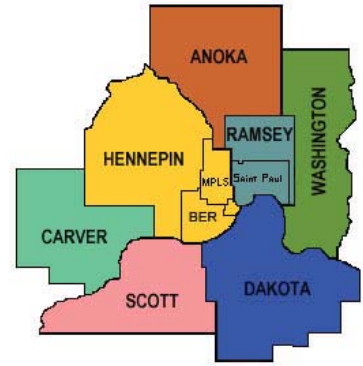


Data Matters

Low-Birth-Weight Singleton Births, 1994-2007



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Key Findings

- The total number of low-birth-weight singleton births per year in the seven-county metropolitan area increased by 20.6% between 1994 to 2007, from 1,710 to 2,062.
- The percent of singleton births that had a low birth weight in the metro area increased by 10.6% between 1994 to 2007, from 4.7% to 5.2%.
- Mothers whose race is White have had the lowest percentage of low-birth-weight singleton births since 1994. In 2007, their rate was 4.2%.
- The percentage of low-birth-weight singleton births for mothers whose race is Black has been dropping since 1994. In 2007, their rate was 9.3%.
- The drop in the rate of low-birth-weight singleton births for Blacks has been driven by the large increase in the number of births to Black mothers who are foreign-born who are less likely to have a low-birth-weight singleton birth.

Introduction

This report summarizes the trends in low-birth-weight singleton births from 1994-2007 in the seven-county metropolitan area in Minnesota. For this report, the metropolitan area includes Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington Counties, hereafter cited as the metro area. Vital statistics are from the Minnesota Department of Health, Center for Health Statistics.

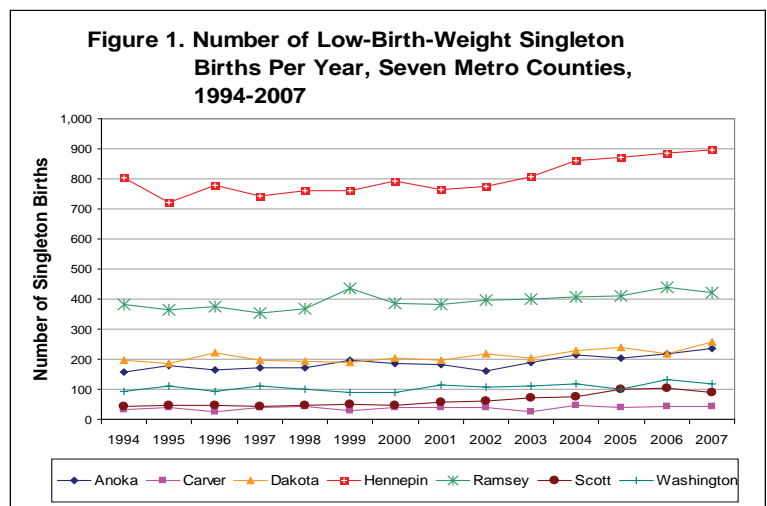
Background

Births are classified as low birth weight if the baby weighs less than 2,500 grams, or approximately 5½ pounds. These low-birth-weight babies are at very high risk for dying before their first birthday and are at increased risk of long-term developmental disabilities such as cerebral palsy, autism, mental retardation, and vision and hearing impairments. Singleton births are those when only one baby is born at the time of birth, that is not a set of twins, triplets, etc. Selecting only singleton births is important for analysis of low-birth-weight births since over half of the babies that are non-singleton births, that is twins, triplets, etc., are born having a weight less than 2,500 grams.

This report will examine overall trends in the percentage of low-birth-weight singleton births for both the metropolitan area as a whole and for the individual metro counties. The total number of low-birth-weight singleton births in the metro area increased from 1,710 in 1994 to 2,062 in 2007.

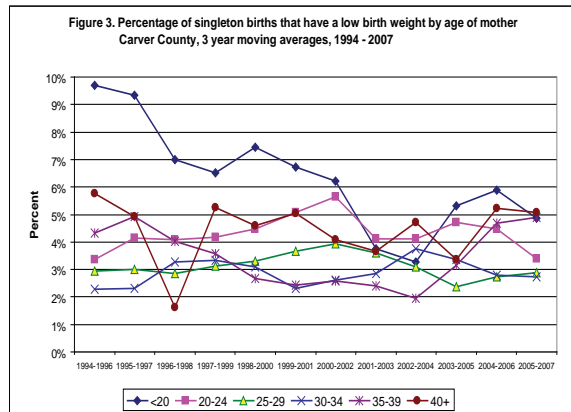
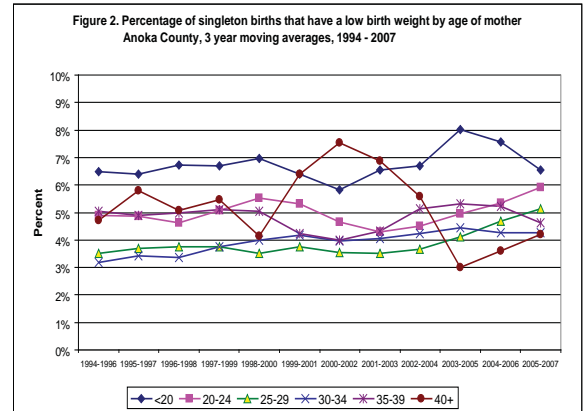
In 1994, the percentage of singleton births in the seven-county Metro Area that had a low birth weight was 4.7%. In 2007, that rate had risen to 5.2% - an increase of 10.6%.

See Page 4 for more metro area results



Anoka County

Between 1994 and 2007, the overall percentage of singleton births in Anoka County with low birth weights ranged from 4.1 % in the period 1994-1996 to 5.0% in 2005-2007. Women under 20 years of age generally had the highest percentage of low-birth-weight singleton births, however from 2003-2005, the rate has been trending downwards. Following a few years of steady or decreasing percentage of low-birth-weight singleton births, Figure 2 shows that the percentage has generally been increasing since the period 2001-2003 for mothers aged 20-24 and 25-29. During that same time, the percentage for mothers aged 30-34 and 35-39 showed some increase then stabilized or slightly decreased. The wide fluctuation in the percentage of low-birth-weight singleton births to women aged 40 and older is due in large part to the small number of low-birth-weight singleton births that occur in Anoka County each year to women in that age group.

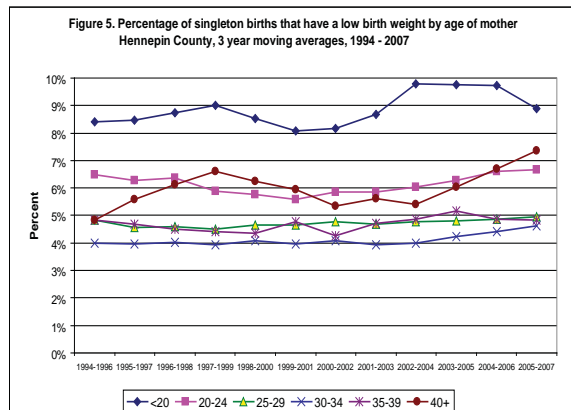
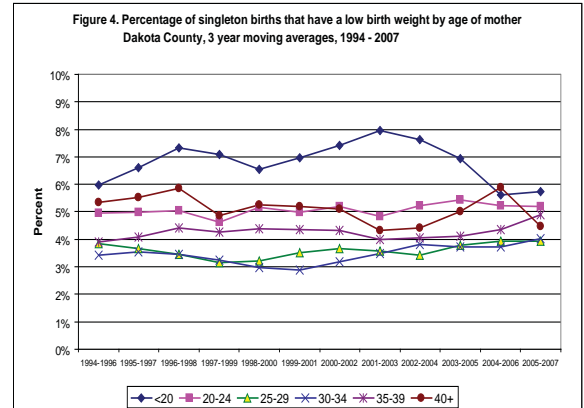


Carver County

The percentage of Carver County singleton births that were low birth weight remained relatively stable from 1994-1996 to 2005-2007, ranging between 3.2% and 3.6%. Women under 20 years of age generally had the highest percentage of low-birth-weight singleton births, but the percentage in this age group has generally decreased from 1994 to 2007. The percentage of low-birth-weight singleton births also generally decreased in mothers aged 35-39 from 1994 to 2003 and then began to increase, approaching the rate for mothers under 20. During the period 2005-2007, the percentage of low-birth-weight singleton births in mothers aged under 20 and 35-39 was equal (4.9%). The percentage of low-birth-weight singleton births in mothers of most other age groups was stable from 1994 to 2007. The exception was mothers aged 40 and older, who represent such a small number of singleton births that the percent of low-birth-weight singletons in this age group fluctuated widely.

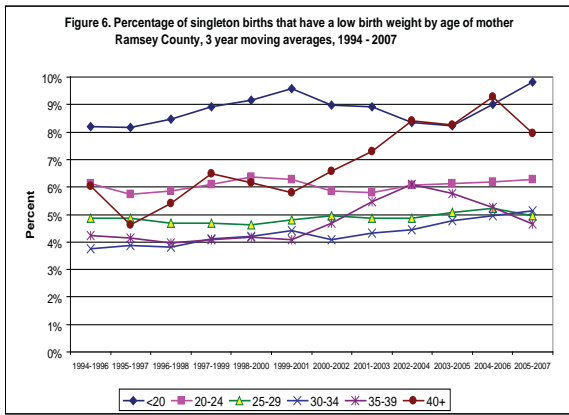
Dakota County

The percentage of Dakota County singleton births that were low birth weight remained relatively stable from 1994-1996 to 2005-2007, ranging from an average of 3.8% to 4.4%. Women under 20 years of age generally had the highest percentage of low-birth-weight singleton births. The percentage in this age group generally increased from the period 1994-1996 to the period 2001-2003 and then started to decrease. For women aged 30-34, the percentage generally decreased from the period 1994-1996 to the period 1999-2001 and then began to increase. The percentage for women aged 35-39 slowly increased from the period 2002-2004 to the period 2005-2007. For mothers of most other age groups, the trend was stable from 1994 to 2007. The exception was mothers over 40, who represent such a small number of singleton births that the percent of low-birth-weight singletons in this age group fluctuated.



Hennepin County

In Hennepin County, the highest percentage of low-birth-weight singleton births consistently occurs for women under the age of 20. For births occurring in 2005 to 2007, the percentage for them was 8.9%. Since 1994, the rate for that age group has been level staying within the 8.1% to 9.8% range. The percentage of low-birth-weight singleton births has been lowest for women aged 25-29, 30-34, and 35-39. For births occurring in 2005 to 2007, the percentage of low-birth-weight singleton births for them was 5.0%, 4.6%, and 4.8% respectively. Since 1994, the percentage for these three age groups has been level staying primarily in the 4.0% to 5.2% range.

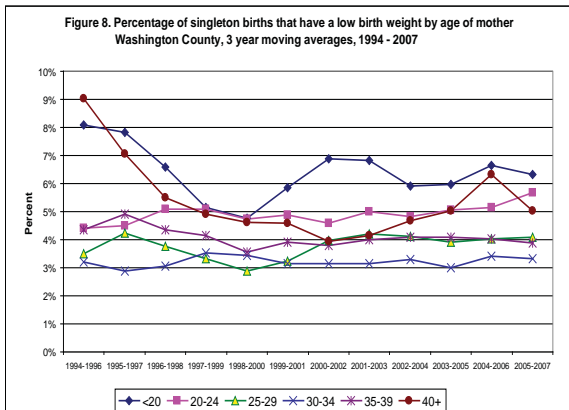
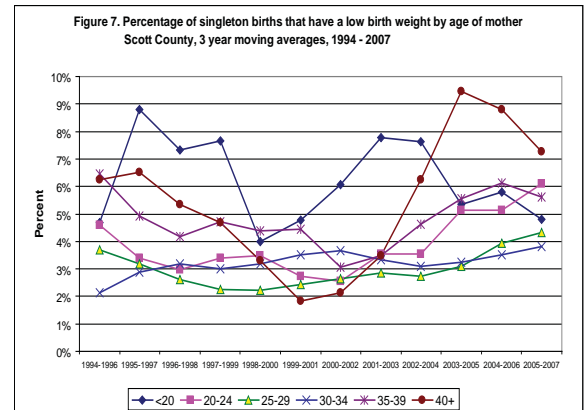


Ramsey County

Between 1994 and 2007, the highest percentage of low-birth-weight singleton births in Ramsey County has consistently been among women under the age of 20. During this time period, their three-year average percentage has ranged from 8.2% to 9.8%. Also experiencing high percentages in recent years, were women age 40 and older, with rates fluctuating widely between 4.6% to 9.3%. Among women aged 20-24, where the highest number of births generally occur, the percentage has been lower and quite stable between 5.7% and 6.4%. The percentage of low-birth-weight singleton births has been lowest among women aged 25-29, 30-34, and 35-39, which in most recent years measured 5.0%, 5.1%, and 4.7% respectively. Since 1994, the percentages among these three groups have ranged between 3.8% and 6.1%.

Scott County

In Scott County, women aged 25-29 and 30-34 have the lowest percentages of low-birth-weight singleton births, and the least fluctuation between 1994 and 2007. Between the same years, the percentage of singleton low-birth-weight births increased for women, aged 20-24, from 2.6% in 2000-2002 to 6.1% in 2005-2007. Similarly, for women aged 35-39, the percentage dropped to a low of 3.1% in 2000-2002, but rose again to 6.1% by 2004-2006. Mothers under the age of 20 and aged 40 and older had the least favorable percentages with the greatest fluctuation. This variation is accounted for by the smaller numbers of births in these age groups.

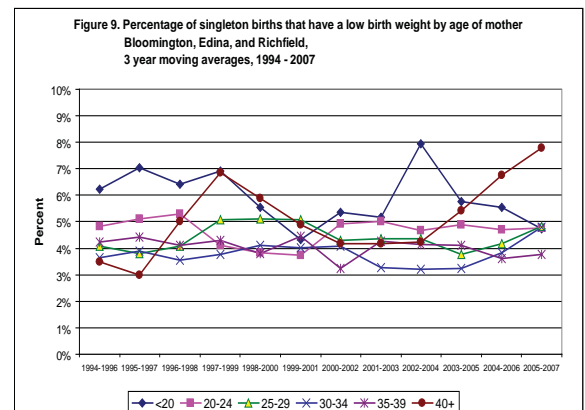


Washington County

The percentage of singleton births that were low birth weight for Washington County fluctuated most dramatically for women under the age of 20 and aged 40 and older. This is primarily due to a fewer number of births within these two age ranges compared with other age groups. During the three-year period between 2005-2007, the highest percentages for low-birth-weight singleton births were reported among mothers under the age of 20 at 6.3% and among mothers aged 20-24 years old at 5.7%. Three-year moving average low-birth-weight percentages between 1994 and 2007 were lowest among mothers aged 30-34 and 25-29. Mothers in these two age groups also continually represent the largest portion of overall births in the county.

Bloomington, Edina, and Richfield

From 1994-2007, in the cities of Bloomington, Edina and Richfield (BER), there was fluctuation among each age group with respect to the percentage of singleton births that were of low birth weight. The widest variation occurs among women under the age of 20 and women aged 40 and older, which is due to an overall smaller number of births to women these ages, so increases or decreases in the number of low-birth-weight singleton births will appear more dramatic. However, from 2005-2007, for women aged 40 and older, the percentage of low-birth-weight singleton births has increased to the highest rate since 1994. The percentage of singleton births that were of low birth weight to women aged 20-39 has remained relatively stable fluctuating only 3-5% of total singleton births from 1994-2007. However, from 2005-2007 every age group, except women under 20 years, saw an increase from 2004-2006 in the rate of singleton births that were of low birth weight.



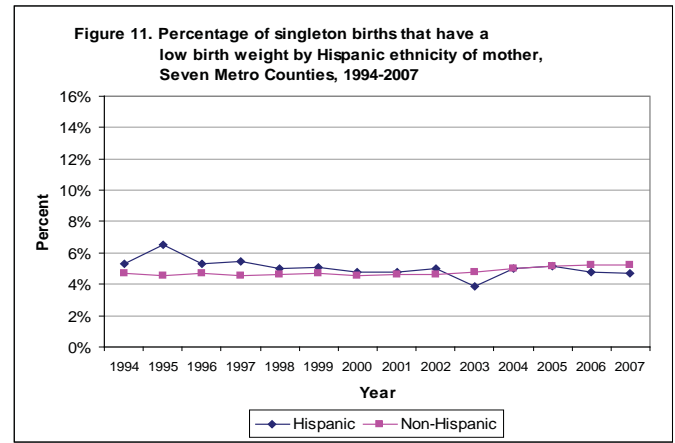
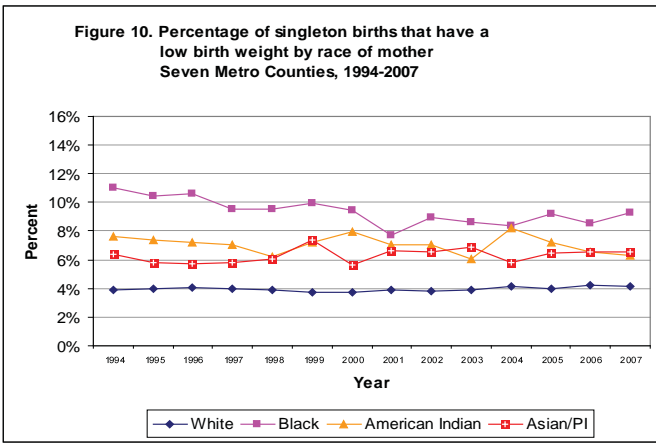
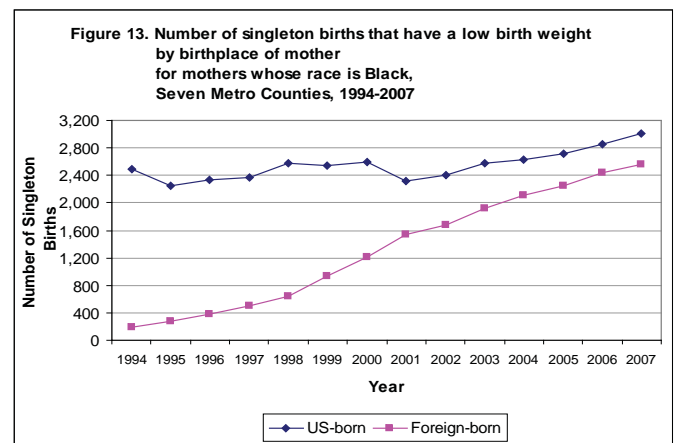
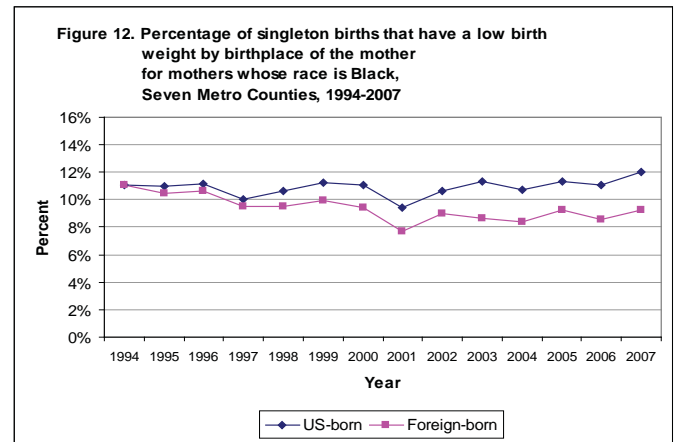


Figure 10 shows that from 1994 through 2007, the lowest percentage of low-birth-weight singleton births occurred among women whose race was White. In 2007, the rate was 4.2%.

In that same time period, the highest percentage occurred among women whose race was Black. Their rate for 2007 was 9.3%. This rate has been dropping since 1994 when the rate was 11.1%.

Figure 11 shows that for Hispanic/Latina mothers, the percentage for low-birth-weight singleton births has been steady primarily in the range of 4.7% to 5.3%.

Figure 12 shows that drop in the rate of low-birth-weight singleton births for mothers whose race is Black was largely associated with whether the mother was US- or foreign-born. Since 1994, the rate for US-born Black mothers has been relatively level in the 10.6% to 11.4% range. The rate for foreign-born Black mothers has been dropping from 11.1% in 1994. In 2007, their rate was 9.3%. The number of singleton babies born to foreign-born Black mothers has increased from 197 in 1994 to 2,557 in 2007. The huge increase in the number of babies born to foreign-born Black mothers (see Figure 13), who are less likely to have a low-birth-weight singleton birth, has driven the slight decrease to Black mothers overall during the 1994 to 2007 time period.

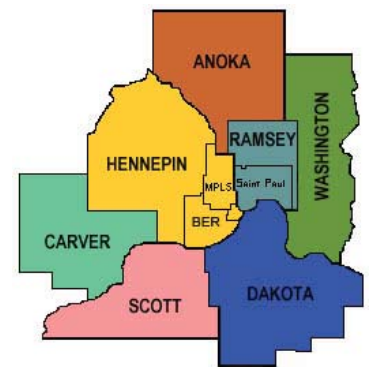


Data Source: Minnesota Center for Health Statistics as geocoded by the Metro Public Health Data Analysis Work Group.

For More Information

Data Matters is a project of the Metro Public Health Data Analysis Work Group, a collaborative effort among eight local public health agencies in the Minneapolis-Saint Paul area in Minnesota. These agencies include: Anoka County Community Health and Environmental Services, Bloomington Public Health also serving Edina and Richfield (BER), Carver County Public Health Division, Dakota County Public Health Department, Hennepin County Human Services and Public Health Department, Saint Paul-Ramsey County Department of Public Health, Scott County Public Health, and Washington County Department of Public Health and Environment.

For more information on **Data Matters** or other public health data for the seven-county metropolitan area, please contact PublicHealthData@gmail.com or go to <http://sites.google.com/site/PublicHealthData>



Metro Public Health Data Analysis Work Group