



# The Impact of Rite Care on the Health of Pregnant Women and their Newborns

1993 - 2003

New Analyses:

Racial Disparities  
Life Stress/Social Support

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The Impact of RItE Care on Adequacy of Prenatal Care  
and The Health of Newborns – 2003 Update

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The Impact of RItE Care on Adequacy of Prenatal Care  
and the Health of Newborns – 2003 Update

**Background/Methods**

The Rhode Island Medicaid Research and Evaluation Project produces an annual health indicators report that tracks the program's impact on prenatal care and newborn health.<sup>1</sup>

The Project has used the vital statistics birth file data from 1993 – 2003 (representing 136,996 births) to analyze prenatal care utilization and birth outcome measures. Data from birth certificates is used to monitor several maternal and child health outcome measures and to determine the effect of RItE Care on access and adequacy of prenatal care. This report describes and updates maternal and child health indicators and trends in the following five areas:

- **Demographic Trends** – Immigrant and Hispanic births, age, race, marital status and education by insurance status
- **Access and adequacy of prenatal care** – month of entry into prenatal care, and adequacy of prenatal care
- **Maternal health status** – maternal smoking and interbirth interval
- **Newborn health status** – percent of low birthweight
- **Teen births** – percent of total births and repeat births by insurance status for teen births < 20 years old

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<sup>1</sup> Griffin J, RI Medicaid Research and Evaluation Project, The Impact of RItE Care on Adequacy of Prenatal Care and the Health of Newborns, 1997-2002.

In addition this year for all Medicaid births, all the maternal and child health trend indicators will be stratified by race. This analysis shows which groups have contributed the most to improvements in maternal and child health for pregnant women on Medicaid.

In this report there is also a section on measures of life stress for pregnant women living in Rhode Island by insurance coverage. The data on life stress and social support comes from a special analysis of the Pregnancy Risk Assessment Monitoring System (PRAMS) at the RI Department of Health.

### **Changes in Distribution of Medicaid Births 1993 - 2003**

Table 1 shows the annual number of Rhode Island (RI) resident births by Insurance coverage and age. In 2003 4,700 of the RI Births were to women enrolled in Medicaid. This represents 37% of RI births. There were 1,077 births to teen mothers in 2003 and 73% of these teen mothers were on Medicaid.

**Table 1**  
**Number of RI Births 1993-2003**  
**By Insurance\* and by Age**

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
<b>Total RI Resident Births</b>	<b>13,565</b>	<b>13,078</b>	<b>12,422</b>	<b>12,300</b>	<b>12,076</b>	<b>12,201</b>	<b>11,958</b>	<b>12,065</b>	<b>12,200</b>	<b>12,441</b>	<b>12,690</b>
Medicaid Births	4,598	4,305	3,510	3,971	3,619	3,618	3,554	4,271	4,533	4,543	4,700
% of Total Births	33.9	32.9	28.3	32.3	30.0	29.6	29.7	35.4	37.2	36.5	37.0
Total Teen Births < 20 yrs	1,444	1,409	1,267	1,299	1,322	1,312	1,211	1,255	1,229	1,160	1,077
Medicaid Teen Births	1,065	987	721	790	718	713	683	839	870	803	781
% of Total Teen Births	73.7	70.1	56.9	60.8	54.3	54.3	56.4	66.8	70.8	69.2	72.5
Medicaid Births by Race											
White	2,410	2,250	1,961	2,248	1,949	1,866	1,781	1,912	2,040	2,023	2,010
Black	698	629	403	491	396	438	420	609	648	626	681
Hispanic	1,168	1,134	882	994	1,050	1,083	1,099	1,479	1,560	1,565	1,698
Asian	322	262	215	237	223	230	248	268	285	328	310

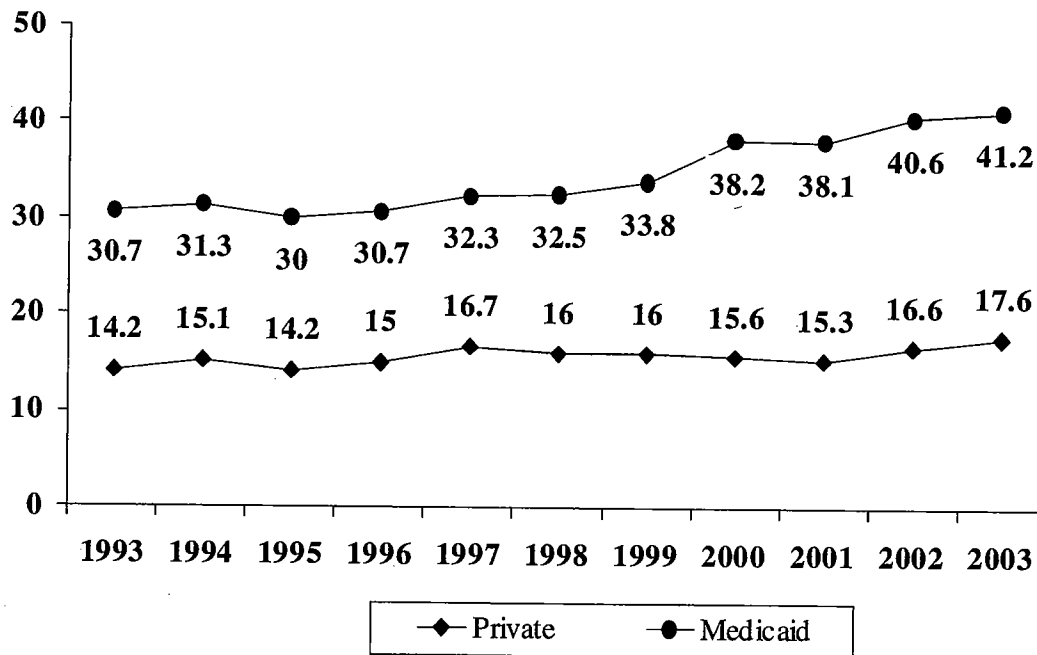
\* Insurance – self reported by mother at delivery

## Demographic Trends

### Immigrant Mothers

Women on Medicaid births are two-and-one-half times more likely to be immigrant mothers. The number of immigrant mothers on Medicaid has increased from 1,219 in 1996 to 1,936 in 2003. Figure 5 shows that in 1993 30.7% of Medicaid births were to immigrant mothers and that proportion has increased to 41.2% in 2003.

Figure 1  
Percent of Births to Immigrant Mothers  
by Insurance Status 1993-2003

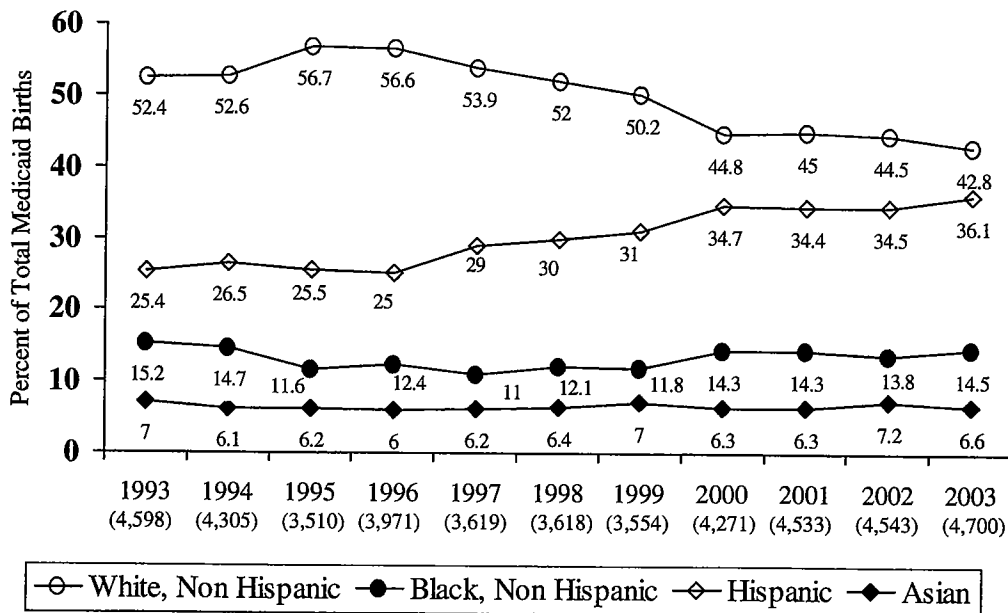


Data Source: Medicaid Research & Evaluation Project  
Vital Statistics Birth File 1993-2003 - (n=136,996)

Changes in Race/Ethnicity of Pregnant Women on Medicaid

Figure 2 shows the changes in the race/ethnic distribution of pregnant women on Medicaid from 1993-2003. The proportion of Black and Asian births have remained the same at 6.5% and 12% respectively. However, the proportion of white mothers on Medicaid has declined significantly from 52.4% in 1993 to 42.8% in 2003 and the proportion of Hispanic mothers on Medicaid has increased significantly from 25.4% in 1993 to 36.1% in 2003. Over one in three Medicaid births are to Hispanic mothers. (See Appendix 1 for an analysis of all health measures by race of mother.)

Figure 2  
Race/Ethnicity Distribution of Pregnant Women on Medicaid



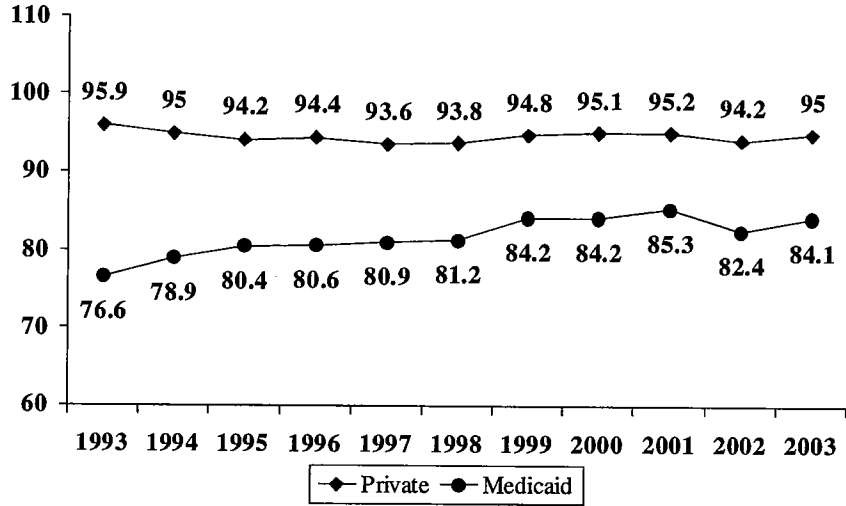
Data Source: Medicaid Research & Evaluation Project  
Vital Statistics Birth File 1993-2003 - (n=136,996)

### **Access to Prenatal Care**

As Figure 3 shows access to prenatal care for pregnant women on Medicaid, measured by the proportion of women who begin care in the first trimester rose again in 2003 after a small decline in 2002. Improvements in entry to care have consistently improved for pregnant women on Medicaid, whereas the proportion of pregnant women on private insurance entering care in the first trimester has remained the same at 95%.

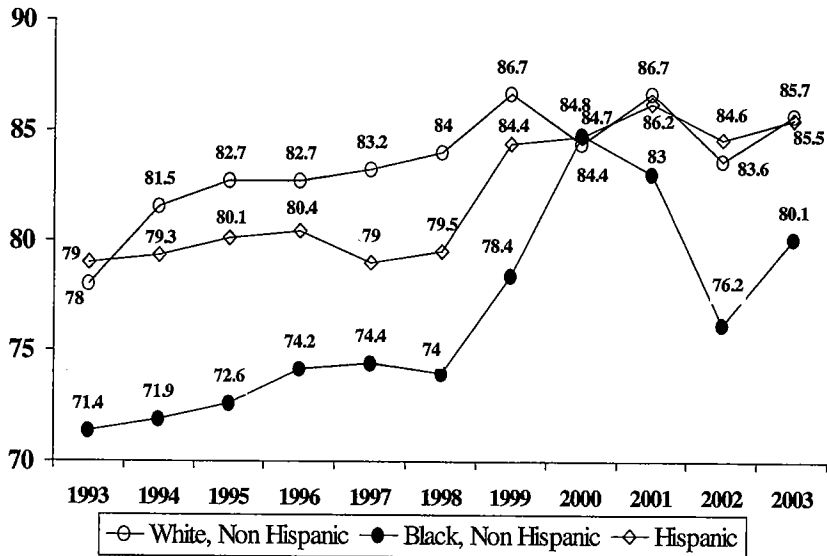
Figure 3a shows that Black women on Medicaid contributed the most to the decline in early entry in 2002. Only 76.2% of black women started prenatal care in the first trimester in 2002. Black pregnant women on Medicaid have consistently had lower rates of early entry into prenatal care compared to Hispanic and white mothers. Hispanic mothers have closed the gap and their rate of access to prenatal care has been the same as white mothers since 2000.

Figure 3  
 Percent of Women who Began Prenatal Care in  
 First Trimester by Insurance Status 1993-2003



Data Source: Medicaid Research & Evaluation Project  
 Vital Statistics Birth File 1993-2003 - (n=136,996)

Figure 3a  
 Percent of Pregnant Women on Medicaid Who Began  
 Prenatal Care in First Trimester By Race



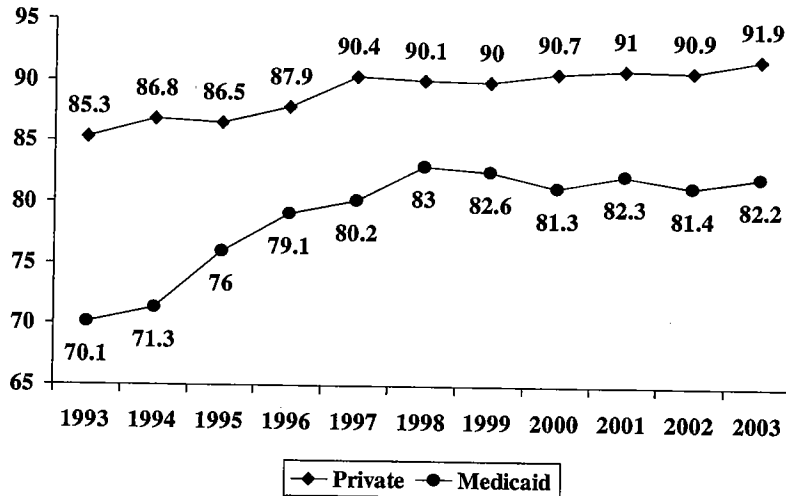
Data Source: Medicaid Research & Evaluation Project  
 Vital Statistics Birth File 1993-2003 - (n=136,996)

### **Adequacy of Prenatal Care**

“Adequate prenatal care” is defined as beginning prenatal care by the fourth month of pregnancy and completing at least 80% of the recommended prenatal visits. Figure 4 shows that in 2003 there was a slight improvement in this health indicator for both pregnant women on Medicaid and privately insured women. Women on Medicaid still have lower rates of adequate prenatal care than women on private insurance. There was a significant increase in adequacy from 1993 to 1998 for both insurance groups and it has remained flat since 1998 for both groups.

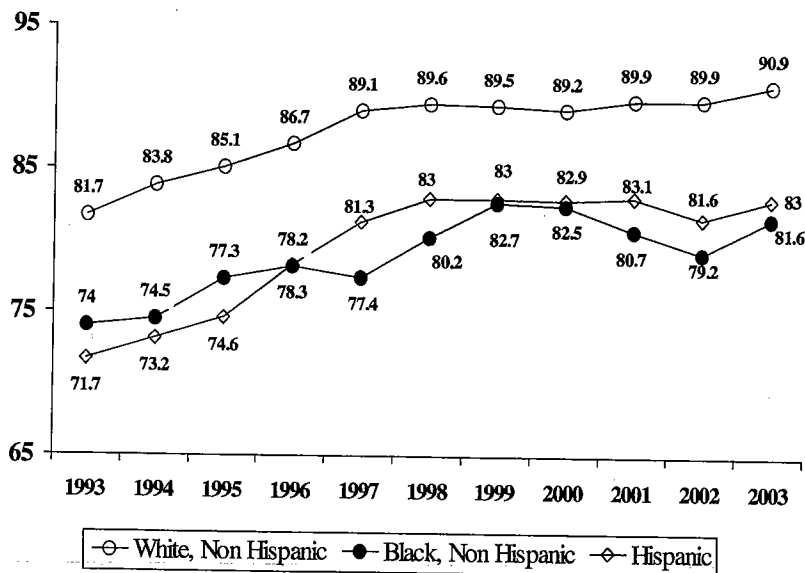
Figure 4a shows changes in adequacy of prenatal care for women on Medicaid stratified by race. Improvement in adequate care was seen in all race groups. White pregnant women have consistently received better prenatal care than minority races. On average there is a 10% gap in prenatal care adequacy between white and non-white mothers on Medicaid.

Figure 4  
Percent of Women who Received Adequate/Adequate+ Prenatal Care by Insurance Status 1993-2003



Data Source: Medicaid Research & Evaluation Project, Vital Statistics Birth File 1993-2003 - (n=136,996)  
 Note: Adequacy of Care Index was recalculated due to misclassification of some women beginning care after their first trimester so results shown here are different from previous reports

Figure 4a  
Percent of Pregnant Women on Medicaid with Adequate Prenatal Care by Race



Data Source: Medicaid Research & Evaluation Project  
 Vital Statistics Birth File 1993-2003 - (n=136,996)

## **Maternal Health Status**

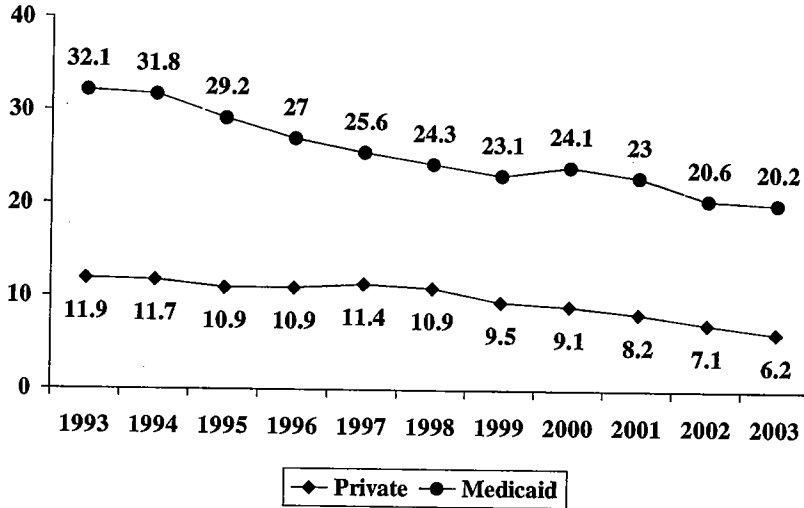
The two principal maternal health status measures collected on the birth certificate are smoking during pregnancy and interbirth interval. Both of these health indicators are major determinants of low birthweight.

### Smoking During Pregnancy

Figure 5 shows that smoking rates have decreased significantly for women on Medicaid from 32.1% in 1993, to 20.2% in 2003. The smoking rate for pregnant women on Medicaid has consistently been about three times higher than for women on private .

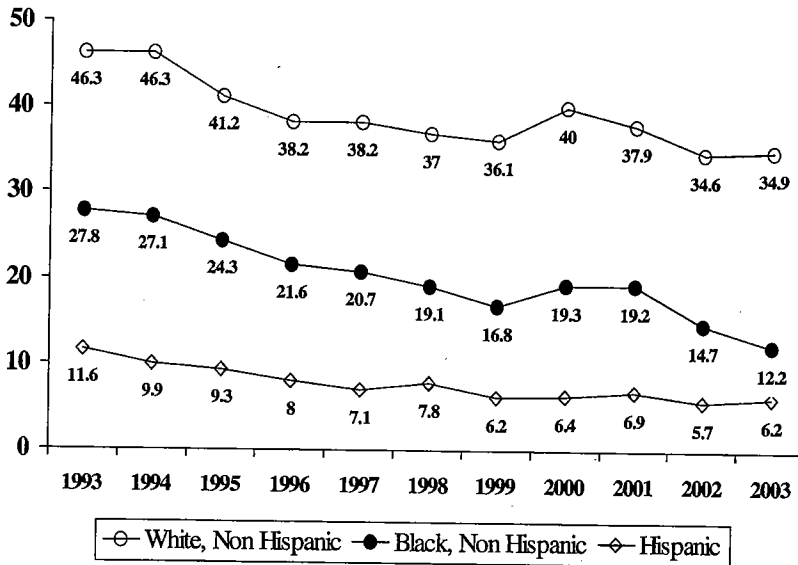
Figure 5a shows that smoking rates differ significantly by race for pregnant women on Medicaid . White mothers have consistently had the highest rate of cigarette smoking. In 1993 almost half of white mothers smoke and in 2003 over one in three smoke. Black mothers have contributed the most to the decline in smoking. In 1993 27.8% of Black mothers smoked and this rate dropped 56% to 12.2% in 2003. Hispanic mothers have the lowest maternal smoking rate at 6%.

Figure 5  
Percent of Pregnant Women who Smoke Cigarettes\*  
by Insurance Status 1993-2003



Data Source: Medicaid Research & Evaluation Project  
Vital Statistics Birth File 1993-2003 - (n=136,996)  
\* Self Report

Figure 5a  
Percent of Pregnant Women on Medicaid  
Who Smoke Cigarettes By Race



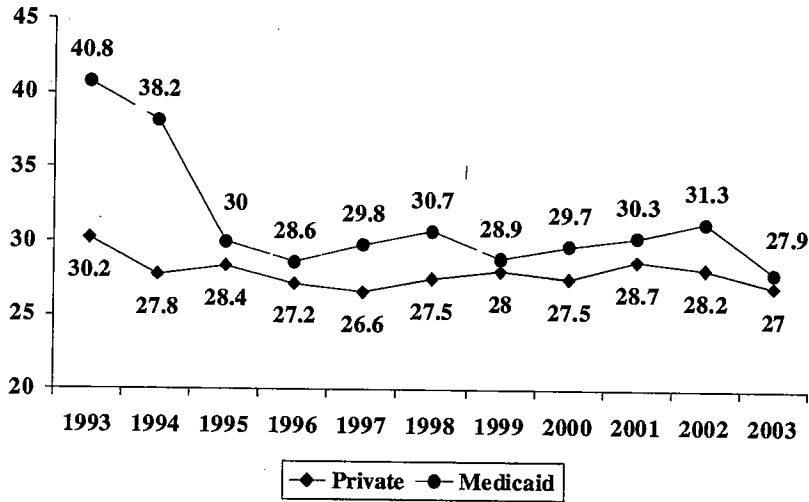
Data Source: Medicaid Research & Evaluation Project  
Vital Statistics Birth File 1993-2003 - (n=136,996)

### Interbirth Interval

A woman who conceives a pregnancy within 18 months of a live birth is considered to have a "Short Interbirth Interval." Women who have a short interbirth interval are more likely to have a low birthweight baby. The percent of women on Medicaid with a short interval between births has decreased from 41% in 1993 to 27.9% in 2003.

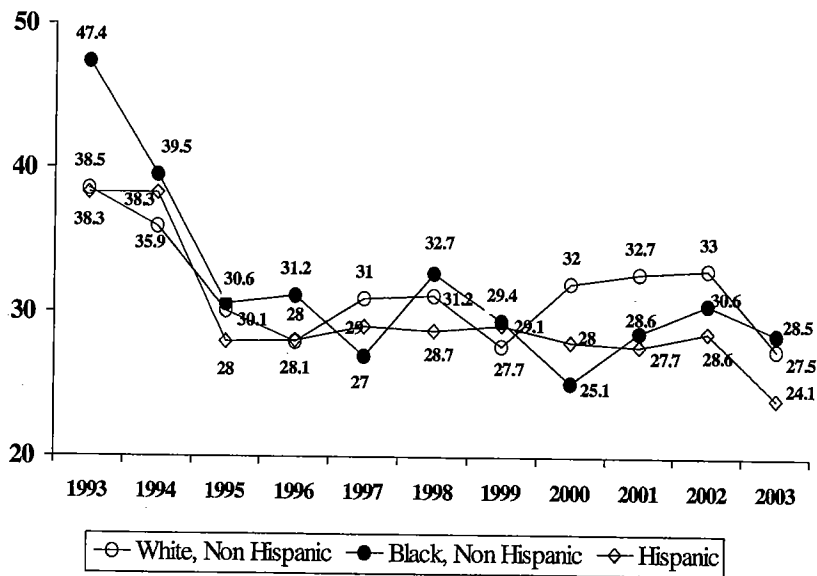
Figure 6 shows that this measure has remained virtually the same between mothers on Medicaid and mothers on private insurance for the past ten years. Figure 6a shows that Blacks contributed the most to the initial decline in interbirth interval from 1993-1995. In 1993 almost one-half (47.4%) of Black mothers waited less than 18 months between pregnancies and in 2003 that proportion was reduced to 28.5%.

Figure 6  
Percent of Women with Short Interbirth Interval (<18 months)  
by Insurance Status 1993-2003



Data Source: Medicaid Research & Evaluation Project  
Vital Statistics Birth File 1993-2003 - (n=136,996)

Figure 6a  
Percent of Medicaid Births with Short Interbirth Interval by Race



Data Source: Medicaid Research & Evaluation Project  
Vital Statistics Birth File 1993-2003 - (n=136,996)

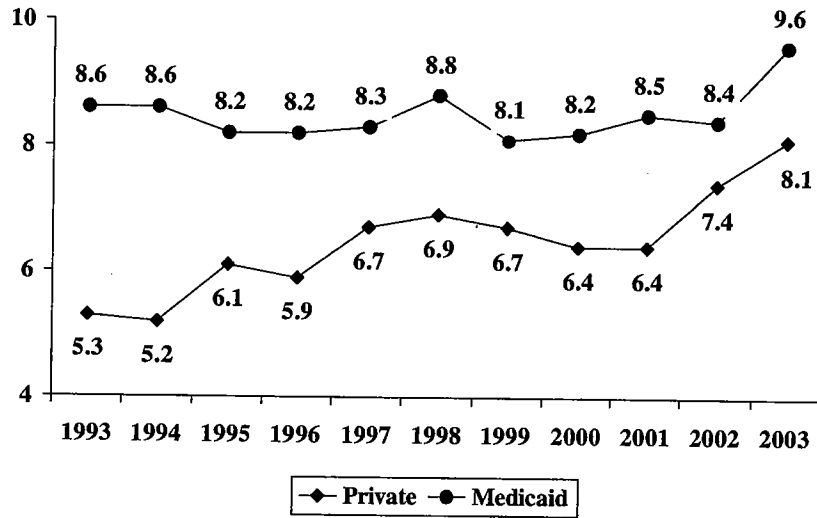
## **Newborn Health Status**

### Low Birthweight

Figure 7 shows that in 2003 there was an increase in the proportion of low birthweight numbers on Medicaid. In 1993, the low birthweight rate for Medicaid newborns was 8.6%; in 2003 this rate rose to 9.6%. The low birthweight rate for newborns whose mothers were privately insured also rose from 7.4% to 8.1% during this time period. From 1993 to 2002 the private insurance low birthweight rate has made a steady increase from 5.3% to 8.1%. This is a 53% increase in low birthweight. This increase is primarily due to an increase in multiple births due to fertility drugs.

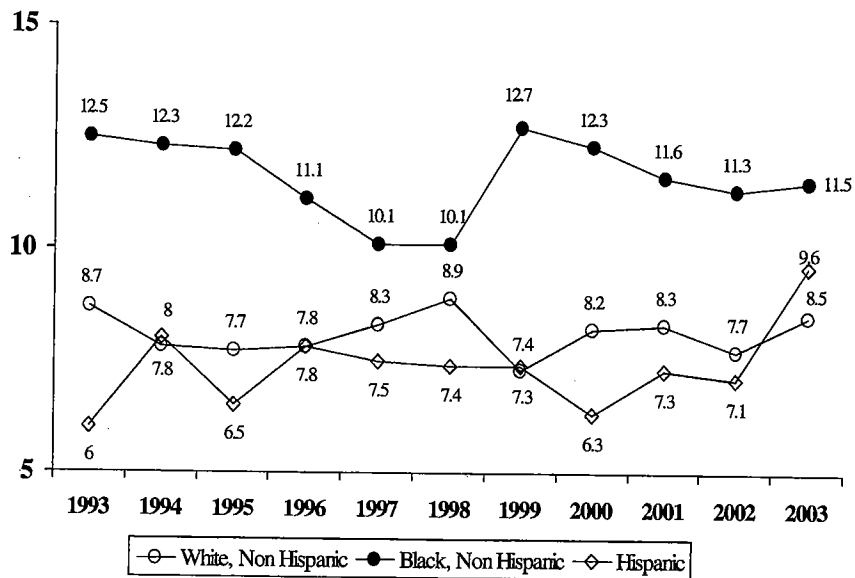
Figure 7a shows that Hispanic mothers on Medicaid contributed the most to the rise in low birthweight in 2003. In 2002 only 7.1% of Hispanic newborns were low birthweight and in 2003 this percent rose to 9.6%. The rate of low birthweight for Black infants has consistently been above White and Hispanic infants.

Figure 7  
Percent Low Birthweight  
by Insurance Status 1993-2003



Data Source: Medicaid Research & Evaluation Project  
Vital Statistics Birth File 1993-2003 - (n=136,996)

Figure 7a  
Percent Low Birthweight for Medicaid Births By Race



Data Source: Medicaid Research & Evaluation Project  
Vital Statistics Birth File 1993-2003 - (n=136,996)

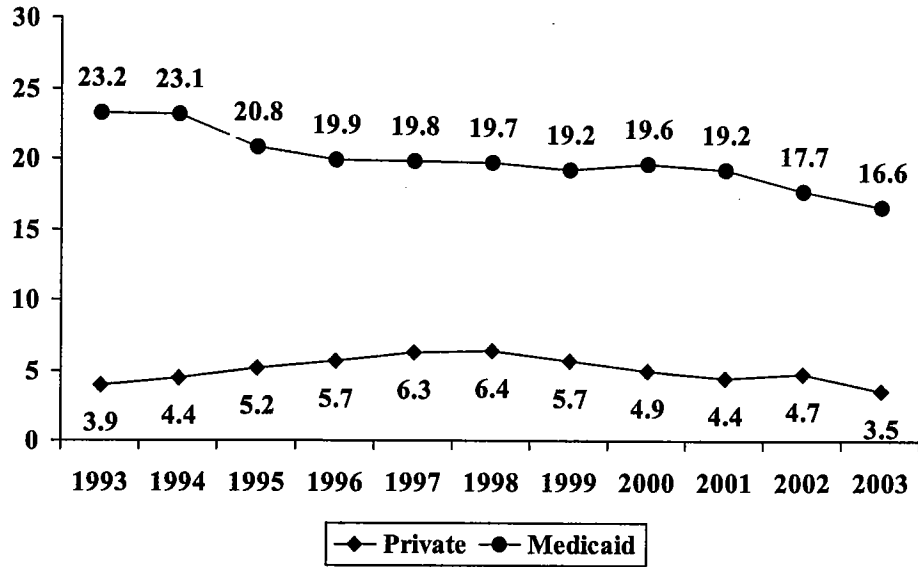
## **Teen Births**

Medicaid provides prenatal, delivery and newborn care for 73% of Rhode Island teen births (see Table 1). Medicaid births to teens have decreased from 23.2% in 1993 to 16.6% in 2003. In 1993 1,065 of the 4,598 Medicaid births were to teen mothers whereas in 2002 the number of teen births dropped to 781 of the 4,700 Medicaid births.

Although Figure 8 shows that the gap is closing between private and Medicaid births, the Medicaid teen birth rate is still five times higher than privately insured.

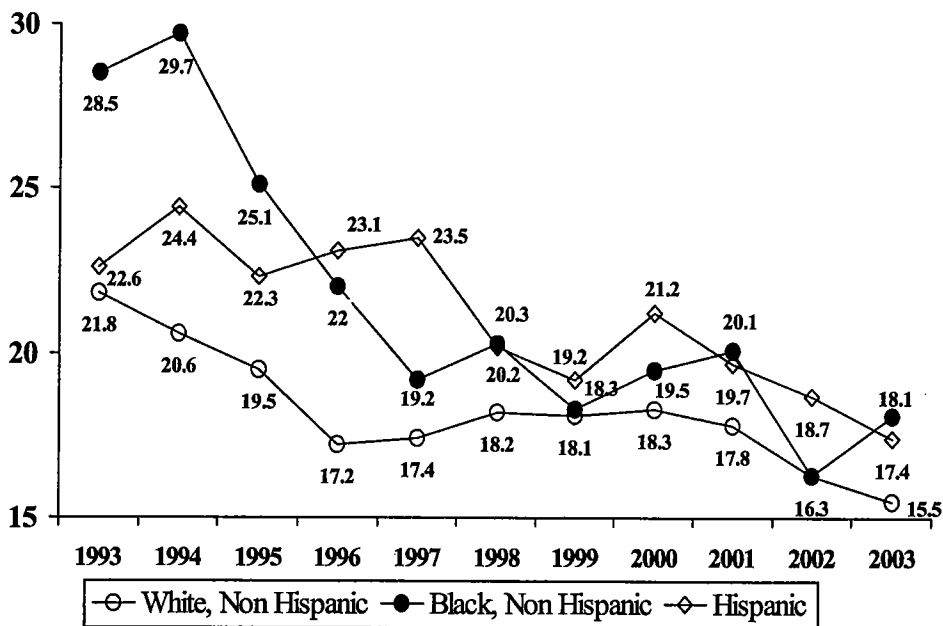
Figure 8a shows the significant decline in teen births by race. The greatest decline in teen births was seen for Black mothers. In 1993 28.5% of births to mothers in Medicaid were to teens and by 2003 this proportion had dropped to 18.1%.

Figure 8  
 Percent of Total Births to Teenagers <20 Years Old  
 by Insurance Status 1993-2002



Data Source: Medicaid Research & Evaluation Project  
 Vital Statistics Birth File 1993-2003 - (n=13,985)

Figure 8a  
 Percent of Births to Teenagers on Medicaid By Race



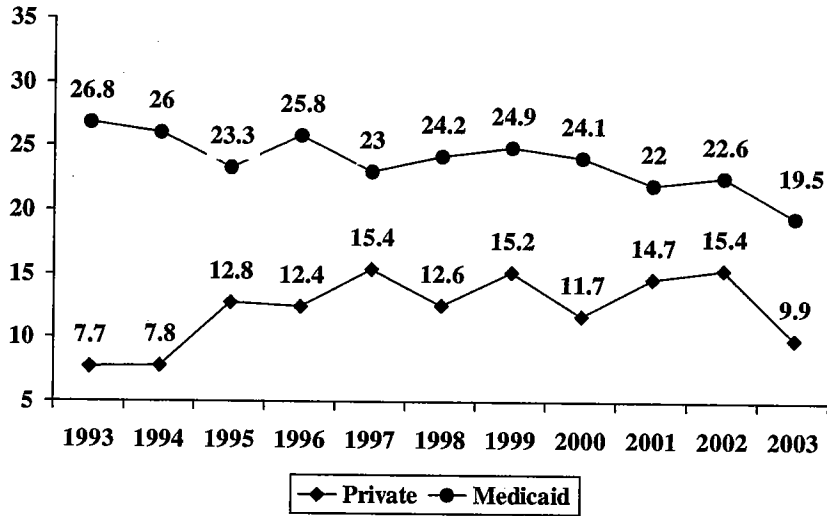
Data Source: Medicaid Research & Evaluation Project  
 Vital Statistics Birth File 1993-2003 - (n=13,985)

### Repeat Teen Births

Figure 9 shows that in 2003 approximately one in five birth to teens on Medicaid was to a young woman who was already a mother (19.5%). This rate has made a steady decline in the past five years. Measuring repeat pregnancies is an important indicator to track to see if pregnancy prevention programs are effective.

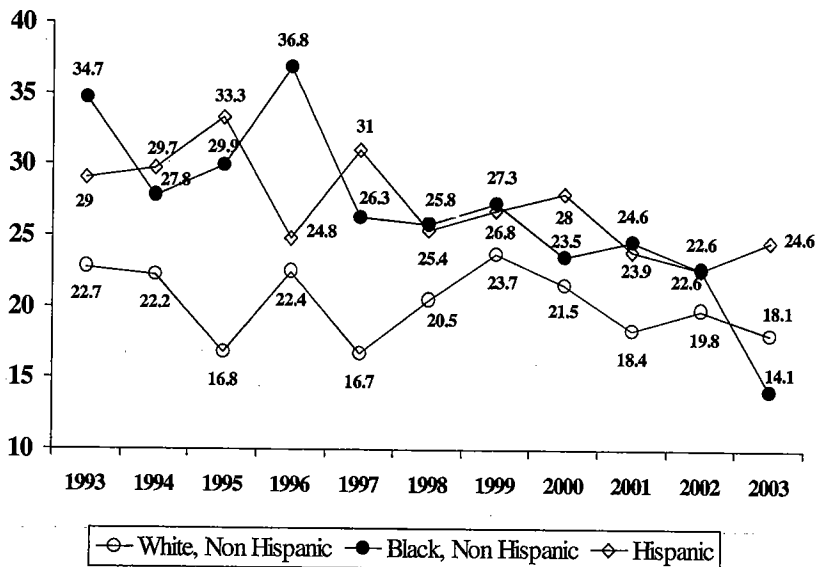
Figure 9a shows that repeat teen births has declined significantly for Black teen mothers on Medicaid. In 1993 they had the highest repeat birth rate at 34.7% and in 2003 they had the lowest at 14.1%. The proportion of second time births or higher for Hispanic and White teens did not decline significantly.

Figure 9  
Percent of Teen Mothers with Previous Live Births  
by Insurance Status 1993-2003



Data Source: Medicaid Research & Evaluation Project  
Vital Statistics Birth File 1993-2003 - (n=13,985)

Figure 9a  
Percent of Teen Mothers on Medicaid With Previous Live Births By Race



Data Source: Medicaid Research & Evaluation Project  
Vital Statistics Birth File 1993-2003 - (n=13,985)

### **Life Stress/Social Support**

Pregnant women on RItE Care have significantly higher levels of stress in their lives compared to pregnant women on private insurance. Table 2 shows that women on RItE Care score higher than women on private insurance on all measures of life stress. Their pregnancies are much more likely to be unplanned (66.4% compared to 32.3%). They are also over three times less likely to be able to pay their bills (36.2% compared to 11.4%). Depression is over twice as high for pregnant women on Medicaid (10.2%) compared to privately insured pregnant women (4.2%).

There are also several measures on husband/partner status that show women on Medicaid/RItE Care are under considerable stress in their family relationships. Their husbands/partners are significantly more likely to have lost their jobs, not wanted the pregnancy, and to have argued or been violent with their wives/partners.

