
Children and Family Health Services

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Focus on Hamilton County Women and Children

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PRENATAL CARE UTILIZATION IN HAMILTON COUNTY: 1995

This issue of the Maternal and Child Health Report describes prenatal care utilization among Hamilton County mothers for 1995, the most recent year of birth certificate data available. In previous issues we have presented similar data for 1994 (see Volume I, Issue 5) as well as discussed data quality issues surrounding the use of the birth certificate as a source of health services utilization data (see Volume I, Issue 4). Kotelchuck's Adequacy of Prenatal Care Utilization (APNCU) index¹ is a widely used index that makes use of two types of prenatal care information--initiation of care and the number of prenatal visits from initiation of care until delivery.

The initial dimension, *Adequacy of Initiation of Prenatal Care*, characterizes the adequacy of the timing of initiation of care as follows: pregnancy months 1 and 2, months 3 and 4, months 5 and 6, and months 7 to 9. Table 1 shows that 72.1% of Hamilton County women who delivered in 1995 started prenatal care in months 1-2; this figure is not markedly different from 1994: 72.3% of mothers began prenatal care in months 1-2 in 1994. Table 1 also shows that 6.9% of mothers started care in their 7th month or later in 1995, which is characterized as 'Inadequate' by Kotelchuck. This figure reflects a small increase from 1994, when 3.9% of women began prenatal care in their 7th month or later.

The second dimension, *Adequacy of Received Services*, characterizes the adequacy of the number of prenatal care visits received. The number of prenatal visits is compared to the number of expected visits for the period between a woman's initiation of care and her delivery. The expected number of visits is based on the American College of Obstetricians and Gynecologists prenatal care standards for uncomplicated pregnancies and is adjusted for the gestational age at initiation of care and for the gestational age at delivery.² A ratio of observed to expected visits is computed and grouped into four categories—Inadequate

(received less than 50% of expected visits), Intermediate (50%-79%), Adequate (80%-109%), and Adequate Plus (110%). Almost 84% (83.7%) of Hamilton County women received 80% or more of their expected prenatal visits in 1995 (Table 1). This figure reflects almost no change from 1994, when 83.9% of women received 80% or more of their expected prenatal visits. A slight increase was observed between 1994 and 1995 in the number of women who received less than 50% of their expected prenatal visits. In 1995 7.8% of women received less than 50% of their expected prenatal visits while in 1994, 5.9% received less than 50% of their expected prenatal visits.

Table 1 also includes the final APNCU index measure that combines the first two dimensions into a single summary score. Inadequate utilization is defined as either late initiation (after the 4th month of pregnancy) or by receiving less than 50% of recommended visits. The remaining groups require initiation of care by the 4th month of pregnancy and then are coded according to the extent of received services (see Table 1). Eighty percent of women received adequate or adequate plus prenatal care while the remaining 20% received intermediate or inadequate care in both 1994 and 1995.

¹ Kotelchuck, M. *Am J Public Health* 84(9):1994.

² Ibid.

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Table 1. Percentage distribution of 1995 Hamilton County mothers and births rated on the Adequacy of Prenatal Care Utilization Index*.

	Number <u>of mothers</u>	Percent <u>of mothers</u>	Number** <u>of births</u>	Percent** <u>of births</u>
Adequacy of Initiation of Prenatal Care				
Adequate Plus: 1 st or 2 nd month	8603	72.1%	8772	72.2%
Adequate: 3 rd or 4 th month	2085	17.5	2109	17.4
Intermediate: 5 th or 6 th month	415	3.5	418	3.4
Inadequate: 7 th month or later, or no care	825	6.9	844	7.0
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	11928	100.0%	12143	100.0%
Adequacy of Received Services				
Adequate Plus: > 110%	3401	28.5%	3574	29.4%
Adequate: 80%-109%	6582	55.2	6601	54.4
Intermediate: 50%-79%	1009	8.5	1012	8.3
Inadequate: <50% (includes no care)	936	7.8	956	7.9
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	11928	100.0%	12143	100.0%
Summary Adequacy of Prenatal Care Utilization Index				
Adequate Plus: care begun by 4 th month & 110% or more of visits received	3162	26.5%	3333	27.4%
Adequate: care begun by 4 th month & 80%-109% of visits received	6438	54.0	6457	53.2
Intermediate: care begun by 4 th month & 50%-79% of visits received	903	7.6	905	7.5
Inadequate: care begun after the 4 th month or less than 50% of visits received (includes no care)	<u>1425</u>	<u>11.9</u>	<u>1448</u>	<u>11.9</u>
	<hr/>	<hr/>	<hr/>	<hr/>
	11928	100.0%	12143	100.0%

*Source of data: Ohio Department of Health data file, 1995.

**These columns include all births so that for multiple births prenatal care information is duplicated.

Note: there are 19 missing cases.