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# Children and Family Health Services

## Maternal and Child Health Report

*Focus on Hamilton County Women and Children*

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### **PREMATURITY IN HAMILTON COUNTY, 1990-1996.**

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This issue of the Maternal and Child Health Report presents recent data on prematurity for residents of Hamilton County. Prematurity, defined as a birth with a period of gestation of less than 37 completed weeks, is widely recognized as the leading cause of perinatal mortality and long-term morbidity. The most common cause of delivery prior to 37 weeks is premature labor. Other women deliver premature infants following premature rupture of membranes or are delivered due to fetal or maternal complications.

Figure 1 shows the upward trend in prematurity rates from 1990 to 1996 for residents of Hamilton County. The prematurity rate for all races has increased between 1990 and 1996 from 8.7 to 11.2. The rates are separated by race because race is a known risk factor for delivering a premature infant. For every year blacks were more likely than whites to deliver a premature infant. Despite this, the prematurity rate has increased more for whites than blacks. The prematurity rate for whites increased from 6.5 percent in 1990 to 9.8 percent in 1996 while the rate for blacks increased from 14.2 percent in 1990 to 14.9 percent in 1996.

In addition to race, delivering multiple gestation births is a known risk factor for prematurity. That is, infants who are twins or higher order multiples (e.g., triplets, quadruplets, quintuplets) are more likely to be born premature than are singletons. In 1996, for instance, the prematurity rate for singletons was 9.1 percent among Hamilton County residents while for multiples it was 66.4 percent. The

prematurity rate for all multiples in 1996 reflects an increase from 1990, when 54.2 percent of all multiples were delivered premature. It is important to note that the prematurity rate among singletons also increased from 1990 (7.4 percent) to 1996 (9.1 percent). According to the National Center for Health Statistics, the average period of gestation for higher order multiples is seven weeks shorter than for singletons.<sup>1</sup> Because a shortened gestation places these infants at an increased risk for short and long-term health problems that require heavy resource use (e.g., neonatal intensive care unit days), many clinicians have recommended that efforts should be made to prevent multiple gestation births.<sup>2</sup> For multiple deliveries that are not preventable, effective strategies to extend gestational age should be implemented.

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<sup>1</sup> Martin et al., *Vital Health Stat*, 21(55): 1997.

<sup>2</sup> Ettner et al., *Inquiry*, 34(4): 1997-1998 Winter.

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**Percent Births born Premature (<37 weeks) by Race:  
Hamilton County residents, 1990-1996**

