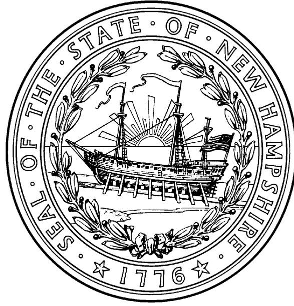


New Hampshire Births 1999 - 2000

EXECUTIVE SUMMARY

Prepared by:

New Hampshire Department of Health and Human Services
Office of Community and Public Health
Division of Epidemiology and Vital Statistics
Bureau of Health Statistics and Data Management

Craig R. Benson, Governor
Nicholas J. Vailas, Commissioner
Kathleen A. Dunn, Director

January 2003

Introduction

New Hampshire law requires that reports of all births be filed with the Department of Health and Human Services. The majority of births in New Hampshire occur in hospitals and are filed at the hospitals electronically. Demographic and socioeconomic information is reported by the parent(s) (parents can fill out that information themselves or hospital personnel can fill in that information through parent interview); other information is extracted from the medical record. For births that occur at home, information is collected at the city and town clerks' offices. Reports of New Hampshire resident births in other states and Canada are provided to the State Registrar, for statistical purposes only, under an inter-state/Canadian agreement for the exchange of vital events information.

Maternal health behaviors can have significant impact on the health and survival of mothers, developing fetuses, and infants. Some behaviors, such as the initiation of early and adequate prenatal care, proper nutrition, and folic acid intake, have positive health consequences for babies, including longer gestation, higher birth weight, and reduced risk of congenital disabilities. Conversely, maternal health behaviors like consuming alcohol and smoking cigarettes during pregnancy can have serious, even fatal, health effects for a newborn.

Demographic and socioeconomic factors are associated with a woman's health and health behaviors during pregnancy and may influence birth outcomes. Among the important maternal demographic and socioeconomic factors are age, income, marital status, and education. Additionally, maternal age can significantly affect a woman's health during pregnancy, the health of her baby, and the social outcomes of the pregnancy.

What's New in this Report?

New Hampshire Births, 1999 and 2000 summarizes New Hampshire birth information within major sections. Each section is further broken down into specific topics. This represents an increased level of detail for the birth data analysis than has been presented in previous New Hampshire birth reports.

Several other new features are also available in this report, including:

- Births are reported in a separate document from the other vital statistics (deaths, marriages, and divorces) to allow for a faster release of data, because birth data is typically available several months before death data.
- A Frequently Asked Questions (FAQ) section has been added. This addition is intended to assist readers in understanding the uses and limitations of the data in this report.
- Each section includes rationale to explain the significance of collecting and reporting on data about each topic area. This should enable readers to use the data more effectively by offering background information relating to the birth data.
- When available, contact information is included for New Hampshire programs working within the topic areas covered by this report.

- The main body of this report includes charts and tables that are of interest to a wide audience. Certain groups may be interested in more detail than what is presented in the main body of this report. Thus, an extensive Appendix, which provides detailed tables not discussed within the main body of the report and supplements the figures and tables within the report body with additional detail, is included in this report. The technical appendix also includes formulas used to generate the statistics in this report.
- Measures of progress towards achieving the goals established by the state-level Healthy New Hampshire 2010 (HNH2010) program are also included where relevant.
- The report allows readers to compare New Hampshire with the nation when appropriate and should help direct resources to areas of demonstrated need.

A Note about Data Analysis and Interpretation

The majority of the information included in this report reflects the data collected about New Hampshire residents. In some cases, there is discussion about the non-residents who gave birth in New Hampshire. However, unless otherwise noted, the data represents births to New Hampshire residents.

A 95% confidence interval (CI) is reported with many New Hampshire statistics in this report. While the birth data is nearly complete and therefore not subject to sampling error, it may be affected by misrecording of information during the data collection process. Additionally, when comparing rates over time or between groups it is necessary to consider the affect of random variation on the data. The affect of these issues will tend to be more pronounced with fewer records. The 95% confidence interval is the range of values that you could expect to occur under similar circumstances 95% of the time.[1]

Throughout the report, New Hampshire is compared to National rates. Where possible, the overall US rate and the US white rates are presented. The US white rate is a helpful comparison to the New Hampshire rate, because New Hampshire is much more predominately white than the United States.

Highlighted Results from *New Hampshire Births, 1999 and 2000*

- New Hampshire residents gave birth to 14,048 babies in 1999 and 14,590 babies in 2000.
- New Hampshire's crude birth rate (defined as the number of live births per 1,000 New Hampshire residents) was 11.7 births per 1,000 in 1999, and 12.0 births per 1,000 residents in 2000.
- Crude birth rates in New Hampshire were 19.3% and 18.4% lower than national rates for 1999 and 2000, respectively.
- New Hampshire's crude birth rate has generally fallen over the last two decades and has stabilized over the last five years.

Comparison of New Hampshire to the Nation

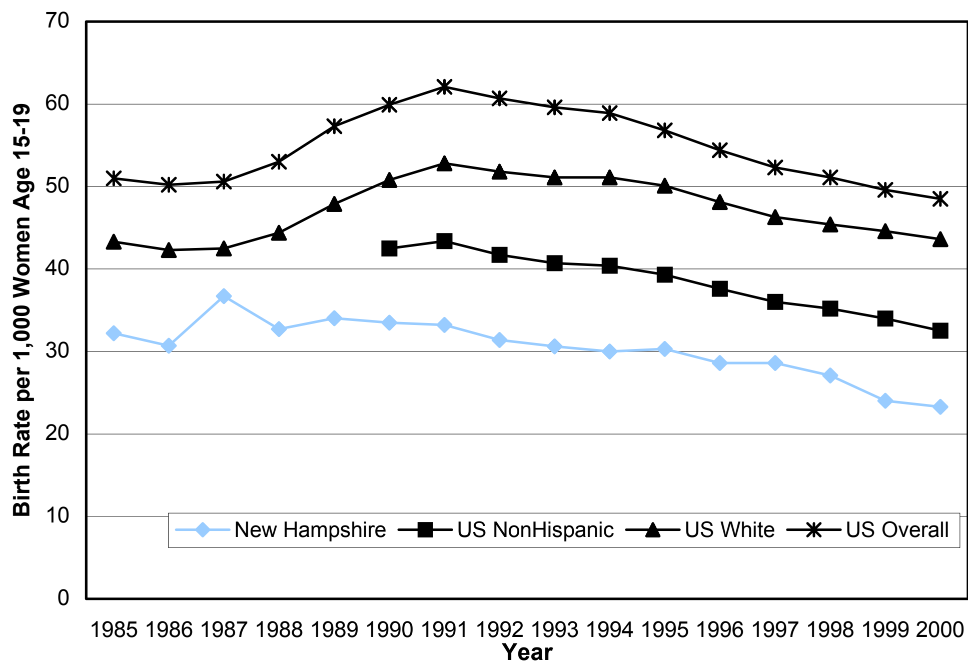
New Hampshire consistently compares favorably to national averages for birth outcomes. Compared to the United States as a whole, New Hampshire has historically had a lower:

- Teen pregnancy rate
- Percentage of women receiving late or no prenatal care
- Percentage of births to women with less than 12 years of education
- Percentage of births to unmarried women
- However, the percentage of women who report maternal tobacco use has been higher in New Hampshire than the national average.

***Teen Births*: New Hampshire's teen birth rate has been lower than the national average in all years and was the lowest among all the states in both 1999 and 2000.**

Studies at the national level have shown that adolescent pregnancies are a public health concern, because these pregnancies often endanger the health of both mother and baby[2]. New Hampshire's teen birth rate has been declining since 1989, as shown in Figure 1. At the national level, teen birth rates have declined overall, among Non-Hispanic whites, and among whites since 1991. New Hampshire's teen birth rates for 1999 and 2000 were 24.0 (95% CI: 22.5, 25.5) births per 1,000 women age 15–19 and 23.3 (95% CI: 21.9, 24.8) births per 1000 women age 15–19, respectively. For the Unites States, the teenage birth rate (women age 15–19) was 49.6 per 1,000 in 1999 and 48.5 per 1,000 in 2000.

Figure 1. Teen Birth Rate Trend, New Hampshire and United States, 1985–2000



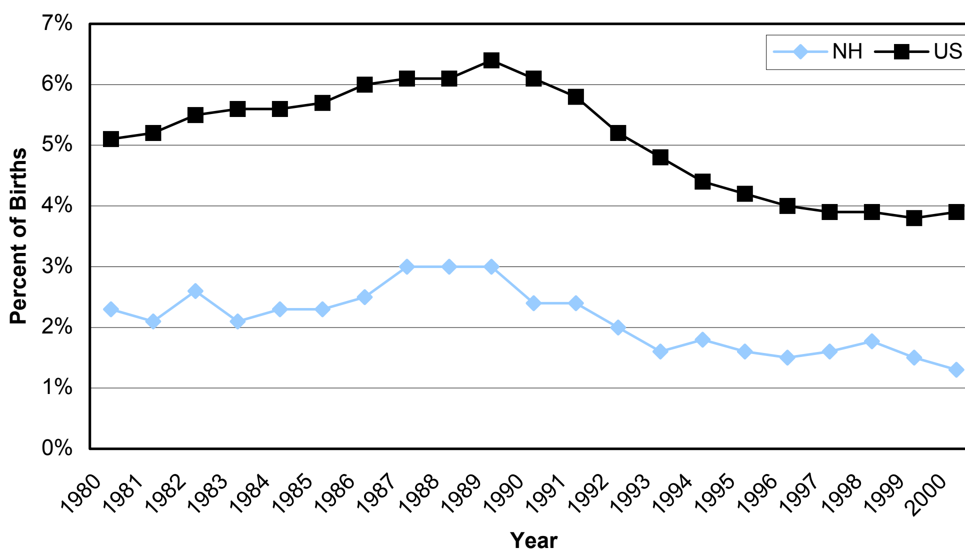
***Marital Status:* New Hampshire was among the top 5 states for the lowest percentage of births to unmarried women in both 1999 and 2000.**

Similar to the trend occurring in the United States, the percentage of births to unmarried mothers in New Hampshire has increased over the past 20 years. Women who are unmarried are more likely than married women to use Medicaid for prenatal and/or delivery costs. In 2000, New Hampshire's percentage of births to an unmarried mother was 25.9% lower than that for the United States (33.2% of US births were to unmarried mothers); however, the percentage of births to unmarried mothers in New Hampshire was 44.7% higher in 2000 than in 1990 (from 17.0% to 24.6%).

***Early Prenatal Care:* New Hampshire was among the top 5 states for the lowest percentage of women getting late or no prenatal care in both 1999 and 2000.**

Over the last 20 years, there has been a general decline in the percentage of births to mothers who sought late (initiated in the last trimester of pregnancy) or no prenatal care in both the United States and New Hampshire (Figure 2). The proportion of births with late or no prenatal care in New Hampshire has been lower than that of the United States since 1980. Less than 2% of births in New Hampshire were to mothers who had late or no prenatal care in 1999 (1.5%; 95% CI: 1.3, 1.7) and 2000 (1.3%; 95% CI: 1.1, 1.5). At the national level, 3.8% and 3.9% of mothers in the United States had late or no prenatal care in 1999 and 2000, respectively.

Figure 2. Late or No Prenatal Care Trend, New Hampshire and United States, 1980–2000



***Maternal Education*: Over the last two decades, New Hampshire has experienced a decline in the proportion of live births to mothers with fewer than 12 years of education.**

Because low education is often associated with poor health outcomes, mothers' educational attainment can be used as an indicator of birth risks. In both 1999 and 2000, approximately 10% of babies (10.5%; 95% CI: 9.9, 11.0 and 10.3%; 95% CI: 9.9, 10.8, respectively) were born to mothers with fewer than 12 years of

education in New Hampshire. Nationally, 25.9% and 21.7% of births were to women with less than 12 years of education in 1999 and 2000, respectively.

Low Birth Weight: **The percentage of low birth weight births has increased slightly in both New Hampshire and the United States over the last 20 years.**

According to the March of Dimes, babies born at a low birth weight are at risk for several health complications.[3] Combining 1999 and 2000, 6.3% (95% CI: 6.0%, 6.6%) of births to New Hampshire residents were of low birth weight. In the United States, 7.6% of births in 1999 and 2000 were of low birth weight.

Maternal smoking: **The percentage of births with maternal smoking reported was higher in New Hampshire than the United States for both 1999 and 2000.**

According to a 2001 United States' Surgeon General's report, women who smoke are more likely to experience delays in conception, as well as problems with primary and secondary infertility. Once a female smoker successfully conceives, she has a greater risk for conditions that result in fetal mortality, such as ectopic pregnancy and spontaneous abortion.[4] In 1999, there were 2,243 (16.0%; 95% CI: 15.4, 16.6) New Hampshire resident births with maternal smoking reported; in 2000, there were 2,414 (16.6%; 95% CI: 16.0, 17.2). Nationally, 12.6% and 12.2% of births had maternal smoking during pregnancy reported in 1999 and 2000, respectively.

Comparisons of Groups within New Hampshire

Although New Hampshire typically compares favorably to the United States as a whole and to most other states in the nation in birth outcomes, there are disparities among the various groups within New Hampshire. Specifically, differences were observed between:

- Race and ethnic groups
- Age groups
- Women who did and did not use Medicaid for payment for birth services.

Race and Prenatal Care: **Differences in prenatal care history between races did exist.**

The percentage of births with early prenatal care was significantly less for black mothers when compared to both white and Asian/Pacific Islander mothers. However, significantly fewer births to Asian and Pacific Islander women had early and adequate prenatal care when compared to white women.

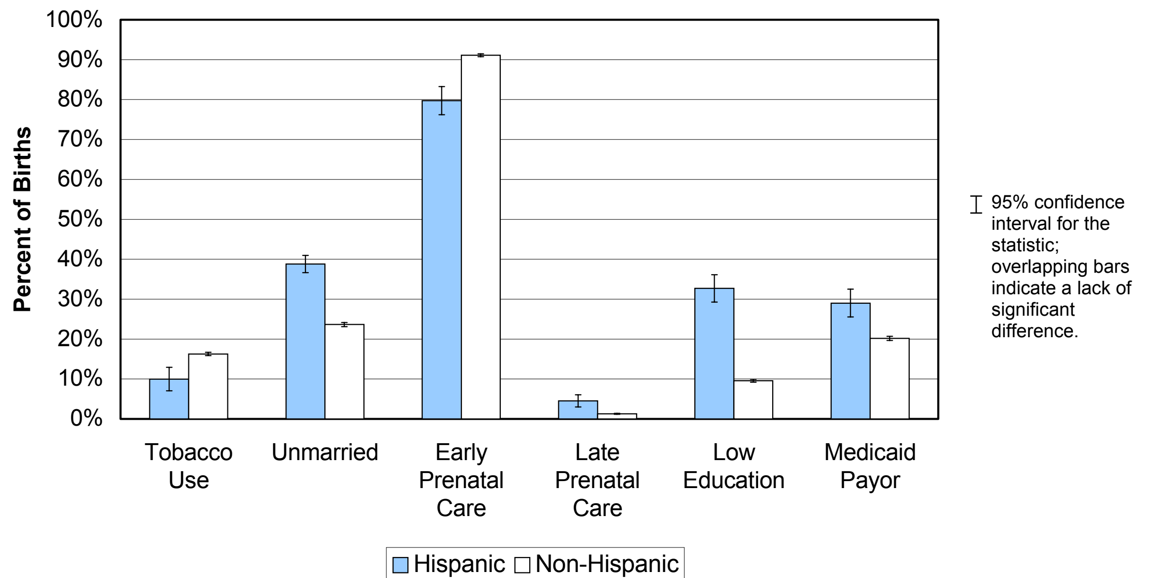
Births to Hispanic Mothers: **The number of births to Hispanic mothers has increased in New Hampshire over time.**

Among all of the race and ethnic groups, Hispanic resident births were the second largest group (after whites) in New Hampshire in 1999 and 2000. As shown in Figure 3, there were significant differences between the maternal behaviors and characteristics among births to Hispanic and to Non-Hispanic mothers in New Hampshire. Among Hispanic women, there were significantly:

- More births to women who were unmarried
- More births to women who obtained late prenatal care

- More births to women with less than 12 years education
- More births to women enrolled in Medicaid for the payment of prenatal care and/or delivery expenses
- Fewer births to women who reported maternal tobacco use during pregnancy.

Figure 3. Maternal Characteristics and Health Behaviors, by Hispanic Origin of Mother, New Hampshire, 1999–2000 Average

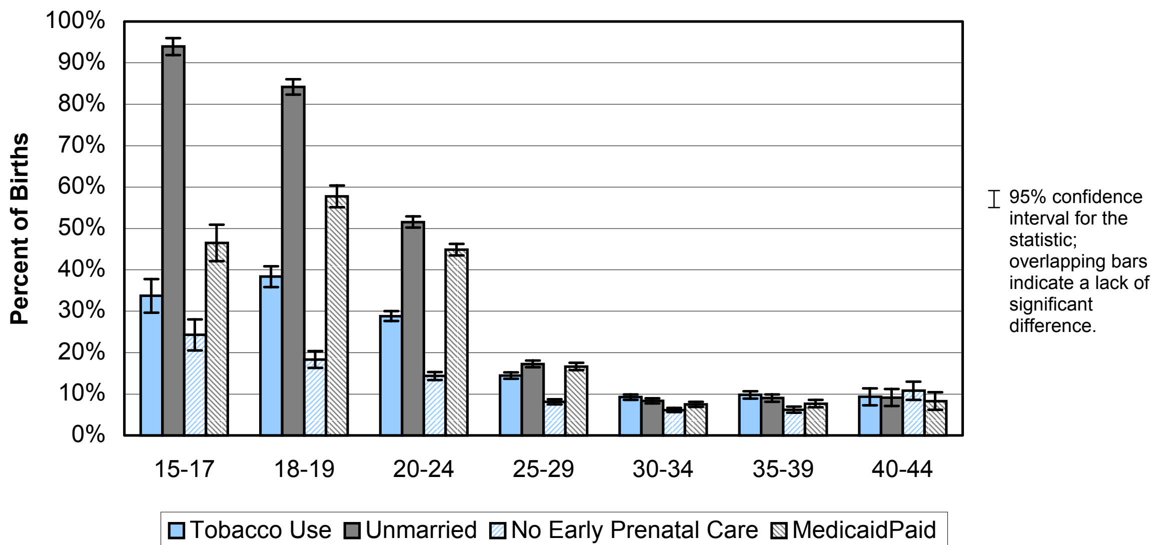


Maternal Age: **Maternal characteristics and behaviors were significantly different between the various maternal age groups.**

When compared to births to women 20 and older, significantly more births to women under age 19 (Figure 4):

- Had a history of tobacco use during pregnancy
- Were to unmarried mothers
- Depended on Medicaid for the payment of obstetrical services
- Did not have early and adequate prenatal care.

Figure 4. Maternal Characteristics and Health Behaviors, by Age, New Hampshire, 1999–2000 Average

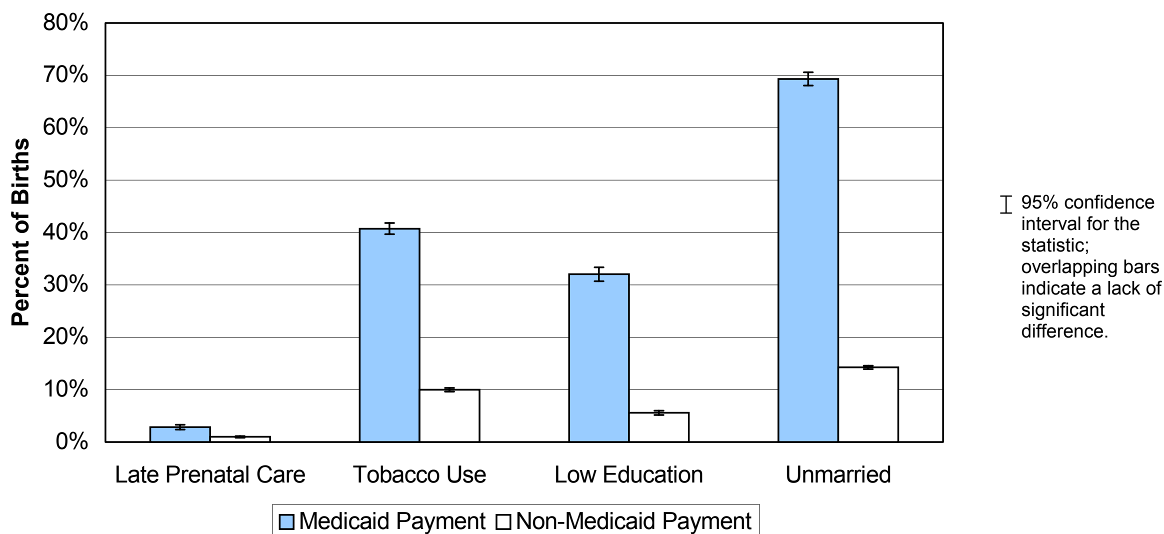


Medicaid Payment: **There were significant differences between births to mothers enrolled in Medicaid coverage for payment of prenatal care and/or delivery and those not enrolled in Medicaid.**

Compared to births to mothers not enrolled in Medicaid, significantly more births to mothers enrolled in Medicaid (Figure 5):

- Sought late or no prenatal care
- Were to women with less than 12 years education
- Were to women who were unmarried.

Figure 5. Maternal Characteristics and Health Behaviors, by Medicaid Payment Prenatal Care/Delivery, New Hampshire, 1999–2000 Average



Notes

[1] National Center for Health Statistics. (12 Feb. 2002). Births: Final data for 2000. National Vital Statistics Report, 50, 5. p. 96.
[2] March of Dimes. (2002). Teenage Pregnancy. *March of Dimes Health Library Fact Sheets*. [On-line]. Available: http://www.marchofdimes.com/professionals/681_1159.asp
[3] March of Dimes. (2002). Low Birthweight. March of Dimes Health Library Fact Sheets. [On-line]. Available: http://www.marchofdimes.com/professionals/681_1153.asp
[4] U.S. Surgeon General. (2001). Tobacco use and reproductive outcomes-Fact sheet. (2001). *Women and Smoking: A Report of the Surgeon General-2001.* Centers for Disease Control and Prevention. [On-line]. Available: http://www.cdc.gov/tobacco/sgr/sgr_forwomen/factsheet_outcomes.htm