Maternal and Infant Health Status Indicators
for Florida, 1996 - 2000

Presented to Florida Agency for Health Care Administration
and Department of Health

June 30, 2002
MATERNAL AND INFANT HEALTH STATUS INDICATORS
FOR FLORIDA, 1996 - 2000:

Produced by:
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University of Florida

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June 30, 2002
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Policy Recommendations

Medicaid

1. Given the higher rates of poor pregnancy outcomes for Medicaid participants, the Department of Health, Medicaid Program Office, and the Healthy Start Coalition should target this group by developing and implanting short and long term strategies to increase interpregnancy intervals, ensure adequate prenatal care, increase entry into prenatal care in the first trimester, and decrease the percentage of pregnant women screening at high risk during pregnancy.

2. The Healthy Start Prenatal screening criteria should be reexamined to determine if there are other factors or combination of factors that could/should be used to increase the validity, reliability, and predictability of pregnancy outcomes.

3. The increase of older pregnant women giving birth in Florida has resulted in a new group of high risk pregnancies and associated birth outcomes. A short and longer-term strategic planning process among and between the State, Health Care providers/agencies, and the public need to be implemented immediately.

4. Pregnant Medicaid women who receive Cash Assistance have the greatest adverse pregnancy outcomes and have shown no improvement over the past 5 years. A short and longer-term strategic planning group/process needs to be implemented immediately to assess current policies/programs/services and between, among, and within providers/agencies who provide services.

5. Healthy Start policy and programmatic implementation needs to be reviewed and enhanced since only 2/3 of pregnant Medicaid women are currently being screened.

6. The WIC Program Office, Medicaid Program Office, Public Health Departments, and Healthy Start Coalitions need to address the issue and develop a strategic plan to increase WIC participation for pregnant Medicaid women. Currently 1/3 of pregnant Medicaid women are not enrolled in WIC.
Maternal and Infant Health Status Indicators for Florida, 1996 – 2000
Summary of Results

This report presents a 5-year comparison, 1996 - 2000, of the incidences of 23 maternal and infant health status indicators for Florida resident deliveries funded and not funded by Medicaid. Within the Medicaid population, the report compares pregnancy outcomes for women who received Cash Assistance vs. women who received No Cash Assistance.

Medicaid compared to Non-Medicaid

General

- The number of deliveries to Florida residents rose 2.4% between 1999 and 2000. Medicaid accounted for 44.0% of all deliveries in 2000. Since 1996, the number of Non-Medicaid deliveries has increased 8.1% compared to less than 1.0% for Medicaid deliveries.

- Deliveries to Black mothers who received Medicaid were consistently higher than for Non-Medicaid recipients. The percentage of deliveries to Black mothers on Medicaid increased 5.6% between 1996 and 2000 compared to an increase of 12.9% among Black mothers not on Medicaid. Throughout the five-year period, the percentage of Black women delivering with Medicaid was about three times greater than Black women who did not receive Medicaid (e.g., 37.3% vs. 13.2% in 2000).

- Hispanic women accounted for 21.8% of all deliveries in Florida in 2000. Fewer births occurred to Hispanic women not on Medicaid (19.2%) compared to Hispanic women on Medicaid (25.1%). The percentage of deliveries to Hispanic women has increased nearly 14.1% since 1996.

- Medicaid pregnant women had 4 and 1/2 times the number of adolescent deliveries than Non-Medicaid pregnant women. The percentage of deliveries to adolescents declined 8.0% over the last five years. The decrease was 10.1% in the Medicaid population compared to a 6.9% increase in the Non-Medicaid population. In 2000, the Medicaid population accounted for 78.0% of all deliveries to adolescent mothers.

- Medicaid pregnant women smoke at a higher percent than the Non-Medicaid pregnant women over the last 5 years. Between 1996 and 2000 the percent of women who reported smoking on the birth certificate declined 15.5% for the Medicaid population and 27.0 % for the Non-Medicaid population. In 2000 the percentage of pregnant women who reported smoking was nearly three times higher in the Medicaid population compared to the Non-Medicaid population (15.8% vs. 5.5%).

- In 2000, the proportion of Medicaid women participating in WIC was five times greater than women not in Medicaid (67.8% vs. 13.5%). The percentage of Medicaid women...
enrolled in WIC has increased 40.0% over the last five years compared to a 77.6% increase among Non-Medicaid women.

Interpregnancy Interval

- From 1996 to 2000 interpregnancy interval increased 2.1% in the Medicaid population to 33.5 months; in the Non-Medicaid population interpregnancy interval increased 4.0% to 39.8 months. This six-month discrepancy in interpregnancy interval between the two groups has remained unchanged for the last five years.

Mortality

- Infant mortality for both the Medicaid and Non-Medicaid population decreased from 1996 to 1999. The difference in the infant mortality rate between the Medicaid and Non-Medicaid population remained essentially the same between 1996 and 1999 (3.7% in 1996 vs. 3.9% in 1999).

- Between 1996 and 2000, the neonatal mortality rate declined 5.1% in the Medicaid population and 2.3% in the Non-Medicaid population. The neonatal mortality rate for both groups dropped more than 10.0% from 1999 to 2000.

- The post-neonatal mortality rate in both the Medicaid and Non-Medicaid populations decreased between 1996 and 1999. In 1996, the post neonatal mortality rate for the Medicaid population was 2.1% greater than that of the Non-Medicaid population, while in 1999 the post-neonatal mortality rate for the Medicaid population was 1.4% greater than that of the Non-Medicaid population.

Low Birth Weight

- Non-Medicaid pregnant women have a consistently lower low birth rate than Medicaid pregnant women. This difference of approximately 3 percentage points has remained virtually unchanged over the last five years. The low birth weight rate among Medicaid women increased 1.1% between 1996 and 2000 whereas among Non-Medicaid women it increased 4.2%.

- Medicaid pregnant women over the past five years have greater numbers of very low birth weight infants than Non-Medicaid pregnant women. The very low birth weight rate in the two subpopulations has remained relatively stable between 1996 and 2000.

- Non-Medicaid pregnant women over the past five years have had fewer term low birth weight infants than Medicaid pregnant women. The difference between the two groups in term low birth weight rates has not narrowed during the last five years. From 1996 to 2000 term low birth weight among both subpopulations remained relatively stable.
Preterm

- Non-Medicaid pregnant women have fewer preterm low birth weight birth births than Medicaid pregnant women. Since 1996, pre-term low birth weight has risen 9.2% in the Non-Medicaid population while being relatively stable in the Medicaid population. The pre-term low birth weight rate in the Medicaid population remains nearly two percentage points higher than that of the Non-Medicaid population (6.0% vs. 4.3% in 2000).

- Non-Medicaid pregnant women had fewer preterm deliveries than Medicaid pregnant women over the last five years. The increase in pre-term deliveries among Non-Medicaid women was more than half that of Medicaid women between 1996 and 2000 (10.7% vs. 5.2%).

Cesarean Deliveries

- Medicaid pregnant women had fewer Cesarean deliveries than Non-Medicaid women over the past five years. The percentage of Cesarean deliveries statewide continued to increase for the fifth straight year among both Medicaid and Non-Medicaid women. The total statewide rate for 2000 was 25.1%, well above the Healthy People 2010 goal of 15.0%.

Healthy Start Prenatal Screens

- Fewer Non-Medicaid pregnant women consented to the Healthy Start Prenatal Screen than Medicaid pregnant women. (e.g. 56.4% compared to 75.8% in 2000). Between 1996 and 2000 the proportion of Non-Medicaid pregnant women offered and consenting to screens increased 28.6% compared to a 1.6% increase for Medicaid pregnant women.

- Medicaid pregnant women consistently have higher Healthy Start Prenatal Risk scores than Non-Medicaid pregnant women. Between 1996 and 2000 the percentage of Medicaid mothers screened at high risk on the Healthy Start Prenatal Screen decreased 11.2%. For Non-Medicaid mothers the decrease was 23.3%. In 2000 the percentage of Medicaid women screened at risk was more than 3 times higher than that of Non-Medicaid women (43.5% vs. 13.0%).

Healthy Start Infant Screens

- Non-Medicaid mothers had fewer of their infants screened by Healthy Start than Medicaid mothers. The percent of Non-Medicaid infants receiving a Healthy Start Postnatal Screen increased 8.3% between 1996-2000 whereas the percent of Medicaid infants screened remained relatively stable. During that same five-year period, the gap between percent of Medicaid infants screened compared to percent of Non-Medicaid infants screened narrowed six percentage points. In 2000, 80.6% of Medicaid infants were screened compared to 69.1% for Non-Medicaid infants.
• Non-Medicaid mothers had fewer of their infants screened “At Risk” than Medicaid mothers. Between 1996 and 2000 the percent of Medicaid infants whose postnatal screen was scored at risk declined slightly (1.8%) whereas the percent of Non-Medicaid infants who were scored at risk declined 9.4%. Nearly three times as many Medicaid infants were scored at risk in 2000 as Non-Medicaid infants (16.6% vs. 5.8%).

Prenatal Care

• Non-Medicaid women entered prenatal care in the first trimester consistently higher than Medicaid pregnant women over the last 5 years. The percent of pregnant women receiving first trimester prenatal care increased just 1.2% over the last five years. In 2000 there was a 20.0 percentage point difference in the proportion of Medicaid versus Non-Medicaid women receiving first trimester prenatal care (73.5% vs. 92.6%).

• Medicaid pregnant women have higher rates of inadequate prenatal care than the Non-Medicaid pregnant women over the last 5 years. In the Medicaid population, the percentage of women receiving inadequate prenatal care remained relatively stable (1.2%) between 1996 and 2000 compared to a decline of 8.2% among women not on Medicaid. In 2000 the percentage of Medicaid women receiving inadequate prenatal care was more than four times greater than that of Non-Medicaid women (16.2% vs. 3.9%).
Medicaid Cash Assistance Pregnancies Compared to Medicaid No Cash Assistance Pregnancies

General

- Over the past 5 years, there were more Medicaid No Cash Assistance pregnant women delivering than Medicaid Cash Assistance pregnant women. Deliveries to the Cash Assistance sub-population of Medicaid increased 8.2% between 1996 and 2000 while deliveries to the No Cash Assistance sub-population decreased 3.5%. In 2000 the Cash Assistance group comprised 39.3% of the total Medicaid deliveries.

- Pregnant Medicaid women who receive Cash Assistance have nearly twice as many Black mothers as the pregnant Medicaid women who did not receive Cash Assistance over the last five years. The difference in the percent has begun to narrow. From 1996 to 2000, the percent of Black months in Cash Assistance decreased by 3.3% while those in No Cash Assistance increased 12.5%, however there still is a 30% difference between the two Medicaid subgroups.

- There is approximately a three-fold difference between pregnant Hispanic women who do not receive Cash Assistance and pregnant Hispanic women who receive Cash Assistance over the last 5 years. Between 1996 and 2000 the percentage of Hispanic Medicaid mothers in the Cash Assistance sub-population increased less than 1.0% whereas in the Hispanic Medicaid No Cash Assistance group the percentage of births increased 26.4%.

- Deliveries to adolescents declined 23.0% from 1996 to 2000 among pregnant Medicaid women who did not receive Cash Assistance whereas the rate rose 5.9% among pregnant Medicaid women who received cash assistance. Over the five-year period, the difference in the rate of adolescent deliveries between the two Medicaid groups has narrowed from 15.0% to 9.0% (10.7% for Medicaid Cash Assistance vs. 19.7% for Medicaid No Cash Assistance in 2000).

- Both groups of pregnant Medicaid women who did and did not receive Cash Assistance demonstrated a decline in percent of women who reported smoking cigarettes during pregnancy in the period 1996-2000. There was a 13.8% drop in the Medicaid No Cash Assistance group and an 18.4% drop in the Medicaid Cash Assistance group. In 2000 the smoking rate during pregnancy in the two pregnant Medicaid groups was nearly identical (about 16.0%).

- Participation in WIC increased 36.3% between 1996 and 2000 among pregnant Medicaid women who received Cash Assistance and 42.8% among pregnant Medicaid women who did not receive cash assistance. Over the five-year period, the differential participation rate in WIC for the two groups has widened, from 4.4 percentage points to 9.3 (71.5% for Medicaid No Cash Assistance compared to 62.2% for Medicaid Cash Assistance in 2000).
Interpregnancy Interval

- Medicaid pregnant women receiving Cash Assistance have shorter interpregnancy intervals than Medicaid women not receiving cash assistance. From 1996 to 2000 interpregnancy interval increased 5.5% in the No Cash Assistance sub-population to 38.2 months; in the Cash Assistance sub-population, interpregnancy interval decreased 1.9% to 28.3 months. Over the five-year period, the difference in interpregnancy interval between the two groups has widened from 7.4 months to 9.9 months.

Mortality

- Over the past 5 years, Medicaid pregnant women who receive Cash Assistance have higher infant mortality rates than Medicaid pregnant women not receiving cash assistance. In 1996, the difference in infant mortality rate between the Cash Assistance and No Cash Assistance sub-populations was 2.8%, while in 1999 the difference in infant mortality rate was 2.1%. The difference in infant mortality rate between the Cash Assistance sub-population and the No Cash Assistance sub-population has narrowed a little more than one half of a percentage point between 1996 and 1999.

- Pregnant Medicaid women who received Cash Assistance over the past 5 years have higher neonatal mortality rates than pregnant women who did not receive cash assistance. From 1996 to 2000 neonatal mortality decreased 2.7% in the Cash Assistance sub-population (to 5.5%) and 7.8% (to 4.4%) in the No Cash Assistance sub-population. This one percent difference in neonatal mortality rate between the two groups has not changed in the last five years.

- Pregnant Medicaid women who received Cash Assistance had higher post neonatal mortality percents than pregnant Medicaid women who did not receive cash assistance. Post neonatal mortality has declined in both Cash Assistance and Non Cash Assistance women from 1996 to 1999. In that same period, the gap between the two groups has narrowed one point (from 2.0 vs. 1.0).

Low Birth Weight

- Medicaid pregnant women who received Cash Assistance consistently have a higher percentage of low birth weight infants than pregnant Medicaid women who did not receive Cash Assistance over the past five years (e.g., 10.2% vs. 8.1% in 2000). During that period, the low birth weight rate among Medicaid Cash Assistance women increased 2.2% and decreased 2.5% among Medicaid No Cash Assistance women.

- Pregnant Medicaid women who received Cash Assistance had higher very low birth weight percentages than pregnant Medicaid women who did not receive cash assistance. Between 1996 and 2000, the very low birth weight rate among Cash Assistance women increased 3.6% (to 2.0) and decreased 8.5% (to 1.5) among No Cash Assistance women.
• Term low birth weight rate of pregnant Medicaid women who received Cash Assistance remains four-tenths of a percentage point higher than that of Non Cash Assistance women (e.g., 3.1 vs. 2.7 in 2000). Term low birth weight has declined about 3.0% for both Medicaid Cash Assistance and Medicaid No Cash Assistance women since 1996. The gap between the two groups has not changed.

• Medicaid pregnant women who received Cash Assistance have higher preterm low birth weight infants than Medicaid pregnant women who do not receive cash assistance. Since 1996 pre-term low birth weight increased 4.6% for Medicaid Cash Assistance women compared to a drop of 1.5% for Medicaid No Cash Assistance women. The difference between the two Medicaid groups in pre-term low birth weight infants widened slightly over the five-year period. In 2000 it was 7.0 for Cash Assistance women compared to 5.4 for No Cash Assistance women.

Preterm

• Medicaid pregnant women who received Cash Assistance had higher preterm deliveries than Medicaid pregnant women who did not receive cash assistance. Pre-term deliveries increased 8.3% in the Medicaid Cash Assistance sub-population and 1.8% in the Medicaid No Cash Assistance sub-population between 1996 and 2000. During that period, the difference between the two Medicaid groups in pre-term delivery rate has widened nearly one additional percentage point (12.7% for Medicaid Cash Assistance vs. 9.7% for Medicaid No Cash Assistance in 2000).

Cesarean Deliveries

• Medicaid pregnant women who did not receive Cash Assistance have higher cesarean delivery percentages than Medicaid pregnant women who receive cash assistance. Cesarean deliveries have increased 16.8% in the total Medicaid population over the last five years. A two percentage point difference between Medicaid No Cash Assistance and Medicaid Cash Assistance subgroups has remained unchanged during that period (e.g., 23.4% vs. 21.5% in 2000).

Healthy Start Prenatal Screens

• Pregnant Medicaid women who received Cash Assistance had a greater percent of Healthy Start Prenatal Screens offered than Medicaid women who did not receive cash assistance. Over the last five years, a higher percentage of Medicaid No Cash Assistance women were offered Healthy Start Prenatal Screens than were Medicaid Cash Assistance women (e.g., 79.5% vs. 70.1% in 2000). During that period, the difference between the two groups in percent of screens offered has narrowed one percentage point.

• The percentage of pregnant Medicaid women who received Cash Assistance and who did not receive Cash Assistance actually screened by Healthy Start has not changed appreciably in the last five years (-0.2%). Also, the eight-percentage point difference
between Medicaid No Cash Assistance women and Medicaid Cash Assistance women remained stable (e.g., 67.6% vs. 58.8% in 2000).

- Pregnant Medicaid women who receive Cash Assistance consistently have had a higher percentage scoring at high risk than pregnant Medicaid women who did not receive Cash Assistance (e.g., 54.4% vs. 37.4% in 2000). The percent of Medicaid Cash Assistance women scoring at high risk decreased 14.8% between 1996 and 2000 whereas the percent of Medicaid No Cash Assistance women scoring at high risk decreased 9.7%.

**Healthy Start Infant Screens**

- Between 1996 and 2000 the percentage of infants screened postnatally by Healthy Start declined 3.0% in the Medicaid Cash Assistance group and increased slightly in the Medicaid No Cash Assistance group (0.6%). The percentage of infants screened has now narrowed nearly and is similar for both groups, around 80.0%.

- The proportion of pregnant Medicaid women who receive Cash Assistance remains nearly double that of the pregnant Medicaid women who do not receive Cash Assistance (22.7% vs. 12.6% in 2000). The percentage of infants screened high risk between 1996 and 2000 increased 2.7% among the Medicaid No Cash Assistance subpopulation compared to a decline of 7.6% among the Medicaid Cash Assistance sub-population. During that period, the difference between the two groups in percent of infants screened high risk declined slightly more than two percentage points, from 12.3 to 10.1.

**Prenatal Care**

- Between 1996 and 2000 the percentage of mothers entering prenatal care in the first trimester remained stable for both the Medicaid Cash Assistance and Medicaid No Cash Assistance groups. However, there remains a 10 percentage point difference between the two groups in the rate they receive first trimester prenatal care (77.3% for Medicaid No Cash Assistance vs. 67.5% for Medicaid Cash Assistance).

- From 1996 to 2000 the percentage of women receiving inadequate prenatal care was roughly the same (2.5% for Medicaid Cash Assistance pregnant women vs. 2.8% for Medicaid No Cash Assistance pregnant women). In 2000 the inadequate prenatal care index was 8.4 percentage points lower for Medicaid No Cash Assistance women (12.9% vs. 21.3%).
## Summary Table

**Pregnancy Outcomes (2000) by Type of Medicaid Status**

<table>
<thead>
<tr>
<th>Pregnancy Outcome</th>
<th>State Average</th>
<th>Medicaid NO</th>
<th>Medicaid YES</th>
<th>Med. No Cash Assistance</th>
<th>Med. Cash Assistance</th>
<th>Healthy People 2010 Goals</th>
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<tr>
<td>Interpregnancy Interval (months)</td>
<td>36.9</td>
<td>39.8</td>
<td>33.5</td>
<td>38.2</td>
<td>28.3</td>
<td>39.8*</td>
</tr>
<tr>
<td>Infant Mortality</td>
<td>5.9/1000</td>
<td>4.6/1000</td>
<td>7.7/1000</td>
<td>6.9/1000</td>
<td>9.0/1000</td>
<td>4.5/1000</td>
</tr>
<tr>
<td>Neonatal Mortality</td>
<td>4.1/1000</td>
<td>3.5/1000</td>
<td>4.8/1000</td>
<td>4.4/1000</td>
<td>5.5/1000</td>
<td>2.9/1000</td>
</tr>
<tr>
<td>Post Neonatal Mortality</td>
<td>1.3/1000</td>
<td>0.7/1000</td>
<td>2.1/1000</td>
<td>1.8/1000</td>
<td>2.8/1000</td>
<td>1.2/1000</td>
</tr>
<tr>
<td>Low Birth Weight (&lt;2500g)</td>
<td>7.3</td>
<td>6.0%</td>
<td>8.9</td>
<td>8.1</td>
<td>10.2</td>
<td>5.0</td>
</tr>
<tr>
<td>Very Low Birth Weight (&lt;1500g)</td>
<td>1.4</td>
<td>1.1%</td>
<td>1.7</td>
<td>1.5</td>
<td>2.0</td>
<td>0.9</td>
</tr>
<tr>
<td>Term Low Birth Weight</td>
<td>2.2</td>
<td>1.7%</td>
<td>2.8</td>
<td>2.7</td>
<td>3.1</td>
<td>1.7*</td>
</tr>
<tr>
<td>Preterm Low Birth Weight</td>
<td>5.0</td>
<td>4.3%</td>
<td>6.0</td>
<td>5.4</td>
<td>7.0</td>
<td>4.3*</td>
</tr>
<tr>
<td>Preterm Delivery</td>
<td>9.6</td>
<td>8.7%</td>
<td>10.9</td>
<td>9.7</td>
<td>12.7</td>
<td>7.6</td>
</tr>
<tr>
<td>Cesarean Section</td>
<td>25.1</td>
<td>27.0%</td>
<td>22.7</td>
<td>23.4</td>
<td>321.5</td>
<td>15.0</td>
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<td>HS Prenatal Screen Offered</td>
<td>65.0</td>
<td>56.4%</td>
<td>75.8</td>
<td>79.5</td>
<td>70.1</td>
<td>90*</td>
</tr>
<tr>
<td>HS Prenatal Screen Total</td>
<td>44.8</td>
<td>29.5%</td>
<td>64.2</td>
<td>67.6</td>
<td>58.8</td>
<td>90*</td>
</tr>
<tr>
<td>HS Prenatal Screen at High Risk</td>
<td>32.2</td>
<td>13.0%</td>
<td>43.5</td>
<td>37.4</td>
<td>54.4</td>
<td>13*</td>
</tr>
<tr>
<td>HS Infant Screen</td>
<td>74.2</td>
<td>69.1%</td>
<td>80.6</td>
<td>80.1</td>
<td>81.5</td>
<td>90*</td>
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<td>HS Infant Screen at High Risk</td>
<td>11.0</td>
<td>5.8%</td>
<td>16.6</td>
<td>12.6</td>
<td>22.7</td>
<td>5.0</td>
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<tr>
<td>Black Mothers</td>
<td>23.8</td>
<td>13.2%</td>
<td>37.3</td>
<td>29.5</td>
<td>49.3</td>
<td>13.2*</td>
</tr>
<tr>
<td>Hispanic Mothers</td>
<td>21.8</td>
<td>19.2%</td>
<td>25.1</td>
<td>43.2</td>
<td>13.4</td>
<td>19.2*</td>
</tr>
<tr>
<td>Prenatal Care 1st Trimester</td>
<td>84.2</td>
<td>92.6%</td>
<td>73.5</td>
<td>77.3</td>
<td>67.5</td>
<td>90*</td>
</tr>
<tr>
<td>Inadequate Prenatal Care</td>
<td>9.3</td>
<td>3.9%</td>
<td>16.2</td>
<td>12.9</td>
<td>21.3</td>
<td>4.0*</td>
</tr>
<tr>
<td>Smoking</td>
<td>10.6</td>
<td>15.5%</td>
<td>15.8</td>
<td>15.6</td>
<td>16.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Deliveries to &lt;18</td>
<td>8.0</td>
<td>3.1%</td>
<td>14.2</td>
<td>19.7</td>
<td>10.7</td>
<td>3.0*</td>
</tr>
<tr>
<td>WIC Participation</td>
<td>37.4</td>
<td>13.5%</td>
<td>67.8</td>
<td>71.5</td>
<td>62.2</td>
<td>90*</td>
</tr>
</tbody>
</table>

*These goals are rates in 2001 for the Non-Medicaid population on this pregnancy outcome indicator*
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Introduction


The Maternal Child Health and Education Research and Data Center at the University of Florida, a branch of Lawton and Rhea Chiles Center for Healthy Mothers and Babies, University of South Florida, prepared this report with interagency collaboration and cooperation. The report is intended to aid policy makers, consumers, and providers engaged in decision making regarding health care and services for the most vulnerable mothers and babies in Florida: those served by Medicaid.

The indicators presented in this report were carefully selected by a data committee consisting of maternal and child health experts from the Agency for Health Care Administration (AHCA), the Department of Health (DOH), Florida State University (FSU), the University of South Florida (USF), and the Maternal Child Health and Education Research and Data Center (MCHERDC) at the University of Florida. The initial process used for selection of indicators included a sub-committee implementing the Delphi Technique to carefully scrutinize the list of indicators and their definitions. This technique allowed for the generation of expert opinion through the administration of iterative questionnaires to individual maternal and child health experts. The sub-committee’s final recommendations were then submitted to AHCA and DOH for final revision and approval.

Each page includes the definition of the indicator, a bar graph and a table illustrating the five years of data, and a brief discussion of the indicator. Each indicator, for all years, is categorized by Medicaid status. Findings for the Medicaid population are further categorized and reported by the sub populations of Cash Assistance (formerly reported as women receiving AFDC) and No Cash Assistance(formerly reported as women receiving benefits under SOBRA). A discussion of limitations of the data, and methods used to analyze the data, are found on the pages following the indicators.
Table 1 compares 1999 and 2000 rates of nine maternal child health indicators in Florida’s non-Medicaid and Medicaid population with national target rates set for Healthy People 2010, a joint publication by the Centers for Disease Control and Prevention and the Health Resources and Services Administration (CDC/HRSA). The Maternal and Infant Health Status Indicators for Florida 1996-2000 enables policymakers to gauge Florida’s progress toward achieving these national goals.

### Table 1

<table>
<thead>
<tr>
<th>Maternal Child Indicator</th>
<th>CDC/HRSA Healthy People 2010</th>
<th>1999 Florida Rate</th>
<th>2000 Florida Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Target #</td>
<td>Rate</td>
<td>Non-Medicaid</td>
</tr>
<tr>
<td>Infant Mortality</td>
<td>16-1c.</td>
<td>4.5 per 1000</td>
<td>4.6</td>
</tr>
<tr>
<td>Neonatal Mortality</td>
<td>16-1d.</td>
<td>2.9 per 1000</td>
<td>3.9</td>
</tr>
<tr>
<td>Post Neonatal Mortality</td>
<td>16-1e.</td>
<td>1.2 per 1000</td>
<td>0.7</td>
</tr>
<tr>
<td>Care Begins First Trimester of Pregnancy</td>
<td>16-6a.</td>
<td>90 per 100</td>
<td>92.6</td>
</tr>
<tr>
<td>Caesarean Births (primipara)</td>
<td>16-9a.</td>
<td>15 per 100</td>
<td>25.7</td>
</tr>
<tr>
<td>Low Birth Weight</td>
<td>16-10a.</td>
<td>5 per 100</td>
<td>6.1</td>
</tr>
<tr>
<td>Very Low Birth Weight</td>
<td>16-10b.</td>
<td>0.9 per 100</td>
<td>1.2</td>
</tr>
<tr>
<td>Preterm Birth</td>
<td>16.11a</td>
<td>7.6 per 100</td>
<td>8.6</td>
</tr>
<tr>
<td>Cigarette Smoking During Pregnancy</td>
<td>16-17c.</td>
<td>1 per 100</td>
<td>6.1</td>
</tr>
</tbody>
</table>

*Final 2000 data not available at time of printing
Definitions of Delivery Categories

Pregnancy outcomes are based on year of delivery.

Medicaid: Florida resident females with a social security number who delivered in a given year and who were registered for Medicaid for at least one day during the period of pregnancy (estimated conception date to date of birth) according to the following categories:

Cash Assistance - women eligible for Medicaid who are also recipients of Temporary Assistance for Needy Families (TANF)

No Cash Assistance - women eligible for Medicaid but who are not financially eligible to receive Temporary Assistance for Needy Families (TANF) or were financially eligible but did not apply

Non-Medicaid: Florida resident females with a social security number who delivered in a given year and who were not registered for Medicaid on any date during the period of their pregnancy (estimated conception date to date of birth).

Total Statewide: Total number of deliveries in 2000 for Florida residents who could be matched with a social security number on the birth certificate. For multiple births, data were retained for the first-born infant only. Therefore data would be consistent for total number of deliveries, not total number of infants born.
Findings

Medicaid and Non-Medicaid
Number of Deliveries For Florida-Issues

Policy Concern

Medicaid eligibility needs to be determined by family income level, not eligibility codes.

Comment

Research Questions

What happens if Medicaid eligibility is lowered from 150% or 133% of the federal poverty level or is increased to 200% of the federal poverty level?

Why have Medicaid-funded deliveries declined over the last five years?

Comment

Healthy People 2010 Goal

Reanalyze 2000 data by family income code in Medicaid files to determine Medicaid population at <50 of the federal poverty level. Do projections for 51-100%, 101-133%, 134-150%, 151-175%, and 176-200% of the federal poverty level.

Comment
Number of Deliveries For Florida

Total number of deliveries for the indicated years (1996-2000) to Florida residents for which the delivery could be matched with a social security number on the birth certificate; for multiple births, data were retained for the first born infant only.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Statewide</th>
<th>Medicaid</th>
<th>Non-Medicaid</th>
<th>Medicaid</th>
<th>Non-Medicaid</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>178685</td>
<td>81710</td>
<td>96975</td>
<td>45.7</td>
<td>54.3</td>
</tr>
<tr>
<td>1997</td>
<td>181087</td>
<td>80978</td>
<td>100109</td>
<td>44.7</td>
<td>55.3</td>
</tr>
<tr>
<td>1998</td>
<td>183262</td>
<td>80310</td>
<td>102952</td>
<td>43.8</td>
<td>56.2</td>
</tr>
<tr>
<td>1999</td>
<td>182800</td>
<td>78545</td>
<td>104255</td>
<td>43.0</td>
<td>57.0</td>
</tr>
<tr>
<td>2000</td>
<td>187212</td>
<td>82346</td>
<td>104866</td>
<td>44.0</td>
<td>56.0</td>
</tr>
</tbody>
</table>

Results: The number of deliveries to Florida residents rose 2.4% between 1999 and 2000. Medicaid accounted for 44.0% of all deliveries in 2000. Since 1996, the number of Non-Medicaid deliveries has increased 8.1% compared to less than 1.0% for Medicaid deliveries.

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Interpregnancy Interval-Issues

Policy Concern

The interpregnancy interval for Medicaid women is six months shorter than that for Non-Medicaid women.

Comment

Research Question

Determine the factors associated with the shorter interpregnancy interval among Medicaid women.

Comment

Healthy People 2010 Goal

By 2010 the interpregnancy interval among Medicaid women should equal that of Non-Medicaid women in 2000 (39.8 months)

Comment
Interpregnancy Interval

A continuous variable measured in months of the average interval between the termination of the most recent previous pregnancy and last menstrual date of the current pregnancy as indicated on the birth certificate.

\[
\text{Interpregnancy Interval} = \text{Mean} \left[ (\text{Last menstrual date}) - (\text{date of the most recent termination or date of last birth}) \right]
\]

Labor is a very demanding process, and a woman’s body needs to heal and rest, even if delivery is uncomplicated and a child is born healthy. A woman who conceives a child too soon after pregnancy (less than 18 months) may have problems related to stress on her reproductive system, blood loss, and vitamin depletion, in addition to the fatiguing demands of caring for a newborn infant.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
<td>32.8</td>
<td>33.1</td>
<td>33.1</td>
<td>33.5</td>
<td>33.5</td>
</tr>
<tr>
<td>Non-Medicaid</td>
<td>38.3</td>
<td>38.4</td>
<td>39.0</td>
<td>39.2</td>
<td>39.8</td>
</tr>
<tr>
<td>Total Statewide</td>
<td>35.8</td>
<td>36.0</td>
<td>36.0</td>
<td>36.7</td>
<td>36.9</td>
</tr>
</tbody>
</table>

Results: From 1996 to 2000 interpregnancy interval increased 2.1% in the Medicaid population to 33.5 months; in the Non-Medicaid population interpregnancy interval increased 4.0% to 39.8 months. This six-month discrepancy in interpregnancy interval between the two groups has remained unchanged for the last five years.

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Infant Mortality-Issues

Policy Concern

Medicaid pregnant women have a higher infant mortality rate than Non-Medicaid pregnant women.

Comment

Research Question

What factors are associated with or can predict infant mortality?

Comment

Healthy People 2010 Goal

By 2010 the infant mortality rate for Medicaid pregnant women will be 4.6 per thousand.

Comment
Infant Mortality

Infants reported deceased within first year of life as indicated by the presence of an infant death flag on the birth certificate.

\[
\text{Number of infant deaths} \times \frac{1}{1000} = \frac{\text{Number of (Medicaid, Non-Medicaid, or Total as indicated) deliveries}}{}
\]

Infant mortality rate is related to several factors including maternal health, socioeconomic conditions, quality of medical care, and public health conditions.

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>704</td>
<td>707</td>
<td>623</td>
<td>604</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.6</td>
<td>8.7</td>
<td>7.8</td>
<td>7.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Medicaid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>477</td>
<td>513</td>
<td>432</td>
<td>475</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.9</td>
<td>5.1</td>
<td>4.2</td>
<td>4.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Statewide</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1181</td>
<td>1220</td>
<td>1055</td>
<td>1079</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.6</td>
<td>6.7</td>
<td>5.8</td>
<td>5.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Final 2000 data not available at time of printing

Results: Infant mortality for both the Medicaid and Non-Medicaid population decreased from 1996 to 1999. The difference in the infant mortality rate between the Medicaid and Non-Medicaid population remained essentially the same between 1996 and 1999 (3.7% in 1996 vs. 3.9% in 1999).

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Neonatal Mortality-Issues

Policy Concern

Medicaid pregnant women have a higher neonatal mortality rate than Non-Medicaid pregnant women.

Comment

Research Question

What factors are associated with or can predict neonatal mortality?

Comment

Healthy People 2010 Goal

By 2010, reduce the neonatal mortality rate for Medicaid pregnant women to 3.5 per thousand.

Comment
Neonatal Mortality

Deaths to infants less than 28 days of age as indicated by the presence of a death certificate.

\[
\text{Number of infant deaths less than 28 days of age} \times 1000 \\
\text{Number of (Medicaid, Non-Medicaid, or Total as indicated) deliveries}
\]

Neonatal mortality is a reflection of problems in the newborn such as prematurity, low birth weight, and the presence of congenital anomalies.

### Neonatal Mortality Rates

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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<th></th>
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</thead>
<tbody>
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<td>Medicaid</td>
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<td>413</td>
<td>435</td>
<td>436</td>
<td>398</td>
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<td>Medicaid</td>
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<td>5.1</td>
<td>5.4</td>
<td>5.6</td>
<td>4.8</td>
</tr>
<tr>
<td>Non-Medicaid</td>
<td>342</td>
<td>359</td>
<td>347</td>
<td>404</td>
<td>362</td>
</tr>
<tr>
<td>Non-Medicaid</td>
<td>3.5</td>
<td>3.6</td>
<td>3.4</td>
<td>3.9</td>
<td>3.5</td>
</tr>
<tr>
<td>Total Statewide</td>
<td>758</td>
<td>772</td>
<td>782</td>
<td>840</td>
<td>760</td>
</tr>
<tr>
<td>Total Statewide</td>
<td>4.2</td>
<td>4.3</td>
<td>4.3</td>
<td>4.6</td>
<td>4.1</td>
</tr>
</tbody>
</table>

### Neonatal Mortality Rates (Rate/1000)

![Graph showing Neonatal Mortality Rates](image)

**Results:** Between 1996 and 2000, the neonatal mortality rate declined 5.1% in the Medicaid population and 2.3% in the Non-Medicaid population. The neonatal mortality rate for both groups dropped more than 10.0% from 1999 to 2000.

**Please Note:**
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplets, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Post-Neonatal Mortality-Issues

Policy Concern

Medicaid pregnant women have a higher post-neonatal mortality rate than Non-Medicaid pregnant women.

Comment

Research Question

What factors are associated with or can predict post-neonatal mortality?

Comment

Healthy People 2010 Goal

By 2010, reduce the post-neonatal mortality rate for Medicaid pregnant women to 1.3 per thousand.

Comment
Post-Neonatal Mortality

Deaths to infants age 28 days through 364 days as indicated by the presence of a death certificate.

\[
\frac{\text{Number of infant deaths age 28 days through 364 days}}{\text{Number of (Medicaid, Non-Medicaid, or Total as indicated) deliveries}} \times 1000
\]

Post-neonatal mortality is a reflection of conditions in the newborn such as the effects of birth problems, newly acquired diseases, Sudden Infant Death Syndrome (SIDS), accidental deaths, infectious diseases, abuse/neglect, and birth defects.

<table>
<thead>
<tr>
<th>Post-Neonatal Mortality Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
</tr>
<tr>
<td>Medicaid</td>
</tr>
<tr>
<td>Non-Medicaid</td>
</tr>
<tr>
<td>Non-Medicaid</td>
</tr>
<tr>
<td>Total Statewide</td>
</tr>
<tr>
<td>Total Statewide</td>
</tr>
</tbody>
</table>

*Final 2000 data not available at time of printing

Results: The post-neonatal mortality rate in both the Medicaid and Non-Medicaid populations decreased between 1996 and 1999. In 1996, the post neonatal mortality rate for the Medicaid population was 2.1% greater than that of the Non-Medicaid population, while in 1999 the post-neonatal mortality rate for the Medicaid population was 1.4% greater than that of the Non-Medicaid population.

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Low Birth Weight-Issues

Policy Concern

Medicaid pregnant women have a higher percentage of low birth weight infants than Non-Medicaid pregnant women and it hasn’t changed over the last 5 years.

Comment

Research Questions

What factors are associated with or can predict low birth weight for pregnant Medicaid recipients?

Is the fact that older women are having babies affecting the percentage of low birth weight babies?

Are these predictive factors the same for Non-Medicaid pregnant women?

Comment

Healthy People 2010 Goal

By 2010, reduce the rate of low birth weight for Medicaid pregnant women to 6.0%.

Comment
Low Birth Weight

Deliveries weighing less than 2500 grams as indicated on the birth certificate.

\[
\frac{\text{Number of low weight deliveries}}{\text{Number of (Medicaid, Non-Medicaid, or Total as indicated) deliveries}} \times 100
\]

Infants weighing less than 2500 grams (5 lbs. 8 oz.) generally have more immediate and long-term health problems than normal weight infants, are small for their gestational age, and are also more likely to be premature. With the increased use of assisted reproductive technologies (fertility drugs, in vitro fertilization), there has been an increased incidence of multiple gestations, which have a higher incidence of premature delivery of low birth weight infants.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
<td>7286</td>
<td>7431</td>
<td>7240</td>
<td>7163</td>
<td>7344</td>
</tr>
<tr>
<td>Med</td>
<td>8.9</td>
<td>9.2</td>
<td>9.0</td>
<td>9.1</td>
<td>8.9</td>
</tr>
<tr>
<td>Non-Medicaid</td>
<td>5591</td>
<td>5813</td>
<td>6173</td>
<td>6366</td>
<td>6302</td>
</tr>
<tr>
<td>Non-Med</td>
<td>5.8</td>
<td>5.8</td>
<td>6.0</td>
<td>6.1</td>
<td>6.0</td>
</tr>
<tr>
<td>Total Statewide</td>
<td>12877</td>
<td>13244</td>
<td>13413</td>
<td>13529</td>
<td>13646</td>
</tr>
<tr>
<td>Total Statewide</td>
<td>7.2</td>
<td>7.3</td>
<td>7.3</td>
<td>7.4</td>
<td>7.3</td>
</tr>
</tbody>
</table>

**Results:** Non-Medicaid pregnant women have a consistently lower low birth rate than Medicaid pregnant women. This difference of approximately 3 percentage points has remained virtually unchanged over the last five years. The low birth weight rate among Medicaid women increased 1.1% between 1996 and 2000 whereas among Non-Medicaid women it increased 4.2%.

**Please Note:**
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Very Low Birth Weight-Issues

Policy Concern

The percentage of very low birth weight infants has not changed for Medicaid pregnant women over the last five years.

Pregnant Medicaid recipients have a higher percentage of very low birth weight infants than Non-Medicaid pregnant women.

Comment

Research Questions

What factors are associated with or are predictive of very low birth weight for Medicaid pregnant recipients?

Are these factors associate with or predictive of when an infant will be born very low birth weight, low birth weight, or term?

Comment

Healthy People 2010 Goal

By 2010, the rate of very low birth weight for Medicaid pregnant women will be 1.1%.

Comment
Very Low Birth Weight

Deliveries weighing less than 1500 grams as indicated on the birth certificate.

\[
\text{Number of very low weight deliveries} \times \frac{1}{100} \quad \text{Number of (Medicaid, Non-Medicaid, or Total as indicated) deliveries}
\]

Infants weighing less than 1500 grams (3 lbs. 5 oz.) have even more immediate and long-term health problems than low birth weight infants. These infants are usually hospitalized for prolonged periods of time and may require state-funded programs for survival.

### Very Low Birth Weight

<table>
<thead>
<tr>
<th></th>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
<td>1438</td>
<td>1361</td>
<td>1419</td>
<td>1463</td>
<td>1412</td>
</tr>
<tr>
<td>Medicaid</td>
<td>1.8</td>
<td>1.7</td>
<td>1.8</td>
<td>1.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Non-Medicaid</td>
<td>989</td>
<td>1110</td>
<td>1149</td>
<td>1219</td>
<td>1166</td>
</tr>
<tr>
<td>Non-Medicaid</td>
<td>1.0</td>
<td>1.1</td>
<td>1.1</td>
<td>1.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Total Statewide</td>
<td>2427</td>
<td>2471</td>
<td>2568</td>
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### Very Low Birth Weight (Percent)

![Graph showing the percentage of very low birth weight infants from 1996 to 2000]

**Results:** Medicaid pregnant women over the past five years have greater numbers of very low birth weight infants than Medicaid pregnant women. The very low birth weight rate in the two subpopulations has remained relatively stable between 1996 and 2000.

**Please Note:**
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplets, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Term Low Birth Weight-Issues

Policy Concern

The percentage of term low birth weight for Medicaid pregnant women remained the same over the last five years.

There hasn’t been a narrowing of the gap between the term low birth weight percentages of Medicaid pregnant women compared to that of Non-Medicaid pregnant women.

Comment

Research Questions

What factors are associated with or are predictive of term low birth weight for Medicaid pregnant recipients?

Are these factors associate with or predictive of when an infant will be born term low birth weight?

Comment

Healthy People 2010 Goal

By 2010, the rate of term low birth weight for Medicaid pregnant women will be 1.7%.

Comment
**Term Low Birth Weight**

Deliveries occurring on or after 37 weeks of gestation according to the clinical estimate of gestation as reported on the birth certificate and weighing less than 2500 grams as reported on the birth certificate.

\[
\text{Number of deliveries occurring on or after 37 weeks weighing less than } 2500 \text{ grams } \times 100 \\
\text{Number of (Medicaid, Non-Medicaid, or Total as indicated) deliveries}
\]

Intrauterine growth retardation (IUGR) is the pathologic process that results in term low birth weight. IUGR is associated with tobacco exposure, alcohol consumption, illicit drug use, high altitude, prior experience of IUGR and preterm delivery, gestational weight gain and caloric intake, race/ethnic origin, maternal height and pre-pregnancy weight.

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</table>

**Term Low Birth Weight (Percent)**

![Term Low Birth Weight](chart)

**Results:** Non-Medicaid pregnant women over the past five years have had fewer term low birth weight infants than Medicaid pregnant women. The difference between the two groups in term low birth weight rates has not narrowed during the last five years. From 1996 to 2000 term low birth weight among both subpopulations remained relatively stable.

**Please Note:**
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplets, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Preterm Low Birth Weight-Issues

Policy Concern

The percentage of preterm low birth weight for Medicaid pregnant women remained the same over the last five years.

There hasn’t been a narrowing of the gap between the percentage of preterm low birth weight among Medicaid pregnant women compared to that among Non-Medicaid pregnant women.

Comment

Research Questions

What factors are associated with or are predictive of preterm low birth weight for Medicaid pregnant recipients?

Are these factors associate with or predictive of when an infant will be born preterm low birth weight?

Comment

Healthy People 2010 Goal

By 2010, the rate of preterm low birth weight for Medicaid pregnant women will be 4.3%.

Comment
Preterm Low Birth Weight

Deliveries occurring before 37 weeks of gestation according to the date of last menses as reported on the birth certificate and weighing less than 2500 grams as reported on the birth certificate.

\[
\text{Number of deliveries occurring before 37 weeks of gestation and weighing less 2500 grams} \times 100 \\
\text{Number of (Medicaid, Non-Medicaid, or Total as indicated) deliveries}
\]

Distinguishing between those births that were LBW due to preterm delivery and those resulting from factors such as intrauterine growth retardation helps to target particular groups of pregnant women for intervention. Some of the major established predeterminates of preterm delivery include low pre-pregnancy weight, prior history of prematurity or spontaneous abortion, *in utero* exposure to diethystilbestrol (DES), infection of the membrane, and cigarette smoking.

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<thead>
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<td>5.0</td>
<td>5.1</td>
<td>5.0</td>
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**Results:** Non-Medicaid pregnant women have fewer preterm low birth weight birth births than Medicaid pregnant women. Since 1996 pre-term low birth weight has risen 9.2% in the Non-Medicaid population while being relatively stable in the Medicaid population. The pre-term low birth weight rate in the Medicaid population remains nearly two percentage points higher than that of the Non-Medicaid population (6.0% vs. 4.3% in 2000).

**Please Note:**
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Preterm Deliveries-Issues

Policy Concern

The percentage of preterm deliveries for Medicaid pregnant women remained the same over the last five years.

There hasn’t been a narrowing of the gap of preterm deliveries among Medicaid pregnant women compared to that of Non-Medicaid pregnant women.

Comment

Research Questions

What factors are associated with or are predictive of preterm deliveries for Medicaid pregnant recipients?

Are these factors associate with or predictive of when an infant will be delivered preterm?

Comment

Healthy People 2010 Goal

By 2010, the rate of preterm deliveries for Medicaid pregnant women will be 8.7%.

Comment
Preterm Deliveries

Infants delivered between 20 and 37 weeks of gestation as calculated from the clinical estimate of gestation as reported on the birth certificate.

\[
\frac{\text{Number of infants delivered between 20 and 37 weeks of gestation}}{\text{Number of (Medicaid, Non-Medicaid, or Total as indicated) deliveries}} \times 100
\]

In the period of 20 - 37 weeks gestation, all fetal organs are present but are not fully mature and functional outside the mother's womb. Delivery during this time period usually means an extended hospital stay for the infant, extensive procedures, separation from the parents, and a high incidence of long-term sequelae if the infant survives. This outcome can be costly in terms of dollars and lives lost or significantly impacted.

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Results: Non-Medicaid pregnant women had fewer preterm deliveries than Medicaid pregnant women over the last five years. The increase in pre-term deliveries among Non-Medicaid women was more than half that of Medicaid women between 1996 and 2000 (10.7% vs. 5.2%).

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Cesarean Deliveries-Issues

Policy Concern

The C-section rate for both Medicaid (22.7%) and Non-Medicaid (27.0%) pregnant women are well above the Healthy People 2010 goal of 15%. An action plan must be implemented in Florida to reach this national goal.

Comment

Research Questions

What factors are associated with or are predictive of cesarean and vaginal deliveries for Medicaid pregnant recipients?

Are Florida’s C-section rates high because of repeat C-sections or other health factors?

Comment

Healthy People 2010 Goal

By 2010, the rate of cesarean deliveries among all women in Florida will meet the Healthy People 2010 goal of 15%.

Comment
Cesarean Deliveries

Birth method reported as cesarean on the birth certificate.

\[
\text{Number of cesarean deliveries} \times 100
\]

Number of (Medicaid, Non-Medicaid, or Total as indicated) deliveries

Cesarean deliveries and instrumented births (forceps, vacuum) can save lives, but they can also increase the incidence of maternal and infant mortality and morbidity. Reducing cesareans may result in reduced maternal mortality and morbidity, faster postpartum recoveries, shorter hospital stays, and reduced health care costs.

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<td>22.2</td>
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<td>23.9</td>
<td>25.1</td>
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Results: Medicaid pregnant women had fewer Cesarean deliveries than Non-Medicaid women over the past five years. The percentage of Cesarean deliveries statewide continued to increase for the fifth straight year among both Medicaid and Non-Medicaid women. The total statewide rate for 2000 was 25.1%, well above the Healthy People 2010 goal of 15.0%.

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Healthy Start Prenatal Screen: Offered-Issues

Policy Concern

The percent of Healthy Start prenatal screens offered remained the same over the past five years at 75%.

Comment

Research Question

What can be done to increase the percent of Medicaid pregnant women who are offered a Healthy Start prenatal screen?

Comment

Healthy People 2010 Goal

By 2010, 90% of the Medicaid pregnant women will be offered a Healthy Start prenatal screen.

Comment
Healthy Start Prenatal Screen: Offered

Mother was presumably offered the Healthy Start Prenatal Screen since mother's consent to the screen marked as "Y" (Yes) or "N" (No) on the Healthy Start Prenatal Screen.

\[
\text{Number of mothers who were offered the Healthy Start Prenatal Screen} \times 100 \over \text{Number of (Medicaid, Non-Medicaid, or Total as indicated) deliveries}
\]

Beginning in late 1992, Florida's mandate that all pregnant women be offered the Healthy Start Prenatal Screen once their initial prenatal care visit was implemented. Barriers to meeting this goal include lack of provider knowledge of the Healthy Start program and providers intuitively identifying and offering the screen to those who they believe may need Healthy Start services.

\begin{table}
\begin{tabular}{lccccc}
Medicaid & 60944 & 61262 & 60298 & 59109 & 62422 \\
Medicaid & 74.6 & 75.7 & 75.1 & 75.3 & 75.8 \\
Non-Medicaid & 42555 & 45826 & 51090 & 56122 & 59175 \\
Non-Medicaid & 43.9 & 45.8 & 49.6 & 53.8 & 56.4 \\
Total Statewide & 103499 & 107088 & 111388 & 115231 & 121597 \\
Total Statewide & 57.9 & 59.1 & 60.8 & 63.0 & 65.0 \\
\end{tabular}
\end{table}

\begin{figure}
\centering
\includegraphics[width=0.5\textwidth]{healthy_start_prenatal_screen_offered.png}
\caption{Healthy Start Prenatal Screen: Offered (Percent)}
\end{figure}

Results: Fewer Non-Medicaid pregnant women consented to the Healthy Start Prenatal Screen than Medicaid pregnant women. (e.g. 56.4% compared to 75.8% in 2000). Between 1996 and 2000 the proportion of Non-Medicaid pregnant women offered and consenting to screens increased 28.6% compared to a 1.6% increase for Medicaid pregnant women.

Please Note:
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Healthy Start Prenatal Screen: Total Screened-Issues

Policy Concern

The percentage of Medicaid pregnant women who had a Healthy Start prenatal screen has remained the same over the past five years. What can be done to improve this percentage?

The percentage of Non-Medicaid pregnant women receiving a Healthy Start prenatal screen over the past five years is half that of Medicaid pregnant women. Why? What can be done to narrow this discrepancy?

Comment

Research Question

What are the differences between Medicaid and Non-Medicaid pregnant women who have received the Healthy Start prenatal screen?

From birth vital statistics, can we derive a Healthy Start prenatal screen score similar to the methodology used to create a Postnatal Infant screen score based on the birth certificate?

Comment

Healthy People 2010 Goal

By 2010, 90% of the Medicaid pregnant women will have a Healthy Start prenatal screen score.

Comment
Healthy Start Prenatal Screen: Total Screened

Mothers consenting to be screened marked as "Y" (Yes) on the Healthy Start Prenatal Screen.

Number of mothers consenting to be screened with the Healthy Start Prenatal Screen \( \times \frac{100}{\text{Number of (Medicaid, Non-Medicaid, or Total as indicated) deliveries}} \)

The number of mothers screened with the Healthy Start Prenatal Screen reflects compliance with state law to offer pregnant women screening for risk of LBW and prematurity. Having these women screened means that health care dollars can be used more efficiently during the pregnancy to prevent expensive problems in terms of lives and dollars.

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<thead>
<tr>
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<td>40.7</td>
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<td>43.4</td>
<td>44.8</td>
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</table>

Results: Non-Medicaid pregnant women had fewer Healthy Start prenatal screens than Medicaid pregnant women over the last five years. The percent of Non-Medicaid pregnant women screened by Healthy Start increased 55.0% since 1996 whereas the percent of Medicaid pregnant women screened remained virtually the same. Nonetheless, in 2000 more than twice as many Medicaid women were screened as Non-Medicaid (64.0% vs. 30.0%), down from three times as many in 1996 (65.0% vs. 19.0%).

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Healthy Start Prenatal Screen: At High Risk-Issues

Policy Concern

Over 40% of Medicaid pregnant recipients have had a high risk Healthy Start prenatal screen score over the last five years.

Medicaid pregnant recipients have a three-fold difference in percent scoring high risk compared to Non-Medicaid pregnant women.

Comment

Research Question

Are there methodological issues in the Healthy Start prenatal screen that cause the high rate of at risk status?

Comment

Healthy People 2010 Goal

By 2010, the percentage of women who score at high risk on the Healthy Start prenatal screen will be 13%.

Comment
Healthy Start Prenatal Screen: At High Risk

Mothers who scored four or more points (High Risk) on the Healthy Start Prenatal Screen.

Number of mothers who scored four or more points x 100
Number of mothers consenting to be screened with the Healthy Start Prenatal Screen

The Healthy Start Program was designed to identify women who are at high risk for having a LBW or premature infant because of medical, obstetric or socio-demographic reasons. Each pregnancy with a healthy outcome for mother and infant represents a cost savings to health care programs and to society.

<table>
<thead>
<tr>
<th>Healthy Start Prenatal Screen: At High Risk</th>
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<tbody>
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<td>------</td>
</tr>
<tr>
<td>Medicaid</td>
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<tr>
<td>Non-Medicaid</td>
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<tr>
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<tr>
<td>Total Statewide</td>
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<td>Total Statewide</td>
</tr>
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</table>

Healthy Start Prenatal Screen: At High Risk (Percent)

Results: Medicaid pregnant women consistently have higher Healthy Start Prenatal Risk scores than Non-Medicaid pregnant women. Between 1996 and 2000 the percentage of Medicaid mothers screened at high risk on the Healthy Start Prenatal Screen decreased 11.2%. For Non-Medicaid mothers the decrease was 23.3%. In 2000 the percentage of Medicaid women screened at risk was more than 3 times higher than that of Non-Medicaid women (43.5% vs. 13.0%).

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Healthy Start Infant Screen: Number Screened-Issues

Policy Concern

Over 20% of Medicaid pregnant women do not consent to the Healthy Start infant screen.

Over 30% of Non-Medicaid pregnant women do not consent to the Healthy Start infant screen.

Comment

Research Questions

What can be done to increase the number and percent of Healthy Start infant screens?

Can the Department of Health or its agent(s) calculate the screen score for all infants for program evaluation, accountability, and projection of state service needs?

Comment

Healthy People 2010 Goal

By 2010, 90% of all infants will have a Healthy Start postnatal screen.

Comment
Healthy Start Infant Screen: Number Screened

Infants whose parents or guardians did not decline screening for their infants as indicated by "Infant Screen Consent" marked "Yes" on the birth certificate.

\[
\frac{\text{Number of consents to the Healthy Start Infant Screen processed}}{\times 100} = \frac{\text{Number of (Medicaid, Non-Medicaid, or Total as indicated) deliveries}}{\text{Number of consents to the Healthy Start Infant Screen processed} \times 100}
\]

Beginning in late 1992, Florida's law mandating that all infants be screened with the mother's consent at the time of birth (prior to leaving the hospital or birth center), was implemented. The Healthy Start infant screen identifies potential risk factors that may affect postnatal development. Appropriate risk-reduction services may then be provided.

### Healthy Start Infant Screen: Total Screened

<table>
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<tr>
<th>Year</th>
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<th>Total Statewide</th>
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### Healthy Start Infant Screen: Total Screened (Percent)

![Graph showing Healthy Start Infant Screen: Total Screened (Percent) from 1996 to 2000.]

**Results:** Non-Medicaid mothers had fewer of their infants screened by Healthy Start than Medicaid mothers. The percent of Non-Medicaid infants receiving a Healthy Start Postnatal Screen increased 8.3% between 1996-2000 whereas the percent of Medicaid infants screened remained relatively stable. During that same five-year period, the gap between percent of Medicaid infants screened compared to percent of Non-Medicaid infants screened narrowed six percentage points. In 2000, 80.6% of Medicaid infants were screened compared to 69.1% for Non-Medicaid infants.

**Please Note:**
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Healthy Start Infant Screen: At Risk-Issues

Policy Concern

The percentage of infants screened at risk has remained stable at 15% over the last five years.

Comment

Research Question

What can be done to decrease the high percentage of Medicaid pregnant women whose infant score at risk on the a Healthy Start postnatal screen

Comment

Healthy People 2010 Goal

By 2010, 5% of all Medicaid pregnant women will have infants who receive an at-risk score on the Healthy Start postnatal screen.

Comment
Healthy Start Infant Screen: At Risk

Infants scoring four or more points on the Healthy Start Infant Screen of those whose mothers consented to the screen.

\[
\text{Number of infants whose Healthy Start Infant Screen scored at risk} \times \frac{1}{100} = \frac{\text{Number of consents to the Healthy Start Infant Screen}}{\text{Total Statewide}}
\]

The Healthy Start Infant Screen detects infants who are at risk for having future health problems that can compromise their lives because of physical, mental, or social reasons.

<table>
<thead>
<tr>
<th>Healthy Start Infant Screen: At Risk</th>
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<tbody>
<tr>
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<td>1996</td>
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<td>1999</td>
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</table>

Results: Non-Medicaid mothers had fewer of their infants screened “At Risk” than Medicaid mothers. Between 1996 and 2000 the percent of Medicaid infants whose postnatal screen was scored at risk declined slightly (1.8%) whereas the percent of Non-Medicaid infants who were scored at risk declined 9.4%. Nearly three times as many Medicaid infants were scored at risk in 2000 as Non-Medicaid infants (16.6% vs. 5.8%).

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Deliveries to Black Mothers-Issues

Policy Concern

The percentage of deliveries to Black mothers on Medicaid is three times higher than to Black mothers not on Medicaid.

Comment

Research Question

What can be done to decrease the discrepancy between deliveries to Black women on Medicaid compared to deliveries to Black women not on Medicaid?

Comment

Healthy People 2010 Goal

By 2010, the percentage of deliveries to Black women on Medicaid will equal that of Black women not on Medicaid.

Comment
Deliveries to Black Mothers

Race of mother is Black if so indicated on infant’s birth certificate.

\[
\text{Number of deliveries to Black mothers} \times 100
\]
\[
\frac{\text{Number of (Medicaid, Non-Medicaid, or Total as indicated) deliveries}}{\text{Total (Medicaid, Non-Medicaid, or Total as indicated) deliveries}} \times 100
\]

Black women have consistently higher rates of adverse pregnancy outcomes.

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
<td>28845</td>
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<td>36.5</td>
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<td>37.3</td>
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<tr>
<td>Non-Medicaid</td>
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<td>11959</td>
<td>12928</td>
<td>13656</td>
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<tr>
<td>Non-Medicaid</td>
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<td>12.6</td>
<td>13.1</td>
<td>13.2</td>
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<td>42243</td>
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<td>22.9</td>
<td>23.1</td>
<td>23.4</td>
<td>23.8</td>
</tr>
</tbody>
</table>

| Deliveries to Black Mothers (Percent) |

<table>
<thead>
<tr>
<th>xbd</th>
<th>Medicaid</th>
<th>Non-Medicaid</th>
<th>Total Statewide</th>
</tr>
</thead>
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<td>1996</td>
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<td>1997</td>
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<td>12.6</td>
<td>23.1</td>
</tr>
<tr>
<td>1999</td>
<td>23.4</td>
<td>13.1</td>
<td>23.4</td>
</tr>
<tr>
<td>2000</td>
<td>23.8</td>
<td>13.2</td>
<td>23.8</td>
</tr>
</tbody>
</table>

**Results:** Deliveries to Black mothers who received Medicaid were consistently higher than for Non-Medicaid recipients. The percentage of deliveries to Black mothers on Medicaid increased 5.6% between 1996 and 2000 compared to an increase of 12.9% among Black mothers not on Medicaid. Throughout the five-year period, the percentage of Black women delivering with Medicaid was about three times greater than Black women who did not receive Medicaid (e.g., 37.3% vs. 13.2% in 2000).

**Please Note:**
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Deliveries to Hispanic Mothers-Issues

Policy Concern

The percentage of deliveries to Hispanic mothers on Medicaid is higher than that of Hispanic mothers not on Medicaid.

Comment

Research Question

What can be done to decrease the discrepancy between deliveries to Hispanic women on Medicaid compared to deliveries to Hispanic women not on Medicaid

Comment

Healthy People 2010 Goal

By 2010, the percentage of deliveries to Hispanic women on Medicaid will equal that of Hispanic women not on Medicaid.

Comment
Deliveries to Hispanic Mothers

Ethnicity of mother is Hispanic if so indicated on infant’s birth certificate.

\[
\text{Number of deliveries to Hispanic mothers} \times 100 \\
\text{Number of (Medicaid, Non-Medicaid, or Total as indicated) deliveries}
\]

Hispanics are the most rapidly growing ethnic group in the state and nation.

<table>
<thead>
<tr>
<th>Deliveries to Hispanic Mothers</th>
<th>1996</th>
<th>1997</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
<td>18346</td>
<td>18348</td>
<td>18663</td>
<td>18957</td>
<td>20666</td>
</tr>
<tr>
<td>Medicaid</td>
<td>22.5</td>
<td>22.7</td>
<td>23.2</td>
<td>24.1</td>
<td>25.1</td>
</tr>
<tr>
<td>Non-Medicaid</td>
<td>15761</td>
<td>17167</td>
<td>18576</td>
<td>19074</td>
<td>20131</td>
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<tr>
<td>Non-Medicaid</td>
<td>16.3</td>
<td>17.1</td>
<td>18</td>
<td>18.3</td>
<td>19.2</td>
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<tr>
<td>Total Statewide</td>
<td>34107</td>
<td>35515</td>
<td>37239</td>
<td>38031</td>
<td>40797</td>
</tr>
<tr>
<td>Total Statewide</td>
<td>19.1</td>
<td>19.6</td>
<td>20.3</td>
<td>20.8</td>
<td>21.8</td>
</tr>
</tbody>
</table>

Deliveries to Hispanic Mothers (Percent)

Results: Hispanic women accounted for 21.8% of all deliveries in Florida in 2000. Less births occurred to Hispanic women not on Medicaid (19.2%) compared to Hispanic women on Medicaid (25.1%). The percentage of deliveries to Hispanic women has increased nearly 14.1% since 1996.

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
First Trimester Entry Into Prenatal Care-Issues

Policy Concern

The percentage of first trimester entry into prenatal care higher for Non-Medicaid pregnant women is much higher when compared to Medicaid pregnant women.

Comment

Research Question

What can be done to decrease the discrepancy between the percentage of Non-Medicaid pregnant women who receive prenatal care in their first trimester into compared to the percentage of Medicaid pregnant women who receive prenatal care in their first trimester?

Comment

Healthy People 2010 Goal

By 2010, the percentage of Medicaid pregnant women who receive prenatal care in their first trimester will equal the percentage of Non-Medicaid pregnant women who receive prenatal care in their first trimester.

Comment
First Trimester Entry Into Prenatal Care

Mothers who entered prenatal care in the first, second, or third month of gestation as indicated on the birth certificate.

\[
\text{Number of mothers who entered prenatal care in the first trimester} \times \frac{100}{\text{Number of (Medicaid, Non-Medicaid, or Total as indicated) deliveries}}
\]

Timely diagnosis and treatment of pre-pregnancy complications or reduction of risk factors amenable to treatment, such as poor nutrition, smoking, alcohol consumption and drug use, can substantially improve birth outcomes. Early entry into prenatal care enables risk assessment, the opportunity to elevate awareness of risk factors, and early intervention during the crucial first three months of gestation.

<table>
<thead>
<tr>
<th>First Trimester Entry Into Prenatal Care</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Medicaid</td>
</tr>
<tr>
<td>Medicaid    59969      59327     58500     57580     60493</td>
</tr>
<tr>
<td>Medicaid    73.4       73.3      72.8      73.3      73.5</td>
</tr>
<tr>
<td>Non-Medicaid 88734     92504     95215     96574     97099</td>
</tr>
<tr>
<td>Non-Medicaid 91.5      92.4      92.5      92.6      92.6</td>
</tr>
<tr>
<td>Total Statewide 148703   151831    153715    154154    157592</td>
</tr>
<tr>
<td>Total Statewide 83.2     83.8      83.9      84.3      84.2</td>
</tr>
</tbody>
</table>

Results: Non-Medicaid women entered prenatal care in the first trimester consistently higher than Medicaid pregnant women over the last 5 years. The percent of pregnant women receiving first trimester prenatal care increased just 1.2% over the last five years. In 2000 there was a 20.0 percentage point difference in the proportion of Medicaid versus Non-Medicaid women receiving first trimester prenatal care (73.5% vs. 92.6%).

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Inadequate Prenatal Care: Kotelchuck APNCU Index-Issues

Policy Concern

The percentage of Medicaid pregnant women receiving inadequate prenatal care has remained the same over the last five years.

There is a four-fold difference in Medicaid vs. Non-Medicaid pregnant women who receive inadequate prenatal care.

Comment

Research Question

What factors or predictors differentiate between Medicaid vs. Non-Medicaid pregnant women who receive adequate vs. inadequate prenatal care?

Comment

Healthy People 2010 Goal

By 2010, 4% of Medicaid pregnant women will have inadequate prenatal care.

Comment
Inadequate Prenatal Care: Kotelchuck APNCU Index

Proportion of mothers who received inadequate care according to the Adequacy of Prenatal Care Unit Index (Kotelchuck APNCU Index) algorithm; prenatal care was initiated in month 5 or later or less than 50 percent of prenatal care visits were received (adjusted for gestational age).

\[
\text{Number of mothers who received inadequate care} \times 100 \\
\text{Number of (Medicaid, Non-Medicaid, or Total as indicated) deliveries}
\]

The APNCU Index is a tool devised to judge the adequacy of prenatal care received. It takes into account when prenatal care was initiated and the expected number of prenatal visits based on the ACOG prenatal care visitation standard for uncomplicated pregnancies, adjusted for gestational age. The four categories reported by the APNCU Index are Inadequate, Intermediate, Adequate, and Adequate Plus. Inadequate prenatal care is the lowest indicator of prenatal care utilization.

<table>
<thead>
<tr>
<th>Inadequate Prenatal Care: Kotelchuck APCNU Index</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Medicaid</td>
</tr>
<tr>
<td>1996  13410</td>
</tr>
<tr>
<td>1997  13087</td>
</tr>
<tr>
<td>1998  13566</td>
</tr>
<tr>
<td>1999  12895</td>
</tr>
<tr>
<td>2000  13347</td>
</tr>
<tr>
<td>Medicaid</td>
</tr>
<tr>
<td>16.4</td>
</tr>
<tr>
<td>Medicaid</td>
</tr>
<tr>
<td>16.2</td>
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<tr>
<td>16.9</td>
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<tr>
<td>16.4</td>
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<td>16.2</td>
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<td>17785</td>
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<td>16984</td>
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<td>17468</td>
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<td>Medicaid</td>
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<td>9.5</td>
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<tr>
<td>9.7</td>
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<tr>
<td>9.3</td>
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<tr>
<td>9.3</td>
</tr>
</tbody>
</table>

Results: Medicaid pregnant women have higher rates of inadequate prenatal care than the Non-Medicaid pregnant women over the last 5 years. In the Medicaid population, the percentage of women receiving inadequate prenatal care remained relatively stable (1.2%) between 1996 and 2000 compared to a decline of 8.2% among women not on Medicaid. In 2000 the percentage of Medicaid women receiving inadequate prenatal care was more than four times greater than that of Non-Medicaid women (16.2% vs. 3.9%).

Please Note:
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Deliveries To Women Who Reported Smoking On Birth Certificate-Issues

Policy Concern

There is a three-fold difference between Medicaid and Non-Medicaid women who smoke during pregnancy.

Comment

Research Question

What can be done to lower the percentage of Medicaid pregnant women who smoke during pregnancy?

Comment

Healthy People 2010 Goal

By 2010, 6% of Medicaid pregnant women will smoke during pregnancy.

Comment
Deliveries To Women Who Reported Smoking On Birth Certificate

Mothers who reported smoking cigarettes as indicated on the birth certificate.

\[
\text{Number of mothers who reported smoking cigarettes as indicated on the birth certificate} \times \frac{100}{\text{Number of (Medicaid, Non-Medicaid, or Total as indicated) deliveries}}
\]

Smoking and inhaling second-hand smoke have been shown to have deleterious effects on the fetus.

<table>
<thead>
<tr>
<th>Deliveries to Women Who Reported Smoking on the Birth Certificate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
</tr>
<tr>
<td>Non-Medicaid</td>
</tr>
<tr>
<td>Total Statewide</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Deliveries to Women Who Reported Smoking on the Birth Certificate (per 100 deliveries)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>20</td>
</tr>
</tbody>
</table>

Results: Medicaid pregnant women smoke at a higher percent than the Non-Medicaid pregnant women over the last 5 years. Between 1996 and 2000 the percent of women who reported smoking on the birth certificate declined 15.5% for the Medicaid population and 27.0 % for the Non-Medicaid population. In 2000 the percentage of pregnant women who reported smoking was nearly three times higher in the Medicaid population compared to the Non-Medicaid population (15.8% vs. 5.5%).

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Deliveries To Adolescents Ages \( \leq \) 18 Years-Issues

Policy Concern

There is a three-fold difference between Medicaid and Non-Medicaid women in percentage of teenage deliveries.

Comment

Research Question

What programs, treatments, or interventions can reduce the difference in teenage deliveries between Medicaid and Non-Medicaid recipients?

Comment

Healthy People 2010 Goal

By 2010, 3% of Medicaid recipients will have teenage deliveries.

Comment
Deliveries To Adolescents Ages ≤ 18 Years

Number of deliveries to adolescents ages less than or equal to 18 years.

\[
\text{Number of deliveries to adolescents ages less than or equal to 18 years} \times 100
\]
\[
\text{Number of (Medicaid, Non-Medicaid, or Total as indicated) deliveries}
\]

Childbirth to adolescents 18 and under has been shown to be associated in certain subpopulations with increased risks of prematurity, low birth weight, and long term socioeconomic disadvantage.

<table>
<thead>
<tr>
<th>Deliveries to Adolescents Ages ≤ 18 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td>Medicaid</td>
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<td>1996</td>
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<td>12882</td>
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<td>1997</td>
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<td>11836</td>
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<td>2000</td>
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<td>11732</td>
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<td>Medicaid</td>
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<tr>
<td>15.8</td>
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<tr>
<td>15.7</td>
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<tr>
<td>15.6</td>
</tr>
<tr>
<td>15.1</td>
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<td>14.2</td>
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<tr>
<td>Non-Medicaid</td>
</tr>
<tr>
<td>1996</td>
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<tr>
<td>2778</td>
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<td>1997</td>
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<tr>
<td>2000</td>
</tr>
<tr>
<td>8.0</td>
</tr>
</tbody>
</table>

Results: Medicaid pregnant women had 4 and 1/2 times the number of adolescent deliveries than Non-Medicaid pregnant women. The percentage of deliveries to adolescents declined 8.0% over the last five years. The decrease was 10.1% in the Medicaid population compared to a 6.9% increase in the Non-Medicaid population. In 2000, the Medicaid population accounted for 78.0% of all deliveries to adolescent mothers.

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Women Infant Children (WIC) Nutrition Program Participation-Issues

Policy Concern

There is a five-fold difference between Medicaid and Non-Medicaid women in percentage of WIC participation.

WIC needs to be extended to the remaining pregnant Medicaid women who are not currently participating in the program.

Comment

Research Question

What initiatives can increase the number and percent of pregnant women participating in WIC?

Comment

Healthy People 2010 Goal

By 2010, 90% of Medicaid recipients will participate in WIC.

Comment
Women Infant Children (WIC) Nutrition Program Participation

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) serves low to moderate income pregnant, breastfeeding, and postpartum women; infants; and children under five who are at nutrition risk.

Number of WIC participants  x  100
Number of Medicaid participants

Supplemental food, nutrition counseling, breastfeeding promotion, and social service referrals have been shown to improve the maternal and child health of the target population.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
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<td>40026</td>
<td>53012</td>
<td>52534</td>
<td>55863</td>
</tr>
<tr>
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<td>66.0</td>
<td>66.9</td>
<td>67.8</td>
</tr>
<tr>
<td>Non-Medicaid</td>
<td>7372</td>
<td>10105</td>
<td>14443</td>
<td>15605</td>
<td>14154</td>
</tr>
<tr>
<td>Non-Medicaid</td>
<td>7.6</td>
<td>10.1</td>
<td>14.0</td>
<td>15.0</td>
<td>13.5</td>
</tr>
<tr>
<td>Total Statewide</td>
<td>46958</td>
<td>50131</td>
<td>67455</td>
<td>68139</td>
<td>70017</td>
</tr>
<tr>
<td>Total Statewide</td>
<td>26.3</td>
<td>27.7</td>
<td>36.8</td>
<td>37.3</td>
<td>37.4</td>
</tr>
</tbody>
</table>

Results: In 2000, the proportion of Medicaid women participating in WIC was five times greater than women not in Medicaid (67.8% vs. 13.5%). The percentage of Medicaid women enrolled in WIC has increased 40.0% over the last five years compared to a 77.6% increase among Non-Medicaid women.

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Summary of Findings

Medicaid: Cash Assistance and No Cash Assistance

Policy
- Medicaid pregnant women who receive Cash Assistance have greater adverse outcomes than Medicaid pregnant women who do not receive Cash Assistance
- Pregnancy outcomes of Medicaid pregnant women who receive Cash Assistance have shown no improvement over the past five years
- Pregnancy outcomes of Medicaid pregnant women who do not receive Cash Assistance have shown no improvement over the past five years

Research
- Why hasn’t there been an improvement in pregnancy outcomes for Medicaid pregnant women who do and who do not receive Cash Assistance
- What factors or predictors are associated with or account for the differences in the pregnancy outcomes of Medicaid pregnant women who do and who do not receive Cash Assistance

Goals
- By 2010 Medicaid pregnant women who receive Cash Assistance would be at the current level of pregnancy outcome as Medicaid pregnant women who do not receive Cash Assistance
- By 2010, the pregnancy outcome levels of Medicaid pregnant women who do not receive Cash Assistance would be improved 10%
Number Of Medicaid Deliveries in Florida-Issues

Policy Concern

There been an increase in Medicaid Cash Assistance deliveries and a decrease in Medicaid No Cash Assistance deliveries.

Comment

Research Question

Did the increase in Medicaid Cash Assistance deliveries cause an increase in adverse pregnancy outcomes?

Comment

Healthy People 2010 Goal

By 2010, 3% of Medicaid recipients will have teenage deliveries.

Comment
Number Of Medicaid Deliveries in Florida

Total number of deliveries for the indicated years (1996-2000) to Florida Medicaid recipients for which the delivery could be matched with a social security number on the birth certificate; for multiple births, data were retained for the first infant born only.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No Cash Assistance</td>
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<td>51114</td>
<td>49451</td>
<td>48953</td>
<td>49978</td>
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<tr>
<td>No Cash Assistance</td>
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<td>63.1</td>
<td>61.6</td>
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<td>Cash Assistance</td>
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</tr>
<tr>
<td>Cash Assistance</td>
<td>36.6</td>
<td>36.9</td>
<td>38.4</td>
<td>37.7</td>
<td>39.3</td>
</tr>
<tr>
<td>Total Statewide</td>
<td>81710</td>
<td>80978</td>
<td>80310</td>
<td>78545</td>
<td>82346</td>
</tr>
</tbody>
</table>

Note: Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

Results: Over the past 5 years, there were more No Cash Assistance pregnant women delivering than Cash Assistance pregnant women. Deliveries to the Cash Assistance sub-population of Medicaid increased 8.2% between 1996 and 2000 while deliveries to the No Cash Assistance sub-population decreased 3.5%. In 2000 the Cash Assistance group comprised 39.3% of the total Medicaid deliveries.

Please Note:
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplets, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Interpregnancy Interval-Issues

Policy Concern

Medicaid pregnant women who receive Cash Assistance have a 10 month shorter interpregnancy interval than Medicaid pregnant women who do not receive Cash Assistance.

Comment

Research Question

Does the shorter interpregnancy interval for Medicaid pregnant women who receive Cash Assistance have an adverse effect on pregnancy outcomes?

Comment

Healthy People 2010 Goal

By 2010, Medicaid pregnant women who receive Cash Assistance will have a interpregnancy interval of 36 months.

Comment
Interpregnancy Interval

A continuous variable measured in months of the average interval between the termination of the most recent previous pregnancy and last menstrual date of the current pregnancy as indicated on the birth certificate.

Interpregnancy Interval = \( \text{Mean} \left[ (\text{Last menstrual date}) - (\text{date of the most recent termination or date of last birth}) \right] \)

### Mean Interpregnancy Interval

<table>
<thead>
<tr>
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<td>36.2</td>
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<td>38.2</td>
</tr>
<tr>
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<td>29.5</td>
<td>29.5</td>
<td>29.5</td>
<td>28.3</td>
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<td>32.8</td>
<td>33.1</td>
<td>33.1</td>
<td>33.5</td>
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</tr>
</tbody>
</table>

### Results:

Medicaid pregnant women receiving Cash Assistance have shorter interpregnancy intervals than Medicaid women not receiving cash assistance. From 1996 to 2000 interpregnancy interval increased 5.5% in the No Cash Assistance sub-population to 38.2 months; in the Cash Assistance sub-population, interpregnancy interval decreased 1.9% to 28.3 months. Over the five-year period, the difference in interpregnancy interval between the two groups has widened from 7.4 months to 9.9 months.

Note: Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

Please Note:

These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Infant Mortality-Issues

Policy Concern

Over the past four years, Medicaid pregnant women who receive Cash Assistance have a much higher infant mortality rate than Medicaid pregnant women who do not receive Cash Assistance.

Special programs, treatments, or interventions need to be implemented that could reduce these elevated rates of infant mortality in Medicaid pregnant women who receive Cash Assistance.

Comment

Research Question

What factors differentiate infant mortality among Medicaid pregnant women who receive Cash Assistance and Medicaid pregnant women who do not receive Cash Assistance?

Comment

Healthy People 2010 Goal

By 2010, reduce infant mortality for Medicaid pregnant women who receive Cash Assistance to 6.9/1000.

Comment
Infant Mortality

Infants reported deceased within first year of life as indicated by the presence of an infant death flag on the birth certificate.

Number of infant deaths \( \times \) 1000

Number of Medicaid (Cash Assistance or No Cash Assistance) deliveries

Infant mortality rate is related to several factors including, maternal health, socioeconomic conditions, quality of medical care, and public health conditions.

<table>
<thead>
<tr>
<th>Infant Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
</tr>
<tr>
<td>No Cash Assistance</td>
</tr>
<tr>
<td>No Cash Assistance</td>
</tr>
<tr>
<td>Cash Assistance</td>
</tr>
<tr>
<td>Cash Assistance</td>
</tr>
<tr>
<td>Total Statewide</td>
</tr>
<tr>
<td>Total Statewide</td>
</tr>
</tbody>
</table>

*Final 2000 data not available at time of printing

Results: Over the past 5 years, Medicaid pregnant women who receive Cash Assistance have higher infant mortality rates than Medicaid pregnant women not receiving cash assistance. In 1996, the difference in infant mortality rate between the Cash Assistance and No Cash Assistance sub-populations was 2.8%, while in 1999 the difference in infant mortality rate was 2.1%. The difference in infant mortality rate between the Cash Assistance sub-population and the No Cash Assistance sub-population has narrowed a little more than one half of a percentage point between 1996 and 1999.

Note: Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

Please Note:
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
**Neonatal Mortality-Issues**

**Policy Concern**

Over the past five years, Medicaid pregnant women who receive Cash Assistance have consistently higher neonatal mortality than Medicaid pregnant women who do not receive Cash Assistance.

Special programs, treatments, or interventions need to be implemented that could reduce these elevated rates of neonatal mortality in Medicaid pregnant women who receive Cash Assistance.

**Comment**

**Research Question**

What factors differentiate neonatal mortality among Medicaid pregnant women who receive Cash Assistance and Medicaid pregnant women who do not receive Cash Assistance?

**Comment**

**Healthy People 2010 Goal**

By 2010, reduce neonatal mortality for Medicaid pregnant women who receive Cash Assistance to 4.4/1000.

**Comment**
**Neonatal Mortality**

Deaths to infants less than 28 days of age as indicated by the presence of a death certificate.

\[
\frac{\text{Number of infant deaths less than 28 days of age}}{\text{Number of Medicaid (Cash Assistance or No Cash Assistance) deliveries}} \times 1000
\]

<table>
<thead>
<tr>
<th>Neonatal Mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>No Cash Assistance</td>
</tr>
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<td>Cash Assistance</td>
</tr>
<tr>
<td>169</td>
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<td>5.7</td>
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<tr>
<td>Total Statewide</td>
</tr>
<tr>
<td>416</td>
</tr>
<tr>
<td>5.1</td>
</tr>
</tbody>
</table>

**Results:** Pregnant Medicaid women who received Cash Assistance over the past 5 years have higher neonatal mortality rates than pregnant women who did not receive cash assistance. From 1996 to 2000 neonatal mortality decreased 2.7% in the Cash Assistance sub-population (to 5.5%) and 7.8% (to 4.4%) in the No Cash Assistance sub-population. This one percent difference in neonatal mortality rate between the two groups has not changed in the last five years.

**Note:** Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

**Please Note:**
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Post-Neonatal Mortality-Issues

Policy Concern

Over the past five years, Medicaid pregnant women who receive Cash Assistance have higher post-neonatal mortality rates than Medicaid pregnant women who do not receive Cash Assistance.

Special programs, treatments, or interventions need to be implemented that could reduce these elevated rates of post-neonatal mortality in Medicaid pregnant women who receive Cash Assistance.

Comment

Research Question

What factors or predictors are associated with the narrowing of the gap in post-neonatal mortality between Medicaid pregnant women who receive Cash Assistance and Medicaid pregnant women who do not receive Cash Assistance?

Comment

Healthy People 2010 Goal

By 2010, post-neonatal mortality for Medicaid pregnant women who receive Cash Assistance will be 1.8/1000.

Comment
Post-Neonatal Mortality

Deaths to infants age 28 days through 364 days as indicated by the presence of a death certificate.

\[
\frac{\text{Number of infant deaths age 28 days through 364 days}}{\text{Number of Medicaid (Cash Assistance or No Cash Assistance) deliveries}} \times 1000
\]

<table>
<thead>
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<td>188</td>
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<td>Total Statewide</td>
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<td>3.6</td>
<td>2.3</td>
<td>2.1</td>
<td>*</td>
</tr>
</tbody>
</table>

*Final 2000 data not available at time of printing

Results: Pregnant Medicaid women who received Cash Assistance had higher post neonatal mortality percents than pregnant Medicaid women who did not receive cash assistance. Post neonatal mortality has declined in both Cash Assistance and Non Cash Assistance women from 1996 to 1999. In that same period, the gap between the two groups has narrowed one point (from 2.0 vs. 1.0).

Note: Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Low Birth Weight-Issues

Policy Concern

Medicaid pregnant women who receive and who do not receive Cash Assistance have shown no change in low birth weight rates over the last five years.

Medicaid pregnant women who receive Cash Assistance consistently have higher low birth weight rates than women who do not receive Cash Assistance.

Comment

Research Question

Why hasn’t the percentage of low birth weight for Medicaid pregnant women who receive and who do not receive Cash Assistance been reduced over the past five years?

What factors are associated with the differences in low birth weight rates for Medicaid pregnant women who receive Cash Assistance and those who do not?

Comment

Healthy People 2010 Goal

By 2010, the low birth weight rate for Medicaid pregnant women who receive Cash Assistance will be 8.1%.

Comment
Low Birth Weight

Deliveries weighing less than 2500 grams as indicated on the birth certificate.

\[
\text{Number of low weight deliveries} \times \frac{100}{\text{Number of Medicaid (Cash Assistance or No Cash Assistance) deliveries}}
\]

<table>
<thead>
<tr>
<th></th>
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<td>4043</td>
<td>4053</td>
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<td>Cash Assistance</td>
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<td>3120</td>
<td>3291</td>
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<tr>
<td>Total Statewide</td>
<td>7286</td>
<td>7431</td>
<td>7240</td>
<td>7163</td>
<td>7344</td>
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|                     | 8.3    | 8.3    | 8.2    | 8.3    | 8.1    |
| Cash Assistance     | 10.0   | 10.7   | 10.4   | 10.5   | 10.2   |
| Total Statewide     | 8.9    | 9.2    | 9.0    | 9.1    | 8.9    |

Results: Medicaid pregnant women who received Cash Assistance consistently have a higher percentage of low birth weight infants than pregnant Medicaid women who did not receive Cash Assistance over the past five years (e.g., 10.2% vs. 8.1% in 2000). During that period, the low birth weight rate among Medicaid Cash Assistance women increased 2.2% and decreased 2.5% among Medicaid No Cash Assistance women.

Note: Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Very Low Birth Weight-Issues

Policy Concern

Medicaid pregnant women who receive and who do not receive Cash Assistance have shown no change in low birth weight rates over the last five years.

Medicaid pregnant women who receive Cash Assistance consistently have higher low birth weight rates than women who do not receive Cash Assistance.

Comment

Research Question

Why hasn’t the percentage of low birth weight for Medicaid pregnant women who receive and who do not receive Cash Assistance been reduced over the past five years?

What factors are associated with the differences in low birth weight rates for Medicaid pregnant women who receive Cash Assistance and those who do not?

Comment

Healthy People 2010 Goal

By 2010, the low birth weight rate for Medicaid pregnant women who receive Cash Assistance will be 8.1%.

Comment
Very Low Birth Weight

Deliveries weighing less than 1500 grams as indicated on the birth certificate.

\[
\text{Number of very low weight deliveries} \times \frac{100}{\text{Number of Medicaid (Cash Assistance or No Cash Assistance) deliveries}}
\]

<table>
<thead>
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<td>815</td>
<td>757</td>
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<tr>
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<td>1.6</td>
<td>1.7</td>
<td>1.5</td>
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<tr>
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<td>606</td>
<td>621</td>
<td>648</td>
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<td>Cash Assistance</td>
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<td>Total Statewide</td>
<td>1438</td>
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<td>1419</td>
<td>1463</td>
<td>1412</td>
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<tr>
<td>Total Statewide</td>
<td>1.8</td>
<td>1.7</td>
<td>1.8</td>
<td>1.9</td>
<td>1.7</td>
</tr>
</tbody>
</table>

Results: Pregnant Medicaid women who received Cash Assistance had higher very low birth weight percentages than pregnant Medicaid women who did not receive cash assistance. Between 1996 and 2000, the very low birth weight rate among Cash Assistance women increased 3.6% (to 2.0) and decreased 8.5% (to 1.5) among No Cash Assistance women.

Note: Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Term Low Birth Weight-Issues

Policy Concern

Term low birth weight for pregnant Medicaid women who did not receive Cash Assistance has not improved over the past 5 years.

The difference between the two pregnant Medicaid subgroups also remained the same over the past 5 years.

Comment

Research Question

Why hasn’t there been a decrease in term low birth weight infants born over the past 5 years?

Why are there differences in what factors are associated with term low birth weight that may explain the term low birth weight difference between pregnant Medicaid women who do and do not receive cash assistance?

Comment

Healthy People 2010 Goal

By 2010, for pregnant Medicaid women who receive Cash Assistance term low birth weight will be 2.7%.

Comment
Term Low Birth Weight

Deliveries occurring on or after 37 weeks of gestation according to the clinical estimate of gestation as reported on the birth certificate and weighing less than 2500 grams as reported on the birth certificate.

\[
\text{Number of deliveries occurring on or after 37 weeks weighing less than 2500 grams} \times \frac{100}{\text{Number of Medicaid (Cash Assistance or No Cash Assistance) deliveries}}
\]

<table>
<thead>
<tr>
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<tr>
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<td>973</td>
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<td>Total Statewide</td>
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<td>3.0</td>
<td>2.9</td>
<td>3.0</td>
<td>2.8</td>
</tr>
</tbody>
</table>

Results: Term low birth weight rate of pregnant Medicaid women who received Cash Assistance remains four-tenths of a percentage point higher than that of Non Cash Assistance women (e.g., 3.1 vs. 2.7 in 2000). Term low birth weight has declined about 3.0% for both Medicaid Cash Assistance and Medicaid No Cash Assistance women since 1996. The gap between the two groups has not changed.

Note: Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Preterm Low Birth Weight-Issues

Policy Concern

Preterm low birth weight has increased over the past 5 years for pregnant Medicaid women who receive cash assistance, whereas preterm low birth weight for pregnant Medicaid women not receiving Cash Assistance has remained stable.

Over the past 5 years the difference in preterm low birth weight between pregnant Medicaid women who do and do not receive Cash Assistance has increased.

Comment

Research Question

Comment

Healthy People 2010 Goal

Comment
Preterm Low Birth Weight

Deliveries occurring before 37 weeks of gestation according to the date of last menses as reported on the birth certificate and weighing less than 2500 grams as reported on the birth certificate. 

Number of low weight deliveries occurring before 37 weeks of gestation and weighing less 2500 grams 

\[ \times \frac{100}{\text{Number of Medicaid (Cash Assistance or No Cash Assistance) deliveries}} \]

<table>
<thead>
<tr>
<th>Preterm Low Birth Weight</th>
<th>Medicaid</th>
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</thead>
<tbody>
<tr>
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<td>Cash Assistance</td>
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<td>Cash Assistance</td>
<td>6.7</td>
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<td>Total Statewide</td>
<td>4826</td>
</tr>
<tr>
<td>Total Statewide</td>
<td>5.9</td>
</tr>
</tbody>
</table>

Preterm Low Birth Weight (Percent)

Results: Medicaid pregnant women who received Cash Assistance had higher preterm low birth weight infants than Medicaid pregnant women who did not receive cash assistance. Since 1996 pre-term low birth weight increased 4.6% for Medicaid Cash Assistance women compared to a drop of 1.5% for Medicaid No Cash Assistance women. The difference between the two Medicaid groups in pre-term low birth weight infants widened slightly over the five-year period. In 2000 it was 7.0 for Cash Assistance women compared to 5.4 for No Cash Assistance women.

Note: Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Preterm Deliveries-Issues

Policy Concern

Preterm deliveries for pregnant Medicaid women who receive Cash Assistance has increased over the past 5 years, as well as the difference between pregnant Medicaid women who received Cash Assistance compared to those who did not.

Comment

Research Question

Why has there been an increase in Preterm Deliveries over the past 5 years?

For pregnant Medicaid women who receive cash assistance, what factors are associated with increases in Preterm Deliveries or what are predictors of the differences in Preterm Deliveries between Cash Assistance and No Cash Assistance pregnant Medicaid women?

Comment

Healthy People 2010 Goal

By 2010, Preterm Deliveries for pregnant Medicaid women who receive Cash Assistance will be 9.7%.

Comment
Preterm Deliveries

Infants delivered between 20 and 37 weeks of gestation as calculated from the clinical estimate of gestation as reported on the birth certificate.

\[ \text{Preterm Deliveries} = \frac{\text{Number of infants delivered between 20 and 37 weeks of gestation} \times 100}{\text{Number of Medicaid (Cash Assistance or No Cash Assistance) deliveries}} \]

### Preterm Deliveries

<table>
<thead>
<tr>
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<td>10.6</td>
<td>10.9</td>
<td></td>
</tr>
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</table>

### Preterm Deliveries (Percent)

#### Results:

Medicaid pregnant women who received Cash Assistance had higher preterm deliveries than Medicaid pregnant women who did not receive cash assistance. Pre-term deliveries increased 8.3% in the Medicaid Cash Assistance sub-population and 1.8% in the Medicaid No Cash Assistance sub-population between 1996 and 2000. During that period, the difference between the two Medicaid groups in pre-term delivery rate has widened nearly one additional percentage point (12.7% for Medicaid Cash Assistance vs. 9.7% for Medicaid No Cash Assistance in 2000).

Note: Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Cesarean Deliveries-Issues

Policy Concern

Cesarean Deliveries for pregnant Medicaid women who do or do not receive cash assistance has increased over the past 5 years.

Comment

Research Question

Why has the Cesarean Deliveries rate increased?

For pregnant Medicaid women, what factors are associated with increases in Cesarean Deliveries?

Comment

Healthy People 2010 Goal

By 2010, the Cesarean Deliveries rate for pregnant Medicaid women will be 15%.

Comment
Cesarean Deliveries

Birth method reported as cesarean on the birth certificate.

\[
\text{Cesarean Deliveries} = \frac{\text{Number of cesarean deliveries}}{\text{Number of Medicaid (Cash Assistance or No Cash Assistance) deliveries}} \times 100
\]

<table>
<thead>
<tr>
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**Results:** Medicaid pregnant women who did not receive Cash Assistance have higher cesarean delivery percentages than Medicaid pregnant women who receive cash assistance. Cesarean deliveries have increased 16.8% in the total Medicaid population over the last five years. A two percentage point difference between Medicaid No Cash Assistance and Medicaid Cash Assistance subgroups has remained unchanged during that period (e.g., 23.4% vs. 21.5% in 2000).

Note: Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

**Please Note:**
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Healthy Start Prenatal Screen: Offered-Issues

Policy Concern

The percentage of Healthy Start Prenatal Screens offered has remained essentially the same over the last 5 years for pregnant Medicaid women who did and did not receive Cash Assistance.

Comment

Research Question

Why has the percentage of pregnant Medicaid women offered the Healthy Start Prenatal Screen remained stable? What can be done to increase this percentage?

Why do pregnant Medicaid women who receive Cash Assistance have fewer Healthy Start Prenatal Screens offered than pregnant Medicaid women who do not receive cash assistance?

Comment

Healthy People 2010 Goal

By 2010, 95% of pregnant women with and without cash assistance will be offered the Healthy Start Prenatal Screen.

Comment
Healthy Start Prenatal Screen: Offered

Mother was presumably offered the Healthy Start Prenatal Screen since mother's consent to the screen marked as "Y" (Yes) or "N" (No) on the Healthy Start Prenatal Screen.

\[
\text{Number of mothers who were offered the Healthy Start Prenatal Screen} = \frac{\text{Number of Medicaid (Cash Assistance or No Cash Assistance) deliveries}}{100}
\]

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**Healthy Start Prenatal Screen: Offered**

(Percent)

**Results:** Pregnant Medicaid women who received Cash Assistance had a greater percent of Healthy Start Prenatal Screens offered than Medicaid women who did not receive cash assistance. Over the last five years, a higher percentage of Medicaid No Cash Assistance women were offered Healthy Start Prenatal Screens than were Medicaid Cash Assistance women (e.g., 79.5% vs. 70.1% in 2000). During that period, the difference between the two groups in percent of screens offered has narrowed one percentage point.

**Note:** Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

**Please Note:**
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Healthy Start Prenatal Screen: Total Screened-Issues

Policy Concern

Approximately two-thirds of pregnant Medicaid women who do and do not receive Cash Assistance had a Healthy Start Prenatal Screen. This percentage has remained stable over the past 5 years.

Comment

Research Question

What can be done to improve the Healthy Start Prenatal Screen percentage of pregnant Medicaid women who do and do not receive Cash Assistance?

Why do pregnant women who receive Cash Assistance have consistently lower percentages of Healthy Start Prenatal Screens?

Comment

Healthy People 2010 Goal

By 2010, 90% of pregnant Medicaid women regardless of whether they receive Cash Assistance will have a Healthy Start Prenatal Screen.

Comment
Healthy Start Prenatal Screen: Total Screened

Mothers consenting to be screened marked as "Y" (Yes) on the Healthy Start Prenatal Screen.

Number of mothers consenting to be screened with the Healthy Start Prenatal Screen \times 100

Number of Medicaid (Cash Assistance or No Cash Assistance) deliveries

<table>
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<th>Healthy Start Prenatal Screen: Total Screened</th>
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<td>Total Statewide 64.3 65.2 64.6 64.0 64.2</td>
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Healthy Start Prenatal Screen: Total Screened
(Percent)

Results: The percentage of pregnant Medicaid women who received Cash Assistance and who did not receive Cash Assistance actually screened by Healthy Start has not changed appreciably in the last five years (-0.2%). Also, the eight-percentage point difference between Medicaid No Cash Assistance women and Medicaid Cash Assistance women remained stable (e.g., 67.6% vs. 58.8% in 2000).

Note: Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

Please Note:
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Healthy Start Prenatal Screen: At High Risk-Issues

Policy Concern

One out of two pregnant Medicaid women who receive Cash Assistance screened at high risk on the Healthy Start Prenatal Screen. One out of three pregnant Medicaid women who do not receive cash assistance screened at high risk on the Healthy Start Prenatal Screen. There is a consistent (17 percentage point) difference in the percentage of at high risk Healthy Start Prenatal Screens for those pregnant Medicaid women who do and do not receive Cash Assistance.

Comment

Research Question

In 2000, what caused the drop/improvement in the percentage of pregnant Medicaid women scoring at high risk on the Healthy Start Prenatal Screen?

Comment

Healthy People 2010 Goal

By 2010, 25% of pregnant Medicaid women who do and do not receive Cash Assistance will score at high risk on the Healthy Start Prenatal Screen.

Comment
Healthy Start Prenatal Screen: At High Risk

Mothers who scored four or more points (high risk) on the Healthy Start Prenatal Screen.

Number of mothers who scored four or more points x 100
Number of mothers consenting to be screened with the Healthy Start Prenatal Screen

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<th>Healthy Start Prenatal Screen: At High Risk (Percent)</th>
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Results: Pregnant Medicaid women who received Cash Assistance consistently have had a higher percentage scoring at high risk than pregnant Medicaid women who did not receive Cash Assistance (e.g., 54.4% vs. 37.4% in 2000). The percent of Medicaid Cash Assistance women scoring at high risk decreased 14.8% between 1996 and 2000 whereas the percent of Medicaid No Cash Assistance women scoring at high risk decreased 9.7%.

Note: Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Healthy Start Infant Screen: Number Screened-Issues

Policy Concern

80% of infants born to mothers who receive Medicaid during pregnancy had a Healthy Start Infant Screen. This percentage has remained stable over the past 5 years.

There are no appreciable differences in the percentage of infants screened in relation to whether their mothers receiving Medicaid did or did not receive Cash Assistance during their pregnancy.

Comment

Research Question

Why do 20% of infants born to pregnant Medicaid women not have Healthy Start Infant Screens?

Comment

Healthy People 2010 Goal

By 2010, 95% of all infants born to pregnant Medicaid women have a Healthy Start Infant Screen.

Comment
Healthy Start Infant Screen: Number Screened

Infants screened with the Healthy Start Infant Screen as indicated by "Infant Screen Consent" marked "Yes" on the birth certificate.

\[
\text{Number of consents to the Healthy Start Infant Screen processed} \times 100
\]
\[
\text{Number of Medicaid (Cash Assistance or No Cash Assistance) deliveries}
\]

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<th>Healthy Start Infant Screen: Number Screened</th>
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Healthy Start Infant Screen: Number Screened
(Percent)

Results: Between 1996 and 2000 the percentage of infants screened postnatally by Healthy Start declined 3.0% in the Medicaid Cash Assistance group and increased slightly in the Medicaid No Cash Assistance group (0.6%). The percentage of infants screened has now narrowed nearly and is similar for both groups, around 80.0%.

Note: Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

Please Note:
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Healthy Start Prenatal Screen: High Risk-Issues

Policy Concern

Infant screened at high risk has remained stable over the past 5 years.

Infants whose mothers were on Medicaid during pregnancy and received Cash Assistance had approximately twice the percentage of being screened at risk compared to infants whose mothers were on Medicaid during pregnancy but did not receive Cash Assistance.

Comment

Research Question

Why has the percentage of infants screened at high risk remained stable over the past 5 years?

Why is there a difference in infants screened at risk based on whether a pregnant Medicaid woman received Cash Assistance?

How many infants screened at high risk receive Healthy Start Intervention or other DOH/CMS intervention services?

Comment

Healthy People 2010 Goal

By 2010, 10% of infants will be screened at risk at birth.

Comment
Healthy Start Infant Screen: High Risk

Infants scoring four or more points on the Healthy Start Infant Screen of those whose mothers consented to the screen.

\[ \frac{\text{Number of infants whose Healthy Start Infant Screen scored high risk}}{\text{Number of consents to the Healthy Start Infant Screen}} \times 100 \]

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**Results:** The proportion of pregnant Medicaid women who received Cash Assistance remains nearly double that of the pregnant Medicaid women who did not receive Cash Assistance (22.7% vs. 12.6% in 2000). The percentage of infants screened high risk between 1996 and 2000 increased 2.7% among the Medicaid No Cash Assistance subpopulation compared to a decline of 7.6% among the Medicaid Cash Assistance sub-population. During that period, the difference between the two groups in percent of infants screened high risk declined slightly more than two percentage points, from 12.3 to 10.1.

Note: Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

**Please Note:**
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Deliveries to Black Mothers-Issues

Policy Concern

The percentage of deliveries to Black Mothers on Cash Assistance is double that of deliveries to Black Mothers not on Cash Assistance.

Comment

Research Question

What can be done to decrease the discrepancy between deliveries to Black women on Cash Assistance compared to deliveries to Black women not on Cash Assistance?

Comment

Healthy People 2010 Goal

By 2010, the percentage of deliveries to Black women on Cash Assistance will equal that of Black women not on Cash Assistance.

Comment
Deliveries to Black Mothers

Race of mother is Black if so indicated on infant’s birth certificate.

\[
\frac{\text{Number of deliveries to Black mothers}}{\text{Number of Medicaid (Cash Assistance or No Cash Assistance) deliveries}} \times 100
\]

### Deliveries to Black Mothers

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### Deliveries to Black Mothers (Percent)

![Deliveries to Black Mothers Chart]

#### Results:

Pregnant Black Medicaid women who received Cash Assistance had nearly twice as many Black mothers as the pregnant Medicaid women who did not receive Cash Assistance over the last five years. The difference in the percent has begun to narrow. From 1996 to 2000, the percent of Black months in Cash Assistance decreased by 3.3% while those in No Cash Assistance increased 12.5%, however there still is a 30% difference between the two Medicaid subgroups.

Note: Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

**Please Note:**
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Deliveries to Hispanic Mothers-Issues

Policy Concern

The percentage of deliveries to Hispanic mothers on No Cash Assistance is three times higher than that of Hispanic mothers on Cash Assistance.

Comment

Research Question

What can be done to decrease the discrepancy between deliveries to Hispanic women on No Cash Assistance compared to deliveries to Hispanic women on Cash Assistance?

Comment

Healthy People 2010 Goal

By 2010, the percentage of deliveries to Hispanic women on No Cash Assistance will equal that of Hispanic women not on Cash Assistance.

Comment
Deliveries to Hispanic Mothers

Ethnicity of mother is Hispanic if so indicated on infant’s birth certificate.

\[
\text{Number of deliveries to Hispanic mothers} \times 100
\]

\[
\frac{\text{Number of Medicaid (Cash Assistance or No Cash Assistance) deliveries}}{\text{Total Statewide deliveries}} 
\]

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Results: There is approximately a three-fold difference between pregnant Hispanic women who do not receive Cash Assistance and pregnant Hispanic women who receive Cash Assistance over the last 5 years. Between 1996 and 2000 the percentage of Hispanic Medicaid mothers in the Cash Assistance sub-population increased less than 1.0% whereas in the Hispanic Medicaid No Cash Assistance group the percentage of births increased 26.4%.

Note: Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

Please Note:
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
First Trimester Entry Into Prenatal Care-Issues

Policy Concern

Pregnant Medicaid women who do or do not receive Cash Assistance entering into prenatal care in the first trimester has not changed over the past 5 years.

One-third of the Medicaid Cash Assistance subgroup do not enter prenatal care in the first trimester.

Comment

Research Question

Why and what can be done to increase the percentage of pregnant Medicaid women entering into prenatal care in the first trimester?

Comment

Healthy People 2010

By 2010, 90% of pregnant Medicaid women who do or do not receive Cash Assistance will enter prenatal care in the first trimester.

Comment
First Trimester Entry Into Prenatal Care

Mothers who entered prenatal care in the first, second, or third month of gestation as indicated on the birth certificate.

\[
\text{Number of mothers who entered prenatal care in the first trimester} \times 100
\]
\[
\text{Number of Medicaid (Cash Assistance or No Cash Assistance) deliveries}
\]

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Results: Between 1996 and 2000 the percentage of mothers entering prenatal care in the first trimester remained stable for both the Medicaid Cash Assistance and Medicaid No Cash Assistance groups. However, there remains a 10 percentage point difference between the two groups in the rate they receive first trimester prenatal care (77.3% for Medicaid No Cash Assistance vs. 67.5% for Medicaid Cash Assistance).

Note: Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplets, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Inadequate Prenatal Care: Kotelchuck APNCU Index-Issues

Policy Concern

Pregnant Medicaid women who do and do not receive Cash Assistance have had approximately the same percentage of inadequate prenatal care during the past 5 years.

Comment

Research Question

Why hasn’t the percentage of pregnant women receiving inadequate prenatal care decreased over the past 5 years?

Why do pregnant Medicaid women who receive Cash Assistance have almost twice of its recipients receiving inadequate prenatal care when compared to pregnant Medicaid women not receiving Cash Assistance?

Comment

Healthy People 2010 Goal

By 2010, 90% of Medicaid women will receive adequate prenatal care.

Comment
Inadequate Prenatal Care: Kotelchuck APNCU Index

Proportion of mothers who received inadequate care according to the Adequacy of Prenatal Care Unit Index (Kotelchuck APNCU Index) algorithm; prenatal care was initiated in month 5 or later or less than 50 percent of prenatal care visits were received (adjusted for gestational age).

\[
\text{Number of mothers who received inadequate care} \times \frac{100}{\text{Number of Medicaid (Cash Assistance or No Cash Assistance) deliveries}}
\]

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Results: From 1996 to 2000 the percentage change for women receiving inadequate prenatal care was roughly the same (2.5% for Medicaid Cash Assistance pregnant women vs. 2.8% for Medicaid No Cash Assistance pregnant women). In 2000 the inadequate prenatal care index was 8.4 percentage points lower for Medicaid No Cash Assistance women (12.9% vs. 21.3%).

Note: Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

Please Note:
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Deliveries to Women Who Reported Smoking On The Birth Certificate-Issues-Issues

Policy Concern

Fifteen percent of pregnant Medicaid women smoke during pregnancy regardless of whether they do or do not receive Cash Assistance.

Comment

Research Question

What can be done to further decrease the percentage of pregnant Medicaid women who smoke during pregnancy?

Comment

Healthy People 2010 Goal

By 2010, 5% of pregnant Medicaid women will smoke during pregnancy.

Comment
Deliveries To Women Who Reported Smoking On The Birth Certificate

Mothers who reported smoking cigarettes as indicated on the birth certificate.

\[
\text{Number of mothers who reported smoking cigarettes as indicated on the birth certificate} \times \frac{100}{\text{Number of Medicaid (Cash Assistance or No Cash Assistance) deliveries}}
\]

Deliveries to Women Who Reported Smoking on the Birth Certificate

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No Cash Assistance</td>
<td>9382</td>
<td>9014</td>
<td>8828</td>
<td>8263</td>
<td>7802</td>
</tr>
<tr>
<td>No Cash Assistance</td>
<td>18.1</td>
<td>17.6</td>
<td>17.9</td>
<td>16.9</td>
<td>15.6</td>
</tr>
<tr>
<td>Cash Assistance</td>
<td>5866</td>
<td>5516</td>
<td>5621</td>
<td>4959</td>
<td>5179</td>
</tr>
<tr>
<td>Cash Assistance</td>
<td>19.6</td>
<td>18.5</td>
<td>18.2</td>
<td>16.8</td>
<td>16.0</td>
</tr>
<tr>
<td>Total Statewide</td>
<td>15248</td>
<td>14530</td>
<td>14449</td>
<td>13222</td>
<td>12981</td>
</tr>
<tr>
<td>Total Statewide</td>
<td>18.7</td>
<td>17.9</td>
<td>18.0</td>
<td>16.8</td>
<td>15.8</td>
</tr>
</tbody>
</table>

Deliveries to Women Who Reported Smoking on the Birth Certificate (Percent)

Results: Both groups of pregnant Medicaid women who did and did not receive Cash Assistance demonstrated a decline in percent of women who reported smoking cigarettes during pregnancy in the period 1996-2000. There was a 13.8% drop in the Medicaid No Cash Assistance group and an 18.4% drop in the Medicaid Cash Assistance group. In 2000 the smoking rate during pregnancy in the two pregnant Medicaid groups was nearly identical (about 16.0%).

Note: Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

Please Note:
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplets, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Deliveries To Adolescents Ages ≤ 18 Years-Issues

Policy Concern

The percentage of deliveries to adolescents ≤18 on No Cash Assistance is double that for Cash Assistance.

Comment

Research Question

What can be done to reduce the discrepancy between No Cash Assistance and Cash Assistance deliveries to adolescents ≤18?

Comment

Healthy People 2010 Goal

By 2010, the percentage of deliveries to adolescents ≤18 will be the same for No Cash Assistance and Cash Assistance groups.

Comment
Deliveries To Adolescents Ages ≤ 18 Years

Number of deliveries to adolescents ages less than or equal to 18 years.

\[
\text{Number of deliveries to adolescents ages less than or equal to 18 years} \times \frac{100}{\text{Number of Medicaid (Cash Assistance or No Cash Assistance) deliveries}}
\]

<table>
<thead>
<tr>
<th>Deliveries to Adolescents Ages ≤ 18 Years</th>
<th>Medicaid</th>
<th>1996</th>
<th>1997</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Cash Assistance</td>
<td>7649</td>
<td>7623</td>
<td>7299</td>
<td>6637</td>
<td>6377</td>
<td></td>
</tr>
<tr>
<td>No Cash Assistance</td>
<td>25.6</td>
<td>25.6</td>
<td>23.8</td>
<td>22.5</td>
<td>19.7</td>
<td></td>
</tr>
<tr>
<td>Cash Assistance</td>
<td>5233</td>
<td>5095</td>
<td>5255</td>
<td>5199</td>
<td>5355</td>
<td></td>
</tr>
<tr>
<td>Cash Assistance</td>
<td>10.1</td>
<td>10.0</td>
<td>10.6</td>
<td>10.6</td>
<td>10.7</td>
<td></td>
</tr>
<tr>
<td>Total Statewide</td>
<td>12882</td>
<td>12718</td>
<td>12554</td>
<td>11836</td>
<td>11732</td>
<td></td>
</tr>
<tr>
<td>Total Statewide</td>
<td>15.8</td>
<td>15.7</td>
<td>15.6</td>
<td>15.1</td>
<td>14.2</td>
<td></td>
</tr>
</tbody>
</table>

Deliveries to Adolescents Ages ≤ 18 Years

(Percent)

Results: Deliveries to adolescents declined 23.0% from 1996 to 2000 among pregnant Medicaid women who did not receive Cash Assistance whereas the rate rose 5.9% among pregnant Medicaid women who received cash assistance. Over the five-year period, the difference in the rate of adolescent deliveries between the two Medicaid groups has narrowed from 15.0% to 9.0% (10.7% for Medicaid Cash Assistance vs. 19.7% for Medicaid No Cash Assistance in 2000).

Note: Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

Please Note: These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins,triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Women Infant Children Nutrition Program Participation-Issues

Policy Concern

One-third of pregnant Medicaid women are not receiving Women Infant Children Nutrition services.

Comment

Research Question

Why do fewer Medicaid pregnant women who receive Cash Assistance enroll in the Women Infant Children Nutrition Program?

Comment

Healthy People 2010 Goal

By 2010, 90% of pregnant Medicaid women will receive Women Infant Children Nutrition services.

Comment
Women Infant Children Nutrition Program Participation

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) serves low to moderate income pregnant, breastfeeding, and postpartum women; infants; and children under five who are at nutrition risk.

\[
\text{Number of WIC participants} \times 100 \\
\text{Number of Medicaid (Cash Assistance or No Cash Assistance) deliveries}
\]

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No Cash Assistance</td>
<td>25925</td>
<td>25351</td>
<td>33891</td>
<td>34082</td>
<td>35716</td>
</tr>
<tr>
<td>No Cash Assistance</td>
<td>50.1</td>
<td>49.6</td>
<td>68.5</td>
<td>69.6</td>
<td>71.5</td>
</tr>
<tr>
<td>Cash Assistance</td>
<td>13661</td>
<td>14675</td>
<td>19121</td>
<td>18427</td>
<td>20147</td>
</tr>
<tr>
<td>Cash Assistance</td>
<td>45.7</td>
<td>49.1</td>
<td>62.0</td>
<td>62.3</td>
<td>62.2</td>
</tr>
<tr>
<td>Total Statewide</td>
<td>39586</td>
<td>40026</td>
<td>53012</td>
<td>52534</td>
<td>55863</td>
</tr>
<tr>
<td>Total Statewide</td>
<td>48.5</td>
<td>49.4</td>
<td>66.0</td>
<td>66.9</td>
<td>67.8</td>
</tr>
</tbody>
</table>

\[
\text{Results:} \text{ Participation in WIC increased 36.3\% between 1996 and 2000 among pregnant Medicaid women who received Cash Assistance and 42.8\% among pregnant Medicaid women who did not receive cash assistance. Over the five-year period, the differential participation rate in WIC for the two groups has widened, from 4.4 percentage points to 9.3 (71.5\% for Medicaid No Cash Assistance compared to 62.2\% for Medicaid Cash Assistance in 2000).}
\]

Note: Some additional Medicaid clients do not fall into either the Cash Assistance or No Cash Assistance categories.

Please Note:
These data do not include births to women who did not have a social security number and only include the first infant born if a woman had multiple births (twins, triplicates, etc.). Therefore, the data on total births is not directly comparable to the data on total births produced by the Office of Vital Statistics that include all births.
Methodology

Data Sources

Data for the two Health Status reports come from records supplied to MCHERDC by the following Florida governmental agencies:

- Medicaid eligibility, HMO enrollment, and Medipass files from the Agency for Health Care Administration (AHCA)
- Birth and death files from the Office of Vital Statistics, Florida Department of Health
- Healthy Start Prenatal Risk and Postnatal Risk Screens from the Maternal Child Health Bureau, Florida Department of Health
- WIC (Women, Infant, and Children Supplemental Nutrition Program) eligibility files, Florida Department of Health

Exclusion Criteria

Files were obtained from Vital Statistics for Florida for births and deaths from 1996 through 2000. Records which met any of the following conditions were excluded from the tables:

1) non-resident births (mother’s residence not Florida);
2) second and subsequent children of multiple births;
3) births with a missing identifier (mother’s social security number);
4) duplicate birth certificates; and
5) terminations (fetal deaths, stillborns, spontaneous or elective abortion).

Missing Values

Records with missing values were not included in the summary statistics presented in the tables.
Matching Medicaid Data to Vital Statistics

Agency for Health Care Administration (AHCA) Medicaid data were matched to the Maternal Child Health core dataset using a common variable between the two datasets: mother's social security number. Mothers without social security numbers were excluded. This issue will be addressed in future iterations of the computer-matching program.

Categorization of Subpopulations

The total number of annual, non-excluded deliveries was divided into two categories: “Medicaid” and “Non-Medicaid.” Women who were in Medicaid for at least one day during their pregnancy were placed into the “Medicaid” category. Those with no exposure to Medicaid during their period of pregnancy were placed in the “Non-Medicaid” category.

The “Medicaid” category was further subdivided into two groups: Cash Assistance was defined as women eligible for Medicaid as well as Temporary Assistance to Needy Families (TANF) benefits (referred to as AFDC in previous reports). No Cash Assistance was defined as women eligible for Medicaid but who were not eligible for TANF benefits (referred to as SOBRA in previous reports).

Each maternal and infant health status indicator is expressed as a rate (either percent or average as appropriate) for statewide total and each subgroup (Medicaid vs. Non-Medicaid and Cash Assistance vs. No Cash Assistance).

Interpregnancy Interval

The interpregnancy interval was calculated by subtracting the date of the most recent termination of pregnancy or the date of the last birth from the last menstrual date as reported on the birth certificate. Deliveries with a calculated negative value for the interpregnancy interval were omitted from the Average Interpregnancy Interval calculation. An analysis of the data showed that the majority of the cases with interpregnancy intervals between zero and four months were to women who had a premature termination of the previous pregnancy.
**Defining the pregnancy window**

Conception date was based on the date of last menses as listed on the birth certificate if present. If not present, the date of last menstrual period as indicated on the Healthy Start Prenatal Screen was used to estimate date of conception. Otherwise, the conception date was based on the clinical estimate of gestational age from the birth certificate. If none of the above indicators were available, conception was computed as 270 days prior to the delivery date. Table 1 summarizes the four different methods for determining conception date.

<table>
<thead>
<tr>
<th>Year</th>
<th>LMP as on Birth Certificate</th>
<th>LMP as on Healthy Start Screen</th>
<th>Clinical Estimate as on Birth Certificate</th>
<th>270 Days Prior to Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>170,719 (95.52%)</td>
<td>2,327 (1.30%)</td>
<td>3,922 (2.19%)</td>
<td>1,750 (0.98%)</td>
</tr>
<tr>
<td>1997</td>
<td>171,202 (94.53%)</td>
<td>2,979 (1.64%)</td>
<td>5,161 (2.85%)</td>
<td>1,759 (0.97%)</td>
</tr>
<tr>
<td>1998</td>
<td>171,311 (93.48%)</td>
<td>3,737 (2.04%)</td>
<td>6,443 (3.52%)</td>
<td>1,776 (0.97%)</td>
</tr>
<tr>
<td>1999</td>
<td>170,968 (93.51%)</td>
<td>3,632 (1.99%)</td>
<td>6,467 (3.54%)</td>
<td>1,760 (0.96%)</td>
</tr>
<tr>
<td>2000</td>
<td>175,725 (93.86%)</td>
<td>3,775 (2.02%)</td>
<td>5,938 (3.17%)</td>
<td>1,784 (0.95%)</td>
</tr>
</tbody>
</table>
Quality Assurances Issues

Potential Discrepancies with Other Data Sets 1: Birth Vital Statistics

The statistics within this report represent deliveries to women identified by Medicaid status. Data on women with a missing identifier (social security number), as well as second and subsequent births of a multiple birth, are omitted. Table 2 illustrates the percentage of records omitted from the report by reason of omission. This table does not reflect non-Florida resident data omissions.

Table 2
SUMMARY STATISTICS FOR FLORIDA BIRTHS
DATA OMISSIONS: 1996 – 2000

<table>
<thead>
<tr>
<th>YEAR</th>
<th>TOTAL FLORIDA BIRTHS</th>
<th>OMITTED: MISSING SSN</th>
<th>OMITTED: MULTIPLE BIRTHS</th>
<th>OMITTED: DUPLICATE BIRTH CERTIFICATE</th>
<th>TOTAL FLORIDA DELIVERIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>189,055</td>
<td>7,860 (4.2%)</td>
<td>2,477 (1.3%)</td>
<td>33 (0.02%)</td>
<td>178,430 (94.4%)</td>
</tr>
<tr>
<td>1997</td>
<td>191,994</td>
<td>8,235 (4.3%)</td>
<td>2,658 (1.4%)</td>
<td>14 (0.01%)</td>
<td>181,087 (94.3%)</td>
</tr>
<tr>
<td>1998</td>
<td>195,344</td>
<td>9,197 (4.7%)</td>
<td>2,880 (1.5%)</td>
<td>5 (0.00%)</td>
<td>183,262 (93.8%)</td>
</tr>
<tr>
<td>1999</td>
<td>196,669</td>
<td>10,950 (5.6%)</td>
<td>2,992 (1.5%)</td>
<td>27 (0.00%)</td>
<td>182,800 (92.9%)</td>
</tr>
<tr>
<td>2000</td>
<td>203,372</td>
<td>13,555 (6.7%)</td>
<td>2,955 (1.5%)</td>
<td>10 (0.00%)</td>
<td>187,212 (92.1%)</td>
</tr>
</tbody>
</table>

The omission of women with missing social security numbers from our tabulated rates presents a potential selection bias in favor of more optimal outcomes. This excluded group has poorer birth outcomes. It may contain recent and illegal immigrants who fall outside the health care system. In subsequent editions of this report, we hope to distinguish this group of high-risk...
pregnant women and analyze their birth outcomes separately. Future tables would show birth outcomes for each of the following groups:

Medicaid and Non-Medicaid for each of last five each calendar years

1. Total number of pregnancies in Florida that resulted in a liveborn delivery
2. Singleton deliveries to mothers with social security numbers
3. Singleton deliveries to mothers without social security numbers
4. Multiple birth deliveries to mothers with social security numbers
5. Multiple birth deliveries to mothers without social security numbers

Potential Discrepancies with Other Data Sets 2: Healthy Start

The 3 tables devoted to Healthy Start Prenatal Risks Screens are based on live births only and do not include terminations (fetal deaths, stillborns, spontaneous or elective abortion). Therefore, women, for example, who underwent a late term abortion, could have received Medicaid and Healthy Start Prenatal Risk Screening but such women would not be represented in this report’s tables.

Divergence from earlier Health Status Indicator Reports

The inherited program code previously used to merge Healthy Start Prenatal Screens to Vital Statistics produced a significant number of bad matches. This situation occurred because the methods used to match the two datasets lacked sufficient discriminating capacity. For 2000, the merging programs were rewritten with greater discriminating ability by utilizing more variables in common between the two datasets. Thousands of weakly matched records were also checked by hand.

Infant death vital records were previously merged to birth vital records using the Department of Health’s links contained within the birth vital data. Some of these matches were incorrect and some were missing. Since there are relatively few infant deaths, a handful of mismatches can cause large errors. New programs were created to merge birth and death data. Bad matches produced by our merge were removed by hand and discrepancies between DOH and our matches were checked by hand.

Problems with previous use of Medicaid data were uncovered this year. The problems fall into two categories: (1) records for a specific Medicaid ID whose coverage periods overlap
(i.e. there is a period of time that is covered by more than one record), and (2) records for a person exist under more than one Medicaid ID number. Records under more than one Medicaid ID may also have the problem of overlapping coverage periods as well. Revisions to the program code were undertaken in 2001-02 to reduce overlap and duplication of records. An attempt has been made to deal with problem (1) in two ways. First, the beginning and ending coverage dates for each Medicaid record were truncated (if necessary) to the boundary of the file’s coverage period. For example, records in the 1999 file with begin dates prior to 1999, would have their begin dates set to Jan 01,1999, and records with end dates post-1999 would be set to Dec 31,1999. This truncation ensures that no overlap of time periods occurs between records in different files. Second, we tried to deal with overlap within files. This problem was handled completely in the Eligibility files, as the amount of overlap was minimal and the decisions as to which records to remove were straightforward. The HMO and Medipass files, on the other hand, had a large degree of overlap and it was often unclear which record(s) should be removed, and hence overlapping records within these files still exist. Further conferring with the Medicaid office will be needed to decide how best to fix this problem.

The result is that this year’s Health Status Indicators Report gives numbers for the 2000 year that were generated by a corrected program code but leaves intact numbers for 1996 to 1999 as they appeared in previous editions of the report. With regard to the Medicaid Managed Care Report for 1999-2000, numbers from the previous year’s report were left intact for the All Florida and Medicaid Programs tables. Numbers in the third table, Individual Medicaid HMOs, for the 1999 column do not correspond to those reported in last year’s report. It was discovered in 2001 that File 28 included records that had been left Medicaid eligibility open beyond the pregnancy window. When these records were closed and overlaps eliminated (as described in the preceding paragraph), assignment to individual HMOs were significantly altered. Thus, the numbers presented in the Individual Medicaid HMOs tables of earlier Medicaid Managed Care Reports should not be considered accurate.

Index of Inadequate Prenatal Care
The author of the Adequacy of Prenatal Care Utilization (APNCU) Index: (Kotelchuck, M. 1994) acknowledged three limitations of this measure:

- The APNCU Index does not measure the adequacy of the content of prenatal care; rather it measures the utilization of prenatal care.
- The APNCU Index is only as accurate as the data (the birth certificate) used to calculate it; inaccuracies in birth certificate data, particularly for prenatal care and gestational age, have been well documented.
- The APNCU Index does not adjust for the risk conditions of the mother; rather it is based on the ACOG recommendations for women with uncomplicated pregnancies. As a result, the APNCU Index produces a conservative estimate of prenatal care utilization because it underestimates the true need for prenatal care.
References


Appendix – Literature Review

Interpregnancy Interval

Interpregnancy interval is defined as the time period between the termination of the most recent previous pregnancy (either in birth, miscarriage, or abortion) and the last menstrual date of the current pregnancy. Short interpregnancy intervals (i.e., less than 7 months) have been linked to adverse pregnancy outcomes such as intrauterine growth retardation, preterm birth, low birth weight, and infant mortality (Ekwo & Moawad, 1998; Olsen et al., 1998; Kallan, 1997).

However, studies that relate the outcomes of successive pregnancies to the intervals between these pregnancies give contradictory results. An early, pioneering study by Eastman (1944) showed an increased risk of having a low birth weight baby in women with interpregnancy intervals of < 12 months. Additionally, Rawlings et al. (1995) showed that an interval of ≤ 9 months between pregnancies was significantly associated with preterm and low birth weight deliveries to black women. However, in another study, short interpregnancy interval was not found to be significantly associated with preterm birth for either black or white women (Ekwo & Moawad, 1998). Other researchers have reported that both short and long intervals between pregnancies can raise the risk of preterm birth and intrauterine growth retardation for both white and black births (Kallan, 1997). Short interpregnancy intervals have also been found to raise the risk of infant mortality slightly after controlling for birth weight and gestational age (Kallan, 1997). It appears that the optimal interpregnancy interval is between 18 and 59 months (Fuentes-Affleck & Hessol., 2000). Conceptions occurring five years after a previous pregnancy also carry an elevated risk of premature delivery.

References


Infant Mortality

The death of infants has long been accepted as an important indicator of a population’s health (Whitehead, 1999). Decreasing the rate of perinatal and infant mortality within the United States has been a large focus in the nation’s health care agenda. Perinatal mortality describes the death of an infant around birth (Spong, 2000). Infant mortality refers to the death of a baby before it reaches its first birthday (National Healthy Start Association, 2002).

The perinatal mortality rate in the U.S. has steadily declined, from 32.5% in 1950 to 7.4% in 1996 (Spong, 2000). Any analysis of trends in mortality among babies has to explore the relationship between health care and social inequality. The perinatal mortality gap appears to be narrowing between single mothers and married couples and this improvement may reflect enlarged access to health care. (Whitehead, 1999).

Infant mortality continues to decline in the United States, but the rate of infant mortality in the U.S. is still higher than that of other developed nations (Guyer, 1999). In an assessment of public health achievements in the past century, the Centers for Disease Control and Prevention (CDC, 1999) called the 93% decline in infant mortality from 1915 to 1997 “unparalleled by other mortality reduction this century.” Nevertheless, the CDC (1999) notes that although infant mortality rates are decreasing, there remain significant disparities by race and ethnicity. The infant mortality rate among blacks, for example, is more than double that of whites (CDC, 1999).

These major racial discrepancies are a result of health care system’s failure to reduce the number of low birth weight babies and preterm births (Guyer, 1999). Sixty-five percent of all infant deaths occurred in the 7.5% of low birth weight infants, and 51% of all infant deaths occurred in the 1.4% of infants born at very low birth weight (Guyer, 1999).

To ensure that the issue of infant mortality is adequately addressed, the Department of Health and Human Services (HHS) recently announced that $75.4 million in new grants will be awarded to 73 communities in 34 states and the District of Columbia to reduce high infant mortality rates and other health problems related to pregnancy and women’s health (Sweeney, 2001). In addition, an $831,000 federal grant has been awarded to the University of Florida College of Nursing to expand its nurse-midwifery program. The goal of this grant is to reduce disparities in health care between whites and underserved populations, particularly those affected by infant mortality (University of Florida Health Science Center, 2002).
References


Preterm Deliveries and Low Birth Weight Outcomes

Advances in perinatal medicine over the last decade and a half have resulted in improved survival of very premature and sick infants (Lorenz, 2000). Despite technological advances, however, preterm birth rates and low birth weight (LBW) rates have not declined (Goldenberg & Jobe, 2001). As survival has improved, concern has increasingly been expressed about intervention effects upon the long-term developmental outcome of these children (Allen, 2000). For example, the recent joint statement by the American Academy of Pediatrics and Canadian Pediatric Society cited several studies that had found evidence of neurodevelopmental impairments at two years of age with administration of dexamethasone within the first 96 hours of life (Committee on Fetus and Newborn, 2002). Other interventions to sustain premature infants’ respiratory system (e.g., mechanical ventilation with oxygen, nitric oxide, antenatal corticosteroids) have also been shown to have early beneficial effects but later adverse sequelae (Dimitrou, Greenough, Broomfield, Barnett, & Morton, 2002; Clark, Kueeser, Walker, Southgate, Huckaby, Perez, Roy, Keszler, & Kinsella, 2000; NIH, 1995).

Saving greater numbers of very premature infants (<28 weeks gestational age) has been reflected in rising rates of low birth weight (LBW = <2500 g). From 1986 to 1998, the LBW rate in the U.S. rose from 6.8% to 7.6% (Martin, Hamilton, Ventura, Menacker, & Park, 2002). Included within this LBW group are children born very low birth weight (VLBW = <1500 g). Among LBW babies, 1.2% are VLBW (Boyce, Smith, & Casto, 1999). LBW is a serious societal problem. LBW is the most common cause of neonatal and infant death—neonatal death is 40 times more likely in LBW babies and 200 times more likely in VLBW babies (CDC, 2002). In fact, the 7% of U.S. infants born weighing less than 2500 grams account for more than 2/3 of all neonatal deaths (CDC, 2002). In addition, LBW babies are more likely to experience serious health consequences than their non-LBW counterparts (Chaikind & Corman, 1991). Preterm LBW infants are much more likely to exhibit developmental delays, functional limitations, and cognitive impairments (Hack, Klein, & Taylor, 1995). Furthermore VLBW children are more likely to have physical and neurological disabilities, mental retardation, autism, and cognitive impairments (Doyle & Casalaz, 2001; Halsey, Collin, & Anderson, 1996). As adults, LBW and
preterm babies are at greater risk for stroke and for developing cardiovascular disease, type II diabetes, hypertension, and hyperlipidemia (Law, 2002).

In addition, LBW and preterm children are more likely to have problems in school. When LBW children reach school age, they are 50% more likely than children born at normal birth weight to require special education services (Chaikind & Corman, 1991). Moreover, it has been estimated that up to 60% of VLBW infants exhibit learning disabilities by the time they reach school age (Vohr, Dusick, Steichen, Wright, Verter, & Mele, 1999). In addition to diagnosable learning problems, LBW and extremely premature children are more likely to be retained in grade and use school-based learning support services (Buck, Msall, Schisterman, Lyon & Rogers, 2000). In fact, preterm infants were three times more likely than their full-term counterparts to experience these adverse educational outcomes (Buck et al., 2000). Moreover, VLBW children were nine times more likely to be enrolled within special education than normal birth weight counterparts (Horwood, Mogridge, & Darlow, 1998). Buck and colleagues (2000) point out that individuals with no health care or with Medicaid services were two times more likely to require special education services or be retained in school than their Non-Medicaid counterparts who were born with similar birth complications. As adults, LBW and premature babies continue to have academic difficulties and are less likely to graduate high school or go to college as are full-term babies (Hack, Flannery, Schluchter, Cartar, Barowski, & Klein, 2002).

Medicaid women are significantly more likely to have LBW babies, particularly VLBW babies (Buescher & Ward, 1992). Moreover, LBW and preterm deliveries disproportionately occur within low-income and Black populations (Chaikind & Corman, 1991; Gorman, 1999; CDC, 2002). Black women are three times more likely to have VLBW babies and two times more likely to have LBW or preterm babies than non-Latino whites (Gorman, 1999). These racial differences exist even when controlling for other sociodemographic variables such as income, education, and risk behaviors (CDC, 2002). Combining Medicaid eligibility with these risk factors and birth complications further compounds the likelihood of adverse consequences.

References


Healthy Start

The latest data available indicate that infant mortality rates in the United States have decreased in recent years and is now at the lowest rate ever recorded--6.9 deaths per 1,000 live births in 2000 (United States Health and Human Services, 2002). The increased national emphasis on improving birth outcomes, along with a variety of government initiatives to promote maternal and child health likely has contributed to the observed decreases in infant mortality rate (United States Heath and Human Services, 1998; United States Health and Human Services, 2002). One government initiative specifically developed and implemented to reduce infant mortality is the Healthy Start Initiative (Sullivan, 1991).

The Healthy Start Initiative, launched in 1991, provides prenatal and infant services to at-risk women and their infants to prevent adverse health outcomes (Florida Department of Health, 2001; McCormick et al., 2001). More specifically, Healthy Start provides universal screening to women and infants to identify those potentially at-risk for negative health outcomes; conducts health, social, and resource assessments to ascertain whether assistance is needed to overcome risks; and provides care to address identified risks (Florida Department of Health, 2001).

McCormick and colleagues (2001) conducted a study of the impact of the National Healthy Start Initiative on mothers and their children. Healthy Start was found to have been effective in enrolling women considered at heightened risk for negative pregnancy outcomes. In addition, researchers found that women who had participated in Healthy Start had a greater likelihood of receiving expanded prenatal care services and also were more likely to be using contraception.

Florida’s Healthy Start Initiative also has resulted in a variety of improved health outcomes for participating mothers and their children. For example, an increase in the percentage of mothers entering prenatal care in the first trimester was observed (from 75% in 1991 to 83% in 2000). Infant mortality rates declined from 8.9 per 1,000 live births in 1991 to 6.97 in 2000. Data also showed declines in the mortality rates in the non-white population--from 15.6 per 1,000 live births in 1991 to 11.4 in 2000 (Florida Department of Health.).

Healthy Start is one of several government initiatives directed towards improving the pregnancy and health outcomes of mothers and their children. Healthy Start appears to be having a positive impact on the birth outcomes of mothers and children in the United States.
References


Prenatal Care

Early and continuous prenatal care is considered an important element in improving the health of mothers and their infants (Centers for Disease Control, 2000; Clarke 1999). Researchers have argued that adequate prenatal care lowers the risk of adverse pregnancy outcomes and conditions, such as inadequate weight gain during pregnancy, low birth weight, and pre-term birth (Liu, 1998; U.S. Department of Health and Human Services, 1997). Other researchers, however, have questioned the relationship between prenatal care and pregnancy outcomes, noting the inconsistent findings of studies on this topic and the difficulties in adequately measuring certain dimensions of prenatal care (Devaney, Bilheimer, & Schore, 1992; Frick, 1999; Liu, 1998).

Regardless of researchers’ disputes concerning the relationship between prenatal care and pregnancy outcomes, policymakers have invested in programs designed to enhance prenatal care among pregnant women. In particular, Congress initiated a Medicaid expansion program, in the 1980s, to allow states to extend Medicaid services to pregnant women who were previously considered ineligible for the program (U.S. Department of Health and Human Services, 2000). A major purpose of this Medicaid expansion was to improve pregnancy outcomes of low-income mothers by improving access to prenatal care (Liu, 1998). Researchers have conducted studies examining the effects of this Medicaid expansion, as well as the general impact of Medicaid on the utilization of prenatal care and the subsequent outcomes of increased prenatal care.

Dubay and colleagues (2001) conducted a national study examining the impact of the Medicaid expansions on access to prenatal care and birth outcomes for low-income women between the years of 1980-1993. Findings of the study revealed that the expansion in Medicaid led to significant decreases in delayed entry into prenatal care among low-income women from 1980-1993. In contrast, the authors found limited support that the Medicaid expansion decreased the incidence of low birth weight babies among the population served by Medicaid.

In spite of the lack of improvement in birth outcomes in some national studies, some states have seen improvements in birth outcomes following increases in prenatal care (Baldwin et al., 1998; Devaney et al., 1992). For example, findings from a study conducted in the state of Florida indicated improved access to prenatal care and improved birth outcomes for women enrolled in the Medicaid program. When looking at birth outcomes, results revealed that the
rates of infants with low birth weights decreased for low-income women without private insurance, while these same rates remained stable for low-income women with private insurance. Moreover, women in the Medicaid expansion group who obtained services from county health departments had fewer infants with low birth weight when compared with women using other delivery systems (Long & Marquis, 1998).

A study conducted by the Centers for Disease Control (2000) examined the impact of the Medicaid on entry into prenatal care in more recent years (i.e., 1989-1997), and provided information on changes in prenatal care use by different racial/ethnic groups. Results showed that during the years from 1989-1997, women delaying prenatal care decreased (i.e., 22% to 16%). In addition women, receiving no prenatal care also decreased (i.e., from 2% in 1989 to 1% in 1997). When looking at racial/ethnic comparisons in the use of prenatal care, decreases in the percentages of women not receiving prenatal care occurred among all racial ethnic groups between 1989-1995. However, these improvements leveled off in the subsequent years for non-Hispanic black and non-Hispanic white women.

Overall, the Medicaid expansion appears to have increased women’s utilization of prenatal care (e.g., Baldwin et al., 1998; Schulman, Sheriff, & Momany, 1997; United States Department of Health and Human Services, 1997). While an increase in the utilization and early entry into prenatal care has been observed, the association between increased prenatal care and improved birth outcomes has been more difficult to establish at the national level. However, at the state level, some states have seen improved birth outcomes as a result of increases in prenatal care (e.g., Baldwin et al., 1998; Long & Marquis, 1998). Some have suggested that differences in the impact of Medicaid expansions at national and state levels, as well as between states, may be due to differences in the way public health services are delivered in different states (Long & Marquis, 1998).

References


Smoking

Tobacco has long been identified as a leading cause of poor birth outcomes in the United States. The National Center for Health Statistics estimates that approximately 40,000 cases of low birth weight and 2,800 infant deaths per year are directly related to maternal tobacco use (Hoyert, 1996). Cigarette smoking is an independent risk factor for Sudden Infant Death Syndrome (SIDS) and infants of mother who smoke are significantly more vulnerable (Schellscheidt, Oyen, & Jorch, 1997). In fact, it was found in a population-based cohort study that low birth weight, preterm birth, and few prenatal visits as established risk factors for SIDS are unimportant in infants of non-smoking mothers, while the joint effect of prenatal risk factors and maternal smoking on SIDS risk is dramatic (Schellscheidt, Oyen, & Jorch, 1997). Smoking mothers are also more likely to deliver preterm and/or low birth weight babies (Rosenberg, 2000; Walling, 2001). For example, it is estimated that maternal smoking leads to approximately 32,000-61,000 low birth weight infants (under 2500 grams) annually (DiFranza & Lew, 1995).

Smoking during pregnancy is disproportionately evident within the Medicaid population (ACHA, 2001). The percentage of Medicaid and low-income populations that smoke is twice as great as the percentage of Non-Medicaid smoking populations (Carr, Christianson, Jehn, & Matitz, 2001). Quit rates of smokers, even those who are pregnant, is much lower within low-income populations. From 1995 to 1999 the percentage of women who reported smoking during pregnancy declined by 13.3% in the Medicaid population, whereas the Non-Medicaid population rates declined by 25.4% (AHCA, 2001). Given the linkage between smoking and adverse birth outcomes, Carr and colleagues (2001) recommend that the Medicaid population of smokers be advised of and be given help with smoking cessation techniques. Within their study, of the known smokers within Medicaid, only 56.6% were advised to quit, 48% offered help to do so, and often were often not followed up with concerning their efforts to do so (Carr et al., 2001). Of those who were given advice to quit, they were most often given some form of “brief counseling” by the physician, most often consisting of advice to quit, setting a quit date, and discussing the importance of quitting; however, these efforts were not tracked by their physician (Carr et al., 2001). Moreover, less than 10% of those given advice to quit were advised of self-help methods, nicotine replacement therapy, or referred for more structured programs designed to aid smoking cessation (Carr et al., 2001).
References


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Adolescent Pregnancy

Over the past decade, the birth rate among women under 20 has been declining. In 2001, the teen birthrate fell to a record low (United States Department of Health and Human Services, 2002). Despite the recent trend of decreasing birthrates among teenagers, the United States continues to have the highest rate of adolescent pregnancy when compared to other developed nations (Trad, 1999).

Research has identified various factors that put adolescent females at heightened risk for pregnancy. Early initial sexual experiences, as well as involvement in delinquent behaviors are related to an increased risk of pregnancy (Hockaday, Crase, Shelley, & Stockdale, 2000). Further, low educational ability and low educational goals have been found to be related to early pregnancy (Marini, 1984). Others factors found to be associated with teenage pregnancy include: living in poverty, not having both biological parents present in the home, and black race (Hockaday et al., 2000).

A variety of adverse outcomes are associated with teenage pregnancy. For example, the rate of low birth weight infants among adolescent mothers is about two times greater than that of adult mothers. Also, the mortality rate among infants of adolescent mothers is three times higher than their adult counterparts (American Academy of Pediatrics, 1999). Other outcomes found to be common among teenage mothers include: poverty, low education, domestic violence, child maltreatment, and substance abuse (Fraser, Brockert, & Ward, 1995).

Adolescent pregnancy not only has negative outcomes for adolescent mothers and their babies, but it also places a considerable burden on society’s welfare resources (Trad, 1999). In addition, providing adequate prenatal care to this population of young women presents a unique challenge (Van Hoof, Casey, Tate, Linnane, Petrillo, & Meehan, 2000), in part because the majority of teenagers who become pregnant are not married. A sizable proportion of adolescent mothers are enrolled in Medicaid (Galbraith, Stevens, & Klein, 1997); therefore, it is important that the Medicaid program continues to find ways to effectively respond to the needs of this at risk population.

Despite the variety of negative consequences that often have been found to be associated with adolescent pregnancy, it is important to note that recent research has demonstrated some positive findings related to outcomes of adolescent pregnancy. For example, though teenage mothers do
exhibit higher rates of preterm labor, they are less likely than adult mothers to have a caesarean section or instrumental delivery (Lao & Ho, 1998). Moreover, several other studies have shown that teenage mothers have birth outcomes similar to that of older mothers (Berenson, Wiemann, & McCombs, 1997; Perry, Mannino, Hediger, & School, 1996); in fact, some perinatal outcomes are more favorable in the adolescent population (Lao & Ho, 1997).

References


The Special Supplemental Program for Women, Infants, and Children

Established in 1972, the Special Supplemental Program for Women, Infants, and Children (WIC) is a federally funded grant program developed to improve the nutrition and health of low-income pregnant women and their infants and children (American Academy of Pediatrics, 2001; Swensen et al., 2001). The WIC program works toward its goal of improved maternal and child health by providing nutritious food, nutrition education and counseling, as well as screening and referrals to other health, welfare, and social services (United States Department of Agriculture, 2002).

The success of the WIC program in progressing towards its goal of improving maternal and child health is well established. The WIC program not only has been found to improve the nutrition of mothers and their children, but also has resulted in improved birth outcomes for pregnant mothers (Brown et al., 1996; Florida Department of Health, n.d.; Kowaleski-Jones & Duncan, 2001; Sherry, 2001). Moreover, the United States Department of Agriculture has concluded that WIC is “one of the nation’s most successful and cost-effective nutrition programs” (n.d., p. 1).

When examining the impact of WIC in the state of Florida, researchers have found improved health and birth outcomes and cost-effectiveness similar to those reported nationally. For example, a study conducted by Roth et al (2000) showed that Florida WIC participants have significantly lower rates of infant mortality, neonatal mortality, low birth weight, and very low birth weight. With regard to cost-effectiveness, a study of five states including Florida showed that prenatal participation in WIC was related to considerable savings in Medicaid costs during the 60 days following birth. Additionally, for each dollar spent on the prenatal WIC program, approximately $1.77 to $3.13 was saved in Medicaid costs during the 60 days following pregnancy (Devaney et al., 2002).

Overall, it appears that the WIC program is having a positive impact on the health of low-income mothers and their children. In addition, it seems that the WIC is making these improvements in maternal and child health while being cost-effective. Therefore, the WIC program can be seen as a valuable tool in addressing the health needs of low-income women and their children by providing nutritious food and other nutrition-related services.
References


