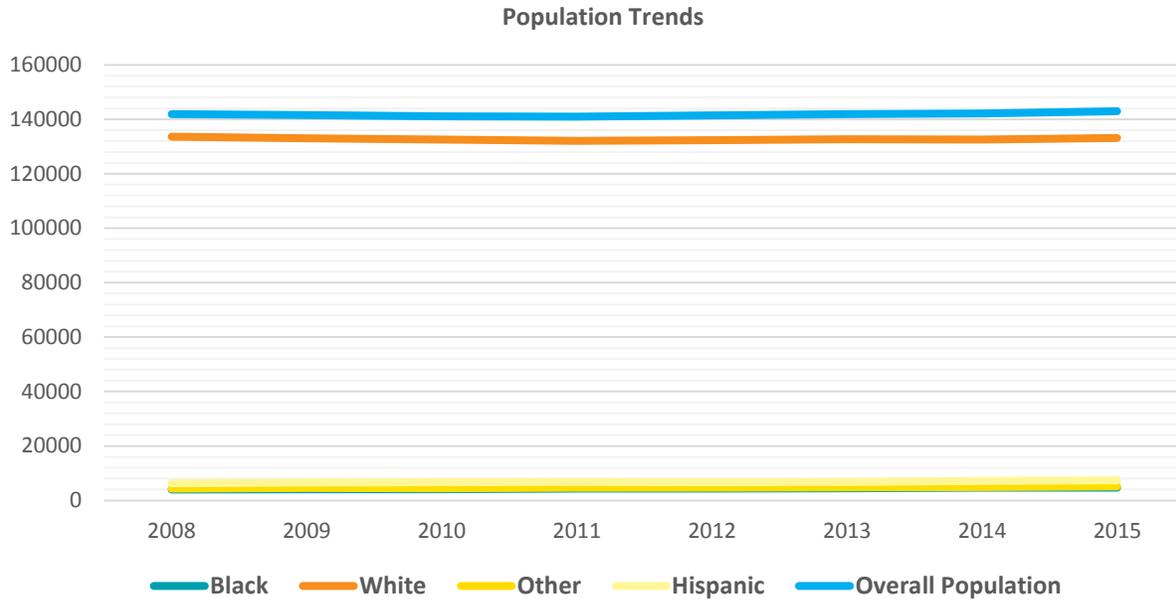
INEQUITIES

In Citrus County between 2010 and 2014, **black households on average made 20% less than white households.** The black population also had far lower rates of home ownership (**1.8%**) than the white population (**96.2%**) during the same time period. According to the U.S. Census Bureau, the overall

population of Citrus County is moderately segregated. **To be fully integrated, 41% of the white or black population would need to relocate within the county.**

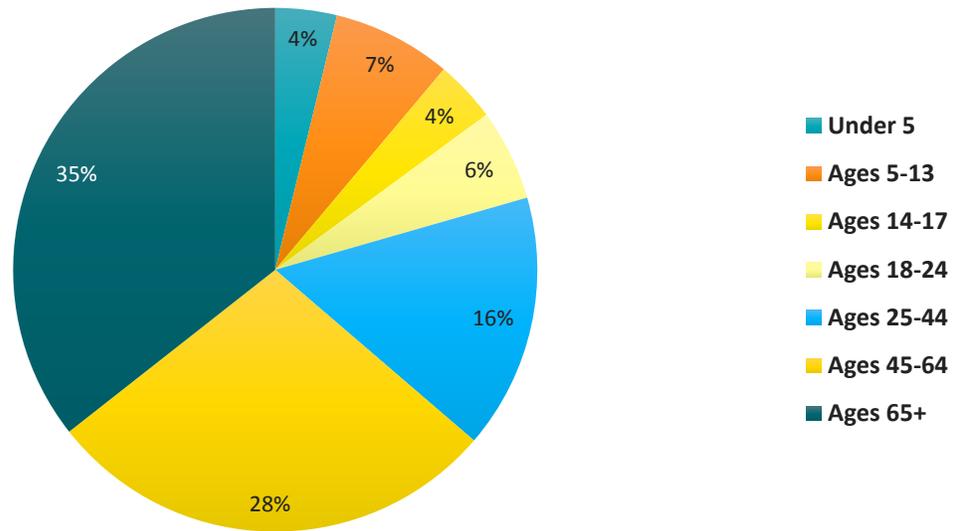
APPENDIX

POPULATION DATA



Population Trends									
	2008	2009	2010	2011	2012	2013	2014	2015	Data Source
Black	3,961	4,056	4,095	4,311	4,376	4,441	4,643	4,710	FL CHARTS
White	133,604	132,986	132,529	132,067	132,377	132,672	132,566	133,120	Florida Department of Health
Other	4,361	4,539	4,512	4,640	4,701	4,783	4,963	5,112	
Hispanic	6,311	6,504	6,633	6,834	6,657	6,812	7,156	7,332	
Overall	141,926	141,581	141,136	141,018	141,454	141,896	142,172	142,942	

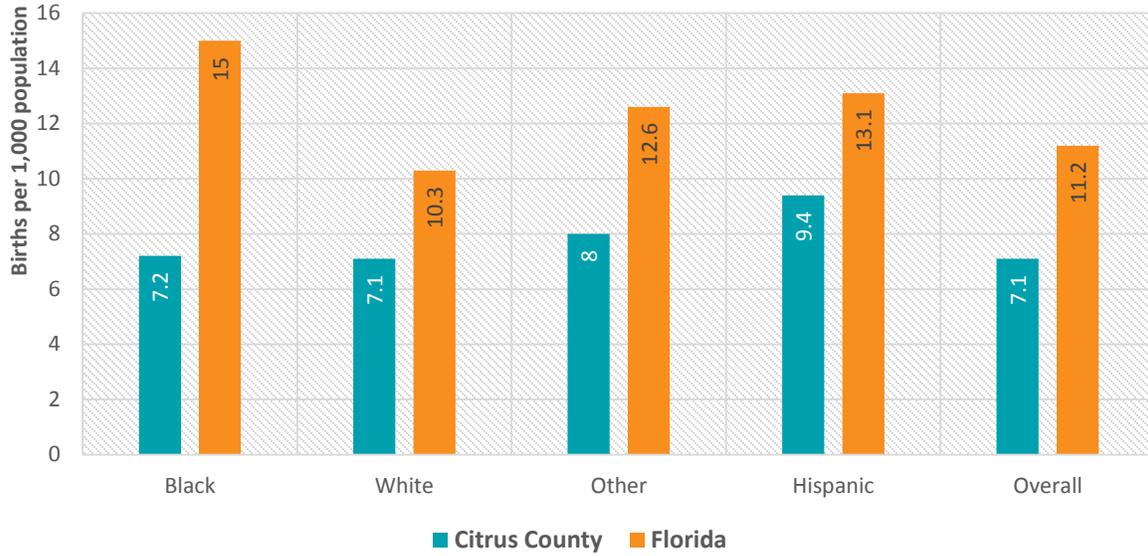
Population Age Distribution



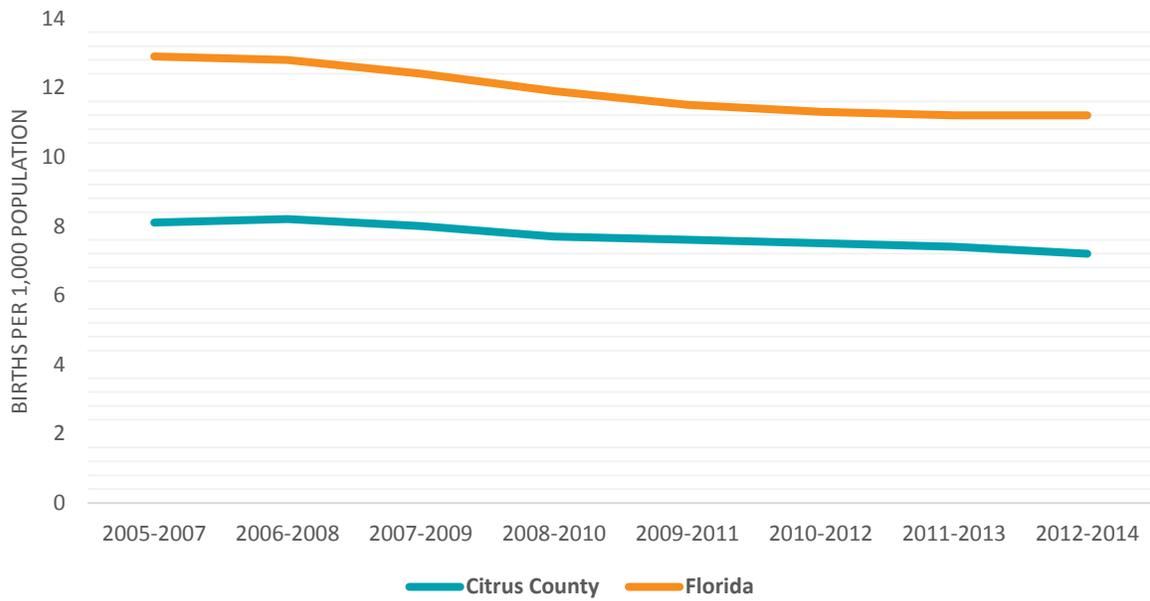
Age Distribution (2015)		Data Source
Under 5	3.79%	U.S. Census Bureau
Ages 5-13	7.33%	Population Division
Ages 14-17	3.79%	
Ages 18-24	5.64%	
Ages 25-44	15.75%	
Ages 45-64	28.09%	
Ages 65+	35.61%	

BIRTH DATA
 GRAPHS AND CHARTS

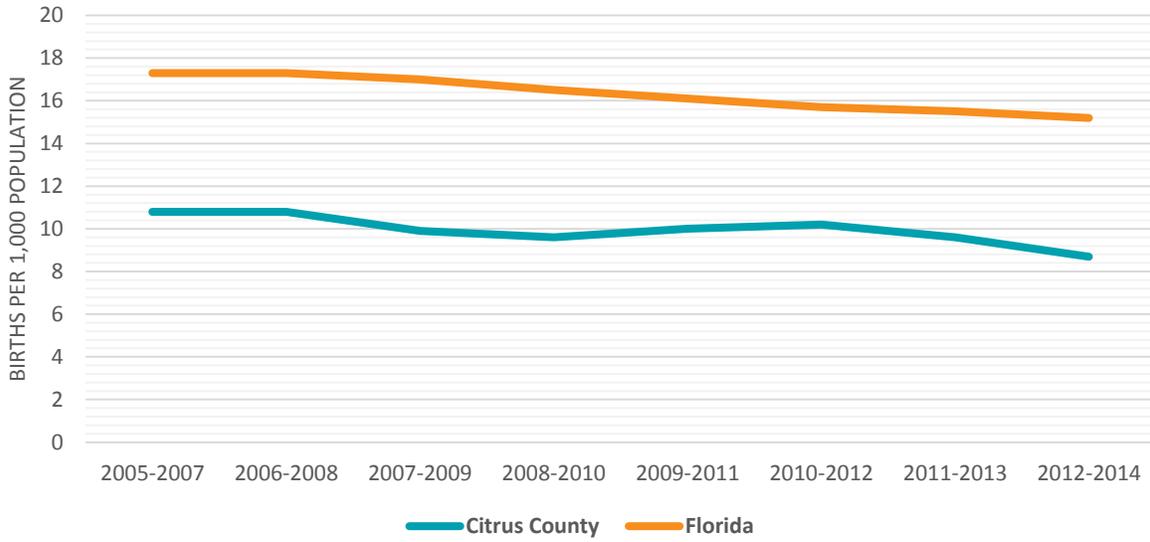
Birth Rates by Race (2013-2015)



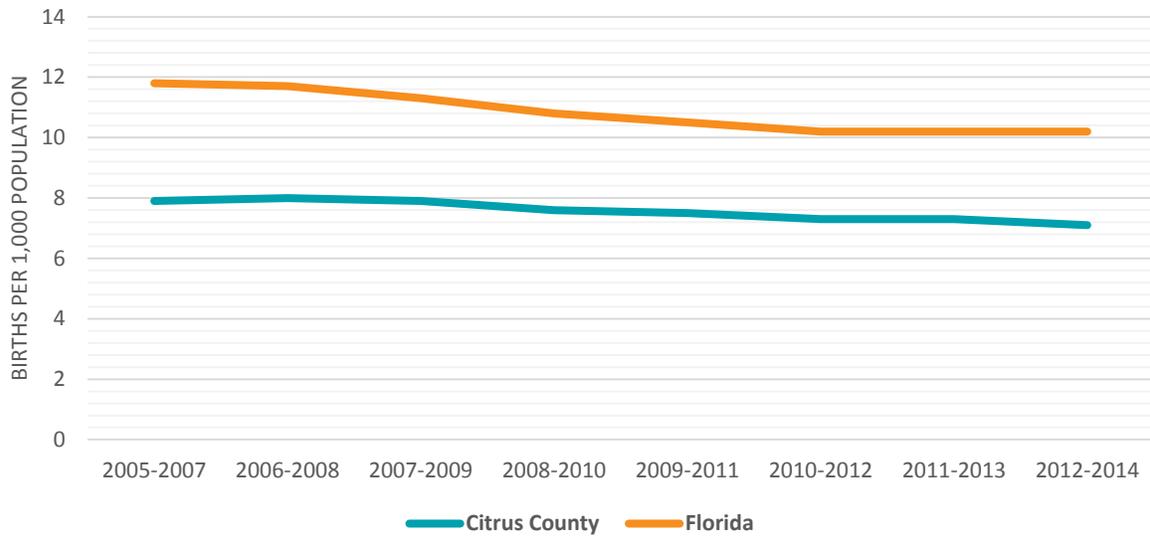
Overall Birth Rate Trend



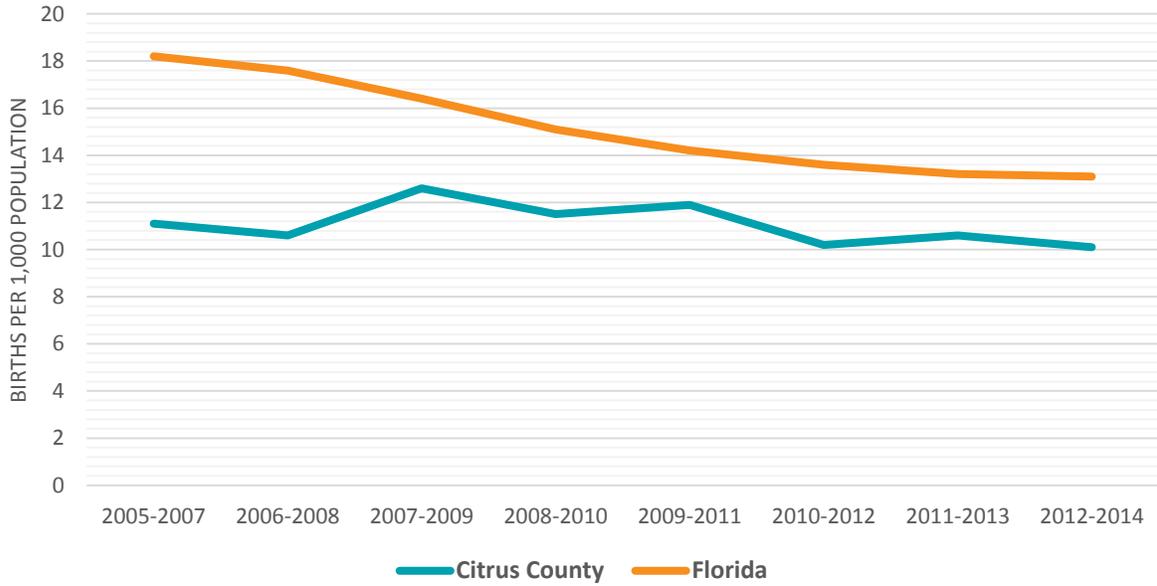
Black Birth Rate Trend



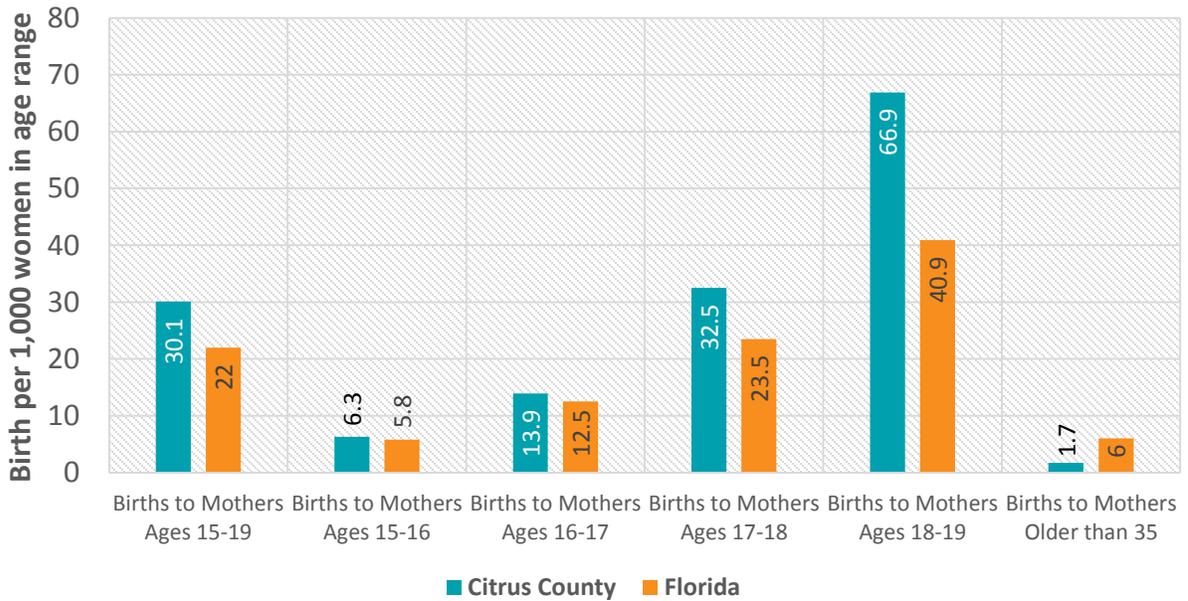
White Birth Rate Trend



Hispanic Birth Rate Trend



Births by Mothers Age (2013-2015)

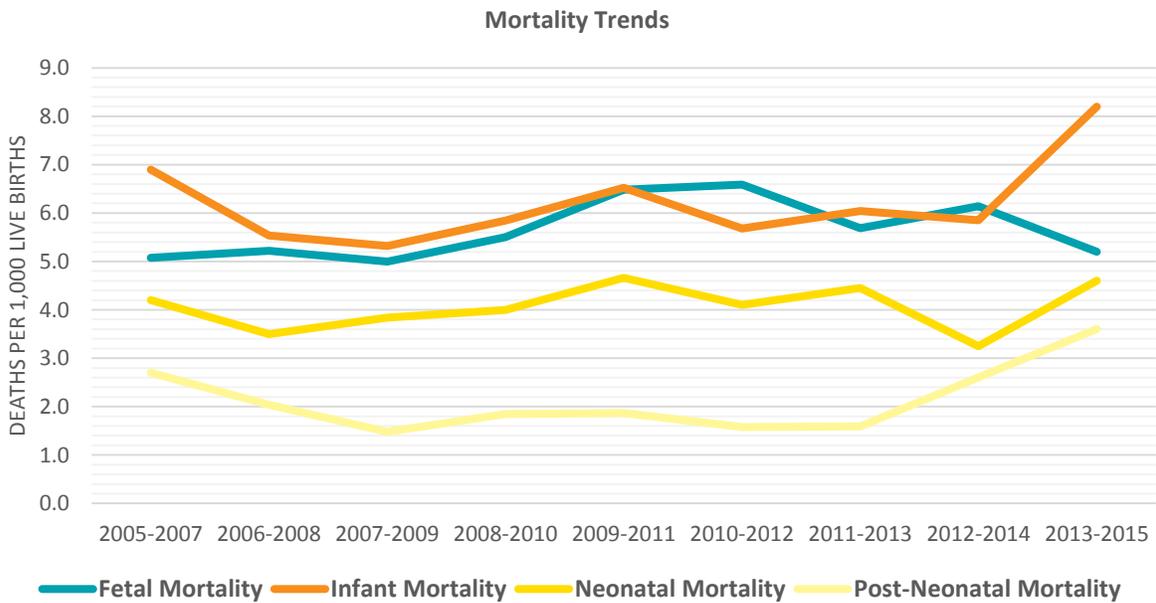
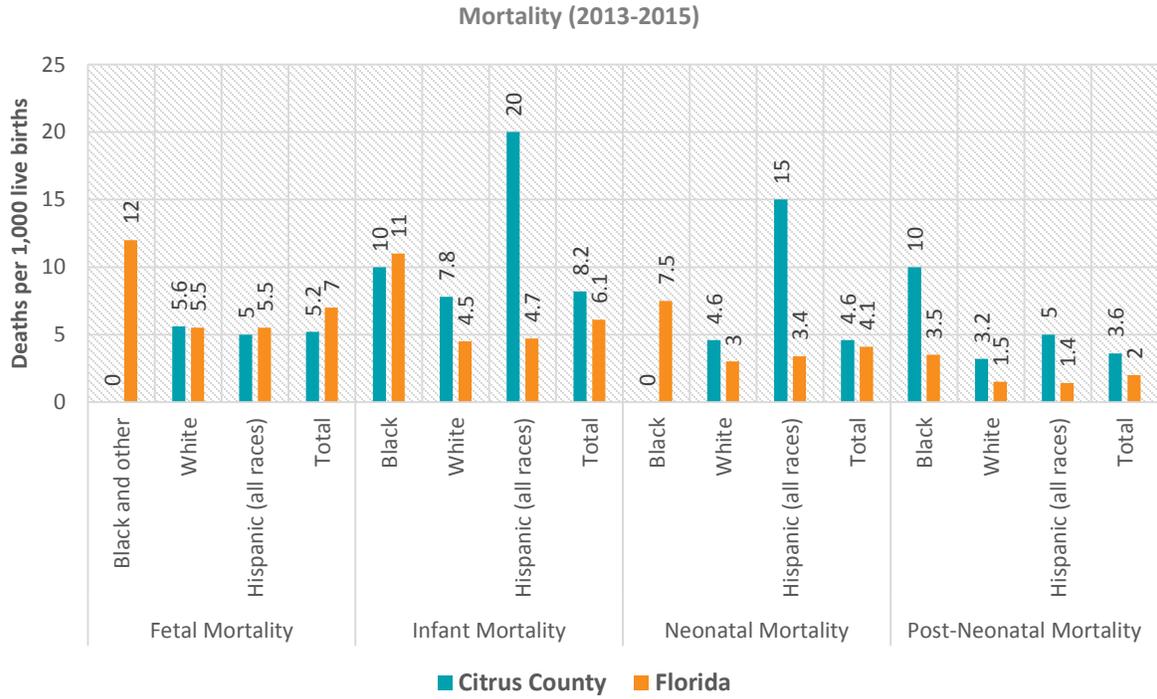


DATA TABLES

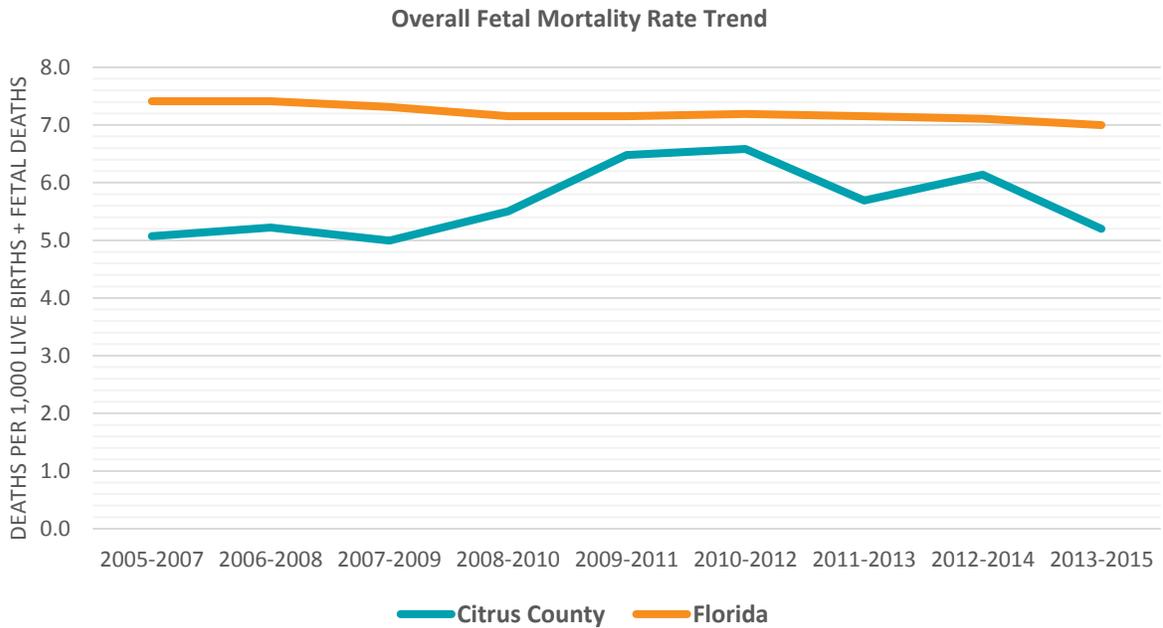
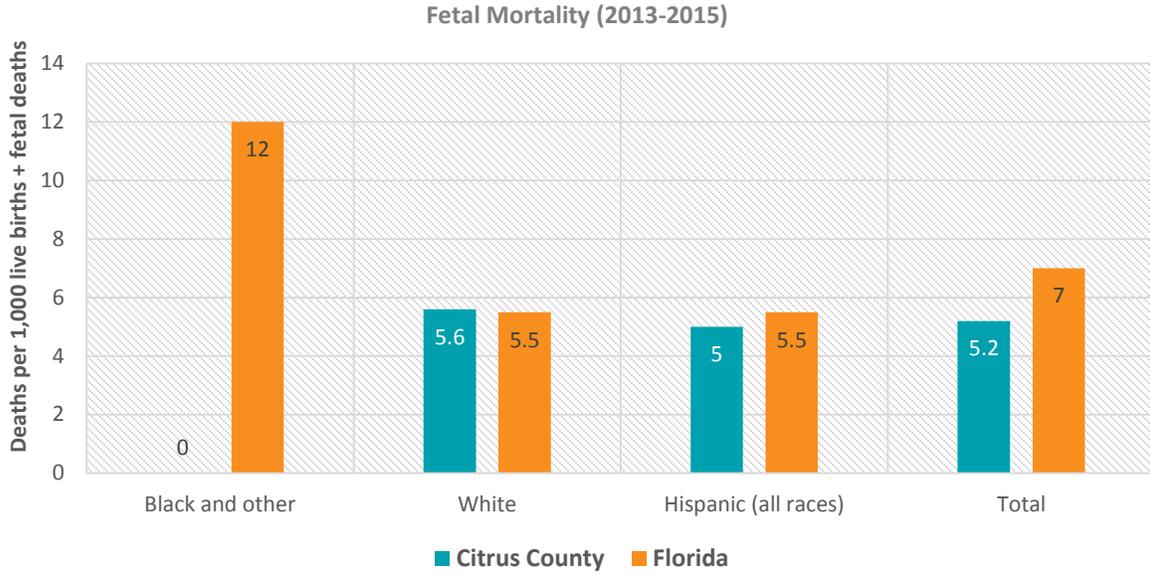
Birth Rates (births per 1,000)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida																	
Black	10.8	17.3	10.8	17.3	9.9	17.0	9.6	16.5	10.0	16.1	10.2	15.7	9.6	15.5	8.7	15.2	7.2	15.0	FL CHARTS
White	7.9	11.8	8.0	11.7	7.9	11.3	7.6	10.8	7.5	10.5	7.3	10.2	7.3	10.2	7.1	10.2	7.1	10.3	Florida Department of Health
Other	10.8	15.2	10.3	14.6	8.8	13.7	8.2	12.5	7.8	12.0	8.8	12.2	9.5	12.5	8.3	12.7	8.0	12.6	
Hispanic	11.1	18.2	10.6	17.6	12.6	16.4	11.5	15.1	11.9	14.2	10.2	13.6	10.6	13.2	10.1	13.1	9.4	13.1	Bureau of Vital Statistics
Overall	8.1	12.9	8.2	12.8	8.0	12.4	7.7	11.9	7.6	11.5	7.5	11.3	7.4	11.2	7.2	11.2	7.2	11.2	

Birth Rates by Mother's Age (per 1,000)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida																	
Births to Mothers Ages 15-19	45.4	43.1	45.6	42.6	44.7	40.5	44.3	36.8	41.9	32.9	40.5	29.6	37.3	26.7	34.2	24.3	30.1	22	Florida Department of Health
Births to Mothers Ages 15-16	8.3	15.1	8.3	14.3	7.3	13.1	8.4	11.2	9.3	9.7	9	8.4	7.6	7.5	6.6	6.6	6.3	5.8	
Births to Mothers Ages 16-17	22.6	29.5	23.7	29	22.3	26.6	21	23.3	20.2	20.3	20.4	17.8	19.4	15.8	17.8	13.9	13.9	12.5	
Births to Mothers Ages 17-18	54	49.5	57.1	49.4	54.6	46.5	51.3	42	43.4	37	43.7	32.8	41.9	29.1	39.7	26.1	32.5	23.5	Bureau of Vital Statistics
Births to Mothers Ages 18-19	107.4	74.3	105.5	73.9	104.3	71.2	104.6	35.6	96.8	59.5	93	53.9	84.9	49	79.6	45	66.9	40.9	
Births to Mothers Older than 35	2.5	6.3	2.3	6.2	2.1	6.1	1.9	5.8	1.9	5.7	1.9	5.6	1.7	5.7	1.6	5.8	1.7	6	

MORTALITY DATA

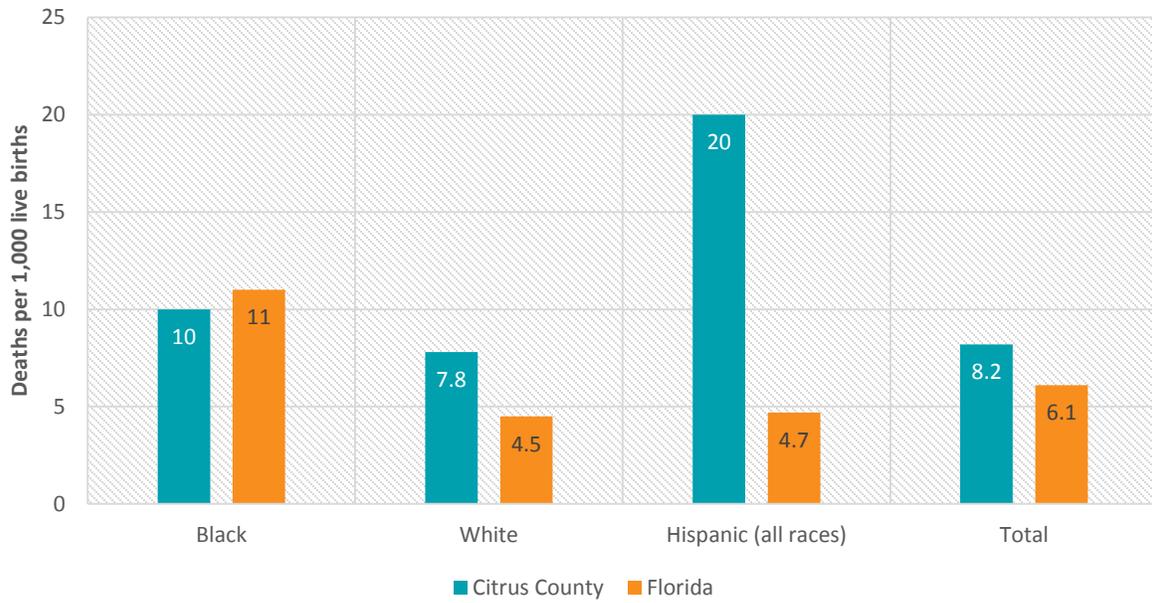


FETAL MORTALITY GRAPHS AND CHARTS

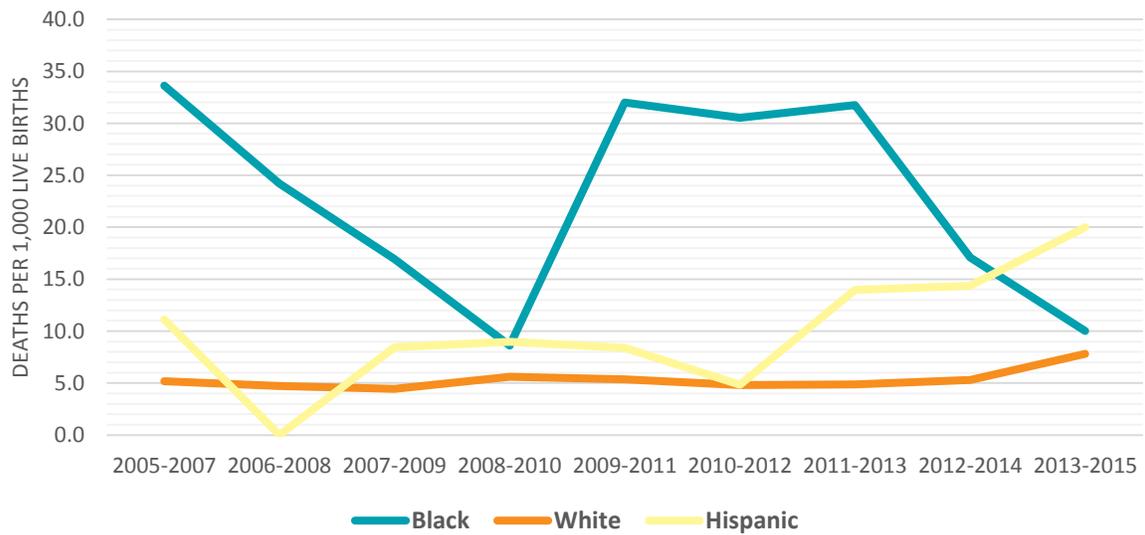


INFANT MORTALITY GRAPHS AND CHARTS

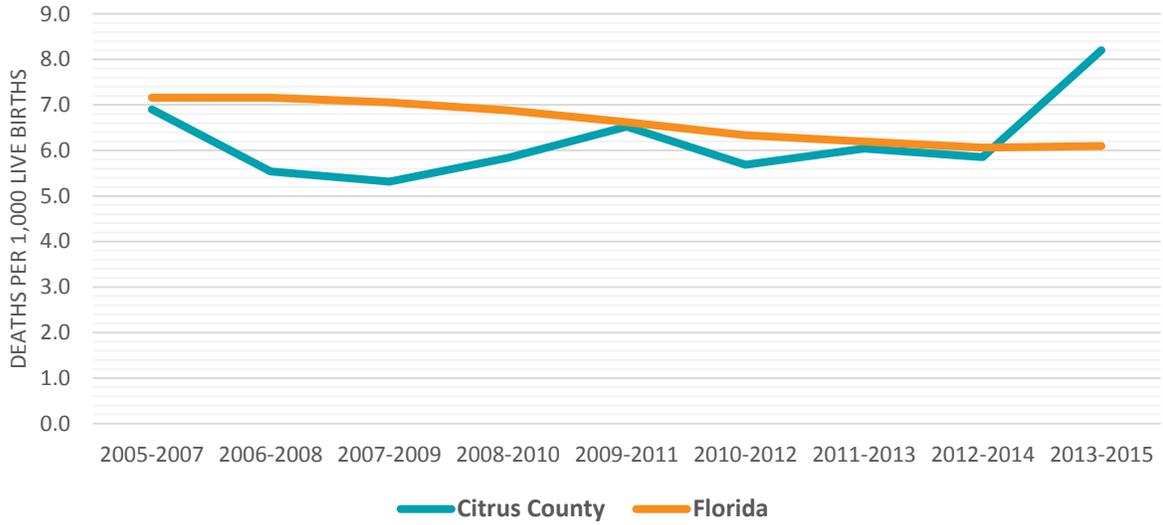
Infant Mortality (2013-2015)



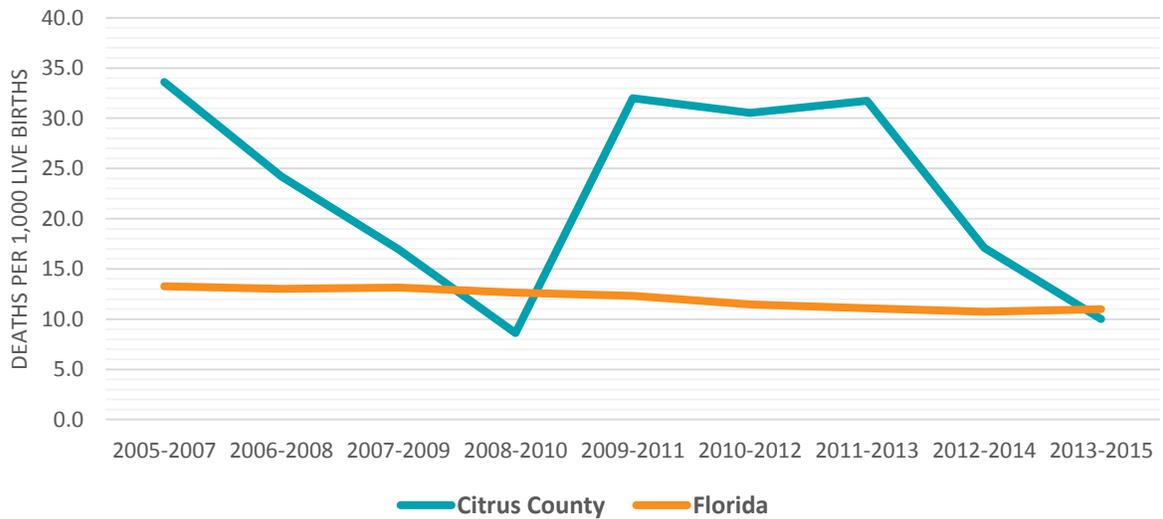
Citrus County Infant Mortality Rate Trends by Race



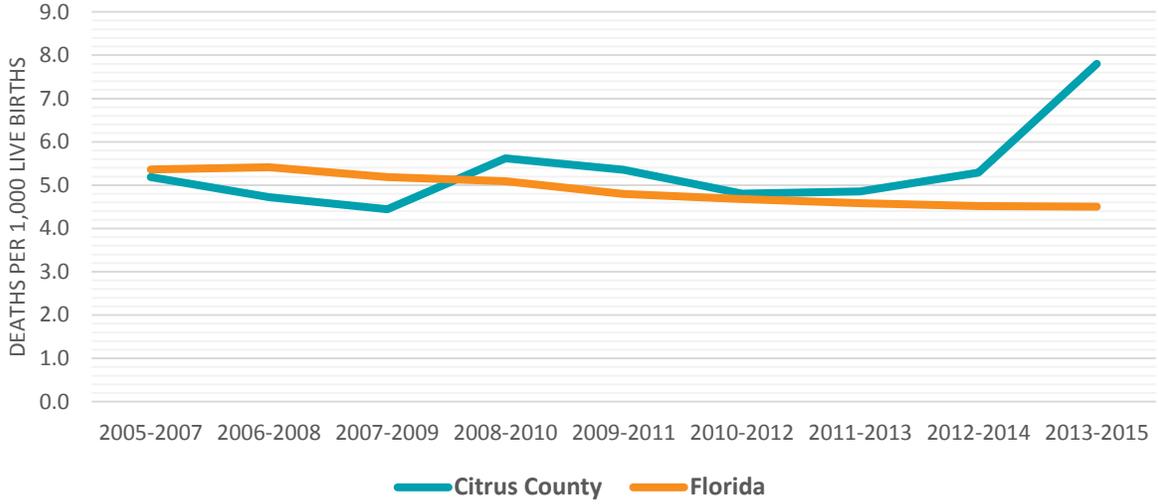
Overall Infant Mortality Rate Trend



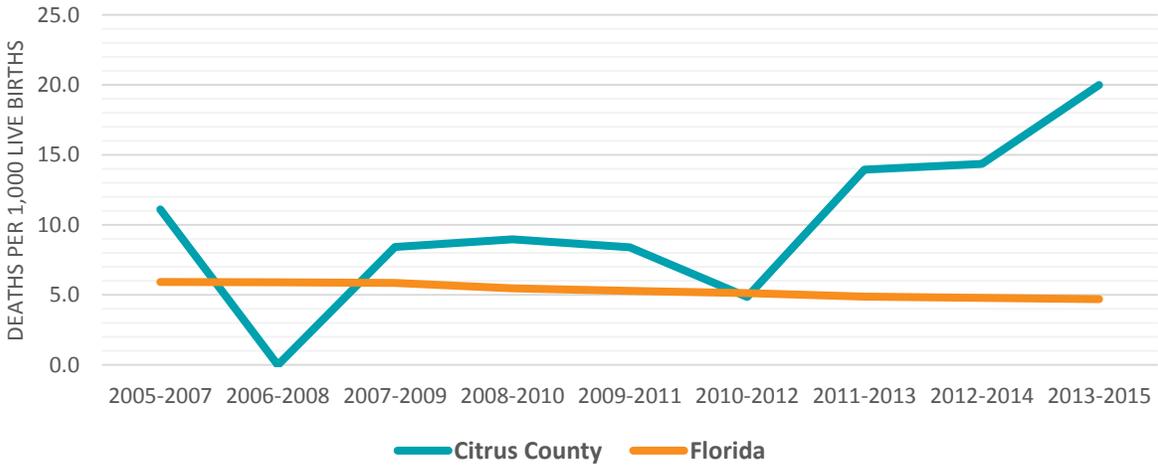
Black Infant Mortality Rate Trend



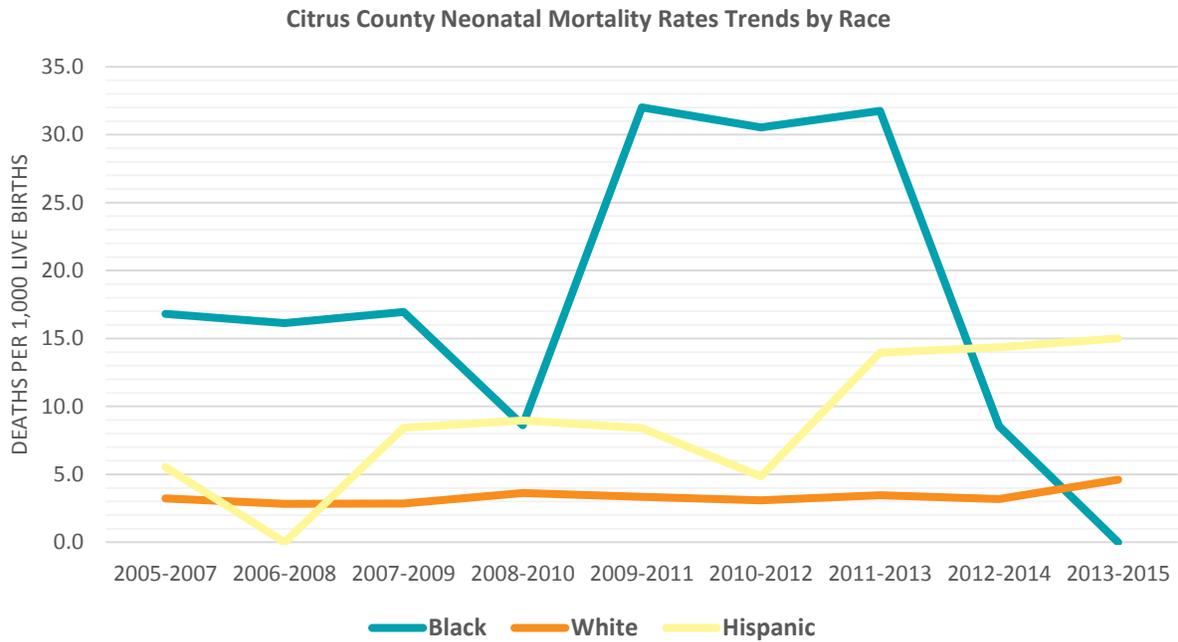
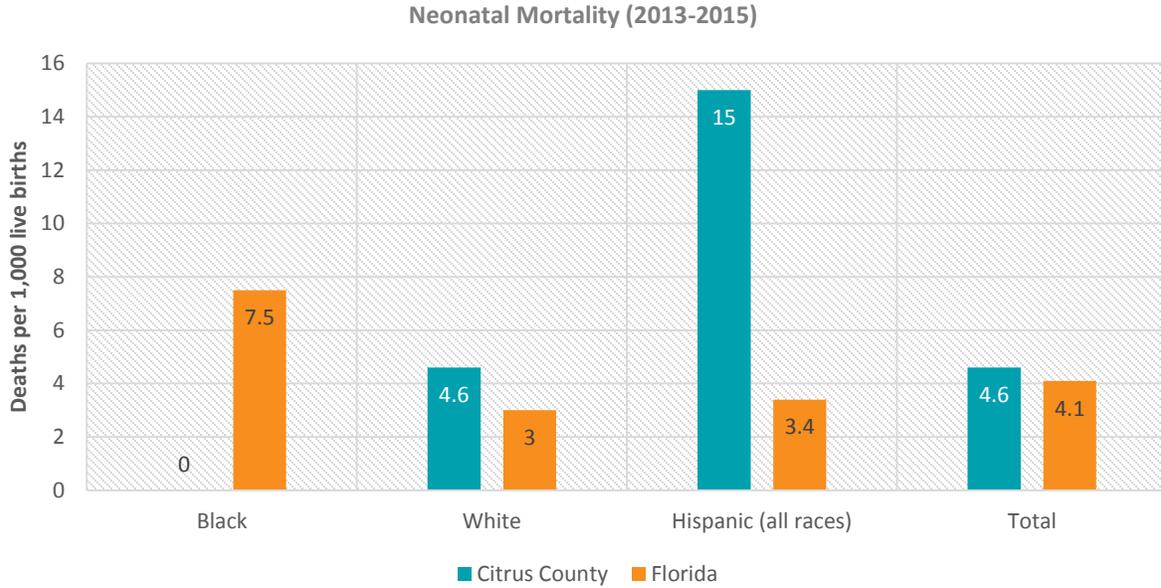
White Infant Mortality Rate Trend

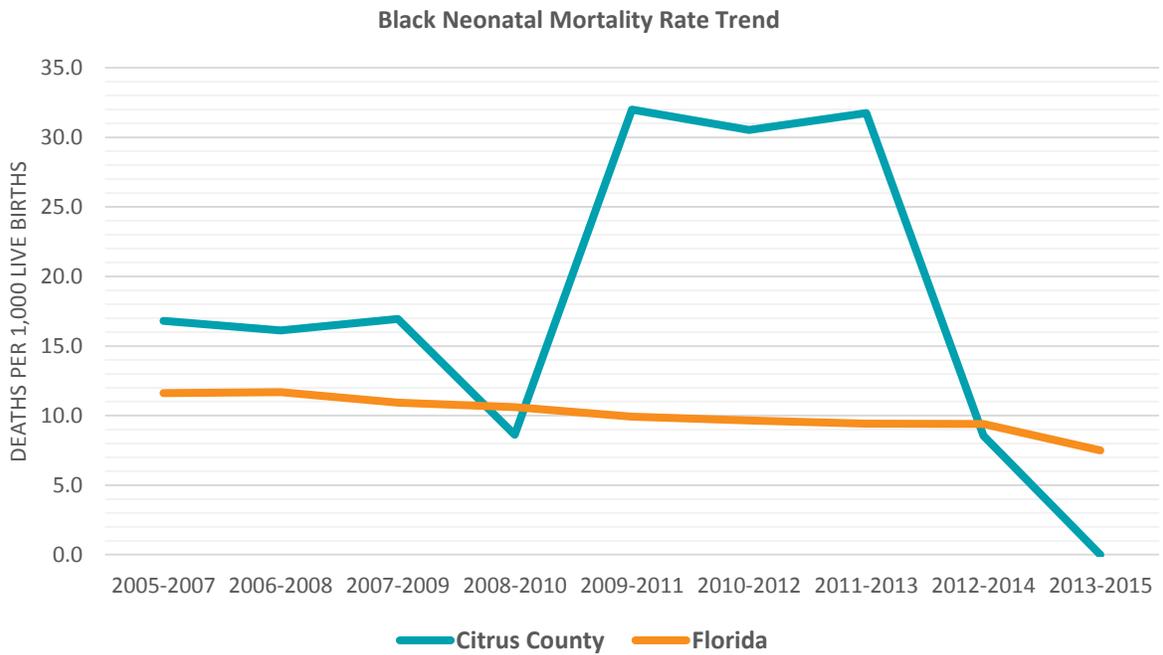
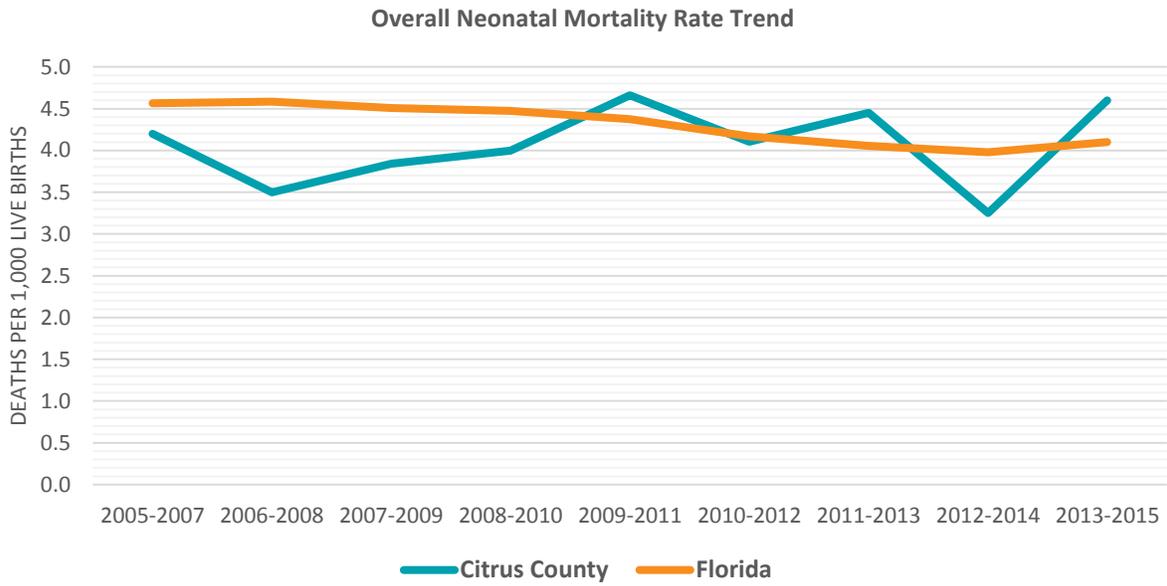


Hispanic Infant Mortality Rate Trend

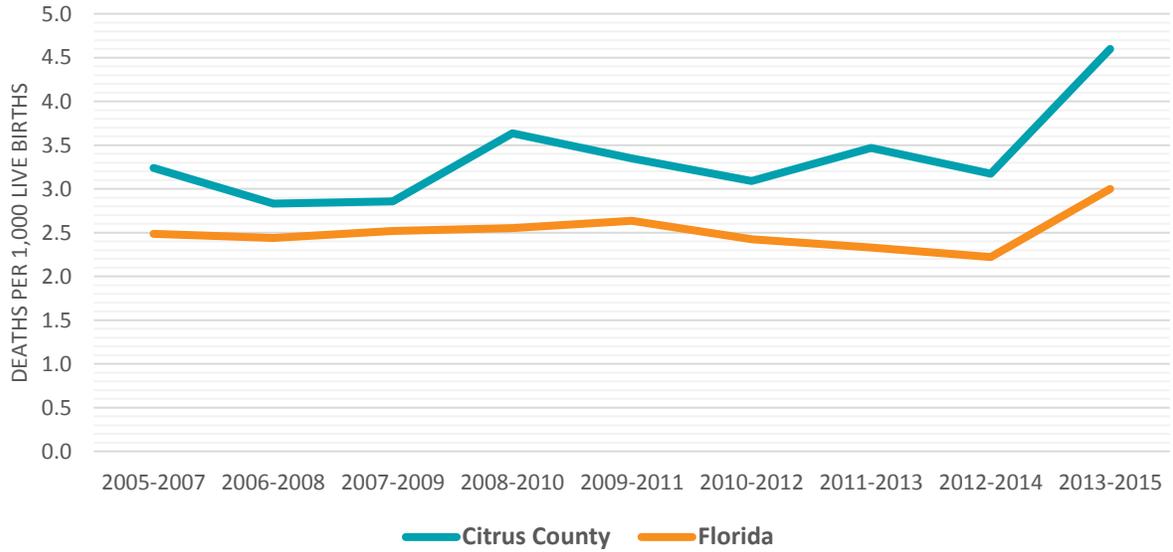


NEONATAL MORTALITY GRAPHS AND CHARTS

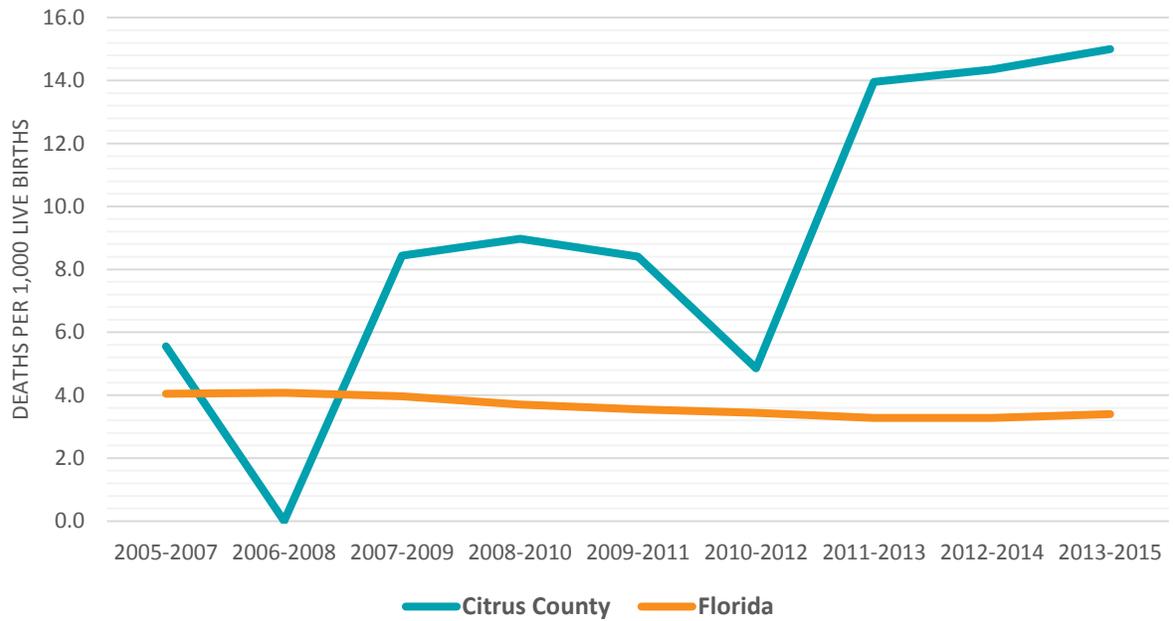




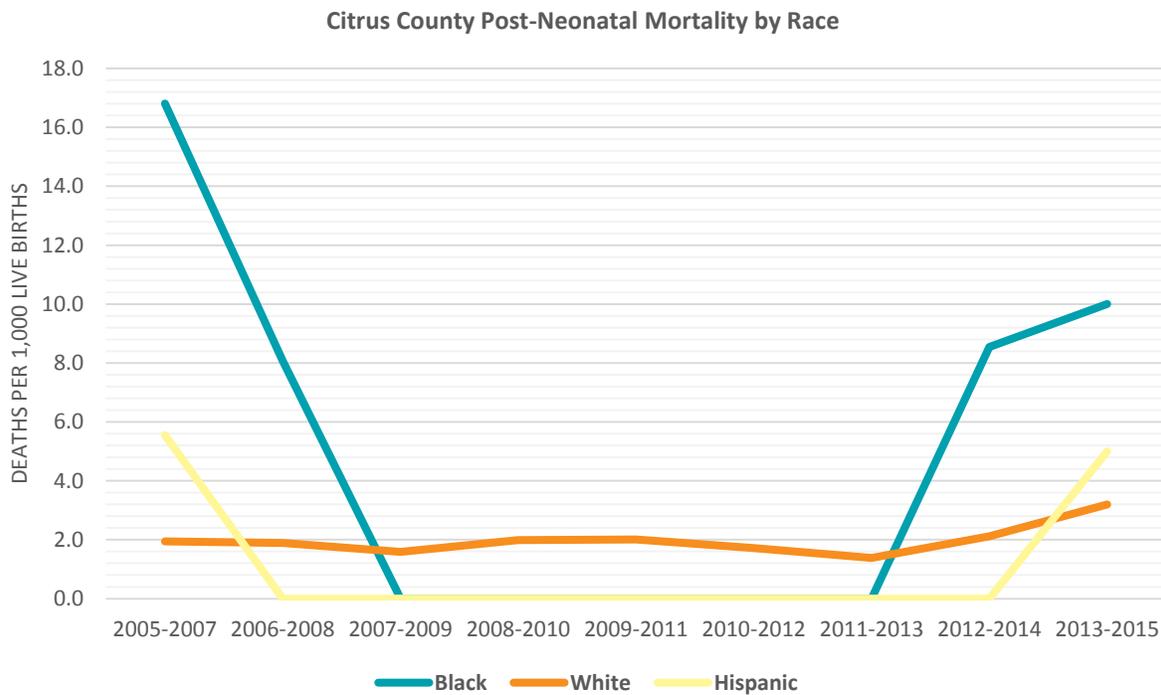
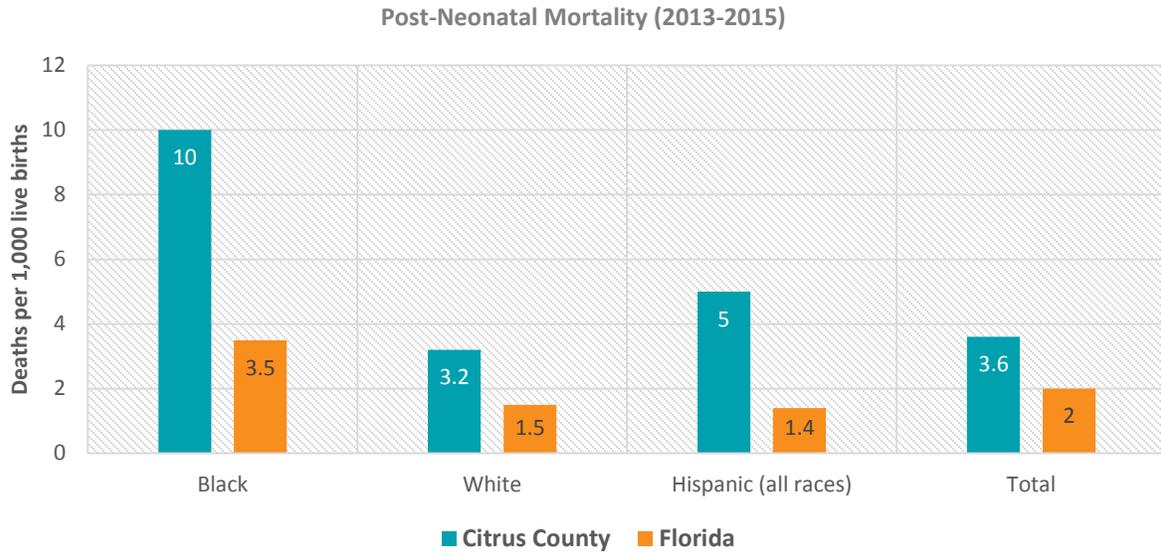
White Neonatal Mortality Rate Trend



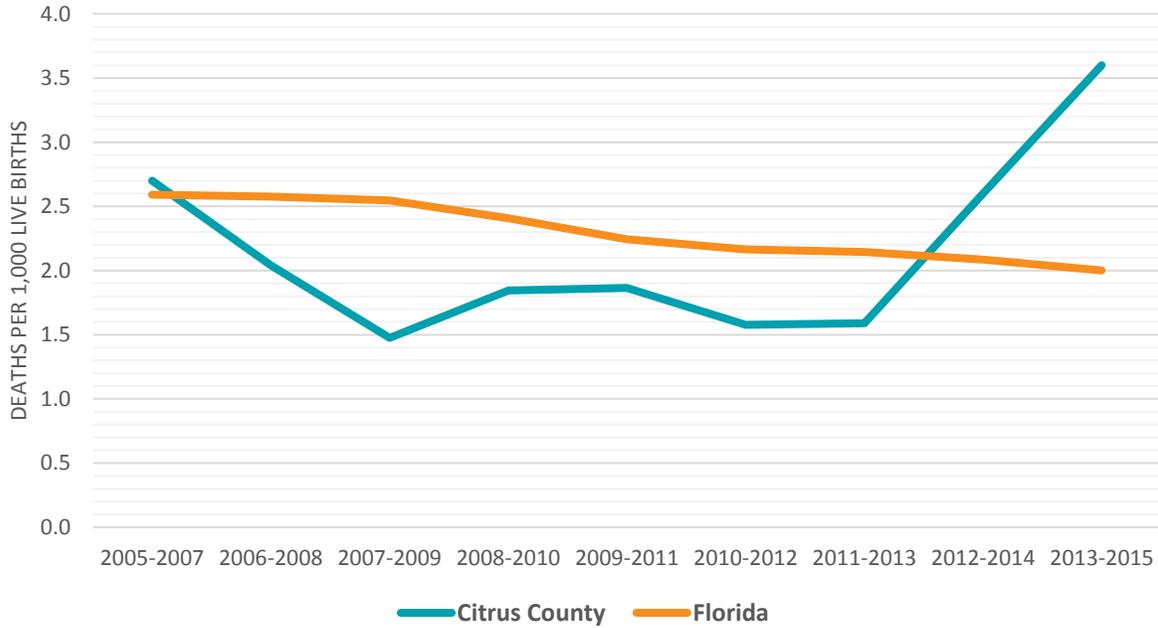
Hispanic Neonatal Mortality Rate Trend



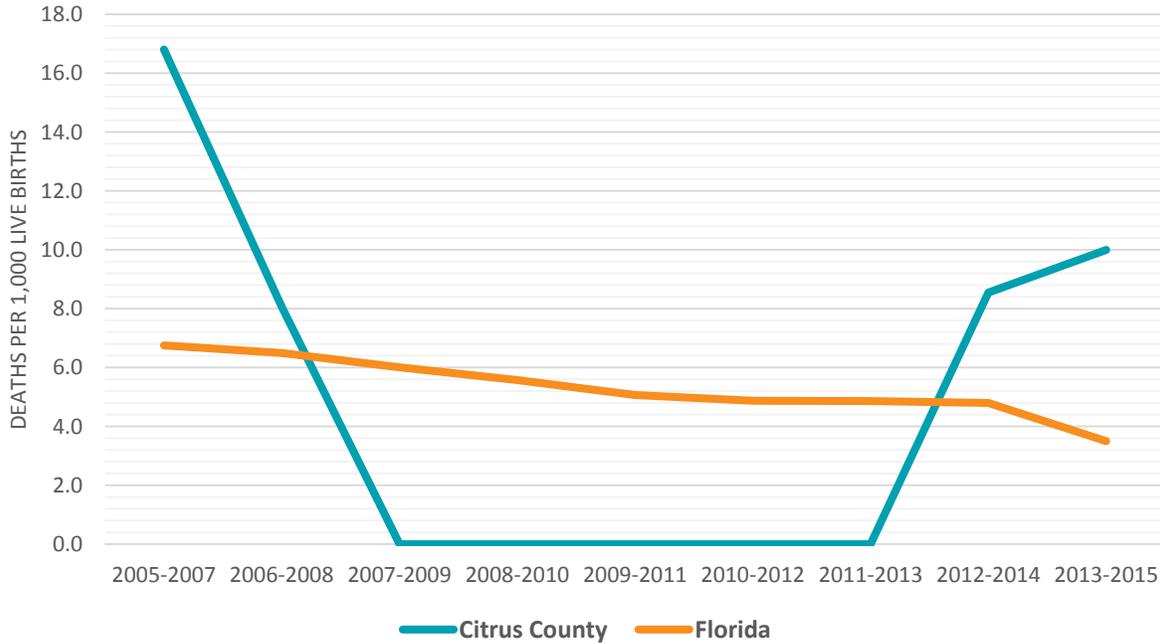
POST-NEONATAL MORTALITY GRAPHS AND CHARTS



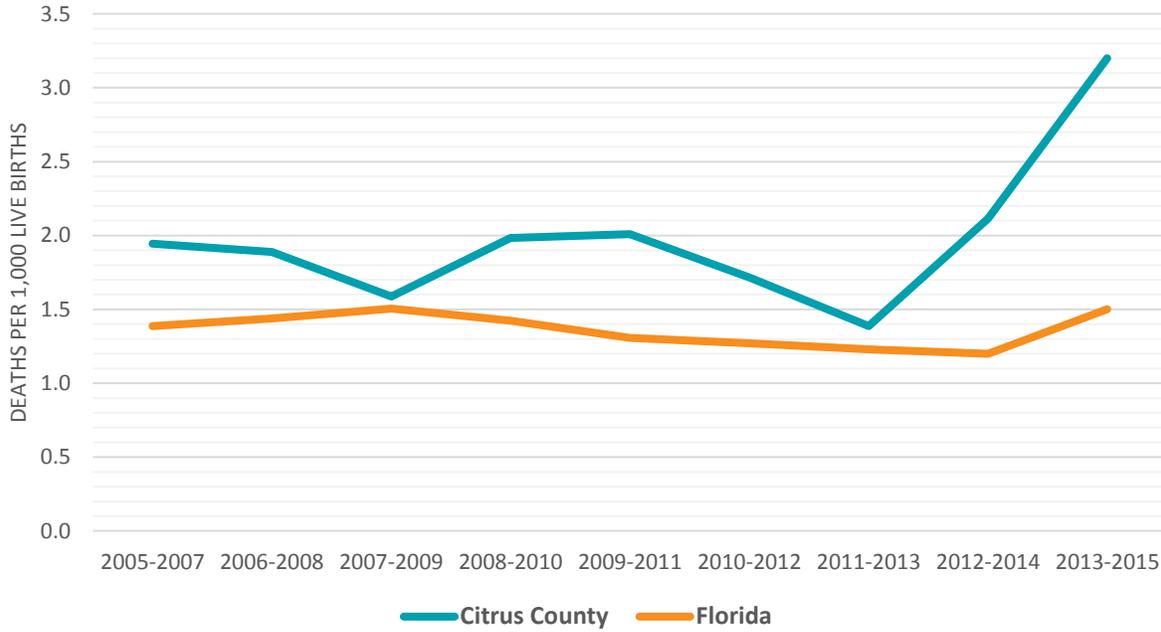
Overall Post-Neonatal Mortality Rate Trend



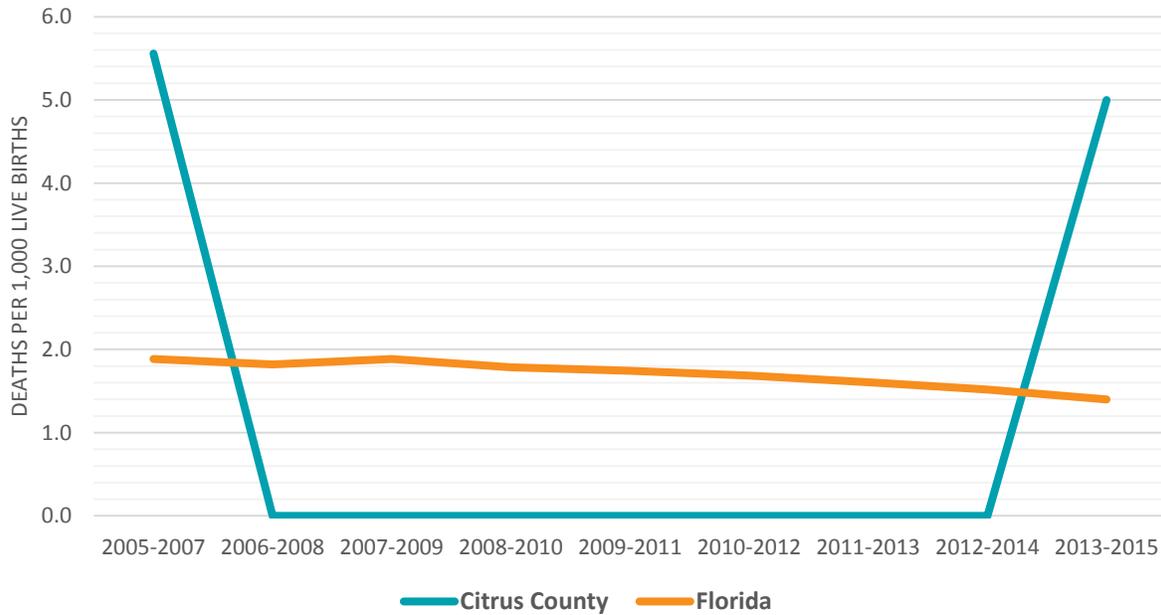
Black Post-Neonatal Mortality Rate Comparison



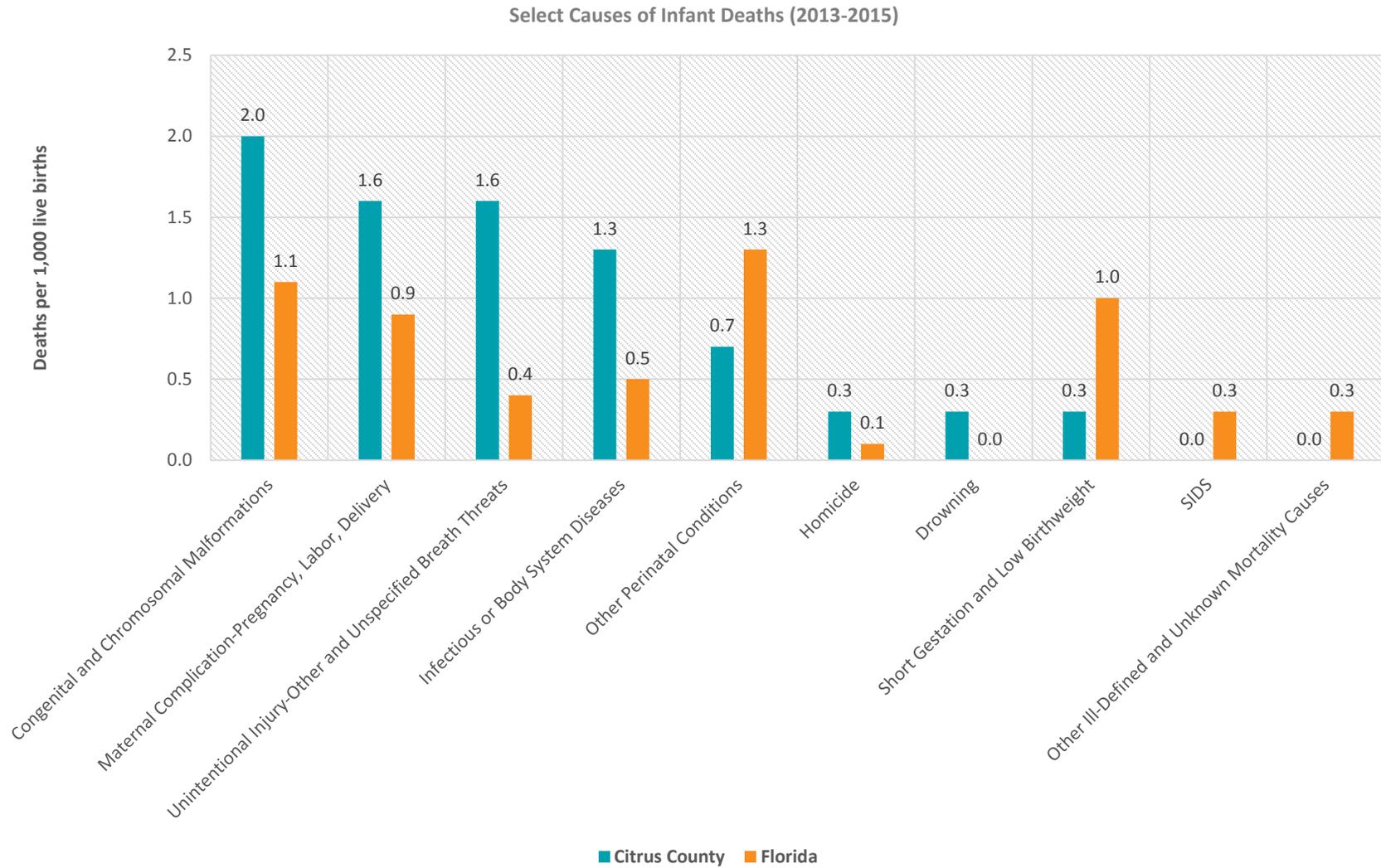
White Post-Neonatal Mortality Rate Trend



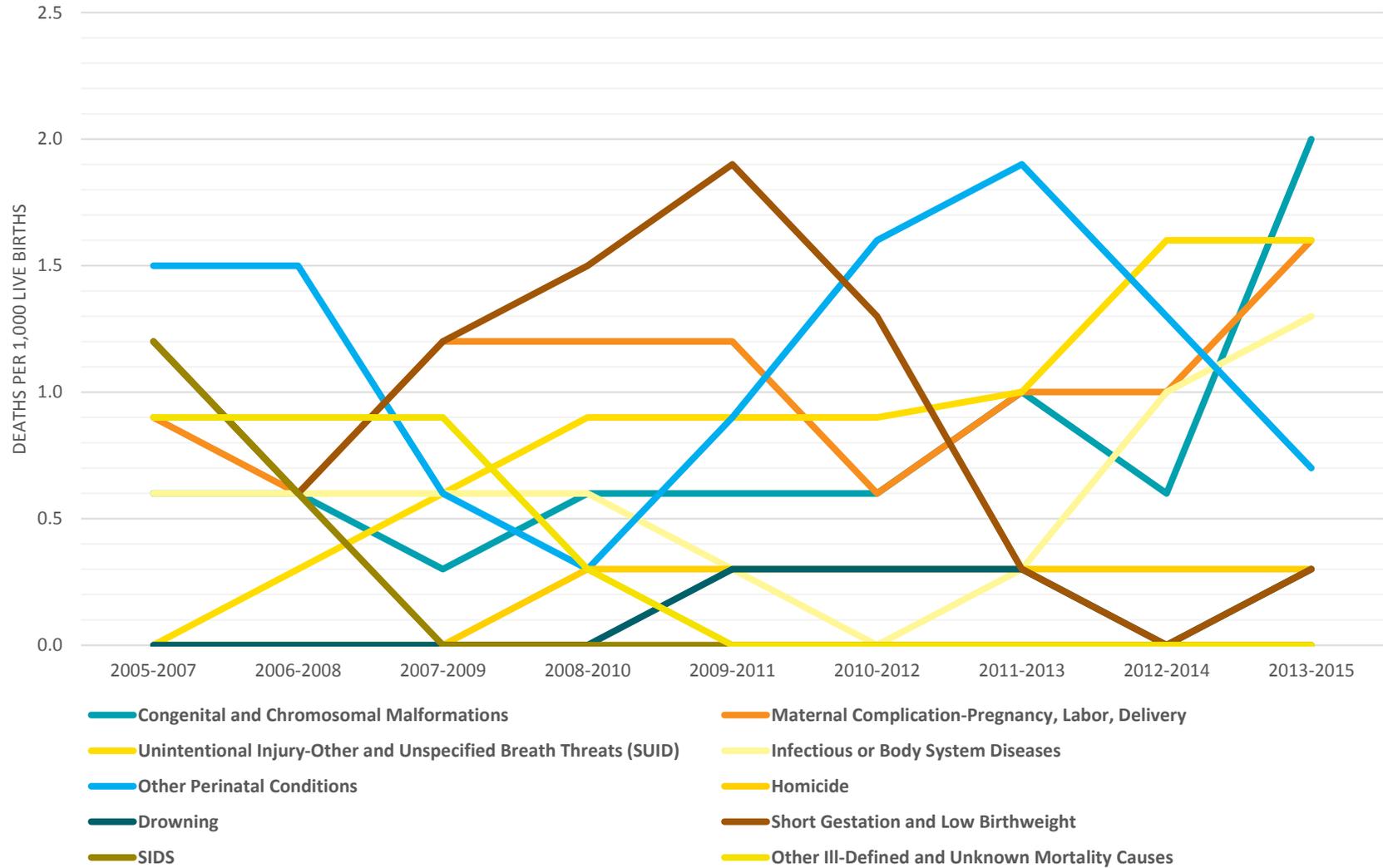
Hispanic Post-Neonatal Mortality Rate Comparison



SELECT CAUSES OF INFANT DEATHS



Select Causes of Death in Infants



MORTALITY TABLES

Infant Mortality Rates (deaths per 1,000)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida																	
Black	33.6	13.3	24.2	13.0	16.9	13.1	8.6	12.6	32.0	12.3	30.5	11.5	31.7	11.1	17.1	10.8	10.0	11.0	FL CHARTS
White	5.2	5.4	4.7	5.4	4.4	5.2	5.6	5.1	5.4	4.8	4.8	4.7	4.9	4.6	5.3	4.5	7.8	4.5	Florida Department of Health
Other	24.0	6.9	7.8	5.7	17.4	7.2	9.1	6.9	9.3	6.9	0.0	6.6	7.5	6.9	8.3	6.9	8.4	8.1	
Hispanic	11.1	5.9	0.0	5.9	8.4	5.9	9.0	5.5	8.4	5.3	4.9	5.1	14.0	4.9	14.4	4.8	20.0	4.7	Bureau of Vital Statistics
Overall	6.9	7.2	5.5	7.2	5.3	7.1	5.8	6.9	6.5	6.6	5.7	6.3	6.0	6.2	5.8	6.1	8.2	6.1	

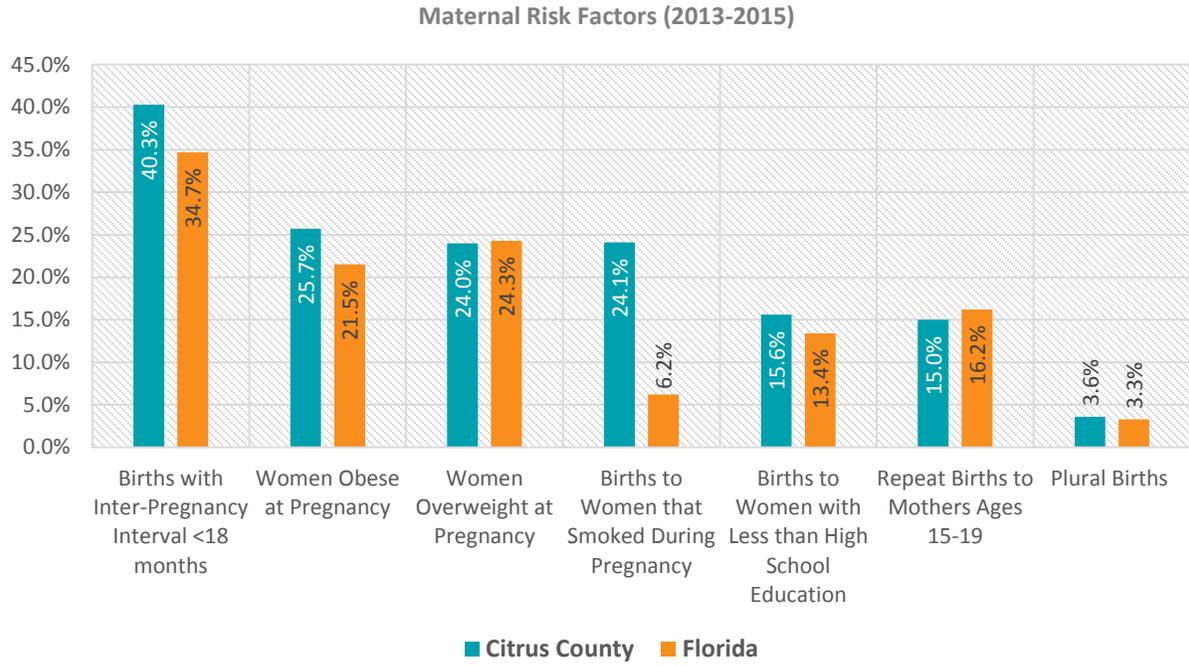
Fetal Mortality Rates (deaths per 1,000 live births + fetal deaths)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida																	
Black	0.0	13.3	0.0	13.2	16.7	12.8	16.9	12.5	15.7	12.5	0.0	12.8	0.0	12.4	0.0	12.1	0.0	12.0	FL CHARTS
White	5.5	5.8	5.6	5.8	4.7	5.7	5.3	5.5	6.3	5.5	6.8	5.4	5.9	5.5	6.3	5.6	5.6	5.5	Florida Department of Health
Hispanic	5.5	5.8	5.3	6.2	4.2	6.1	0.0	6.1	0.0	5.7	4.8	5.6	4.6	5.6	4.8	5.7	5.0	5.5	
Overall	5.1	7.4	5.2	7.4	5.0	7.3	5.5	7.2	6.5	7.2	6.6	7.2	5.7	7.2	6.1	7.1	5.2	7.0	Bureau of Vital Statistics

Neonatal Mortality Rates (deaths per 1,000 live births)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida																	
Black	16.8	11.6	16.1	11.7	16.9	10.9	8.6	10.6	32.0	9.9	30.5	9.7	31.7	9.4	8.5	9.4	0.0	7.5	FL CHARTS
White	3.2	2.5	2.8	2.4	2.9	2.5	3.6	2.6	3.3	2.6	3.1	2.4	3.5	2.3	3.2	2.2	4.6	3.0	Florida Department of Health
Hispanic	5.6	4.0	0.0	4.1	8.4	4.0	9.0	3.7	8.4	3.6	4.9	3.4	14.0	3.3	14.4	3.3	15.0	3.4	Bureau of Vital Statistics
Overall	4.2	4.6	3.5	4.6	3.8	4.5	4.0	4.5	4.7	4.4	4.1	4.2	4.5	4.1	3.2	4.0	4.6	4.1	

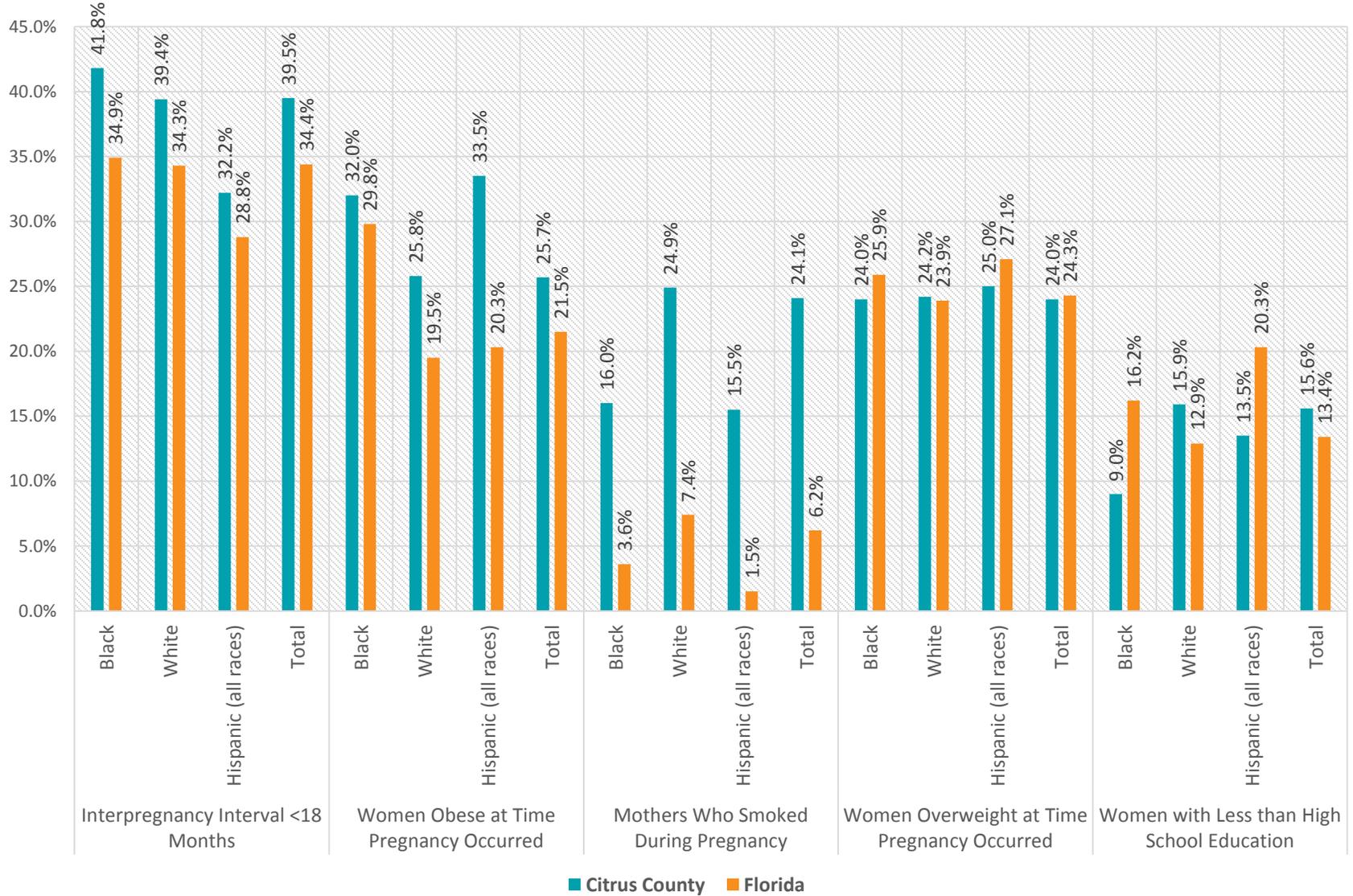
Post-Neonatal Mortality Rates (deaths per 1,000 live births)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida																	
Black	16.8	6.8	8.1	6.5	0.0	6.0	0.0	5.6	0.0	5.1	0.0	4.9	0.0	4.9	8.5	4.8	10.0	3.5	FL CHARTS
White	1.9	1.4	1.9	1.4	1.6	1.5	2.0	1.4	2.0	1.3	1.7	1.3	1.4	1.2	2.1	1.2	3.2	1.5	Florida Department of Health
Hispanic	5.6	1.9	0.0	1.8	0.0	1.9	0.0	1.8	0.0	1.7	0.0	1.7	0.0	1.6	0.0	1.5	5.0	1.4	Bureau of Vital Statistics
Overall	2.7	2.6	2.0	2.6	1.5	2.5	1.8	2.4	1.9	2.2	1.6	2.2	1.6	2.1	2.6	2.1	3.6	2.0	

Select Causes of Death Mortality Rates (deaths per 1,000 population)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida																	
Congenital and Chromosomal Malformations	0.6	1.4	0.6	1.4	0.3	1.4	0.6	1.3	0.6	1.2	0.6	1.1	1.0	1.1	0.6	1.1	2.0	1.1	FL CHARTS
Maternal Complication-Pregnancy, Labor, Delivery	0.9	0.9	0.6	0.9	1.2	1.0	1.2	1.0	1.2	0.9	0.6	0.9	1.0	0.9	1.0	0.9	1.6	0.9	Florida Department of Health
Unintentional Injury-Other and Unspecified Breath Threats	0.0	0.3	0.3	0.4	0.6	0.4	0.9	0.4	0.9	0.4	0.9	0.3	1.0	0.4	1.6	0.4	1.6	0.4	
Infectious or Body System Diseases	0.6	0.7	0.6	0.8	0.6	0.7	0.6	0.5	0.3	0.5	0.0	0.5	0.3	0.5	1.0	0.7	1.3	0.5	
Other Perinatal Conditions	1.5	1.5	1.5	1.5	0.6	1.5	0.3	1.4	0.9	1.4	1.6	1.3	1.9	1.3	1.3	1.3	0.7	1.3	
Homicide	0.0	0.1	0.0	0.1	0.0	0.1	0.3	0.1	0.3	0.1	0.3	0.1	0.3	0.1	0.3	0.1	0.3	0.1	
Drowning	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.3	0.0	Bureau of Vital Statistics
Short Gestation and Low Birthweight	1.2	1.1	0.6	1.1	1.2	1.0	1.5	1.1	1.9	1.1	1.3	1.1	0.3	1.0	0.0	1.0	0.3	1.0	
SIDS	1.2	0.4	0.6	0.4	0.0	0.3	0.0	0.3	0.0	0.3	0.0	0.3	0.0	0.2	0.0	0.3	0.0	0.3	
Other Ill-Defined and Unknown Mortality Causes	0.9	0.4	0.9	0.3	0.9	0.3	0.3	0.3	0.0	0.3	0.0	0.4	0.0	0.3	0.0	0.3	0.0	0.3	

MATERNAL AND INFANT HEALTH FACTORS



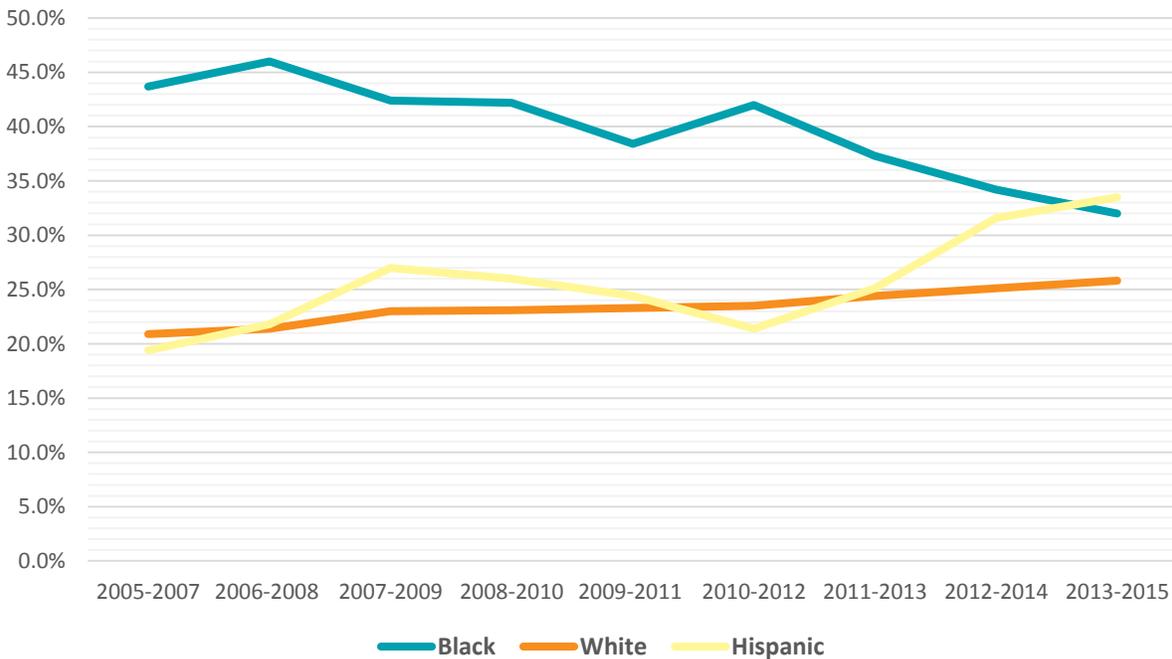
Maternal Risk Factors by Race (2013-2015)



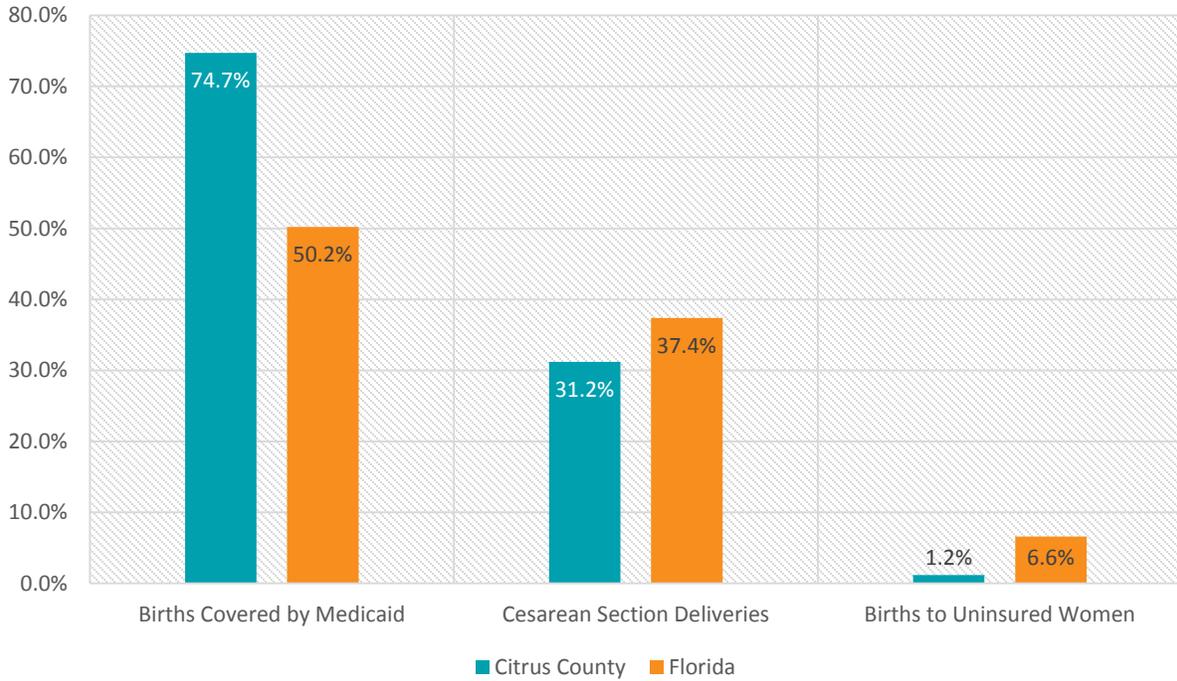
Maternal Risk Factor Trends



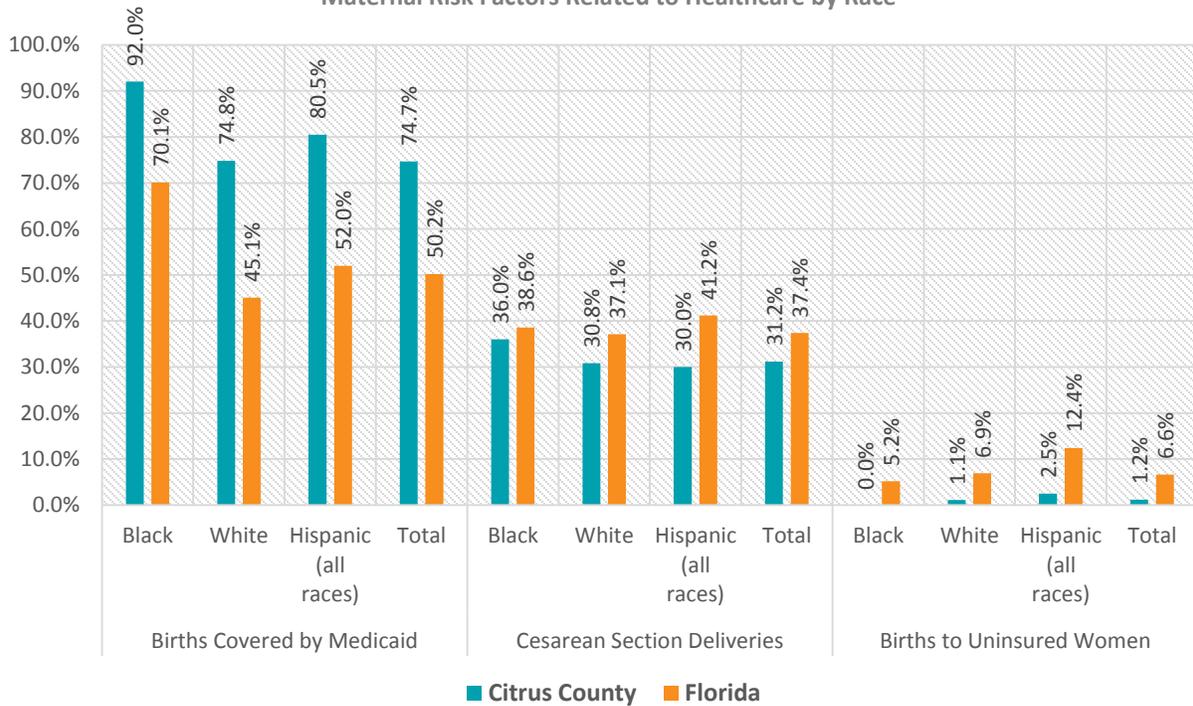
Women Obese when Pregnancy Occurred Trends by Race



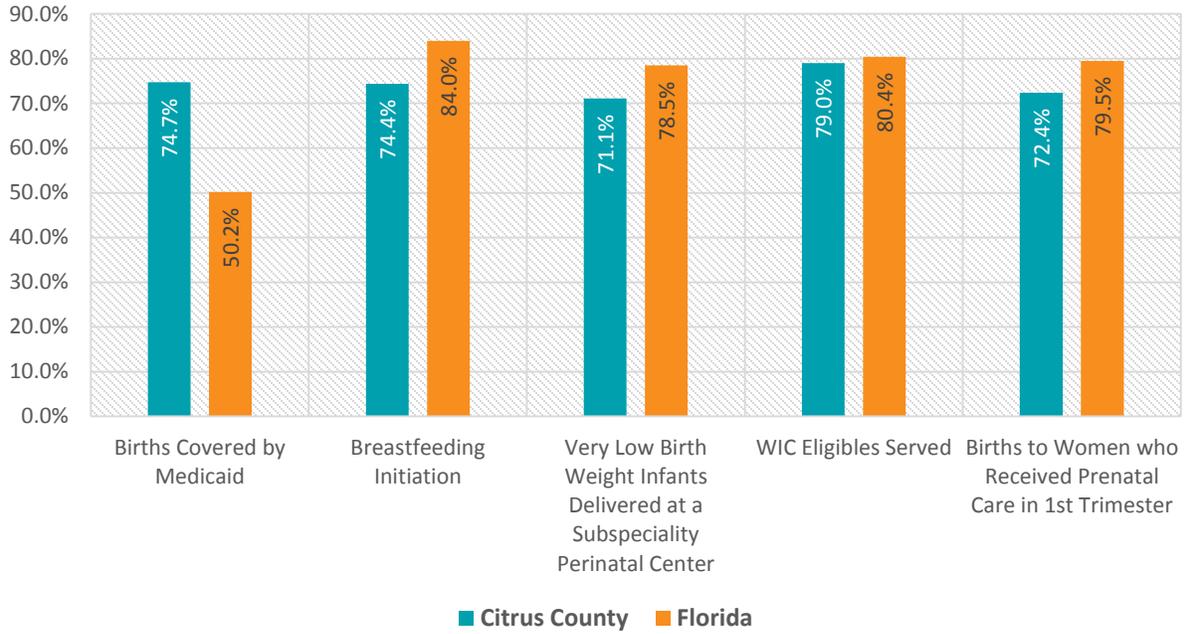
Maternal Risk Factors Related to Healthcare (2013-2015)



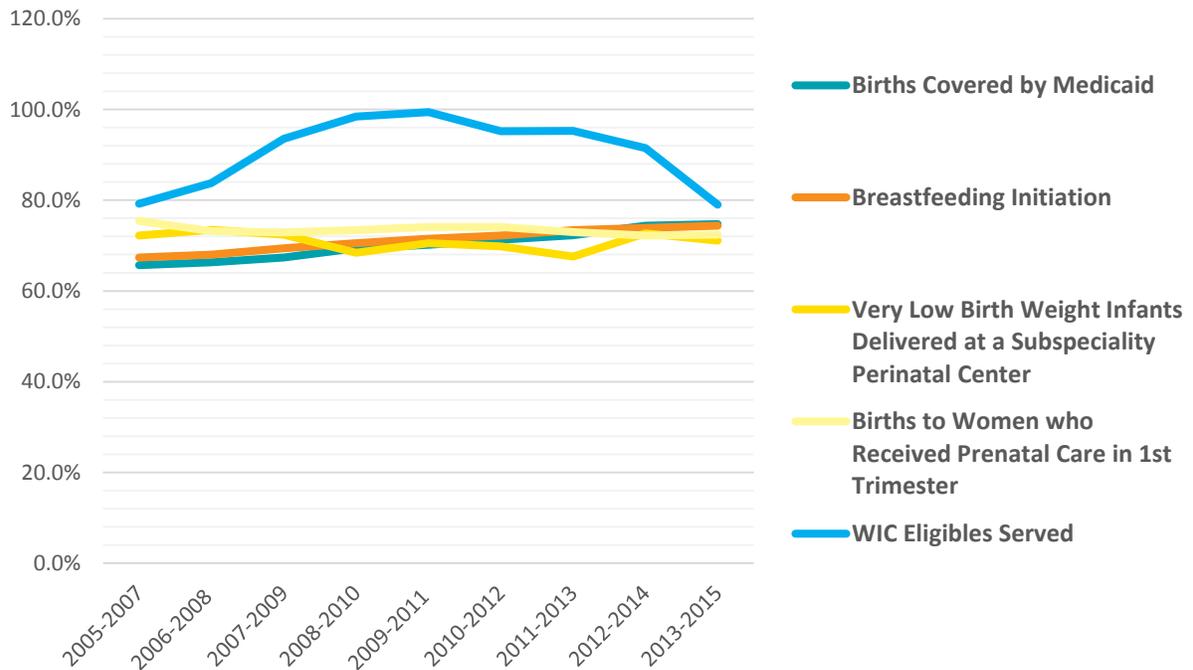
Maternal Risk Factors Related to Healthcare by Race



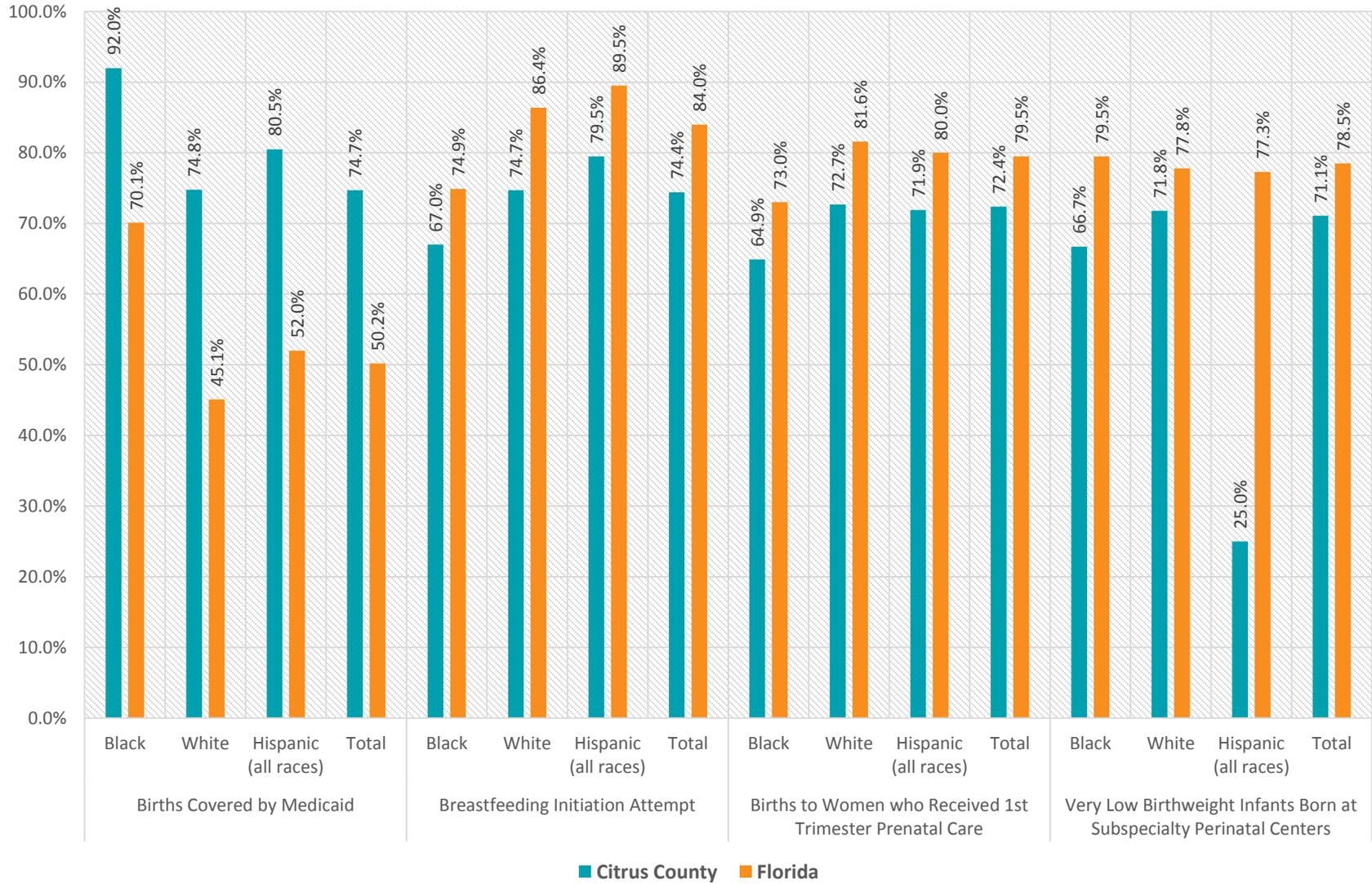
Maternal Protective Factors (2013-2015)



Maternal Protective Factors



Maternal Protective Factors by Race (2013-2015)



Maternal Risk Factors (%)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida	FL CHARTS																
Births with Inter-Pregnancy Interval <18 months	42.6%	38.0%	44.3%	38.4%	44.5%	38.5%	43.3%	38.0%	43.5%	37.0%	43.8%	36.0%	42.0%	35.1%	40.3%	34.7%	39.5%	34.4%	Florida Department of Health
Women Obese when Pregnancy Occurred	21.2%	18.0%	22.1%	18.6%	23.5%	19.1%	23.7%	19.4%	23.6%	19.9%	24.0%	20.3%	24.6%	20.8%	25.1%	21.1%	25.7%	21.5%	
Women Overweight when Pregnancy Occurred	22.7%	22.3%	23.2%	22.8%	23.3%	23.0%	22.9%	23.3%	22.6%	23.5%	22.9%	23.7%	23.4%	23.9%	23.9%	24.0%	24.0%	24.3%	
Births to Women that Smoked During Pregnancy	21.9%	7.5%	21.9%	7.1%	21.6%	6.9%	20.7%	6.9%	21.0%	6.8%	21.6%	6.8%	23.0%	6.6%	24.1%	6.5%	24.1%	6.2%	Bureau of Vital Statistics
Births to Women with Less than High School Education	20.6%	20.9%	19.5%	20.5%	18.7%	19.7%	19.0%	18.5%	19.5%	17.3%	18.5%	16.1%	17.1%	15.2%	16.0%	14.2%	15.6%	13.4%	
Repeat Births to Mothers Ages 15-19	14.6%	18.6%	13.2%	18.5%	14.0%	18.7%	14.1%	18.4%	15.1%	18.1%	14.3%	17.4%	13.1%	16.9%	14.7%	16.6%	15.0%	16.2%	
Plural Births	2.8%	3.2%	3.0%	3.2%	2.9%	3.2%	2.4%	3.2%	2.1%	3.2%	2.1%	3.2%	2.4%	3.3%	2.8%	3.3%	3.6%	3.3%	

Births with Inter-Pregnancy Interval <18 Months by Race (%)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida	FL CHARTS																
Black	47.1%	39.7%	42.9%	40.1%	32.3%	40.3%	26.6%	39.6%	38.6%	38.5%	45.8%	37.3%	48.8%	36.1%	44.9%	35.5%	41.8%	34.9%	Florida Department of Health
White	42.3%	37.6%	44.3%	38.0%	45.0%	38.1%	44.0%	37.6%	43.6%	36.6%	43.5%	35.7%	41.6%	34.9%	40.1%	34.5%	39.4%	34.3%	
Hispanic	47.9%	33.4%	46.7%	33.8%	42.4%	33.6%	37.7%	32.8%	41.8%	31.5%	42.9%	30.6%	40.3%	29.8%	30.9%	29.3%	32.2%	28.8%	Bureau of Vital Statistics
Overall	42.6%	38.0%	44.3%	38.4%	44.5%	38.5%	43.3%	38.0%	43.5%	37.0%	43.8%	36.0%	42.0%	35.1%	40.3%	34.7%	39.5%	34.4%	

Women Obese when Pregnancy Occurred by Race (%)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida	FL CHARTS																
Black	43.7%	25.6%	46.0%	25.9%	42.4%	26.5%	42.2%	26.8%	38.4%	27.5%	42.0%	28.0%	37.3%	28.7%	34.2%	29.0%	32.0%	29.8%	Florida Department of Health
White	20.9%	16.4%	21.4%	16.9%	23.0%	17.4%	23.1%	17.0%	23.3%	18.1%	23.5%	18.5%	24.4%	18.9%	25.1%	19.2%	25.8%	19.5%	
Hispanic	19.4%	15.8%	21.8%	16.5%	27.0%	17.1%	26.0%	17.5%	24.4%	18.1%	21.4%	18.7%	25.1%	19.3%	31.6%	19.8%	33.5%	20.3%	Bureau of Vital Statistics
Overall	21.2%	18.0%	22.1%	18.6%	23.5%	19.1%	23.7%	19.4%	23.6%	19.9%	24.0%	20.3%	24.6%	20.8%	25.1%	21.1%	25.7%	21.5%	

Women Overweight when Pregnancy Occurred by Race (%)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida	FL CHARTS																
Black	26.1%	24.6%	29.0%	24.6%	30.5%	24.7%	28.4%	24.8%	26.4%	25.1%	27.5%	25.4%	27.8%	25.6%	29.9%	25.8%	24.0%	25.9%	Florida Department of Health
White	22.7%	21.9%	23.2%	22.5%	23.1%	22.8%	22.8%	23.1%	22.4%	23.2%	22.6%	23.3%	23.4%	23.5%	23.9%	23.6%	24.2%	23.9%	
Hispanic	26.7%	24.0%	27.7%	24.7%	27.4%	25.2%	26.5%	25.7%	28.2%	25.9%	29.2%	26.1%	28.0%	26.5%	24.9%	26.7%	25.0%	27.1%	Bureau of Vital Statistics
Overall	22.7%	22.3%	23.2%	22.8%	23.3%	23.0%	22.9%	23.3%	22.6%	23.5%	22.9%	23.7%	23.4%	23.9%	23.9%	24.0%	24.0%	24.3%	

Mothers who Smoked During Pregnancy by Race (%)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida	FL CHARTS																
Black	8.4%	3.7%	8.9%	3.6%	9.3%	3.6%	6.9%	3.7%	7.2%	3.8%	9.2%	3.8%	15.1%	3.7%	15.4%	3.6%	16.0%	3.6%	Florida Department of Health
White	22.9%	8.9%	22.7%	8.5%	22.3%	8.2%	21.5%	8.1%	21.9%	8.1%	22.6%	8.0%	23.9%	7.9%	25.0%	7.7%	24.9%	7.4%	
Hispanic	9.4%	1.6%	9.6%	1.5%	8.9%	1.5%	5.8%	1.5%	5.5%	1.6%	8.3%	1.6%	13.5%	1.6%	15.8%	1.6%	15.5%	1.5%	Bureau of Vital Statistics
Overall	21.9%	7.5%	21.9%	7.1%	21.6%	6.9%	20.7%	6.9%	21.0%	6.8%	21.6%	6.8%	23.0%	6.6%	24.1%	6.5%	24.1%	6.2%	

Maternal Risk Factors Related to Healthcare (%)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida	FL CHARTS																
Births Covered by Medicaid	65.7%	43.5%	66.3%	43.5%	67.4%	44.8%	69.4%	46.8%	70.2%	48.7%	71.3%	49.9%	72.3%	50.9%	74.4%	50.9%	74.7%	50.9%	Florida Department of Health
Cesarean Section Deliveries	28.4%	36.0%	28.5%	36.9%	28.4%	37.6%	29.0%	37.8%	28.8%	38.0%	29.2%	38.0%	28.8%	38.0%	31.1%	37.7%	31.2%	37.4%	Bureau of Vital Statistics
Births to Uninsured Women	3.0%	10.3%	3.1%	10.7%	2.7%	10.4%	2.4%	9.5%	2.0%	8.9%	1.6%	8.4%	1.3%	7.8%	1.2%	7.1%	1.2%	6.6%	

Births Covered by Medicaid by Race (%)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida	FL CHARTS																
Black	75.6%	63.8%	80.6%	63.3%	86.4%	64.2%	89.7%	65.6%	91.2%	67.5%	88.5%	68.8%	90.5%	70.0%	88.9%	70.3%	92.0%	70.1%	Florida Department of Health
White	66.0%	38.5%	66.2%	38.5%	67.2%	39.8%	68.9%	41.9%	69.6%	43.8%	70.9%	45.0%	71.9%	46.0%	74.4%	45.9%	74.8%	45.1%	
Hispanic	67.8%	42.0%	69.7%	41.5%	71.7%	42.8%	73.1%	45.5%	75.2%	48.2%	78.2%	50.4%	79.1%	52.5%	80.9%	52.7%	80.5%	52.0%	Bureau of Vital Statistics
Overall	65.7%	43.5%	66.3%	43.5%	67.4%	44.8%	69.4%	46.8%	70.2%	48.7%	71.3%	49.9%	72.3%	50.9%	74.4%	50.9%	74.7%	50.9%	

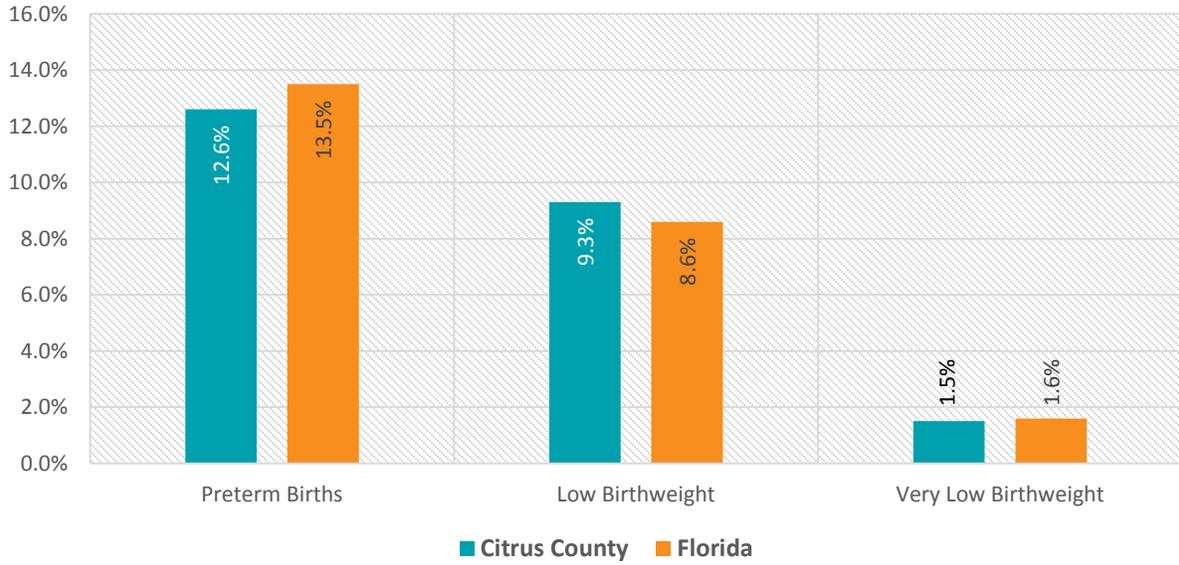
Cesarean Section Deliveries by Race (%)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida	FL CHARTS																
Black	39.5%	36.1%	35.5%	36.9%	32.2%	37.8%	29.3%	38.0%	33.6%	38.2%	33.6%	38.2%	32.5%	38.5%	32.5%	38.7%	36.0%	38.6%	Florida Department of Health
White	28.1%	36.1%	28.2%	37.0%	28.2%	37.7%	29.1%	37.9%	28.8%	38.0%	29.1%	38.0%	28.7%	37.9%	31.0%	37.4%	30.8%	37.1%	
Hispanic	33.3%	38.4%	36.7%	39.5%	31.6%	40.5%	31.4%	40.9%	28.6%	41.2%	31.1%	41.3%	27.9%	41.5%	30.1%	41.3%	30.0%	41.2%	Bureau of Vital Statistics
Overall	28.4%	36.0%	28.5%	36.9%	28.4%	37.6%	29.0%	37.8%	28.8%	38.0%	29.2%	38.0%	28.8%	38.0%	31.1%	37.7%	31.2%	37.4%	

Maternal Protective Factors (%)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida	FL CHARTS																
Births Covered by Medicaid	65.7%	43.5%	66.3%	43.5%	67.4%	44.8%	69.4%	46.8%	70.2%	48.7%	71.3%	49.9%	72.3%	50.9%	74.4%	50.9%	74.7%	50.9%	Florida Department of Health
Breastfeeding Initiation Attempt	67.4%	76.9%	68.0%	77.6%	69.4%	78.2%	70.5%	79.0%	71.5%	79.5%	72.2%	80.2%	73.4%	81.0%	73.9%	82.6%	74.4%	84.0%	
Very Low Birth Weight Infants Delivered at a Subspecialty Perinatal Center	72.2%	72.6%	73.5%	74.0%	72.4%	76.5%	68.4%	78.3%	70.5%	78.6%	69.8%	78.6%	67.6%	78.7%	72.7%	78.3%	71.1%	78.5%	Bureau of Vital Statistics
Births to Women Who Received Prenatal Care in 1st Trimester	75.4%	77.0%	73.2%	76.5%	72.9%	77.0%	73.4%	78.1%	74.1%	79.3%	74.1%	79.9%	73.0%	80.1%	72.2%	79.8%	72.4%	79.5%	
WIC Eligibles Served	79.2%	65.2%	83.8%	68.5%	93.5%	75.0%	98.4%	81.5%	99.4%	84.1%	95.2%	82.9%	95.3%	82.9%	91.5%	82.5%	79.0%	80.4%	

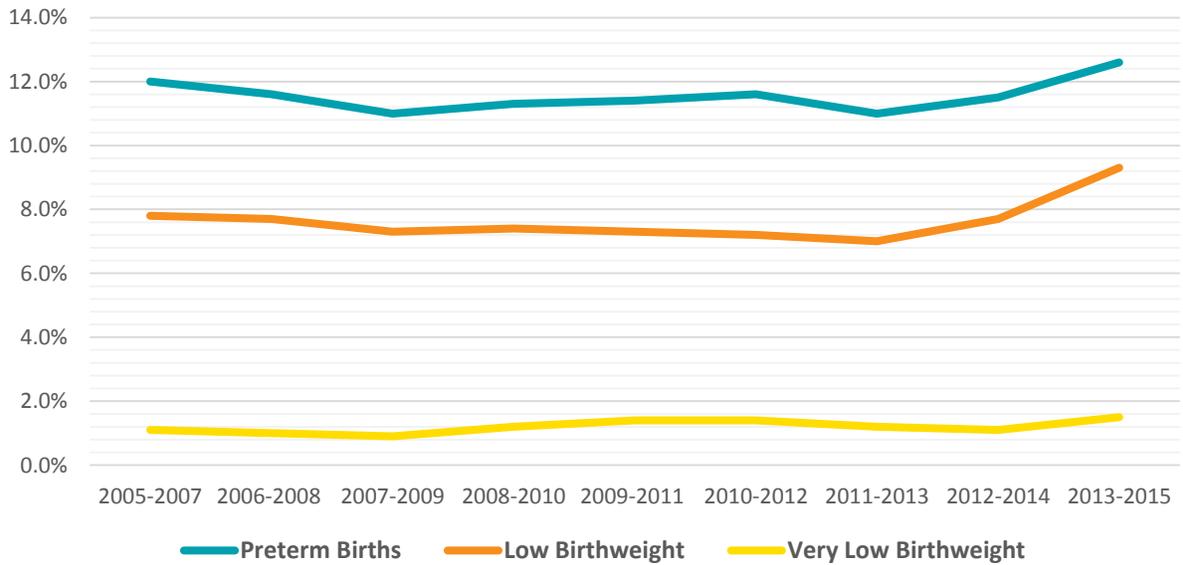
Breastfeeding Initiation Attempt by Race (%)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida	FL CHARTS																
Black	52.1%	65.5%	52.4%	66.4%	50.0%	67.0%	50.0%	68.1%	51.2%	68.5%	50.4%	69.4%	57.9%	70.6%	61.5%	72.9%	67.0%	74.9%	Florida Department of Health
White	67.5%	79.8%	68.3%	80.5%	70.0%	81.2%	71.3%	82.0%	72.3%	82.5%	73.0%	83.2%	74.0%	83.9%	74.5%	85.2%	74.7%	86.4%	
Hispanic	78.3%	85.6%	78.7%	86.4%	75.9%	86.8%	76.7%	87.2%	75.6%	87.0%	75.2%	87.1%	76.7%	87.3%	79.4%	88.4%	79.5%	89.5%	Bureau of Vital Statistics
Overall	67.4%	76.9%	68.0%	77.6%	69.4%	78.2%	70.5%	79.0%	71.5%	79.5%	72.2%	80.2%	73.4%	81.0%	73.9%	82.6%	74.4%	84.0%	

Births to Women who 1st Trimester Prenatal Care by Race (%)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida	FL CHARTS																
Black	76.8%	68.8%	75.0%	68.1%	62.2%	68.6%	58.3%	70.1%	55.7%	71.8%	63.1%	72.9%	64.2%	73.5%	64.3%	73.2%	64.9%	73.0%	Florida Department of Health
White	75.2%	79.3%	73.0%	78.9%	73.3%	79.4%	74.0%	80.5%	74.9%	81.5%	74.6%	82.0%	73.4%	82.2%	72.5%	81.9%	72.7%	81.6%	
Hispanic	71.8%	74.1%	68.6%	73.8%	69.7%	74.8%	68.4%	76.7%	70.6%	78.6%	70.1%	79.7%	72.0%	80.2%	72.1%	80.2%	71.9%	80.0%	Bureau of Vital Statistics
Overall	75.4%	77.0%	73.2%	76.5%	72.9%	77.0%	73.4%	78.1%	74.1%	79.3%	74.1%	79.9%	73.0%	80.1%	72.2%	79.8%	72.4%	79.5%	

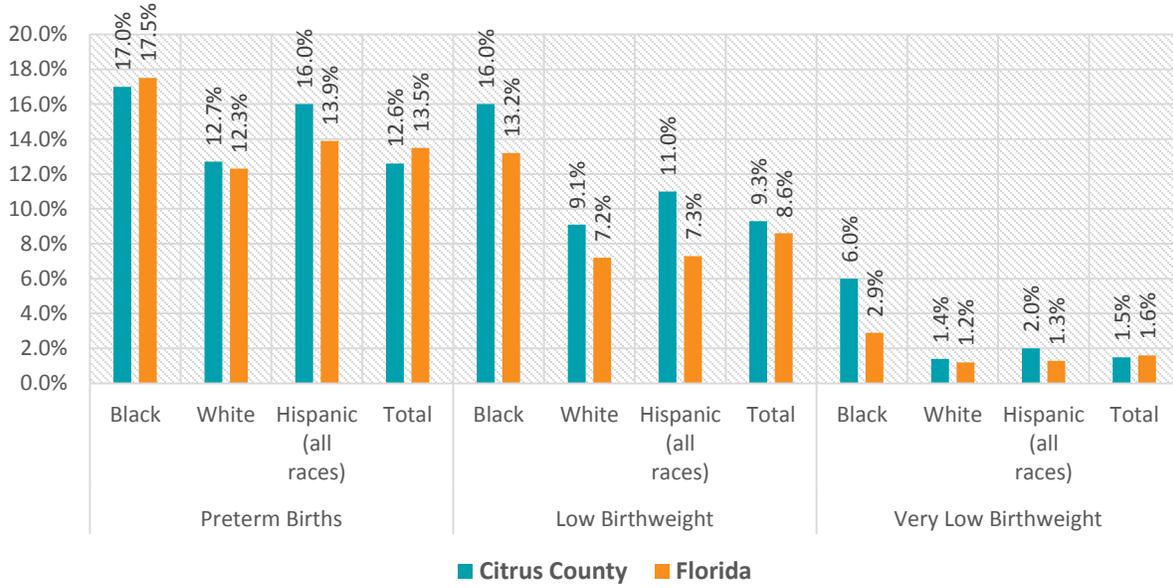
Infant Health Factors (2013-2015)



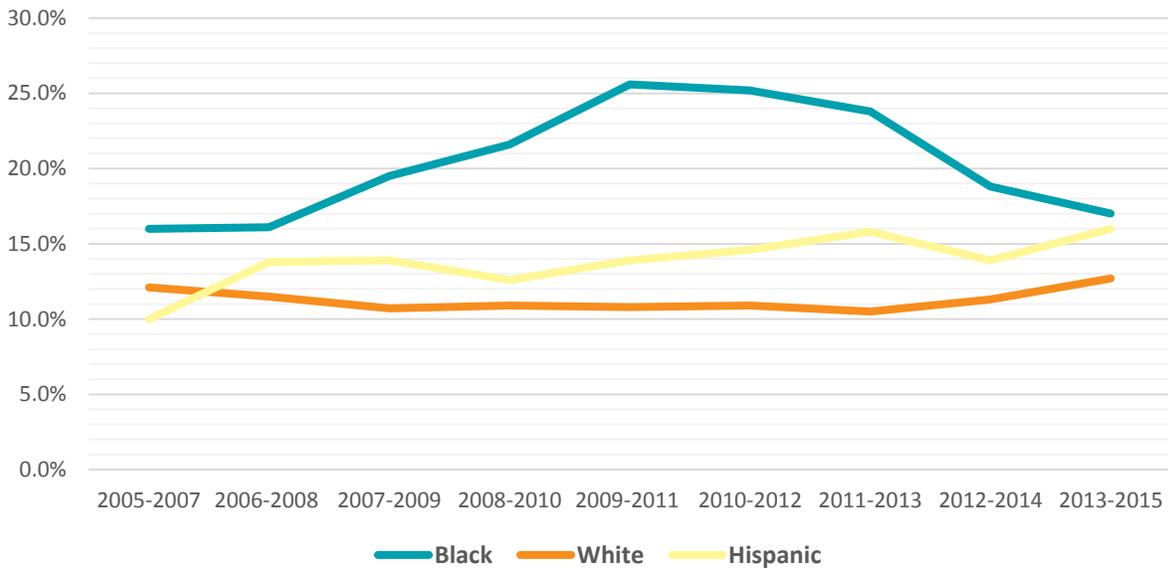
Infant Health Factor Trends

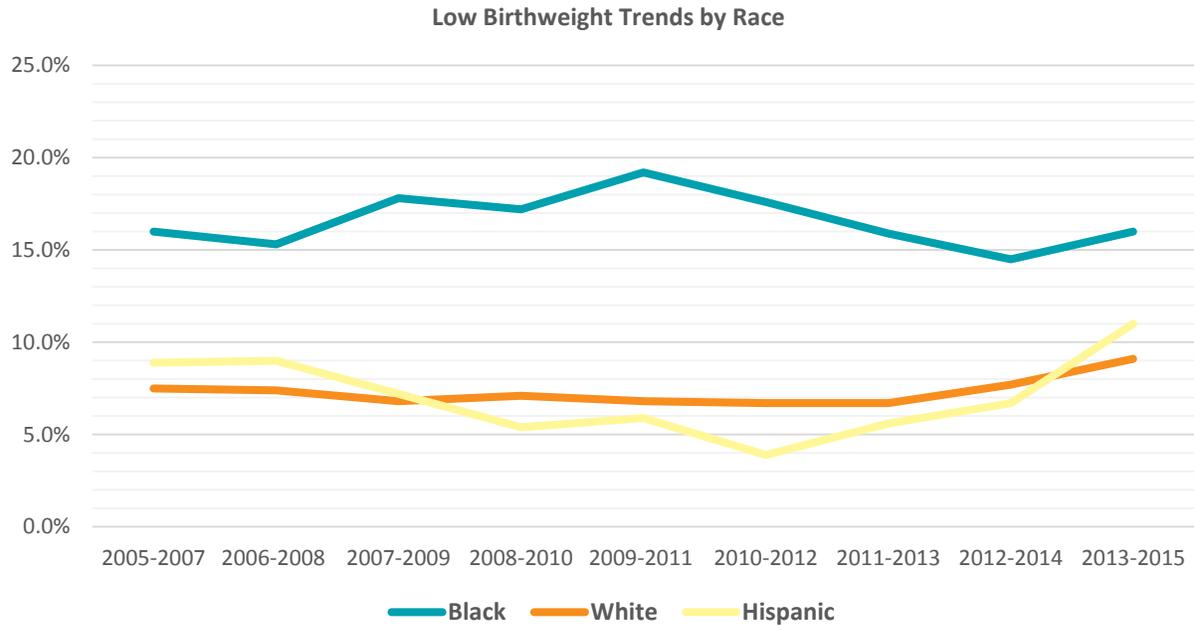


Infant Health Factors by Race (2013-2015)



Preterm Birth Trends by Race





Infant Health Factors (%)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida	FL CHARTS																
Preterm Births	12.0%	14.2%	11.6%	14.2%	11.0%	14.1%	11.3%	13.9%	11.4%	13.7%	11.6%	13.8%	11.0%	13.9%	11.5%	13.9%	12.6%	13.5%	Florida Department of Health
Low Birthweight	7.8%	8.7%	7.7%	8.7%	7.3%	8.7%	7.4%	8.7%	7.3%	8.7%	7.2%	8.7%	7.0%	8.6%	7.7%	8.6%	9.3%	8.6%	
Very Low Birthweight	1.1%	1.6%	1.0%	1.6%	0.9%	1.6%	1.2%	1.6%	1.4%	1.6%	1.4%	1.6%	1.2%	1.6%	1.1%	1.6%	1.5%	1.6%	Bureau of Vital Statistics

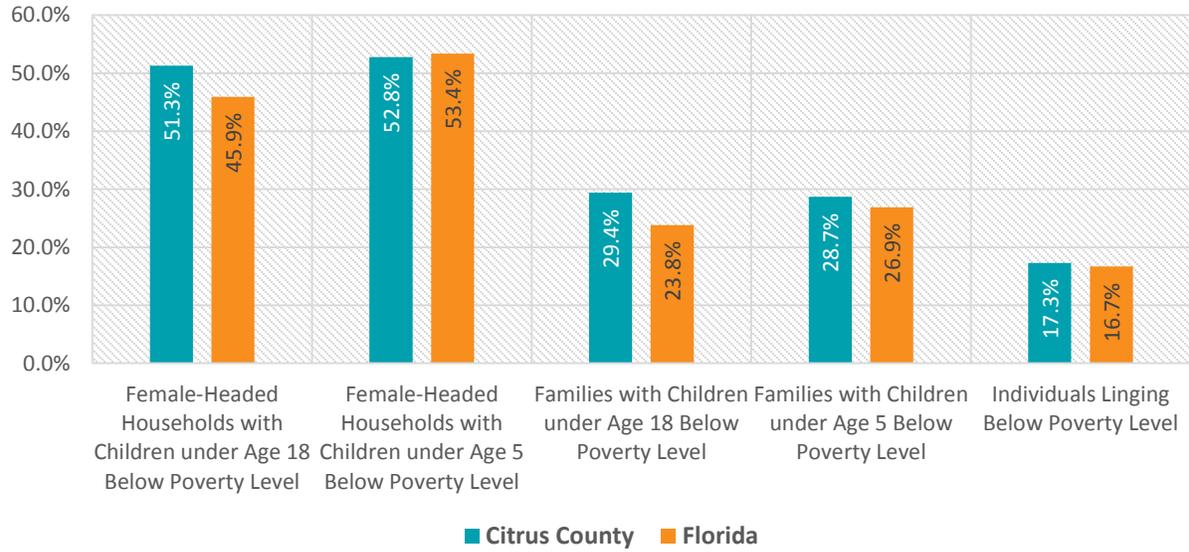
Preterm Births by Race (%)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida	FL CHARTS																
Black	16.0%	19.3%	16.1%	19.4%	19.5%	19.1%	21.6%	18.8%	25.6%	18.3%	25.2%	18.1%	23.8%	18.0%	18.8%	17.9%	17.0%	17.5%	Florida Department of Health
White	12.1%	12.8%	11.5%	12.7%	10.7%	12.7%	10.9%	12.5%	10.8%	12.3%	10.9%	12.5%	10.5%	12.7%	11.3%	12.7%	12.7%	12.3%	
Hispanic	10.0%	13.5%	13.8%	13.6%	13.9%	13.7%	12.6%	13.7%	13.9%	13.5%	14.6%	13.9%	15.8%	14.2%	13.9%	14.4%	16.0%	13.9%	Bureau of Vital Statistics
Overall	12.0%	14.2%	11.6%	14.2%	11.0%	14.1%	11.3%	13.9%	11.4%	13.7%	11.6%	13.8%	11.0%	13.9%	11.5%	13.9%	12.6%	13.5%	

Low Birthweight by Race (%)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida	FL CHARTS																
Black	16.0%	13.6%	15.3%	13.5%	17.8%	13.5%	17.2%	13.6%	19.2%	13.4%	17.6%	13.2%	15.9%	12.9%	14.5%	13.0%	16.0%	13.2%	Florida Department of Health
White	7.5%	7.3%	7.4%	7.3%	6.8%	7.3%	7.1%	7.2%	6.8%	7.2%	6.7%	7.2%	6.7%	7.2%	7.7%	7.2%	9.1%	7.2%	
Hispanic	8.9%	7.1%	9.0%	7.1%	7.2%	7.1%	5.4%	7.1%	5.9%	7.2%	3.9%	7.2%	5.6%	7.2%	6.7%	7.3%	11.0%	7.3%	Bureau of Vital Statistics
Overall	7.8%	8.7%	7.7%	8.7%	7.3%	8.7%	7.4%	8.7%	7.3%	8.7%	7.2%	8.7%	7.0%	8.6%	7.7%	8.6%	9.3%	8.6%	

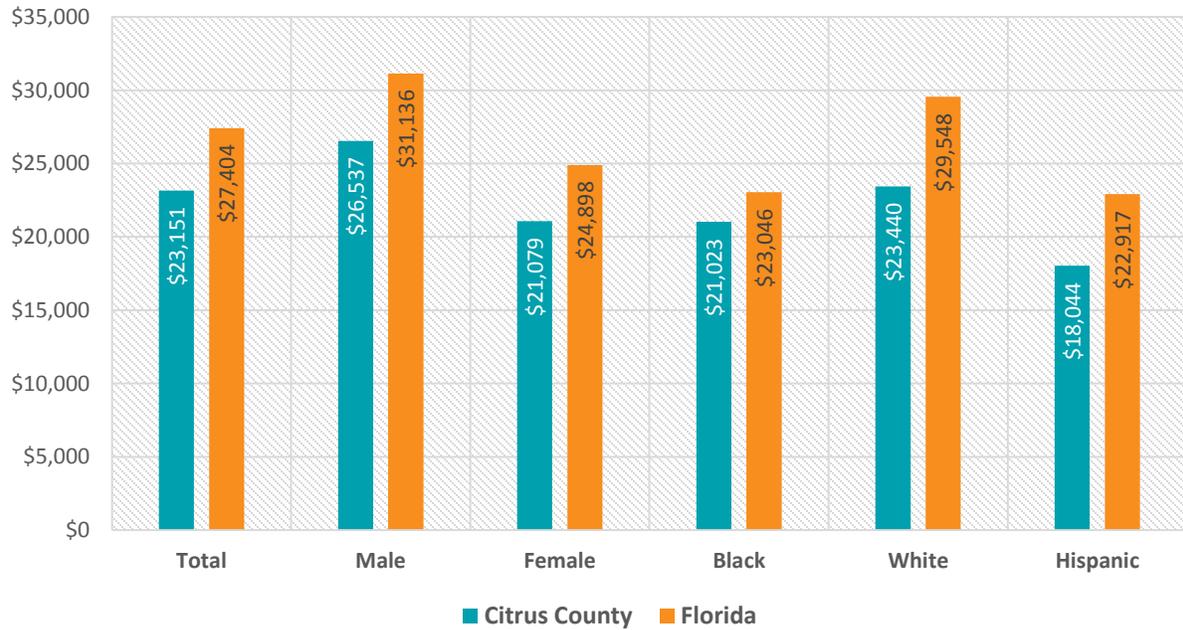
SOCIAL DETERMINANTS OF HEALTH

POVERTY AND INCOME FACTORS

Poverty (2014)



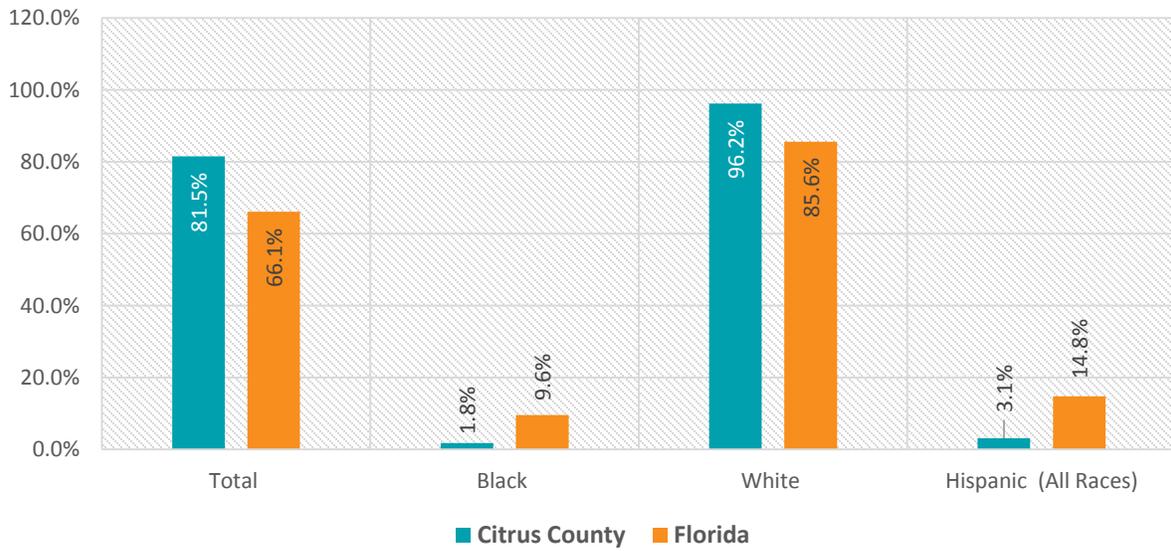
Median Individual Earnings (2010-2014)



Median Household Income (2010-2014)

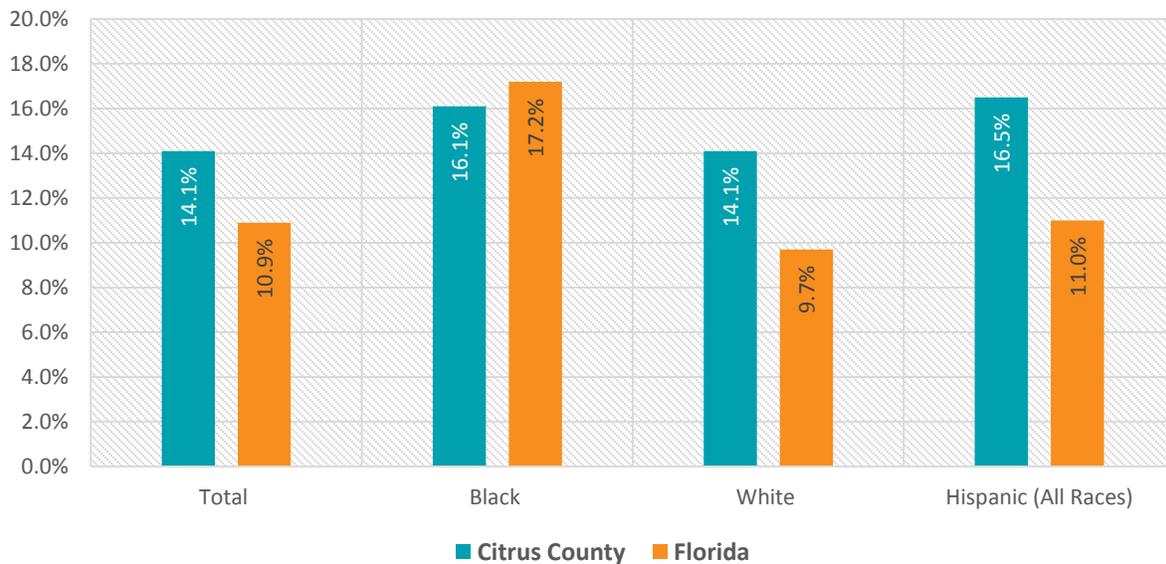


Owner-Occupied Home Ownership (2010-2014)



Poverty Data											
	2010		2011		2012		2013		2014		Data Source
	Citrus County	Florida	FL CHARTS								
Individuals below Poverty Level	14.4%	13.8%	15.8%	14.7%	16.5%	15.6%	16.8%	16.3%	17.3%	16.7%	U.S. Census Bureau
Individuals Under 18 Below Poverty Level	24.7%	19.5%	28.8%	20.9%	29.8%	20.9%	29.6%	23.6%	29.9%	24.1%	
Families with Related Children Under the Age of 18 Below the Poverty Level	21.0%	15.8%	28.6%	20.5%	29.4%	22.2%	29.0%	23.3%	29.4%	23.8%	
Families with Related Children Under the Age of 5 Below the Poverty Level	38.6%	16.8%	36.6%	24.0%	36.6%	25.6%	32.0%	26.6%	30.9%	26.9%	
Female-Headed Household with Related Children Under the Age of 18	37.9%	33.9%	51.6%	41.8%	55.6%	43.8%	49.4%	45.1%	51.3%	45.9%	
Female-Headed Household with Related Children Under the Age of 5	59.9%	40.1%	62.9%	51.4%	62.9%	52.4%	55.5%	52.9%	52.8%	53.4%	

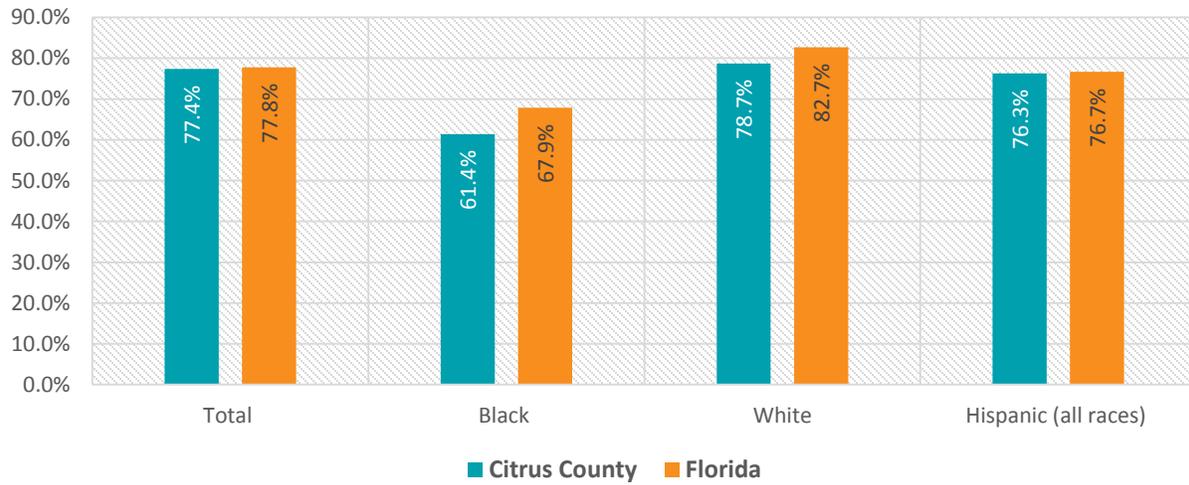
Civilian Unemployment Rate (2010-2014)



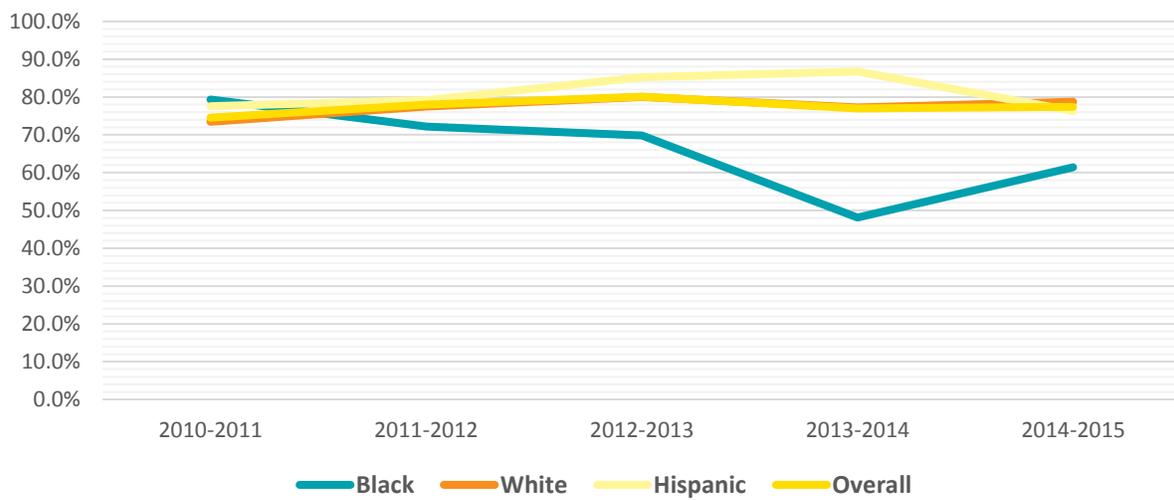
Public Assistance			
	2010-2014		Data Source
	Citrus County	Florida	American Fact Finder
Children Under 18 Living in Household with Supplemental Security Income (SSI), Cash Public Assistance Income, or Food Stamps/SNAP	42.8%	31.7%	U.S. Census Bureau
SNAP Households with Children Under 18 Present	45.8%	49.4%	
Households with SNAP Benefits-Black	31.5%	28.6%	
Households with SNAP Benefits-White	13.5%	11.7%	American Community Survey
Households with SNAP Benefits-Hispanic	27.8%	24.8%	
Households with SNAP Benefits-Overall	16.2%	14.8%	

EDUCATION

Graduation Rates (2014-2015)

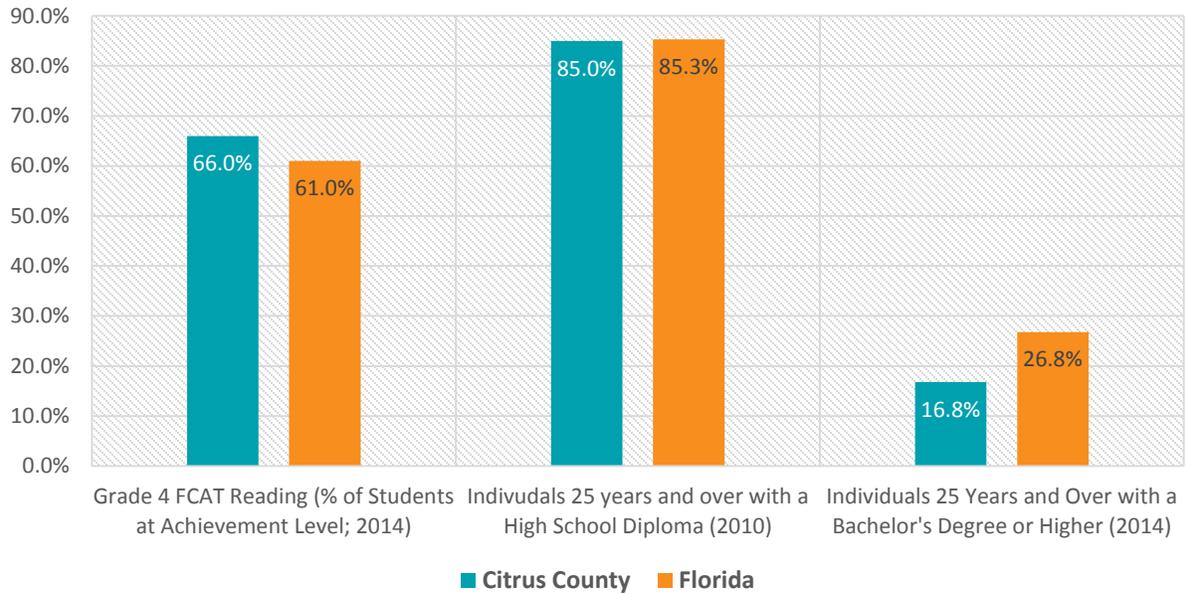


Graduation Rates



Graduation Rates											
	2010-2011		2011-2012		2012-2013		2013-2014		2014-2015		Data Source
	Citrus County	Florida									
Black	79.3%	58.6%	72.2%	63.7%	69.8%	64.6%	48.1%	64.7%	61.4%	68.0%	Florida Department of Education
White	73.4%	76.2%	77.5%	79.5%	80.0%	80.5%	77.2%	81.7%	78.7%	82.8%	
Hispanic	77.6%	69.4%	79.2%	73.0%	85.2%	74.9%	86.7%	75.0%	76.3%	76.7%	
Overall	74.5%	70.6%	78.0%	74.5%	80.1%	75.6%	77.0%	76.1%	77.4%	77.9%	

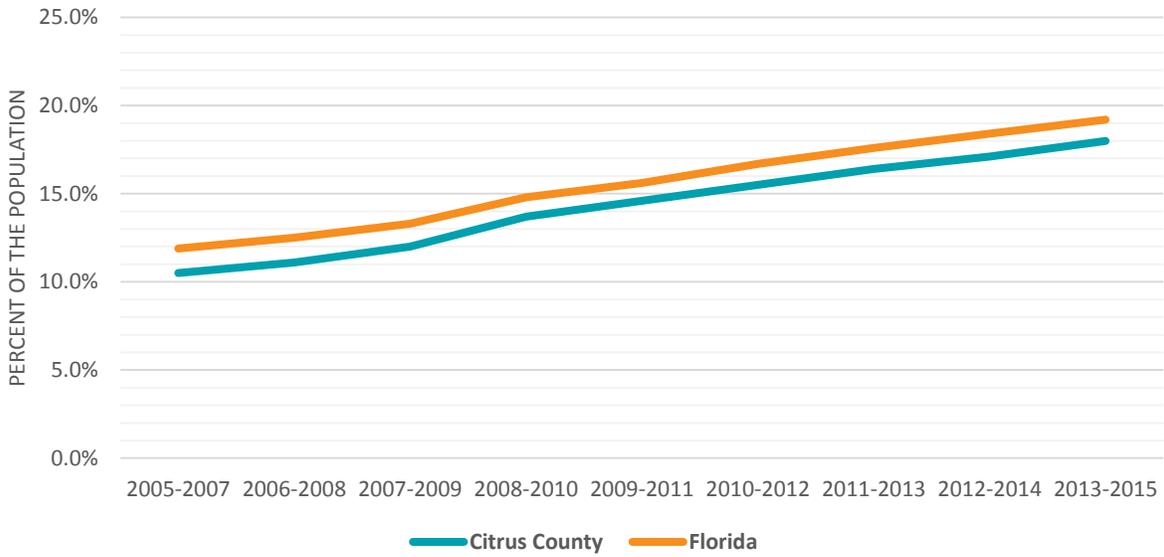
Educational Achievement



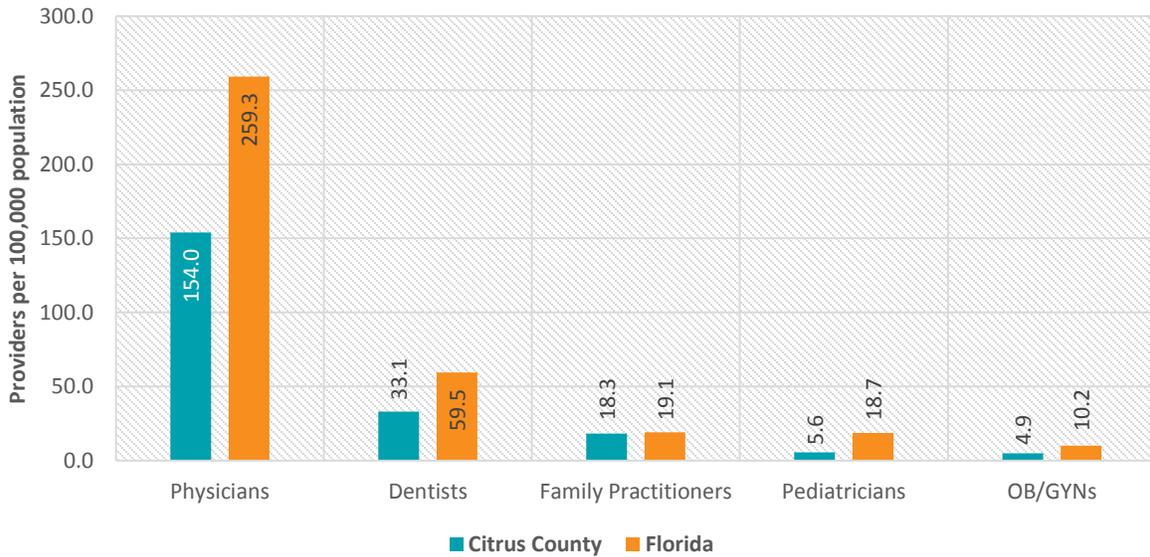
Educational Attainment											
	2010		2011		2012		2013		2014		Data Source
	Citrus County	Florida									
Individuals Age 25 and Older with a Bachelor's Degree or Higher	16.5%	25.9%	16.5%	26.0%	16.4%	26.2%	16.6%	26.4%	16.8%	26.8%	U.S. Census Bureau

HEALTH AND HEALTHCARE

Monthly Medicaid Enrollment



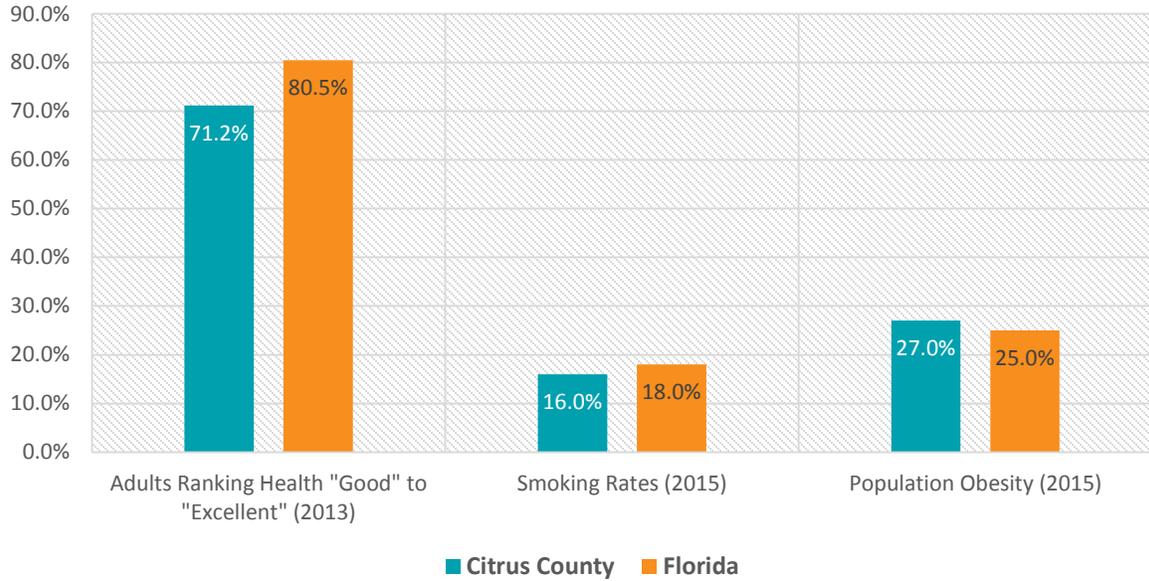
Provider Rates (2015)



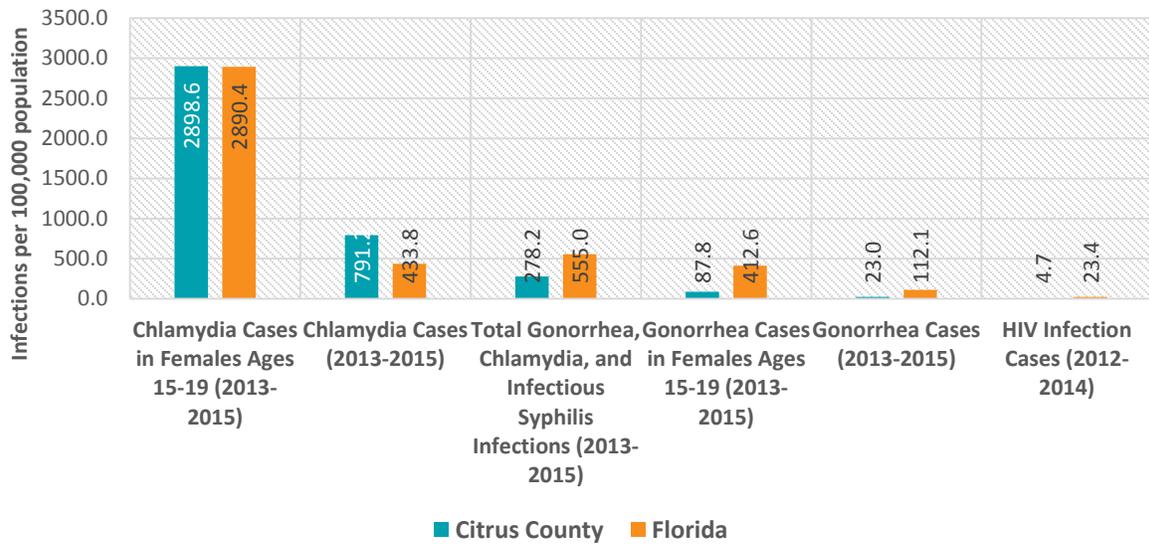
Medicaid																				
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source	
	Citrus County	Florida	FL CHARTS																	
Median Monthly Medicaid Enrollment	10.5%	11.9%	11.1%	12.5%	12.0%	13.3%	13.7%	14.8%	14.6%	15.6%	15.5%	16.7%	16.4%	17.6%	17.1%	18.4%	18.0%	19.2%	Agency for Health Care Administration	

Provider Rates (per 100,000 population)																					
Fiscal Year	2005-2006		2006-2007		2007-2008		2008-2009		2009-2010		2010-2011		2011-2012		2012-2013		2013-2014		2014-2015		Data Source
	Citrus County	Florida	FL CHARTS																		
Physicians	147.9	217.2	152.7	218.5	151.2	220.6	150.1	227	157.5	227.5	182.1	255.6	180.8	260.2	177.4	265.6	186.1	275.7	154	259.3	Florida Dept. of Health
Dentists	27.8	51.5	26.9	52.7	26.3	51.7	27.5	52.8	30.4	52.7	28.3	53.4	28.4	53.4	30.4	54.8	28.2	53.8	33.1	59.5	
Family Practitioners	9	14	11.6	14.6	10.6	15.4	14.1	16.5	18.4	16.7	22.7	23.5	22	23.9	22.6	24	29.6	25.5	18.3	19.1	Division of Medical Quality Assurance
Pediatricians	5.3	14.6	5.8	14.9	7.1	16.9	6.3	16.7	2.8	13	7.8	20.9	7.8	21.3	6.4	19.5	7.8	23	5.6	18.7	
OB/GYNs	3.8	8.1	2.9	8.1	1.4	8.4	2.1	8.7	1.4	6.8	2.8	9.7	2.8	9.8	3.5	9.9	4.9	9.9	4.9	10.2	

Interpersonal Health Factors

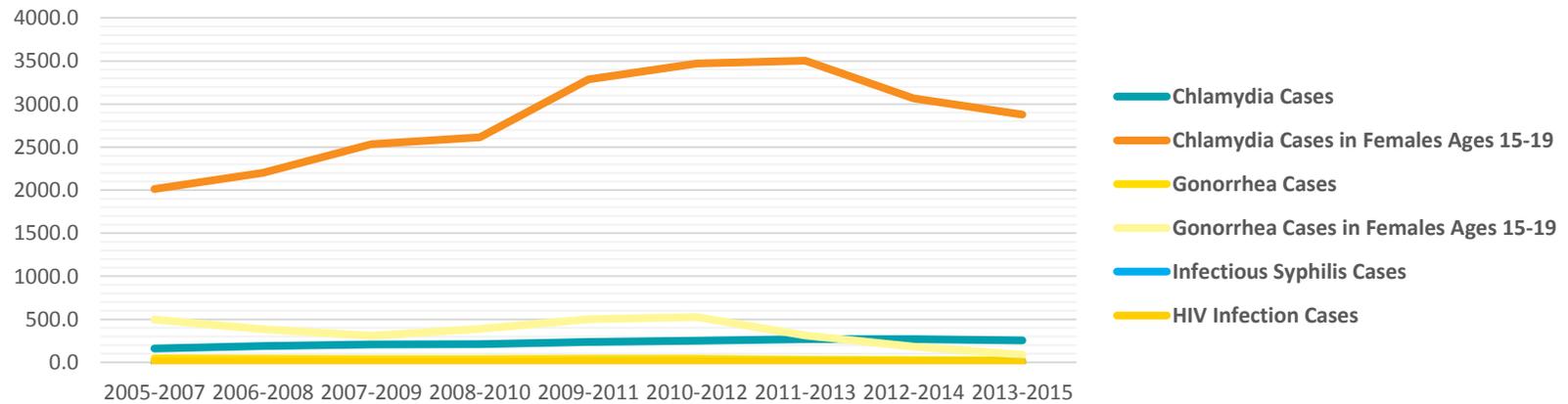


Sexually Transmitted Infections



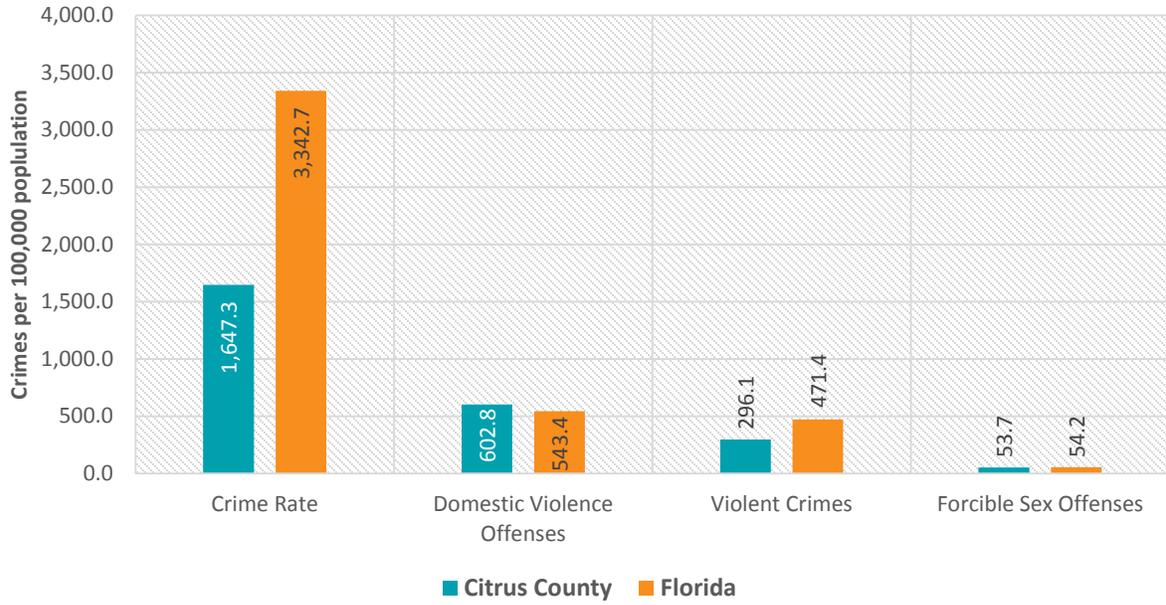
Sexually Transmitted Infections (per 100,000 population)																			
	2005-2007		2006-2008		2007-2009		2008-2010		2009-2011		2010-2012		2011-2013		2012-2014		2013-2015		Data Source
	Citrus County	Florida	FL CHARTS																
Chlamydia Cases	158.9	274.7	190.6	320.3	208.3	360.6	209.8	388.8	236.5	396.0	252.6	402.4	267.5	409.8	267.7	417.8	253.9	433.8	Florida Department of Health
Chlamydia Cases in Females Ages 15-19	2011.7	2427.8	2202.3	2755.4	2532.8	3130.0	2615.1	3315.0	3285.3	3288.0	3471.7	3201.7	3504.2	3066.4	3065.6	2921.3	2876.6	2890.4	
Gonorrhea Cases	44.9	123.7	42.1	127.4	37.7	120.8	39.1	114.4	42.2	107.6	40.6	104.6	30.9	105.3	25.1	105.7	23.0	112.1	
Gonorrhea Cases in Females Ages 15-19	495.5	685.2	385.1	729.7	307.9	722.8	387.8	693.0	500.8	627.5	526.3	559.8	311.9	497.4	181.6	434.6	87.8	412.6	Bureau of STD Prevention and Control
Infectious Syphilis Cases	0.2	4.3	0.2	4.8	0.2	5.4	0.2	5.8	0.7	6.2	0.7	6.7	0.9	7.3	1.2	8.0	1.4	9.1	
HIV Infection Cases	7.8	33.4	7.4	33.0	6.1	31.9	4.7	28.5	3.5	25.9	4.0	24.5	3.8	23.8	4.7	23.4	N/A	N/A	

Sexually Transmitted Infections

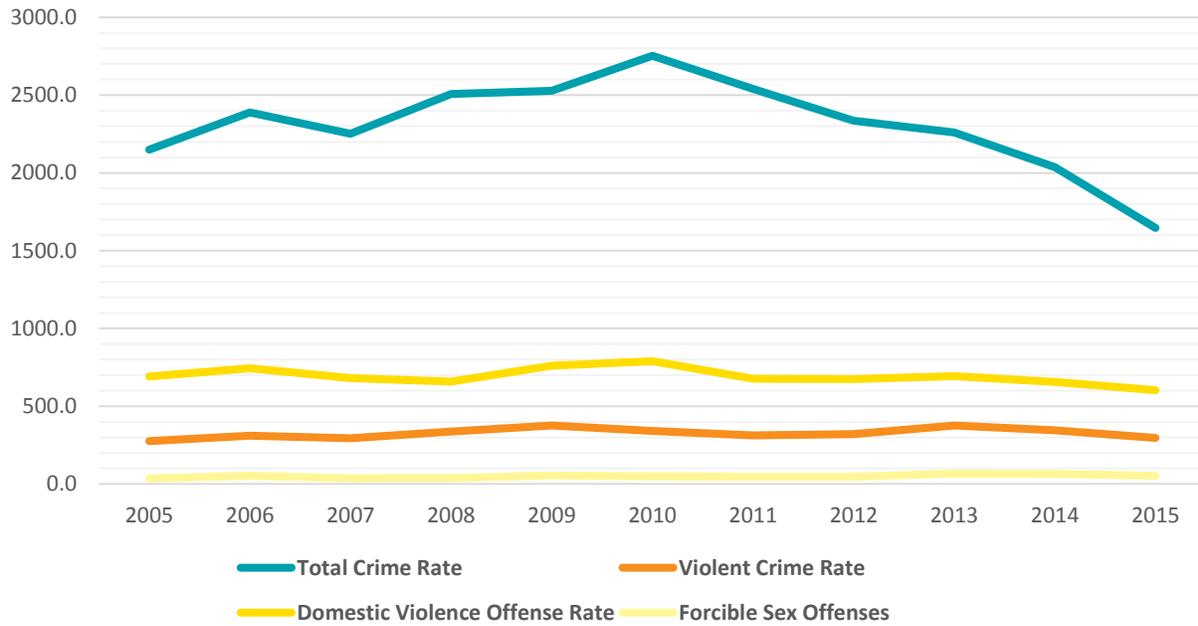


NEIGHBORHOOD AND BUILT ENVIRONMENT

Crime (2015)



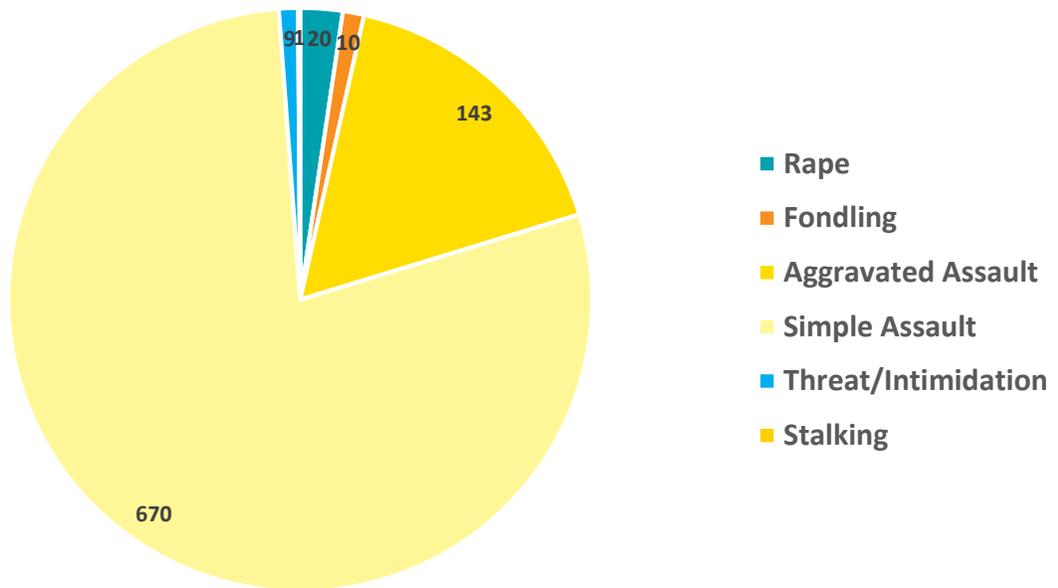
Crime Trends



Crime (per 100,000 population)

	2005		2006		2007		2008		2009		2010		2011		2012		2013		2014		2015		Data Source
	Citrus County	Florida																					
Total Crime Rate	2148.8	4677.2	2389.0	4632.0	2251.6	4694.7	2507.7	4699.8	2527.2	1397.5	2753.8	4104.7	2539.8	4070.2	2335.9	3806.1	2260.9	3627.4	2037.0	3450.7	1647.3	3342.7	Florida Department of Law Enforcement
Violent Crime Rate	276.7	702.2	310.8	705.8	293.3	705.5	336.5	670.3	375.9	604.9	341.8	542.9	313.6	519.3	320.4	492.6	375.7	476.2	345.2	466.8	296.1	471.4	
Domestic Violence Offense Rate	692.1	671.9	744.4	627.7	680.8	616.4	659.0	601.5	760.8	621.6	789.7	604.0	677.5	590.7	674.2	566.4	693.9	560.9	657.0	547.9	602.8	543.4	
Forcible Sex Offenses	36.9	68.3	52.7	63.0	37.1	60.0	38.0	57.5	54.0	54.5	49.2	52.7	46.1	52.3	46.2	53.2	67.6	51.2	66.1	52.5	53.7	54.2	

Domestic Violence Offenses (2015)



Access to Healthy Lifestyle

