

Where do Minnesota youth stand on Healthy Youth 2010 targets?

Results from the 2007 Minnesota Student Survey and the 2007 National Youth Risk Behavior Survey in comparison to some of the 2010 targets

December 2008

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Every 10 years, the U.S. Department of Health and Human Services (HHS) provides a list of national objectives for promoting people's health and preventing disease. Of the 467 Healthy People 2010 objectives, a national panel of experts convened by the Centers for Disease Control and Prevention, Division of Adolescent and School Health, identified 21 critical health objectives that are important for adolescents and young adults (aged 10 to 24 years), such as mortality, unintentional injury, violence, substance abuse and mental health, reproductive health and chronic diseases.

A subset of selected health objectives for youth can be monitored both by the Minnesota Student Survey (MSS), a statewide survey monitoring many aspects of Minnesota youth including health-risk behaviors, and the Youth Risk Behavior Survey (YRBS), one of the major nationwide youth surveys monitoring health-risk behaviors. To examine where Minnesota youth stand on the Healthy People 2010 objectives for youth, data from the 2007 MSS on the selected health objectives are presented in the table, in comparison to the 2010 targets as well as to the national estimates from the 2007 YRBS.

The MSS is a statewide school-based survey among students in grades 6, 9 and 12, conducted every three years by an interagency team consisting of four state agencies (Education, Health, Human Services, and Public Safety). The YRBS is a national school-based survey conducted by Center for Disease Control and Prevention among students in grades 9-12 biennially. The 2007 MSS data consist of 136,549 students from 309 school districts, with 91% of district response rate and 72% of student response rate. The 2007 YRBS national data consist of 14,041 students from 157 schools, with 81% of school response rate and 84% of student response rate. To make the data more comparable between MSS and YRBS, the MSS data from 6th graders are excluded from the comparison.

There are some differences between the two data sets that require caution in comparing the estimates: (1) YRBS included both public and private schools while MSS included only public schools; (2) YRBS collected data from all students in high school (grades 9 through 12) whereas MSS data used for the comparison are from students in grades 9 and 12 only; (3) Some questions are not exactly the same across YRBS and MSS, which are highlighted in the footnotes of the table; (4) Skip patterns

were not included in the YRBS questionnaire to protect students' privacy by ensuring all students took about the same amount of time to complete the survey, while the MSS questionnaire included a few skip patterns; (5) YRBS used a three-stage cluster sample design to produce a nationally representative sample of students, whereas MSS is a census, inviting all the public school districts in the state. In addition, both YRBS and MSS data share a limitation of self-reporting; the extent of underreporting or over-reporting of health-risk behaviors cannot be determined since all the measures are based on self-reporting.

Minnesota youth exceeded the 2010 targets for increasing safety belt use and reducing physical violence while nationwide youth were still behind the targets in 2007. Reducing tobacco use was another objective where Minnesota youth were doing better than their nationwide counterparts. Although they did not meet the 2010 targets yet, Minnesota youth were closely approaching them in 2007.

While the proportion of Minnesota high school seniors who never had an alcoholic drink (26.3%) closely approached the 2010 target of 29.0%, the proportion of seniors who engaged in binge drinking (30%) was much higher than the 2010 target of 11%. In addition, on the objectives of reducing marijuana use, increasing physical activity and reducing overweight/obesity rates, Minnesota youth were far behind the targets: 13.9% reported past month use of marijuana, only 66.6% engaged in vigorous physical activity for at least 20 minutes on 3 or more days per week, and 22.1% were either overweight or obese in 2007. Targets for marijuana use and overweight/obesity rates were set for children and adolescents older than 12 years whereas the estimates from MSS and YRBS were only for high school students, excluding the younger youth. This might explain at least partially why the 2007 estimates for both Minnesota and nationwide youth were so far from the targets. Even when considering this, our youth both in Minnesota and nationwide have a long way to go toward targets for reducing marijuana use and overweight/obesity rates as well as increasing physical activities.

Suicide attempts among Minnesota youth were somewhat higher than the target (3.2% vs. 1.0%), but the difference might have been smaller if MSS data distinguished suicide attempts that required medical attention as specified in the target. Both Minnesota youth and nationwide youth were behind the targets on other health-risk behaviors, such as weapon carrying on school property and unhealthy sexual behaviors.

Internet resources for more information on Healthy People 2010, YRBS and MSS are as follows:

www.healthypeople.gov www.cdc.gov/HealthyYouth/yrbs/ www.cdc.gov/HealthyYouth/AdolescentHealth www.dhs.state.mn.us/MSS

Estimates from the Minnesota Student Survey and the national Youth Risk Behavior Survey on selected health objectives for youth set by Healthy People 2010

Objective ¹	2010 target %	2007 National estimate from YRBS (Grades 9-12) %	2007 Minnesota estimate from MSS (Grades 9 & 12)
Unintentional injury			
Increase use of safety belts ²	92.0	88.9	96.5
Violence			
Reduce physical fighting ³	32.0	35.5	21.9
Reduce weapon carrying on school property ⁴	4.9	5.9	7.2
Substance abuse and mental health		L	
Reduce the rate of suicide attempts that required medical attention ⁵	1.0	2.0	3.2
Increase the proportion of high school seniors who never had an alcoholic drink ⁶	29.0	19.7	26.3
Reduce the proportion of high school seniors who engaged in binge drinking during the past 2 weeks ⁷	11.0	_	30.0
Reduce past-month use of marijuana (12-17 year olds) ⁸	0.7	19.7	13.9
Prevention of adult chronic disease Reduce past-month use of tobacco ⁹			-
Cigarette, smokeless tobacco, or cigars	21.0	25.7	22.8
Cigarettes	16.0	20.0	17.7
Increase the proportion of adolescents who engage in vigorous physical activity ¹⁰ for at least 20 minutes on 3 or more days per week	85.0	64.0	66.6
Reduce the proportion of children and adolescents who are overweight or obese (12-19 year olds) ¹¹	5.0	28.8	22.1
Reproductive health			
Increase the proportion of adolescents who abstain from sexual intercourse or use condoms if currently sexually active ¹²	95.0	86.7	88.6

¹ All the objectives and targets are set for adolescents in grades 9 through 12 if not otherwise specified.

² Wore a seat belt when riding in a car driven by someone else sometimes, most of the time, or always vs. **rarely or never** (YRBS); Wore a seat belt when riding in a car sometimes, often, or always vs. **never** (MSS).

³ During the 12 months before the survey, had been in a physical fight one or more times (YRBS); Had hit or beat up another person one or more times (MSS).

- 4 Carried a weapon such as a gun, knife, or club on school property (YRBS); Carried a gun or a weapon other than a gun on school property (MSS), on at least 1 day during the 30 days before the survey.
- 5 Suicide attempt during the 12 months before the survey that resulted in an injury, poisoning, or an overdose that had to be treated by a doctor or nurse (YRBS); Any suicide attempt during the 12 months before the survey (MSS).
- 6 Estimated from those who answered "Never had a drink of alcohol other than a few sips" to the question asking about age at the first use of alcohol (YRBS & MSS).
- 7 Had 5 or more drinks in a row during the 2 weeks before the survey (MSS). YRBS did ask a comparable question about the 30 days, instead of 2 weeks, before the survey and found 36.5% of high school seniors had 5 or more drinks of alcohol in a row on at least 1 day during the 30 days before the survey.
- 8 Had used marijuana 1 or more times during the past 30 days (YRBS); Had used marijuana or hashish 1 or more days during the last 30 days (MSS). The target is set for 12- to 17-year-olds, whereas the estimates from both YRBS and MSS are for high school students.
- 9 Used tobacco product at least 1 day during the 30 days before the survey (YRBS and MSS).
- 10 Exercised or participated in physical activity that made one sweat and breathe hard, such as basketball, soccer, running, swimming laps, fast bicycling, fast dancing, or similar aerobic activities (YRBS); Exercised or participated in sports or other activities that made one sweat or breathe hard (MSS).
- 11 The estimates are based on self-reported weight and height information. The target is set for 12- to 19-year-olds, whereas the estimates from both YRBS and MSS are for high school students.
- 12 Never had sexual intercourse, did not have sexual intercourse during the 3 months before the survey, or, among those currently sexually active, used a condom during the last sexual intercourse (YRBS); Never had sexual intercourse, not sexually active currently, or among those currently sexually active, used a condom during the last sexual intercourse (MSS).

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