
Children and Family Health Services

Maternal and Child Health Report

Focus on Hamilton County Women and Children

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INITIATION OF PRENATAL CARE IN HAMILTON COUNTY

This issue of the CFHS Maternal and Child Health Report describes when Hamilton County mothers initiate prenatal care in their pregnancies. Early prenatal care and an adequate number of prenatal visits are believed to improve birth outcomes. In addition, such care may lower the costs and complications linked to low birthweight.¹ The American College of Obstetricians and Gynecologists recommends that prenatal care begin as early in the first trimester as possible.

According to the National Center for Health Statistics, 78.9 percent of all U.S. mothers and 83.7 percent of all Ohio mothers who delivered in 1993 began prenatal care in the first trimester of their pregnancies. In addition, 4.8 percent of U.S. mothers and 3.5 percent of Ohio mothers delayed their first visit until the third trimester or had no care at all. The national data reveal that maternal age and initiation of prenatal care are associated.² Older mothers were, in general, more likely than younger mothers to begin prenatal care in the first trimesters of their pregnancies.

The National Center for Health Statistics' data are based on 100 percent of the 1993 birth certificates in all States and the District of Columbia. The method of data collection for the month that prenatal care started varies, depending on the site of delivery. For instance, University Hospital collects this information directly from the mother. Other hospitals may abstract data from the medical chart. Both methods of data collection could produce error. Mothers may have difficulty remembering when they began prenatal care, which could produce error if information is collected from the mother. On the other hand, prenatal care records may be missing from the charts or incomplete and this may produce error if the method of collection is chart review.

In a recent study our research group randomly selected 112 women who delivered at University Hospital in 1994. We compared various items in their medical charts with their corresponding birth certificates, including the month that prenatal care started. In the majority of cases where the birth certificate and medical chart did not agree, women reported starting prenatal care earlier than what was recorded in the chart. That is, the birth certificate indicated an earlier initiation of care than the medical chart. Other studies have also found that the birth certificate tends to overestimate early receipt of prenatal

care.^{3,4} Data grouped by trimester, however, do lessen some of the differences in comparability.

Table 1 shows the percent of Hamilton County mothers, by age, who began prenatal care in the first, second, and third trimesters of their pregnancies. According to the 1994 Ohio birth certificate data file, 86.8 percent of Hamilton County mothers started prenatal care in their first trimester. A relationship between initiation of care and age of mother is observed in Table 1. Similar to national data, older mothers were more likely than younger mothers to initiate prenatal care in their first trimester. For instance, among mothers 15-17 years old, 66.8 percent received care in their first trimester while for mothers 40 years and older, 92.3 percent started care in their first trimester.

The percent of mothers who did not receive prenatal care during their pregnancies is also shown in Table 1. Among all Hamilton County mothers, 2.7 percent reported no prenatal care. A relationship between maternal age and lack of prenatal care is also observed in Table 1. With the exception of the youngest group of mothers (i.e., 10-14 year olds), younger mothers were more likely than older mothers to report receiving no prenatal care. For example, among 15-17 year old mothers, 4.6 percent reported no prenatal care while 1.9 percent of mothers 30-39 years old reported no prenatal care.

The next issue of the newsletter describes the extent to which Hamilton County mothers receive an adequate number of prenatal visits.

^{1,2} Ventura, SJ. *Monthly Vital Statistics Report* 44(3):1995.

³ Forrest, J. & Singh, S. *Health Services Research* 22(2):1987.

⁴ Piper et al. *American J Epidemiology* 137(7):1993.

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Table 1. The percent (and number) of mothers beginning prenatal care by trimester of pregnancy^a, by age of mother: Hamilton County, 1994^b.

	Trimester prenatal care began				Percent Number
	First	Second	Third	No Care	
Age of mother (years)					
All ages.....	86.8 (10630)	9.3 (1143)	1.2 (144)	2.7 (333)	% (n)
10-14.....	50.8 (32)	38.1 (24)	9.5 (6)	1.6 (1)	% (n)
15-17.....	66.8 (474)	25.2 (179)	3.4 (24)	4.6 (33)	% (n)
18-19.....	77.1 (732)	17.4 (165)	1.5 (14)	4.0 (38)	% (n)
15-19.....	72.7 (1206)	20.7 (344)	2.3 (38)	4.3 (71)	% (n)
20-29.....	86.6 (5272)	9.2 (563)	1.2 (74)	2.9 (179)	% (n)
30-39.....	92.8 (3952)	4.7 (198)	.6 (26)	1.9 (82)	% (n)
40+.....	92.3 (168)	7.7 (14)			% (n)

^aWomen who initiated prenatal care in months 1-3 of their pregnancies are included in the first trimester group and women who started prenatal care in months 4-6 are included in the second trimester category. The third trimester category includes those women who started prenatal care in months 7-9.

^bSource: Ohio Department of Health data file, 1994.