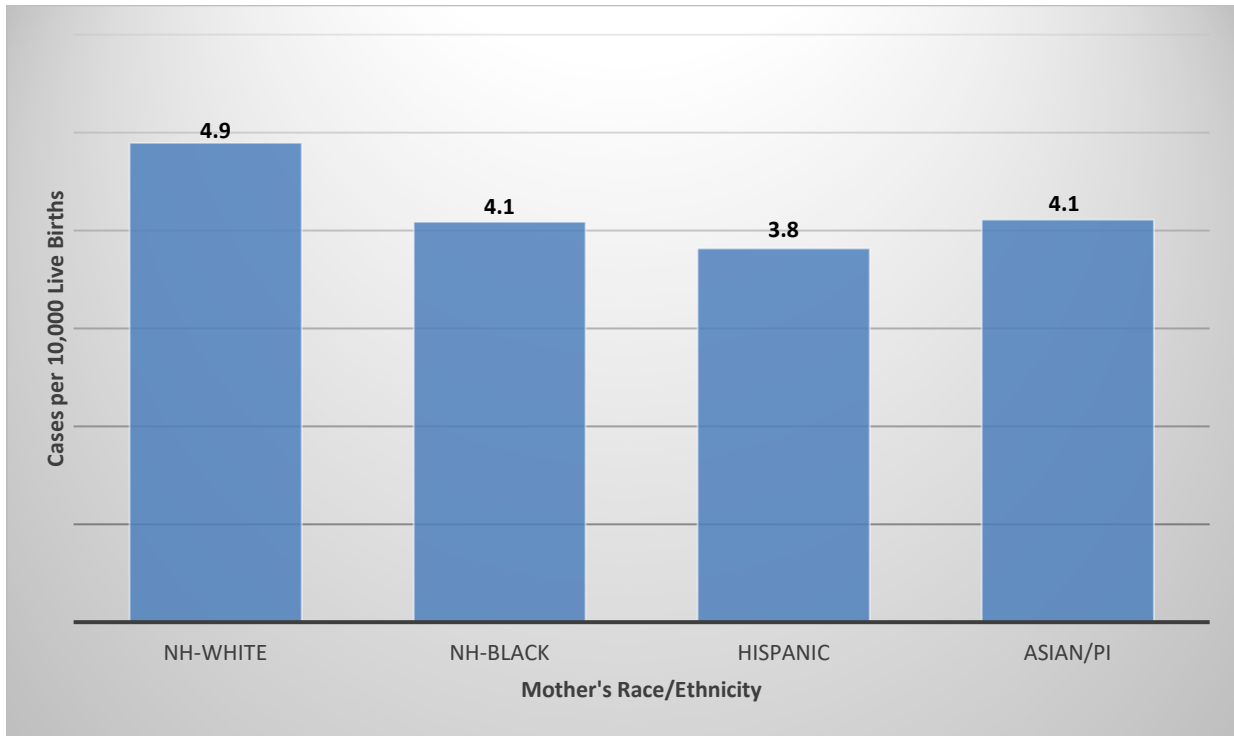


## **Neural Tube Defects and Race and Ethnicity**

Neural tube defects (NTDs) are birth defects that develop during the first four weeks of pregnancy and are a result of the neural tube structure, that forms the brain and spinal cord, not closing completely. The most common NTD is spina bifida. Spina bifida is characterized by the improper closure of the spinal column. Babies born with spina bifida have an exposed spinal cord and membranes, and often have other associated birth defects such as clubfoot and hydrocephaly. The rate of spina bifida in Florida from 2010 to 2014 is 2.8 cases per 10,000 live births. Anencephaly is another NTD that occurs when the cranial portion of the neural tube fails to close, resulting in incomplete development of the brain. Infants with anencephaly are unable to survive outside of the womb. When carried to term, they are either stillborn or die shortly after birth. The prevalence rate of anencephaly from 2010 to 2014 is 0.8 cases per 10,000 live births. Encephalocele is a rare NTD that, like anencephaly, affects the brain. Encephalocele is characterized by a sac-like projection of the brain and its surrounding membranes through an opening in the skull. It normally occurs in the midline of the upper skull. From 2010 to 2014, the prevalence rate of encephalocele was 0.7 cases per 10,000 live births.

The consumption of folic acid has been shown to reduce the risk of NTDs. The Centers for Disease Control and Prevention (CDC) recommends that all women of reproductive age take a supplement that contains 400 micrograms of synthetic folic acid daily prior to and during pregnancy. It is also advised that these women should eat diets that are high in naturally occurring folate.

**Figure 5: NTDs\* by Race/Ethnicity, Florida, 2010-2014**



\*Neural tube defects include anencephaly, spina bifida, and encephalocele

\*\*NH: Non-Hispanic