III Maternal and Infant Health

The well-being of mothers, infants, and children determines the health of the next generation and can help predict future public health challenges for families, communities, and the health care system. Existing health risks in women can be identified to prevent future health problems for women and their children during pregnancy [5]. The determinants that influence maternal health also affect pregnancy outcomes and infant and child health. Racial and ethnic disparities exist in infant mortality and can be partly attributed to disparities in social determinants of health [6-12]. Child health status varies by both race and ethnicity, as well as by family income and related factors, including educational attainment among household members and health insurance coverage [13-14]. Child health status and well-being can also be influenced by access to high-quality health care, such as that received through a medical home and maternity care practices that promote breastfeeding and safe sleep environments [15-17].

A mother's health, nutrition, and behaviors can influence cognitive and physical development of infants and children during pregnancy and early childhood [5]. Consumption of recommended amounts of folic acid before and during pregnancy can reduce the risk for neural tube defects. Breast milk is widely acknowledged to be the most complete form of nutrition for most infants, with a range of benefits for their health, growth, immunity, and development [18-19]. Furthermore, children reared in safe and nurturing families and neighborhoods, free from maltreatment and other adverse childhood experiences, are more likely to have better outcomes as adults [20-22].
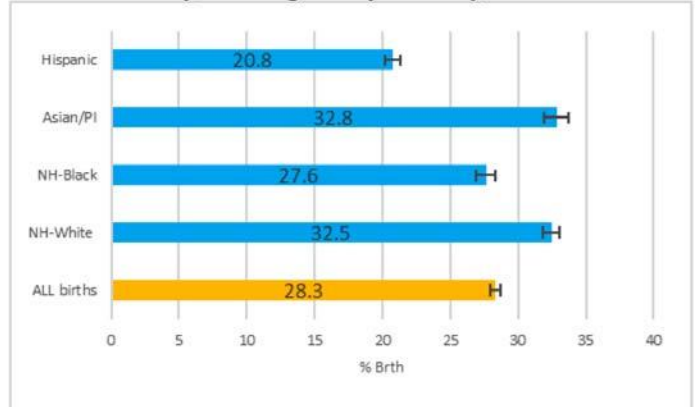
Maternal and Infant Health

- Montgomery County had an increasing trend of the percentage of women ages 35-44 giving birth, following the same trends as Maryland; the percentage of women age 35-44 giving birth in the County is consistently higher than that of Maryland. (Fig. 39).
- Among population subgroups, the Asian/PI and NH-White groups had a higher percentage of births among women age 35-44, followed by NH-Black, and Hispanic (Fig. 40).

Fig. 39. Percent Births among Women Age 35-44, Montgomery County and Maryland, 2012-16

Fig. 40. Percent Births among Women Age 35-44 by Race/Ethnicity, Montgomery County, 2012-16

- Montgomery County had an overall increasing trend of the percentage of births to unmarried women, while the trends for Maryland and the U.S. seem stable; the percentage of births to unmarried women in the County is consistently lower than that of Maryland and U.S. (Fig. 41).
- Among population subgroups, the Hispanic group had the highest percentage of births to unmarried women, followed by NH-Black, NH-White, and Asian/PI (Fig. 42).

Fig. 41. Percent Births to Unmarried Women, Montgomery County, Maryland, and U.S., 2012-16
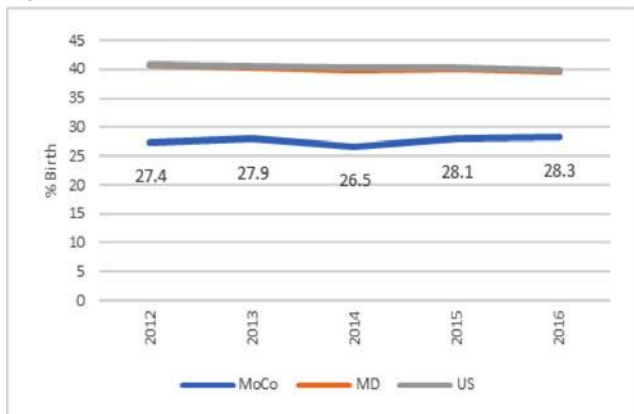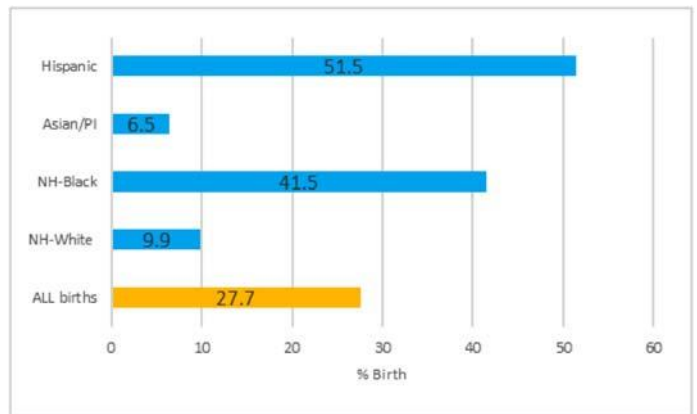

Fig. 42. Percent Births to Unmarried Women by Race/Ethnicity, Montgomery County, 2012-16

- The percentage of births to women without a high school education in the County fluctuated 2012-16, with a decreasing trend overall, while the trend seems to be decreasing in Maryland (Fig. 43).
- Among population subgroups, Hispanics had the highest percentage of births to women without a high school education, followed by NH-Black, Asian/PI, and NH-White (Fig. 44).

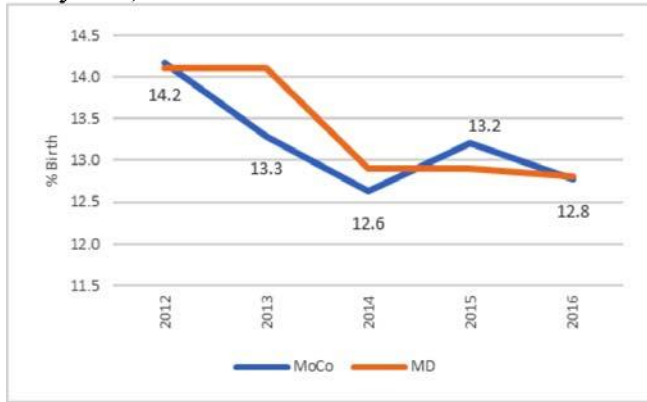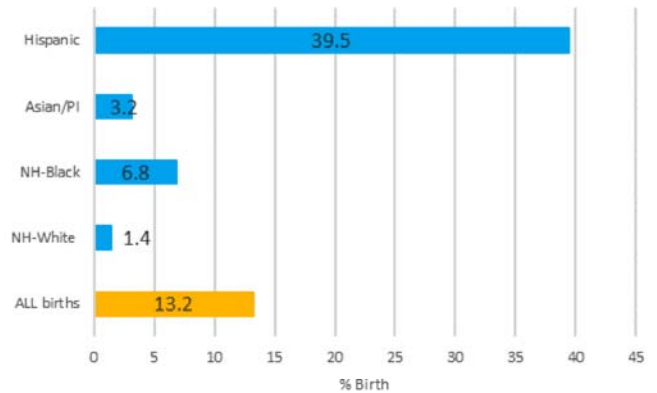Fig. 43. Percent Births to Women without High School Education, Montgomery County and Maryland, 2012-16

Fig. 44. Percent Births to Women without High School Education by Race/Ethnicity, Montgomery County, 2012-16

- Montgomery County had an overall decreasing trend of the percentage of plural births, followed the same trend as Maryland; the percentage of plural births in the County has been consistently higher than that of Maryland since 2014 (Fig. 45).
- Among population subgroups, NH-Black and NH-White groups had a higher percentage of plural births, followed by Asian/PI and Hispanic groups (Fig. 46).

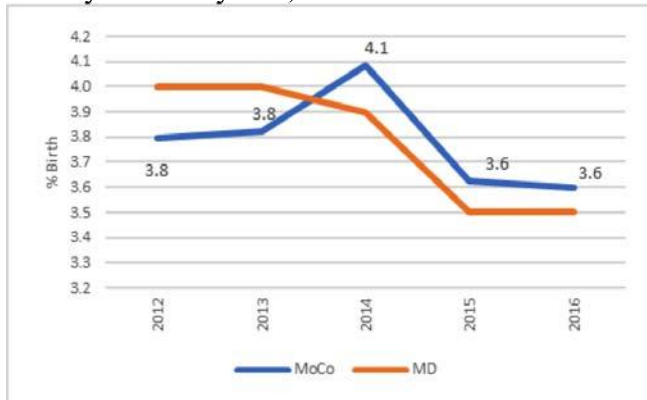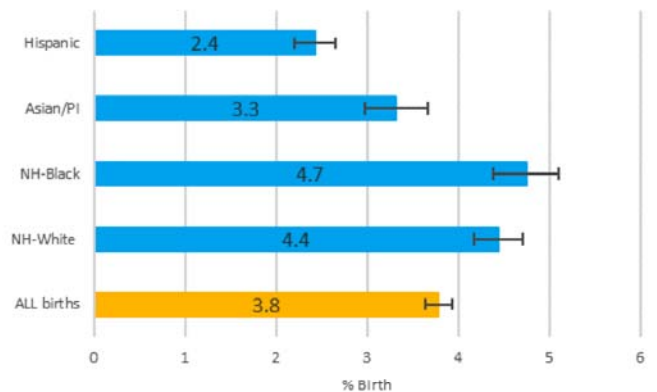Fig. 45. Percent Plurality Births, Montgomery County and Maryland, 2012-16

Fig. 46. Percent Plurality Births by Race/Ethnicity, Montgomery County, 2012-16

- Montgomery County had an overall decreasing trend of the percentage of births with late or no prenatal care; the percentage of births with late or no prenatal care in the County has been consistently lower than that of Maryland (Fig. 47).
- Among population subgroups, the NH-Black group had the highest percentage of births with late or no prenatal care, followed by Hispanic, Asian/PI, and NH-White (Fig. 48).

Fig. 47. Percent Birth with Late or No Prenatal Care, Montgomery County and Maryland, 2012-16
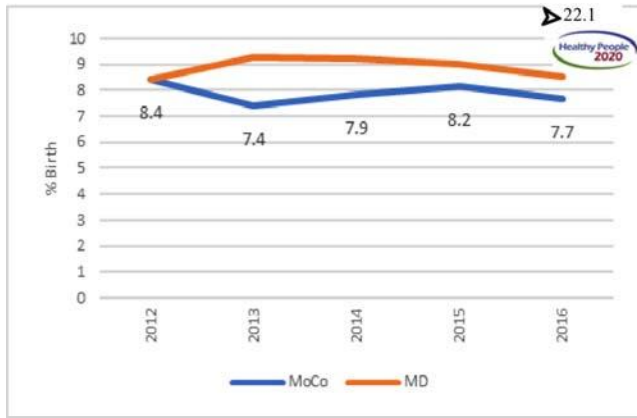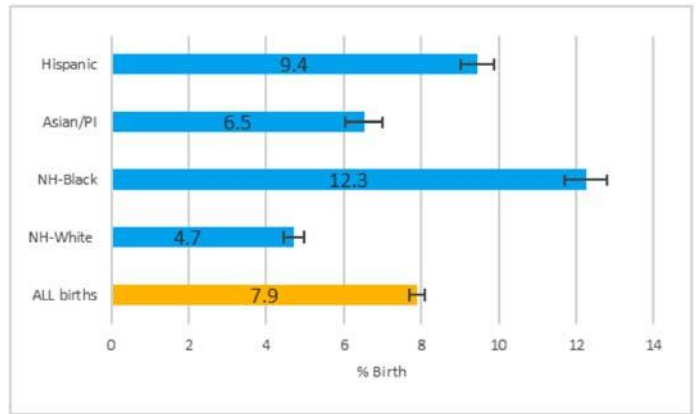

Fig. 48. Percent Birth with Late or No Prenatal Care by Race/Ethnicity, Montgomery County, 2012-16

- Montgomery County had an overall decreasing trend of tobacco use during pregnancy, though this information collected from birth records may be under-reported (Fig. 49).
- Among population subgroups, NH-Black and NH-White had higher tobacco use during pregnancy, followed by Hispanic and Asian/PI (Fig. 50)

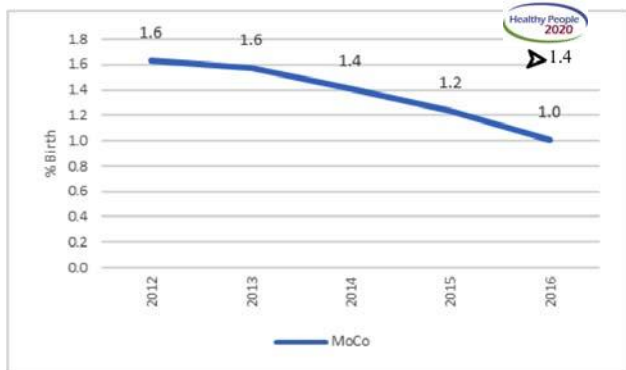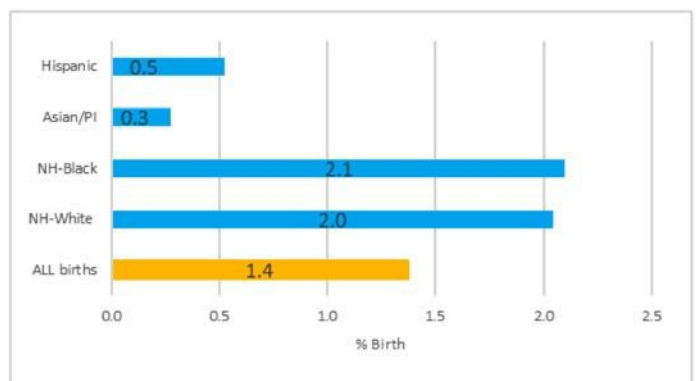Fig. 49. Tobacco Use during Pregnancy, Montgomery County, 2012-16

Fig. 50. Tobacco Use during Pregnancy by Race/Ethnicity, Montgomery County, 2012-16

- Montgomery County had an overall increasing trend of preterm births, though it fluctuated between 2012-16; the trend of preterm births in the County is consistently lower than that of Maryland (Fig. 51).
- Among population subgroups, the NH-Black had the highest percentage of preterm births than other groups (Fig. 52).

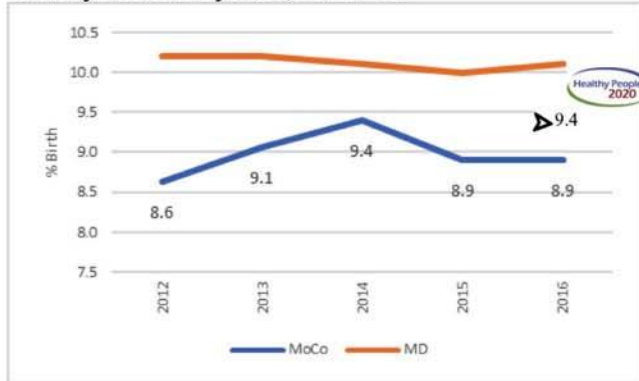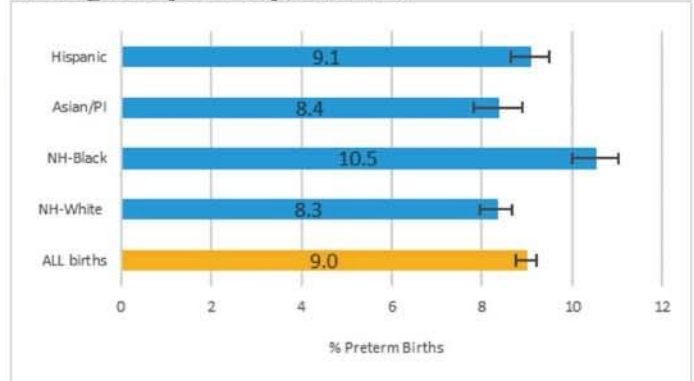Fig. 51. Percent Preterm Births, Montgomery County and Maryland, 2012-16

Fig. 52. Percent Preterm Births by Race/Ethnicity, Montgomery County, 2012-16

- The trend of low birth weight in Montgomery County over time is similar to that of Maryland and the U.S.; low birth weight in the County has been consistently lower than that of Maryland and the U.S. (Fig. 53).
- Among population subgroups, the NH-Black had the highest percentage of low birth weight than other groups, and NH-White has the lowest percentage (Fig. 54).

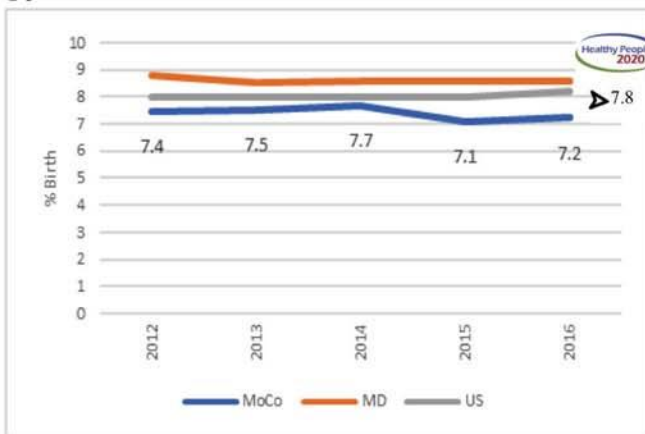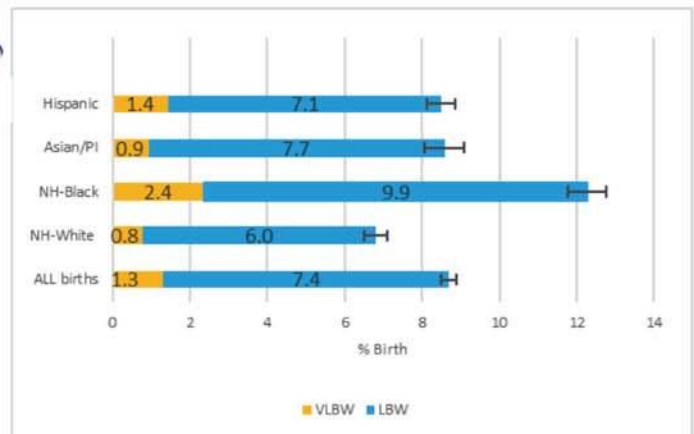Fig. 53. Percent Low Weight Births, Montgomery County, Maryland, and U.S., 2012-16

Fig. 54. Percent Low and Very Low Weight Births by Race/Ethnicity, Montgomery County, 2012-16

Very low birth weight: 1.4% of live births

- Infant mortality rates in Montgomery County fluctuated over time during 2008-16, with a decrease up to 2014 and increase again since 2015; the trend of infant mortality in the County is consistently lower than that of Maryland and the U.S. (Fig. 55).
- Among population subgroups, NH-Black had the highest infant mortality rate, followed by Hispanic, and NH-White (Fig. 56).

Fig. 55. Infant Mortality Rate, Montgomery County, Maryland, and U.S., 2008-2016
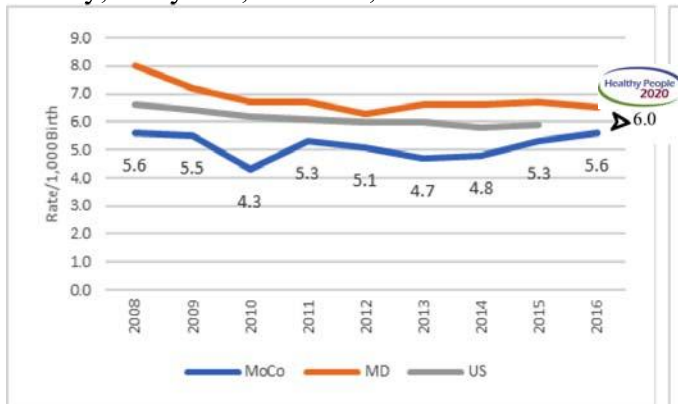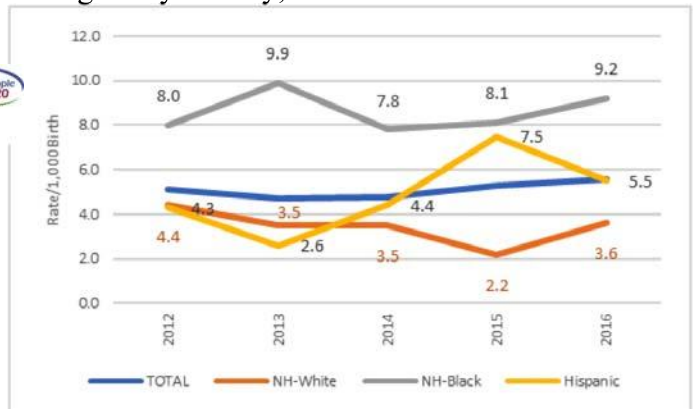

Fig. 56. Infant Mortality Rate by Race/Ethnicity, Montgomery County, 2012-16

Map 2. Infant Mortality Rate by Census Tract,
Montgomery County, 2008-2016

County Rate=5.2/1,000 births

County comparison (p=0.2)
No difference
Significantly higher
IMR
<= County rate
> County rate