2016 MINNESOTA ADOLESCENT SEXUAL HEALTH REPORT

This report details the sexual health of Minnesota's youth. Overall, there is much to celebrate. Teen pregnancy and birth rates are at historic lows. The adolescent gonorrhea rate continues to decline while the chlamydia rate remains essentially unchanged. Young people are to be commended for making wise and healthy choices about their sexual health. However, many challenges remain. The following recommendations are the University of Minnesota Healthy Youth Development • Prevention Research Center's (PRC) response to the issues outlined in this report.

RECOMMENDATIONS

- Adolescent sexual health comprises much more than the absence of pregnancy, early childbearing, or infection. To fully support young people's health, we need to address their physical, social, emotional and cognitive development, and give them skills and supports to navigate healthy relationships.
- Fostering young people's health, including their sexual health, requires that we address social determinants of health like education, employment, income, housing, community safety and vitality, discrimination, family and social supports, and access to quality health care services.
- The systems that educate young people are not providing the supports needed to ensure overall health, including sexual health. Schools, out-of-school time programs, clinics and faith communities must be better prepared to have open and nonjudgmental conversations with youth.
- Parents need to be supported in their role as sexuality educators. Honest, accurate and developmentally appropriate information from parents, grandparents, and other adult caregivers is the first step toward raising healthy children who make responsible decisions about sex, sexuality and relationships.
- Disparities in pregnancy, birth and STIs persist. We need to assure that programs and services meet the unique needs of youth from underserved populations, including those who are LGBTQ, gender non-conforming, from rural areas, homeless, in foster care, in juvenile justice settings, and/or from populations of color.
- Current Minnesota programs and policies inadequately address the distinct needs of adolescent parents and their children. Young parents need access to confidential sexual health services, high quality education, home visiting services and parenting support.
- Traumatic childhood experiences impact health and health behaviors during adolescence and throughout the life course. Being aware of the potential impacts of adverse childhood events, providing trauma-informed services, and offering strengths-based programs and services are critical to health promotion with vulnerable groups of young people.

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PREGNANCY & BIRTH

Every day in 2014, approximately 10 adolescents became pregnant and 7 gave birth in Minnesota.[1]

Trends in Pregnancy and Birth

Overall, the birth rate among adolescents age 15-19 in Minnesota decreased 8.1% from 2013 to 2014. Pregnancy rates decreased by 8.2%. Both pregnancy and birth rates are at historic lows, having declined 66% for pregnancy and 58% for births since the early 1990s. Mirroring national trends, the declines are driven by dramatic decreases in rates among Minnesota's adolescent populations of color.[2]

The number of pregnancies for adolescents under 15 decreased by 7% and the number of births for this age group decreased nearly 26% from 2013 to 2014. This change is magnified because so few adolescents in this age group become pregnant and give birth each year.

FIGURE 1. MINNESOTA ADOLESCENT PREGNANCY STATISTICS, 1990-2014

NUMBER OF PREGNANCIES	1990	1995	2000	2013	2014	CHANGE SINCE 1990	CHANGE SINCE 2013
Under 15 years	159	154	150	57	**53**	-66.7%	-7%
15–17 years	2803	2782	2411	1004	**951**	-66.1%	-5.3%
18–19 years	5833	4664	5164	2874	**2610**	-55.3%	-19.6%
15–19 years	8636	7446	7575	3878	**3561**	-58.8%	-8.2%
PREGNANCY RATES PER 1,000	**1990**	**1995**	**2000**	**2013**	**2014**	**CHANGE SINCE 1990**	**CHANGE SINCE 2013**
15–17 years	33.8	31.2	21.9	9.7	**9.1**	-73.1%	-6.2%
18–19 years	92.2	68.5	70.9	40	**37**	-59.9%	-7.5%
15–19 years	59	47.3	41.4	22.2	**20.4**	-65.5%	-8.2%

FIGURE 2. MINNESOTA ADOLESCENT BIRTH STATISTICS, 1990-2014

NUMBER OF BIRTHS	1990	1995	2000	2013	2014	CHANGE SINCE 1990	CHANGE SINCE 2013
Under 15 years	94	84	87	31	**23**	-75.5%	-25.8%
15–17 years	1648	1939	1710	758	**708**	-57%	-6.6%
18–19 years	3688	3273	3686	2192	**2002**	-45.7%	-8.7%
15–19 years	5336	5212	5396	2950	**2710**	-49.2%	-8.1%
BIRTH RATES PER 1,000	**1990**	**1995**	**2000**	**2013**	**2014**	**CHANGE SINCE 1990**	**CHANGE SINCE 2013**
15–17 years	19.9	21.7	15.5	7.3	**6.8**	-65.8%	-6.8%
18–19 years	58.3	48.1	50.6	30.5	**28.4**	-51.3%	-6.9%
15–19 years	36.5	33.1	29.5	16.9	**15.5**	-57.6%	-8.1%

National Comparison

From 2007 to 2014, the birth rate for youth aged 15–19 in the US dropped nearly 45%, reaching a record low of 24 per 1,000 in 2014.[3] The overall decline in the adolescent birth rate over the past two decades has been attributed to delayed initiation of sexual activity and improvements in teens' contraceptive use.[4,5]

Despite reaching historic lows in 2014, the United States continues to have the highest adolescent pregnancy and birth rates among developed nations. The U.S. teen birth rate is six times higher than Denmark, Japan and the Netherlands, and eight times higher than Switzerland.[6]

Subsequent Births (Additional births to adolescent mothers)[7]

- Nationally, 17% of births to adolescents are subsequent births.
- In Minnesota, 13% of births to adolescents are subsequent births.

Pregnancy prevention among adolescent mothers is a complex issue. Subsequent births to adolescents may be associated with many factors, such as maternal age at first birth, contraceptive use, educational attainment and living with an intimate partner rather than living with a parent.[8] Education systems offer little support to adolescent parents; when their academic success is curtailed, it may have longer lasting effects on their children's development than maternal age at first birth.[9] In Minnesota, teens with the highest percent of subsequent births are from communities of color. Over 22% of births to American Indian and Asian/Pacific Islander youth are subsequent births compared to 10% of births to white adolescents.[10]

RETHINKING HEALTH DISPARITIES

Taking a broader view of disparities reveals systemic impacts on teen pregnancy and sexual health.

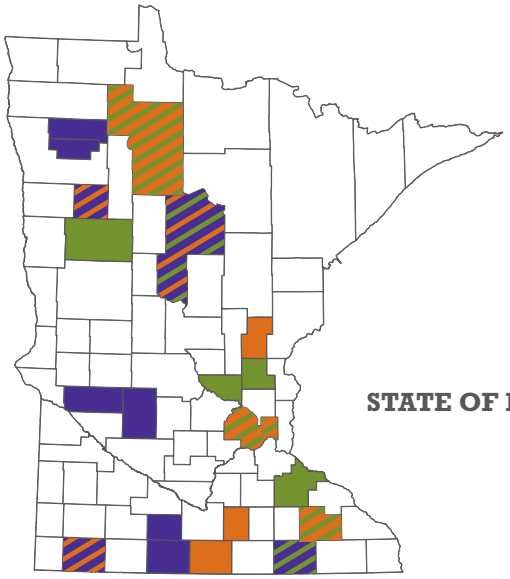
The 2016 Adolescent Sexual Health Report includes data about disparities by race/ethnicity, geographic region and sexual orientation. It highlights how young people are disproportionately impacted by STIs as well as the disparate sexual health outcomes for young people who experience Adverse Childhood Experiences (ACEs). Viewed collectively, this broader grouping of disparities data reveals that not all Minnesota communities receive the same level of support and investment. It also illustrates the need to address systemic influences — economy, housing and employment policies, educational systems — as core strategies for promoting sexual health.

GEOGRAPHIC DISPARITIES

Pregnancy and birth disproportionately impact greater Minnesota counties, while STIs are widespread throughout the state.[11,12]

Although the numbers of pregnancies, births and STIs are larger in the metro area, these issues also affect greater Minnesota (Figures 3, 4 and 5). In these areas, adolescent sexual health care is often offered in the form of family planning services, which can appear geared toward females. Improving adolescent sexual health in Minnesota requires a heightened focus on rural areas and on serving young men.

FIGURE 3. MINNESOTA COUNTIES WITH HIGHEST BIRTH, CHLAMYDIA AND GONORRHEA RATES AMONG YOUTH AGED 15-19



BIRTH	CHLAMYDIA*	GONORRHEA*
Watonwan-58.2	Mahnomen-3,261	Olmsted-476
Mahnomen-42.4	Hennepin-2,122	Ramsey-394
Cass-40	Ramsey-2,044	Cass-348
Nobles-34.1	Olmsted-1,915	Hennepin-348
Kandiyohi-33.3	Cass-1,625	Becker-258
Red Lake-30.3	Beltrami-1,580	Isanti-194
Swift-29.9	Nobles-1,543	Mower-187
Mower-29.7	Faribault-1,395	Goodhue-171
Pennington-29.6	Waseca-1,375	Beltrami-161
Martin-28.2	Kanabec-1,269	Sherburne-111
STATE OF MN:	**15.5 per 1,000**	**1,403 per 100,000**	**174 per 100,000**

Did you know? The 10 counties with the highest teen birth rates are all in greater Minnesota.

*Chlamydia and gonorrhea rates not calculated for counties with fewer than five cases. To view county-specific adolescent sexual health reports, please visit prc.umn.edu.

FIGURE 4. CHLAMYDIA CASES AMONG YOUTH AGED 15-19 BY GEOGRAPHIC LOCATION, 2015

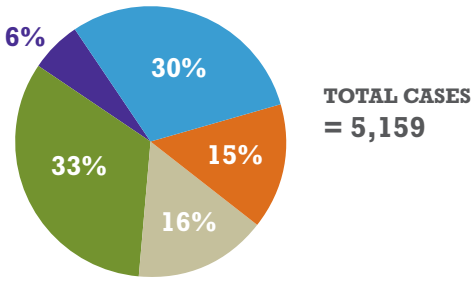
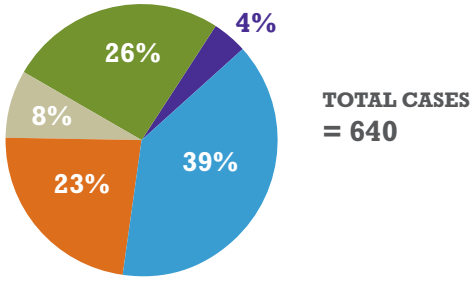


FIGURE 5. GONORRHEA CASES AMONG YOUTH AGED 15-19 BY GEOGRAPHIC LOCATION, 2015



Suburban counties: Anoka, Carver, Dakota, Scott, and Washington. All other MN counties are rural.

RACIAL/ETHNIC DISPARITIES

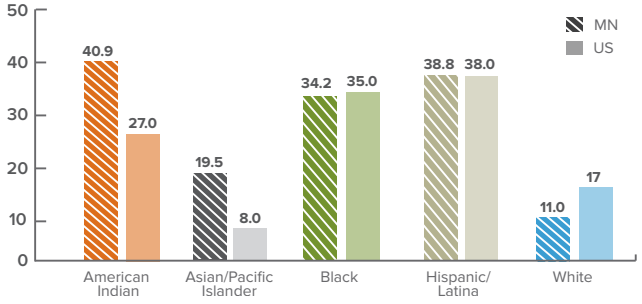
The birth rates for American Indian, Black and Hispanic/Latina youth in Minnesota are more than three times greater than that of White youth (Figure 6).

From 2013 to 2014, birth rates decreased among adolescents in every racial group. The birth rate fell most markedly among American Indian and Asian/Pacific Islander youth, which saw declines of 15% and 19%, respectively.[13]

Although adolescent pregnancy and birth rates are highest among Minnesota populations of color, the largest number of adolescent births is among White youth, who account for 59% of teen births in Minnesota.

Pregnancy, birth and STI rates among youth continue to vary across racial and ethnic groups in Minnesota.[14] To eliminate these persistent disparities, we must address social determinants of health (i.e. poverty, racism, unequal access to health care and education), which disproportionately affect the health of young people in communities of color.[15]

FIGURE 6. ADOLESCENT BIRTH RATES BY RACE AND HISPANIC ORIGIN, MINNESOTA VS UNITED STATES, 2014 (AGED 15-19 PER 1,000 POPULATION)



Note: The term "Black" is used rather than "African American" to be consistent with state and national racial categories and because the data presented in this racial category includes both foreign-born and U.S.-born populations.

Sexually Transmitted Infections:

STI rates are disproportionately high for populations of color in Minnesota. The rates for both chlamydia and gonorrhea are highest among Black youth, followed by American Indian youth.[16, 17] The gonorrhea rate is 33 times higher for Black youth and 11 times higher for American Indian youth when compared to White youth (Figure 7).[18]

FIGURE 7. MINNESOTA CHLAMYDIA AND GONORRHEA RATES BY RACE AND HISPANIC ORIGIN, 2015 (AGED 15-19 PER 100,000 POPULATION)

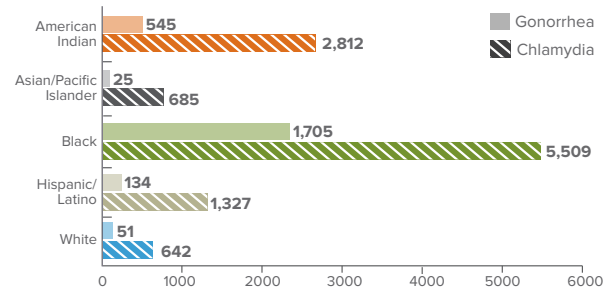


FIGURE 8. RACIAL COMPOSITION OF MINNESOTA YOUTH, AGED 15-19, 2015

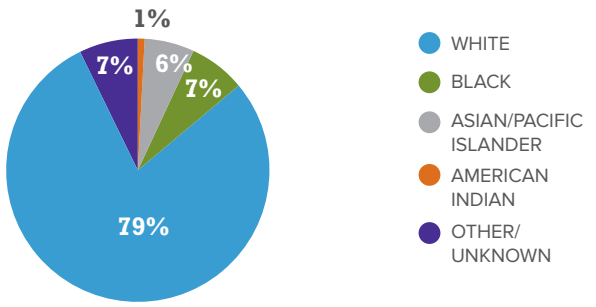


FIGURE 9. CHLAMYDIA CASES AMONG MINNESOTA YOUTH, AGED 15-19, 2015

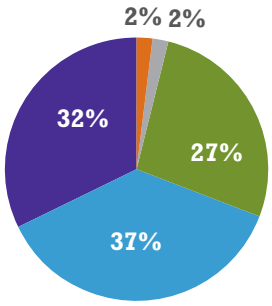
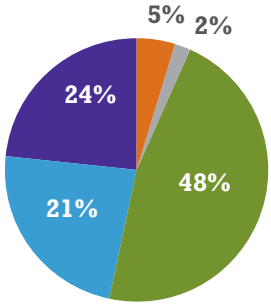


FIGURE 10. GONORRHEA CASES AMONG MINNESOTA YOUTH, AGED 15-19, 2015



Note: Consistent with state and national standards, persons who identify as Hispanic/Latino may be of any race. These individuals are included within the racial categories represented in Figures 9 and 10. Due to rounding, totals for Figures 9 and 10 may not equal 100.

SEXUAL ORIENTATION DISPARITIES

Minnesotan lesbian, gay, bisexual and questioning youth represent a population that has significant sexual health needs. Pregnancy can affect any young person, regardless of their sexual orientation.

Bisexual females are five times more likely to have been pregnant than straight females. Questioning and gay males are four times more likely than straight males to report getting someone pregnant.[19]

ADVERSE CHILDHOOD EXPERIENCES

Young people who experience traumatic childhood events are at increased risk for negative sexual health outcomes during adolescence.

Adverse Childhood Experiences (ACEs) are traumatic events such as abuse, neglect, witnessing crime, parental conflict, parental mental illness and/or parental substance abuse. ACEs can create dangerous levels of stress, disrupt healthy development and result in long-term effects on young people's health, including their sexual health.[20]

ACEs are traumatic events experienced during childhood that include:

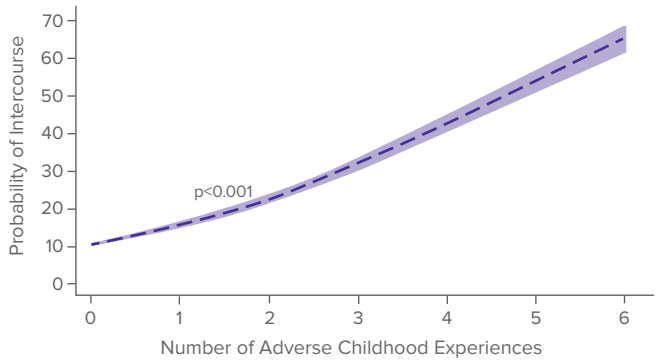
- verbal, physical and sexual abuse by a caregiver,
- parental substance misuse or abuse,
- parental intimate partner violence,
- parental incarceration[21]

The impact of ACEs is cumulative. With each additional ACE, teens are:

- **49% more likely to have had sex**
- **62% more likely to have gotten pregnant or gotten someone pregnant**

Data from the Minnesota Student Survey indicate that 30% of 9th graders reported exposure to at least one ACE. Increased exposure to ACEs increases the likelihood of sexual activity in 9th grade students (Figure 11).

FIGURE 11. THE CUMULATIVE IMPACT OF ACES ON SEXUAL RISK BEHAVIORS



*Analysis controlled for ethnicity, family composition, and poverty

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SEXUALLY TRANSMITTED INFECTIONS

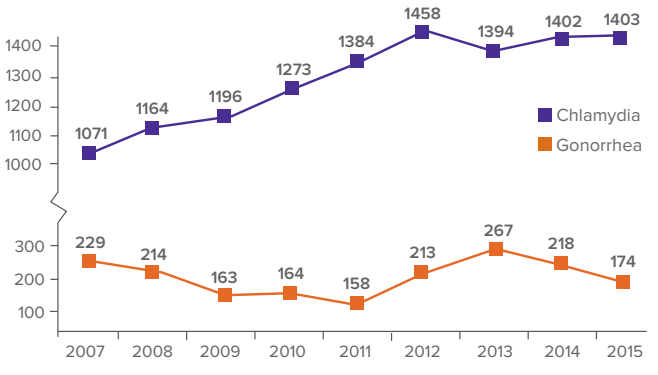
Even though they account for only 7% of the population in Minnesota,[22] adolescents aged 15-19 accounted for 24% of chlamydia and 16% of gonorrhea cases in 2015.[23]

Adolescents and young adults experience a disproportionately high incidence of sexually transmitted infections. This is likely related to a lack of access to STI prevention services, poverty, discomfort with facilities designed for adults and concerns about confidentiality.[24]

Gonorrhea rates among 15-19 year olds have varied over time, but last year marked a 17% decline in gonorrhea among teens[25] (Figure 12). The chlamydia rate for adolescents aged 15-19 increased very slightly, by 0.7%, from 2014 to 2015[26]. Despite the recent leveling off of chlamydia rates, Minnesota has experienced a 51% increase in chlamydia infection among youth in the last decade[27]. Gonorrhea tends to be reported in certain counties and communities, while chlamydia is widespread throughout the state of Minnesota.

There were 12 new cases of HIV among adolescents ages 13-19 in Minnesota in 2015, which is a decrease of 29% from 2014 when 17 new cases diagnosed among this age group. Even though HIV indiscriminately affects individuals in the general population, HIV cases among Minnesota youth predominantly affect men who have sex with men.[28]

FIGURE 12. GONORRHEA AND CHLAMYDIA IN MINNESOTA, 2007 - 2015 (AGED 15-19 PER 100,000 POPULATION)



REFERENCES

[1] Minnesota Department of Health (MDH), Center for Health Statistics, Minnesota Health Statistics Annual Summary, 2014.
[2] CDC. (April 28, 2016). *Teen birth rates fall nearly 50 percent among Hispanic and black teens, dropping national teen birth rate to an all-time low* [Press Release]. Retrieved from www.cdc.gov/media/releases/2016/p0428-teen-birth-rates.html.
[3] Hamilton BE, Martin JA, Osterman MJK, Curtin SC, Births: Preliminary data for 2013. *National Vital Statistics Reports* 2014;63(2). http://www.cdc.gov/nchs/data/nvsr/nvsr63/nvsr63_02.pdf
[4] Boonstra HD, What is Behind the Declines in Teen Pregnancy Rates? *Guttmacher Policy Review* 2014;17(3). http://www.guttmacher.org/pubs/gpr/17/3/gpr170315.html
[5] Centers for Disease Control and Prevention (CDC). Vital Signs: Trends in Use of Long-Acting Reversible Contraception Among Teens Aged 15-19 Years Seeking Contraceptive Services- United States, 2005-2013. MMWR 2015;64(13):363 – 369.
[6] The World Bank Group, *World development indicators: Reproductive health*, 2014. http://wdi.worldbank.org/table/2.17
[7] The National Campaign to Prevent Teen and Unplanned Pregnancy. 50-State and National Comparisons thenationalcampaign.org/data/state/minnesota .
[8] CDC. Vital Signs: Repeat Births Among Teens – United States, 2007 – 2010. MMWR 2013;62(13):249 – 255. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6213a4.htm
[9] Sullivan K, Clark J, Castrucci B, Samsel R, Fonesca V, Garcia I. Continuing Education Mitigates the Negative Consequences of Adolescent Childbearing. Maternal and Child Health Journal 2011;15:360–366.
[10] The National Campaign to Prevent Teen and Unplanned Pregnancy. 50-State and National Comparisons thenationalcampaign.org/data/state/minnesota.
[11] MDH, Center for Health Statistics, 2013 Birth Data.
[12] MDH, STD and HIV/AIDS Surveillance Systems, Surveillance Statistics 2014.
[13] MDH, Center for Health Statistics, 2014 Birth Data.
[14] MDH, Center for Health Statistics. The Health and Well-Being of MN's Adolescents of Color: A Data Book, May 2012. www.health.state.mn.us/divs/chs/mss/specialreports/AdolescentsOfColor_REPORT_051412.pdf.
[15] CDC. Establishing a Holistic Framework to Reduce Inequities in HIV, Viral Hepatitis, STDs, and Tuberculosis in the United States, October 2010. www.cdc.gov/socialdeterminants/docs/SDH-White-Paper-2010.pdf.
[16] MDH, STD and HIV/AIDS Surveillance Systems, Surveillance Statistics 2014.
[17] Ibid
[18] Ibid.
[19] MDH, Center for Health Statistics, 2013 MN Student Survey.
[20] Anda RF, Felitti VJ, Walker J, Whitfield, CL, Bremner JD, Perry BD, Dube SR, Giles WH. The Enduring Effects of Abuse and Related Adverse Experiences in Childhood: A Convergence of Evidence from Neurobiology and Epidemiology. European Archives of Psychiatry and Clinical Neurosciences, 2006; 256(3):174-86
[21] Ibid.
[22] U.S. Census Bureau, American Community Survey 3 Year Estimates: 2009-2011. factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?fpt=table.
[23] MDH, STD and HIV/AIDS Surveillance Systems, Surveillance Statistics 2015.
[24] CDC. Sexually Transmitted Disease Surveillance, 2013. http://www.cdc.gov/std/stats13/surv2013-print.pdf.
[25] MDH, STD and HIV/AIDS Surveillance Systems, Surveillance Statistics 2007-2015.
[26] MDH, STD and HIV/AIDS Surveillance Systems, Surveillance Statistics 2015.
[27] MDH, STD and HIV/AIDS Surveillance Systems, Surveillance Statistics 2003-2015.
[28] MDH, MN HIV Surveillance Report, 2015.

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For 30 years, the Centers for Disease Control and Prevention have worked to eliminate health disparities and create healthy communities by funding Prevention Research Centers (PRCs) throughout the United States.

The Healthy Youth Development • Prevention Research Center (HYD•PRC), housed at the University of Minnesota, Department of Pediatrics, is one in a network of 26 academic centers whose main objective – as a PRC – is to link science to practice and advance the fields of health promotion and prevention.

The HYD•PRC collaborates with state and local organizations and communities to conduct research, provide training, and disseminate actionable knowledge and best practices that promote healthy development and health equity for all youth.

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