



RHODE ISLAND DATA BRIEF

APRIL 2023

About the Youth Risk Behavior Survey (YRBS):

The YRBS is a biennial national survey of public middle and high school students, developed by the Centers for Disease Control and Prevention (CDC). The survey monitors health risk behaviors related to leading causes of injury, violence, morbidity, and mortality among youth. In collaboration with the Rhode Island Department of Elementary and Secondary Education (RIDE), the Rhode Island Department of Health has conducted the YRBS since 1995. YRBS data are weighted to be statistically representative of public middle and high school students statewide.



This brief was produced by the Rhode Island Oral Health Program and funded through cooperative agreement DP18-1810 between the Rhode Island Department of Health and the Centers for Disease Control and Prevention.

Oral Health Concerns and Dental Care among Rhode Island Middle School and High School Students, YRBS 2021

Introduction

This report presents data for Rhode Island public middle and high school students (grades 6-12) on self-reported oral health concerns and receipt of dental care. The data used for this analysis were obtained from the 2021 Rhode Island Youth Risk Behavior Survey (YRBS).

2021 Rhode Island YRBS and Oral Health Questions

During the spring of 2021, 4,219 students from 21 public high schools and 2,066 students from 23 public middle schools completed the self-administered paper survey. Oral health questions have been included in the survey since 2013, as outlined in the Rhode Island Oral Health Surveillance System developed by the Oral Health Program of the Rhode Island Department of Health.

The questions estimate the percentage of Rhode Island middle and high school students who have:

- a. Experienced pain or soreness with their teeth or mouth during the past year,
- b. Been self-conscious or embarrassed because of their teeth or mouth during the past year, and
- c. Seen a dentist for a dental check-up, exam, cleaning, or other dental work in the past year.

Reading the Data

This report presents bar graphs showing percentages and 95% confidence intervals (CI). Since percentages from survey data are estimates, the 95% CI indicates the range of values within which the "true" value lies 95% of the time. When two groups have CIs that overlap, it indicates that the "true" values are likely to be similar in both groups. If the CIs do not overlap, it indicates that there is a statistically significant difference between the two groups, meaning that the difference is not due to chance and is likely to be meaningful.

For more information about oral health in Rhode Island or this report, call the RIDOH Information Line at 401-222-5960 / RI Relay 711 or visit <https://health.ri.gov/oralhealth>. For more information about the YRBS, visit <https://health.ri.gov/data/adolescenthealth/>.

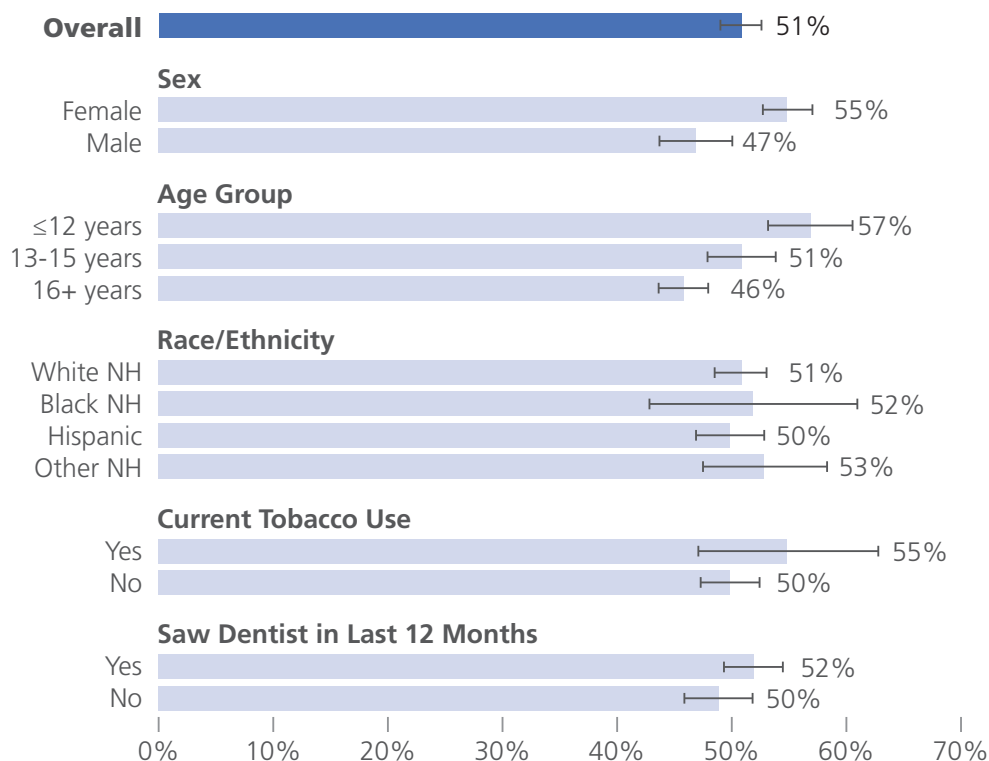




Oral Health Concerns among Rhode Island Middle School and High School Students:

- **Pain or soreness with the teeth or mouth:** Half (51%) of Rhode Island middle and high school students reported experiencing pain or soreness with their teeth or mouth at least one time during the past year (Figure 1). This is an increase from the 44% reported in the [2013 YRBS survey](#).¹
- **Pain or soreness with the teeth or mouth** were more prevalent among:
 - ✓ Younger students (≤ 12 -year-old) than 16 years or older (57% vs. 46%),
 - ✓ Female students than males (55% vs. 47%), and
 - ✓ Students who currently use any tobacco and nicotine product, including cigarette, smokeless tobacco, cigar, or electronic vapor (e-cigarette), compared with students who did not use any tobacco product (55% vs. 50%).

Figure 1. RI middle and high school students whose teeth/mouth have been painful/sore once or more during the past 12 months, 2021.



Notes: Bars display 95% Confidence Interval; † Cigarette, smokeless tobacco, cigar, or electronic vapor product use on at least one day during the past 30 days before the survey; Source: 2021 YRBS.

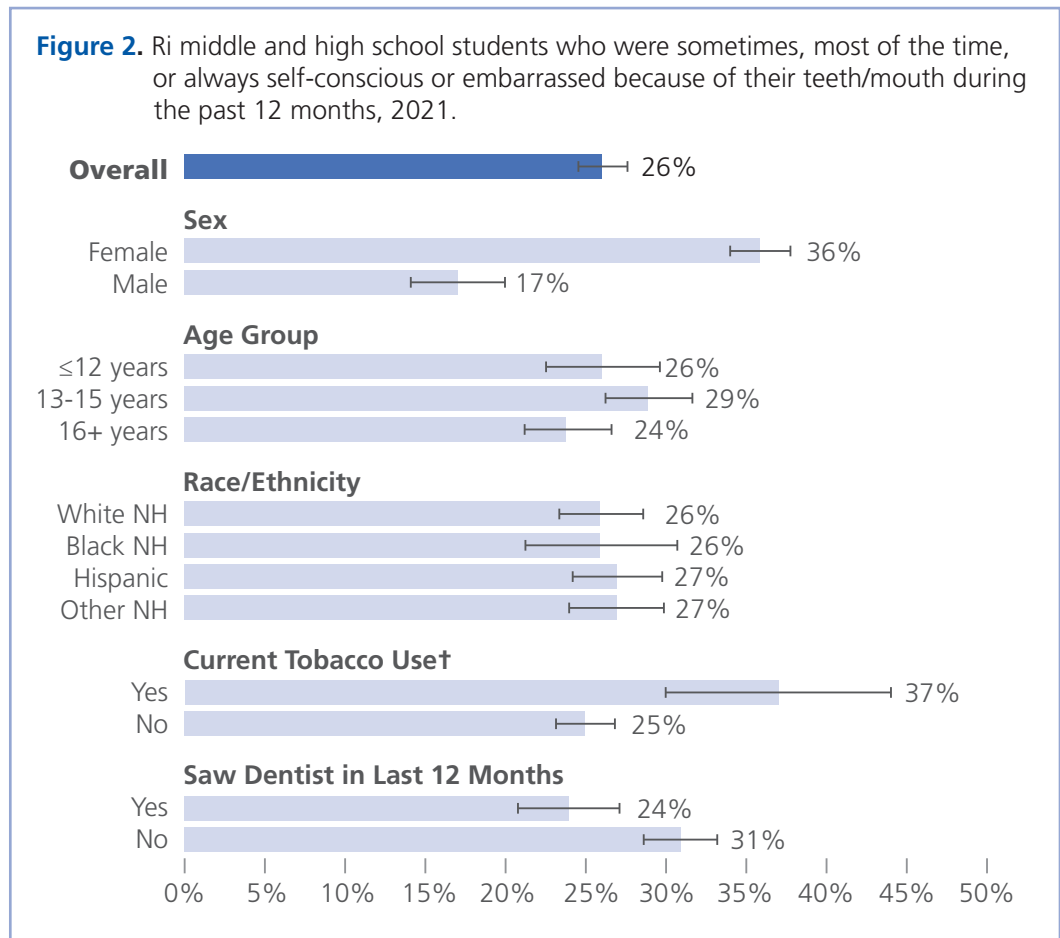




Oral Health Concerns among Rhode Island Middle School and High School Students *(Continued)*:

- **Self-consciousness or embarrassment because of teeth or mouth:** One in four (26%) of students reported feeling self-conscious or embarrassed because of their teeth or mouth sometimes, most of the time, or always during the prior 12 months of the survey year (Figure 2). This is an increase from the 17% reported in the 2013 YRBS survey.¹
- **Self-consciousness or embarrassment because of teeth or mouth** were more frequently reported among:
 - ✓ Students who currently use any tobacco and nicotine product, including cigarettes, smokeless tobacco, cigars, or electronic vapor (e-cigarettes) compared to students who do not use tobacco products (37% vs. 25%),
 - ✓ Female students compared to male students (36% vs 17%), and
 - ✓ Students who did not see a dentist in the past year. Students who saw a dentist in the past year were less likely to be self-conscious or embarrassed (31% vs. 24%).

Figure 2. Ri middle and high school students who were sometimes, most of the time, or always self-conscious or embarrassed because of their teeth/mouth during the past 12 months, 2021.



Notes: Bars display 95% Confidence Interval;† Cigarette, smokeless tobacco, cigar, or electronic vapor product use on at least one day during the past 30 days before the survey; Source: 2021 YRBS.

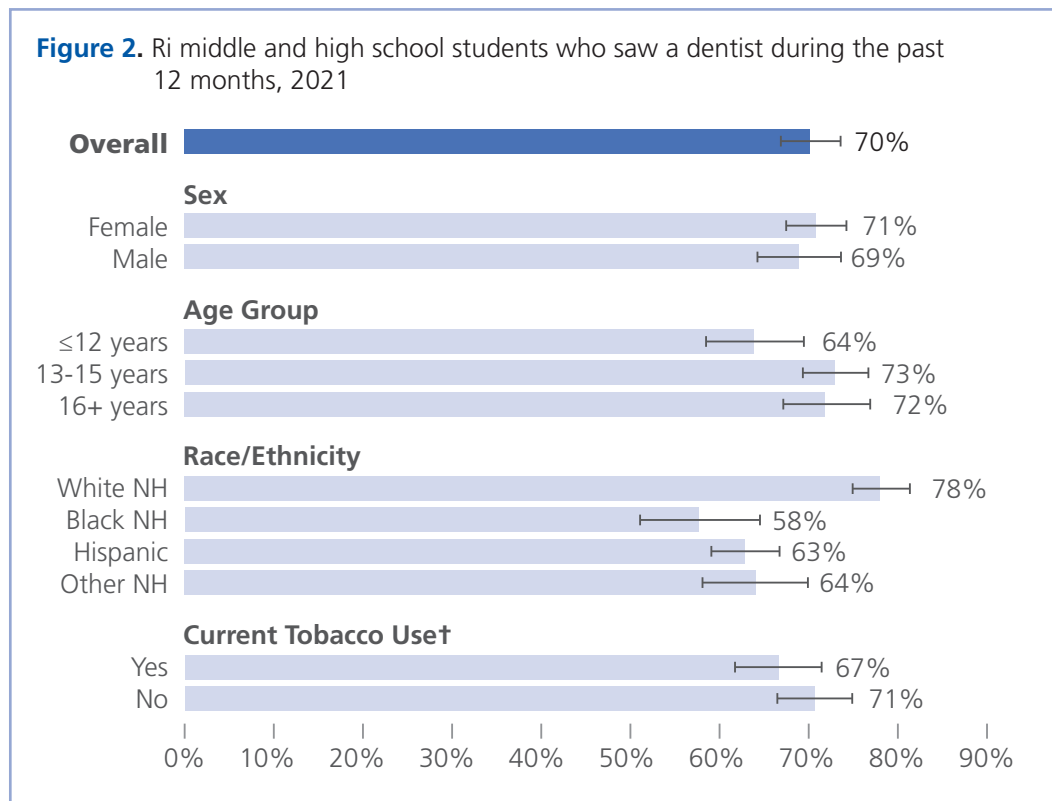




Receipt of Dental Care among Rhode Island Middle School and High School Students:

- Overall, 70% of Rhode Island middle and high school students reported seeing a dentist for preventive care (check-up, exam, or teeth cleaning) or any dental care (Figure 3). This is lower than the 76% rate reported in the 2013 YRBS survey¹ and likely reflects reduced receipt of services during the COVID-19 pandemic.
- The likelihood of seeing a dentist varied greatly by a student's race and ethnicity. Significant disparities were noted, with Non-Hispanic Black and Hispanic students less likely to have seen a dentist in the past year compared to White Non-Hispanic students (58% and 63% vs. 78%).
- All tobacco and nicotine products negatively affect oral health and increase the risk of developing periodontal disease and oral cancer. Tobacco products cause functional and esthetic oral health problems, including a reduced sense of taste, stained teeth or tongue, and bad breath. Rhode Island students who currently use any tobacco or nicotine product were less likely to have seen a dentist than those who did not use tobacco or nicotine products. (67.1% vs. 70.9%).

Figure 2. Ri middle and high school students who saw a dentist during the past 12 months, 2021



Notes: Bars display 95% Confidence Interval; † Cigarette, smokeless tobacco, cigar, or electronic vapor product use on at least one day during the past 30 days before the survey; Source: 2021 YRBS.





RHODE ISLAND DATA BRIEF *continued*

Key Takeaways:

- **PAIN OR SORENESS WITH THE TEETH OR MOUTH:** While a painful mouth can be attributed to a variety of factors, it is concerning that half of students reported experiencing discomfort. Both national and state data have found that tooth decay in adolescents is common.² Preventive measures such as sealants and the use of fluoride are vital resources in reducing disease and promoting oral health.
- **EMBARRASSMENT ABOUT TEETH:** Female students and those currently using tobacco were more likely to report feeling embarrassed about their teeth. Previous analysis found an association between embarrassment about teeth and issues of mental health,³ illustrating the importance of routine care and the value of having mental health professionals who can identify oral health issues and refer students to a dentist. There is also value in educating dentists on how to identify mental health issues and refer students to a mental health professional.
- **SIGNIFICANT DISPARITIES** were noted in the use of dental services based on students' race and ethnicity. There are a wide range of factors that may contribute to these observed differences, including accessibility of providers, oral health literacy of parents, and insurance coverage. Efforts to promote health equity are critical to improving opportunities for success. Addressing disparities requires education, availability of dental providers in all neighborhoods, and promoting use of dental services and dental insurance benefits. Having dental providers who reflect the state's diverse population is also critical, so efforts to support and encourage students from underrepresented racial and ethnic communities to consider dental professions should be promoted.
- **PROMOTION OF TOBACCO CESSATION** among all Rhode Islanders is necessary to promote oral health, as data show a significant relationship between tobacco use and adverse oral health outcomes, even among teens. Dental providers can play a role by using free Quitlines, which allow referral to cessation specialists. To refer teens to free cessation services, visit [mylifemyquit.com/Provider Web Referral](http://mylifemyquit.com/Provider_Web_Referral). Teens may also text "STARTMYQUIT" to 36072.

Conclusion:

- Good oral health is critical to all adolescents' physical, emotional, and social well-being. Poor oral health may adversely affect school attendance, academic performance, and self-esteem. Further assessment of students' oral health problems, sources of regular dental care, and dental insurance status is recommended to reduce barriers that hinder Rhode Island adolescents' receipt of optimal dental care.

References

- ¹ Oral Health Concerns and Dental Care among Rhode Island Middle and High School Students, 2013. Rhode Island Department of Health, Oral Health Program, June 2014. <https://health.ri.gov/publications/databriefs/2013OralHealthConcernsAmongMiddleSchoolAndHighSchool.pdf>
- ² QuickStats: Prevalence of Untreated Dental Caries in Permanent Teeth Among Children and Adolescents Aged 6–19 Years, by Age Group — National Health and Nutrition Examination Survey, United States, 2011–2014. MMWR Morb Mortal Wkly Rep 2017;66:36. DOI: <http://dx.doi.org/10.15585/mmwr.mm6601a11>
- ³ Pellegrino, A., Vendetti, T., Zwetchkenbaum, S (2018). Oral Health Concerns and Connections to Mental Health among Rhode Island High School Students, 2017. Rhode Island Medical Journal, 101(8), 56-59.