

DATA AND TREND ANALYSIS

Babies, Children and Families



The well-being of infants, children and their families determines the health of the next generation and can help predict future public health challenges for communities and the medical care system. Moreover, healthy birth outcomes and early identification and treatment of health conditions among infants and their mothers can prevent death or disability and enable them to reach their full potential.

Breastfeeding Mothers Receiving WIC

DESCRIPTION

Breastfeeding promotes long-term child health. Studies link breastfeeding to: improved child immunity, higher childhood intelligence, lower infant mortality, reduced dental problems, lower risk of obesity and less asthma.¹ Many benefits to mothers who breastfeed are documented as well. Breastfeeding rates are correlated with income.

HOW WE ARE DOING

The percentage of Ramsey County women receiving WIC who breastfeed has increased steadily since 2012. Breastfeeding initiation increased from 70.2 percent in 2012 to 78 percent in 2016, which is an 11 percent increase. The number of mothers who are still breastfeeding after three months increased from 41.3 percent to 46.8 percent, a 13 percent increase.² Gains in breastfeeding initiation are most prominent among those self-identifying as African-American. From 2012 to 2015, there was a change from 62.2 to 72 percent breastfeeding initiation, a 15 percent increase. Continuation for three months was less remarkable, but still increased. WIC peer counselors play a critical role in supporting women in their goals to breastfeed.

BENCHMARK INDICATOR

Healthy People 2020:

Increase the proportion of infants who have ever breastfed

U.S. Target: 81.9 percent

MN WIC Goal:

Increase the proportion of infants who are breastfed at three months

MN Target: 70 percent

DISPARITIES

Disparities in breastfeeding rates exist between racial and ethnic groups in Ramsey County. In 2015, the breastfeeding initiation rate among African-American women who reported their parents and/or grandparents were born in the U.S. was 72 percent. The rate for those identifying as Somali or Somali-American was 97.8 percent.³

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul-Ramsey County Public Health's WIC program uses peer support to increase breastfeeding among their clients. Women who are voluntarily assigned to a peer breastfeeding counselor while pregnant are more likely to initiate breastfeeding, and less likely to wean after delivery.⁴ Many breastfeeding peer counselors are from communities represented in Ramsey County's population: African-American, Hmong, Karen, Somali and Spanish-speaking women.

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Information to note

- Breastfeeding rates are correlated with income.
- Even though breastfeeding initiation among women receiving WIC increased, the percentage remains below the Healthy People 2020 target.
- Between 2012 and 2016, breastfeeding initiation among women receiving WIC increased 11%. Breastfeeding continuation after three months increased 13%.
- Among African-American women receiving WIC, there was a 15 % increase in breastfeeding initiation.

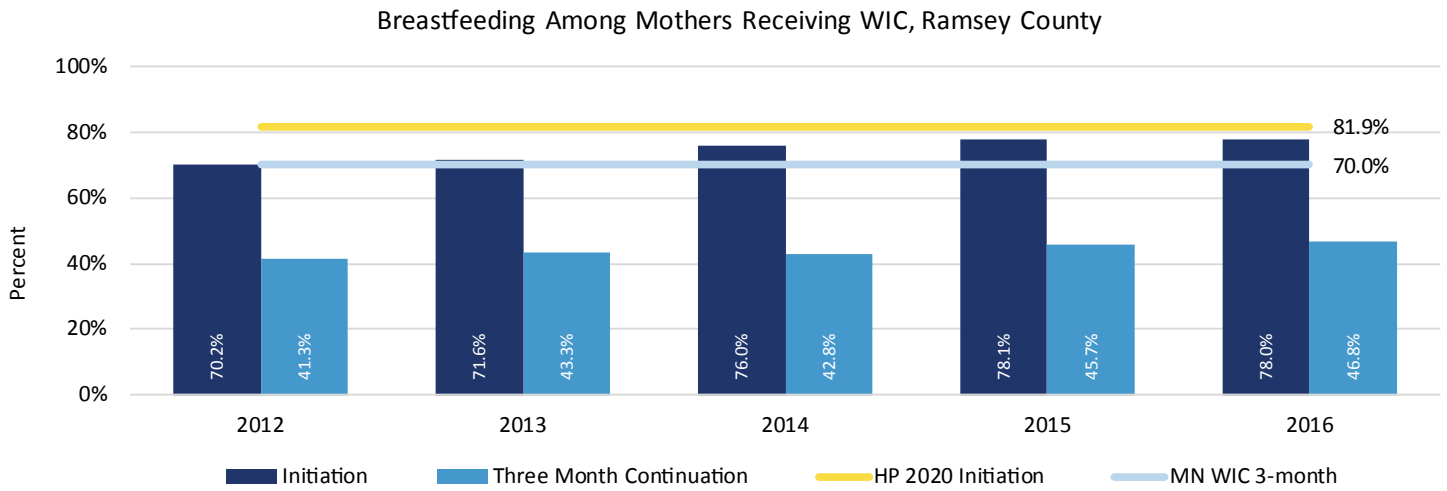
¹ Grummer-Strawn LM, Rollins N. Summarizing the health benefits of breastfeeding. *ACTA Paediatrica*. 2015. doi:10.1111/apa.13136.

² Breastfeeding Initiation and Duration at Two Weeks and Two, Three, Six and Twelve Months for Minnesota WIC Infants Born During Calendar Year 2016. Minnesota Department of Health WIC Program. <http://www.health.state.mn.us/divs/fh/wic/localagency/reports/bf/annual/2016bycounty.pdf> Accessed September 1, 2017.

³ Saint Paul-Ramsey County Public Health, WIC database. 2015.

⁴ Minnesota Department of Health, WIC Program. Memo, Research Article on the Effectiveness of Peer Counseling. August 2, 2017. <http://www.health.state.mn.us/divs/fh/wic/localagency/wedupdate/moyr/2017/topic/0802peer.pdf>. Accessed September 1, 2017.

Breastfeeding Mothers Receiving WIC



Source: Minnesota Department of Health, WIC Program.⁵

⁵ Minnesota Department of Health, WIC Program. WIC Information System.

Family Planning and Birth Spacing

DESCRIPTION

Family planning helps people achieve desired birth spacing and family size, and contributes to improved health outcomes for infants, children, women and families. In 2015, publicly funded family planning services helped prevent 1.9 million unintended pregnancies in the U.S., including 440,000 teen pregnancies. In 2010, every public dollar spent on family planning saved federal and state governments \$7.09.¹

Unintended pregnancies are reported by women as being mistimed or unwanted. Each year, 45 percent of all pregnancies in the U.S. are unintended. Negative outcomes associated with unintended pregnancy can include: delays in starting prenatal care; reduced likelihood of breastfeeding; increased risk of maternal depression; and increased risk of physical violence during pregnancy.² Eighteen months or more is the ideal interval for birth spacing. Research suggests that beginning a pregnancy within six months of a live birth is associated with an increased risk of premature birth; low birth weight; congenital disorders and more.¹ Recent research suggests that a pregnancy within less than two years of a live birth may be associated with an increased risk of autism in second-born children. The risk is highest for pregnancies spaced less than 12 months apart.³ “Rapid repeat pregnancy” or “repeat teen birth” is defined as having two or more pregnancies resulting in a live birth before age 20. Repeat teen childbearing further constrains the mother’s education and employment possibilities. Rates of preterm and low birth weight are higher in teens with a repeat birth, compared with first births.⁴

HOW ARE WE DOING

In 2016, there were 9,399 pregnancies (a rate of 81.6 for every 1,000 population) and 7,731 births among Ramsey County women. Ramsey County had the highest pregnancy rate among all counties in Minnesota. Also in 2016, 3.3 percent of Ramsey County women with children had second births within a year. This means they became pregnant within three months of childbirth. For Ramsey County teens age 15-19, 3.3 percent had a second birth within a year of a previous birth.⁵

BENCHMARK INDICATOR

Healthy People 2020: The current objective measures spacing between a birth and the next pregnancy, not between two consecutive births.²

DISPARITIES

During 2011-2015, 2.4 percent of Ramsey County women with less than four years of high school had a repeat birth within a year (3.3 percent for African-American mothers; 2.5 percent for Asian mothers; 1.9 percent for white mothers; 1.5 percent for Hispanic mothers).

RISK FACTORS

Nationally, the rates of unintended pregnancy are highest among the following groups: women ages 18 to 24; women who are cohabitating, living in poverty and with less than a high school diploma; and black or Hispanic women.⁶ Traditional estimates understate the risk of teen pregnancy among adolescents because they typically include all women,

Information to note

- In 2016, 3.3% of Ramsey County women delivered a second child within a year of a previous birth, the highest rate in the metro area.

¹ Guttmacher Institute. <https://www.guttmacher.org/fact-sheet/unintended-pregnancy-united-states>. Accessed October 27, 2017.

² Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/family-planning/>. Accessed October 27, 2017.

³ Mayo Clinic. <https://www.mayoclinic.org/healthy-lifestyle/getting-pregnant/in-depth/family-planning/art-20044072>. Retrieved October 27, 2017.

⁴ Centers for Disease Control. <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6213a4.htm> Accessed October 27, 2017.

⁵ Minnesota County Health Tables. Minnesota Department of Health Website. <http://www.health.state.mn.us/divs/chs/countytables/profiles2017/index.html>. Accessed February 14, 2018.

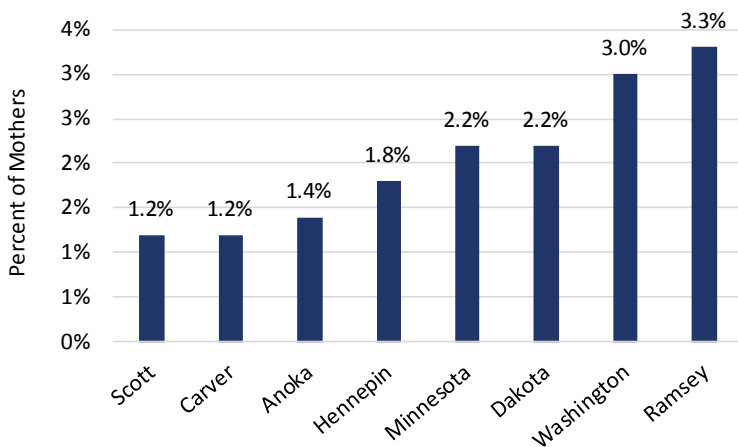
⁶ Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/family-planning/>. Accessed October 27, 2017.

regardless of whether they are sexually active. When rates are recalculated including only those sexually active, women 15–19 have the highest unintended pregnancy rate of any age group.⁷

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

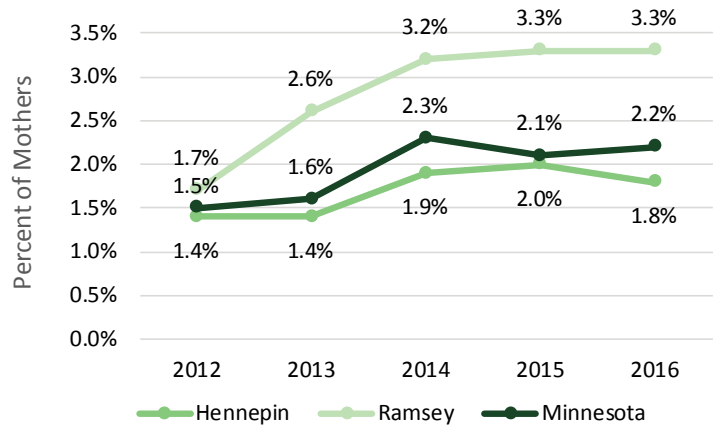
Saint Paul – Ramsey County Public Health offers numerous medically accepted forms of birth control through the Clinic 555 program, offered on a sliding fee based on family size and income. Public Health Nurses working in the Family Health division in Public Health provide education and resource to encourage healthy birth spacing to adult clients as well as to teen clients seen through the MFIP program. Additionally, Ramsey County provides funding to five Ramsey County community clinics to help off-set the cost of services, including family planning services, provided to uninsured and underinsured clients.

Births Within One Year of a Previous Birth, 2016



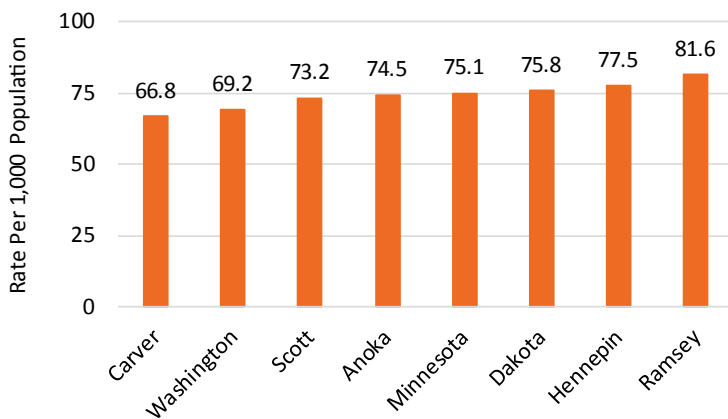
Source: Minnesota Department of Health Web site.⁸

Live Births within One Year Over Time



Source: Minnesota Department of Health, Minnesota Center for Health Statistics, County Health Tables

Pregnancy Rate, 2016



Source: Minnesota Department of Health Website.⁹

⁷ Guttmacher Institute. <https://www.guttmacher.org/fact-sheet/unintended-pregnancy-united-states>. Accessed October 27, 2017.

⁸ 2017 Minnesota County Health Tables. Minnesota Department of Health Web site. <http://www.health.state.mn.us/divs/chs/countytables/profiles2017/index.html>. Accessed February 7, 2018.

⁹ Minnesota County Health Tables. Minnesota Department of Health Website. <http://www.health.state.mn.us/divs/chs/countytables/profiles2017/index.html>. Accessed February 14, 2018.

DESCRIPTION

Infant mortality is defined as death to infants born live who die before the first birthday. Infant mortality is complex, with multiple associated factors. The five major causes of infant death at the national level are: birth defects, pre-term birth and low birth weight, sudden infant death syndrome (SIDS), pregnancy complications and injuries. The United States has a higher infant mortality rate than 27 other industrialized nations, with rates varying widely across regions. Infant mortality is considered a leading indicator of population health.¹

HOW WE ARE DOING

In 2016, the infant mortality rate in the United States was 5.9 deaths per 1,000 live births.¹ During that same year, the infant mortality rate in Minnesota was 5.0 per 1,000 per live births. The Ramsey County rate is higher at 6.3, which does not meet the Healthy People goal of less than 6 per 1000 live births. Over time, the overall infant mortality rates have generally been decreasing, however that is not true for all racial/ethnic groups.²

BENCHMARK INDICATOR

Healthy People 2020: Reduce the rate of all infant deaths (within 1 year).

U.S. Target: Less than 6 per 1,000 live births.³

DISPARITIES

Although the overall infant mortality rate for Ramsey County approaches the Healthy People 2020 target, the infant mortality rate 2014-2016 for infants born to African-American/African women was 11.5 per 1000, significantly higher than the rate of 4.3 for white infants. During that same time period, the infant mortality rate in Ramsey County was 7.6 for Asians and for Hispanics it was 4.7 per 1000 live births. The American Indian population is small in Ramsey County, so it is difficult to draw conclusions from it. However, statewide data indicates that the infant mortality rate for American Indians in Minnesota was 10.7.² Similar disparities among all racial/ethnic groups are evident at the national level. The specific cause of infant mortality is of special interest. While disparities between African-American/African and total and/or white populations exist in the five major causes of infant mortality, deaths to African-American/African infants are remarkably disparate due to the leading cause of death: pre-term birth and low-birth weight babies.⁴

Infant death is researched nationally through a framework of Perinatal Periods of Risk (PPOR), which divides fetal and infant deaths into four “Perinatal Periods of Risk” based on both birth weight and age at death. Intended for urban areas with high infant mortality, the PPOR uses vital records to get at root causes and intervention strategies.⁵

An international study examined the infant mortality rate gap between the U.S. and other countries with better rates (e.g. Finland). The U.S. has a similar neonatal mortality (deaths within first month of life) to other countries with low rates, but a substantial difference in post-neonatal mortality. The results of this study suggest that the gap is driven primarily by excess inequality in the U.S., i.e. disadvantaged mothers compared to advantaged mothers (e.g. white, college educated, married).⁶

Information to note

- The Ramsey County infant mortality rate is higher than both Minnesota and U.S. rates, and does not meet the Healthy People 2020 goal.
- There are significant racial/ethnic disparities related to infant mortality.

¹ Reproductive Health. Centers for Disease Control & Prevention. <https://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm>. Accessed August 2018.

² Health Statistics Portal. Minnesota Department of Health. <https://pqc.health.state.mn.us/mhsq/frontPage.jsp>. Accessed August 2018.

³ Maternal, Infant and Child Health. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/maternal-infant-and-child-health/objectives>. Accessed August 2018.

⁴ Anderson NB, Bulatao RA, Cohen B, eds. *Critical Perspectives on Racial and Ethnic Differences in Health in Late Life*. Washington, DC: National Academies Press; 2004.

⁵ Perinatal Periods of Risk (PPOR). City Match. <https://www.citymatch.org/tools-and-trainings/ppor/>. Accessed August 2018.

⁶ Chen A, Oster E, Williams H. Why is infant mortality higher in the US than in Europe? 2014. University of Chicago and NBER. <http://faculty.chicagobooth.edu/emily.oster/papers/imr.pdf>. Published September 29, 2014. Accessed August 2018.

In Minnesota, the majority of infant deaths are within a baby's first 28 days.⁷

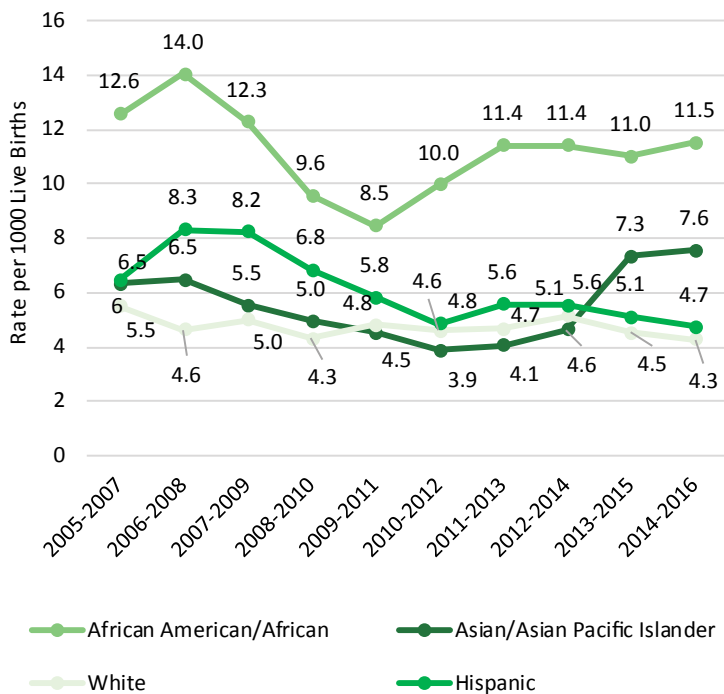
RISK FACTORS

Deaths occurring in the neonatal period (first month of life) are due mostly to problems with the pregnancy or health of the infant, such as pre-term delivery, birth defects or low birth weight. Infant deaths occurring in the post-neonatal period are more likely to be the result of social and environmental factors such as sudden infant death syndrome (SIDS), exposure to cigarette smoke, or problems with access to health care.⁸

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

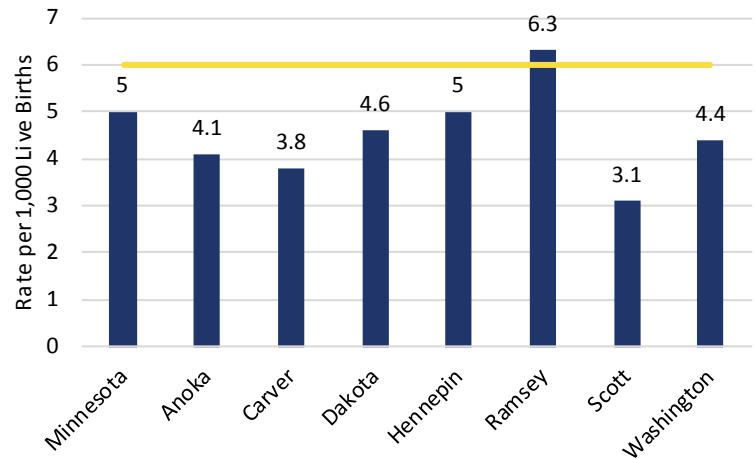
Saint Paul- Ramsey County Public Health started a Birth Equity Institute in 2017, in partnership with the national organization City MatCH, and academic and community organizations and members. The Minnesota Department of Health has also created an Infant Mortality Reduction Plan, and public health staff work closely with state partners to examine causes of infant mortality and find innovative ways in which to achieve lower infant mortality rates.

Infant Mortality Rates, Ramsey County
3 Year Rolling Averages



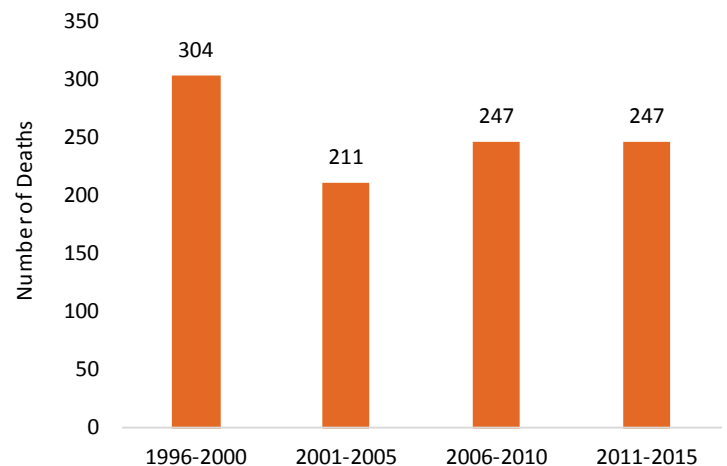
Source: Minnesota Department of Health. Minnesota Vital Statistics.¹⁰

Infant Mortality Rate, 2012-2016



Source: Minnesota Department of Health. County Profiles.⁹

Infant Deaths, Ramsey County



Source: Minnesota Department of Health. Minnesota Vital Statistics.¹⁰

⁷ Infant mortality reduction plan for Minnesota (Part One). Minnesota Department of Health. 2015. <http://www.health.state.mn.us/divs/cfh/program/infantmortality/content/document/pdf/infantmortalityacc.pdf>. Published March 2015. Accessed August 2018.

⁸ Disparities in Infant Mortality. Minnesota Department of Health. 2009. <http://www.health.state.mn.us/divs/chs/infantmortality/infantmortality09.pdf>. Published January 2009. Accessed August 2018.

⁹ Minnesota Department of Health. County Profiles. <http://www.health.state.mn.us/web/mndata/county-profiles>. Accessed August 2018.

¹⁰ Minnesota Department of Health. Minnesota Vital Statistics. <https://mhsq.web.health.state.mn.us/frontPage.jsp>. Accessed August 2018.

Low Birth Weight

DESCRIPTION

Birth weight is the first weight of a baby, taken after he or she is born. A low birth weight (LBW) is less than 5.5 pounds. A low birth weight baby can be born too small, too early (premature), or both. Babies born with LBW can have diabetes, heart disease, high blood pressure, and/or obesity later in life.¹ About one in 12 babies in the U.S. are born with LBW. LBW is often related to prematurity (less than 37 weeks gestation). Fetal growth restriction (also called growth-restricted, small for gestational age and small-for-date) is another reason for LBW. Growth-restricted babies may have LBW because their parents are small or because something slowed or stopped growth during pregnancy.

HOW ARE WE DOING

In 2016, 5.8 percent of Ramsey County births of single babies were of low birth weight compared to 4.9 percent of Minnesota babies.² Considering all births (single and multiple), 7.3 percent of Ramsey County births were of low birth weight. Overall this meets the Healthy People 2020 goal, but not for all women of all races.

BENCHMARK INDICATOR

Healthy People 2020: Reduce low birth weight
U.S. Target: 7.8 percent of live births.³

DISPARITIES

Although Ramsey County meets the Healthy People 2020 goal, there are large disparities for babies born to women of color. During 2014-2016, the percentage of LBW births for African-American women was 9.3 percent; 7.5 for American Indian residents; 7.4 percent for Asian/Asian Pacific Islander residents; 7.2 percent for Hispanic residents; and 6.4 percent for white residents. The percentage of LBW births is decreasing for African-American women, but rising for Hispanic women.⁴

RISK FACTORS

There are many reasons a baby can be born with LBW. Women who deliver early, have chronic health conditions, infections, problems with their placenta, or have trouble gaining enough weight during pregnancy can have a LBW baby. Smoking, drinking alcohol, using street drugs and abusing prescription drugs can also cause a baby to be LBW. Pregnant women who smoke are twice as likely to have a LBW baby than nonsmokers. Also, mothers who have the following characteristics are at higher risk for low birth weight babies: have low education, low income, unemployed, non-white, or younger than 17 or older than 35.¹

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

In late 2016, Saint Paul- Ramsey County Public Health became one of five groups in a national Birth Equity Institute, with the goal of decreasing infant mortality among African-American and American Indian women by intervening in contributing factors. Members of the Ramsey County Birth Equity Community Council, which includes county residents, community organizations, and representatives from Minnesota Departments of both Health and Human Services, determined in 2017 to focus on safe sleep messaging and parenting support for fathers.

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Information to note

- African-American babies in Ramsey County are more likely to be born LBW than other babies, yet the percentage is decreasing.
- LBW births to Hispanic women are increasing.

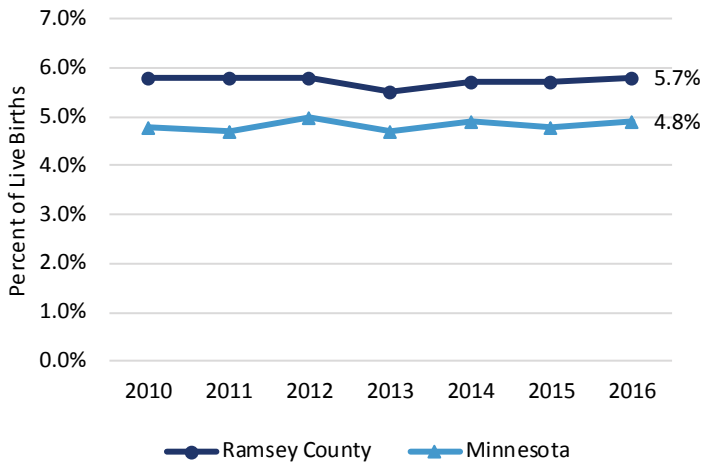
¹ Low Birthweight. March of Dimes. <https://www.marchofdimes.org/baby/low-birthweight.aspx>. Accessed October 27, 2017

² Minnesota Department of Health. MN County Health Tables. <http://www.health.state.mn.us/divs/chs/genstats/countyttables/index.htm>. Accessed February 7, 2018.

³ Maternal, Infant, and Child Health. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/maternal-infant-and-child-health/objectives>. Accessed October 27, 2017.

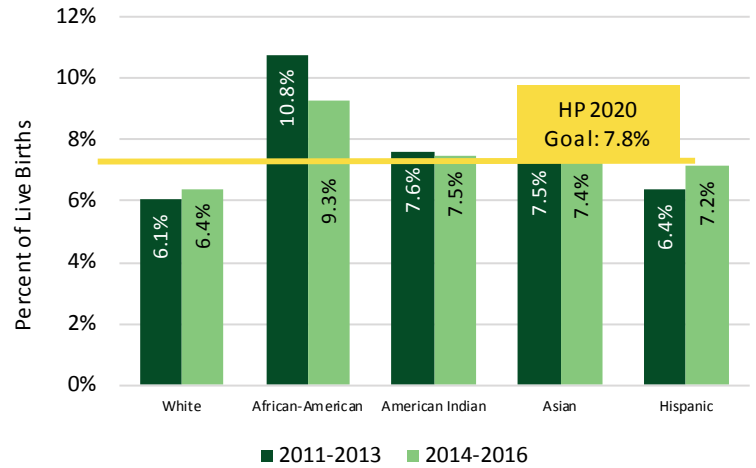
⁴ Minnesota Center for Health Statistics. Birth Database 2011-2016. Minnesota Department of Health. <http://www.health.state.mn.us/divs/chs/>. Accessed August 2018.

Low Birth Weight (Single Births) Over Time



Source: Minnesota Department of Health. MN County Health Tables.⁵

Low Birth Weight, Ramsey County



Source: Minnesota Department of Health Center for Health Statistics.⁶

⁵ Minnesota Department of Health. MN County Health Tables. <http://www.health.state.mn.us/divs/chs/countytables/>. Accessed February 7, 2018.

⁶ Minnesota Department of Health Center for Health Statistics.

DESCRIPTION

Teen pregnancy is closely linked to other risky behavior as well as a host of critical social issues—poverty and income, overall child well-being, out-of-wedlock births, responsible fatherhood, health issues, education and child welfare. There are also substantial public costs associated with adolescent childbearing.¹ Nationally, 82 percent of pregnancies to mothers ages 15 to 19 are unintended.² Children from unintended pregnancies are more likely to experience poor mental and physical health during childhood, and have lower educational attainment and more behavioral issues in their teen years.³ Births resulting from unintended pregnancies can have negative consequences including birth defects and low birth weight.⁴ Teen mothers: are less likely to graduate from high school or attain a GED by the time they reach age 30; earn an average of approximately \$3,500 less per year, when compared with those who delay childbearing until their 20s; and receive nearly twice as much federal aid for nearly twice as long.^{5,6}

HOW ARE WE DOING

Birth and pregnancy rates (per thousand) for teens often combine years due to the small count of births overall. Teen pregnancy rates differ from birth rates, are naturally higher and generally follow similar trends. During 2014-2016, the Ramsey County birth rate for teens ages 15-17 was 9.1 per 1,000 and for teens ages 18-19 years, 31.3 per 1,000. Ramsey County's teen birth rate declined 35 percent between 2010 and 2016. Despite this dramatic decline, it remains the highest among the metro area counties. Although teen birth rates are at a historic low, teens in the U.S. are far more likely to give birth than in any other industrialized country in the world.⁷

BENCHMARK INDICATOR

Healthy People 2020:

1) Reduce pregnancies among adolescent females aged 15 to 17 years.

U.S. Target: 36.2 per 1,000 population. (Ramsey County is already below the goal.)

2) Reduce pregnancies among adolescent females aged 18 to 19 years

U.S. Target: 104.6 per 1,000 population. (Ramsey County is already below the goal.)

DISPARITIES

Ramsey County's teen birth rates during 2013-2015 are nearly four times higher for African-American/African, American Indian and Asian/Asian Pacific Islander teens than they are for white teens, and nearly three times higher for Hispanic teens than they are for white teens.⁸

Information to note

- Ramsey County's teen birth rate declined 35% from 2010-2016, yet remains the highest in the metro area.
- The greatest decline in teen births in Ramsey County was among African-Americans, but rates remain nearly four times higher than white teens.

¹ The National Campaign to Prevent Teen and Unwanted Pregnancy. <https://thenationalcampaign.org/why-it-matters/teen-pregnancy>. Accessed October 13, 2017.

² Frost, J, Frohwirth L, Blades N, et al. Publicly Funded Contraceptive Services at U.S. Clinics, 2015, New York: Guttmacher Institute, 2017.

³ Logan C, Holcombe E, Manlove J, et al. The consequences of unintended childbearing: A white paper [Internet]. Washington: Child Trends, Inc.; 2007 May. <https://thenationalcampaign.org/sites/default/files/resource-primary-download/consequences.pdf>.

⁴ Centers for Disease Control and Prevention. Preconception and interconception health status of women who recently gave birth to a live-born infant—pregnancy risk assessment monitoring system (PRAMS), United States, 26 Reporting Areas, 2004. MMWR Weekly. 2007 Dec 14;56(SS-10):1-40. <https://www.cdc.gov/mmwr/pdf/ss/ss5610.pdf> [PDF- 609 KB]. <https://www.healthypeople.gov/2020/topics-objectives/topic/family-planning>. Accessed 10/13/2017.

⁵ Hoffman S, Maynard R, eds. Kids Having Kids: Economic Costs and Social Consequences of Teen Pregnancy, 2nd ed. Washington: Urban Institute Press; 2008.

⁶ Hoffman S. By the Numbers: The Public Costs of Teen Childbearing. Washington: National Campaign to Prevent Teen Pregnancy; 2006. <https://thenationalcampaign.org/resource/numbers>. <https://www.healthypeople.gov/2020/topics-objectives/topic/family-planning>. Accessed October 13, 2017.

⁷ Kearney MS and Levine, PB. Why is the teen birth rate in the United States so high and why does it matter? Journal of Economic Perspective. 2012 Spring;26(2):141-66.

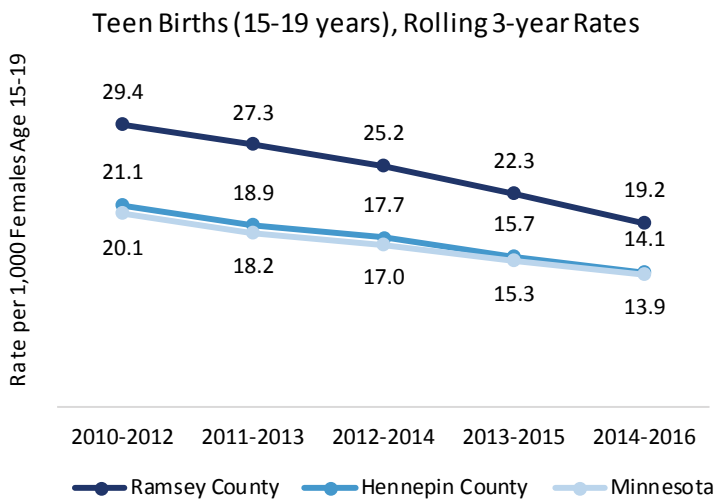
⁸ Minnesota Department of Health. <http://www.health.state.mn.us/divs/chs/> Accessed October 13, 2017.

RISK FACTORS

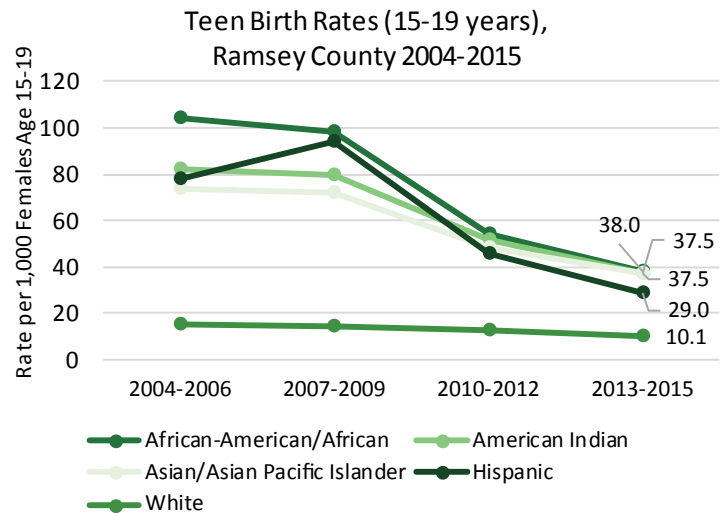
Teen birth is correlated with mothers' educational attainment, poverty status, race and ethnicity. Other socioeconomic conditions in communities and families may also contribute. These include: low education and low income levels of a teen's family; few opportunities in the community for positive youth involvement; neighborhood racial segregation and/or income inequality; and involvement in the welfare system.⁹

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Since 2003, Ramsey County Public Health and Ramsey County Workforce Solutions have collaborated to serve teen parents on MFIP with home visiting and education resources to improve the likelihood of teen parents obtaining a high school diploma by age 19. The percentage of teen MFIP parents achieving a high school diploma has risen over time and is currently above 80% while the total number of teen MFIP parents has declined from more than 350 to less than 50 over the 15 years since the program began. Full-family services are also being developed and implemented through collaboration between Workforce Solutions, Social Services, Financial Assistance, Community Corrections, Public Health, Parks and Recreation, Libraries, the County Attorney's Office and several community non-profits to serve at risk children while serving their parents on public assistance.



Source: Minnesota Department of Health, Center for Health Statistics.¹⁰



Source: Minnesota Department of Health.¹¹

Teen Birth and Pregnancy Rates, 2014 - 2016

	Birth Rates per 1,000			Pregnancy Rates per 1,000		
	15-17 yrs	18-19 yrs	15-19 yrs	15-17 yrs	18-19 yrs	15-19 yrs
Minnesota	5.8	26.3	13.9	8.0	34.5	18.6
Anoka	4.3	24.6	11.1	7.3	34.2	16.4
Carver	0.8	11.7	4.5	1.4	14.9	6.0
Dakota	3.2	23.2	9.9	4.8	33.6	14.5
Hennepin	6.8	24.9	14.1	10.4	38.9	21.9
Ramsey	9.1	31.3	19.2	13.0	42.6	26.4
Scott	2.1	17.9	7.0	3.3	26.4	10.5
Washington	1.9	18.0	7.2	3.7	24.9	10.8

Source: Minnesota Department of Health, Center for Health Statistics.¹⁰

⁹ Centers for Disease Control. <https://www.cdc.gov/teenpregnancy/about/social-determinants-disparities-teen-pregnancy.htm>. Accessed October 13, 2017.

¹⁰ Minnesota Department of Health, Center for Health Statistics. <http://www.health.state.mn.us/divs/chs/countytables/>. Accessed December 4, 2017.

¹¹ Minnesota Department of Health, Center for Health Statistics. <http://www.health.state.mn.us/divs/chs/>. Accessed October 13, 2017.

DESCRIPTION

It is important for women to begin prenatal appointments during their first three months of pregnancy. Women who begin prenatal care during their second or third trimester can have babies that are born too early or with a low birth weight.

HOW WE ARE DOING

During 2012-2016, only 73.7 percent of pregnant women in Ramsey County started prenatal care in the first trimester. This was less than the previous five-year period when 80 percent started prenatal care in their first trimester. Among the pregnant women who did not start prenatal care on time, 20 percent started care in their second trimester and 5 percent in their third trimester. During 2011-2015, the number of Hispanic women in Ramsey County receiving prenatal care in their first three months of pregnancy increased from 76 to 77 percent. African-American women remained steady at 69 percent and first trimester prenatal care decreased from 62 to 60 percent for Asian women. The decrease was more significant for American Indian women in Ramsey County- 64 to 53 percent during the same period. In 2016, 81.4 percent of pregnant Minnesota women and 74.7 percent of pregnant Ramsey County women received prenatal care during their first trimester.¹ During that same year, the national rate of first trimester care was 77.1 percent.² Compared to other counties in the seven-county metro area, only Ramsey County is not meeting the Healthy People 2020 goal.³

BENCHMARK INDICATOR

Healthy People 2020: Increase the proportion of pregnant women who receive prenatal care beginning in the first trimester
U.S. Target: 77.9 percent²

DISPARITIES

During 2011-2015, American Indian women were 32 percent less likely to receive prenatal care during their first trimester than white women. Asian women were 31 percent less likely; African-American women were 21 percent less likely; and Hispanic women were 13 percent less likely than white women in Ramsey County to receive prenatal care during their first trimester. Only 56 percent of Ramsey County women 19 or younger received care in their first three months.¹

RISK FACTORS

Young age, being nonwhite and low education are related to pregnant women getting late prenatal care.²

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul-Ramsey County Public Health offers home visiting services to more than 1,000 families each year. These visits help pregnant women find resources and support, including prenatal care. Public Health's Family Health Division also works closely with Minnesota's Prepaid Medical Assistance Plans to help pregnant women get care. The public health department also runs Child and Teen Checkups, a program that helps women under 22 on public insurance find routine health and prenatal care.

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Information to note

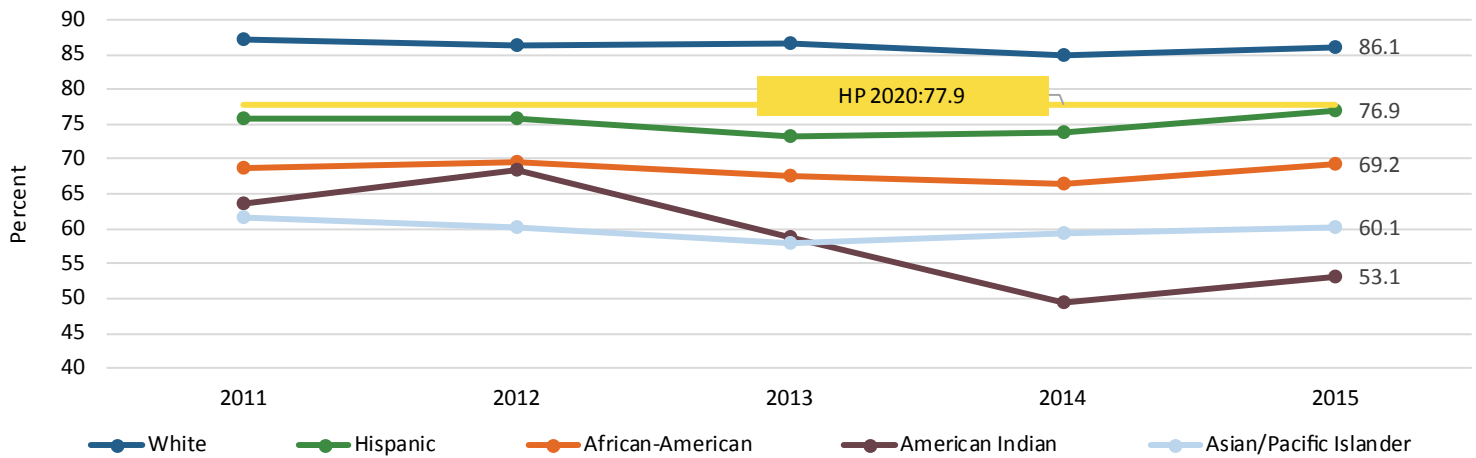
- In the past five years, the percentage of pregnant women in Ramsey County receiving prenatal care in their first trimester declined.
- Only 56 percent of women 19 or younger received prenatal care in their first trimester during 2011-2015.
- Nonwhite women of all races and ethnicities are less likely to receive prenatal care in the first trimester.

¹ Minnesota Center for Health Statistics. Minnesota Department of Health. <http://www.health.state.mn.us/divs/chs>. Accessed May 15, 2018.

² National Center for Health Statistics. 2015 Natality Public Use File. <https://www.dhs.wisconsin.gov/wish/prenatal-care/data.htm>. Accessed February 2018.

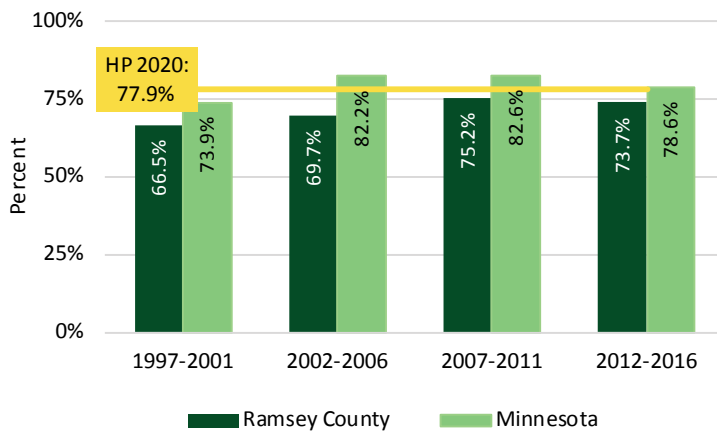
³ Maternal, Infant and Child Health. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/maternal-infant-and-child-health/objectives>. Accessed February 9, 2018.

Women Receiving 1st Trimester Prenatal Care by Race/Ethnicity, Ramsey County



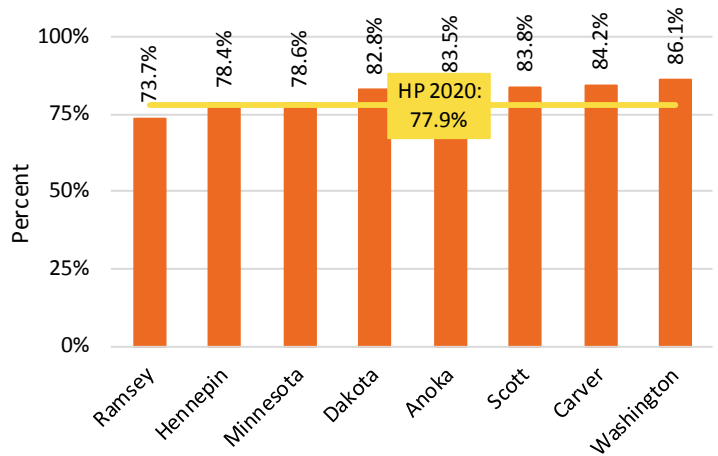
Source: Minnesota Department of Health.⁴

Women Receiving Prenatal Care in the 1st Trimester Over Time, Ramsey County



Source: County Health Table Trends.⁵

Women Receiving Prenatal Care in the 1st Trimester, 2012-2016



Source: County Health Table Trends.⁵

⁴ Minnesota Department of Health. Center for Health Statistics. <http://www.health.state.mn.us/divs/chs> Accessed October 13, 2017.

⁵ County Health Table Trends. Minnesota Center for Health Statistics, MDH. Accessed February 26, 2018.

Special Supplemental Nutrition Program (WIC)

DESCRIPTION

The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) serves women and children at nutritional risk by providing nutrition education, breastfeeding support, nutritious foods, and referrals to health care and community programs for pregnant, breastfeeding or postpartum women and infants and children until age 5. WIC is administered by the Food and Nutrition Service of the U.S. Department of Agriculture. WIC services are free of charge and are available at six WIC clinic sites in Ramsey County. Studies demonstrate that the WIC Program is cost effective in protecting and improving the health and nutritional status of low-income women, infants and children including positive birth outcomes; savings in health care costs; positive diet and nutritional outcomes; successful infant feeding practices; immunization rates; obtaining a regular source of medical care; cognitive development; pre-conception nutritional status; and more.¹

HOW WE ARE DOING

More than half of all Ramsey County children ages birth until five participate in WIC.² Saint Paul – Ramsey County Public Health's WIC program served 28,856 women, infants and children in 2017: 7,957 women; 8,201 infants under 1, and 12,698 children age 1-5. In Minnesota, several health indicators are tracked for infants, children age 2-5 and women enrolled in WIC. Saint Paul – Ramsey County Public Health increased WIC breastfeeding rates and reduced high weight in WIC children since 2012. Reflecting statewide trends, anemia in both women and children as well as high pre-pregnancy weight have increased since 2012.³

DISPARITIES

In 2017, 87 percent of Ramsey County WIC participants were non-white or Hispanic. African-American and Asian residents made up almost two-thirds of Ramsey County's WIC population. In August 2017, 37.5 percent of WIC's African-American participants self-identified as multigenerational U.S. black and 32.7 percent self-identified as Somali or Somali-American. Among Asian WIC participants, 68.5 percent self-identified as Hmong or Hmong-American, and 21.1 percent self-identified as Karen or Karen-American.²

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Saint Paul-Ramsey County Public Health WIC staff work collaboratively with other Ramsey County departments to establish and maintain space for working women to breastfeed or express breast milk. Other collaborative partnerships include WIC working with families who need assistance in the SNAP or MA application process, with libraries to increase early literacy among WIC participant households and with Ramsey County's six school districts to share demographic information about WIC's three-year-olds that the school districts will use to contact families about Early Childhood Screening.

Information to note

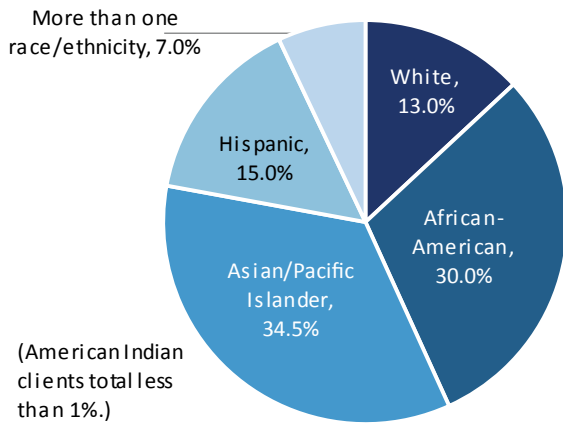
- During 2015, Saint Paul-Ramsey County Public Health issued \$14 million worth of food vouchers to WIC clients.
- Saint Paul-Ramsey County Public Health's WIC caseload declined slightly in 2016 but the percentage of those at higher nutritional risk increased.
- Breastfeeding rates for WIC mothers have increased since 2012, for initiation as well as duration at the 1, 3, 6 and 12 month marks.
- The percentages of overweight, obese and very obese Ramsey County 2-5 year olds all decreased since 2012.
- Ramsey County WIC has done better than the statewide average in getting Medicaid moms enrolled in WIC, and in getting these moms enrolled earlier in their pregnancies. The longer moms participate during their pregnancies, the better the birth outcomes.

¹ U.S. Department of Agriculture, Food and Nutrition Service. <https://www.fns.usda.gov/wic/women-infants-and-children-wic>. Accessed September 7, 2017.

² Saint Paul-Ramsey County Public Health WIC database. 2016.

³ Minnesota Department of Health WIC Information System, 2017. <http://www.health.state.mn.us/divs/fh/wic/localagency/reports/index.html>. Accessed March 6, 2018

Individuals Receiving WIC Services,
Ramsey County, 2017



Source: Saint Paul - Ramsey County Public Health

WIC Health Indicators Summary

	Minnesota		Ramsey County	
	2012	2015	2012	2015
Infants				
Breastfeeding				
Initiation	76.0%	80.6%	70.5%	77.9%
Duration 1 mo	57.7%	62.4%	55.0%	59.8%
Duration 3 mos	43.2%	47.8%	41.3%	45.6%
Duration 6 mos	32.1%	35.6%	30.9%	33.9%
Duration 12 mos	13.6%	18.6%	14.7%	18.1%
Women	2012	2016	2012	2016
Anemia				
Prenatal (any trimester)	10.2%	14.8%	12.2%	16.7%
Prenatal (3rd trimester)	26.6%	32.3%	32.6%	37.7%
Postpartum	31.0%	34.9%	39.6%	48.3%
Weight Status Pre-pregnancy				
Overweight/Obese/Very Obese	58.2%	65.5%	56.0%	63.5%
Children	2012	2016	2012	2016
Anemia 0-5yrs	10.9%	13.3%	15.1%	18.9%
Overweight 2-5 yrs (\geq 85th to $<$ 95th percentile)	16.0%	16.0%	16.7%	15.9%
Obese 2-5 yrs (\geq 95th to $<$ 97.5th percentile)	4.7%	4.5%	5.5%	4.3%
Very Obese 2-5 yrs (\geq 97.5th percentile)	8.0%	8.1%	9.0%	8.7%

Source: Minnesota Department of Health WIC Information System 2017.⁴

⁴ Minnesota Department of Health WIC Information System 2017. <http://www.health.state.mn.us/divs/fh/wic/localagency/reports/index.html> Accessed March 6, 2018

Substance Use During Pregnancy

DESCRIPTION

Tobacco smoking during pregnancy has long been associated with premature birth and low birth weight in babies. It is also linked to birth defects and infant death, as well as miscarriage or fertility problems in women.¹ Fetal Alcohol Spectrum Disorder (FASD) is a range of effects that can occur in someone whose mother drank alcohol during pregnancy. The prevalence of FASD is as high as 2-4 percent in some populations. FASD is considered the most commonly identifiable cause of developmental delays and intellectual disabilities in children- and the most underrecognized. About half of all childbearing age women in the U.S. report consuming alcohol within the past month, and nearly eight percent of women said they continued to consume alcohol during pregnancy. A recent study found increased risk of infant growth delay even when a pregnant woman had only one alcoholic drink per day.²

Drug use during pregnancy can cause premature birth, heart defects, infections including hepatitis or HIV, low birth weight or Neonatal Abstinence Syndrome (NAS) in newborns. About one in 20 women nationally report using street drugs such as cocaine, heroin, marijuana, or prescription drugs recreationally during their pregnancy. Babies born to women who use drugs may have problems later in life, including learning and behavior problems, slower-than-normal growth, or Sudden Infant Death Syndrome (SIDS).³ Babies delivered with NAS stay in hospitals for 2-3 weeks longer than other babies.⁴

HOW WE ARE DOING

During 2011-2015, 11 percent of Ramsey County women reported tobacco use during or just before pregnancy. The percentage during 2008-2011 was lower at 8.3 percent.⁵

BENCHMARK INDICATOR

Healthy People 2020: Increase abstinence from cigarette smoking among pregnant women.

U.S. Target: 98.6 percent⁶

DISPARITIES

There are disparities in tobacco use among pregnant women in Ramsey County. American Indian women used tobacco most often (39 percent) followed by 14 percent of African-American women. Five percent of Asian/Pacific Islander, eight percent of Hispanic, and 13 percent of white women reported cigarette use during pregnancy.⁵

RISK FACTORS

Disparities among women who smoke cigarettes suggests that tobacco industry marketing campaigns have historically targeted racial minorities and women.⁷

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Information to note

- During 2011-2015, 39% American Indian, 14% African-American, 13% of white women, 8% Hispanic, and 5% Asian/Pacific Islander women used tobacco during pregnancy.
- Ramsey County is not meeting the Healthy People 2020 target for tobacco use during pregnancy.

¹ Tobacco Use and Pregnancy. Centers for Disease Control & Prevention. <https://www.cdc.gov/reproductivehealth/maternalinfanthealth/tobaccousepregnancy/index.htm>. Accessed December 2, 2017.

² AAP Says No Amount of Alcohol Should be Considered Safe During Pregnancy. American Academy of Pediatrics. <https://www.aap.org/en-us/about-the-aap/aap-press-room/pages/AAP-Says-No-Amount-of-Alcohol-Should-be-Considered-Safe-During-Pregnancy.aspx>. Published October 19, 2015. Accessed December 2, 2017.

³ Street Drugs During Pregnancy. March of Dimes. <https://www.marchofdimes.org/pregnancy/street-drugs-and-pregnancy.aspx>. Accessed December 2, 2017.

⁴ Opioid Use Disorder in Pregnancy. The American Congress of Obstetricians and Gynecologists. <https://www.acog.org/About-ACOG/ACOG-Districts/District-II/Opioid-Use-Disorder-in-Pregnancy> Accessed December 2, 2017.

⁵ Minnesota Department of Health. (2017). Vital Records. <http://www.health.state.mn.us/divs/chs/osr/>.

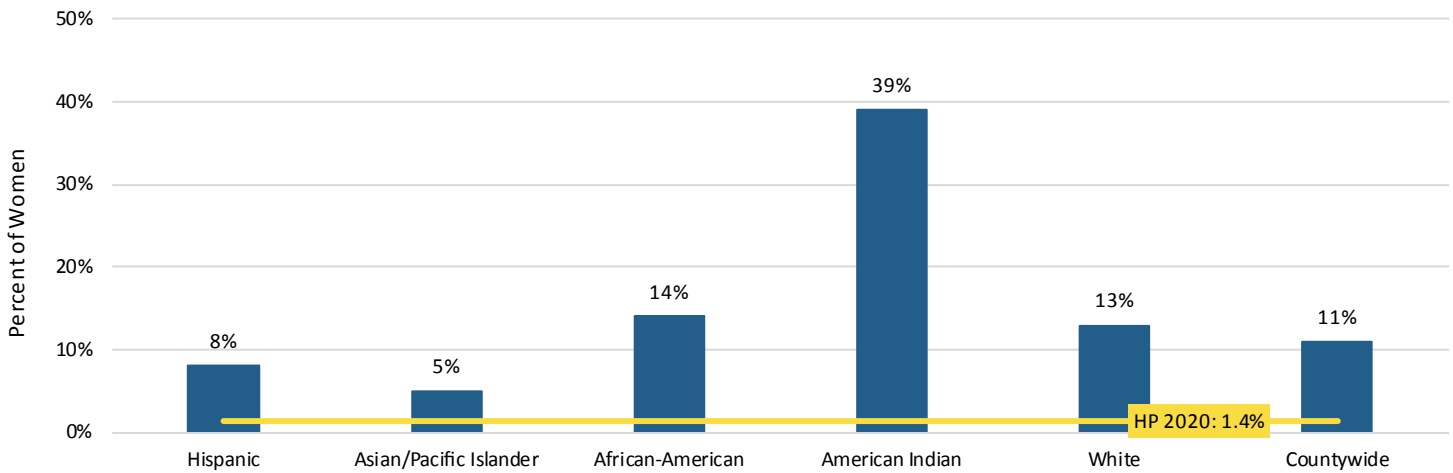
⁶ Maternal, Infant, and Child Health. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/maternal-infant-and-child-health/objectives>. Accessed February 9, 2017.

⁷ Giovino GA, et al. Differential trends in cigarette smoking in the USA: Is menthol slowing progress? *Tob Control*. 2015;24:28-37. <https://tobaccocontrol.bmj.com/content/24/1/28>. Accessed August 2018.

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

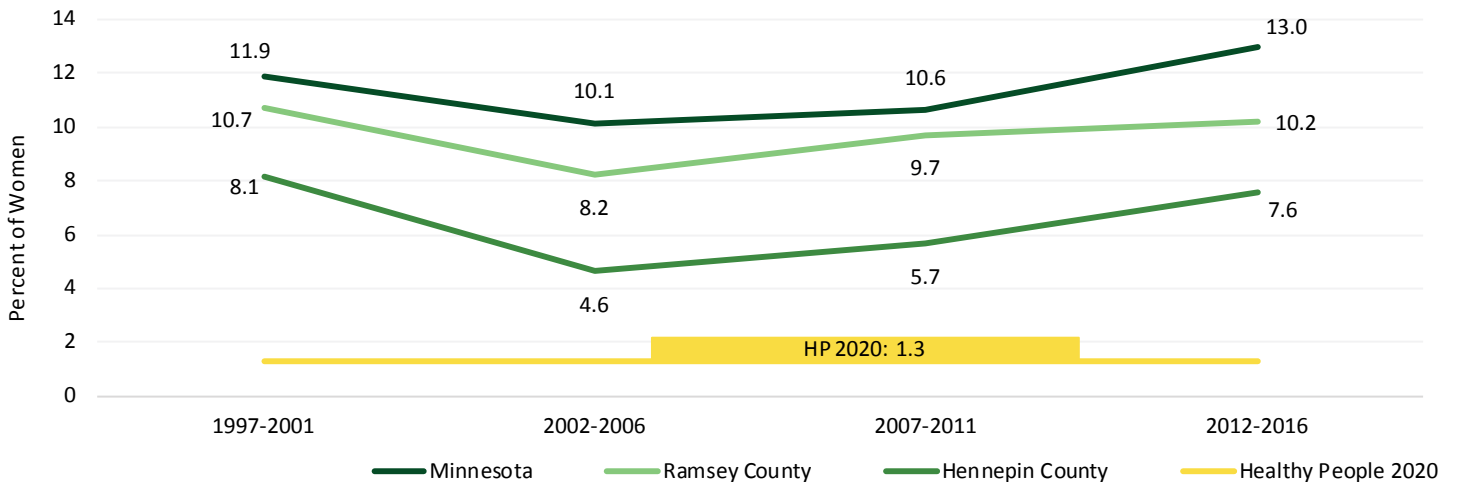
Reports of pregnant women using drugs or alcohol are taken by Ramsey County Children’s Intake screeners. The reports are all referred to the Ramsey County Mother’s First Program. Mother’s First is an intervention and recovery program staffed by an interdisciplinary team of public health nurses, social workers and Licensed alcohol and drug counselors for women who are pregnant and are using drugs or alcohol. Additionally, the nurse family home visiting delivered by Saint Paul – Ramsey County Public Health discusses tobacco, alcohol and substance use with pregnant and parenting women, offering them support for quitting, health and motivational resources.

Tobacco Use During Pregnancy, Ramsey County, 2011-2015



Source: Minnesota Department of Health Vital Records.⁸

Tobacco Use During Pregnancy Over Time



Source: Minnesota Department of Health.⁹

⁸ Minnesota Department of Health Vital Records.

⁹ Source: Minnesota Department of Health. Minnesota State, County, and Community Health Board Vital Statistics Trend Report, 1997-2016. <http://www.health.state.mn.us/divs/chs/trends/index.html>. Accessed February 22, 2018.