

Pregnant Women, Infants and Children

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Bob R. Taft
Governor

Tom Hayes
Director

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Foreword

The purposes of this report are to fulfill the requirements of Section 5111.09 of the Ohio Revised Code and to disseminate information about Pregnant Women, Infants and Children in Ohio. This report updates information in the previous version published by the Ohio Department of Job and Family Services (ODJFS) in November 1999. Comments and questions regarding this report should be directed to:

The Ohio Department of Job and Family Services
Bureau of Health Plan Policy
30 East Broad Street, 27th Floor
Columbus, Ohio 43215-3414

Telephone: (614) 466-6420

Ohio Department of Job and Family Services

Office of Ohio Health Plans
Barbara Coulter Edwards, Deputy Director

Bureau of Health Plan Policy
Robyn Baird Colby, Chief

Report prepared by
Donna C. Bush, Health Services Policy Specialist
Health Services Research Section

With

Lorin Ranbom, Chief
Health Services Research Section

and

Rosemary Chaudry, Supervisor
Health Services Research Section

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EXECUTIVE SUMMARY

This report was prepared by the Ohio Department of Job and Family Services (ODJFS) to fulfill the requirements of Section 5111.09 of the Ohio Revised Code (ORC). This section of the ORC requires ODJFS to submit an annual report to the legislature regarding the effectiveness of the aid to dependent children (formerly ADC) program, established under Chapter 5107. of the Ohio Revised Code, and the medical assistance program (Medicaid), established under Chapter 5111, in meeting the health care needs of low-income pregnant women, infants and children. The ORC also requires a comparison with the general female childbearing and infant population in Ohio.

Additionally, the reader should understand that there are two health care delivery systems in Ohio Medicaid: the Fee-For-Service (FFS) and Managed Health Care System (MHC) via the Managed Care Plans (MCP). In this report they will be referred to as MCP and FFS. The FFS system is a traditional indemnity health care delivery system in which payment is made to a health care provider after a service is delivered. MHC via MCPs is in some Ohio counties for the Healthy Start and Healthy Family consumers. MCPs are responsible for assuring access to health care for their members and providing member services. Medicaid data used in this report came from either the Medicaid eligibility files, the FFS claims paid files or the MCP encounter data files. Encounter data submitted from MCPs is for claims paid for by the plan for health care services of its enrolled Medicaid consumers. Data comparisons in FFS and MCP are presented in this report and utilize data from SFY 1997 forward.

To facilitate the comparison of the Medicaid and non-Medicaid population, ODJFS performed a linking of the Ohio Department of Health's Vital Statistics (VS) birth certificate database with the ODJFS Medicaid database. The linked database includes data for Medicaid childbearing women and infants in the Managed Care Program (MCP) and Fee-For-Service (FFS) programs. The VS and Medicaid databases linking process has been in place since State Fiscal Year (SFY) 1992. This report will provide detailed analysis for the SFYs 1998, 1999 and 2000. Additionally, this report will outline detail and averages for six state fiscal years (SFYs) 1995, 1996, 1997, 1998, 1999 and 2000 which will allow for a longitudinal analysis of the data. Prior to SFY 1997 encounter data submission was still in development. All MCP data details will be four year averages. Ohio's SFY is defined as July 1 through June 30.

This report is divided into eleven main sections detailing the risk factors for low birth weight (defined as birth weight of 2,500 grams or 5.5 lbs or less) outcomes, prenatal and post partum utilization, Medicaid infant mortality and other health measures.

Highlights of the trends found in this report are listed below. It is interesting to note that some of these findings mirror national trends.

- C **In Ohio, Medicaid paid for an average of 35 percent of all births during the study years SFY 1995 - SFY 2000.** Although this percentage has decreased over the past two SFYs, Ohio's average is comparable to data published by the National Center for Health Statistics which found that on a national level, one out of three deliveries (34 percent) was paid for by Medicaid during 1991 - 1995.¹

- C Based on the data for six years presented in this report, there appear to have been some improvements in selected health measures for the Medicaid population, including a slight decline in women with no prenatal care and a decline in most factors related to the low birth weight rate in urban counties. Additionally, more women are getting into prenatal care earlier. However, most other health measure rates remained constant or showed slight increases. The increase in the number of Medicaid women receiving early prenatal care is on a par with national data released by the Centers for Disease Control and Prevention for Calendar Year (CY) 2000. Nationally, tobacco use during pregnancy has declined, and Ohio's rates for Medicaid and non-Medicaid are just below the U.S. figures for CY 2000. The Ohio data however, showed a slight increase. Tobacco use during pregnancy is associated with a variety of adverse outcomes, including low birthweight, intrauterine growth retardation, and infant mortality, as well as negative consequences for child health and development.²

- C Although the Medicaid women enrolled in Managed Care Plans (MCPs) in Ohio had a lower birthweight rate than Medicaid FFS women there were very few risk factors that had a marked difference in birth outcomes for the two groups.

- C In Ohio, the primary cesarean section delivery rate is lower for the Medicaid population than the non-Medicaid population. For the latest year of available data (SFY 2000), the overall cesarean section rate for Medicaid FFS childbearing women was 10.6 percent and 9.8 percent for Medicaid MCP

¹National Center for Health Statistics, Number of women 15-44 years of age who had a live birth in 1991-95: United States, 1995

²National Vital Statistics Report. Centers for Disease Control and Prevention-Vol. 50, Number 5. *Births: Final Data for 2000*. February 12, 2002.

women compared to 12.7 percent for the non-Medicaid Ohio population. The primary cesarean section delivery rate continues to decline for the Ohio non-Medicaid population from 25.4 percent in SFY 1992 to 20.3 percent in SFY 1997 and in 2000 at 12.7. The cesarean delivery rate nationally has increased over the last four years (from 1996) rising to 22.9 % of all births in 2000. The 1999 rate was at 22%.³

- C Other findings include the fact that there are still some striking differences between the Ohio Medicaid and non-Medicaid population related to factors that adversely affect birth outcomes. For example, for the 1995 - 2000 average, a larger percentage of births to teenage mothers was paid for by Medicaid compared to the non-Medicaid population (approximately 20-28 percent of Medicaid births were attributable to teenage mothers compared to only 5 percent in the non-Medicaid population). Another example is the number of childbearing women delivering within twelve months after the previous delivery. For the 1995 - 2000 average, 3-5 percent of the Medicaid FFS and MCP women gave birth within twelve months after the previous delivery compared to 1.5 percent for non-Medicaid childbearing women. For all groups this number has only slightly changed over the last three years.

- C Medicaid births in general have followed a pattern similar to national trends. Nationally, the birth rate has increased from 14.5 births in 1997 to 14.7 in 2000, per 1000 total population. The birth rate for Ohio in SFY 2000 is approximately 13.8 per 1000 total population, up from 13.6 in 1997.⁴ Additionally, the teen birth rate continues to decline, falling approximately 4% nationally. Medicaid births for teens have not changed dramatically. There has been both decreases in the Health Families (HF) FFS sub-group and increases in the MCP HF sub-group. Overall for Medicaid there has been a slight decline.

³National Vital Statistics Report, 14.

⁴National Vital Statistics Report, 40

SECTION A: BACKGROUND

The Ohio Department of Job and Family Services (ODJFS) is the single state agency in Ohio with responsibility for administering the health care needs of Medicaid eligible persons, including the health care needs of certain low-income childbearing women, infants and children as presented in this report.

As of July 1997, the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (P.L. 104-193) broke the link between entitlement to Medicaid and cash assistance for Aid to Families with Dependent Children (AFDC or ADC), food stamps and other public support programs. This federal legislation replaced the ADC program with state block grants for a program called Temporary Assistance for Needy Families (TANF). Eligibility for the TANF program does not automatically bestow Medicaid eligibility on clients. In October 1997, Ohio implemented its TANF program (also known as Ohio Works First or OWF).

Medicaid eligibility can be grouped into two general categories: Covered Families and Children (CFC) and coverage for people who are Aged, Blind, or Disabled (ABD). When a family is determined to be eligible for cash assistance in Ohio, members of the family also receive Medicaid coverage. Many other families, pregnant women, and children can receive Medicaid coverage even if they are not receiving cash assistance. Two key decisions are made regarding the eligibility of these consumers: family composition and income guidelines. The CFC category, is divided into the Health Families & Related and Healthy Start categories.

Healthy Families and Related: HF and Related is largely comprised of single-parent families, but also includes some two-parent families and some children with independent eligibility. This sub-group includes Healthy Families, Transitional Medicaid, and Other Related Groups.

Healthy Families. Previously known as Low Income Families (LIF), provides health care coverage to families (parents and children). The majority of families receiving Healthy Families coverage are working families. A smaller group receives Ohio Works First (OWF) cash assistance. On July 1, 2000, Healthy Families coverage was expanded to families earning up to 100% of the Federal Poverty Level (FPL).

Transitional Medicaid. Transitional Medicaid provides Medicaid coverage for families who have received Healthy Families coverage (with or without associated OWF cash assistance) in at least three months of the prior six month period, and who have lost coverage due to: an increase in hours of, or income from, employment; or loss of time-limited income disregards. Transitional Medicaid is offered as an incentive for parents to return to, or continue, work. Under this program Medicaid eligibility is guaranteed for six months, and can be extended an additional six months if monthly income is less than or equal to 185% FPL.

Other Related Groups. Includes children who receive Foster Care Maintenance or Adoption Assistance under federal Title IV-E provisions. These children automatically receive Medicaid coverage. Also covered are state-subsidized adoptive children who have special medical needs and foster care children. Individuals aged 19 and 20 whose family income does not exceed the OWF income standard and who would qualify for an OWF payment, except they are over age 18 and do not meet the definition of a dependent child, are also covered .

Healthy Start: The second sub-group of the CFC category, Healthy Start, consists of pregnant women and children who are not eligible for other Medicaid programs but meet the income guidelines for Healthy Families. It can help pregnant women at any age, and infants, children and teens up to age 18.

Pregnant Women. Provides time-limited coverage to low-income pregnant women with family incomes at or below 150% of poverty. Coverage begins following confirmation of pregnancy and ends 2 months following the birth.

Infants and Children. Healthy Start provides health care coverage for children from birth through age 18 in families with incomes up to 200% FPL. Children in families with incomes at 151-200% FPL are eligible only if they do not have creditable health coverage. Children in families with incomes at or below 150% FPL are eligible regardless of other health coverage. Newborns are deemed eligible for 12 months if the mother was eligible for Medicaid at the time of birth, regardless of subsequent changes in the mother's income.

Ohio's State Health Insurance Plan For Children (SCHIP): As part of the Medicaid expansion of the Healthy Start program Medicaid eligibility was increased for children to 150% of FPL was implemented on January 1, 1998. In July 2000, Ohio further expanded Healthy Start under SCHIP. This expansion raised the income limit for eligibility to 200% FPL. For this second SCHIP expansion, there was no complementary Medicaid expansion for under-insured children, so children in this income range (151-200% of FPL) are only eligible if they are uninsured.

Aged, Blind or Disabled (ABD): This category encompasses people, including children, with a wide variety of disabilities, such as blindness or mental retardation, and includes certain physical disabilities. Furthermore, it includes persons who are disabled because they have a mental illness. Not all Medicaid-covered persons with disabilities become eligible through the ABD category. Some individuals with disabilities are not substantially impaired by their conditions and do not qualify through this category but instead qualify because of limited income through OWF and Related or Healthy Start.

SECTION B : REPORT ON CHILDBEARING WOMEN and BIRTH OUTCOMES

An analysis of birth outcomes is essential in order to move toward a goal of improving the health status of children and women of childbearing age. Several studies have documented that infant mortality and low birth weight (birth weight of less than 2,500 grams, or 5.5 pounds) are correlated with high social and economic costs.

To perform an analysis of birth outcomes, ODJFS linked Medicaid files (which provide Medicaid eligibility and cost data for mothers and infants) with Ohio Department of Health Vital Statistics files (which provide birth and infant data including information on prenatal care, low birth weight and other maternal and infant characteristics) for state fiscal years 1998, 1999, and 2000. Additionally, state fiscal years (SFYs) 1995, 1996, and 1997 are included as well. Ohio's SFY is defined as July 1 through June 30. Much of the data presented in this section will include six year averages. The data source for this Section which outlines the factors related to birth outcomes is the linked Medicaid/VS matched file. The methodology for developing the matched data file is presented in detail in Appendix A. To summarize the data retrieval process:

Data were retrieved from the birth certificate when:

- a) the self-reported variables are not available in the Medicaid eligibility and claims files (such as the use of alcohol or smoking during pregnancy),
- b) the variables are believed to be more accurate when retrieved from the birth certificate, particularly when the variables are of a clinical nature (such as birth weight and gestational weeks), and
- c) comparisons are made between the Medicaid and non-Medicaid populations and among the various groups of the Medicaid populations.

Data were retrieved from the Medicaid files when:

- a) the variables are not available in the Vital Statistics file, and
- b) the data are specific to the Medicaid program (e.g., eligibility and expenditures data).

PROFILE OF BIRTHS

Table 1 shows the number of Medicaid births, number of Medicaid births that matched with the Vital Statistics file, and match percentages. Average matching rate of 79 percent has remained somewhat consistent since first conducting the match in 1992. Potential affecting factors could include where there is a higher prevalence of infants becoming eligible and their mothers are not eligible nor were they eligible prior to delivery. The match rate is determined if both the mother and infant had documented claims within the same time frame. If we look strictly at the mothers and infants individually that match the vital statistics file, the match rate averages approximately 95 percent for mothers and 97 percent for the infants.

TABLE 1: Medicaid Births

	Number/Percent of births						
	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average
Unmatched Medicaid Births*	10,727	9,121	13,802	7,284	12,656	16,962	11,758
Matched Medicaid Births**	46,213	43,481	37,718	42,172	35,362	33,397	39,057
Total Medicaid Births***	56,940	52,602	51,520	49,456	48,018	50,359	51,482
% of Matched Births	81%	83%	73%	85%	74%	65%	77%

*** Unmatched Medicaid births means all Medicaid mothers and newborns that did not match with their records on the Vital Statistics file. The unmatched births include one-way matches with the Vital Statistics (VS) file (e.g., the Medicaid infant matched a birth certificate but the Medicaid mother did not match the same birth certificate.)**

**** Matched Medicaid births means that the mothers and newborns on the Medicaid file both matched the VS birth certificate record.**

***** Total Medicaid births consist of birth claims paid by Ohio Medicaid and those newborns with an MCP capitation payment in the month of delivery. MCP encounter birth claims are also included in this total for SFY 1997 forward.**

As illustrated in *Table 2*, for state fiscal years (SFYs) 1995 through 2000, the Ohio Medicaid program consistently paid for more than a third of births reported in Ohio.

TABLE 2: Percent of Medicaid births to total Ohio births

	Number/Percent of Births						
	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average
Medicaid Births	56,940	52,602	51,520	49,456	48,018	50,359	51,482
Total Ohio Births	152,343	148,297	148,897	147,431	145,079	152,055	149,017
Medicaid % of Ohio Births	37%	35%	35%	34%	33%	33%	35%

LOW BIRTH WEIGHT

There are certain risk factors that tend to contribute to low birth weight and some of these factors can be addressed by medical and/or social interventions. Selected risk factors that are most highly associated with low birth weight are discussed in this report.

For the purposes of the graphs and tables in this report, the following definitions are used:

NBW	- normal birth weight (2,500 grams or 5.5 lbs or greater)
LBW	- low birth weight (less than 2,500 grams or 5.5 lbs.)
VLBW	- very low birth weight (less than 1,500 grams or 3lbs. 4 oz.)
MLBW	- moderately low birth weight (1,500 - 2,499 grams or between 3 lbs. 4 oz. to 5 lbs. 8 oz.)

In general, the low birth weight rate is higher when characteristics presented in the following list occur among pregnant women:

FACTORS RELATED TO LOW BIRTH WEIGHT

1. *No prenatal care*
2. *Teenager (19 years old or younger)*
3. *Marital status (being unmarried)*
4. *Race (Non-white)*
5. *Low education level (less than 12 years of education)*
6. *Short birth spacing (less than 12 months)*
7. *Delivery of 4th or more child*
8. *Cigarette smoking during pregnancy*
9. *Consumers of alcohol during pregnancy*
10. *Low maternal weight gain (22 lbs or less)*
11. *Preterm delivery (gestational weeks less than 37 weeks)*

Figure 1 highlights the general association of higher low birth weight rates for women with these risk factors across the board when the data for the Medicaid and non-Medicaid study groups are combined. The Medicaid and non-Medicaid data are combined in *Figure 1* to further support the notion that independent of the population being studied, there are certain prevailing relationships between low birth weight and the outlined risk factors. However, there are some interesting variations within the study groups which will be presented later in this report.

Some of the outlined risk factors tend to be highly correlated with a low birth weight outcome. For example, preterm delivery, defined as gestational age less than 37 weeks (which occurs in about 8 to 11 percent of women as illustrated in *Figure 11*, page 33), results in a much higher low birth weight rate compared to an average of a 3-4 percent low birth weight rate when gestational age is greater than 37 weeks. Of the risk factors presented, this happens to be the most obvious example in that one would expect that preterm infants would weigh less at birth than a full-term newborn.

Preterm delivery as a risk factor is closely followed by women with no prenatal care. As illustrated in *Figure 1*, women with no prenatal care had a low birth weight rate of 21 percent compared with 7 percent for women who received some prenatal care. This average has come down slightly from 23% for SFYs 1992-1997.

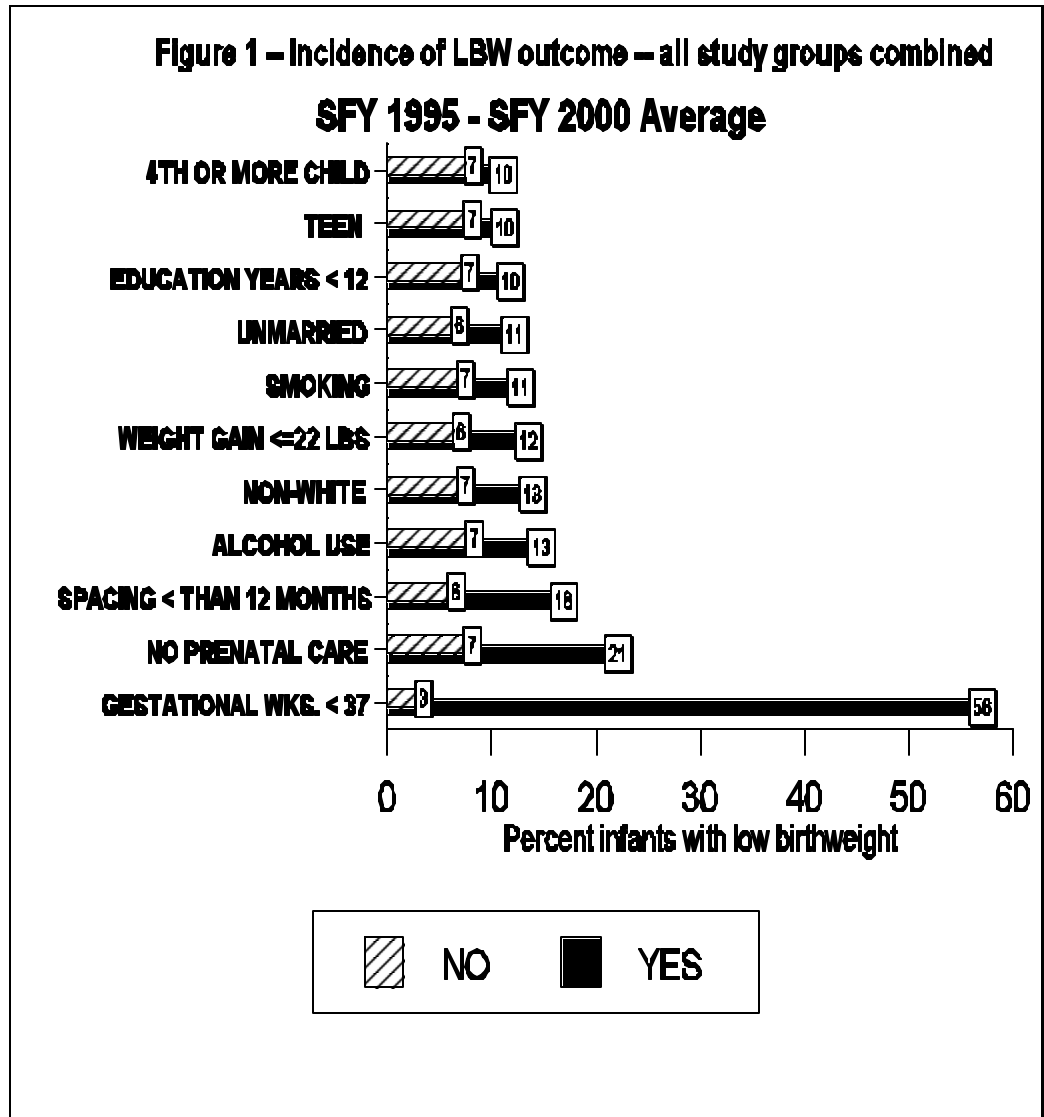
Incidentally, a cross tabulation to determine the relationship between gestational age and the presence or absence of prenatal care shows that the absence of prenatal care is not strongly associated with lower gestational age (preterm delivery). The data indicate that across all the study groups, about 22 percent of the group “with no prenatal care” experienced preterm delivery compared with 78 percent who did not experience preterm delivery in SFY 2000. The data show that there are increases in woman receiving some prenatal care. Therefore, an even greater majority of the women reported as having no prenatal care actually delivered after the 37th week of pregnancy.

In 2000, according to the National Vital Statistics Report, the percentage of low birth weight babies was 7.6 percent (up from 7.4 percent for 1996). Preterm deliveries rose from 11.4 percent in 1997 to 11.8 percent in 1999 and dropped in 2000.⁵ Ohio’s low birth weight rate was 11.8 percent for Medicaid and 6.5 percent for non-Medicaid in SFY 2000. This is up from 10.8 percent for Medicaid and up from 5.9 percent for non-Medicaid in SFY 1997.

Preterm deliveries was at 10.7 percent for Medicaid and 8.1 percent for non-Medicaid in SFY 1997. Preterm deliveries has also increased slightly since SFY 1996. The Vital Statistics Report indicates that the recent upward trend in Preterm births and low birthweight infants is partly due to the rise in

⁵National Vital Statistics Report, 2

multiple births that are at greater risk of shorter gestational periods and most likely to be low birthweight.⁶



⁶National Vital Statistics Report, 2

FACTORS ASSOCIATED WITH LOW BIRTH WEIGHT

1. Prenatal Care

Despite the widespread expansion of eligibility to pregnant women in a public policy move to increase the number of women with access to prenatal care, some women are reported as still having no prenatal care throughout their pregnancy.

It should be noted that the role of prenatal care in preventing low birth weight is somewhat ambiguous. For example, Alexander and Korenbrot report that even though numerous studies show that lack of prenatal care is highly associated with low birth weight, this association is difficult to understand from a medical point of view because very little happens during the standard prenatal visit that prevents low birth weight births from occurring.⁷ However, continuous access to health care has long been advocated as a means to improve the health outcomes of pregnancy. Access to prenatal care in particular can be used to address modifiable behaviors such as smoking, alcohol abuse, poor nutrition and to provide necessary medical care for pregnant women. Generally, obtaining prenatal care appears to go hand in hand with improvement in birth outcomes. Even more current articles concur that the method in which a study measures prenatal care and birth outcomes must account for the access and quality in which care is delivered. Additionally, the mechanisms through which prenatal care and low birthweight show relationship are still hard to identify.⁸

By using the matched Medicaid/VS file, comparison can be made between the Medicaid and non-Medicaid women in terms of prenatal care initiation. Prenatal care initiation was calculated utilizing the vital statistics reported numbers. For comparison purposes of Medicaid versus non-Medicaid, using the numbers calculated from vital statistics was needed. Medicaid claims and encounter data capture this information as well but are not used in this analysis.

Initiation of prenatal care in the first trimester continues at a stable rate. *Table 3* shows the comparison for number of women and percentage of women who received prenatal care in the first trimester for SFY 1998, 1999 and 2000. This demonstrates an improvement since the initiation of this report in SFY 1992. Overall, in terms of women receiving prenatal care in the first trimester, the Medicaid population figures are lower when compared with non-Medicaid and national figures. Data reported by the Centers for Disease Control and Prevention (CDC) show that in 2000, the proportion of mothers beginning care in the first trimester was 83.2 percent nationally up from 82.5 percent in 1997.⁹

⁷Alexander and Korenbrot, The Role of Prenatal Care in Preventing Low Birth Weight, Low Birth Weight and the Future of Children, Vol. 5 No1, Spring 1995, p.113.

⁸Health Services Research, Kevin Frick. How well do we understand the relationship between care and birthweight. December, 1999.

⁹National Vital Statistics Report, 12.

mothers beginning care in the first trimester was 83.2 percent nationally up from 82.5 percent in 1997.⁹

Table 3: Women who received care in the first trimester						
Subgroups	SFY 1998		SFY 1999		SFY 2000	
	Number of women	Percent of total	Number of women	Percent of total	Number of women	Percent of total
FFS						
OWF	9,990	72.2%	8,202	71.4%	8,444	70.1%
HST	12,007	76.7%	12,381	78.0%	13,636	77.5%
MCP						
OWF	13,142	75.0%	5,715	73.0%	5,325	72.6%
HST	3,659	81.8%	3,100	82.4%	3,730	81.9%
STATEWIDE						
All Women	125,584	85.1%	124,694	85.9%	129,475	85.1%
Non-Medicaid	80,051	91.5%	84,960	91.1%	87,727	90.2%

Table 4 demonstrates that there is only a small percentage of women who do not receive prenatal care. Overall, in terms of women receiving little prenatal care or care beginning in the third trimester, the Medicaid population figures are lower when compared with non-Medicaid and national figures (*see Table 4b*). Data reported by the National Vital Statistics Report show that in 2000, the proportion of mothers having delayed (third trimester) or no care was 3.9 percent nationally.¹⁰

⁹National Vital Statistics Report, 12.

¹⁰National Vital Statistics Report, 12.

Table 4a: Women Who Did Not Receive Prenatal Care						
Subgroups	SFY 1998		SFY 1999		SFY 2000	
	Number of women	Percent of total	Number of women	Percent of total	Number of women	Percent of Total
FFS						
HF	444	3.2%	455	3.9%	543	4.6%
HST	288	1.8%	335	2.12%	412	2.3%
MCP						
HF	663	3.8%	519	6.7%	306	4.3%
HST	104	2.3%	113	3.0%	92	2.0%
STATEWIDE						
All Women	3,207	2.1%	3,174	2.2%	2,979	1.9%
Non-Medicaid	1,343	1.5%	1,339	1.4%	1,246	1.3%

Table 4b: Women Who Receive Prenatal Care Beginning in the Third Trimester						
Subgroups	SFY 1998		SFY 1999		SFY 2000	
	Number of women	Percent of total	Number of women	Percent of total	Number of women	Percent of total
FFS						
HF	590	4.3%	492	4.3%	432	3.6%
HST	450	2.8%	479	3.0%	430	2.4%
MCP						
HF	595	3.4%	267	3.4%	182	2.6%
HST	62	1.4%	49	1.3%	40	.91%
STATEWIDE						
All Women	2,775	1.8%	2,694	1.8%	2,371	1.5%
Non-Medicaid	837	.96%	1,042	1.1%	974	1.0%

This is an area in which improvement can still be made. *Tables 13 A/B, and 14 A/B* in Appendix B show the percentage of women who became eligible for Medicaid at the time of delivery. This number has remained consistently low for both the MCP and FFS populations. Comparing these figures to *Table 4b* suggests that there is still a small percentage of women who are not receiving prenatal care and may not be obtaining eligibility until they deliver. However, as stated earlier, there is a great difference in the low birth weight rate (hence, the birth outcome) for those women who received some prenatal care compared to those who did not. This is shown in *Table 5*.

Table 5: SFY 1998-2000 - Low Birth Weight						
	SFY 1998		SFY 1999		SFY 2000	
	Prenatal Care	No Prenatal Care	Prenatal Care	No Prenatal Care	Prenatal Care	No Prenatal Care
FFS						
HF	9.9%	22.8%	10.6%	22.0%	10.2%	17.7%
HST	8.4%	24.7%	9.0%	18.8%	9.4%	21.6%
MCP						
HF	8.7%	18.4%	9.9%	17.9%	10.8%	13.4%
HST	8.9%	16.4%	8.5%	8.0%	8.8%	9.8%
STATEWIDE						
All Woman	7.3%	18.9%	7.4%	17.8%	7.5%	17.9%
Non-Medicaid	6.6%	14.9%	6.2%	14.9%	6.2%	16.9%

A T-test analysis for **all study groups combined** shows a highly significant difference in low birth weight (signif. > 0.001) between those receiving prenatal care and those without any.

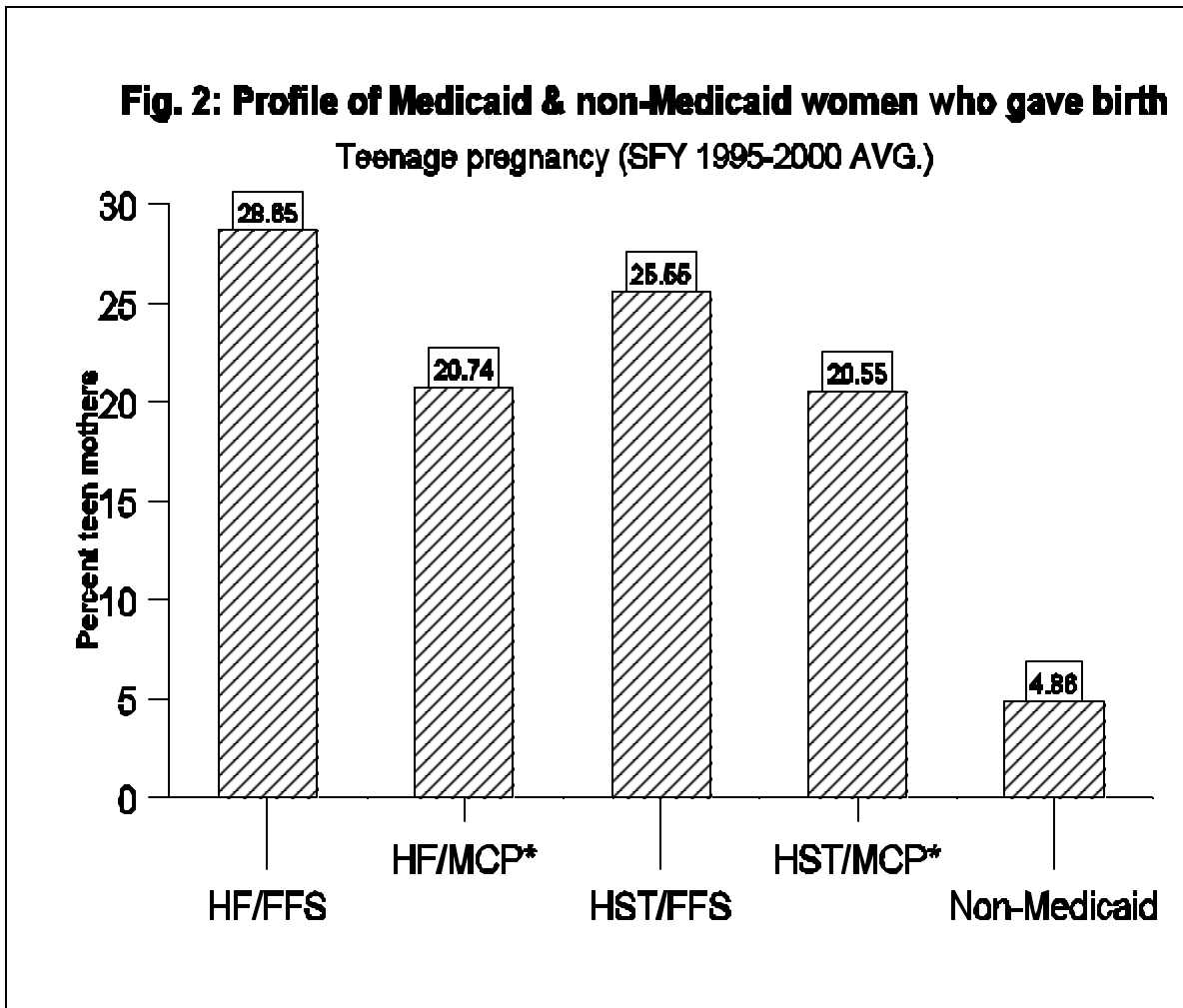
2. Teenage pregnancy:

Teens who give birth are more likely to be poor or low income, to complete high school (7 out of 10), but less likely to go on to college. One third of pregnant teens receive inadequate prenatal care and are more likely to have a low birthweight baby.¹¹

The SFY 1998, 1999 and 2000 low birth weight rates for teenagers (women aged 19 or younger) compared to older mothers are presented in *Table 6*. There is no real significant difference of teenagers with low birthweight babies for the Medicaid population versus the non-Medicaid population.

Table 6: SFY 1998-2000 Low Birth Weight For Teenage Mothers 19 and Younger						
	SFY 1998		SFY 1999		SFY 2000	
	Teenagers	Non-Teenagers	Teenagers	Non-Teenagers	Teenagers	Non-Teenagers
FFS						
HF	11.2%	10.4%	11.3%	11.5%	12.5%	11.5%
HST	8.7%	9.0%	9.5%	9.4%	9.9%	9.3%
MCP						
HF	10.8%	9.1%	10.7%	11.5%	10.9%	11.7%
HST	9.2%	9.2%	6.4%	9.3%	8.2%	9.3%
STATEWIDE						
All Women	10.2%	7.3%	10.0%	7.5%	10.4%	7.6%
Non-Medicaid	8.4%	7.2%	7.9%	6.3%	8.3%	6.4%

¹¹The Alan Gullmacher Institute, Facts in Brief. Teen Sex and Pregnancy. September, 1999.



* MCP data are 4 year averages for SFY 1997-2000.

3. Marital Status

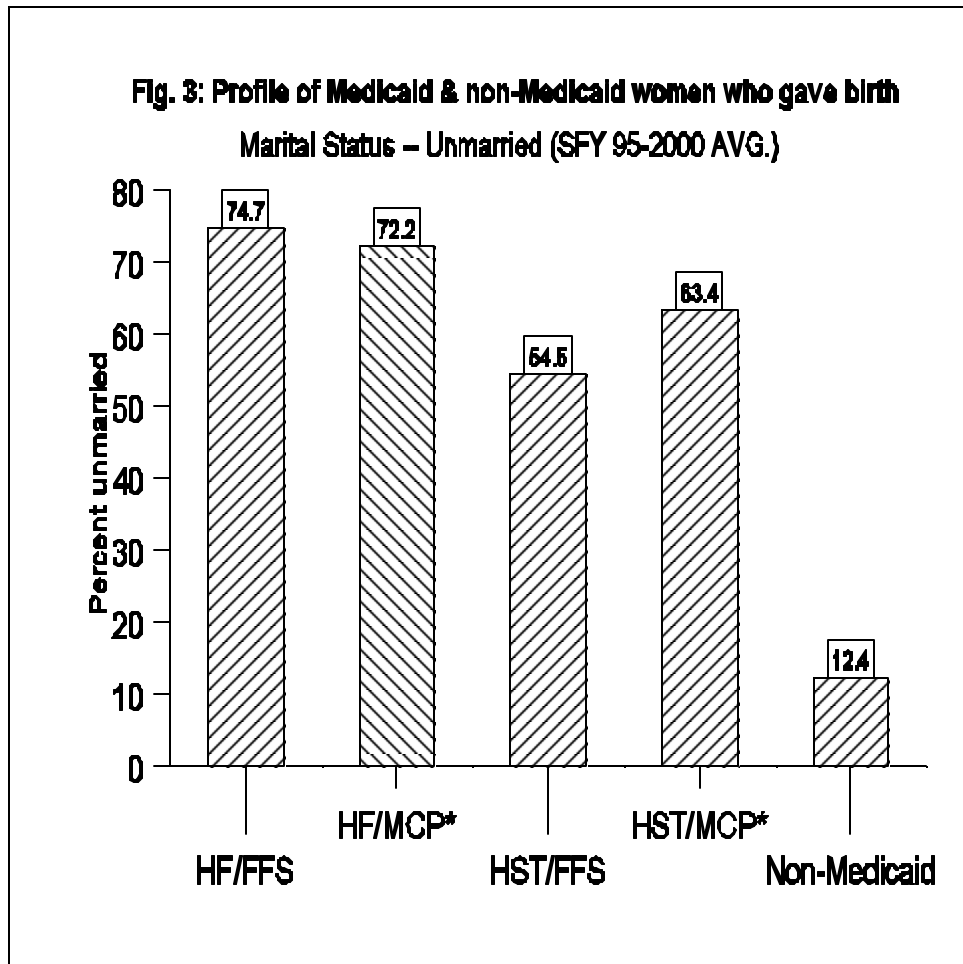
Nearly two-thirds of Medicaid/HF eligible infants were born to unmarried women. It is important to note that eligibility for HF (but not HST) is based in part on the absence, incapacity or unemployment of at least one of the parents.

The SFY 1998, 1999 and 2000 low birth weight rates for unmarried mothers compared to married mothers for the subgroups are presented in *Table 7*. These rates are up slightly for married woman from SFY 1997 which was well below 10 percent across the Medicaid and non-Medicaid populations. As demonstrated in *Table 7*, low birthweight is still higher in unmarried women than in married women across most populations, still suggesting that lack of external support systems can have an affect on birth outcomes. The exception is married women in the Healthy Families (HF) categories in the FFS and MCP categories have slightly higher low birthweight rates of women giving birth.

Table 7: SFY 1998-2000 Low Birth Weight and Marital Status						
	SFY 1998		SFY 1999		SFY 2000	
	Unmarried	Married	Unmarried	Married	Unmarried	Married
FFS						
HF	11.1%	9.2%	11.3%	11.8%	11.7%	12.1%
HST	9.9%	7.4%	9.7%	9.0%	10.2%	9.3%
MCP						
HF	11.4%	6.4%	10.8%	13.3%	11.5%	12.0%
HST	10.0%	7.9%	9.2%	7.8%	9.7%	7.8%
STATEWIDE						
All Women	10.8%	6.2%	10.4%	6.4%	10.7%	6.5%
Non-Medicaid	9.0%	5.7%	9.2%	5.9%	9.4%	6.0%

The unmarried rate (for moms having a live birth) for the SFY 1995 - 2000 period was 74.7 percent among HF/FFS eligibles, 54.5 percent among HST/FFS eligibles, and 12.4 percent for the non-Medicaid population. Statewide for SFY 2000 the percent of unmarried parents was 33 percent. The MCP Medicaid rate for SFY 1997-2000 is 72.2 percent for HF mothers, and 63.4 percent for HST mothers. Nationally trends for unmarried mothers in 2000 was 45.2 percent.¹² The overall rate for Ohio Medicaid is significantly higher than the non-Medicaid and National rates.

¹²National Vital Statistics Report., 9



* MCP data are 4 year averages for SFY 1997-2000.

4. Race

For years, race/ethnicity has been documented as a risk factor for the prevalence of low birth weight. The white/non-white ratio of low birth weight (LBW) babies has decreased slightly over the last 10 years; however, the LBW rate amongst African American women has increased up to 13 percent in 2000. MMWR suggests that LBW racial disparities are not necessarily related to demographics (i.e., age, education or income), but rather pertain to such conditions as access to medical care, lack of medical care, and stressors and lack of social supports.¹³ Nationally, these statistics hold true for 2000, indicating a 13 percent low birth weight for African-American infants versus white infants at 6.5 percent.¹⁴ As previously illustrated in *Figure 1*, in Ohio the SFY 1995 - 2000 low birth weight rate is 13.8 percent for non-white women compared to 7 percent for white women.

The SFY 1998, 1999 and 2000 low birth weight rates for white mothers compared to non-white mothers within the study groups are presented in *Table 8a, 8b and 8c*. As with national trends, Ohio is seeing a slight trend upward in low birthweight rates by race. This varies in each of the study groups and race categories.

Table 8a: SFY 1998 Mothers Race and Low Birth Rate				
	Overall	African American	White	All Others
FFS				
HF	10.6%	14.9%	9.1%	6.1%
HST	6.2%	11.4%	5.3%	7.2%
MCP				
HF	9.4%	12.8%	7.0%	7.1%
HST	9.2%	13.1%	7.8%	6.7%
STATEWIDE				
All Women	7.7%	13.5%	6.6%	7.4%
Non-Medicaid	5.9%	10.8%	5.5%	6.1%

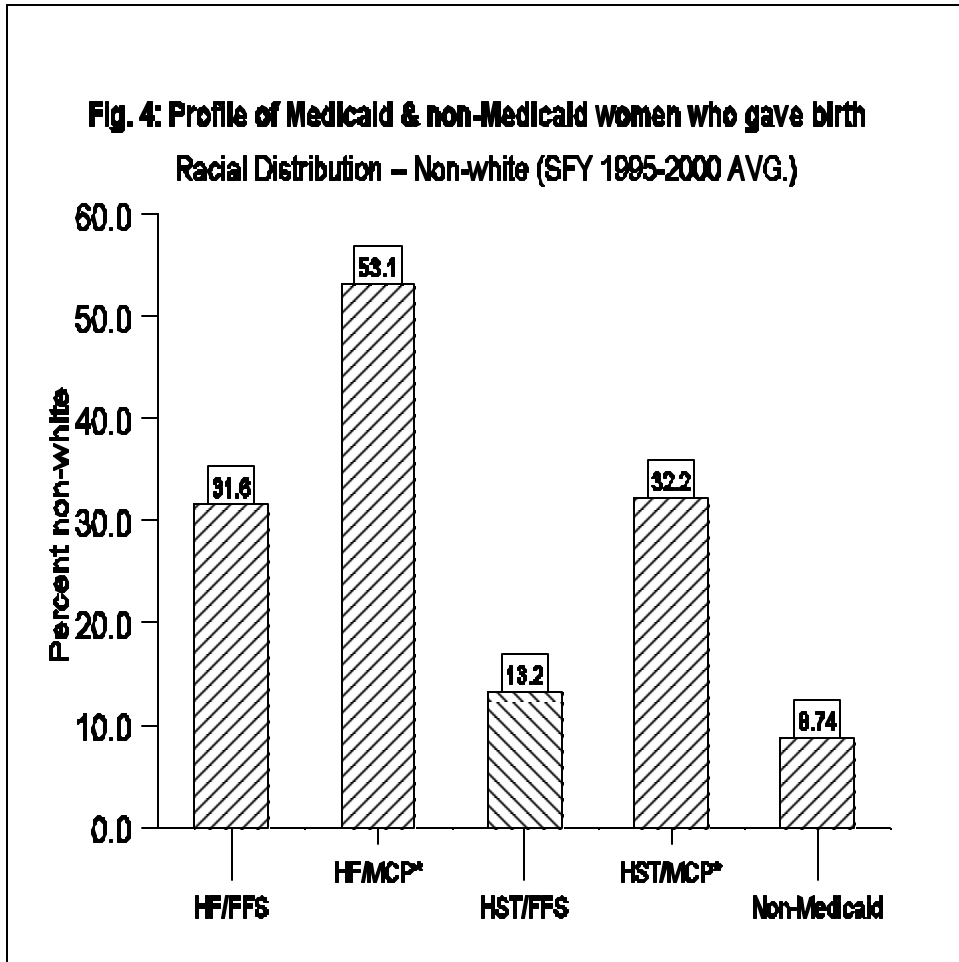
¹³MMWR. Infant Mortality and Low Birthweight Among Black and White Infants- U.S., 1980- 2000. July 12, 2002. 51 (27); 589-592.

¹⁴National Vital Statistics Report., 11

Table 8b: SFY 1999 Mothers Race and Low Birth Rate				
	Overall	African American	White	All Others
FFS				
HF	11.4%	14.2%	9.9%	11.8%
HST	9.4%	14.1%	8.7%	10.2%
MCP				
HF	11.2%	12.9%	8.6%	5.4%
HST	8.7%	11.4%	7.6%	8.7%
STATEWIDE				
All Women	7.8%	13.4%	6.8%	7.9%
Non-Medicaid	6.3%	12.0%	5.9%	7.4%

Table 8c: SFY 2000 Mothers Race and Low Birth Rate				
	Overall	African American	White	All Others
FFS				
HF	11.8%	14.2%	10.3%	13.7%
HST	9.9%	15.2%	9.0%	11.3%
MCP				
HF	11.5%	12.2%	10.5%	8.7%
HST	9.1%	10.9%	8.3%	8.0%
STATEWIDE				
All Women	7.9%	13.3%	7.0%	8.1%
Non-Medicaid	6.5%	12.0%	6.0%	7.4%

Overall, one third of Medicaid eligible infants were born to non-white women. *Figure 4* shows the four year average for women who gave birth while enrolled in a MCP, and a six year average for FFS women. MCPs had a considerably higher percentage of non-white deliveries, as MCPs are located in the large urban population centers of Ohio.



*MCP data averages are 4 year averages for SFY 1997-2000.

5. Education:

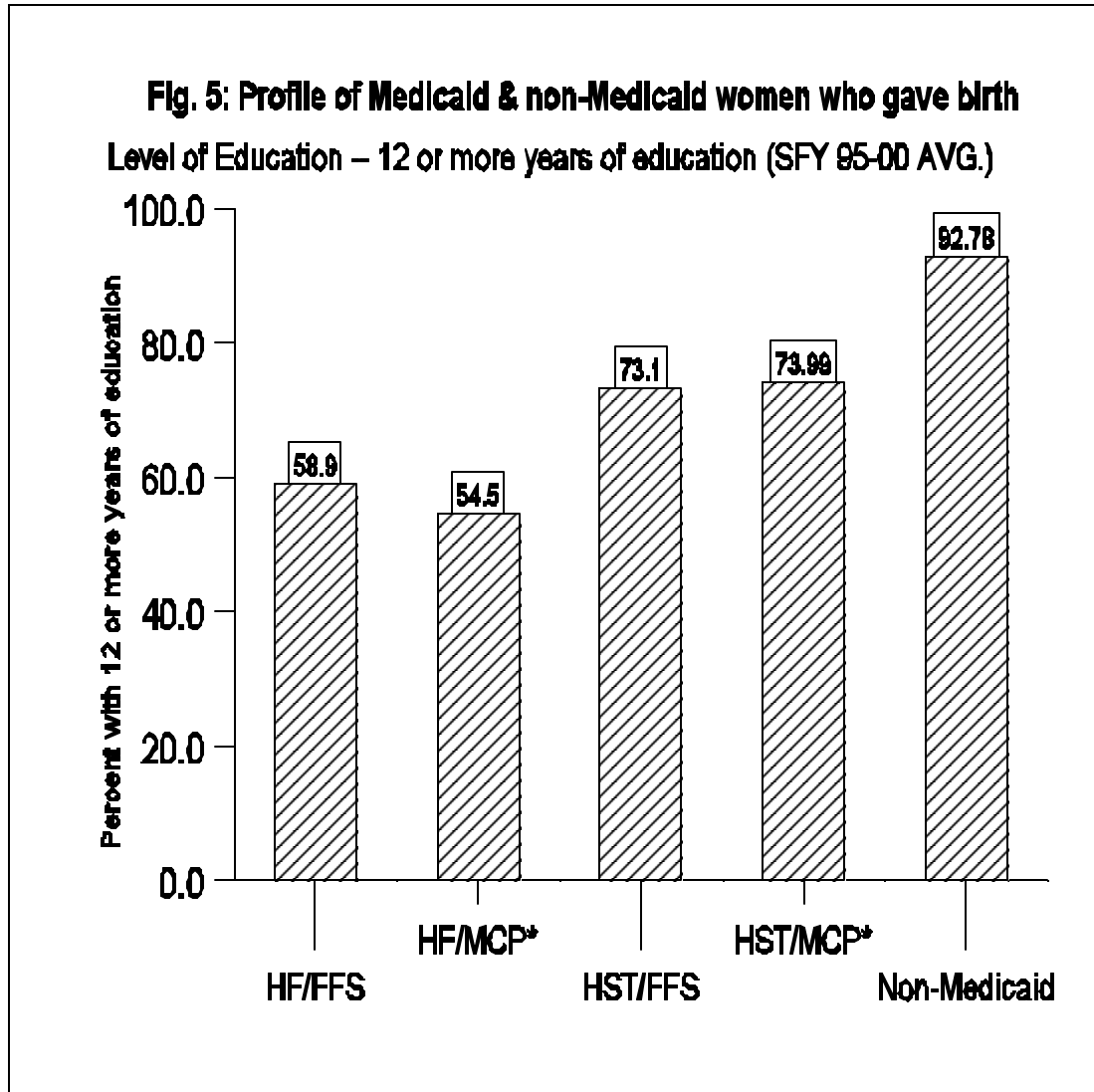
Higher education is commonly associated with better prenatal care and less risky health behaviors. Nationally, in 2000, 78 percent of childbearing women had 12 or more years of education, and 25 percent had a college level education. These rates have improved dramatically over the last decade.¹⁵

Table 9 and *Figure 5* detail the low birthweight rates for level of education in women giving birth in Ohio. These have been adjusted to exclude teenagers (defined as age 19 years or younger). The differences in low birthweight rate for women with less than 12 years education is not apparent in the Healthy Families Medicaid population (see Table 9).

Table 9: SFY 1998-2000 - Low Birth Weight and Education Level of Women Giving Birth						
	SFY 1998		SFY 1999		SFY 2000	
	Less Than 12 Years	More Than 12 Years	Less Than 12 Years	More Than 12 Years	Less Than 12 Years	More Than 12 Years
FFS						
HF	11.5%	9.9%	11.4%	11.4%	11.8%	11.8%
HST	10.2%	8.3%	10.6%	8.9%	10.3%	9.7%
MCP						
HF	10.7%	8.7%	11.4%	11.2%	10.8%	12.1%
HST	8.3%	9.5%	10.1%	8.2%	10.3%	8.6%
STATEWIDE						
All Women	10.7%	7.0%	10.4%	7.2%	10.4%	7.4%
Non-Medicaid	8.8%	6.0%	7.6%	6.2%	8.2%	6.3%

¹⁵National Vital Statistics Report., 10

For Medicaid women over 19 years old, the percentage with at least 12 years of education for SFY 1995 - 2000 was highest amongst the Healthy Start MCP women at 74% followed closely by Healthy Start FFS Women at 73%.



*MCP data are 4 year averages for SFY 1997-2000.

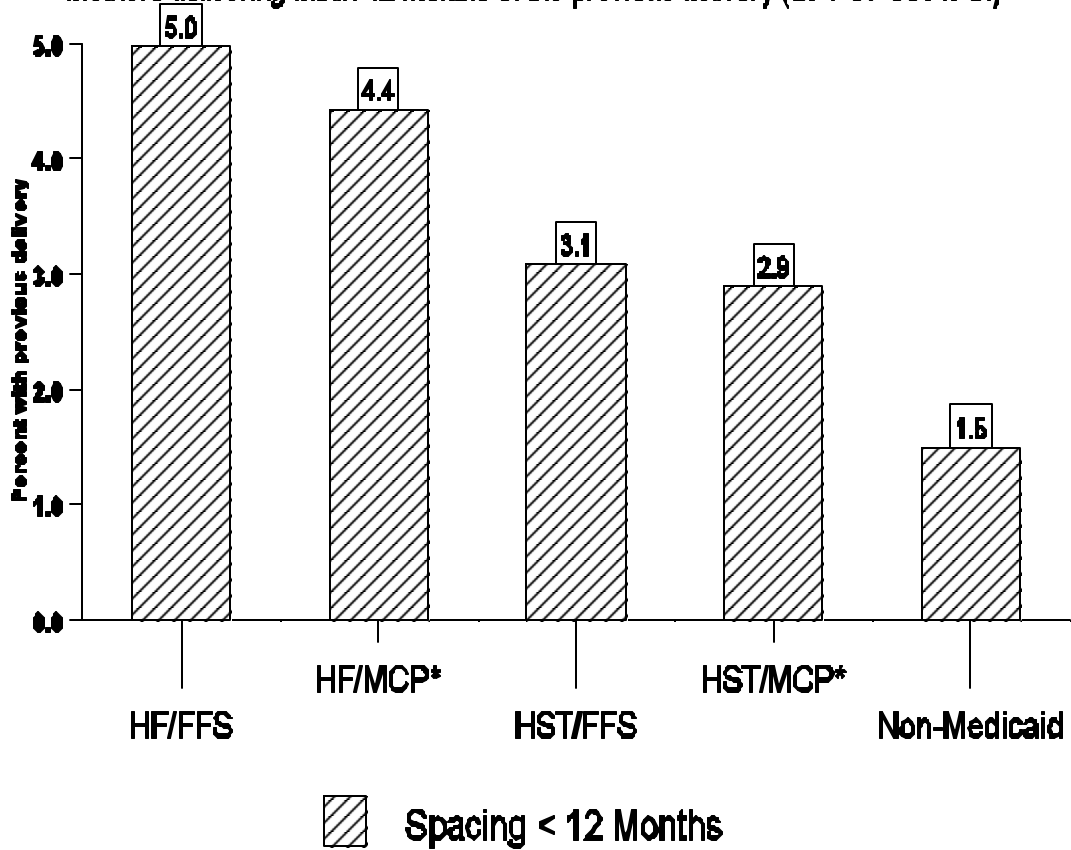
6. Birth Spacing

The SFY 1998 - 2000 low birth weight rates for birth spacing less than 12 months compared to mothers with 12 or more months between births are presented in *Table 10*. This table suggests that women who give birth within a year of the previous birth are at a higher risk of having a low birthweight infant.

Table 10: SFY 1998-2000 Low Birth Weight and Birth Spacing						
	SFY 1998		SFY 1999		SFY 2000	
	Spacing Less than 12 months	Spacing 12 or more months	Spacing Less than 12 months	Spacing 12 or more months	Spacing Less than 12 months	Spacing 12 or more months
FFS						
HF	17.5%	8.7%	22.8%	10.0%	20.5%	9.4%
HST	13.3%	8.3%	14.2%	7.6%	16.8%	8.5%
MCP						
HF	16.4%	7.8%	16.8%	10.1%	19.4%	9.8%
HST	12.6%	8.7%	7.1%	6.0%	10.0%	9.7%
STATEWIDE						
All Women	15.6%	5.7%	16.5%	5.7%	20.4%	5.8%
Non-Medicaid	12.9%	4.0%	13.1%	4.1%	11.4%	4.8%

The rate of births occurring within 12 months from the previous delivery is highest among HF/FFS eligibles and lowest in the HST/MCP population. For SFY 1995 through SFY 2000, 5.0 percent of HF/FFS women who gave birth experienced birth spacing of less than 12 months, compared to 3.1 percent among HST/FFS eligibles and 1.5 percent in the non-Medicaid population. These percent's have dropped since SFY 1997 for all groups. The most significant decrease in LBW rates for this category occurring with the HST/MCP women.

**Fig. 6: Profile of Medicaid & non-Medicaid women who gave birth
Mothers delivering within 12 months of the previous delivery (SFY 95-00 AVG.)**



*MCP data are 4 year averages for SFY 1997-2000.

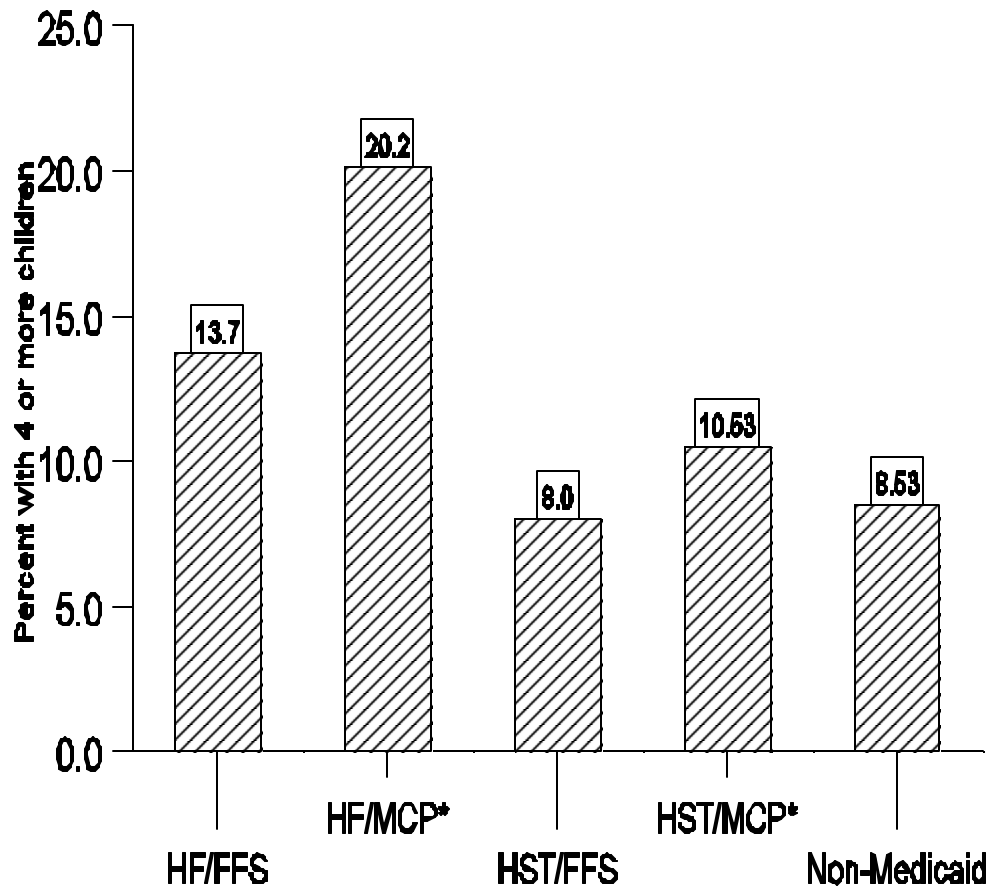
7. Number of previous deliveries

The SFY 1998 - 2000 low birth weight rates for less than four previous births compared to mothers with more than four previous deliveries are presented in *Table 11*.

Table 11: SFY 1998-2000 Low Birth Weight and Number of Previous Deliveries						
	SFY 1998		SFY 1999		SFY 2000	
	4 or more children	Less than 4 children	4 or more children	Less than 4 children	4 or more children	Less than 4 children
FFS						
HF	15.1%	9.9%	14.2%	11.0%	13.8%	11.4%
HST	11.2%	9.9%	11.9%	9.2%	12.4%	9.7%
MCP						
HF	12.4%	8.7%	15.2%	10.8%	13.7%	11.0%
HST	11.1%	9.0%	9.5%	8.6%	11.4%	8.8%
STATEWIDE						
All Women	10.2%	7.3%	9.8%	7.5%	9.8%	7.6%
Non-Medicaid	7.4%	6.0%	6.9%	6.3%	7.3%	6.4%

From SFY 1998 to 2000, the percent of infants born to women with four or more previous deliveries, living at the time of delivery, was 13.7 percent among HF/FFS eligibles, 8.0 percent for the HST/FFS population and 8.5 percent for the non-Medicaid population. This is up from 13.3 percent in SFY 1997 for the HF/FFS population and remained the same for the HST/FFS group. An increase occurred amongst the non-Medicaid population to 8.3 percent in SFY 2000, up from 7.8 percent in 1997. The MCP sub-groups were the highest at 20 percent for HF and 11 percent for HST. *Figure 7* contains the six and four year averages for FFS and MCP, respectively..

**Fig. 7: Profile of Medicaid & non-Medicaid women who gave birth
Mothers with four or more previous live births (SFY 1995-2000 AVG.)**



*MCP data are 4 year averages for SFY 1997-2000.

8. Cigarette smoking during pregnancy

Approximately 30 percent of Medicaid eligible women reported smoking during pregnancy, compared to 11 percent for the non-Medicaid population. As reported by the National Vital Statistics 2000 report, maternal smoking has a strong adverse impact on infant birth weight. Tobacco use during pregnancy is associated with adverse outcomes including low birth weight, intrauterine growth retardation and infant mortality. Tobacco use during pregnancy has declined nationally since 1989 by 37 percent. For 2000, tobacco use was down to 12.2 percent.¹⁶

According to the Ohio Women's Health Data Book 2000 published by the Ohio Department of Health, approximately one in four woman smoked during pregnancy. The report shows that 18-19 year old women had the highest percent of tobacco use (33%).¹⁷

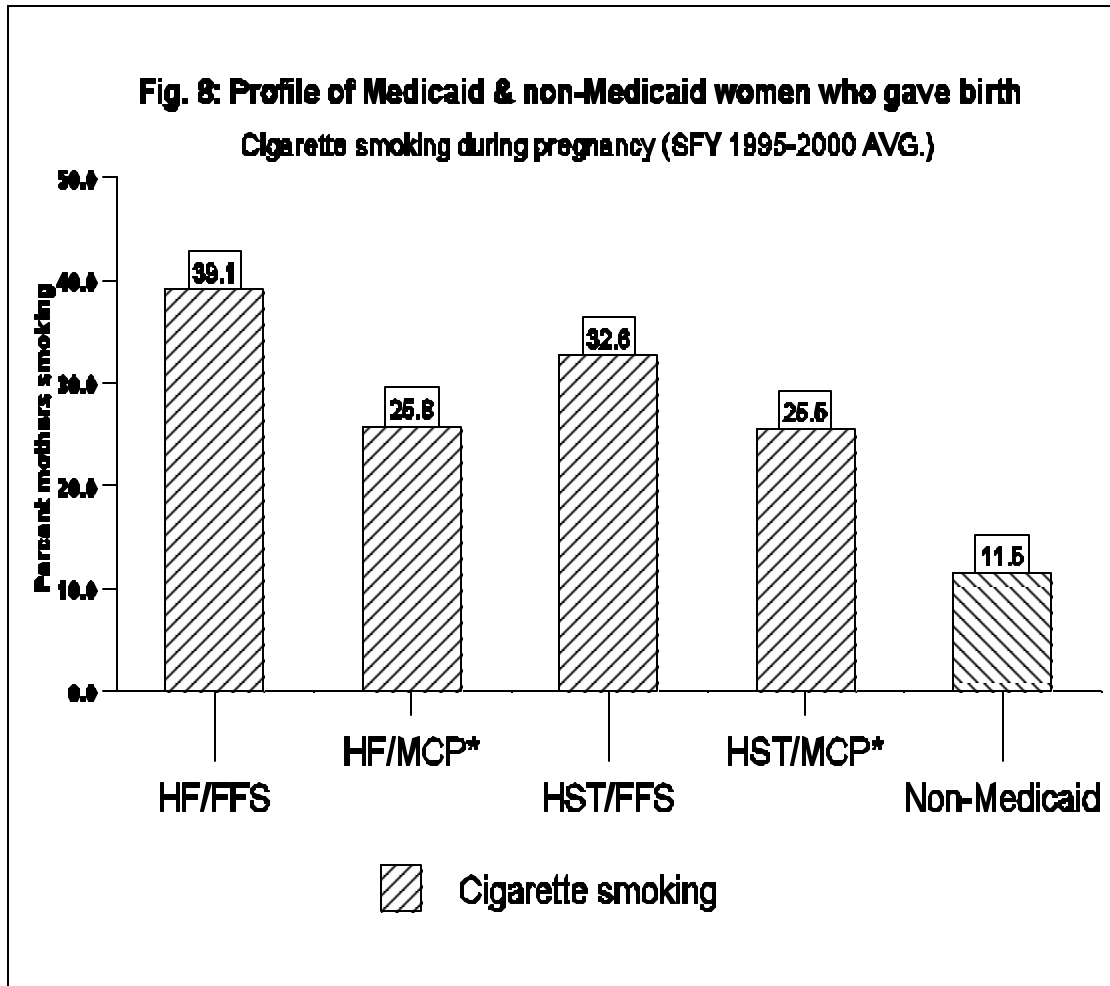
The SFY 1998-2000 low birth weight rates for women who smoked during pregnancy compared to women who did not smoke during pregnancy are presented in *Table 12*.

Table 12: SFY 1998-2000 Low Birth Weight and Cigarette Smoking During Pregnancy						
	SFY 1998		SFY 1999		SFY 2000	
	Smokers	Non-Smokers	Smokers	Non-Smokers	Smokers	Non-Smokers
FFS						
HF	12.6%	9.3%	12.9%	10.5%	13.2%	10.9%
HST	10.7%	7.9%	11.3%	8.4%	11.8%	8.9%
MCP						
HF	13.6%	8.1%	12.6%	10.6%	12.8%	11.1%
HST	10.8%	8.6%	10.9%	7.9%	10.8%	8.4%
STATEWIDE						
All Women	11.3%	6.7%	11.4%	6.8%	11.5%	7.0%
Non-Medicaid	9.4%	5.7%	10.1%	5.8%	10.5%	5.9%

¹⁶ National Vital Statistics Report., 11

¹⁷Ohio Department of Health, 2000 Women's Health Data Book.

During SFY 1995 through SFY 2000, 39.1 percent of HF/FFS and 32.6 percent of HST/FFS women reported that they smoked during pregnancy compared to 11.5 percent of non-Medicaid women who reported smoking during pregnancy. The Medicaid rates for tobacco use have remained constant over the last several years; however, non-Medicaid usage has declined.



*MCP data are 4 year averages for SFY 1997-2000.

9. Consumption of alcohol during pregnancy

The SFY 1998 - 2000 low birth weight rates for women who consumed alcohol during pregnancy compared to women who did not drink during pregnancy are presented in *Table 13*. All groups had higher low birthweight rates when women consumed alcohol during their pregnancy, than not.

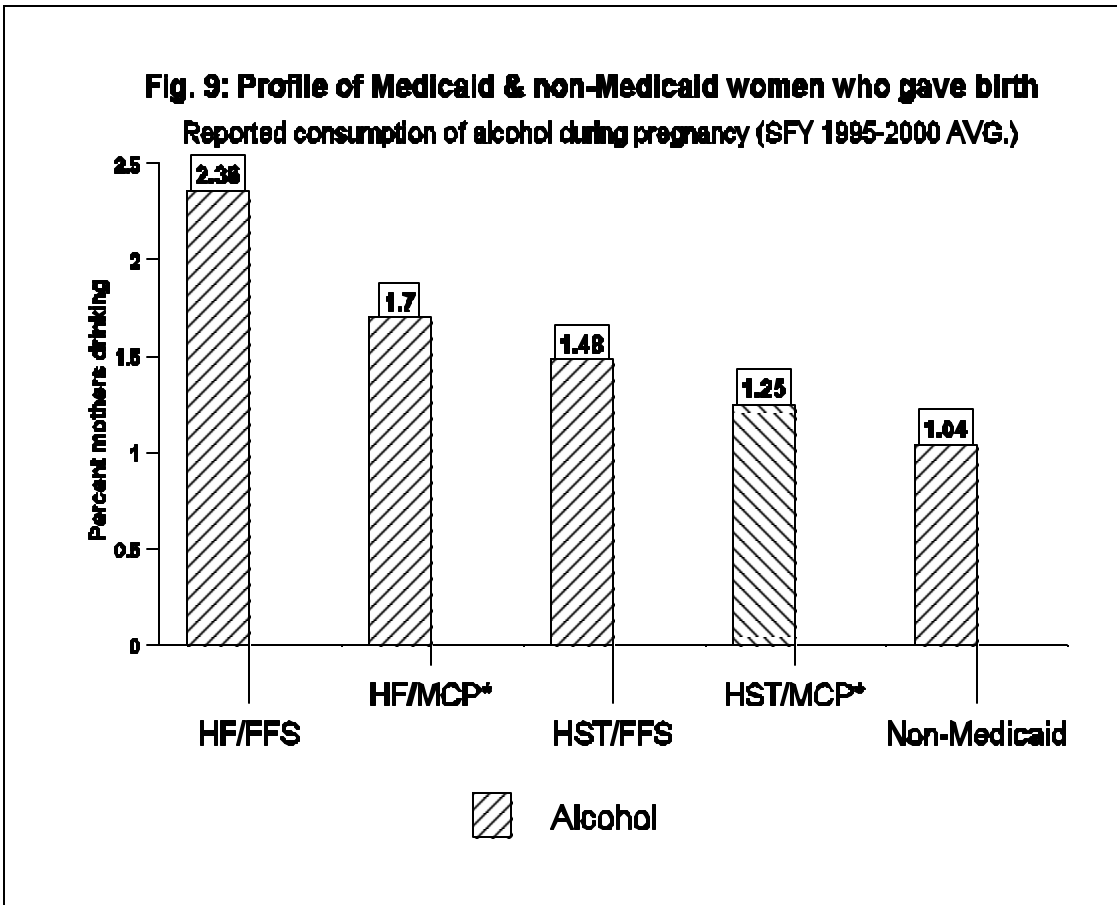
Table 13: SFY 1998-2000 Low Birth Weight and Consumption of Alcohol During Pregnancy						
	SFY 1998		SFY 1999		SFY 2000	
	No Alcohol	Consumed Alcohol	No Alcohol	Consumed Alcohol	No Alcohol	Consumed Alcohol
FFS						
HF	10.5%	15.0%	11.3%	16.6%	11.7%	14.3%
HST	8.7%	16.6%	9.4%	10.7%	9.9%	11.0%
MCP						
HF	9.2%	22.2%	11.0%	26.4%	11.4%	16.1%
HST	9.1%	17.5%	8.6%	13.3%	9.0%	17.7%
STATEWIDE						
All Women	7.5%	14.8%	7.6%	12.6%	7.8%	12.8%
Non-Medicaid	6.1%	8.7%	6.3%	9.2%	6.4%	10.8%

For the SFY 1995 to 2000 study period, 2.3 percent of HF women answered “yes” to the question regarding whether they consumed alcohol during pregnancy compared to 1.2 percent among Healthy Start eligible women and 1.0 percent for women in the non-Medicaid population.

As documented in the Vital Statistics Report for 2000, alcohol use is significantly under- reported on the birth certificate, in part due to time reference of usage and the negative stigma of alcohol use during pregnancy. CDC’s Behavior Risk Factor Surveillance System found alcohol use during pregnancy at 15 percent in 1995 compared to 1.5 percent as reported from the birth certificate.¹⁸

There has been a drop in overall reporting of alcohol usage during pregnancy in the Medicaid population.

¹⁸National Vital Statistics Report, 12.



*MCP data are 4 year averages for SFY 1997-2000.

10. Maternal weight gain

Low maternal weight gain is considered to be 22 pounds or less.¹⁹ Maternal weight gain is one of the components in the complex relationship between lifestyle characteristics of the mother and the development of the fetus. Maternal weight gain has shown to have a positive correlation with the birth weight of the infant.²⁰ *Table 14* below holds true to this notion. The data for all the study groups show that 14 percent of those with preterm delivery have low maternal weight gain compared to 86 percent with maternal weight gain over 22 pounds who had preterm delivery in SFY 2000.

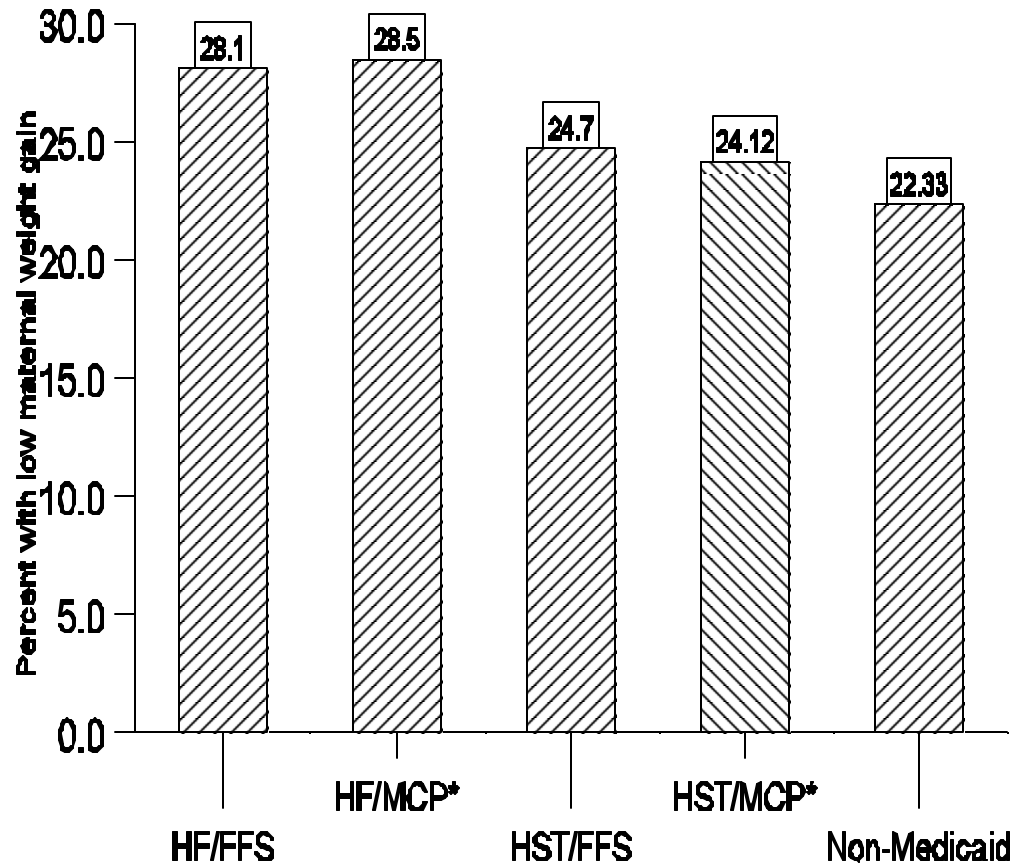
The SFY 1998 - 2000 low birth weight rates for mothers with low maternal weight gain compared to those with weight gain over 22 pounds are presented in *Table 14*. This table shows that the low birth weight rate for women with low maternal weight gain tends to be higher as the low birth weight rate for women with maternal weight gain greater than 22 pounds. Similar to smoking and alcohol use during pregnancy, low maternal weight gain is potentially preventable. Eating foods that supply adequate nutrition so as to result in an appropriate pregnancy weight gain is something that can be monitored in the course of getting prenatal care.

Table 14: SFY 1998-2000 Low Birth Weight and Maternal Weight Gain						
	SFY 1998		SFY 1999		SFY 2000	
	Low Maternal Weight Gain	Weight Gain >22lbs	Low Maternal Weight Gain	Weight Gain >22lbs	Low Maternal Weight Gain	Weight Gain >22lbs
FFS						
HF	15.5%	8.5%	17.0%	9.1%	15.9%	10.1%
HST	14.5%	6.8%	14.9%	7.5%	14.8%	8.2%
MCP						
HF	13.8%	7.7%	16.7%	9.0%	11.0%	8.4%
HST	13.2%	8.0%	14.0%	7.2%	17.0%	9.4%
STATEWIDE						
All Women	12.3%	6.1%	12.4%	6.3%	12.1%	6.6%
Non-Medicaid	10.1%	5.0%	9.9%	5.3%	10.0%	5.4%

¹⁹Chomitz V.R., Cheung L.W. & Lieberman E., "The Role of Lifestyle in Preventing Low Birth Weight." *The Future of Children*, Vol.5 No.1 (Spring 1995), p.122-123.

²⁰National Vital Statistics Report., 10.

**Fig. 10: Profile of Medicaid & non-Medicaid women who gave birth
Mothers with low maternal weight gain <= 22lbs (SFY 1995-2000 AVG.)**



*MCP data are 4 year averages for SFY 1997-2000.

11. Gestational Age Less Than 37 Weeks (Preterm Delivery)

Low birth weight is strongly related to the number of gestational age prior to delivery with gestational age lower than 37 weeks (otherwise known as preterm delivery) leading to higher low birth weight rates. As documented by the Ohio Department of Health, both preterm delivery and low birth weight are causes of neonatal mortality and morbidity. Two-thirds of LBW babies are born preterm.²¹

According to the Vital Statistics report, 2000 preterm births showed a slight decline for the first time in a decade. The Hispanic group is the only ethnic group that did not show a decrease. Previous increases in preterm deliveries are attributed to an increase in multiple births, which are disproportionately preterm, and have influenced an upward trend. The rates of multiple births has risen 55% since 1980. Nationally, preterm births were down from 1999 (11.8%) to 11.6% in 2000.²²

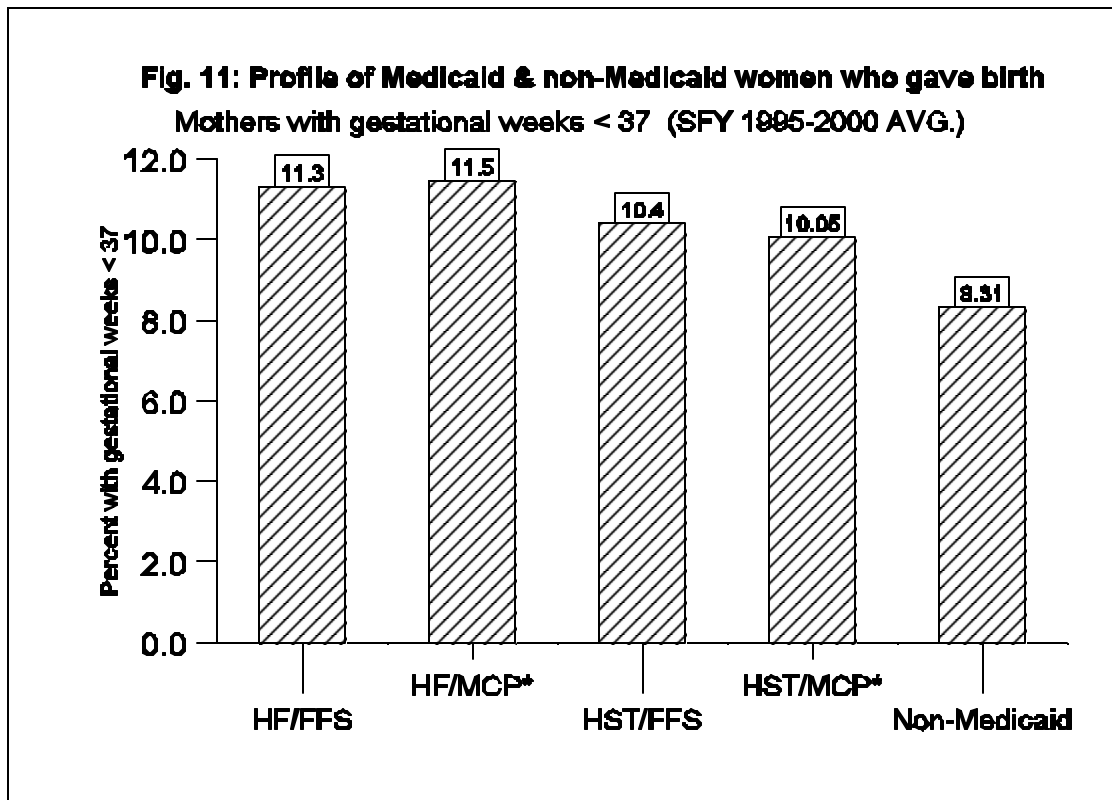
The SFY 1998 - 2000 low birth weight rates for mothers with gestational weeks less than 37 weeks compared to mothers with gestational weeks greater than or equal to 37 weeks are presented in *Table 15*.

Table 15: SFY 1998-2000 Low Birth Weight and Gestational Weeks Less than 37 Weeks (Preterm Delivery)						
	SFY 1998		SFY 1999		SFY 2000	
	Gestational Weeks <37	Gestational Weeks >=37	Gestational Weeks <37	Gestational Weeks >=37	Gestational Weeks <37	Gestational Weeks >=37
FFS						
HF	61.8%	4.2%	63.2%	4.3%	63.1%	4.5%
HST	59.2%	3.1%	61.0%	3.1%	61.5%	3.4%
MCP						
HF	61.0%	3.4%	62.1%	4.3%	62.6%	4.2%
HST	61.6%	3.5%	62.8%	2.9%	59.2%	3.0%
STATEWIDE						
All Women	56.3%	2.6%	56.0%	2.5%	55.2%	2.6%
Non-Medicaid	52.1%	1.9%	52.1%	1.9%	50.8%	2.0%

²¹Ohio Department of Health, 2001 State Health Resources Plan.

²²National Vital Statistics Report, 2.

The prevalence of preterm delivery within the study populations is outlined in Figure (11), with the occurrence being higher in the HF/FFS population (11.3 percent) and lowest in the non-Medicaid group (8.3 percent) during the study years of SFY 1995 through 2000.



*MCP data are 4 year averages for SFY 1997-2000

12. Birth Outcomes By County

The SFY 1995 - SFY 2000 averages of number of all Ohio births, number of Medicaid births (i.e., Medicaid infants who matched with the Vital Statistics file), percentage of matched Medicaid births, and the Medicaid low birth weight percentage for each county are presented in *Table 16*. The purpose of combining data and averaging the figures for the SFY 1995 - SFY 2000 study period is to smooth out yearly fluctuations. More detailed tables showing data for each fiscal year are presented in Appendix B.

The number of Medicaid births in this Table represents all fee-for-service births and MCP births. A column is presented which highlights significant low birth weight deviation from the statewide mean is also presented. An asterisk in this column denotes outliers at \pm (plus or minus) 2 standard deviations (STD) above or below the mean statewide Medicaid low birth weight rate. These outliers are significant at 0.05. Those counties with a \pm 2 standard deviations are the highest and/or lowest 5% of Ohio Medicaid births.

TABLE 16: SFY 1995-2000 Births and Low Birth Weight Percent (Percent of Births 2,500 Grams or 5.5 Lbs. or Less) By County

COUNTY	Average Number of Total Ohio Births (SFY 95-00)	Average Number of Medicaid Births (SFY 95-00)	Average Percent of Medicaid Births by County (SFY 95-00)	Average LBW Percent of Medicaid Births (SFY 95-00)	LBW Significance at 0.05
Adams	340	214	63%	8.8%	
Allen	1,484	638	43%	9.9%	
Ashland	634	202	32%	7.9%	
Ashtabula	1,310	646	49%	7.0%	
Athens	612	352	57%	8.8%	
Auglaize	618	155	25%	8.3%	
Belmont	654	345	53%	8.9%	
Brown	524	243	46%	8.2%	
Butler	4,260	1,296	30%	8.2%	
Carroll	296	122	41%	8.5%	
Champaign	474	161	34%	9.7%	
Clark	1,943	867	45%	8.9%	
Clermont	2,434	658	27%	7.9%	
Clinton	527	165	31%	8.7%	
Columbiana	1,305	608	47%	8.5%	

COUNTY	Average Number of Total Ohio Births (SFY 95-00)	Average Number of Medicaid Births (SFY 95-00)	Average Percent of Medicaid Births by County (SFY 95-00)	Average LBW Percent of Medicaid Births (SFY 95-00)	LBW Significance at 0.05
Coshocton	430	181	42%	9.5%	
Crawford	595	260	44%	6.7%	
Cuyahoga	19,710	8,621	44%	12.9%	*
Darke	704	216	31%	7.6%	
Defiance	491	158	32%	8.2%	
Delaware	974	205	21%	9.5%	
Erie	1,026	350	34%	10.1%	
Fairfield	1,439	412	29%	7.8%	
Fayette	362	167	46%	9.0%	
Franklin	15,412	5,070	33%	11.2%	
Fulton	540	153	28%	8.0%	
Gallia	384	214	56%	8.9%	
Geauga	1,146	139	12%	6.1%	
Greene	1,629	420	26%	8.3%	
Guernsey	629	308	49%	7.1%	
Hamilton	12,457	4,576	37%	12.4%	*
Hancock	947	274	29%	9.0%	
Hardin	390	165	42%	7.2%	
Harrison	168	104	62%	8.4%	
Henry	386	99	26%	6.2%	
Highland	500	213	43%	8.3%	
Hocking	726	158	22%	9.1%	
Holmes	798	72	9%	7.1%	
Huron	888	344	39%	7.4%	
Jackson	419	235	56%	9.3%	
Jefferson	797	427	54%	9.0%	
Knox	626	214	34%	8.5%	
Lake	2,679	520	19%	6.5%	
Lawrence	657	470	71%	7.1%	
Licking	1,760	654	37%	8.0%	
Logan	637	246	39%	8.8%	

COUNTY	Average Number of Total Ohio Births (SFY 95-00)	Average Number of Medicaid Births (SFY 95-00)	Average Percent of Medicaid Births by County (SFY 95-00)	Average LBW Percent of Medicaid Births (SFY 95-00)	LBW Significance at 0.05
Lorain	3,916	1,486	38%	9.3%	
Lucas	6,616	3,148	48%	10.0%	
Madison	509	158	31%	7.7%	
Mahoning	3,316	1,631	49%	11.3%	
Marion	861	410	48%	9.0%	
Medina	1,736	318	18%	6.4%	
Meigs	249	168	67%	8.7%	
Mercer	593	122	21%	7.5%	
Miami	1,234	364	29%	9.1%	
Monroe	138	69	50%	10.0%	
Montgomery	8,344	3,085	37%	10.7%	
Morgan	176	107	61%	6.0%	
Morrow	387	140	36%	10.4%	
Muskingum	1,107	577	52%	10.0%	
Noble	136	72	53%	3.6%	*
Ottawa	431	136	31%	7.6%	
Paulding	235	94	40%	7.4%	
Perry	481	257	53%	8.7%	
Pickaway	587	225	38%	7.6%	
Pike	363	217	60%	8.4%	
Portage	1,784	575	32%	7.8%	
Preble	490	165	34%	6.6%	
Putnam	522	98	19%	5.5%	
Richland	1,695	726	43%	9.6%	
Ross	894	424	47%	9.5%	
Sandusky	836	328	39%	8.5%	
Scioto	1,009	595	59%	8.1%	
Seneca	768	310	40%	7.7%	
Shelby	687	210	31%	7.6%	
Stark	4,869	1,845	38%	10.6%	
Summit	7,230	2,584	36%	11.3%	
Trumbull	2,850	1,230	43%	8.7%	

COUNTY	Average Number of Total Ohio Births (SFY 95-00)	Average Number of Medicaid Births (SFY 95-00)	Average Percent of Medicaid Births by County (SFY 95-00)	Average LBW Percent of Medicaid Births (SFY 95-00)	LBW Significance at 0.05
Tuscarawas	1,138	418	37%	7.3%	
Union	676	145	21%	6.6%	
Van Wert	378	106	28%	5.8%	
Vinton	174	119	68%	9.3%	
Warren	1,814	363	20%	8.7%	
Washington	742	316	43%	7.2%	
Wayne	1,560	377	24%	6.9%	
Williams	475	172	36%	5.4%	
Wood	1,769	357	20%	8.4%	
Wyandot	294	84	28%	8.4%	
Unspecified	522	179	34%	NA	
Statewide Average	152,139	56,830	37%	10.10%	

Note: LBW arithmetic avg=8.4
1STD=1.55
8.4+ 2STD = 11.40
8.4 - 2STD = 5.3

SECTION C:

AN MCP/FFS COMPARISON OF BIRTH OUTCOMES AND SOCIO-DEMOGRAPHIC PROFILES OF CHILDBEARING WOMEN

For this section, the matched Medicaid/VS file used in Section B was also utilized to compare birth outcomes and socio-demographic profiles. In addition, a hierarchy was developed based on the mother's aid category indicator at the time of the baby's birth so as to allow a more complete comparison of FFS and MCP births. For example, if the mother had an HF/MCP designation when the baby was born, the baby was classified as HF/MCP regardless of the baby's designation.

Tables 17a, b and c below show the matching rates for the MCP and FFS groups. Using the hierarchy previously described and the data for only those Medicaid records that matched with their birth certificates in the VS database, for SFY 1998 - 2000.

Table 17a: SFY 1998 MCP and FFS Births (Matched to VS Records)		
	Number of births that matched with their VS records	Percent of Births
HF/MCP	17,506	79.6%
HST/MCP	4,469	20.3%
Total MCP	21,975	100.0%
HF/FFS	13,827	46.9%
HST/FFS	15,648	53.0%
Total (HF/FFS and HST/FFS ONLY)	29,475	100%
Grand Total	51,450	

Table 17b: SFY 1999 MCP and FFS Births (Matched to VS Records)		
	Number of births that matched with their VS records	Percent of Births
HF/MCP	7,829	68.0%
HST/MCP	3,761	32.0%
Total MCP	11,590	100.0%
HF/FFS	11,485	42.0%
HST/FFS	15,861	58.0%
Total (HF/FFS and HST/FFS ONLY)	27,346	100%
Grand Total	38,936	

Table 17c: SFY 2000 MCP and FFS Births (Matched to VS Records)		
	Number of births that matched with their VS records	Percent of Births
HF/MCP	7,330	62.0%
HST/MCP	4,549	38.0%
Total MCP	11,879	100.0%
HF/FFS	12,043	41.0%
HST/FFS	17,574	59.0%
Total (HF/FFS and HST/FFS ONLY)	29,617	100%
Grand Total	41,496	

Originally when this study began MCP enrollment in Ohio was **primarily** available in six urban counties. The six counties were Cuyahoga, Franklin, Hamilton, Lucas, Montgomery and Summit. For consistency of yearly data comparison we have definite urban as the counties stated above. MCPs have in fact moved to other counties. There are a total of 15 counties participating. Not all counties are mandatory participating counties. The high proportion of MCP clients enrolled in urban counties lends itself to the question whether such counties have a higher number of women with risk factors which could in turn lead to poorer birth outcomes compared to the rest of the state. The data answers this question by showing that for Medicaid childbearing women, there is a higher prevalence of some of the risk factors associated with low birth weight for the six urban counties compared to the rest of the state.

The following tables (*Table 18a, b and c*) illustrate the tendency for higher prevalence and low birth weight rates for seven of the risk factors in the urban counties compared with the rest of the state. For nine of the risk factors in 1998 it can be seen that the urban counties used in this comparison had a higher prevalence of that particular risk factor than the rest of the state. However, for the remaining two risk factors, the rest of the state was on a par with the urban counties or had higher prevalence figures. *Tables 18 b* and *c* reflect the same tendencies with some changes around the teen distribution for 1999 and 2000 respectively.

Table 18a: SFY 1998 Factors Related to Low Birth Weight: Urban/Rural Comparison				
Risk Factors	Urban counties		Rest of state	
	Prevalence	LBW	Prevalence	LBW
No prenatal care	5.0	20.1	1.3	23.6
Teen	24.5	11.3	22.7	8.1
Unmarried	72.0	12.2	54.0	9.7
Non-white	49.8	13.6	10.4	13.1
Less than 12 years of education	35.4	12.3	31.8	10.0
Birth spacing less than 12 months	2.3	20.0	2.2	13.0
Delivery of 4th or more child	15.0	15.9	11.3	9.3
Tobacco consumers	26.9	14.0	35.1	11.2
Alcohol consumers	1.7	26.1	1.5	12.0
Maternal weight gain (<23 lbs)	26.8	16.9	28.6	12.8
Gestational weeks (<37 weeks)	12.3	63.8	9.2	58.3

Table 18b: SFY 1999 Factors Related to Low Birth Weight: Urban/Rural Comparison				
Risk Factors	Urban counties		Rest of state	
	Prevalence	LBW	Prevalence	LBW
No prenatal care	6.5	18.0	1.1	22.7
Teen	25.2	10.7	25.8	9.8
Unmarried	76.4	11.5	63.7	9.6
Non-white	52.3	13.5	12.2	17.3
Less than 12 years of education	37.5	12.0	33.2	10.5
Birth spacing less than 12 months	4.8	17.2	4.7	19.1
Delivery of 4th or more child	16.3	14.9	10.9	11.8
Tobacco consumers	27.2	13.7	39.2	11.0
Alcohol consumers	1.4	24.1	1.2	9.2
Maternal weight gain (<23 lbs)	26.4	17.3	27.9	14.7
Gestational weeks (<37 weeks)	12.5	65.7	10.2	61.0

Table 18c: SFY 2000 Factors Related to Low Birth Weight: Urban/Rural Comparison				
Risk Factors	Urban counties		Rest of state	
	Prevalence	LBW	Prevalence	LBW
No prenatal care	5.9	17.4	.99	21.4
Teen	24.8	11.8	25.9	10.1
Unmarried	77.4	12.0	65.6	10.0
Non-white	53.0	13.1	12.5	14.2
Less than 12 years of education	37.9	11.8	35.0	10.5
Birth spacing less than 12 months	4.9	19.5	4.1	16.2
Delivery of 4th or more child	15.9	14.0	11.0	12.5
Tobacco consumers	26.7	13.6	39.8	11.7
Alcohol consumers	1.2	18.1	1.3	11.6
Maternal weight gain (<23 lbs)	25.9	17.3	27.6	13.7
Gestational weeks (<37 weeks)	12.7	63.6	10.7	61.0

In *Figures 12 and 13*, comparisons are made between HF/MCP and HF/FFS births from SFY 1995 to 2000 in terms of the socio-demographic and behavioral variables (risk factors) and the birth outcomes. The numbers used for the following figures are in Appendix B.

Some notable differences from SFY 1992 - 1997 averages in *Figure 12* include: an increase in the percentage of teens giving birth for both the urban and rest of state comparison, reported alcohol use is down, a increase in percent of unmarried mothers for both groups, decline in reported tobacco use, a decrease in the prevalence of mothers delivering a fourth or more child, and a decrease in percent of mothers with a low maternal weight gain. In the FFS and MCP groups most rates followed the same trend line of either decreasing or increasing.

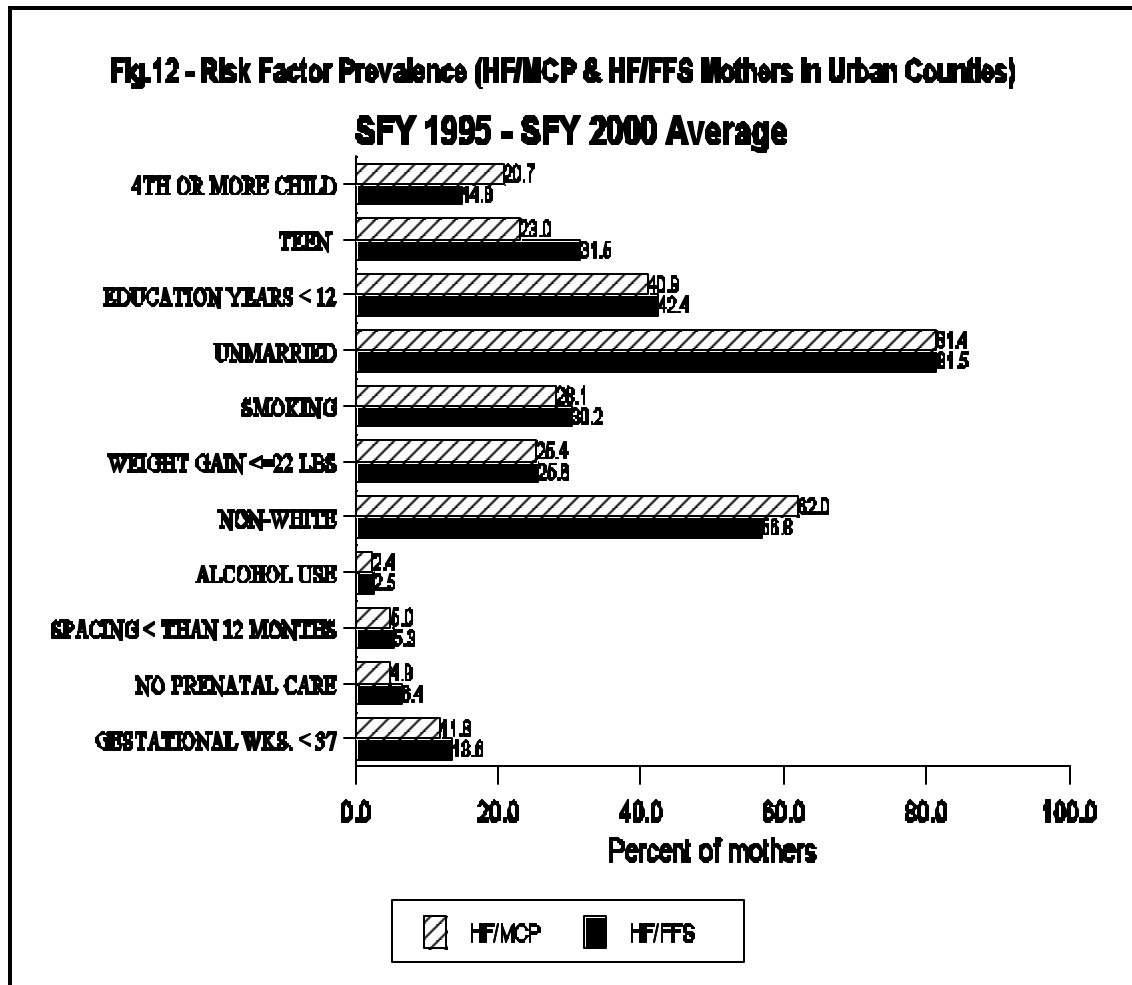
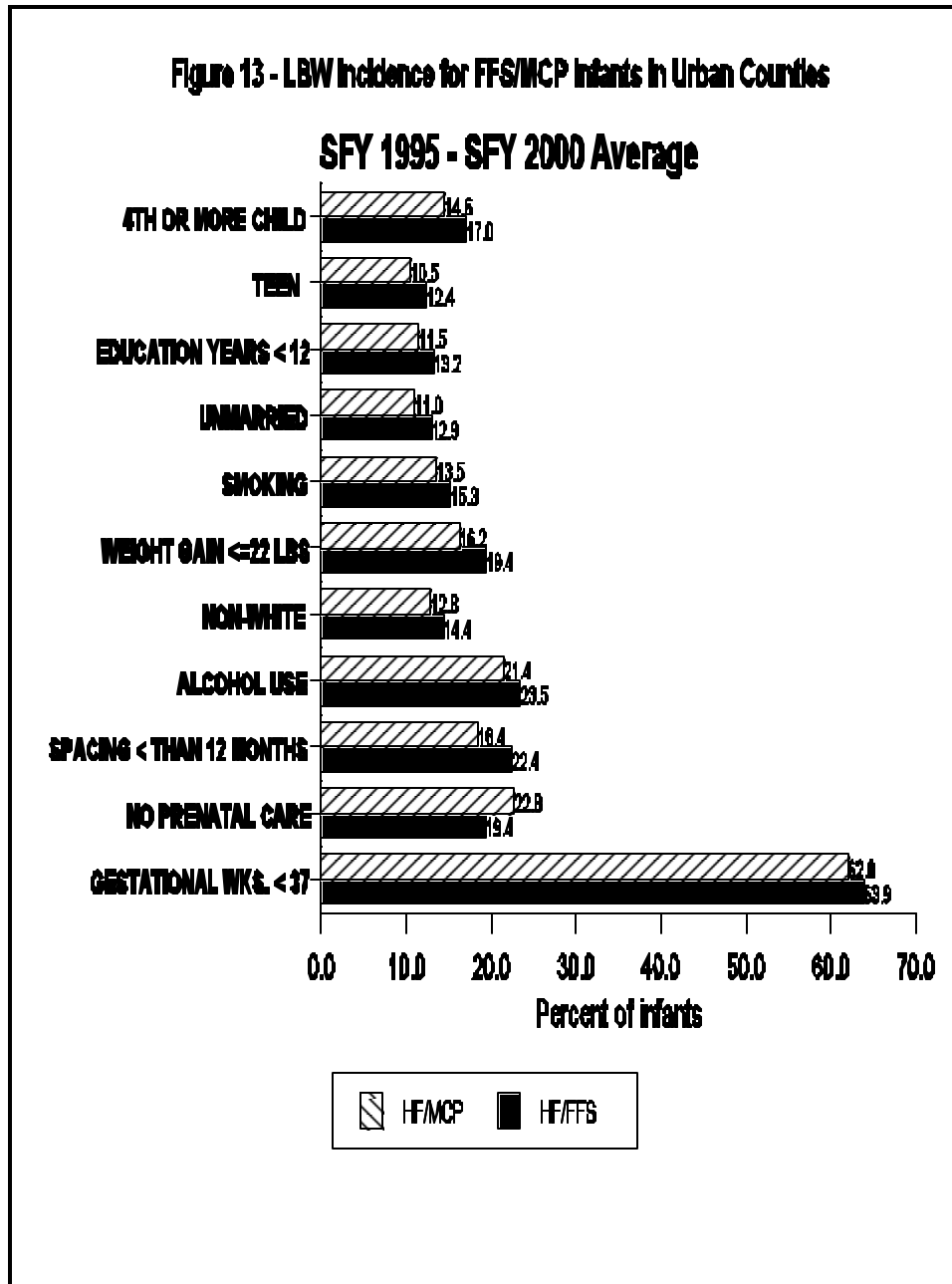


Figure 13 shows the low birth weight incidence for HF/MCP and HF/FFS infants in urban counties. This demonstrates that in spite of the variations in prevalence rates and demographic characteristics for these two sub-populations (HF/MCP and HF/FFS), in general, the low birth weight outcomes are not significantly different.



SECTION D

Utilization of pregnancy related services by childbearing women

Prenatal visits

Studies have shown that the absence of any prenatal care has more of a detrimental effect on most birth outcomes than if some prenatal care is received. The effect of lack of prenatal care on low birth weight outcome was highlighted in Section B.

In this section, the average numbers of prenatal visits are presented for the different study groups. The birth certificate data for SFYs 1995 through SFY 2000 indicate that on average, the highest number of visits is for the non-Medicaid group, although the Medicaid Healthy Start program women are not far behind. Overall, for both the Medicaid and non-Medicaid groups there are gradual increases in average number of prenatal visits.

	HF/MCP	HF/FFS	HST/FFS	HST/MCP	Non-Medicaid
SFY 1995	10.3	10.5	11.2		11.9
SFY 1996	10.1	10.7	11.4	11.3	12.0
SFY 1997	10.6	10.7	11.4	11.3	12.2
SFY 1998	10.7	10.7	11.3	11.6	12.1
SFY 1999	10.3	10.5	11.3	11.6	12.1
SFY 2000	10.6	10.5	11.4	11.7	12.2
Average	10.4	10.6	11.3	11.5	12.1

It should be noted that the data on prenatal visits presented in the table above are from self reported birth certificate data with the women reporting all prenatal visits received and not necessarily only the visits reimbursed by Medicaid.

In examining the utilization of prenatal visits among the sub-groups, one factor that could be considered is the length of eligibility for Medicaid pregnant women and whether not having Medicaid coverage early enough in their pregnancy may preclude some women from getting prenatal care. Despite late initiation of prenatal care for some women, a claims based review revealed that Medicaid mothers generally received an adequate number of prenatal visits. For example, mothers initiating prenatal care in the fifth month of pregnancy received on average two visits in the fifth month and a proportionate number of visits in each of the subsequent months.

The eligibility of Medicaid women 7 - 9 months prior to delivery is further outlined in Appendix B and summarized as follow (*Table 20*):

Table 20: SFY 1995-2000 Average Percent of Women Eligible 7 - 9 Months Before Delivery			
HF/FFS	HF/MCP	HST/FFS	HST/MCP
69.3%	86.7%	50.4%	57.8%

With the exception of HST/FFS women, it can be seen that a majority of Medicaid women are eligible 7 - 9 months prior to delivery, thereby allowing them the opportunity to receive prenatal care early in their pregnancies.

Post Partum Visits

Data regarding post partum visits are **not available** from the birth certificates. The numbers summarized here are calculated from the Medicaid claims files and MCP encounter data. Data for the FFS sub-group (*Table 21a*) are based on having at least two months of eligibility after delivery, and at least one post partum visit within that two months. Data for the MCP sub-group are calculated in accordance with that year's National Committee for Quality Assurance (NCQA) HEDIS measures, and for SFY 2000 looks at 56 days of enrollment in a MCP and a visit between 21 days and 56 days after delivery.²³ No data are available for the non-Medicaid sub-groups.

TABLE 21a: FFS WOMEN			
	# of post partum visits	# of Medicaid women delivering infants in the fiscal year	Avg # of post partum visits
SFY 1997	14,370	26,031	0.55
SFY 1998	15,249	28,920	0.53
SFY 1999	15,715	26,700	0.59
SFY 2000	17,442	28,853	0.60
Average	13,254	27,626	0.57

TABLE 21b: MANAGED HEALTH CARE WOMEN			
	# of post partum visits	# of Medicaid women delivering infants in the fiscal year	Avg # of post partum visits
SFY 1997	4,448	8,525	0.52
SFY 1998	3,415	7,714	0.44
SFY 1999	3,408	7,669	0.44
SFY 2000	3,941	8,784	0.45
Average	3,803	8,173	0.47

Please note that although the rates for the FFS group appear higher, there is no accounting for a specific time frame in which a woman had to be eligible. Whereas, in the MCP calculations there is an requirement in the enrollment timeframe. Additionally, the FFS data looks at visits up to 60 days after the delivery, MCP data looks at visits between 21 and 56 days accounting for a shorter period of time. The difference in calculation methods accounts for the FFS results appearing higher..

²³National Committee for Quality Assurance (2000) HEDIS 2001 Technical Specifications. Washington, D.C. Author.

From *Table 21a and 21b*, it is apparent that not every woman on Medicaid who delivered a baby during SFYs 1997 through 2000 received a post partum visit paid for by Medicaid. This claims based analysis indicates that for Medicaid eligible women who delivered through the FFS system, an average of 57% of women received a post partum visit within sixty days after delivery and for MCP women, 47%. Two post partum visits are recommended by most professionals to address health care services for the mother, including preventive services and birth control counseling and education. Women receiving post partum services may also be encouraged to have longer birth spacing and counseled on how to improve future birth outcomes.

SECTION E: Expenditures

Using Medicaid claims data, SFYs 1998 through 2000 expenditures are presented in this Section for HF and HST childbearing women and infants receiving their care through the FFS system. These women had a successful match with their VS birth record. Since expenditure data is not available in the database for the Medicaid/MCP and non-Medicaid population, the comparable expenditures are not presented here.

Prenatal, delivery and post partum expenditures

Table 22 on the following page illustrates the expenditures associated with prenatal care, delivery and post partum care.

Table 22: EXPENDITURES FOR HF/FFS and HST/FFS CHILDBEARING WOMEN

	SFY 1998		SFY 1999		SFY 2000	
	Expenditures	%	Expenditures	%	Expenditures	%
Prenatal visits	\$25,859,698	24.9%	\$23,772,557	24.3%	\$24,247,532	24.7%
Prenatal admissions (inpatient and physician expenditures)	\$5,107,069	4.9%	\$4,940,657	5.1%	\$4,796,620	4.9%
Inpatient deliveries	\$56,645,588	54.5%	\$54,077,286	55.3%	\$53,086,529	54.2%
Physician expenditures associated with the delivery	\$14,966,526	14.4%	\$13,818,188	14.1%	\$14,587,806	14.9%
Post partum visits	\$933,617	0.9%	\$911,927	0.9%	\$877,025	0.9%
Post partum admissions	\$334,009	0.3%	\$306,136	0.3%	\$388,860	0.4%
Total expenditures	\$103,846,506	100%	\$97,826,751	100%	\$97,984,372	100%
# of FFS women	24,665		22,911		22,188	
Avg. expenditure	\$4,210		\$4,270		\$4,416	

Table 22 shows that for women receiving their care through the FFS system, the average expenditures associated with receiving prenatal services, delivery services and post partum services have been relatively stable for the past three years. The following is average expenditures by SFY since 1993: \$4,390/mother for SFY 1993, \$4,570/mother for SFY 1994 and \$4,181/mother for SFY 1995, \$4,171/ mother for SFY 1996, and \$4,217/ mother for 1997. Although, figures have remained somewhat stable since 1993, the average cost for moms in 2000 second highest at \$4,416/ mother, with only 1994 figures being higher, with only 1994 figures being higher. As would be expected, the greatest percentage of expenditures is accounted for by the inpatient expenditures associated with childbearing.

Medicaid Birth Expenditures

Medicaid birth expenditures for Medicaid eligible infants receiving their care through the FFS system are presented in this section for SFYs 1998, 1999 and 2000. Birth expenditures include all of the inpatient and physician expenditures incurred by the infant in the period from birth to final discharge (discharge to home, another health care facility or death). Infants who were transferred to another health care facility during their birth episode were included in the analysis only if the claim indicating a transfer is followed by one that carries a final discharge status. This is because it is more accurate to consolidate the expenditure data for the infant’s birth episode only when the infant’s claim carries a final discharge status.

In SFY 2000 for example, the Medicaid/FFS low birth weight babies accounted for about 53 percent of all FFS birth expenditures while representing about only 10 percent of all Medicaid births. This disproportionate share of expenditures also occurred with very low birth weight babies. Very low birth weight babies consumed about 34 percent of all FFS birth expenditures even though the very low birth weight group represented 1 percent of all FFS births. This has been the general trend since first reporting this information in 1992.

Table 23 shows the breakdown of expenditures and infants by birth weight category for the HF/FFS and HST/FFS groups. Moderately low birth weight and very low birth weight babies make up the low birth weight group in other sections of this report.

Table 23

Birth weight category (HF/FFS and HST/FFS ONLY)	SFY 1998			SFY 1999			SFY 2000		
	Total \$	Number of infants	Avg. \$	Total \$	Number of infants	Avg. \$	Total \$	Number of infants	Avg. \$
NBW (>2,500 grams)	\$27,117,418	22,642	\$1,198	\$26,795,787	20,983	\$1,277	\$26,836,870	20,298	\$1,322
MLBW (1,500 - 2,500 grams)	\$11,844,107	1,948	\$6,080	\$11,897,123	1,881	\$6,325	\$11,126,322	1,848	\$6,021
VLBW (<1,500 grams)	\$20,216,409	405	\$49,917	\$23,415,151	405	\$57,815	\$20,181,274	375	\$53,817
Totals	\$59,177,934	24,995	\$2,368	\$62,108,061	23,269	\$2,669	\$58,144,466	22,521	\$2,582

From SFY 1995 to SFY 2000, the average expenditure for very low birth weight infants went from \$48,908 to \$53,817. The average expenditures continue to climb for very low birth weight infants. However, it should be noted that the figure for average expenditures for a relatively small number of very low birth weight infants may be easily skewed by extreme cases.

As previously mentioned, low birth weight infants represented about 10 percent of Medicaid FFS births, yet accounted for almost 53 percent of FFS birth expenditures. Additionally, decreases in the hospital payment rates for newborn birth expenditures occurred in SFY 1998 accounting for a decrease in the inpatient hospital payment rates. The following *Figures 14a, b and c* illustrates the disproportionate share of total expenditures attributable to low birth weight infants as compared to normal birth weight (NBW) infants during SFY 1998 - 2000.

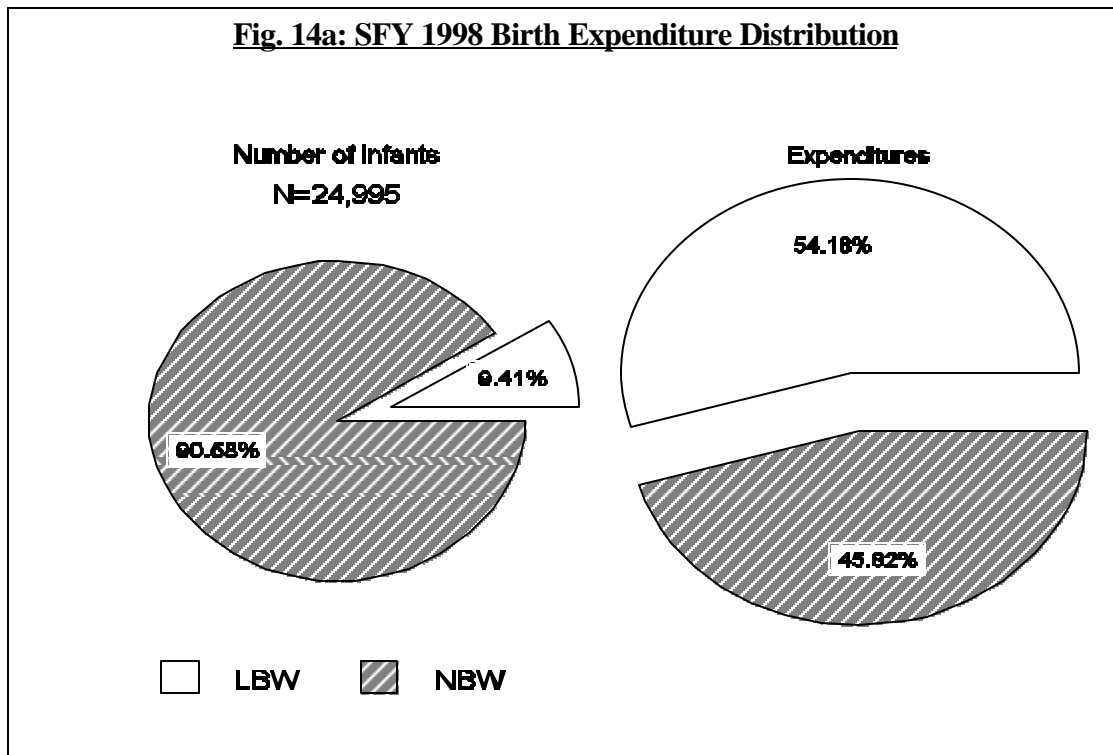
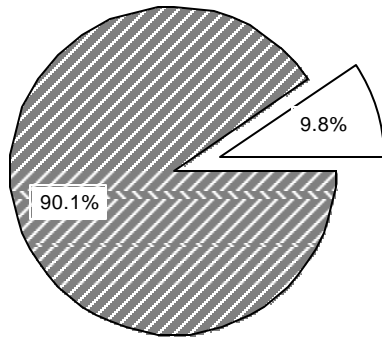
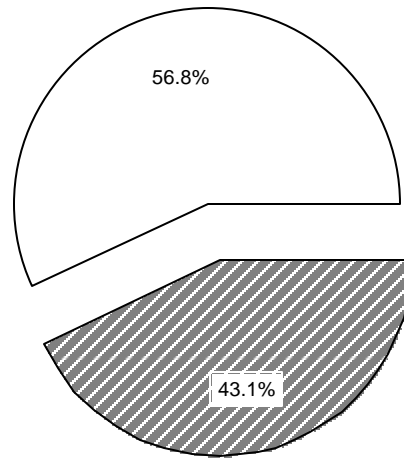


Fig. 14b: SFY 1999 Birth Expenditure Distribution

Number of infants
N=23,269



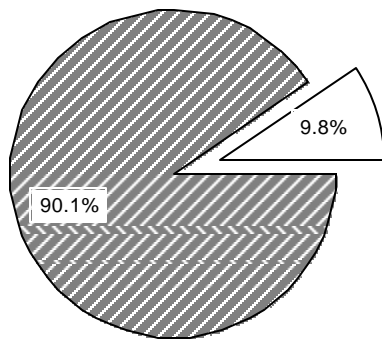
Expenditures



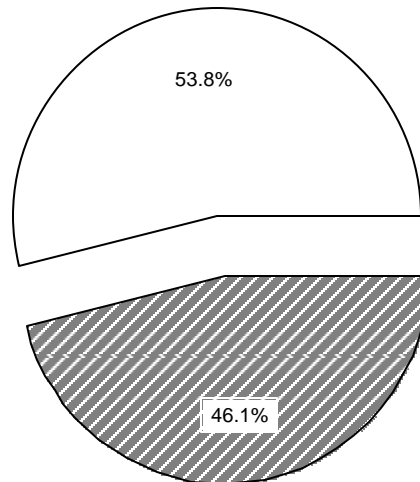
□ LBW ▨ NBW

Fig. 14c: SFY 2000 Birth Expenditure Distribution

Number of infants
N=22,521



Expenditures



□ LBW ▨ NBW

Infant Expenditures in the First Year of Life

By examining infant expenditures in the first year of life, we can further determine the costs associated with low birth weight. Expenditures for the first year of life follow the same patterns as birth expenditures in that they are much higher for infants with low birth weight. Low birth weight is an important determinant of morbidity and mortality during infancy, with smaller infants having a greater risk for mortality and morbidity. In this section, the expenditures for services received by infants through their first birthday **do not include** costs incurred during the birth episode (from birth to final discharge from the hospital).

As illustrated in the following chart, the total FFS expenditures incurred by HF and HST eligible infants in the first year of life amounted to almost \$67 million in SFY 1995, \$46 million for SFY 1996 and \$35 million for SFY 1997. Although the total expenditures for these three years had declined the corresponding number of FFS recipients decreased over those study years. Total expenditures for SFY 1998 - 2000 (*Table 24*) have fluctuated slightly, however, overall average expenditures continue to grow.

Table 24

	SFY 1998	SFY 1999	SFY 2000
First year of life expenditures	\$37,605,502	\$35,614,039	\$41,564,891
Number of recipients	24,930	23,203	24,475
Number of FFS months	217,064	199,815	225,718
Avg. FFS expend./FFS month	\$173.24	\$178.23	\$184.14
LBW monthly 1st yr. expend.	\$445.87	\$460.33	\$502.96
NBW monthly 1st yr. expend.	\$146.42	\$148.42	\$150.87

The average monthly FFS expenditure for infants during their first year of life was \$173.24 for SFY 1998, \$178.23 for SFY 1999 and \$184.14 for SFY 2000. *Table 24* shows the SFY 1998 - 2000 figures. Please note that the average expenditures for low birth weight infants is at minimum double the overall average and that of normal birth weight infants.

Not surprisingly, the greatest portion of the first year of life expenses is attributable to inpatient

hospitalizations of the infants, and the inpatient portion is especially high for low birth weight infants. For example, Table 25 shows that for SFY 2000 about 40 percent of the costs was spent on inpatient hospitalizations of a normal birth weight infant compared to 52 percent for a low birth weight infant.

Table 25

INPATIENT EXPENDITURES	SFY 1998	SFY 1999	SFY 2000
Avg monthly inpt. expend.	\$67.75	\$86.30	\$80.14
% of overall 1st. yr expend	39.1%	48.4%	43.5%
LBW monthly inpt. expend	\$198.96	\$264.17	\$260.33
% of overall 1st. yr expend	44.6%	57.4%	51.8%
NBW monthly inpt. expend	\$54.86	\$67.50	\$61.34
% of overall 1st. yr expend	37.5%	45.5%	40.7%

SECTION F:

ALCOHOL AND DRUG EXPOSED NEWBORNS

Recent estimates state the number of children affected by Fetal Alcohol Syndrome (FAS) in the U.S. ranges from 5 per 10,000 births to 1 per 100 live births. FAS is the leading cause of birth defects and developmental disorders. Birth defects associated with alcohol use can occur within the first two months of pregnancy.²⁴ According to the National Household Survey (1997), 2.5 percent of pregnant women were drug users during pregnancy. For women who recently gave birth, 5.5 percent reported drug use. This suggests that most women reduce their drug use while pregnant only to resume previous drug use habits after delivery.²⁵ The effects of prenatal drug exposure are well documented and can include intrauterine growth retardation, prematurity and low birth weight, central nervous system damage, and congenital physical malformations.²⁶

As we begin to further study and improve upon conditions in Ohio regarding a women's access to prenatal care and its affects on child health, we also need to address issues of treatment for those women who abuse substances while pregnant. Of the 50,359 Ohio Medicaid infants born in SFY 2000, 28 were diagnosed with FAS and 230 were diagnosed with a condition indicating that their moms had abused drugs while pregnant, with cocaine usage being the highest. The total number of Medicaid women who reported alcohol use during pregnancy, as reported on the vital statistics information, was 677. There is no indicator on the vital statistics information that indicates drug usage.

Medical literature documents the effects of fetal exposure to alcohol and drugs and the resulting birth defects and developmental disorders. The CDC suggests that although the exact nature of learning disabilities or behavioral abnormalities caused by fetal exposure to alcohol is unknown, FAS kids may experience significant cognitive and behavioral impairment due to fetal exposure to alcohol.²⁷

Most literature suggests that symptoms from FAS, alcohol-related birth defects or drug-related birth defects do not have to show up at birth to be considered a problem later in life.

²⁴National Center for Birth Defects and Developmental Disabilities and Prevention (NCBDDD), Preventing Alcohol Exposed Pregnancies Amongst High Risk Women in Special Community Based Settings, August 1999. NCEH Pub. No. 99-0302.

²⁵Preliminary Results from the 1997 National Household Survey, Section 9 Women of Childbearing Age.

²⁶Pregnant, Substance-Using Women, Treatment Improvement Protocol, DHHS Publication No. (SMA) 95-3056, reprinted 1995, foreward.

²⁷NCBDDD Fact Sheet, August 1999.

In order to perform this analysis the following ICD-9 codes were used to identify the population. Data were extracted from the SFY 1998 - 2000 Inpatient Claims files for the Fee-for-Service and from Managed Care encounter data:

<u>Code</u>	<u>Description</u>
	Noxious influences affecting fetus or newborn via placenta or breastmilk The 760 series identified below comes under this general heading.
760.71	Alcohol (FAS indicator used in this study)
760.72	Narcotics
760.73	Hallucinogenic Agents
760.75	Cocaine
779.4	Drug reactions and intoxications specific to newborns
779.5	Drug withdrawal syndrome in newborn

The primary diagnosis as well as all four secondary diagnoses were used in extracting these claims. The Inpatient claims file created for use in this study was merged with the established Medicaid/Vital Statistics matched file based on the infants recipient identification number. Interestingly enough, not all primary diagnosis codes were birth related codes. Approximately 15-20 percent of the non-specific birth related primary diagnosis codes found were related to other conditions originating in the perinatal period, and/or were found to be preterm births.

A simple test was calculated using the mother's response on the vital statistics file as to whether or not she consumed alcohol during pregnancy (see *Table 26* below). Of the mothers who answered "yes" to the alcohol consumption question on the vital statistics file, 28% delivered an infant diagnosed with FAS in SFY 2000. For those infants diagnosed with FAS, 28% of their mothers admitted to drinking alcohol while pregnant, 71% of the mothers did not admit to drinking while pregnant. This raises some important policy issues regarding early intervention, treatment and prenatal care for women at risk. Additionally it raises questions as to the validity of the reporting of this indicator on the birth certificate. The National Vital Statistics Report states that this indicator to be substantially under reported.

<u>Drinking During Pregnancy</u>	<u>FAS Diagnosis</u>								
	SFY 1998			SFY 1999			SFY 2000		
	Yes	No	Total	Yes	No	Total	Yes	No	Total
Yes	13	62	75	14	35	49	8	28	36
No	21	397	418	19	264	283	20	202	222
No Answer	0	0	0	0	1	1	0	0	0
Total	34	459	493	33	300	333	28	230	258

Tables 27a, b and c below and on the next page demonstrate statistics on Medicaid mothers and related prevalence rate (for all noxious influencing ICD-9 codes) when compared to the overall Medicaid population in these groups.

Table 27a: Mother's Race SFY 1998			
Categories	Number of Infants Born with Diagnosis	Total Medicaid Mothers	Prevalence Rate
<u>Mothers Race</u>			
African American	241	15,669	1.5%
White	150	43,274	0.3%
All Other	2	910	0.2%
Total	393	59,853	0.7%

Table 27b: Mother's Race SFY 1999			
Categories	Number of Infants Born with Diagnosis	Total Medicaid Mothers	Prevalence Rate
<u>Mothers Race</u>			
African American	176	14,537	1.2%
White	151	36,494	0.4%
All Other	26	887	2.9%
Total	353	51,918	0.7%

Table 27c: Mother's Race SFY 2000			
Categories	Number of Infants Born with Diagnosis	Total Medicaid Mothers	Prevalence Rate
<u>Mothers Race</u>			
African American	122	15,347	0.8%
White	133	38,531	0.3%
All Other	3	984	0.3%
Total	258	54,862	0.5%

Nationally for 2000 when looking at all races, reported drinking is less than one percent. However, amongst the African American population it is 1% and at 2.9% for American Indians.²⁸ In this report, of the three years reported the African American population had the highest prevalence of births with a diagnosis for any of the noxious influencing ICD-9 codes.

Table 28a: SFY 1998 Various Categories			
Categories	# of Infants Born with Diagnosis	# of Medicaid Mothers	Prevalence Rate
<u>Marital Status</u>			
Married	87	23,563	0.4%
Not Married	306	36,371	0.8%
<u>Age Groups</u>			
14-19 Years	20	14,083	0.1%
20-44 Years	373	45,861	0.8%
<u>Gestational Weeks</u>			
Less Than 37 (preterm)	153	6,494	2.4%
Greater Than 37	299	53,450	0.6%

Table 28b: SFY 1999 Various Categories			
Categories	# of Infants Born with Diagnosis	# of Medicaid Mothers	Prevalence Rate
<u>Marital Status</u>			
Married	92	17,792	0.5%
Not Married	241	34,120	0.7%
<u>Age Groups</u>			
14-19 Years	12	12,845	0.1%
20-44 Years	321	39,073	0.8%
<u>Gestational Weeks</u>			
Less Than 37 (preterm)	84	5,893	1.4%
Greater Than 37	249	46,025	0.6%

²⁸National Vital Statistics Report, 12.

Table 28c: SFY 2000 Various Categories			
Categories	# of Infants Born with Diagnosis	# of Medicaid Mothers	Prevalence Rate
<u>Marital Status</u>			
Married	68	18,125	0.4%
Not Married	190	36,713	0.5%
<u>Age Groups</u>			
14-19 Years	16	13,472	0.1%
20-44 Years	242	41,390	0.6%
<u>Gestational Weeks</u>			
Less Than 37 (preterm)	47	6,366	0.7%
Greater Than 37	211	48,496	0.6%

Table 28a, b and c illustrate that most Medicaid eligible women were not married and also had a higher prevalence of having a preterm birth. Not surprising, most mothers identified in the study that had a higher prevalence of not being married were teens. *Tables 31a, b and c* illustrate by county the prevalence rate of children born with a FAS Drug diagnosis. *Tables 29a, b and c* illustrate that women who had infants born with a diagnosis had a higher likelihood of having no prenatal care. *Tables 30a, b and c* illustrate the birth weight categories. While very low birth weight baby rates have declined, the rates for low birth weight remain the same.

Table 29a: SFY 1998 Prenatal Care			
Categories	# of Infants Born with Diagnosis	# of Medicaid Mothers	Prevalence Rate
First Trimester	206	45,524	0.5%
Second Trimester	78	10,170	0.8%
Third Trimester	33	1,913	1.7%
No Care	124	1,899	6.5%
Total	441	59,506	0.7%

Table 29b: SFY 1999 Prenatal Care			
Categories	# of Infants Born with Diagnosis	# of Medicaid Mothers	Prevalence Rate
First Trimester	173	39,728	0.4%
Second Trimester	72	8,374	0.9%
Third Trimester	30	1,611	1.9%
No Care	54	1,884	2.9%
Total	329	51,597	0.6%

Table 29c: SFY 2000 Prenatal Care			
Categories	# of Infants Born with Diagnosis	# of Medicaid Mothers	Prevalence Rate
First Trimester	127	41,741	0.3%
Second Trimester	57	8,698	0.7%
Third Trimester	16	1,397	1.1%
No Care	38	1,741	2.2%
Total	238	53,577	0.4%

Table 30a: SFY 1998 Birth Weight Categories			
Categories	# of Infants Born with Diagnosis	# of Medicaid Births	Prevalence Rate
Very Low Birth Weight	68	1,112	6.1%
Low Birth Weight	99	4,769	2.1%
Normal Birth Weight	274	54,063	0.5%
Total	441	59,944	0.7%

Table 30b: SFY 1999 Birth Weight Categories			
Categories	# of Infants Born with Diagnosis	# of Medicaid Births	Prevalence Rate
Very Low Birth Weight	10	1,065	0.9%
Low Birth Weight	77	4,280	1.8%
Normal Birth Weight	246	46,573	0.5%
Total	333	51,918	0.7%

Table 30c: SFY 2000 Birth Weight Categories			
Categories	# of Infants Born with Diagnosis	# of Medicaid Births	Prevalence Rate
Very Low Birth Weight	3	1,097	0.3%
Low Birth Weight	54	4,625	1.2%
Normal Birth Weight	201	49,140	0.4%
Total	258	54,862	0.7%

The infants identified in this section accounted for just under 1 percent of total Medicaid births in SFY 1998 - 2000. The statistics in this study show that the majority of women delivering infants with a diagnosis of alcohol or drug addiction are not receiving prenatal care. This indicates that a large proportion of these women may avoid prenatal care because of their substance abuse.

Much of the literature suggests that the focus should be prenatal care and treatment for pregnant women who abuse alcohol and drug, rather than the criminalization of these women at risk. It is critical that a continuum of prenatal and postpartum care exists, so that the quality of life can improve for both the mother and her family.²⁹

²⁹Pregnant, Substance-Using Women, Treatment Improvement Protocol.

Table 31a: SFY 1998 County Table of Drug or Alcohol Exposed Newborns

Counties	Newborns with Diagnosis	Percent of Newborn Population with Diagnosis	Total Medicaid Births	Percent of Medicaid Births
Adams	1	0.3%	231	0.4%
Allen	4	1.0%	554	0.7%
Ashtabula	3	0.8%	551	0.5%
Athens	1	0.3%	327	0.3%
Butler	3	0.8%	1,035	0.3%
Clark	6	1.6%	810	0.7%
Columbiana	2	0.5%	542	0.4%
Coshocton	1	0.3%	144	0.7%
Cuyahoga	126	32.6%	7,250	1.7%
Erie	2	0.5%	302	0.7%
Franklin	50	12.9%	4,080	1.2%
Geauga	1	0.3%	110	0.9%
Green	4	1.0%	422	0.9%
Hamilton	32	8.3%	3,934	0.8%
Hancock	1	0.3%	237	0.4%
Highland	1	0.3%	227	0.4%
Jefferson	1	0.3%	375	0.3%
Lake	3	0.8%	472	0.6%
Licking	2	0.5%	553	0.4%
Lorain	7	1.8%	1,313	0.5%
Lucas	34	8.8%	2,751	1.2%
Mahoning	33	8.5%	1,306	2.5%
Marion	2	0.5%	337	0.6%

Table 31a: SFY 1998 County Table of Drug or Alcohol Exposed Newborns

Counties	Newborns with Diagnosis	Percent of Newborn Population with Diagnosis	Total Medicaid Births	Percent of Medicaid Births
Montgomery	21	5.4%	2,538	0.8%
Portage	3	0.8%	526	0.6%
Richland	1	0.3%	654	0.2%
Sandusky	1	0.3%	312	0.3%
Stark	13	3.4%	1,643	0.8%
Summit	14	3.6%	2,375	0.6%
Trumbull	10	2.6%	1,095	0.9%
Tuscarawas	1	0.3%	358	0.3%
Vinton	1	0.3%	101	1.0%
Wayne	1	0.3%	333	0.3%
Wood	1	0.3%	327	0.3%
Total	387	100.0%	38,125	1.0%

Table 31b: SFY 1999 County Table of Drug or Alcohol Exposed Newborns

Counties	Newborns with Diagnosis	Percent of Newborn Population with Diagnosis	Total Medicaid Births	Percent of Medicaid Births
Allen	5	1.5%	553	0.9%
Ashland	1	0.3%	174	0.6%
Ashtabula	2	0.6%	504	0.4%
Brown	2	0.6%	212	0.9%
Butler	4	1.2%	1,059	0.4%
Clark	5	1.5%	738	0.7%

Table 31b: SFY 1999 County Table of Drug or Alcohol Exposed Newborns

Counties	Newborns with Diagnosis	Percent of Newborn Population with Diagnosis	Total Medicaid Births	Percent of Medicaid Births
Cuyahoga	120	37.0%	6,883	1.7%
Erie	3	0.9%	285	1.1%
Franklin	41	12.7%	4,074	1.0%
Geauga	1	0.3%	95	1.1%
Green	1	0.3%	439	0.2%
Guernsey	1	0.3%	248	0.4%
Hamilton	18	5.6%	3,819	0.5%
Lake	4	1.2%	430	0.9%
Lawrence	1	0.3%	431	0.2%
Licking	2	0.6%	582	0.3%
Lorain	4	1.2%	1,204	0.3%
Lucas	20	6.2%	2,618	0.8%
Mahoning	23	7.1%	1,254	1.8%
Marion	2	0.6%	311	0.6%
Medina	2	0.6%	279	0.7%
Miami	1	0.3%	298	0.3%
Montgomery	1	0.3%	2,497	0.0%
Muskingum	25	7.7%	484	5.2%
Ottawa	3	0.9%	131	2.3%
Portage	1	0.3%	490	0.2%
Richland	2	0.6%	661	0.3%
Ross	1	0.3%	380	0.3%
Scioto	2	0.6%	563	0.4%

Table 31b: SFY 1999 County Table of Drug or Alcohol Exposed Newborns

Counties	Newborns with Diagnosis	Percent of Newborn Population with Diagnosis	Total Medicaid Births	Percent of Medicaid Births
Shelby	2	0.6%	216	0.9%
Stark	1	0.3%	1,643	0.1%
Summit	10	3.1%	2,350	0.4%
Trumbull	13	4.0%	1,062	1.2%
Union	1	0.3%	126	0.8%
Warren	1	0.3%	270	0.4%
Wood	1	0.3%	309	0.3%
Total	324	100.0%	36,967	0.9%

Table 31c: SFY 2000 County Table of Drug or Alcohol Exposed Newborns

Counties	Newborns with Diagnosis	Percent of Newborn Population with Diagnosis	Total Medicaid Births	Percent of Medicaid Births
Allen	5	1.9%	587	0.9%
Ashtabula	6	2.3%	546	1.1%
Athens	1	0.4%	296	0.3%
Belmont	1	0.4%	305	0.3%
Butler	6	2.3%	1,221	0.5%
Clark	2	0.8%	765	0.3%
Clermont	2	0.8%	646	0.3%
Columbiana	2	0.8%	594	0.3%
Cuyahoga	57	22.2%	7,161	0.8%
Defiance	1	0.4%	159	0.6%

Table 31c: SFY 2000 County Table of Drug or Alcohol Exposed Newborns

Counties	Newborns with Diagnosis	Percent of Newborn Population with Diagnosis	Total Medicaid Births	Percent of Medicaid Births
Delaware	2	0.8%	198	1.0%
Franklin	39	15.2%	4,869	0.8%
Hamilton	20	7.8%	3,834	0.5%
Jefferson	1	0.4%	337	0.3%
Lake	2	0.8%	520	0.4%
Logan	2	0.8%	230	0.9%
Lorain	4	1.6%	1,290	0.3%
Lucas	18	7.0%	2,650	0.7%
Mahoning	23	8.9%	1,334	1.7%
Medina	1	0.4%	270	0.4%
Montgomery	22	8.6%	2,546	0.9%
Morrow	1	0.4%	112	0.9%
Muskingum	2	0.8%	514	0.4%
Pickaway	1	0.4%	192	0.5%
Portage	3	1.2%	466	0.6%
Richland	3	1.2%	608	0.5%
Ross	1	0.4%	410	0.2%
Sandusky	1	0.4%	247	0.4%
Scioto	1	0.4%	571	0.2%
Stark	5	1.9%	1,745	0.3%
Summit	10	3.9%	2,364	0.4%
Trumbull	11	4.3%	1,045	1.1%
Warren	1	0.4%	312	0.3%
Total	257	100.0%	38,944	0.7%

SECTION G: CHILD HEALTH DATA

This section presents limited child health data in order to fulfill the requirements of ORC Section 5111.09. In addition to the maternal and infant data presented elsewhere in this report, ORC Section 5111.09 requires Ohio to present data on the estimated number of children eligible for health care services, number of children receiving child health visits and the expenditures for these visits.

The data source for this section of the report is the SFY 1998 - 2000 ODJFS fee-for-service (non-MCP) claims data. For the purposes of this section, children are defined as male and female individuals 14 years old or less. This definition is primarily used because infants and childbearing females age 15 or older are covered in Sections B through D of this report. *Tables 32a, b and c* illustrate the number of eligibles, the number of recipients and the percent of eligibles having received at least one office visit reimbursed by Medicaid (recipients).

Table 32a: SFY 1998: Number of Medicaid (HF and HST) children eligible for health care services and number of eligibles receiving at least one office visit reimbursed by Medicaid through FFS			
Age Categories	Eligibles	Recipients	Percent
< 1year	49,258	38,804	78.8%
1-5 years	211,611	130,547	61.7%
6-14 years	249,271	115,948	46.5%
Total	510,140	285,299	55.9%

Table 32b: SFY 1999: Number of Medicaid (HF and HST) children eligible for health care services and number of eligibles receiving at least one office visit reimbursed by Medicaid through FFS.			
Age Categories	Eligibles	Recipients	Percent
< 1year	52,611	42,485	80.8%
1-5 years	233,140	148,490	63.7%
6-14 years	297,409	181,539	61.0%
Total	583,160	372,514	63.9%

Table 32c: SFY 2000: Number of Medicaid (HF and HST) children eligible for health care services and number of eligibles receiving at least one office visit reimbursed by Medicaid through FFS.

Age Categories	Eligibles	Recipients	Percent
< 1year	54,260	45,422	83.7%
1-5 years	229,601	172,665	75.2%
6-14 years	296,275	188,163	63.5%
Total	580,136	406,250	70.0%

Tables 33a, b and c on the following pages outline the number of office visits received by HF eligible children and the FFS expenditures for office visits. Tables 34a, b and c do the same for HST eligible children.

Table 33a: SFY 1998: Number of Child Health Visits (Office Visits) Reimbursed by Medicaid Through FFS - HF Eligibility Category

Age Categories	Total visits	Total Recipients	Visit/Recipient/Yr.	Total Expenditure
< 1year	67,111	19,606	5.4	\$3,417,786
1-5 years	344,341	77,517	4.4	\$10,076,658
6-14 years	226,727	72,006	3.1	\$6,669,617
Total	638,179	169,129	4.0	\$20,164,061
Average/recipient: \$119.22				

Table 33b: SFY 1999: Number of Child Health Visits (Office Visits) Reimbursed by Medicaid Through FFS - HF Eligibility Category

Age Categories	Total visits	Total Recipients	Visit/Recipient/Yr.	Total Expenditure
< 1year	107,625	20,161	5.3	\$3,846,174
1-5 years	337,560	80,200	4.2	\$10,815,504
6-14 years	348,965	114,490	3.0	\$11,014,073
Total	794,150	214,851	4.0	\$25,675,752
Average/recipient: \$119.50				

Table 33c: SFY 2000: Number of Child Health Visits (Office Visits) Reimbursed by Medicaid Through FFS - HF Eligibility Category:

Age Categories	Total visits	Total Recipients	Visit/Recipient/Yr.	Total Expenditure
< 1year	113,732	20,732	5.5	\$4,559,725
1-5 years	447,836	98,328	4.6	\$16,704,667
6-14 years	360,108	114,582	3.1	\$12,949,545
Total	921,676	233,642	4.0	\$34,213,938
Average/recipient: \$146.43				

Table 34a: SFY 1998: Number of Child Health Visits (Office Visits) Reimbursed by Medicaid Through FFS - HST Eligibility Category

Age Categories	Total Visits	Total Recipients	Visit/Recipient/Yr.	Total Expenditure
< 1year	104,368	19,198	5.4	\$3,074,957
1-5 years	221,639	53,030	4.2	\$6,183,723
6-14 years	121,000	43,942	2.8	\$3,589,309
Total	447,007	116,170	3.8	\$12,847,989
Average/recipient: \$110.59				

Table 34b: SFY 1999: Number of Child Health Visits (Office Visits) Reimbursed by Medicaid Through FFS - HST Eligibility Category

Age Categories	Total Visits	Total Recipients	Visit/Recipient/Yr.	Total Expenditure
< 1year	105,513	18,590	5.7	\$3,372,732
1-5 years	232,152	51,697	4.5	\$6,964,352
6-14 years	168,575	55,088	3.1	\$5,269,271
Total	506,240	125,375	4.0	\$15,606,355
Average/recipient: \$124.47				

Table 34c: SFY 2000: Number of Child Health Visits (Office Visits) Reimbursed by Medicaid Through FFS - HST Eligibility Category				
Age Categories	Total Visits	Total Recipients	Visit/Recipient/Yr.	Total Expenditure
< 1year	142,415	24,690	5.8	\$5,170,868
1-5 years	322,732	74,337	4.3	\$10,948,732
6-14 years	220,334	73,581	3.0	\$7,847,388
Total	685,481	172,608	5.1	\$23,966,988
Average/recipient: \$138.85				

SECTION H: INFANT MORTALITY DATA

Infant mortality data are presented here using SFY 1998 - 2000 for the Medicaid population. Consistent with the definition stated in Section B, the matched Medicaid population represents those births where both the mother and the infant matched with the VS file. The unmatched category below includes infants born in SFY 1998 - 2000, that did not match up with their mothers in the Vital Statistics file. They will be included in this section because they consistently represent a significant proportion of the population being discussed in this section. The SFY 1998 - 2000 Medicaid infant mortality rate per 1,000 Medicaid live births are illustrated in *Tables 35a, b and c*. Only those infants with a designated date of death in the Medicaid eligibility files within a one year to one and one half year span after the birth date were included in this file. There is no current matched Medicaid data available that would include information regarding the non-Medicaid population. The Centers for Disease Control and Prevention (CDC) indicated that the infant mortality rate for the U.S. calendar year 1999 was 7.0 infants deaths per 1000 births. This is 3 percent lower than in 1998. For Ohio in 1999 the CDC Ohio Health Facts indicates 8.2 infant death per 1000 births.³⁰

Table 35 (a, b and c) includes only those groups or aid categories that had recorded dates of death within the Medicaid eligibility files for SFY 1998 - 2000.

Table 35a: SFY 1998 Medicaid Infant Mortality			
Group	Number of Births	Number of recorded infant deaths	Infant mortality rates per 1,000 live births
Unmatched	6,299	74	11.7
HF/MCP	17,506	83	4.7
HST/MCP	4,469	36	8.1
HF/FFS	13,827	101	7.3
HST/FFS	15,648	99	6.3
Blind/Disabled	2,195	33	15.0

³⁰NCHS CDC Ohio Health Facts

Table 35b: SFY 1999 Medicaid Infant Mortality			
Group	Number of Births	Number of recorded infant deaths	Infant mortality rates per 1,000 live births
Unmatched	11,333	124	10.9
HF/MCP	7,829	54	6.9
HST/MCP	3,761	17	4.5
HF/FFS	11,485	84	7.3
HST/FFS	15,861	90	5.7
Blind/Disabled	1,649	14	8.5

Table 35c: SFY 2000 Medicaid Infant Mortality			
Group	Number of Births	Number of recorded infant deaths	Infant mortality rates per 1,000 live births
Unmatched	11,706	150	12.8
HF/MCP	7,330	59	8.0
HST/MCP	4,549	18	4.0
HF/FFS	12,043	80	6.6
HST/FFS	17,574	98	5.6
Blind/Disabled	1,660	10	6.0

According to the National Center for Health Statistics, data on birth outcomes, levels of low birth weight and preterm birth should be monitored because it is these variables that are important predictors of infant mortality and morbidity.³¹

Further gaps in infant mortality among these subgroups are heightened when breakdowns by race, age, tobacco use and other factors are examined. These will be illustrated on charts presented in this section. *Tables 36a, b and c* show differences in infant mortality rates among three race categories classified as African-American, White and All Other (All other combined, includes; Hispanic, Pacific Islander, and American Indian).

³¹NCHS, Infant Mortality Rate in 1999, January 2002.

As can be seen from the tables, for both the matched and unmatched Medicaid populations, the infant mortality rate for African-Americans is higher than that for Whites and the All Other race categories.

Infant Mortality Rates and Mother's Race

Table 36a: SFY 1998 Infant Mortality Rates By Race Medicaid by Group Comparison			
Race	Number of live births	Number of infant deaths	Infant mortality rates per 1,000 live births
<u>African American</u>			
Matched Medicaid	14,568	114	7.8
Unmatched Medicaid	1,101	16	14.5
<u>All Other*</u>			
Matched Medicaid	843	3	3.6
Unmatched Medicaid	158	0	0.0
<u>White</u>			
Matched Medicaid	38,234	229	6.0
Unmatched Medicaid	5,049	58	11.5

Table 36b: SFY 1999 Infant Mortality Rates By Race Medicaid by Group Comparison			
Race	Number of live births	Number of infant deaths	Infant mortality rates per 1,000 live births
<u>African American</u>			
Matched Medicaid	12,482	106	8.5
Unmatched Medicaid	2,055	18	8.8
<u>All Other*</u>			
Matched Medicaid	633	2	3.2
Unmatched Medicaid	260	2	7.7
<u>White</u>			
Matched Medicaid	27,466	152	5.5
Unmatched Medicaid	9,028	104	11.5

Table 36c: SFY 2000 Infant Mortality Rates By Race Medicaid by Group Comparison			
Race	Number of live births	Number of infant deaths	Infant mortality rates per 1,000 live births
<u>African American</u>			
Matched Medicaid	13,385	94	7.0
Unmatched Medicaid	1,962	31	15.8
<u>All Other*</u>			
Matched Medicaid	692	3	4.3
Unmatched Medicaid	292	1	3.4
<u>White</u>			
Matched Medicaid	29,079	168	5.8
Unmatched Medicaid	9,452	118	12.5

* Includes all other ethnic groups represented in the vital statistics file.

Infant Mortality Rates for Teens and Non-Teens

For teens in 1997, the infant mortality rate was 5.1 for matched teen moms and infants, this rate continued to grow in 1998 and 1999. For 2000 this rate has decreased to 5.3. The mother's age is a definite factor in neonatal mortality, with more deaths among infants born to teenagers. The 1999 rate for younger teens (15-17 years of age) was 17.6 compared to 11.2 for older teens (18-19 years of age).³² This was not necessarily true for the Medicaid births for SFY 1997.

Table 37a: SFY 1998 Infant Mortality Rates For Medicaid Teens and Non-Teens			
Groups	Number of live births	Number of infant deaths	Infant mortality rates per 1,000 live births
<u>Teens</u>			
Matched Medicaid	12,669	94	7.4
Unmatched Medicaid	1,414	9	6.4
<u>Non-Teens</u>			
Matched Medicaid	40,976	252	6.2
Unmatched Medicaid	4,885	65	13.3

Table 37b: SFY 1999 Infant Mortality Rates For Medicaid Teens and Non-Teens			
Groups	Number of live births	Number of infant deaths	Infant mortality rates per 1,000 live births
<u>Teens</u>			
Matched Medicaid	7,381	75	10.2
Unmatched Medicaid	2,464	26	10.6
<u>Non-Teens</u>			
Matched Medicaid	30,204	184	6.1
Unmatched Medicaid	8,869	98	11.1

³²National Vital Statistics Report. Infant Mortality Statistics from the 1999 period Linked Birth/ Infant Death Data Set. Vol. 50, No. 4, January 2002.

Table 37c: SFY 2000 Infant Mortality Rates For Medicaid Teens and Non-Teens			
Groups	Number of live births	Number of infant deaths	Infant mortality rates per 1,000 live births
<u>Teens</u>			
Matched Medicaid	10,948	58	5.3
Unmatched Medicaid	2,524	23	9.1
<u>Non-Teens</u>			
Matched Medicaid	32,208	207	6.4
Unmatched Medicaid	9,182	127	13.8

Infant Mortality Rates for Smokers and Non-Smokers

According to the Vital Statistics Report, maternal smoking during pregnancy increases the risk of low birth weight, preterm delivery, intrauterine growth retardation, and infant mortality. Nationally, statistics show the rate for smokers was 10.5, 59 percent higher than non-smokers at 6.6 in 2000. The report also goes on to say that as tobacco is used during pregnancy this will pass on such substances as nicotine, hydrogen cyanide, and carbon monoxide from the placenta to the fetal blood supply. These substances restrict the growing infant's access to oxygen and can lead to adverse pregnancy and birth outcomes.³³

Table 38a: SFY 1998 Infant Mortality Rates For Smokers and Non-Smokers			
Groups	Number of live births	Number of infant deaths	Infant mortality rates per 1,000 live births
<u>Smokers</u>			
Matched Medicaid	16,805	132	7.9
Unmatched Medicaid	1,264	20	15.8
<u>Non-Smokers</u>			
Matched Medicaid	36,812	214	5.8
Unmatched Medicaid	5,035	54	10.7

³³National Vital Statistics Report, 11.

Table 38b: SFY 1999 Infant Mortality Rates For Smokers and Non-Smokers			
Groups	Number of live births	Number of infant deaths	Infant mortality rates per 1,000 live births
<u>Smokers</u>			
Matched Medicaid	13,473	93	6.9
Unmatched Medicaid	2,837	25	8.8
<u>Non-Smokers</u>			
Matched Medicaid	27,006	165	6.1
Unmatched Medicaid	8,472	99	11.7

Table 38c: SFY 2000 Infant Mortality Rates For Smokers and Non-Smokers			
Groups	Number of live births	Number of infant deaths	Infant mortality rates per 1,000 live births
<u>Smokers</u>			
Matched Medicaid	14,393	115	8.0
Unmatched Medicaid	2,969	39	13.1
<u>Non-Smokers</u>			
Matched Medicaid	28,663	150	5.2
Unmatched Medicaid	8,712	110	12.6

Infant Mortality Rates for LBW and Non-LBW

Again, according to the National Vital Statistics Report, the birth weight and period of gestation are the two most important predictors of an infant's subsequent health and survival. Infants born too small and too soon have a much greater risk of death and disability.³⁴ Table 39a, b and c on the next page define the infant mortality rate by Very Low Birth weight (VLBW=<1,500 grams), Low Birth weight (LBW=1,500-2,499 grams), and Non-Low Birth weight (Non-LBW=>2,500 grams). As you can see by the tables, the VLBW rate for the both the Matched and Unmatched Medicaid group is extraordinarily high. This holds true to the statistics that many studies present, in that, VLBW births are often predictors of infant mortality.

³⁴National Vital Statistics Report, 12.

Table 39a: SFY 1998 Infant Mortality Rates For LBW and Non-LBW			
Groups	Number of live births	Number of infant deaths	Infant mortality rates per 1,000 live births
<u>VLBW</u>			
Matched Medicaid	963	110	114.2
Unmatched Medicaid	149	12	80.5
<u>LBW</u>			
Matched Medicaid	4,769	63	13.2
Unmatched Medicaid	508	11	21.7
<u>Non-LBW</u>			
Matched Medicaid	48,421	173	3.6
Unmatched Medicaid	5,642	51	9.0

Table 39b: SFY 1999 Infant Mortality Rates For LBW and Non-LBW			
Groups	Number of live births	Number of infant deaths	Infant mortality rates per 1,000 live births
<u>VLBW</u>			
Matched Medicaid	816	85	104.2
Unmatched Medicaid	249	31	124.5
<u>LBW</u>			
Matched Medicaid	3,416	40	11.7
Unmatched Medicaid	864	14	16.2
<u>Non-LBW</u>			
Matched Medicaid	36,713	134	3.7
Unmatched Medicaid	10,220	79	7.7

Table 39c: SFY 2000 Infant Mortality Rates For LBW and Non-LBW			
Groups	Number of live births	Number of infant deaths	Infant mortality rates per 1,000 live births
<u>VLBW</u>			
Matched Medicaid	868	76	87.6
Unmatched Medicaid	229	29	126.6
<u>LBW</u>			
Matched Medicaid	3,785	55	14.5
Unmatched Medicaid	840	15	17.9
<u>Non-LBW</u>			
Matched Medicaid	39,906	134	3.4
Unmatched Medicaid	10,637	106	10.0

APPENDIX A

***METHODOLOGY USED FOR COMPARING THE MEDICAID
AND THE NON-MEDICAID GROUPS***

The methodology used for analyzing the Medicaid sub-groups and non-Medicaid population was to merge the Vital Statistics (VS) and Medicaid Policy databases. The main goals in merging these databases were:

- 1) to retrieve from the VS database all the socio-demographic, behavioral, and clinical data that are not present in the Medicaid eligibility and claims files,
- 2) to compare the HF, HST and the non-Medicaid populations on clinical and socioeconomic variables, and
- 3) to compare the prenatal care experience and birth outcomes of the Medicaid eligible population (FFS and those recipients enrolled in MCPs) to that of the non-Medicaid population (i.e., child bearing women and infants).

The merged data for SFY 1998 - 2000 includes birth certificates for all infants born in Ohio during the period July 1, 1997 through June 30, 1998. July 1, 1998 - June 30, 1999 and July 1, 1999 - June 30, 2000. This report is a three year report. Absent a unique identifier, the birth certificate records for Medicaid eligible infants and women were identified through a step-wise matching process. Individuals were basically matched through name, the infant's gender, date of birth or delivery, county and/or address of residence. Medicaid eligible infants included in the match process are those who either had a birth claim that was paid for by Medicaid, had a birth encounter in the MCP encounter data files and/or were enrolled in a managed care program as of the first month of their life. Similarly, Medicaid eligible women included in the match process were those who either had a delivery claim that was paid for by Medicaid, had a delivery encounter in the MCP encounter data files, and/or were enrolled in an MCP in the month of delivery.

The matched group of mothers and infants was determined to be representative of the entire Medicaid mother and infant population. The total population and match rate for each fiscal year are presented in Table 1 of Section B.

Table 2 of Section B shows the distribution of Medicaid births compared to total Ohio births. This distribution implies that the Medicaid program paid for

approximately 34 percent of all Ohio births in SFY 1998. SFY 1999 yielded 30 percent as did SFY 2000.

For infants and mothers who successfully matched with their birth certificate record, the complete history of eligibility and utilization was retrieved from the Medicaid files as follows:

For **infants**, eligibility and utilization data were analyzed. Eligibility data were retrieved to enable analysis both by aid category and by source of care (FFS versus MCP). For infants receiving health services through the FFS system, utilization data include the birth episode (birth outcomes through claims analysis and associated expenditures), as well as all health services received in the first year of life. Specifically, services were counted to assess the amount of preventive and evaluation services received by Medicaid eligible FFS infants. In addition, data were retrieved to analyze utilization of inpatient services and the associated expenditures. For infants all medicaid, risk factors and indicators of birth outcomes (mainly birth weight) were retrieved from the VS record. Expenditures data for infants enrolled in MCPs will not be available to report through the Medicaid Encounter data.

For **mothers**, eligibility and utilization data were also retrieved. As with infants, eligibility data are intended to enable analysis both by aid category and by source of care (FFS versus MCP). For women all medicaid, prenatal care data were retrieved from the VS record. As with the infants, no utilization or expenditure data that are comparable to that of the FFS population were available since services are not captured through claims for MCP enrollees.

Since the source of most of the data in this report is the linked Vital Statistics/Medicaid Policy database file, many of the data elements (especially those of a clinical nature such as the infant's birth weight) were retrieved from the Vital Statistics file, either because these variables are not present in the Medicaid eligibility and claims files, or because it was believed that the birth certificate is a more reliable source of such data. Also, analysis using variables that are retrieved from the Vital Statistics file enables valid comparisons to be made among the various groups considered in this study, mainly because such variables are not available in the Medicaid database for the non-Medicaid population.

On the other hand, the Medicaid claims data offer analytical possibilities that the use of the Vital Statistics database by itself fails to provide. Because of the presence of dates of service on the claims record, it is possible, for example, to perform claims-based analysis of the initiation, timing, and frequency of prenatal care services, given that the number of gestational weeks at the time of delivery is retrieved from the birth certificate record.

Such an analysis would indicate the distribution of prenatal visits through the duration of pregnancy given a point of entry in prenatal care. The Medicaid files also offer the opportunity to perform cost analysis for groups of women and infants who receive their care through the FFS system.

To summarize the data retrieval process:

Data were retrieved from the birth certificate when:

- a) the variables are not available in the Medicaid eligibility and claims files (such as the use of alcohol during pregnancy),
- b) the variables are believed to be more accurate when retrieved from the birth certificate, particularly when the variables are of a clinical nature (such as birth weight and gestational weeks), and
- c) comparisons are made between the Medicaid and non-Medicaid populations and among the various groups of the Medicaid populations.

Data were retrieved from the Medicaid files when:

- a) the variables are not available in the Vital Statistics file, and
- b) the data are specific to the Medicaid program (e.g., eligibility and expenditures data).

APPENDIX B

DATA FOR STATE FISCAL YEARS 1995 -2000

TABLE 1: TEENAGE PREGNANCY FIGURES (PERCENT OF TOTAL)

Eligibility Category	PERCENT TEEN MOTHERS						
	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average
FFS							
HF	29.50	30.70	25.70	28.33	29.17	28.50	28.65
HST	26.37	25.80	22.55	26.85	25.65	26.10	25.55
MCP							
HF			18.10	17.57	23.87	23.40	20.74
HST			20.88	21.73	20.31	19.26	20.55
Non-Medicaid	4.48	4.85	4.93	4.96	4.86	5.11	4.87

TABLE 2: MARITAL STATUS FIGURES (PERCENT UNMARRIED)

Eligibility Category	PERCENT UNMARRIED MOTHERS						
	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average
FFS							
HF	76.80	76.86	68.70	71.1	77.3	77.90	74.78
HST	48.03	50.84	50.41	55.9	59.2	63.00	54.56
MCP							
HF			62.40	60.5	83.0	83.10	72.25
HST			59.06	62.4	65.3	67.00	63.44
Non-Medicaid	10.12	11.71	12.20	12.75	13.23	14.90	12.49

TABLE 3: RACIAL DISTRIBUTION (PERCENT NONWHITE)

Eligibility Category	PERCENT NONWHITE						
	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average
FFS							
HF	32.79	30.19	26.65	26.62	35.42	37.83	31.58
HST	12.12	11.99	12.54	12.53	14.61	15.65	13.24
MCP							
HF			44.95	43.05	61.90	62.62	53.13
HST			34.63	30.60	31.74	31.88	32.21
Non-Medicaid							
Non-Medicaid	7.65	8.13	8.57	8.74	9.21	10.14	8.74

TABLE 4: LEVEL OF EDUCATION FOR ADULT WOMEN AGE > 19

Eligibility Category	PERCENT WITH 12 OR MORE YEARS OF EDUCATION						
	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average
FFS							
HF	60.57	60.07	60.23	59.66	57.52	55.19	58.87
HST	74.87	75.42	71.67	72.69	72.74	71.40	73.13
MCP							
HF			65.38	66.09	57.91	58.55	61.98
HST			71.60	75.32	73.65	75.40	73.99
Non-Medicaid							
Non-Medicaid	93.31	92.74	93.49	92.91	92.35	91.93	92.79

TABLE 5: MOTHERS DELIVERING 12-18 MONTHS AFTER THE PREVIOUS DELIVERY

Eligibility Category	PERCENT MOTHERS WITH PREVIOUS DELIVERY						
	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average
FFS							
HF	16.13	15.64	7.87	14.4	6.3	15.40	12.62
HST	12.55	12.49	6.73	12.6	3.9	12.90	10.20
MCP							
HF			7.38	13.2	6.6	14.00	10.30
HST			5.13	10.7	3.6	11.00	7.61
Non-Medicaid							
Non-Medicaid	8.75	8.77	4.39	8.5	3.2	8.90	7.09

TABLE 6: MOTHERS DELIVERING LESS THAN 12 MONTHS AFTER THE PREVIOUS DELIVERY

Eligibility Category	PERCENT MOTHERS WITH PREVIOUS DELIVERY						
	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average
FFS							
HF	5.34	5.13	2.97	5.48	5.62	5.36	4.98
HST	3.50	3.62	1.68	3.22	3.25	3.30	3.10
MCP							
HF			1.87	4.20	5.75	5.93	4.44
HST			1.56	3.41	3.20	3.59	2.94
Non-Medicaid							
Non-Medicaid	1.50	1.60	0.95	1.58	1.69	1.85	1.53

TABLE 7: MOTHERS WITH DELIVERY OF FOUR OR MORE CHILDREN

Eligibility Category	PERCENT MOTHERS WITH FOUR OR MORE CHILDREN						
	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average
FFS							
HF	12.52	12.30	14.92	12.30	14.70	15.65	13.73
HST	6.81	7.10	9.62	7.69	8.45	8.61	8.05
MCP							
HF	/ / / / / / / /	/ / / / / / / /	19.14	18.46	22.08	20.97	20.16
HST	/ / / / / / / /	/ / / / / / / /	11.14	9.24	10.85	10.90	10.53
Non-Medicaid							
Non-Medicaid	8.23	8.20	7.83	8.11	8.87	9.96	8.53

TABLE 8: CONSUMPTION OF TOBACCO DURING PREGNANCY

Eligibility Category	PERCENT MOTHERS SMOKING CIGARETTES						
	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average
FFS							
HF	39.06	39.02	39.14	39.41	38.54	38.83	39.00
HST	30.97	30.74	33.78	32.89	33.16	34.23	32.63
MCP							
HF	/ / / / / / / /	/ / / / / / / /	24.47	24.07	28.31	26.15	25.75
HST	/ / / / / / / /	/ / / / / / / /	25.61	26.09	25.29	25.24	25.56
Non-Medicaid							
Non-Medicaid	11.97	11.82	11.43	11.77	11.24	11.35	11.60

TABLE 9: CONSUMPTION OF ALCOHOL DURING PREGNANCY

Eligibility Category	PERCENT MOTHERS CONSUMING ALCOHOL						
	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average
FFS							
HF	3.64	2.72	2.78	2.06	1.62	1.39	2.37
HST	2.07	1.60	1.61	1.42	1.05	1.13	1.48
MCP							
HF			2.09	1.51	1.60	1.61	1.70
HST			1.93	1.28	.80	0.99	1.25
Non-Medicaid							
Non-Medicaid	1.41	1.17	1.10	.88	.72	0.61	0.98

TABLE 10: LOW MATERNAL WEIGHT GAIN DURING PREGNANCY (<=22 lbs)

Eligibility Category	PERCENT MOTHERS WITH LOW MATERNAL WEIGHT GAIN						
	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average
FFS							
HF	25.43	27.07	28.85	29.20	29.26	28.67	28.08
HST	21.91	23.62	26.42	25.93	25.35	24.88	24.69
MCP							
HF			28.11	28.45	28.75	28.64	28.49
HST			26.00	23.90	22.79	23.81	24.13
Non-Medicaid							
Non-Medicaid	20.34	21.90	22.39	23.20	23.23	22.92	22.33

TABLE 11: PRETERM DELIVERY (GESTATIONAL WEEKS < 37)

Eligibility Category	PRETERM DELIVERY (GESTATIONAL WEEKS <37)						
	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average
FFS							
HF	10.16	10.97	11.20	11.08	12.12	12.38	11.32
HST	9.59	10.41	10.21	10.22	10.84	11.12	10.40
MCP							
HF			10.97	10.37	12.01	12.50	11.46
HST			9.96	9.80	9.73	10.73	10.06
Non-Medicaid							
Non-Medicaid	7.50	7.82	8.12	8.51	8.85	9.06	8.31

TABLE 12: STATEWIDE LOW BIRTH WEIGHT (LBW) RATE

The LBW rate is defined as the percent of infants weighing less than 2500 grams or 5.5 lbs at birth.

Eligibility Category	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average
	FFS						
HF	9.8	10.2	10.8	10.6	11.4	11.8	10.8
HST	8.1	9.0	9.1	8.8	9.4	9.9	9.1
MCP							
HF	11.1	10.7	9.7	9.4	11.2	11.5	10.6
HST	7.0	8.9	8.8	9.2	8.7	9.1	8.6
Non-Medicaid							
Non-Medicaid	5.6	5.8	5.9	6.2	6.3	6.5	6.1

TABLE 13a: ELIGIBILITY FOR MEDICAID PRIOR TO DELIVERY (HF /FFS)

Eligibility Timeframe	PERCENT HF/FFS WOMEN WITH ELIGIBILITY						
	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average
AT DELIVERY	1.5	2.2	3.0	4.3	4.4	5.3	3.4
1-3 MONTHS BEFORE DELIVERY	6.1	8.7	9.5	11.3	12.2	12.8	10.1
4-6 MONTHS BEFORE DELIVERY	14.5	17.9	18.0	16.8	17.5	17.2	17.0
7-9 MONTHS BEFORE DELIVERY	77.9	71.2	69.5	67.5	65.7	64.5	74.7

TABLE 13b: ELIGIBILITY FOR MEDICAID PRIOR TO DELIVERY (HF /MCP)

Eligibility timeframe	PERCENT HF/MCP WOMEN WITH ELIGIBILITY						
	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average
AT DELIVERY	0.00	0.02	0.16	.13	.05	0.05	0.07
1-3 MONTHS BEFORE DELIVERY	2.1	2.7	3.4	3.4	3.8	3.9	3.2
4-6 MONTHS BEFORE DELIVERY	8.0	9.3	9.0	8.9	10.9	14.8	10.1
7-9 MONTHS BEFORE DELIVERY	89.9	87.9	87.5	87.4	85.1	82.6	86.7

TABLE 14a: ELIGIBILITY FOR MEDICAID PRIOR TO DELIVERY (HST/FFS)

Eligibility timeframe	PERCENT HST WOMEN WITH ELIGIBILITY						
	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	AVERAGE
AT DELIVERY	3.6	3.5	4.2	4.8	4.9	4.4	4.2
1-3 MONTHS BEFORE DELIVERY	12.2	14.0	13.1	15.9	16.5	15.5	14.5
4-6 MONTHS BEFORE DELIVERY	31.7	33.4	28.9	30.4	29.7	30.4	30.7
7-9 MONTHS BEFORE DELIVERY	52.5	49.1	53.9	48.8	48.8	49.5	50.4

TABLE 14b: ELIGIBILITY FOR MEDICAID PRIOR TO DELIVERY (HST/MCP)

Eligibility timeframe	PERCENT HST/MCP WOMEN WITH ELIGIBILITY						
	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average
AT DELIVERY	0.2	0.1	0.2	0.0	0.2	0.2	0.1
1-3 MONTHS BEFORE DELIVERY	8.7	6.4	9.0	8.4	7.5	8.0	8.0
4-6 MONTHS BEFORE DELIVERY	34.4	32.4	34.1	34.5	33.2	35.3	34.0
7-9 MONTHS BEFORE DELIVERY	56.7	61.1	56.7	56.9	59.1	56.4	57.8

TABLE 15: LOW BIRTH WEIGHT (LBW) DISTRIBUTION (MCP & FFS COMPARISON IN URBAN COUNTIES)

Eligibility Category	PERCENT MOTHERS WITH LBW						
	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	AVERAGE
HF/MCP	11.17	10.81	11.25	10.57	11.39	11.29	11.08
HF/FFS	11.04	12.29	13.97	13.34	12.77	13.32	12.79
HST/MCP	7.00	8.87	9.23	9.37	8.96	9.04	8.75
HST/FFS	9.61	11.28	11.25	11.80	11.64	12.03	11.27

TABLE 16a: LBW DISTRIBUTION BY TRIMESTER OF PRENATAL CARE (STATEWIDE COMPARISON)

RATE OF LOW BIRTH WEIGHT							
	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	AVERAGE
	HF/FFS						
FIRST TRIMESTER	9.04	9.53	10.55	10.21	11.46	11.26	10.34
SECOND TRIMESTER	9.86	10.07	10.10	10.10	9.95	11.79	10.31
THIRD TRIMESTER	8.38	9.79	11.10	9.10	8.94	10.42	9.62
NO PRENATAL CARE	26.74	24.23	22.33	22.70	21.98	18.44	22.74

HST/FFS							
FIRST TRIMESTER	7.76	8.67	9.03	8.65	9.26	9.80	8.86
SECOND TRIMESTER	8.72	8.47	8.99	8.34	9.10	9.47	8.85
THIRD TRIMESTER	5.37	10.03	6.13	7.56	9.19	4.88	7.19
NO PRENATAL CARE	17.82	25.48	26.71	24.65	18.81	21.60	22.51

NON-MEDICAID							
FIRST TRIMESTER	5.50	5.56	5.76	6.01	6.25	6.24	5.89
SECOND TRIMESTER	5.91	6.08	6.78	6.30	6.07	6.94	6.35
THIRD TRIMESTER	5.52	6.17	6.28	7.52	7.71	6.37	6.60
NO PRENATAL CARE	19.20	25.16	15.35	14.81	14.86	16.85	17.71

MCP										
	SFY 1997		SFY 1998		SFY 1999		SFY 2000		Four Year Average	
	HF	HST	HF	HST	HF	HST	HF	HST	HF	HST
FIRST TRIMESTER	9.45	8.91	8.99	9.43	10.90	9.06	11.23	9.22	10.14	9.16
SECOND TRIMESTER	9.93	7.38	9.80	7.54	9.85	7.22	11.54	7.58	10.28	7.43
THIRD TRIMESTER	8.19	14.08	7.39	4.84	8.24	2.04	12.64	2.50	9.12	5.87
NO PRENATAL CARE	20.21	10.31	18.40	16.35	17.92	7.96	13.40	9.78	17.48	11.10

TABLE 16b: INITIATION OF PRENATAL CARE (STATEWIDE COMPARISON)

INITIATION OF PRENATAL CARE							
	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY2000	AVERAGE
HF/FFS							
FIRST TRIMESTER	70.8	72.6	73.2	72.7	71.6	71.7	72.1
SECOND TRIMESTER	22.1	20.9	19.4	19.7	19.9	20.0	20.3
THIRD TRIMESTER	4.3	4.1	4.8	4.3	4.3	3.6	4.2
NO PRENATAL CARE	2.8	2.5	2.7	3.2	3.9	4.6	3.3

HST/FFS							
FIRST TRIMESTER	76.3	78.0	78.1	72.2	78.3	78.6	76.9
SECOND TRIMESTER	19.6	18.1	17.4	18.0	16.4	16.5	17.7
THIRD TRIMESTER	2.9	2.6	3.2	2.8	3.0	2.4	2.8
NO PRENATAL CARE	1.2	1.4	1.4	1.8	2.1	2.3	1.7

NON-MEDICAID							
FIRST TRIMESTER	91.5	91.8	92.0	91.7	91.4	91.5	91.7
SECOND TRIMESTER	6.8	6.5	6.0	5.7	5.9	6.1	6.2
THIRD TRIMESTER	1.1	1.2	1.3	1.0	1.1	1.0	1.1
NO PRENATAL CARE	0.6	0.5	8.4	1.5	1.4	1.3	2.3

MCP										
	SFY 1997		SFY 1998		SFY 1999		SFY 2000		Four Year Average	
	HF	HST	HF	HST	HF	HST	HF	HST	HF	HST
FIRST TRIMESTER	74.9	80.1	75.8	82.5	73.9	83.0	76.2	84.4	75.20	82.50
SECOND TRIMESTER	17.6	15.6	16.8	13.7	15.9	12.6	16.7	12.5	16.75	13.60
THIRD TRIMESTER	4.4	1.4	3.4	1.4	3.4	1.3	2.6	.91	3.45	1.25
NO PRENATAL CARE	2.9	2.3	3.8	2.3	6.7	3.0	4.3	2.0	4.43	2.40

TABLE 17: COMPARISON OF SOCIODEMOGRAPHIC AND BEHAVIORAL PROFILES FOR HF/FFS & HF/MCP MOTHERS RESIDING IN URBAN COUNTIES (CUYAHOGA, FRANKLIN, MONTGOMERY, HAMILTON, LUCAS & SUMMIT).

URBAN COUNTIES ONLY														
PROFILE %	SFY 1995		SFY 1996		SFY 1997		SFY 1998		SFY 1999		SFY 2000		AVERAGE	
	HF/FFS	HF/MCP	HF/FFS	HF/MCP	HF/FFS	HF/MCP	HF/FFS	HF/MCP	HF/FFS	HF/MCP	HF/FFS	HF/MCP	HF/FFS	HF/MCP
SMOKING	32.89	32.47	30.76	30.76	29.93	26.52	29.58	26.66	28.84	27.27	29.31	25.19	30.22	28.15
ALCOHOL USE	4.01	4.32	3.01	3.05	2.92	2.39	2.19	1.70	1.62	1.59	1.18	1.58	2.49	2.44
UNMARRIED	83.48	85.89	82.40	87.02	76.17	74.70	79.12	73.72	83.29	83.31	84.47	83.79	81.49	81.41
TEEN	30.02	24.00	31.55	24.45	30.34	21.20	33.75	21.21	32.52	23.94	30.83	23.25	31.50	23.01
NON-WHITE	54.36	65.25	53.54	63.61	54.01	57.35	55.37	88.75	60.11	64.36	63.85	65.84	56.87	67.53
4TH OR MORE CHILD	14.08	22.13	13.92	20.93	15.82	19.35	13.41	18.55	15.13	22.23	16.82	21.21	14.86	20.73
NO PRENATAL CARE	4.45	3.91	3.89	4.38	5.50	3.77	7.14	4.97	8.07	7.36	9.52	4.85	6.43	4.87
EDUCATION YRS. < 12	40.55	44.41	40.37	43.95	40.51	37.10	41.92	36.55	44.10	12.01	47.00	41.68	42.41	35.95
GEST. WEEKS < 37	11.80	11.01	13.22	12.16	14.01	12.08	14.79	11.53	13.84	12.03	13.80	12.27	13.58	11.85
WEIGHT GAIN < 23 LBS.	24.73	28.20	26.47	29.04	27.05	28.19	25.93	28.10	27.24	28.37	26.11	28.28	26.26	28.36
SPACING < 12 MONTHS	5.02	5.41	4.40	5.02	5.37	3.72	5.50	4.28	5.81	5.56	5.77	5.76	5.31	4.96

TABLE 18: LBW INCIDENCE FOR HF/MCP AND HF/FFS INFANTS IN URBAN COUNTIES (CUYAHOGA, FRANKLIN, MONTGOMERY, HAMILTON, LUCAS & SUMMIT).

URBAN COUNTIES ONLY														
	SFY 1995		SFY 1996		SFY 1997		SFY 1998		SFY 1999		SFY 2000		AVERAGE	
PROFILE %	HF/FFS	HF/MCP	HF/FFS	HF/MCP	HF/FFS	HF/MCP	HF/FFS	HF/MCP	HF/FFS	HF/MCP	HF/FFS	HF/MCP	HF/FFS	HF/MCP
SMOKING	13.30	14.54	14.88	13.34	17.52	13.62	15.25	14.17	15.72	13.03	14.87	12.57	15.26	13.55
ALCOHOL USE	24.46	16.48	23.71	20.09	28.80	23.10	22.47	25.24	27.03	28.32	13.79	15.38	23.38	21.44
UNMARRIED	11.20	11.32	12.29	9.11	14.55	11.81	13.83	11.52	12.70	10.93	13.05	11.46	12.94	11.03
TEEN	10.31	9.98	11.34	10.41	12.88	10.27	12.85	11.27	12.46	10.62	14.46	10.67	12.38	10.54
NON-WHITE	13.04	12.40	14.04	14.88	15.92	12.78	15.31	12.56	14.06	12.29	14.12	12.13	14.42	12.84
4TH OR MORE CHILD	16.52	13.83	14.80	14.88	19.60	14.60	21.32	15.12	14.76	15.36	15.25	13.56	17.04	14.56
NO PRENATAL CARE	26.91	24.54	24.32	22.08	20.55	19.58	23.08	18.68	22.86	17.60	18.78	13.58	22.75	19.34
EDUCATION YRS. < 12	11.80	11.64	13.20	12.03	14.32	11.24	14.05	11.99	12.36	11.60	13.41	10.55	13.19	11.51
GEST. WEEKS < 37	59.53	62.50	60.10	59.38	65.70	61.80	65.50	63.08	66.46	62.97	65.93	62.16	63.87	61.98
WEIGHT GAIN < 23 LBS.	17.14	16.74	18.95	15.80	20.98	15.73	20.15	15.69	19.21	16.69	19.88	16.68	19.39	16.22
SPACING < 12 MONTHS	17.87	20.36	25.14	19.38	22.72	17.44	28.70	17.88	20.82	17.14	19.14	18.37	22.40	18.43

TABLE 19: INCIDENCE OF LOW BIRTH WEIGHT BY SOCIODEMOGRAPHIC AND BEHAVIORAL VARIABLES

STATEWIDE-- ALL STUDY GROUPS COMBINED														
PROFILE %	SFY 1995		SFY 1996		SFY 1997		SFY 1998		SFY 1999		SFY 2000		AVERAGE	
	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
SMOKING	11.35	6.26	11.28	6.42	11.78	6.56	11.35	6.74	11.41	6.88	11.58	7.01	11.46	6.65
ALCOHOL USE	14.10	7.18	13.05	7.29	13.38	7.45	14.81	7.54	12.60	7.68	12.81	7.83	13.46	7.50
UNMARRIED	10.45	5.87	10.48	5.89	10.73	6.16	10.81	6.22	10.53	6.54	10.77	6.53	10.63	6.20
TEEN	9.61	7.00	9.77	7.03	9.71	7.32	10.25	7.33	10.02	7.52	10.44	7.62	9.97	7.30
NON-WHITE	12.57	6.36	12.70	6.38	12.49	6.66	12.80	6.69	12.77	6.84	12.57	7.00	12.65	6.66
4TH OR MORE CHILD	9.65	7.11	9.49	7.17	9.78	7.30	10.23	7.35	9.82	7.51	9.86	7.65	9.81	7.35
SPACING LESS THAN 12 MONTHS	16.59	5.65	15.13	5.71	14.12	5.88	15.67	5.59	16.51	5.77	15.47	5.84	15.58	5.74
EDUCATION YEARS <12	10.29	6.71	10.59	6.71	10.42	7.05	10.76	7.05	10.48	7.28	10.42	7.44	10.49	7.04
NO PRENATAL CARE	24.28	7.07	25.48	7.07	20.50	7.37	18.86	7.27	17.77	7.40	17.93	7.48	20.80	7.28
PREGNANCY WEIGHT GAIN <= 22 LBS	12.27	5.97	11.99	5.99	12.21	6.16	12.33	6.16	12.47	6.31	12.10	6.63	12.23	6.20
GESTATIONAL WEEKS < 37	55.87	2.66	54.38	2.67	56.35	2.64	56.39	2.60	56.32	2.56	55.22	2.69	55.76	2.64

TABLE 20: COMPARISON OF DELIVERY METHODS FOR HF/FFS , HF/MCP & NON-MEDICAID WOMEN

ALL COUNTIES														
	SFY 1995		SFY 1996		SFY 1997		SFY 1998		SFY 1999		SFY 2000		AVERAGE	
DELIVERY METHOD (%)	HF/ FFS	HF/ MCP	HF/ FFS	HF/ MCP	HF/ FFS	HF/ MCP	HF/ FFS	HF/ MCP	HF/ FFS	HF/ MCP	HF/ FFS	HF/ MCP	HF/ FFS	HF/ MCP
Forceps	3.9	3.1	3.2	3.8	2.7	3.5	2.8	3.5	2.0	1.7	2.4	1.8	2.83	2.90
Primary C-Sect	11.5	8.6	10.8	8.9	10.7	9.7	10.9	9.9	17.4	15.0	10.6	9.8	11.98	10.32
Repeat C-Sect	7.3	6.7	6.4	6.7	7.0	6.6	6.4	6.6	10.5	11.9	7.1	7.5	7.45	7.67
Vacuum	6.0	5.4	6.7	5.1	6.6	5.1	6.9	5.2	5.2	3.3	5.1	3.5	6.08	4.60
Vaginal	68.1	71.9	70.0	71.6	69.2	71.4	70.0	71.2	59.7	61.4	71.2	73.6	68.03	70.18
VBAC (Vaginal Birth After C-Sect)	3.1	4.9	2.9	3.9	3.7	3.7	3.1	3.6	5.3	6.7	3.6	3.9	3.62	4.45

ALL COUNTIES							
	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	AVERAGE
DELIVERY METHOD (%)							
Forceps	5.5	4.6	4.6	4.3	3.5	3.4	4.32
Primary C-Sect	12.7	12.3	12.4	12.2	19.2	12.7	13.58
Repeat C-Sect	8.8	8.0	7.7	7.9	12.2	7.8	8.73
Vacuum	8.7	9.3	9.4	9.2	6.9	6.9	8.40
Vaginal	61.0	62.2	62.8	63.6	53.0	66.3	61.48
VBAC (Vaginal Birth After C-Sect)	3.2	3.3	3.2	3.2	5.2	2.8	3.48

APPENDIX C

COUNTY DATA FOR STATE FISCAL YEARS 1992 -2000

**TOTAL MEDICAID BIRTHS
FOR STATE FISCAL YEARS 1992-2000**

COUNTY	SFY 1992	SFY 1993	SFY 1994	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average of Medicaid Births SFY 1992-2000	Medicaid Births as a Percent of Ohio Births (based on average)	Medicaid Births as a Percent of Ohio Births for SFY 00
Adams	207	235	222	226	202	194	231	192	200	212	60%	52%
Allen	702	662	673	603	600	586	554	553	587	613	42%	38%
Ashland	201	222	204	200	206	179	164	174	224	197	30%	30%
Ashtabula	615	708	651	689	613	602	551	504	546	609	47%	41%
Athens	331	362	373	354	320	370	327	292	296	336	56%	48%
Auglaize	163	171	164	163	135	132	126	112	119	143	24%	20%
Belmont	352	357	387	316	320	340	302	300	305	331	51%	53%
Brown	256	256	237	258	212	237	220	212	237	236	44%	41%
Butler	1,323	1,422	1,387	1,264	1,203	1,174	1,035	1,059	1,221	1,232	28%	25%
Carroll	100	125	160	134	110	103	126	108	115	120	40%	36%
Champaign	163	164	180	145	150	162	159	147	172	160	33%	34%
Clark	960	932	891	875	743	801	810	738	765	835	44%	41%
Clermont	705	743	672	584	609	636	623	670	646	654	26%	24%
Clinton	165	194	166	172	167	124	178	154	178	166	30%	29%
Columbiana	646	693	606	616	603	487	542	527	594	590	45%	45%
Coshocton	206	205	206	165	151	151	144	143	160	170	40%	34%
Crawford	250	279	280	246	259	248	195	232	232	247	42%	38%
Cuyahoga	9,408	9,584	9,117	8,176	7,821	7,620	7,250	6,883	7,161	8,113	41%	39%
Darke	210	210	254	219	214	189	184	165	182	203	29%	27%
Defiance	161	170	163	149	147	161	164	177	159	161	32%	31%
Delaware	191	203	211	205	219	203	192	190	198	201	18%	13%
Erie	318	384	381	361	333	323	302	285	320	334	34%	33%
Fairfield	415	427	393	414	412	414	401	374	369	402	27%	22%
Fayette	149	199	175	162	157	162	180	155	171	168	46%	47%
Franklin	5,206	5,638	5,381	5,210	4,498	4,488	4,080	4,074	4,869	4,827	31%	29%
Fulton	158	158	157	161	144	139	121	130	118	143	26%	21%
Gallia	216	220	215	218	203	211	196	210	216	212	55%	57%
Geauga	122	151	155	137	137	133	110	95	101	127	11%	9%
Greene	381	456	443	450	401	391	422	439	426	423	26%	25%
Guernsey	285	308	329	346	324	259	275	248	285	295	50%	55%
Hamilton	4,983	5,048	4,864	4,485	4,044	4,033	3,934	3,819	3,834	4,338	35%	32%
Hancock	266	265	294	301	257	261	237	264	278	269	29%	31%
Hardin	153	154	182	173	168	162	144	158	126	158	40%	33%
Harrison	117	118	108	92	94	98	81	69	72	94	58%	50%
Henry	87	99	112	98	90	110	98	93	84	97	25%	22%
Highland	193	205	230	235	221	195	227	214	247	219	42%	42%
Hocking	169	176	157	158	152	139	157	151	166	158	27%	48%
Holmes	56	85	67	68	74	80	81	80	78	74	9%	9%
Huron	353	341	343	350	353	323	308	297	326	333	38%	36%
Jackson	243	231	251	231	240	216	232	199	230	230	54%	51%
Jefferson	443	438	415	469	398	397	375	327	337	400	52%	48%
Knox	220	231	215	212	187	216	168	203	244	211	33%	33%
Lake	498	537	556	535	503	493	472	430	520	505	19%	20%
Lawrence	472	502	468	500	327	438	438	431	470	450	66%	77%
Licking	638	629	693	681	678	608	553	561	582	625	35%	30%
Logan	244	246	262	256	231	235	231	229	230	240	38%	36%
Lorain	1,420	1,511	1,538	1,588	1,495	1,367	1,313	1,204	1,290	1,414	37%	34%

**TOTAL MEDICAID BIRTHS
FOR STATE FISCAL YEARS 1992-2000**

COUNTY	SFY 1992	SFY 1993	SFY 1994	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average of Medicaid Births SFY 1992-2000	Medicaid Births as a Percent of Ohio Births (based on average)	Medicaid Births as a Percent of Ohio Births for SFY 00
Lucas	3,425	3,345	3,363	3,212	2,876	2,669	2,751	2,618	2,650	2,990	45%	41%
Madison	181	163	172	155	137	143	105	126	138	147	29%	27%
Mahoning	1,763	1,788	1,742	1,654	1,494	1,344	1,306	1,254	1,334	1,520	47%	45%
Marion	440	450	413	423	345	390	337	311	310	380	46%	39%
Medina	264	316	342	346	333	308	331	279	270	310	17%	14%
Meigs	186	178	178	148	142	173	154	161	149	163	64%	59%
Mercer	106	119	117	132	129	128	146	116	123	124	21%	22%
Miami	385	383	376	374	334	332	324	298	344	350	28%	27%
Monroe	68	63	63	83	70	69	60	62	71	68	48%	49%
Montgomery	3,556	3,641	2,858	2,963	2,728	2,765	2,538	2,497	2,546	2,899	36%	33%
Morgan	104	106	111	111	103	108	93	99	88	103	60%	58%
Morrow	154	129	142	139	142	134	119	103	112	130	34%	28%
Muskingum	592	584	589	625	548	523	519	484	514	553	50%	45%
Noble	76	72	90	61	64	70	53	55	57	66	50%	42%
Ottawa	129	139	149	139	132	126	124	131	128	133	31%	30%
Paulding	108	108	101	98	69	81	73	70	84	88	39%	40%
Perry	277	264	235	294	244	229	195	196	192	236	49%	40%
Pickaway	209	248	232	253	214	194	189	203	192	215	36%	32%
Pike	251	217	208	230	206	192	193	210	201	212	59%	56%
Portage	534	661	606	569	530	549	526	490	466	548	31%	27%
Preble	165	156	205	151	159	153	120	143	131	154	31%	25%
Putnam	92	124	95	98	91	88	98	79	93	95	19%	19%
Richland	699	713	769	757	734	686	654	661	608	698	42%	37%
Ross	423	438	426	424	451	384	398	380	410	415	46%	43%
Sandusky	327	352	346	316	324	303	312	248	247	308	37%	31%
Scioto	637	631	537	601	576	588	609	563	571	590	58%	56%
Seneca	357	337	315	286	268	299	291	267	275	299	40%	37%
Shelby	188	200	240	228	196	206	202	216	236	212	31%	30%
Stark	1,997	1,981	1,853	1,828	1,708	1,704	1,643	1,643	1,745	1,789	37%	36%
Summit	2,533	2,812	2,705	2,617	2,445	2,381	2,375	2,350	2,364	2,510	35%	33%
Trumbull	1,249	1,354	1,323	1,232	1,101	1,118	1,095	1,062	1,045	1,175	42%	40%
Tuscarawas	388	440	416	450	403	412	358	368	399	404	35%	33%
Union	129	151	138	171	129	150	116	126	143	139	22%	23%
Van Wert	97	120	108	100	92	118	92	92	97	102	28%	28%
Vinton	118	125	116	131	121	101	101	105	106	114	66%	64%
Warren	394	398	380	371	312	321	302	270	312	340	17%	13%
Washington	270	319	325	348	322	314	270	311	317	311	43%	49%
Wayne	409	385	381	385	353	348	333	340	312	361	23%	20%
Williams	175	185	162	183	149	177	176	168	170	172	37%	37%
Wood	341	340	402	417	344	298	327	309	301	342	21%	22%
Wyandot	81	96	73	95	77	79	70	79	81	81	28%	29%
Unspecified	346	195	92	92	171	175	165	204	141	176	50%	0%
Total	59,343	61,480	59,082	56,940	52,491	51,520	49,456	48,018	50,359	54,300	36%	33%

STATE OF OHIO BIRTHS
FOR STATE FISCAL YEARS 1992-2000

COUNTY	SFY 1992	SFY 1993	SFY 1994	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average of Total Births SFY 1992-2000
Adams	370	367	330	329	338	319	395	349	381	353
Allen	1,637	1,539	1,476	1,446	1,408	1,362	1,397	1,434	1,550	1,472
Ashland	651	641	621	653	649	597	634	668	744	651
Ashtabula	1,401	1,378	1,279	1,251	1,282	1,314	1,277	1,227	1,320	1,303
Athens	652	597	651	602	564	619	601	510	611	601
Auglaize	673	629	613	613	582	584	571	585	595	605
Belmont	829	806	808	495	429	738	677	503	577	651
Brown	555	537	494	539	472	555	522	528	579	531
Butler	4,385	4,259	4,244	4,091	4,346	4,356	4,423	4,414	4,820	4,371
Carroll	303	300	299	282	302	288	310	276	316	297
Champaign	479	484	448	497	462	486	497	506	509	485
Clark	2,076	1,977	2,000	1,934	1,809	1,889	1,806	1,823	1,870	1,909
Clermont	2,503	2,474	2,451	2,322	2,481	2,466	2,460	2,501	2,675	2,481
Clinton	500	526	508	523	565	553	560	570	613	546
Columbiana	1,424	1,446	1,324	1,283	1,246	1,232	1,348	1,204	1,321	1,314
Coshocton	464	433	443	397	406	433	423	409	466	430
Crawford	598	611	578	565	604	602	558	567	608	588
Cuyahoga	22,650	22,009	20,833	16,965	19,541	19,238	18,954	18,074	18,563	19,647
Darke	730	671	718	699	747	666	681	675	680	696
Defiance	500	499	509	455	505	496	498	529	505	500
Delaware	886	980	917	896	1,023	1,206	1,267	1,387	1,581	1,127
Erie	1,015	1,085	1,028	1,058	993	988	908	784	964	980
Fairfield	1,340	1,377	1,416	1,465	1,528	1,542	1,606	1,638	1,664	1,508
Fayette	368	372	355	363	365	352	372	378	366	366
Franklin	16,131	16,076	15,957	14,410	15,467	15,654	15,789	15,759	16,710	15,773
Fulton	537	529	591	469	590	568	548	544	575	550
Gallia	428	425	388	358	337	392	376	359	378	382
Geauga	1,159	1,201	1,150	1,092	1,212	1,198	1,181	1,145	1,151	1,165
Greene	1,658	1,679	1,643	1,647	1,589	1,620	1,600	1,714	1,704	1,650
Guernsey	738	741	741	551	560	469	521	519	522	596
Hamilton	13,828	13,361	12,825	11,473	12,049	11,968	11,724	11,558	12,081	12,319
Hancock	956	960	958	989	903	912	901	925	886	932
Hardin	398	387	412	369	399	380	381	415	382	391
Harrison	191	204	158	141	146	180	164	143	143	163
Henry	390	407	370	382	371	407	354	388	375	383
Highland	512	503	478	485	511	528	556	542	595	523
Hocking	1,281	1,072	1,016	311	357	322	339	308	348	595
Holmes	733	791	798	784	834	855	844	822	890	817
Huron	925	865	886	878	896	881	848	838	906	880
Jackson	475	414	425	399	409	400	472	420	455	430
Jefferson	902	852	832	773	706	787	747	617	701	769
Knox	666	615	626	617	628	627	552	642	735	634
Lake	2,858	2,916	2,744	2,456	2,742	2,741	2,633	2,503	2,607	2,689
Lawrence	851	850	797	532	438	787	794	448	607	678
Licking	1,714	1,739	1,754	1,715	1,829	1,842	1,852	1,798	1,960	1,800
Logan	683	651	629	625	599	632	567	694	631	635
Lorain	4,125	3,994	4,010	3,846	3,905	3,738	3,663	3,640	3,795	3,857
Lucas	7,583	7,014	6,855	6,328	6,326	6,191	6,331	6,127	6,448	6,578
Madison	511	557	524	495	500	488	462	515	519	508
Mahoning	3,790	3,587	3,489	3,130	3,138	3,018	3,000	2,902	2,971	3,225
Marion	930	945	826	811	802	844	765	780	787	832
Medina	1,774	1,710	1,792	1,602	1,824	1,850	1,889	1,886	1,955	1,809
Meigs	311	280	248	196	221	266	268	242	254	254
Mercer	640	627	594	560	566	573	592	577	550	587
Miami	1,295	1,285	1,187	1,199	1,199	1,260	1,237	1,227	1,292	1,242
Monroe	159	159	140	140	108	159	135	115	146	140
Montgomery	9,343	9,321	8,630	7,651	7,573	7,713	7,563	7,574	7,762	8,126
Morgan	183	171	177	173	167	183	164	170	152	171
Morrow	417	392	398	380	386	372	378	386	395	389
Muskingum	1,143	1,108	1,109	1,134	1,058	1,077	1,114	1,044	1,152	1,104
Noble	132	143	153	119	125	150	119	125	137	134

**STATE OF OHIO BIRTHS
FOR STATE FISCAL YEARS 1992-2000**

COUNTY	SFY 1992	SFY 1993	SFY 1994	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average of Total Births SFY 1992-2000
Ottawa	436	465	423	450	397	439	409	406	422	427
Paulding	249	262	267	183	201	257	215	214	209	229
Perry	510	477	427	477	495	498	466	511	480	482
Pickaway	596	664	554	552	606	578	561	590	600	589
Pike	381	365	361	373	344	365	344	354	359	361
Portage	1,842	1,880	1,813	1,712	1,758	1,770	1,779	1,686	1,733	1,775
Preble	472	455	544	440	509	541	483	505	514	496
Putnam	556	576	519	497	491	492	483	474	481	508
Richland	1,775	1,768	1,703	1,554	1,687	1,701	1,598	1,617	1,636	1,671
Ross	892	901	879	869	953	892	917	863	947	901
Sandusky	827	850	834	857	843	806	820	777	803	824
Scioto	1,061	1,059	955	949	1,014	1,069	1,042	1,016	1,017	1,020
Seneca	849	808	802	663	742	750	735	695	737	753
Shelby	717	725	648	711	662	655	678	640	794	692
Stark	5,277	5,140	4,836	4,498	4,875	4,661	4,724	4,665	4,907	4,843
Summit	7,696	7,640	7,408	6,848	7,185	7,040	7,029	6,743	7,129	7,191
Trumbull	3,047	3,073	2,882	2,721	2,709	2,817	2,644	2,673	2,620	2,798
Tuscarawas	1,117	1,109	1,145	1,133	1,107	1,193	1,123	1,158	1,193	1,142
Union	839	877	858	488	476	520	529	577	630	644
Van Wert	351	414	418	340	376	408	291	325	348	363
Vinton	167	190	174	174	170	176	175	165	166	173
Warren	1,737	1,803	1,774	1,823	1,884	1,942	2,025	2,235	2,416	1,960
Washington	812	840	796	668	677	768	652	630	643	721
Wayne	1,622	1,647	1,510	1,495	1,567	1,563	1,558	1,609	1,579	1,572
Williams	529	474	496	463	435	484	436	453	454	469
Wood	2,330	2,275	2,197	1,316	1,273	1,311	1,283	1,271	1,399	1,628
Wyandot	313	305	282	307	286	263	257	276	277	285
Unspecified	672	700	689		5	25	7			350
Total	165,011	162,270	156,847	141,504	147,844	148,897	147,431	145,078	152,028	151,879

LOW BIRTHWEIGHT RATE FOR MEDICAID BIRTHS
STATE FISCAL YEARS 1992-2000

COUNTY	SFY 1992	SFY 1993	SFY 1994	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average LBW Rate of Medicaid Births SFY 1992-2000
Adams	10.3%	11.6%	6.7%	6.1%	6.2%	11.8%	10.4%	5.0%	7.9%	8.4%
Allen	10.5%	10.9%	10.3%	9.8%	8.2%	10.4%	9.3%	10.3%	9.6%	9.9%
Ashland	9.1%	12.7%	3.9%	6.3%	7.8%	7.2%	5.9%	5.6%	6.4%	7.2%
Ashtabula	5.6%	8.2%	6.7%	6.2%	8.1%	8.9%	8.4%	9.3%	7.7%	7.7%
Athens	7.8%	8.4%	8.9%	9.1%	9.8%	4.9%	11.9%	8.9%	8.7%	8.7%
Auglaize	10.6%	7.7%	9.8%	7.6%	5.6%	11.0%	6.7%	6.4%	7.0%	8.1%
Belmont	8.3%	7.4%	9.1%	10.7%	8.9%	5.8%	8.0%	5.9%	8.8%	8.1%
Brown	8.4%	6.5%	9.8%	7.5%	8.8%	7.9%	8.2%	10.1%	5.2%	8.0%
Butler	7.5%	8.6%	8.5%	8.1%	8.5%	8.4%	8.0%	8.3%	10.2%	8.4%
Carroll	8.8%	8.0%	8.1%	8.3%	9.2%	9.5%	3.5%	7.1%	7.5%	7.8%
Champaign	10.4%	8.7%	12.4%	9.2%	7.9%	6.0%	8.9%	13.0%	9.0%	9.5%
Clark	8.5%	8.5%	7.8%	8.7%	10.9%	9.7%	10.2%	12.0%	8.7%	9.4%
Clermont	7.1%	7.1%	8.9%	7.3%	9.2%	9.6%	7.4%	8.4%	7.9%	8.1%
Clinton	8.7%	9.1%	6.8%	7.2%	11.5%	6.2%	9.0%	7.1%	7.3%	8.1%
Columbiana	7.9%	10.2%	7.2%	8.8%	8.4%	6.9%	5.5%	8.0%	9.3%	8.0%
Coshocton	8.3%	8.3%	11.5%	14.8%	4.7%	9.6%	11.0%	10.0%	9.3%	9.7%
Crawford	7.0%	6.1%	8.7%	6.2%	5.4%	6.0%	5.4%	5.5%	9.1%	6.6%
Cuyahoga	13.9%	13.7%	12.4%	12.7%	11.6%	12.2%	11.3%	11.5%	11.4%	12.3%
Darke	9.5%	4.4%	7.7%	6.4%	9.9%	10.4%	8.5%	7.0%	7.6%	7.9%
Defiance	9.7%	9.5%	6.6%	8.7%	6.8%	5.3%	9.3%	10.7%	8.4%	8.3%
Delaware	10.4%	13.9%	7.6%	11.8%	4.0%	10.4%	9.7%	8.1%	12.0%	9.8%
Erie	12.1%	8.4%	10.5%	11.1%	8.3%	12.9%	6.9%	9.3%	11.9%	10.2%
Fairfield	6.5%	9.7%	5.0%	10.4%	7.3%	7.7%	7.3%	9.2%	8.2%	7.9%
Fayette	8.2%	5.7%	8.8%	10.9%	11.5%	9.1%	4.7%	6.1%	8.4%	8.2%
Franklin	11.2%	10.8%	11.9%	11.2%	11.2%	11.6%	10.7%	10.9%	10.9%	11.2%
Fulton	7.9%	11.5%	4.2%	10.5%	5.8%	12.6%	7.2%	6.6%	6.6%	8.1%
Gallia	10.5%	10.5%	7.0%	7.3%	9.4%	6.4%	6.4%	8.4%	5.6%	7.9%
Geauga	3.6%	7.4%	5.7%	7.5%	6.1%	4.9%	7.4%	3.3%	10.8%	6.3%
Greene	9.0%	8.2%	7.9%	8.3%	8.0%	7.0%	11.4%	12.3%	8.6%	9.0%
Guernsey	7.1%	5.9%	6.3%	7.5%	8.9%	6.4%	6.2%	10.3%	8.1%	7.4%
Hamilton	13.1%	12.0%	12.8%	11.5%	12.6%	11.4%	12.4%	13.1%	11.6%	12.3%
Hancock	7.1%	8.6%	9.3%	10.0%	9.9%	9.8%	9.7%	11.5%	7.3%	9.2%
Hardin	5.9%	6.6%	8.3%	9.1%	6.0%	3.6%	12.1%	7.1%	7.4%	7.3%
Harrison	7.5%	9.4%	9.0%	8.0%	8.0%	2.5%	8.8%	12.1%	8.3%	8.2%
Henry	3.4%	8.8%	8.5%	5.3%	4.8%	5.4%	11.0%	13.8%	8.1%	7.7%
Highland	5.7%	10.0%	9.4%	7.4%	9.3%	10.7%	6.7%	4.3%	7.7%	7.9%
Hocking	9.4%	9.1%	9.8%	11.5%	5.6%	9.8%	6.2%	9.2%	8.6%	8.8%
Holmes	5.1%	5.9%	10.6%	4.8%	9.2%	6.2%	6.3%	11.1%	11.8%	7.9%
Huron	9.4%	7.1%	8.4%	7.5%	4.7%	5.2%	8.2%	10.0%	8.1%	7.6%
Jackson	6.7%	11.1%	8.8%	10.9%	9.3%	8.7%	7.4%	10.5%	10.9%	9.4%
Jefferson	8.2%	10.6%	9.6%	10.5%	6.4%	12.4%	9.7%	3.5%	8.0%	8.7%
Knox	7.4%	7.5%	10.5%	9.8%	7.5%	10.1%	6.4%	4.4%	9.7%	8.1%
Lake	1.0%	8.2%	7.8%	8.7%	7.0%	7.6%	7.6%	6.8%	9.7%	7.2%
Lawrence	7.2%	10.4%	6.5%	7.1%	4.2%	10.2%	8.5%	11.1%	9.0%	8.2%
Licking	9.3%	4.9%	7.9%	7.9%	10.1%	10.4%	8.0%	9.0%	7.8%	8.4%
Logan	8.6%	9.1%	9.3%	7.5%	9.5%	10.9%	8.6%	5.6%	6.0%	8.3%
Lorain	9.5%	11.2%	8.8%	8.5%	8.8%	7.5%	9.4%	9.3%	8.0%	9.0%
Lucas	11.0%	9.0%	10.4%	10.4%	9.1%	10.0%	12.2%	10.3%	9.7%	10.2%
Madison	9.0%	3.1%	8.4%	7.3%	10.7%	8.8%	9.4%	7.0%	8.8%	8.1%
Mahoning	11.3%	11.5%	11.1%	11.8%	10.9%	11.6%	11.5%	10.3%	13.2%	11.5%
Marion	9.7%	7.2%	8.9%	8.5%	10.6%	9.9%	6.7%	11.2%	13.2%	9.5%
Medina	5.6%	4.4%	9.3%	6.1%	6.7%	8.0%	6.9%	8.4%	8.2%	7.1%
Meigs	7.5%	8.1%	8.0%	15.0%	4.9%	12.1%	10.3%	5.2%	10.9%	9.1%
Mercer	8.9%	5.5%	8.1%	8.9%	6.3%	4.1%	7.6%	9.1%	8.0%	7.4%
Miami	9.6%	10.1%	9.5%	9.1%	7.4%	7.6%	6.0%	7.5%	10.0%	8.5%
Monroe	9.4%	16.1%	8.7%	9.1%	6.5%	8.7%	3.4%	2.3%	14.0%	8.7%
Montgomery	11.0%	10.7%	10.9%	10.5%	10.2%	12.3%	10.8%	10.0%	12.1%	10.9%
Morgan	4.3%	5.5%	4.0%	8.3%	7.7%	7.8%	2.4%	7.4%	5.9%	5.9%

LOW BIRTHWEIGHT RATE FOR MEDICAID BIRTHS
STATE FISCAL YEARS 1992-2000

COUNTY	SFY 1992	SFY 1993	SFY 1994	SFY 1995	SFY 1996	SFY 1997	SFY 1998	SFY 1999	SFY 2000	Average LBW Rate of Medicaid Births SFY 1992-2000
Morrow	10.4%	9.8%	7.8%	14.5%	9.5%	9.5%	7.0%	12.0%	14.0%	10.5%
Muskingum	8.3%	8.5%	9.8%	12.8%	10.4%	12.0%	12.7%	11.8%	11.8%	10.9%
Noble	3.1%	7.0%	2.5%	3.7%	1.6%	3.1%	4.3%	4.1%	7.0%	4.0%
Ottawa	7.6%	9.3%	3.3%	11.4%	6.5%	9.9%	8.6%	17.3%	7.0%	9.0%
Paulding	4.1%	10.6%	6.4%	11.5%	4.5%	5.1%	16.2%	13.0%	6.2%	8.6%
Perry	7.8%	9.3%	6.9%	9.4%	9.9%	12.8%	9.8%	11.3%	8.9%	9.6%
Pickaway	7.0%	6.4%	7.0%	7.1%	10.4%	11.7%	9.8%	9.6%	11.6%	8.9%
Pike	10.4%	6.5%	8.7%	8.2%	8.0%	7.3%	8.2%	8.9%	8.6%	8.3%
Portage	8.0%	7.5%	7.6%	7.2%	8.6%	9.0%	9.8%	8.0%	6.3%	8.0%
Preble	6.6%	3.3%	6.3%	8.5%	8.1%	14.5%	11.0%	11.4%	5.7%	8.4%
Putnam	7.3%	7.3%	7.3%	3.3%	2.3%	6.4%	10.1%	13.1%	5.8%	7.0%
Richland	9.9%	7.8%	11.6%	8.8%	9.9%	8.7%	10.5%	9.9%	11.0%	9.8%
Ross	10.5%	8.2%	9.6%	9.0%	9.9%	10.0%	9.4%	8.9%	9.8%	9.5%
Sandusky	9.5%	10.1%	9.5%	5.7%	7.5%	9.2%	9.9%	6.6%	8.7%	8.5%
Scioto	7.4%	7.8%	8.5%	10.5%	6.1%	9.1%	9.6%	8.7%	7.0%	8.3%
Seneca	6.0%	7.0%	8.2%	9.3%	8.0%	7.9%	7.3%	7.4%	7.2%	7.6%
Shelby	5.2%	8.2%	7.4%	8.6%	8.4%	5.8%	10.6%	9.0%	11.3%	8.3%
Stark	11.5%	10.0%	9.9%	10.6%	10.8%	11.7%	10.8%	11.2%	11.5%	10.9%
Summit	11.1%	11.7%	11.3%	10.8%	11.6%	12.0%	10.9%	11.3%	9.7%	11.1%
Trumbull	8.3%	8.0%	10.5%	8.7%	7.9%	9.6%	12.6%	9.7%	8.3%	9.3%
Tuscarawas	9.4%	4.7%	8.2%	8.8%	5.6%	10.6%	8.0%	7.8%	6.3%	7.7%
Union	4.0%	6.5%	6.6%	7.7%	8.1%	9.5%	9.9%	5.4%	8.2%	7.3%
Van Wert	3.4%	4.2%	5.7%	7.6%	7.9%	6.8%	5.1%	3.8%	6.9%	5.7%
Vinton	12.2%	10.8%	8.3%	6.1%	8.9%	5.9%	8.9%	12.8%	9.3%	9.3%
Warren	9.1%	9.3%	9.3%	8.0%	7.7%	6.9%	7.4%	11.5%	9.0%	8.7%
Washington	7.3%	6.2%	7.1%	6.7%	8.5%	6.7%	7.8%	8.9%	10.6%	7.8%
Wayne	7.5%	6.0%	6.1%	6.7%	8.1%	9.0%	8.2%	8.5%	8.9%	7.7%
Williams	7.5%	6.0%	3.3%	4.6%	5.7%	6.6%	13.3%	6.5%	8.8%	6.9%
Wood	9.1%	8.1%	10.4%	7.0%	7.3%	8.9%	9.9%	9.0%	6.0%	8.4%
Wyandot	14.5%	6.4%	5.6%	6.7%	8.9%	7.1%	8.3%	9.1%	13.0%	8.9%
Statewide	10.5%	10.2%	10.1%	10.0%	9.7%	10.3%	10.1%	10.1%	10.0%	10.1%

Average	8.4%
1std	1.5%
avg+2std	11.4%
avg-2std	5.3%