

# The CBHSQ Report

Short Report

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## EXPOSURE TO SUBSTANCE USE PREVENTION MESSAGES AMONG ADOLESCENTS

### AUTHORS

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### INTRODUCTION

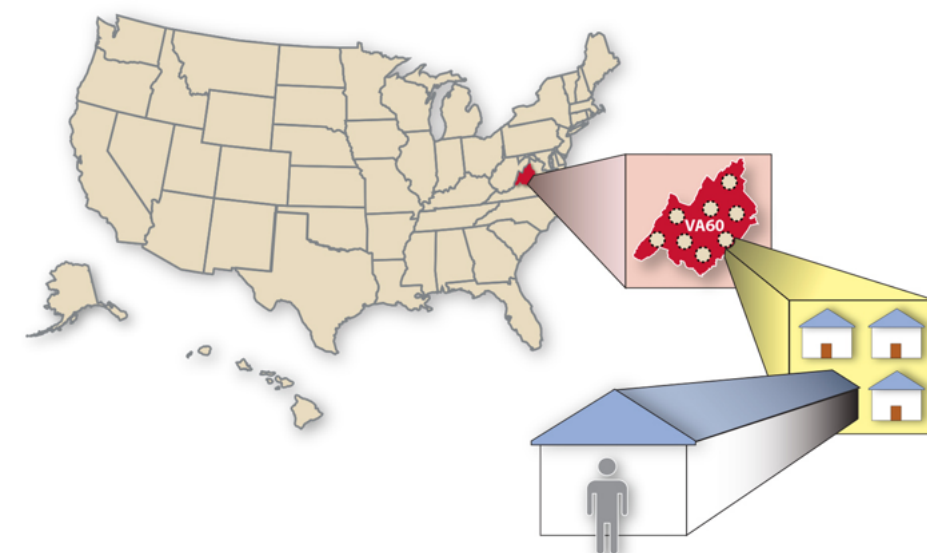
Underage substance use is preventable, and adolescents are subjected to influences that may increase their risk for substance use or protect them from it.<sup>1</sup> Substance use prevention programs are designed to reduce the influence of risk factors and increase the influence of protective factors. Parents can also affect substance use through conversations with their children. Research indicates that parents play a major role in their children's decisions, particularly with regard to health risk behaviors.<sup>2,3</sup> Substance use prevention messages and programs are also provided through the media, schools, and other sources and have been shown to have an association with reduction in alcohol and illicit drug use.<sup>1,4</sup> Providing adolescents with credible, accurate, and age-appropriate information about the harm associated with substance use is a key component in prevention programming. Prevention programming can be made more effective by gaining a better understanding of the ways in which adolescents are given prevention messages. Similarly, prevention programming can be better targeted to address underserved populations if the characteristics of adolescents not exposed to prevention messages or programs are known.

The National Survey on Drug Use and Health (NSDUH) is an annual survey of the civilian, noninstitutionalized population of the United States aged 12 years old or older and is the primary source for statistical information on illicit drug use, alcohol use, substance use disorders, and mental health issues. One of NSDUH's strengths is the large, nationally representative sample, which allows for the examination of specific subgroups in the United States, such as adolescents. NSDUH is a face-to-face household interview survey that is fielded continuously throughout the year.

NSDUH asks adolescents aged 12 to 17 whether they have been exposed to prevention messages in the past 12 months through parental sources (i.e., talked with at least one of their parents during the past year about the dangers of tobacco, alcohol, or drug use) and media sources outside of school (i.e., seen or heard any alcohol or drug prevention messages from sources such as posters, pamphlets, radio, or television). In addition, adolescents are asked whether they have been exposed to prevention messages in the past 12 months through school sources (i.e., special classes about drugs or alcohol in school; films, lectures, discussions, or printed information about drugs or alcohol in regular school classes such as health or physical education; or films, lectures, discussions, or distribution of printed information about drugs or alcohol outside of regular classes such as in a special assembly).<sup>5</sup>

Adolescents are also asked about whether they have participated in the past 12 months in an alcohol, tobacco, or drug prevention program outside of school.<sup>5</sup>

This issue of *The CBHSQ Report* examines adolescents' exposure to substance use prevention messages using data from the 2002 to 2015 NSDUHs. It also uses 2015 NSDUH data to examine exposure to prevention messages by key demographic characteristics. The 2015 estimates are based on a total sample size of 17,000 adolescents aged 12 to 17. All differences discussed in this report are statistically significant at the .05 level.



### In Brief

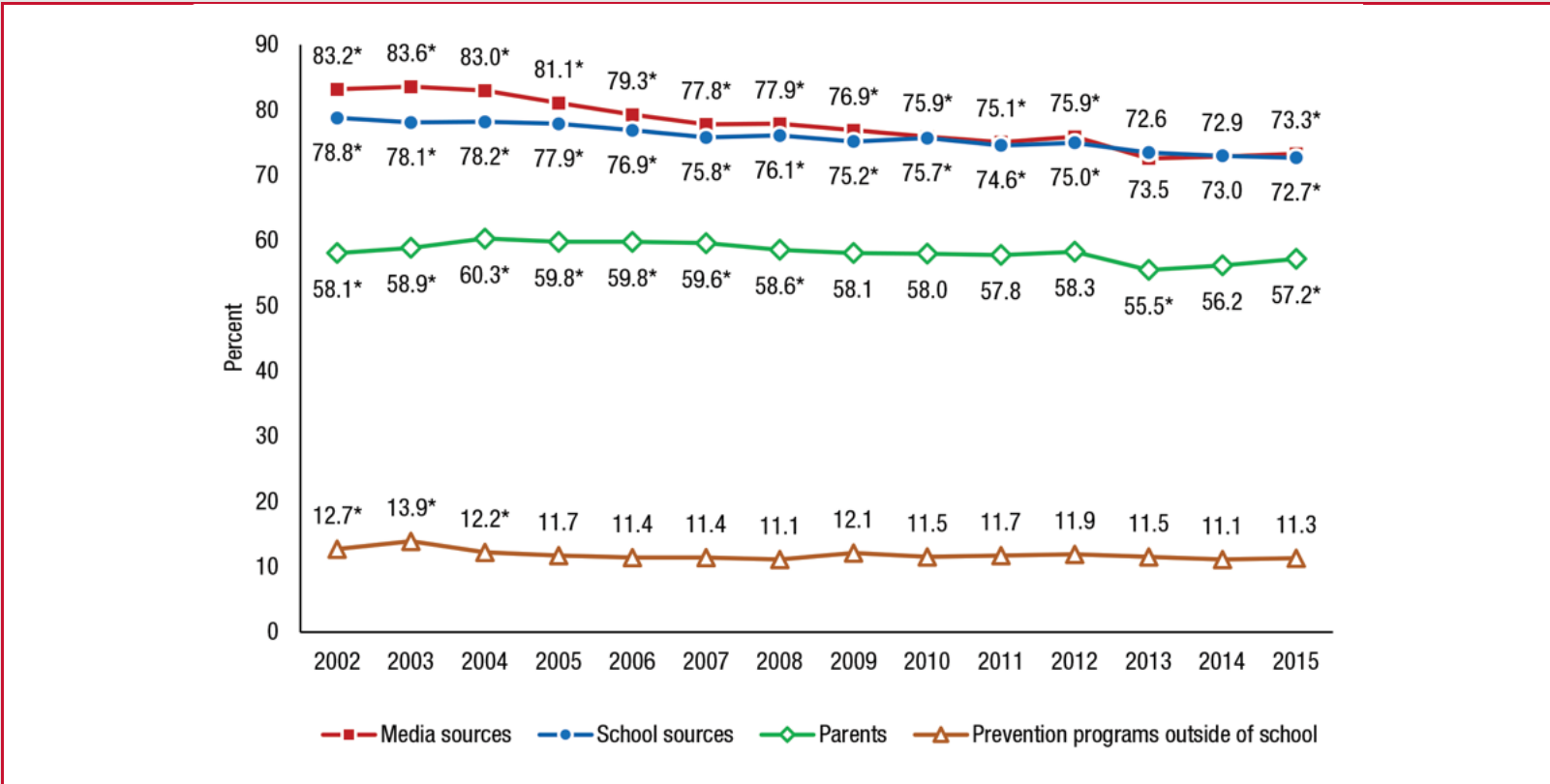
- The percentages of adolescents who were exposed to drug or alcohol use prevention messages in the past year by talking with their parents, through the media, or through school sources were generally lower in 2015 than in most years between 2002 and 2012 and were comparable with 2013 and 2014.
- In 2015, about 3 out of 4 adolescents aged 12 to 17 were exposed to substance use prevention messages in the media or at school, and about 1 out of 2 adolescents talked with their parents about substance use.
- Exposure to substance use prevention messages in school was highest among adolescents aged 14 to 15 (76.4 percent) and lowest among adolescents aged 16 to 17 (67.9 percent).
- In 2015, female adolescents were more likely than male adolescents to have been exposed to prevention messages in the past year through media sources, through school sources and to have talked with a parent about the dangers of substance use.

### TRENDS IN EXPOSURE TO PREVENTION MESSAGES

From 2002 to 2015, about 3 out of 4 adolescents aged 12 to 17 were exposed to substance use prevention messages in the media or at school and about 1 out of 2 adolescents talked to their parents about substance use (Figure 1). In 2015, 73.3 percent of adolescents aged 12 to 17 had seen or heard drug or alcohol use prevention messages in the past year from media sources outside of school, such as posters, pamphlets, the radio, or television (Figure 1). The percentage of adolescents who had seen substance use prevention messages from a media source was lower in 2015 than the percentages in 2002 to 2012, but it was similar to the percentages in 2013 and 2014. In 2015, 72.7 percent of adolescents who were enrolled in school in the past year had seen or heard drug or alcohol use prevention messages at school. The percentage of adolescents in school who saw or heard substance use prevention messages at school was lower in 2015 than the percentages in 2002 to 2012, but it was similar to the percentages in 2013 and 2014. In 2002, for example, 78.8 percent of adolescents who were enrolled in school were exposed to substance use prevention messages at school.

In 2015, about 1 in 9 adolescents (11.3 percent) had participated in alcohol, tobacco, or drug use prevention programs outside of school in the past year. This estimate was similar to the percentages from 2005 to 2014, but it was lower than the percentages in 2002 to 2004. Nevertheless, in any given year since 2002, the majority of adolescents did not participate in prevention programs outside of school in the past year.

**Figure 1. Trends in exposure to substance use prevention messages in the past year among adolescents aged 12 to 17: 2002 to 2015**



\* Difference between this estimate and the 2015 estimate is statistically significant at the .05 level.

Note: Only adolescents who were enrolled in school at the time of the interview were included in the estimates of exposure to prevention messages from school-based sources.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUHs), 2002 to 2005, 2006 to 2010 (revised March 2012), and 2011 to 2015.

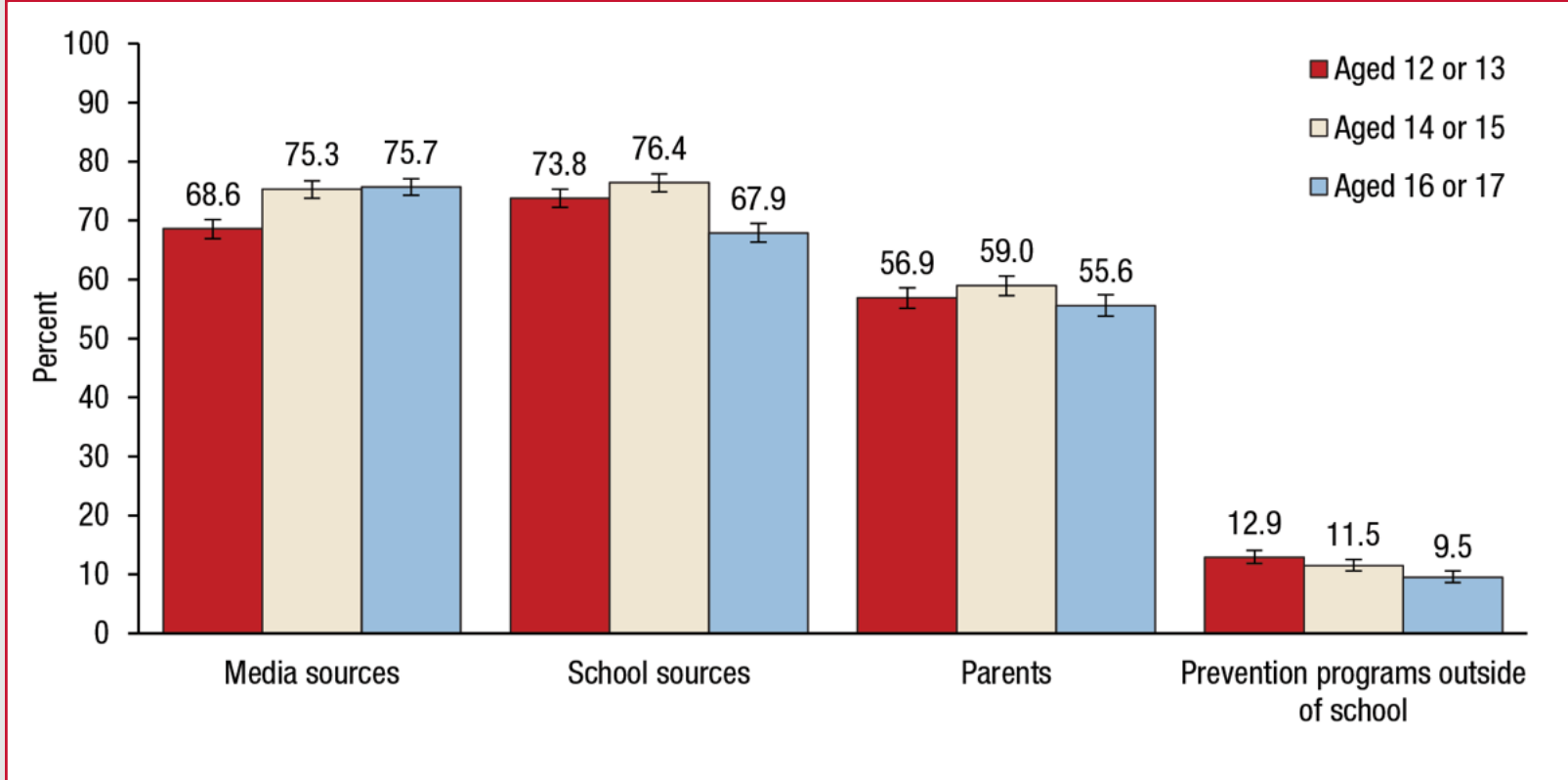
## EXPOSURE TO PREVENTION MESSAGES

As previously noted, the majority of adolescents were exposed to prevention messages through media and school sources in 2015 (73.3 and 72.7 percent, respectively), 57.2 percent talked with their parents about the dangers of substance use, and 11.3 percent participated in a prevention program outside of school (Figure 1). Non-exposure to prevention messages occurred where 42.8 percent of adolescents did not talk with their parents about the dangers of substance use, and about one-quarter indicated that they did not see or hear prevention messages through media and school sources (26.7 and 27.3 percent, respectively).

Figure 2 shows that exposure to substance use prevention messages in school was higher for adolescents aged 12 or 13 or 14 or 15 than for adolescents aged 16 or 17 (67.9 percent). Similarly, older adolescents aged 16 or 17 were less likely than adolescents aged 12 or 13 or 14 or 15 to have participated in a substance use prevention program outside of school (9.5 vs. 12.9 and 11.5 percent, respectively). Younger adolescents were less likely than older adolescents to have seen prevention messages via media sources. Older adolescents aged 16 or 17 were less likely than adolescents aged 14 or 15 to have talked with their parents about substance use (55.6 vs. 59.0 percent); however, there were no differences in the percentage of adolescents aged 12 or 13 who talked with parents compared with the percentage of adolescents aged 14 or 15 or 16 or 17.

The trends in exposure to prevention messages were also examined by age group. Exposure to prevention messages in school and via media sources were generally lower in 2015 than in prior years for adolescent each age group (Supplemental Tables S1–S4). There have been fewer changes in the trends in adolescent exposure to prevention messaging by talking to their parents or from sources outside of school by age group.

**Figure 2. Exposure to substance use prevention messages in the past year among adolescents aged 12 to 17, by age group: 2015**

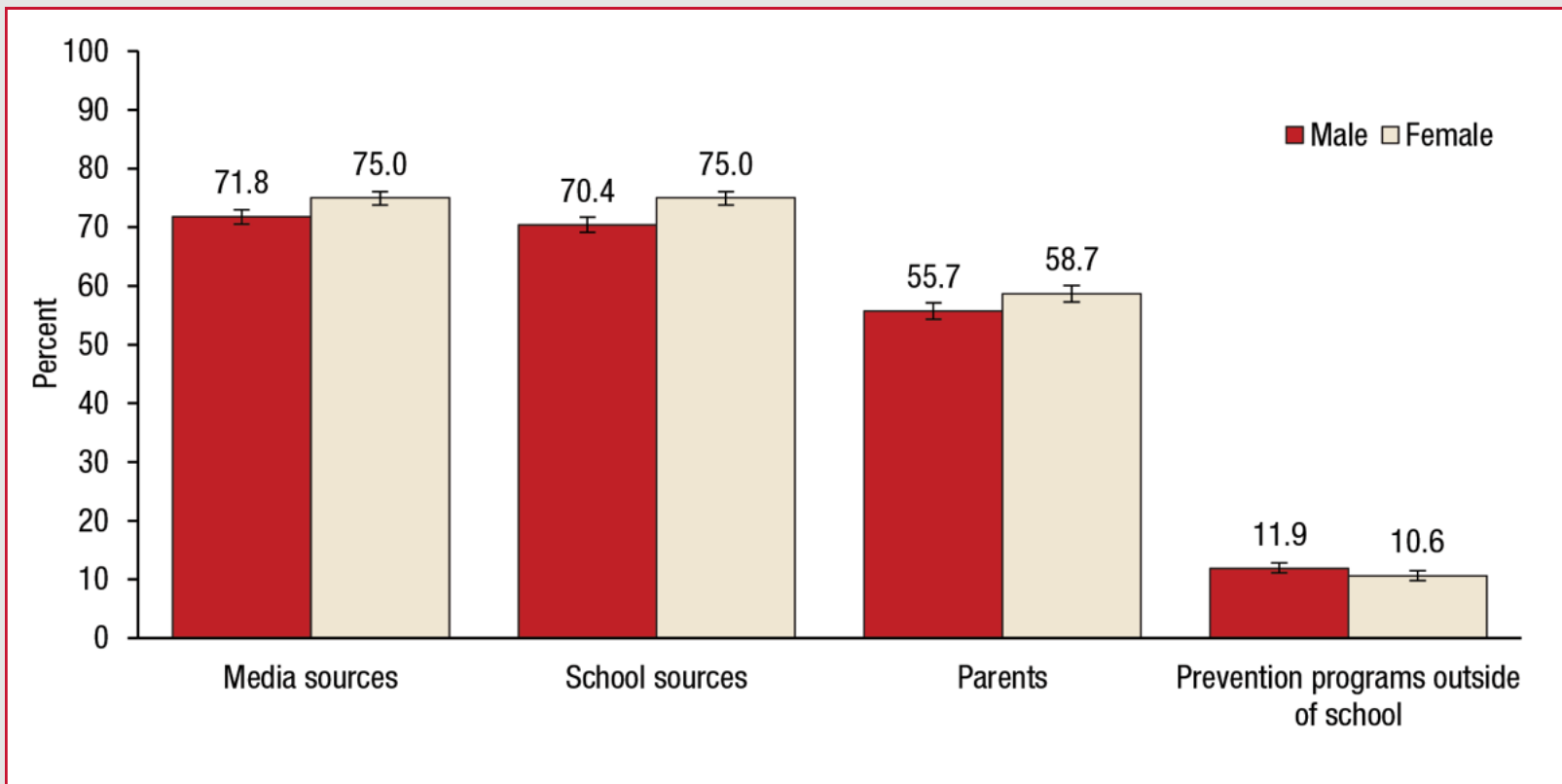


Note: Only adolescents who were enrolled in school at the time of the interview were included in the estimates of exposure to prevention messages from school-based sources.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUHs), 2002 to 2005, 2006 to 2010 (revised March 2012), and 2011 to 2015.

In 2015, female adolescents were more likely than males to have been exposed to prevention messages through media sources, to have been exposed to prevention messages through school sources, and to have talked with a parent about the dangers of substance use in the past year (Figure 3). For example, 75.0 percent of females were exposed to prevention messages through media sources compared with 71.8 percent of males. Males were more likely than females to have participated in a substance use prevention program outside of school (11.9 vs. 10.6 percent).

**Figure 3. Exposure to substance use prevention messages in the past year among adolescents aged 12 to 17, by gender: 2015**



Note: Only adolescents who were enrolled in school at the time of the interview were included in the estimates of exposure to prevention messages from school-based sources.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUHs), 2002 to 2005, 2006 to 2010 (revised March 2012), and 2011 to 2015.

## DISCUSSION

Between the early 2000s and 2011, the percentages of adolescents who were exposed to drug or alcohol use prevention messages in the past year through media and school sources generally declined; however, in each year, the majority of adolescents were exposed to substance use prevention messages through these sources. The percentage of adolescents who talked with their parents about the dangers of substance use has declined slightly since 2002, and in 2015, about 42.8 percent of adolescents did not have such conversations. Research suggests that parents play a major role in their children's decisions regarding substance use. Prevention specialists may want to continue to promote parent discussion



with their children regarding the dangers of substance use.<sup>2,3</sup> The Substance Abuse and Mental Health Services Administration’s (SAMHSA’s) "Talk. They Hear You." campaign aims to reduce underage drinking by providing parents with information and resources they need to address the issue of alcohol with their children. More information about this and other SAMHSA efforts to reduce underage substance use is available at <https://www.samhsa.gov/underage-drinking>.

Although the majority of adolescents are receiving prevention messages, practitioners, policymakers, educators, and parents may also want to consider the percentage of adolescents who were not exposed to prevention messages through these sources. For example, 27.3 percent of in-school adolescents did not see or hear prevention messages through school sources. These findings suggest the need for continued monitoring of exposure to prevention messaging to assess whether the nation’s adolescents are seeing or hearing substance use prevention messages. However, the cross-sectional nature of the NSDUH data precludes making any causal connections between perceptions of risk and actual substance use. For example, it is not possible to determine based on these data whether respondents’ perceptions of low risk of harm from substance use preceded and influenced their decision to engage in substance use or if their substance use preceded and influenced their perceptions of low risk of harm. It would be useful to conduct longitudinal research that explores whether increases in the percentages of people perceiving great risk of harm from substance use coincide with decreases in use. For more information on SAMHSA’s efforts to prevent adolescent substance use, see <https://www.samhsa.gov/too-smart-to-start>.

## ENDNOTES

1. National Institute on Drug Abuse. (2003). *Preventing drug use among children and adolescents: A research-based guide for parents, educators, and community leaders* (2nd ed., NIH Publication No. 04-4212B). Washington, DC: U.S. Department of Health and Human Services, National Institutes of Health. Retrieved from <http://www.drugabuse.gov/sites/default/files/preventingdruguse.pdf>
2. Windle, M. (2000). Parental, sibling, and peer influences on adolescent substance use and alcohol problems. *Applied Developmental Science*, 4(2), 98–110.
3. Ennett, S. T., Bauman, K. E., Foshee, V. A., Pemberton, M., & Hicks, K. A. (2001). Parent-child communication about adolescent tobacco and alcohol use: What do parents say and does it affect youth behavior? *Journal of Marriage and Family*, 63(1), 48–62.
4. Skiba, D., Monroe, J., & Wodarski, J.S. (2004). Adolescent substance use: Reviewing the effectiveness of prevention strategies. *Social Work*, 49(3), 343–353.
5. Only adolescents who were enrolled in school (e.g., in school or on vacation from school) at the time of the interview were included in the estimates of exposure to prevention messages from school-based sources.

## SUGGESTED CITATION

Lipari, R.N. *Exposure to substance use prevention messages among adolescents*. The CBHSQ Report: October 3, 2017. Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Rockville, MD.

## SUPPLEMENTAL TABLES

Table S1. Exposure to substance use prevention messages from media sources in the past year among adolescents aged 12 to 17, by age group and gender: 2002 to 2015

Year	Media Sources	School Sources <sup>1</sup>	Parents	Prevention Program Outside of School
	Percent	Percent	Percent	Percent
2002	83.2*	78.8*	58.1	12.7*
2003	83.6*	78.1*	58.9*	13.9*
2004	83.0*	78.2*	60.3*	12.2*
2005	81.1*	77.9*	59.8*	11.7
2006	79.3*	76.9*	59.8*	11.4
2007	77.8*	75.8*	59.6*	11.4
2008	77.9*	76.1*	58.6*	11.1
2009	76.9*	75.2*	58.1	12.1
2010	75.9*	75.7*	58.0	11.5
2011	75.1*	74.6*	57.8	11.7
2012	75.9*	75.0*	58.3	11.9
2013	72.6	73.5	55.5*	11.5
2014	72.9	73.0	56.2	11.1
2015	73.3	72.7	57.2	11.3

CI = confidence interval.

\* Difference between this estimate and the 2015 estimate is statistically significant at the .05 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUHs), 2002 to 2005, 2006 to 2010 (revised March 2012), and 2011 to 2015.

**Table S2. Exposure to substance use prevention messages from school sources in the past year among adolescents aged 12 to 17, by age group and gender: 2002 to 2015**

Year	Aged 12 or 13		Aged 14 or 15		Aged 16 or 17		Male		Female	
	Percent	CI	Percent	CI	Percent	CI	Percent	CI	Percent	CI
2002	79.2*	78.1–80.3	84.8*	83.7–85.8	85.6*	84.5–86.7	81.4*	80.4–82.3	85.1*	84.3–85.9
2003	80.2*	79.0–81.3	84.2*	83.1–85.3	86.3*	85.2–87.4	81.4*	80.5–82.3	85.8*	85.0–86.6
2004	78.4*	77.1–79.6	84.5*	83.4–85.5	86.1*	85.0–87.1	81.2*	80.2–82.1	84.9*	84.0–85.8
2005	76.1*	74.7–77.3	82.8*	81.6–83.9	84.3*	83.1–85.3	80.1*	79.1–81.1	82.1*	81.1–83.1
2006	74.8*	73.4–76.1	80.7*	79.5–81.9	82.1*	81.0–83.1	77.5*	76.4–78.5	81.3*	80.3–82.2
2007	73.0*	71.7–74.4	79.0*	77.7–80.2	81.2*	79.9–82.4	76.1*	75.0–77.1	79.7*	78.6–80.7
2008	72.9*	71.6–74.2	79.7*	78.5–80.9	80.7*	79.5–81.8	76.2*	75.2–77.2	79.8*	78.8–80.8
2009	70.2	68.8–71.6	79.3*	78.0–80.5	80.3*	79.1–81.5	75.8*	74.7–76.9	78.1*	77.0–79.1
2010	69.7	68.2–71.2	77.4*	76.2–78.7	80.0*	78.8–81.2	73.8*	72.8–74.9	78.0*	76.9–79.0
2011	69.1	67.8–70.4	75.9	74.6–77.1	79.8*	78.5–80.9	73.8*	72.8–74.9	76.4	75.4–77.5
2012	71.4*	70.0–72.8	77.2*	75.9–78.4	78.8*	77.6–80.0	74.1*	73.0–75.3	77.8*	76.7–78.8
2013	67.6	66.0–69.1	73.2*	71.9–74.5	76.6	75.2–77.9	70.4	69.2–71.6	74.8	73.7–75.9
2014	67.3	65.7–68.8	75.1	73.6–76.5	75.8	74.4–77.2	70.9	69.7–72.1	74.9	73.7–76.1
2015	68.6	66.9–70.2	75.3	73.8–76.7	75.7	74.3–77.1	71.8	70.5–73.0	75.0	73.8–76.1

CI = confidence interval.

\* Difference between this estimate and the 2015 estimate is statistically significant at the .05 level.

Note: Only adolescents who were enrolled in school at the time of the interview were included in the estimates of exposure to prevention messages.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUHs), 2002 to 2005, 2006 to 2010 (revised March 2012), and 2011 to 2015.

**Table S3. Exposure to substance use prevention messages from parents in the past year among adolescents aged 12 to 17, by age group and gender: 2002 to 2015**

Year	Aged 12 or 13		Aged 14 or 15		Aged 16 or 17		Male		Female	
	Percent	CI	Percent	CI	Percent	CI	Percent	CI	Percent	CI
2002	82.6*	81.3–83.7	81.0*	79.8–82.1	72.9*	71.5–74.3	76.7*	75.6–77.7	81.1*	80.1–82.1
2003	81.8*	80.5–83.1	80.1*	78.8–81.2	72.5*	71.1–73.9	75.2*	74.1–76.3	81.1*	80.0–82.1
2004	82.7*	81.5–83.9	80.6*	79.3–81.7	71.5*	70.0–73.0	75.8*	74.7–76.9	80.7*	79.7–81.8
2005	81.4*	80.1–82.6	80.7*	79.5–81.8	72.0*	70.6–73.2	75.4*	74.4–76.4	80.5*	79.5–81.4
2006	81.4*	80.2–82.7	78.8*	77.6–80.0	71.1*	69.7–72.4	75.0*	74.0–76.1	78.9*	77.9–79.9
2007	78.9*	77.5–80.2	78.9*	77.6–80.1	70.0	68.6–71.4	74.5*	73.3–75.6	77.2*	76.1–78.3
2008	79.3*	77.9–80.6	80.3*	79.1–81.5	69.4	67.9–70.8	74.4*	73.3–75.5	77.9*	76.8–79.0
2009	78.5*	77.1–79.8	78.4*	77.1–79.7	69.2	67.6–70.6	73.0*	71.8–74.2	77.4*	76.2–78.5
2010	78.2*	76.6–79.6	79.0*	77.7–80.2	70.5*	69.1–71.8	74.2*	73.0–75.3	77.3*	76.2–78.4
2011	77.1*	75.7–78.4	77.4	76.0–78.7	69.8	68.4–71.2	73.3*	72.2–74.4	76.0	74.8–77.1
2012	76.7*	75.2–78.1	79.1*	77.7–80.3	69.6	68.2–71.0	73.5*	72.2–74.7	76.7*	75.6–77.8
2013	74.3	72.8–75.8	77.8	76.5–79.1	68.6	67.1–70.0	71.6	70.4–72.8	75.5	74.3–76.7
2014	74.7	73.0–76.3	76.5	75.1–77.9	67.9	66.3–69.5	71.4	70.0–72.6	74.6	73.4–75.8
2015	73.8	72.2–75.3	76.4	74.9–77.9	67.9	66.3–69.5	70.4	69.1–71.7	75.0	73.8–76.1

CI = confidence interval.

\* Difference between this estimate and the 2015 estimate is statistically significant at the .05 level.

Table S4. Exposure to substance use prevention messages from prevention programs outside of school in the past year among adolescents aged 12 to 17, by age group and gender: 2002 to 2015

Year	Aged 12 or 13		Aged 14 or 15		Aged 16 or 17		Male		Female	
	Percent	CI	Percent	CI	Percent	CI	Percent	CI	Percent	CI
2002	15.5*	14.5–16.5	11.9	11.0–12.9	10.8	9.9–11.7	12.5	11.8–13.3	12.9*	12.1–13.7
2003	16.1*	15.1–17.2	13.9*	12.9–15.0	11.6*	10.7–12.6	13.5*	12.7–14.4	14.3*	13.4–15.2
2004	15.3*	14.3–16.4	11.8	10.9–12.7	9.6	8.8–10.6	12.1	11.4–12.9	12.4*	11.6–13.2
2005	14.4	13.4–15.5	11.2	10.4–12.2	9.5	8.6–10.4	11.8	11.0–12.6	11.6	10.8–12.4
2006	14.0	13.0–15.2	11.2	10.3–12.2	9.2	8.3–10.2	11.5	10.7–12.2	11.4	10.6–12.3
2007	14.6*	13.5–15.7	10.7	9.8–11.6	9.0	8.2–9.9	11.7	10.9–12.6	11.0	10.2–11.8
2008	13.3	12.2–14.4	11.2	10.2–12.2	9.1	8.3–10.0	11.3	10.6–12.1	10.9	10.1–11.8
2009	14.4	13.3–15.5	11.9	10.9–12.9	10.3	9.4–11.1	12.1	11.3–13.0	12.0*	11.2–12.9
2010	13.7	12.7–14.8	11.2	10.2–12.2	9.8	8.9–10.7	11.8	11.0–12.6	11.2	10.5–12.0
2011	13.2	12.2–14.3	11.6	10.7–12.6	10.5	9.6–11.5	12.4	11.6–13.2	11.0	10.3–11.9
2012	13.4	12.4–14.4	11.7	10.8–12.7	10.7	9.8–11.8	12.6	11.8–13.4	11.2	10.5–12.1
2013	14.0	13.0–15.1	11.9	10.9–13.0	8.9	8.1–9.8	11.7	10.9–12.6	11.4	10.6–12.2
2014	12.8	11.7–13.9	11.2	10.2–12.2	9.5	8.6–10.5	11.6	10.8–12.6	10.5	9.8–11.4
2015	12.9	11.9–14.1	11.5	10.6–12.5	9.5	8.6–10.6	11.9	11.1–12.8	10.6	9.8–11.5

CI = confidence interval.

\* Difference between this estimate and the 2015 estimate is statistically significant at the .05 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUHs), 2002 to 2005, 2006 to 2010 (revised March 2012), and 2011 to 2015.

## SUMMARY

**Background:** Substance use prevention programs are designed to reduce the influence of risk factors and increase the influence of protective factors. Parents may also affect substance use through conversations that they have with their children. **Method:** This report uses 2002 to 2015 National Survey on Drug Use and Health (NSDUH) data to assess trends in adolescents’ exposure to substance use prevention messages. It also uses 2015 NSDUH data to examine exposure to prevention messages by age and gender. The 2015 estimates are based on a total sample size of approximately 17,000 adolescents aged 12 to 17. **Results:** The percentages of adolescents who were exposed to drug or alcohol use prevention messages in the past year through media and school sources and by talking with their parents were generally lower in 2015 than in prior years. In 2015, females were more likely than males to have been exposed to prevention messages through media sources, through school sources, and to have talked with a parent about the dangers of substance use in the past year. Compared to older adolescents, this study found that younger adolescents were more likely to have been exposed to prevention messages in school but less likely to be exposed via the media. **Conclusion:** Although the majority of adolescents were exposed to substance use prevention messages through the sources assessed in this study, the percentage of adolescents who were exposed to drug or alcohol use prevention messages in the past year through media and school sources declined since 2002. Practitioners, policymakers, educators, and parents should consider the percentage of adolescents who were not exposed to prevention messages through any of these sources.

## AUTHOR INFORMATION

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## KEYWORDS

Age Group, Gender, Short Report, Population Data, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, Researchers, Adolescents as Population Group, Multi-Year Trend, All US States Only, Risk & Protective Factors, 2015

The Substance Abuse and Mental Health Services Administration (SAMHSA) is the agency within the U.S. Department of Health and Human Services that leads public health efforts to advance the behavioral health of the nation. SAMHSA's mission is to reduce the impact of substance abuse and mental illness on America's communities.

The National Survey on Drug Use and Health (NSDUH) is an annual survey sponsored by The Substance Abuse and Mental Health Services Administration (SAMHSA). The 2015 estimates in this report are based on a total sample size of 17,000 adolescents aged 12 to 17. The Survey collects data by administering questionnaires to a representative sample of the population through face-to-face interviews at their place of residence.

The NSDUH Report is prepared by The Center for Behavioral Health Statistics and Quality (CBHSQ), SAMHSA, and by RTI International in Research Triangle Park, North Carolina. (RTI International is a trade name of Research Triangle Institute.)

Information on the most recent NSDUH is available in the following publication:

Center for Behavior Health Statistics and Quality. (2016). Key substance use and mental health indicators in the United States: Results from the 2015 National Survey on Drug Use and Health (HHS Publication No. SMA 16-4984, NSDUH Series H-51). Rockville, MD : Substance Abuse and Mental Health Services Administration.

Also available online: <http://www.samhsa.gov/data/population-data-nsduh>.

